

## Chapter 3

### Project Execution and Contract Management

#### 3.1 Project Execution

Economic, efficient and effective management of irrigation projects involves proper planning in selection of projects, conducting detailed survey, ensuring timely availability of land, obtaining environmental clearances and administrative and technical approvals, identifying the risk areas *etc.*

The details of number of on-going projects handed over to IDCs since their inception, projects taken up thereafter, projects completed and ongoing projects as of June 2013 are given in **Table 3.1**.

**Table 3.1: IDC-wise status of completed and ongoing irrigation projects**

IDC	Number of ongoing projects handed over on formation of IDC	Number of new projects taken up	Total projects	Completed (June 2013)	Number of projects ongoing as on June 2013
MKVDC	186	321	507	413	94
GMIDC	199	285	484	356	128
VIDC	10	310	320	63	257
KIDC	38	70	108	29	64 <sup>44</sup>
TIDC	95	99	194	136	58
<b>Total</b>	<b>528</b>	<b>1085</b>	<b>1613</b>	<b>997</b>	<b>601</b>

Source: Figures furnished by the IDCs.

As on 1 June 2013, the balance estimated projected cost for completion of 601 ongoing projects was ₹ 82,609.64 crore.

Storage of water is an important objective of irrigation projects. IDC-wise position of water storage is given in **Table 3.2**.

**Table 3.2: IDC-wise target and achievement of storage as of June 2013 (in TMC)**

Name of IDC	Targeted storage of IDC	Storage achieved (June 2013)
MKVDC	175.00	160.86
GMIDC	86.58	75.57
VIDC	314.05	101.60
TIDC	81.67	44.10
<b>Total</b>	<b>657.30</b>	<b>382.13</b>

Source: Information furnished by the IDCs.  
Note: There was no storage target for KIDC

As against the targeted storage of 657.30 TMC, the storage achieved till June 2013 was 382.13 TMC *i.e.* 58.14 *per cent*. The IP envisaged to be created out of the total projects handed over by GoM and projects taken up by the IDCs was 60.65 lakh ha out of which the IP created was 32.44 lakh ha (**Appendix 5.1**). In the 87 test-checked projects, as against the IP of 9.90 lakh ha projected, the IP created as on June 2013 was 4.37 lakh ha in 65 projects while no IP was created in 22 projects (**Appendix 3.1**).

<sup>44</sup> Excluding Tilher minor irrigation project (under KIDC), which was transferred to Local Body. Further, 14 projects were not taken up (June 2013) by KIDC

Audit noticed various deficiencies in project execution such as improper survey, non-obtaining of environmental clearance, commencement of work without acquisition of land, irregular grant of administrative and revised administrative approvals to works, cost and time overruns, inadequacies in preparation of estimates and deficiencies in contract management, as discussed in the succeeding paragraphs.

## **3.2 Non-obtaining of environment and forest clearances**

### **3.2.1 Environmental clearance**

As per the Environment Impact Assessment (EIA) notification issued (1994) by the Ministry of Environment and Forest (MoEF), GoI under Section 3 of Environment (Protection) Act, 1986 environmental clearance (EC) from the MoEF, was required for all irrigation projects having project cost of ₹ 50 crore and above. Further, as per subsequent amendments<sup>45</sup>, expansion and modernization of irrigation projects also required EC, except where the additional command area was less than 10,000 ha or the project cost was less than ₹ 100 crore. In September 2006 the EIA notification issued by the MoEF made it mandatory for all River Valley Projects to obtain prior EC and the process was also decentralised. Projects with Culturable Command Area (CCA) equal to or more than 10,000 ha were to be appraised by MoEF while projects with CCA less than 10,000 ha were to be appraised by State Environment Impact Assessment Authority (SEIAA) on the recommendations of State Expert Appraisal Committee (SEAC). Audit observed the following:

- The SEIAA and SEAC were constituted by GoM only in April 2008 *i.e.* 18 months after the EIA notification of September 2006. Five projects (three medium and two minor) initially valued at ₹ 2.29 crore with IP less than 10,000 ha submitted in the intervening period did not receive any EC either from the Central authority or from the State authority thereafter.
- The responsibility for monitoring the compliance to the conditions made in ECs was left to the project authorities and there was no internal control mechanism in the Department to ensure compliance. Audit noticed non-compliance to conditions stipulated in the EC as regards Catchment Area Treatment Plan, rehabilitation of Project Affected Persons (PAPs) *etc.* in six out of 87 test-checked projects *viz.* Tarali irrigation project, Urmudi irrigation project and Tembu LIS (MKVDC), Waghur and Punad projects (TIDC) and Upper Wardha project (VIDC) (**Appendix 3.2; Sr. No. II**).
- Scrutiny of the consolidated report for the quarter ending March 2013 furnished by CE, Nagpur to GoM revealed that out of 350 projects requiring EC, EC was obtained only for 51 (14.57 *per cent*) projects. In 25 out of the 87 test-checked projects EC was not obtained by the project authorities (**Appendix 3.1**). A few test-checked cases are discussed in **Appendix 3.2 (Sr. No. I refers)**. It was further observed that in 22 projects where Administrative Approvals (AAs) were granted (2009) by VIDC, an expenditure of ₹ 376.96 crore (75 *per cent* of the estimated cost) was incurred up to March 2013 without obtaining EC.

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<sup>45</sup> Amended eight times during May 1994 to June 2002

### 3.2.2 Forest clearance

As per the Forest Conservation Act, 1980 (Forest Act) prior approval of GoI for use of forest land for non-forest purposes was mandatory. The Forest Act also stipulated that if the proposed work involves forest as well as non-forest land, work should not commence on non-forest land until the approval of GoI for release of forest land was received.

Scrutiny of records revealed that 188 projects valuing ₹ 46,652.44 crore under the jurisdiction of five IDCs remained incomplete (June 2013) because of pending forest clearances by GoI and GoM since February 2002. Of the 188 incomplete projects, AA in respect of 29 projects had lapsed<sup>46</sup>, two cases were *sub-judice* while 18 projects were not granted forest clearance due to violation of Forest Act, change in plan of dam *etc.* Forest clearances in respect of the remaining 139 projects were under process at various levels as detailed in **Table 3.3**.

**Table 3.3: IDC-wise details of projects pending at various levels for forest clearance**

Projects pending with	MKVDC	GMIDC	VIDC	KIDC	TIDC	Total No. of projects
GoI	1	1	9	0	0	11
GoM	0	0	2	0	0	2
Forest Department	9	6	13	12	2	42
Revenue Department	3	3	10	2	1	19
IDCs	5	5	39	11	5	65
<b>Total</b>	<b>18</b>	<b>15</b>	<b>73</b>	<b>25</b>	<b>8</b>	<b>139</b>

Source: Data furnished by the Department

An expenditure of ₹ 7,129.76 crore was incurred on 89 projects<sup>47</sup> out of the 139 projects pending clearances under the Forest Act and thus, in violation of laid down norms.

IDC-wise details of forest land required, amount of Net Present Value (NPV)<sup>48</sup> payable for diversion of forest land for non-forest purpose are given in **Table 3.4**.

**Table 3.4: Forest land required vis-à-vis NPV paid and payable (June 2013)**

IDCs	Number of Projects	Forest land required (in ha)	Forest Land for which NPV deposited (in ha)	NPV deposited (₹ in crore)	NPV outstanding (₹ in crore)	Forest land against which no NPV was deposited	
						Projects	Area in ha
MKVDC	18	1339.54	569.59	23.70	49.85	2	769.95
GMIDC	15	605.62	456.59	9.38	0.54	5	149.03
VIDC	73	9197.27	5309.20	422.98	179.87	44	3888.07
KIDC	25	6303.22	5381.98	333.02	411.86	5	921.24
TIDC	8	2043.80	135.91	3.60	19.27	5	1907.89
<b>Total</b>	<b>139</b>	<b>19489.45</b>	<b>11853.27</b>	<b>792.68</b>	<b>661.39</b>	<b>61</b>	<b>7636.18</b>

Source: Information furnished by the Department

<sup>46</sup> As per Para 262 of MPW Manual, the AA of a work would ordinarily cease to operate after a period of five years from the date of according AA

<sup>47</sup> Details of remaining 50 projects were not available

<sup>48</sup> The discounted sum of ecosystem goods and services that would flow from a forest over a period of time net of costs incurred. In the context of diversion of forest land to non-forestry NPV means that the loss of value of the forest resources to the stakeholders or the users at the time of diversion of forest land

As seen from **Table 3.4** above, in 61 out of 139 projects no NPV and allied charges<sup>49</sup> were paid to GoI while in the remaining 78 projects the NPV and allied charges outstanding for payment was ₹ 661.39 crore. In two test-checked projects under KIDC, increased levy of NPV and allied charges amounting to ₹ 32 crore was noticed due to delay in payment by the WRD. The details are indicated in **Appendix 3.3**.

Audit also noticed that in 19<sup>50</sup> out of 89 projects mentioned above, commencement of works without forest clearances necessitated changes in alignment, stoppage of works *etc.* resulting in blocking of funds to the extent of ₹ 1,944.92 crore (March 2013). In nine out of 87 test-checked projects forest clearance was pending from GoI, as on June 2013 (**Appendix 3.1**). A few cases are given in **Table 3.5**.

**Table 3.5: Projects taken up without forest clearance**

IDC (Project)	Audit observations
MKVDC (Chillewadi medium irrigation project)	The work <sup>51</sup> of the dam was completed in 2003-04 but only partial storage of water (0.61 TMC against full storage capacity of 27.17 TMC) has been achieved. Full storage could not be achieved due to non-payment of NPV of ₹ 10.33 crore for acquiring forest land. Further, due to opposition from the local people, the contractor could not undertake the construction of canals. The contractor expressed (August 2001 and June 2002) unwillingness to execute the work in view of agitation by PAPs. The contract was foreclosed (April 2005) and ₹ 104.29 crore was paid (April 2012) to the contractor including price escalation of ₹ 10.90 crore. MKVDC belatedly resolved (May 2007) to construct closed pipelines instead of open canals. Thus, non-acquisition of forest land and delay in resolving the PAPs issues resulted in non-utilisation of dam constructed at a cost of ₹ 104.29 crore. The Government stated (July 2013) that an agency for executing the work was finalised and work was about to commence.
VIDC (Nimgaon minor irrigation project)	After incurring an expenditure of ₹ 1.07 crore on head works of the dam, the work was stopped in 1998 as it was started on forest land without obtaining forest clearance. The proposal submitted (March 2002) by GoM for diversion of 141.62 ha of forest land was rejected (June 2002) by MoEF as the proposal involved cutting of large number of trees and the command area <i>vis-à-vis</i> the forest land required was less. Though GoI accorded clearance (August 2006) for diversion of forest land subject to the condition that no work should be carried out until grant of final clearance, seven work orders were issued (2008-10) and an expenditure of ₹ 37.25 lakh was incurred. The GoI sought (June 2009) an explanation for starting the work without obtaining its final approval. The Government stated (July 2013) that the final clearance to the proposal was under progress.
KIDC (Surya major irrigation project)	The dam with a storage capacity of 286.31 mcum was completed in 1991, but payment of ₹ 85 crore for forest land to GoI was made only in July 2009. The GoI claimed (April 2009) further amount of ₹ 16.22 crore on account of compensatory afforestation and penal compensatory afforestation which was not paid (July 2013). Though the dam work was completed in 1991, only 58 <i>per cent</i> of the dam capacity was used up to July 2009 as clearance of Forest Department for forest land in submergence area was not received. After July 2009, full storage was done despite pending final forest clearance. The Government stated (July 2013) that the amount payable to GoI was huge and could not be made available to the project in a non-backlog district due to constraint of Governor's directives to accord priority to release funds only to backlog districts. As the work of dam was completed in 1991, the payment for the forest land should have been made earlier. Moreover, the Governor's directive did not stop allocation for non-backlog areas and hence the Department should have prioritised payment for forest land as the dam was already constructed.

<sup>49</sup> Charges towards alternate afforestation, Catchment Area Treatment plan *etc*

<sup>50</sup> (1) GMIDC: ₹ 12.29 crore (one project); (2) KIDC: ₹ 437.06 crore (one project); and (3) VIDC: ₹ 1,495.57 crore (17 projects)

<sup>51</sup> Turnkey contract including its design was awarded to M/s F.A. Master and Associates, Mumbai at a cost of ₹ 102 crore and work was to be completed by November 2000

### 3.2.3 Commencement of works without acquisition of land

According to Para 251 of MPW Manual, no work should commence on land which has not been duly made over by the responsible Civil Officer. Land is required for construction of irrigation projects and for rehabilitation of PAPs. Further, as per instructions issued (September 2004) by Revenue and Forest Department, irrigation projects should not be taken up unless rehabilitation of PAPs is completed. Audit scrutiny revealed that in 37 out of the 87 test-checked projects involving an expenditure of ₹ 9,078.58 crore, complete land<sup>52</sup> was not acquired before commencement of works (**Appendix 3.1**). A few cases in respect of three IDCs (MKVDC, KIDC and GMIDC) are discussed in **Table 3.6**.

**Table 3.6: Commencement of works without acquiring land or rehabilitating the PAPs**

Project	Audit observations
<b>MKVDC</b>	
<b>Tarli major irrigation project</b>	Due to opposition from PAPs, alignment of Koparde canal was changed (March 2012) from open canal and siphon pipeline to tunnel work and closed pipeline. Approval for incurring additional expenditure of ₹ 154.44 crore was accorded (April 2012) by the CE (Special Project), Pune due to construction of tunnels. An expenditure of ₹ 7.51 crore was incurred as of June 2013. The Government stated (July 2013) that due to opposition from land owners some part of the canal work had to be converted into tunnel work.
<b>Uttarmand medium irrigation project</b>	Though the dam work was physically completed in June 2010, water up to 16.65 mcum could be stored up to the base of the gates against the full storage capacity of 24.59 mcum due to protest by PAPs in the submergence area. As a result, execution of dam work was hampered (1997-2001) and MKVDC had to pay (December 2004) ₹ 5.17 crore towards idle charges for machinery and labour to the contractor. An expenditure of ₹ 107.79 crore was incurred on the project till June 2013. Thus, the inability of WRD to resolve the issues of resettlement of PAPs despite a lapse of more than 15 years from issue of work order in 1997 resulted in under utilisation of storage capacity by 7.94 mcum. The Government stated (July 2013) that the rehabilitation of four of the six villages was completed and the rehabilitation of the remaining two villages was pending due to court cases.
<b>KIDC</b>	
<b>Kondhane minor irrigation project</b>	The land required for the project based on increased height of the dam was 431.80 ha (private land: 132.95 ha, forest land: 298.85 ha.). The first proposal for acquisition of 65.25 ha of private land was forwarded to the Collector's office in October 2011. The Collector returned the proposal in January 2012 with a demand of 25 <i>per cent</i> of the cost of proposed land to be acquired which was pending payment (July 2013).
<b>Talere minor irrigation project</b>	The work for construction of dam was awarded in February 2000 with completion period of three years. Due to non- acquisition of land, dam work started only in March 2005 but stopped in November 2010 due to opposition from PAPs as the rehabilitation work was still pending. The gorge filling <sup>53</sup> work was completed in May 2010 but the work of head regulator was still pending and water was not stored due to non-acquisition of entire land for submergence area. The canal work of the project had not started (November 2013). The land required for the project from the private parties was 102.13 ha (72.13 ha for dam, 30 ha for canal) out of which, 69.86 ha for dam area was acquired up to July 2013. Audit scrutiny revealed that the proposal for acquisition of 30 ha of land for canal area was not submitted to Deputy Collector (Land Acquisition), Sindhudurg till July 2013. The Government stated (July 2013) that acquisition of land and rehabilitation of PAPs was in progress.

<sup>52</sup> Civil land and forest land

<sup>53</sup> Filling the river portion of dam embankment

**Management of Irrigation Projects**

<b>Shirsadi minor irrigation project</b>	As against the total land requirement of 38.10 ha for the canals, notification under Land Acquisition Act, 1984 was issued only in respect of 1.53 ha due to the discrepancies in the land records maintained by the Revenue Authority. The poor progress in land acquisition for canal work resulted in non-completion of the project and non-creation of projected IP of 541 ha due to be created.
<b>Korle-Satandi medium irrigation project</b>	The construction work of the dam was completed to the extent of 99 <i>per cent</i> and the gorge filling was done in 2008-09. However, KIDC was unable to store water due to non-acquisition of land for the submergence area. Audit noticed that the proposal for acquisition of land for submergence area of 4.90 ha was submitted by the Division only in 2010. Thus, even after incurring an expenditure of ₹ 114.54 crore up to June 2013, the basic objective of creation of storage was not achieved. KIDC also paid (July 2010) ₹ 7.42 crore to the contractor towards idle machinery. The Government stated (July 2013) that land acquisition proposals for the submergence area were being pursued with Revenue Authority.
<b>Otav minor irrigation project</b>	AA for the project was granted for ₹ 29 lakh in October 1977. The Project was envisaged to be constructed on a local nalla near Otav village with the aim of irrigating 307 ha in Kankavali taluka of Sindhudurg district. KIDC decided (March 2006) to increase the height of the dam from 133.75 meters to 138 meters with resultant increase in storage capacity from 4.80 mcum to 7.718 mcum and increase in the IP creation from 307 ha to 518 ha. Consequently, the requirement of land to be acquired increased from 90.46 ha to 122.83 ha. Out of 122.83 ha of private land to be acquired, 74.01 ha of land was acquired by 1983 while balance land of 48.82 ha was yet to be acquired (July 2013). As a result, only 62.19 <i>per cent</i> of projected storage (7.718 mcum) could be achieved in the dam completed in 2009-10 and the canals remained unconstructed. This resulted in non-completion of project and non-achievement of IP creation despite an expenditure of ₹ 31.01 crore incurred as of June 2013. The Government stated (July 2013) that proposals for 45.89 ha had been submitted to Revenue Authorities while proposals for remaining land would be submitted shortly.
<b>Nardave medium irrigation project</b>	The work order for the project (₹ 158 crore) was issued in May 1999 but the actual work started in February 2001 due to opposition from PAPs. In five villages, 967 families comprising 3,849 persons were affected by the project. However, even after a lapse of 14 years of the commencement of work, none of the families have been rehabilitated (June 2013). The PAPs had also stopped the work on several occasions. KIDC paid idle charges (₹ 7.43 crore) to the contractor (November 2012). The Government stated (July 2013) that 80 <i>per cent</i> of the rehabilitation work has been completed and efforts were being made to complete the remaining work early.
<b>GMIDC</b>	
<b>Lower Dudhna major irrigation project</b>	The dam work was initially started in 1983 (AA: ₹ 28.42 crore) but due to strong opposition from PAPs the work could not continue. The work resumed in 1994 but was delayed due to problems in rehabilitation of PAPs. Though the dam work has been completed up to 99.50 <i>per cent</i> and 57 <i>per cent</i> of the work of the RBC and 94 <i>per cent</i> of earthwork in the LBC were completed (expenditure incurred ₹ 1,141.95 crore up to June 2013), the works could not be completed due to land acquisition problem and obstruction by local people. Further, the case of rehabilitation of one village was pending in the High Court Bench at Aurangabad. The Government stated (July 2013) that due to opposition from PAPs and litigation the works could not be completed.

### 3.2.4 Improper survey leading to changes in original design

Scrutiny in audit revealed that estimates were prepared without proper survey of dam sites leading to changes in the original design after issue of work orders such as construction of spillway, tail channel and head regulator, construction of new canals distributaries in place of KT weirs<sup>54</sup>, change in canal alignment, increase or decrease in dam height, tunnels or piped water in place of open canals and *vice versa*, shifting of masonry/earthen dam *etc.* In 15 out of 87 test-checked cases, improper survey led to changes in the original design and increased the project cost by ₹ 209.79 crore (**Appendix 3.4**). A few cases by way of illustration are discussed below:

#### **MKVDC**

- After issuing the work order (June 2000) at a cost of ₹ 7.45 crore for Urmodi RBC it was noticed that the initial alignment of the RBC was passing close to village Parali. As a result, the local land owners and farmers opposed the construction of the canal. Hence, the origin of RBC was shifted and construction of aqueduct on Urmodi river at Bhondavade was included as an extra item. This led to increase in cost of work by ₹ 10.02 crore against which an expenditure of ₹ 5.13 crore has been incurred (June 2013). The work was still in progress. The Government stated (October 2013) that change in alignment was economical and there was no loss to the command area. The fact remained that improper survey resulted in increase in cost of project.
- The initial estimates in respect of Dudhganga LBC were prepared for tunnel work in some stretches (at 56, 58 and 59 kms). During execution of work, hard rock was found at different chainages, which was unsuitable for tunnelling work. Hence, open canal work was undertaken in these stretches, resulting in additional charges<sup>55</sup> for depositing the extra excavated material and transporting the same at a cost of ₹ 1.08 crore. In another stretch, extra provision of quantities of rock bolt<sup>56</sup> in tunnel portion had to be made resulting in increase in cost by ₹ 1.64 crore. The Government stated (July 2013) that additional expenditure was incurred as per site requirement and after obtaining approval from the competent authority.

#### **KIDC**

- Birwadi Lift Irrigation Scheme was approved in November 2005 at a cost of ₹ 8.27 crore. The Central Design Organization (CDO), Nashik in November 2005 suggested certain modifications to the preliminary plan like change in location of pump house thereby reducing the lifting of water to one stage instead of three stages. However, the work order was issued in May 2007 without considering the suggestion of CDO. The plan was revised as per the CDO, Nashik suggestion only in March 2008 resulting in inclusion of 10 extra items at an additional cost of ₹ 10.51 crore. This could have been avoided if the suggestions of CDO, Nashik had been incorporated initially.

<sup>54</sup> It is a low level dam built across a stream for storage of water

<sup>55</sup> Expenditure incurred on lifting and transportation of material

<sup>56</sup> During execution of tunnel work loose rocks were found resulting in rock falls hence permanent support in the form of rock bolts had to be made to stabilize the rocks

- The work on Korle-Satandi medium irrigation project commenced from January 2004. WRD decided (October 2006) to shift the dam 200 metre upstream on the ground that only one ha of forest land would be required instead of 4.36 ha and a decrease in dam height. The shifting of the dam after a lapse of two years and nine months from the date of commencement of work indicated poor survey and planning. The dam work was completed in June 2013.
- AA to Dendonwadi minor irrigation project was accorded in December 1997 at a cost of ₹ 12.44 crore. The dam work commenced in January 1998 but stopped in December 1999, due to protest by the PAPs. After acquiring (2001) the major portion of land<sup>57</sup> the work was restarted and the dam work completed in June 2009. However, only 1.37 mcum (June 2009) could be stored against the capacity of 10.16 mcum to prevent submergence of State Highway (connecting Panadur and Ghotage) and private forest land. Thus, lack of proper survey before execution of the project resulted in under utilisation of the dam capacity to the extent of 87 *per cent*, despite an expenditure of ₹ 26.44 crore. The Government stated (July 2013) that in order to prevent submergence of the State Highway, construction of a diversion road was planned but, its execution was held up due to non-availability of minor minerals like metal, sand, *etc.* The Government however, accepted that unless forest clearance for the private forest land is received and the same is transferred, full storage in the dam is not possible. The case clearly indicated improper planning and survey and lack of effective follow-up in getting forest clearance even after 15 years of commencement of work (January 1998) up to November 2013.
- Tender for construction of dam, waste weir<sup>58</sup> *etc.* in respect of Viridi minor irrigation project was awarded (April 2007) at a cost of ₹ 17.97 crore for completion in 48 months. The villagers of Viridi village opposed the construction due to the submergence issues and suggested an alternative site. Survey work was carried out at the new location and technical sanction for alternative site was accorded for ₹ 32.79 crore (March 2008). Further, the height of dam was increased from 50.387 m to 61.987 m with additional storage of 7.881 mcum in August 2011 due to demand (January 2011) of water from the villages of Usap, Khokral and Pikule. Accordingly, a revised AA for ₹ 151.57 crore was submitted by the KIDC and approval from the State Level Technical Advisory Committee was awaited (July 2013). The Government stated (July 2013) that the dam site was shifted to address the submergence issues and the height was increased to provide water to the three villages and therefore, the delay was unavoidable. The reply is not acceptable as change in dam site and increase in height of dam clearly indicated that the stakeholders were not consulted before commencement of the project and inadequacies in survey.

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<sup>57</sup> 120.74 ha of private land was acquired while 6.56 ha of Government land and 1.21 ha of private forest land not acquired

<sup>58</sup> A waste weir is a portion of headwork in the dam that provides a means of removing excess water from the dam



### VIDC

- GoM accorded first revised AA for ₹ 23.38 crore<sup>59</sup> (December 2005) to Antargaon minor irrigation project. The dam was shifted downstream on second survey as the submergence area and storage capacity was incorrectly assessed during the first survey. During execution of works in February 2006 the soil was found to be inappropriate for resting the foundation, therefore, the design had to be revised leading to an increase in project cost by ₹ 14.17 crore. Approval to the second revised AA submitted (May 2010) to the Government was awaited as of July 2013.

### 3.2.5 Irregular approvals of works

The powers to accord Administrative Approval (AA) and Revised Administrative approval (RAA) to works as per the respective Acts were vested with MKVDC and TIDC whereas such powers to accord AAs/RAAs to works were exercised by WRD in respect of VIDC, KIDC and GMIDC. These powers to accord AA/RAA to works were amended from time to time by the Finance Department (FD) and the Water Resources Department (WRD) from December 2003 onwards, in contravention of Governor's directives that no new works should be taken up in non-backlog districts. Moreover, approval to works were granted by the IDCs were in violation of the delegated powers as shown in **Table 3.7** below.

**Table 3.7: Violation of powers delegated to IDCs to accord AAs**

IDC	Powers granted	Violation	Impact
1. All IDCs	Power to accord AAs/RAAs were provided in the Act of MKVDC and TIDC since inception, irrespective of backlog and non-backlog areas These powers were granted to GMIDC, KIDC and VIDC at par with MKVDC and TIDC for removal of backlog only vide GR dated 4 December 2003.  All the IDCs were empowered to accord AAs/RAAs for removal of backlog subject to obtaining the consent of Chief Accounts and Finance Officer (CAFO) of the respective IDCs.	Acts of the IDCs were to be amended as per paragraph 8 of the GR dated 4 December 2003, which was not done as of July 2013.  In 38 projects under VIDC involving expenditure of more than 75 per cent of the estimated cost, AA to 22 projects (₹ 301.67 crore) and RAA to 16 projects (₹ 3,346.80 crore) were granted without consent of CAFO.	AAs/RAAs granted by the IDCs were not in conformity with their respective Acts and was thus, irregular.  The Government while accepting the fact stated (July 2013) that the Acts will be amended in due course.  Grant of AAs/RAAs to 38 projects without consent of CAFO was irregular.
2. MKVDC	As per Section 19 of MKVDC Act, the Governing Council (GC) of MKVDC was empowered to grant AAs and RAAs. Section 63 of the Act stipulated that the GC could delegate its powers with the previous approval of Government.	GC delegated (June 1996) the power to grant AAs and RAAs (July 1999) to the Executive Director with the concurrence of the Chairman of MKVDC. However, MKVDC did not obtain approval of the Government for such delegation.	AAs accorded to 277 irrigation projects for an amount of ₹ 2,808.62 crore (between 1996 and December 2007) and RAAs accorded to 23 projects (between July 2007 and August 2009) for ₹ 252.30 crore by the ED with the approval of Chairman was thus, irregular.

<sup>59</sup> Original AA for ₹ 11.78 crore was accorded in June 2000

			<p>The Government stated (July 2013) that the GC of MKVDC has laid down administrative procedure for granting RAA and accordingly the AAs were granted. The reply is not acceptable as the delegation of powers by GC to the ED with the concurrence of the Chairman contravened Section 63 of the MKVDC Act that stipulated previous approval of the State Government for delegation of any of its powers by the IDC.</p>
<p>Powers to accord AAs to minor irrigation projects valuing more than ₹ 25 crore and all major and medium irrigation projects were vested with Finance Department as per GR (March 2007) of FD.</p>	<p>ED with the consent of CAFO and approval of Chairman accorded RAAs to three minor projects valuing more than ₹ 25 crore and a LIS project.</p>	<p>Granting of RAAs to three<sup>60</sup> minor projects valuing more than ₹ 25 crore and one<sup>61</sup> LIS project totalling ₹ 133.33 crore was irregular. The Government stated (July, 2013) that the contention of Audit to apply powers of AA to powers of RAA does not appear to be logical as no specific financial limit is prescribed for according RAA in the GR of March 2007.</p> <p>The Government's reply is not tenable as while no specific financial limit is prescribed for according RAA in the GR of March 2007, the powers to grant AAs was in fact applicable to RAAs also, as has been clarified by the Government in its earlier Circular of 7 October 2006.</p>	
<p>WRD withdrew the powers of MKVDC to accord RAAs to any project vide GR dated 20 August 2009.</p>	<p>The ED with the concurrence of the Chairman of MKVDC continued to accord RAAs between 24 August 2009 and 4 September 2009.</p>	<p>RAAs were accorded to six projects for an amount of ₹ 64.28 crore (between 24 August 2009 and 4 September 2009), which was irregular. The Government stated (July 2013) that the copy of the GR was received by MKVDC on 4 September 2009. Meanwhile, during this period RAAs to six projects were accorded by MKVDC. The fact remained that post facto approval of WRD for these violations was not obtained.</p>	

<sup>60</sup> Jadhavwadi MI Tank (September 2008): ₹ 26.03 crore; Aasti (Nimgaon) (March 2009): ₹ 29.52 crore; Ambewadi (June 2009): ₹ 25.23 crore

<sup>61</sup> Shirala LIS project (September 2008): ₹ 52.55 crore

3. All IDCs	The FD allowed all the IDCs the power to grant AAs to all projects in 21 districts based on the irrigation backlog of 2005 vide GR dated 13 March 2007.	As per the information available on the website <sup>62</sup> , as on June 2006 the physical backlog was only in 13 districts. There was no backlog in eight <sup>63</sup> districts as mentioned in GR of 13 March 2007.	During March 2007, AA was granted by GMIDC to one project amounting to ₹ 4.06 crore in Beed. In addition, GMIDC also accorded AAs (June 2007) to two projects valuing ₹ 7.92 crore in Nanded district, even though the district was not included in 21 backlog districts notified in the GR of FD (March 2007).
4. VIDC and GMIDC	WRD granted (11 April 2007) powers to VIDC and GMIDC to accord AA to projects located in backlog districts	AA/RAA was granted in non-backlog districts as notified in the website of MWRRA as in June 2007.	In violation, GMIDC granted AAs to 17 projects for an amount of ₹ 738.69 crore during the period July 2007 to July 2009 in five non-backlog districts of Nanded, Beed, Aurangabad, Latur and Osmanabad.  In violation, VIDC granted AAs to 19 projects for an amount of ₹ 1,630.03 crore during the period August 2007 to August 2009 in all the six non-backlog districts of Nagpur region <i>i.e.</i> Nagpur, Bhandara, Gondia, Wardha, Gadchiroli and Chandrapur.
5. GMIDC, TIDC and KIDC	WRD granted (June 2007) powers to GMIDC, TIDC and KIDC to accord AA to projects located in seven backlog districts (Nashik, Dhule, Jalgaon, Nandurbar, Raigad, Ratnagiri and Sindhurg).	As per information available on the website as on June 2007, there was no backlog in Raigad and Sindhurg districts under KIDC and in Dhule, Jalgaon and Nashik districts under TIDC/GMIDC. Further, there was no backlog in Nandurbar district from June 2008 under TIDC but GR of June 2007 was not amended in 2008 to exclude these six districts where there was no backlog.	TIDC accorded AA to one project for an amount of ₹ 25.21 crore and RAA to 41 projects for an amount of ₹ 5,105.53 crore <sup>64</sup> during the period June 2007 to August 2009 in non-backlog districts in violation of WRD's orders.

<sup>62</sup> [www.mwrra.org.in](http://www.mwrra.org.in)

<sup>63</sup> Nashik, Jalgaon, Dhule, Beed, Osmanabad, Latur, Nagpur and Gadchiroli

<sup>64</sup> Including RAA for ₹ 601.93 crore granted for 11 projects in Nandurbar district during June 2008 to August 2009

<p>6. GMIDC and VIDC</p>	<p>WRD in August 2009 cancelled powers of GMIDC and VIDC to grant RAA in respect of 'A' category<sup>65</sup> projects, except in the irrigation backlog districts of Jalna and Osmanabad (GMIDC), Buldhana, Akola, Washim and Gadchiroli districts (VIDC).</p>	<p>As per information available on the website as on June 2009, there was no backlog in Jalna and Osmanabad districts under GMIDC and Gadchiroli district under VIDC.</p>	<p>In August 2009, RAAs to nine projects were accorded by GMIDC valuing ₹ 7,766.66 crore in non-backlog districts of Beed, Osmanabad, Nanded, and Yavatmal.</p> <p>During June 2011 to May 2013, AAs to 23 irrigation projects were accorded by VIDC valuing ₹ 62.03 crore in three non-backlog districts of Nagpur region, <i>i.e.</i> Bhandara, Gondia and Chandrapur.</p> <p>Thus, according of AA to 63 projects amounting to ₹ 2,467.94 crore by GMIDC, VIDC and TIDC (as mentioned at Sr. No. 3 to 6 above) in the non-backlog districts in violation of orders of delegation was irregular and affected the balance regional development of the IP in the State.</p> <p>The Government stated (July 2013) that the delegation of powers was first given (2007) for 23 districts having an updated physical backlog of 50.52 <i>per cent</i> as on June 2006. Subsequently, the powers were limited to districts having financial backlog as per Governor's directives of May 2009.</p> <p>The reply is not acceptable as the State average of irrigation potential created as percentage of net sown area as on 1994 was 35.11 <i>per cent</i>, which was accepted by the Government. Further, there were only 13 districts having physical backlog as on June 2006 with reference to the State average, which came down to nine districts in June 2007. Thus, by introducing the element of updated physical backlog, the Government circumvented the Governor's directives over the years, which specifically laid down that no new works be approved in non-backlog areas.</p>
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In the exit conference the CE, WRD stated (July 2013) that revised RAAs were issued frequently based on the demands of local representatives. The

<sup>65</sup> 'A' category project are those where the expenditure is within the existing AA/RAA and project cost is within the norms but revision of cost is necessary

frequent issue of GRs necessitating frequent changes in the system of grant of AAs indicated lack of a robust system in the WRD, besides violation of the Governor’s directives. The WRD needs to establish a well-defined system for grant of AAs and RAAs.

### 3.2.6 Cost overrun and delays in execution of projects

WRD was not using modern project management techniques like Programme Evaluation and Review Technique in project execution. Data of all the 601 ongoing projects as of June 2013 furnished by the IDCs including the 87 test-checked projects were analysed in audit to assess the number of years these projects were under execution. The summarized position is given in **Table 3.8** and **Table 3.9** respectively.

**Table 3.8 Age analysis of ongoing projects under WRD as on June 2013**

Age Profile (since the date of original AA)	Total projects			
	Major	Medium	Minor	Total
More than 30 years	31	21	25	77
More than 20 years but up to 30 years	9	18	45	72
More than 15 years but up to 20 years	19	23	34	76
More than 10 years but up to 15 years	9	22	96	127
More than 5 years but up to 10 years	3	3	90	96
Up to 5 years	1	24	128	153
<b>Total</b>	<b>72</b>	<b>111</b>	<b>418</b>	<b>601</b>

Source: Information furnished by IDCs

**Table 3.9: Age analysis of the ongoing test-checked projects as on June 2013**

Age Profile (since the date of original AA)	Total projects			
	Major	Medium	Minor	Total
More than 30 years	9	3	4	16
More than 20 years but up to 30 years	0	3	4	7
More than 15 years but up to 20 years	5	4	6	15
More than 10 years but up to 15 years	2	3	9	14
More than 5 years but up to 10 years	0	1	2	3
Up to 5 years	0	1	6	7
<b>Total</b>	<b>16</b>	<b>15</b>	<b>31</b>	<b>62<sup>66</sup></b>

Source: Information furnished by IDCs

**Table 3.8** shows that 225 projects (37.44 per cent) were under execution for more than 15 years and of these, 77 projects (12.81 per cent) were under execution for more than 30 years. **Table 3.9** in respect of the test-checked projects shows that 38 projects (43.68 per cent) were under execution for more than 15 years and of these, 16 projects (18.39 per cent) were under execution for more than 30 years.

The main reasons for the time overrun were paucity of funds, delays in acquisition of forest and private land, re-settlement problems of PAPs, change of design etc. which in turn led to increase in project cost. The details of time and cost overruns in respect of 87 test-checked projects are indicated in **Appendix 3.1**. The quantum of cost overrun in 83<sup>67</sup> out of 87 test-checked projects and all the 601 ongoing projects in the IDCs as on June 2013 is summarised in **Table 3.10** and **Table 3.11** respectively.

<sup>66</sup> Excluding 25 completed projects

<sup>67</sup> There was no cost overrun in four out of 87 test-checked projects

**Table 3.10: Cost overrun and balance cost in respect of test-checked projects (₹ in crore)**

IDC	Number of Projects	Amount of original AA	Expenditure up to June 2013	Cost overrun	Updated cost	Balance cost
GMIDC	20	346.80	3486.72	3139.92	6243.03	2763.64
KIDC	11	198.46	1844.11	1645.65	2918.44	1074.33
MKVDC	15	2253.22	5447.69	3194.47	11531.03	6083.34
TIDC	13	665.56	2287.16	1621.60	5229.69	2942.53
VIDC	24	665.06	3871.06	3206.00	6104.17	2254.09
<b>Total</b>	<b>83</b>	<b>4129.10</b>	<b>16936.74</b>	<b>12807.64</b>	<b>32026.36</b>	<b>15117.93</b>

**Source:** Information furnished by the IDCs

**Table 3.10** shows that cost overrun in 83 projects was ₹ 12,807.64 crore (June 2013) *i.e.* an increase of 310.18 *per cent* over the original cost. Further, the IDCs would require (June 2013) an additional amount of ₹ 15,117.93 crore to complete these projects.

**Table 3.11: Cost overrun and balance cost in respect of all the ongoing projects**

(₹ in crore)

IDC	Status of 601 ongoing projects				Status of 363 out of 601 ongoing projects with cost overrun					
	Number of projects	Expenditure	Updated cost	Balance cost	Number of projects	Amount of original AA	Expenditure	Cost overrun	Up dated cost	Balance cost
MKVDC	94	17056.15	34594.58	17538.43	68	4119.27	16489.63	12370.36	32276.16	15786.53
KIDC	64	6020.58	11662.04	5641.46	54	783.49	5991.18	5207.69	11275.68	5284.50
TIDC	58	3799.41	14649.81	10850.40	36	1157.93	3615.44	2457.51	8885.59	5270.15
VIDC	257	22612.82	55759.32	33146.50	138	4137.38	20993.72	16856.34	39040.06	18046.34
GMIDC	128	12149.47	27582.32	15432.85	67	886.02	11421.22	10535.20	21145.06	9723.84
<b>Total</b>	<b>601</b>	<b>61638.43</b>	<b>144248.07</b>	<b>82609.64</b>	<b>363</b>	<b>11084.09</b>	<b>58511.19</b>	<b>47427.10</b>	<b>112622.55</b>	<b>54111.36</b>

**Source:** Information furnished by the IDCs

**Table 3.11** shows that the balance estimated cost of 601 projects as of June 2013 was ₹ 82,609.64 crore. Of these 601 projects, there was cost overrun in 363 projects amounting to ₹ 47,427.10 crore (June 2013) *i.e.* an increase of 427.88 *per cent* of the original cost.

There was mismatch in the progress of dam and canal works indicating lack of coordinated approach to execution of projects, leading to delays. In 87 test-checked projects, even though the dam works were completed in 36 projects the canal works were incomplete as shown in the **Table 3.12**.

**Table 3.12: Status of completion of dams and canals in the IDCs**

IDC	Number of Projects (other than LIS)	Dam was completed but canals incomplete	Number of years since dam work completed but canal incomplete
MKVDC	13	7	0-20
GMIDC	19	8	2-8
VIDC	23	14	3-20
KIDC	11	2	7-22
TIDC	11	5	15-36
	<b>77<sup>68</sup></b>	<b>36</b>	<b>0-36</b>

**Source:** Information furnished by the IDCs

The Government stated (July-September 2013) that:

<sup>68</sup> Excluding eight LIS, one completed project (Bhosekhind) under MKVDC and one project under KIDC (Roshni) where both dam and canal works were completed

- All Executive Directors, Chief Engineers and Superintending Engineers have been directed to use project management related software for project management.
- Cost overrun was due to non-availability of adequate funds, rise in prices of construction material, delays in project due to opposition from PAPs, etc.
- When a project is being taken up it is simply mentioned that the same would be completed in five years though it is a fact that in five years even land acquisition cannot be completed.
- Cost and time overrun in irrigation projects was unavoidable and these could be reduced only by putting more appropriately planned cash flows, prioritization in completion of projects and total stoppage of some of the projects which required support of Planning and Finance departments.

In the circumstances explained, the Government may:

- decide to prioritise allocation and release of funds to projects which have been started and not completed till date, to increase the IP of the State; and
- not release funds to IDCs for projects where all clearances have not been obtained and where land has not been acquired.

### **3.2.7 Irregular expenditure in excess of original and revised AAs**

As per the MPW Manual, RAA should be obtained when the expenditure exceeds the AA by more than 10 *per cent* or ₹ one crore, whichever is less and excess over the amount of RAA should not be allowed without the permission of the competent authority.

Audit scrutiny revealed that the IDCs in violation of the MPW Manual incurred an expenditure of ₹ 133.42 crore over and above 10 *per cent* of the AA amount in 21 out of 601 ongoing projects, while in 100 ongoing projects an expenditure of ₹ 2,367.28 crore was incurred over and above the RAA, without the approval of the competent authority. The details are shown in **Table 3.13**.

Table 3.13: Expenditure in excess of AAs pending regularisation (₹ in crore)

Name of the IDC	Nos. of Projects	AA	AA + 10 per cent	Expenditure	
				As of 30 June 2013	Excess over 10 per cent (5) – (4)
(1)	(2)	(3)	(4)	(5)	(6)
<b>Excess over the original AA</b>					
MKVDC	14	103.28	113.61	148.62	35.01
KIDC	6	119.41	131.36	224.43	93.07
GMIDC	1	4.99	5.49	10.83	5.34
<b>Total</b>	<b>21</b>	<b>227.68</b>	<b>250.46</b>	<b>383.88</b>	<b>133.42</b>
<b>Excess over the revised AA</b>					
Name of the IDC	Nos. of Projects	RAA	Expenditure up to 30 June 2013	Excess expenditure (4) – (3)	
(1)	(2)	(3)	(4)	(5)	
MKVDC	9	886.47	2477.15	1590.68	
GMIDC	15	340.32	414.41	74.09	
VIDC	30	723.91	1029.58	305.67	
KIDC <sup>69</sup>	20	960.90	1253.91	293.01	
TIDC	26	187.30	291.13	103.83	
<b>Total</b>	<b>100</b>	<b>3098.9</b>	<b>5466.18</b>	<b>2367.28</b>	
<b>Total excess expenditure ₹ 133.42 crore + ₹ 2367.28 crore = ₹ 2,500.70 crore</b>					

Audit scrutiny further revealed that AA for Hetawane medium irrigation project under KIDC, was accorded (January 1981) for ₹ 15.36 crore. The second RAA was granted (March 2000) for ₹ 208.54 crore. Due to increase in demand for water for non-irrigation purpose, a High Power Committee<sup>70</sup> of Ministers reserved 48.64 mcum of water to four<sup>71</sup> agencies. Third RAA was granted (June 2008) by GoM for ₹ 329.90 crore on the condition that the capital cost of the dam and restoration charges<sup>72</sup> amounting to ₹ 190.48 crore would be recovered from the four agencies by July 2008. However, these agencies did not pay<sup>73</sup> their share of dues (₹ 190.48 crore) as of November 2013. KIDC spent ₹ 291.15 crore on the project till June 2013, including ₹ 22.27 crore spent (2009-13) since the grant of third RAA.

The Government stated (July 2013) that the process of granting RAA to the project is very lengthy and takes two to three years and hence in the interest of work the same is continued in anticipation of getting the sanction. The reply is not acceptable as it results in violation of codal provisions and a system should be put in place to ensure sanction of RAA well in time or else the purpose of obtaining RAA becomes a formality.

<sup>69</sup> Mention was made in the Audit Report (Civil) of C&AG of India for the year 2009-10 on GoM that KIDC had incurred (as of March 2010) an expenditure of ₹ 132.06 crore over and above the AA in respect of 12 projects

<sup>70</sup> Allocation of water for non-irrigation purpose by more than 25 per cent was to be referred to a High Power Committee headed by the Minister (Water Resources), Minister (Finance), Minister (Water Supply and Sanitation), Minister (Industries), Minister (Agriculture) and Minister of State (Water Supply)

<sup>71</sup> City and Industrial Development Corporation, ISPAT, Tata Power and provision of drinking water to Vashi Village, under Swajaldhara programme by Maharashtra Jeevan Pradhikaran Division, Mangaon

<sup>72</sup> For any change in reservation of water by more than 25 per cent for non-irrigation purpose, restoration charges were recoverable at the rate of ₹ 50,000 per ha

<sup>73</sup> Only ₹ nine crore was paid by CIDCO in March 2009



### 3.2.7.1 Irregularities in Kondhane Project

Audit scrutiny revealed major irregularities in award of work of the Kondhane minor irrigation project by KIDC in violation of the conditions of AA granted by WRD, which is discussed below.

AA to the project for creation of irrigable command area of 240 ha was accorded (May 2011) by WRD for ₹ 80.35 crore subject to the conditions that (a) the scheme in the present state be kept on shelf *i.e.* not be taken up for execution except for various clearances/permissions (b) the approval be considered only after water availability certificate was received from CE, Hydrology, Nashik. Technical sanction to the work of dam proper, saddle dam<sup>74</sup> and head regulator<sup>75</sup> was accorded on 27 May 2011 for ₹ 57.86 crore.

The tender notice for the work was published in National/State level newspapers on 1 June 2011. Four contractors submitted the bids by 20 June 2011. Three bids *viz.* M/s F. A. Enterprises, Mumbai; M/s F.A. Constructions, Mumbai and M/s A.B. Nagi Reddy were found to be eligible. Audit noticed that M/s F.A. Enterprises and M/s F.A. Constructions were registered at the same address and had the same partners which vitiated the tender process. The work was awarded to the lowest bidder (M/s F. A. Enterprises, Mumbai) on 22 July 2011 at a cost of ₹ 58.95 crore (which was 4.95 *per cent* above the estimated cost put to tender) for completion in 36 months. Audit scrutiny revealed the following:

- Section 2 (e) (iii) of KIDC Act, 1998 mandated planning, construction, maintenance and management of minor irrigation projects having irrigable command area of more than 250 ha and up to 2,000 ha. The projects with irrigable command area below 250 ha were to be executed by the local sector wing under the Rural Development and Water Conservation Department of GoM. Thus, implementation of Kondhane minor irrigation project with irrigable command area of 240 ha by KIDC was irregular.
- The GC of KIDC granted (12 August 2011) in-principle approval for increasing the height of the dam from 39.03 meter to 71.33 meter. The approval was granted based on a request (23 May 2011) made by the local Member of Legislative Assembly to the Minister, WRD for storage of more water for non-irrigation use. Accordingly, the work of dam with increased height of 71.33 meter was awarded (24 August 2011) to the same contractor at an additional cost of ₹ 271.45 crore. The sequence of events clearly indicated that KIDC was aware of the issue of dam height as early as May 2011. Under the circumstances, issue of tender (June 2011) with a dam height of 39.03 metre, followed by its award in July 2011 and re-award in August 2011 to the same contractor for increased height (71.33 meter) within 33 days of the initial award, was highly irregular which resulted in undue benefit to the contractor and vitiated the principles of transparency in contract management.

<sup>74</sup> A saddle dam is an auxiliary dam constructed to confine the reservoir created by a primary dam either to permit a higher water elevation and storage or to limit the extent of a reservoir for increased efficiency

<sup>75</sup> Construction at the off-take of a channel subsidiary to a main canal. Piers with grooves are provided for the use of shutters to regulate the water flow for distribution

- Though the AA to the work specified that the project be kept on shelf, the project was taken up. Further, the work was awarded in July 2011, even before the receipt of water availability certificate (October 2011).
- Tenders were invited in June 2011 and work awarded in July 2011, though approval to dam design was not received from CDO, Nashik (October 2013). The proposal for design approval was forwarded to CDO, Nashik only on 24 January 2012 *i.e.* five months after the additional work was awarded to the contractor.
- A proposal seeking No Objection Certificate from Archaeological Survey of India (the ancient monument *viz.* the Kondhane Caves are nearby) forwarded by KIDC in June 2012 was pending (October 2013).
- Environmental Clearance (EC) was not obtained before commencement of work and the proposal seeking environmental clearance was forwarded by KIDC only in May 2012 *i.e.* nine months after the date of issue of work order. The EC to the project was pending (October 2013).
- Central Railway intimated (16 January 2012) WRD to stop the work as the same was adjacent to the railway track.

KIDC issued an order in May 2012 for cancellation of the additional work as revised AA was not obtained from GoM. GoM also directed (May 2012) KIDC to cancel the work as the condition of keeping the project on shelf stipulated in the AA was not adhered to. Accordingly, KIDC rescinded (29 December 2012) the contract which was challenged by the contractor (January 2013) in Mumbai High Court. In its interim order (February 2013), the High Court directed WRD to clear the bills of the contractor within three months. As per the joint measurement carried out (March 2013), the cost of work done was ₹ 90.04 crore. However, payment to the contractors was pending (July 2013).

Clearly, the Government incurred a financial liability of ₹ 90.04 crore from the incomplete works of Kondhane project which was taken up without regulatory permissions and other mandatory clearances. The selection of contractor was not transparent and the award of work for increased height of dam was highly irregular.

The Government accepted (November 2013) that the work was taken up without fulfilling the conditions mentioned in the AA. It added that action against the concerned officials shall be taken after enquiry into the matter.

### **3.2.8 Inadequacies in preparation of estimates**

As per Para 140 (2) of MPW Manual, estimates should always be prepared in sufficient detail to ensure that the responsible officer has given proper consideration to the requirements of the work. The estimates for work are prepared based on the Schedules of Rates (SoR) maintained by WRD. Audit noticed various deficiencies in the preparation of estimates such as non-fixation of standard rates for the different components of tunnel work, inclusion of in-admissible component of labour welfare cess, central excise, service tax *etc.* Cases of improper preparation of estimates leading to granting of undue benefit of ₹ 33.20 crore to the contractors are detailed in **Appendix 3.5**. A few cases are discussed in detail below:

- The SoR maintained by WRD did not contain the rates for tunnel work. In the absence of rates in the SoR, rates were fixed locally by the divisions. An inter-comparison of rates included in the estimates (SoR 2008-09) for tunnel works in three<sup>76</sup> projects awarded in 2009 revealed wide variations. The labour component varied from ₹ 112/cum to ₹ 486.49/cum; machinery charges from ₹ 673.79/cum to ₹ 1,858.38/cum; material charges from ₹ 325.37/cum to ₹ 849.33/cum and ventilation charges from ₹ 41/cum to ₹ 281/cum. In the absence of standard rates for tunnel work, it was not possible to determine the reasonableness of the rates. The Government stated (September 2013) that a Common Schedule of Rates (CSR) including tunnel work for the year 2012-13 was being finalised by a Committee under the Chairmanship of Chief Engineer (Vigilance and Projects) and Joint Secretary and was expected to be finalised by the end of October 2013.
- As per Para 55 (E) of the MPW Manual, the Mechanical Organization, Nashik (MO) of WRD is responsible for manufacture of sluice gates, heavy radial gates and hoists in its own workshop located at various places in the State. The MO also issues a common SoR for various types of gates used in dam works and its components every year. MO prepared (January 2008) a rate analysis of different components of barrage on Godavari and Manjra river based on SoR (2007-08). Audit scrutiny of 10<sup>77</sup> works of barrages (Vishnupuri, Krishna-Marathwada, Babhli projects) and one work of dam gates (Lendi Project) under GMIDC revealed that the project authorities (*i.e.* CE, SE and EE) prepared the estimates for these works (2004-05 to 2008-09) in which the fabrication and erection cost of gates were found to be much higher than the rates for similar type of gates given in the SoR of the MO for the relevant year. This was due to non-adoption of steel, workshop and labour costs from the SoR of MO. As the SoR issued by MO every year contained the input costs and other overheads incidental to the manufacture of all types of gates, non-adoption of rates from SoR of MO was irregular and resulted in preparation of inflated estimates for original items (Schedule B), extra items (Extra Items Rate List) and extra quantities (under Clause 38) by ₹ 28.81 crore.

The Government stated (July 2013) that works of vertical lift gates<sup>78</sup>, stoplog gates<sup>79</sup> etc. are not mentioned in the scope of MO. It further stated that the SoR of MO are to be used invariably for fabrication works carried out in the workshop of MO only. It added that the rate analysis of mechanical works were either got technically cleared from the Chief Engineer, MO or framed using MO SoR by updating the basic cost of structural steel as per the PWD DSR/market rates prevailing at the time of sanction. However, other

<sup>76</sup> Upper Pravara Left Bank Canal, Manjarpada Diversion Scheme and Nira Bhima Link Project

<sup>77</sup> Tarugavan, Dhalegaon, Mudgal, Muli, Somanthali, Babhli, Balegaon, Amdura, Digras and Mangrul

<sup>78</sup> A dam spillway gate of which the movable parts are raised and lowered vertically to regulate water flow

<sup>79</sup> Gates used for level control in open channel where the beams are inserted in grooves cast in channel wall

provisions such as, workshop charges, fabrication charges, execution charges *etc.* were kept as per MO SoR.

The Government's contention is not acceptable for the following reasons:

- The MO, Nashik carries out fabrication and erection of various types of gates and hoists (radial gate, sluice gate, barrage gate, stoplog gate, hoist, goliath crane *etc.*) as evident from the website of MO, Nashik ([www.mahayantriki.gov.in](http://www.mahayantriki.gov.in)).
- The contractors also establish their own workshops at the project/work sites. Therefore, fabrication cost which includes similar components like material cost, labour cost, workshop charges and handling charges (as contained in MO SoR) would be applicable for works executed at work sites also.
- The technical sanctions to the estimates of these 11 works were in fact accorded by the Chief Engineer (WRD), Aurangabad using the PWD DSR rates for structural steel and the rates of other components were worked out in excess of the MO SoR of the relevant year.
- As dam/barrage works are not executed by the PWD, adoption of PWD DSR for execution of these works was not in order.

### **3.2.9 Execution of lift irrigation Schemes**

A Lift Irrigation Scheme (LIS) is constructed in drought prone areas, where the topographical conditions is unsuitable for flow irrigation like hilly areas. A typical LIS comprises storage, pump house, pumping machinery, raising main, distribution chamber and canals.

The GoM in 1978 took a decision not to take up LI Schemes in future as these were not found to be effective due to very low IP utilisation, continuous losses and high cost of maintenance. Even the Deokule Committee formed in 2002 by the GoM had recommended that no new LISs should be taken up due to high costs of infrastructure, maintenance and repairs and high cost of tariff compared to flow irrigation. The committee had also noted that most of the LI schemes completed and handed over to the Management Divisions were non-operational due to non-payment of electricity bills. An overview of the ongoing LI schemes under implementation by the IDCs is given in **Table 3.14**.

3.14: Cost overrun and balance cost in respect of Lift Irrigation Schemes (₹ in crore)

Project details of 64 LIS								
IDC	No. of Projects	Projects with cost overrun	Amount of AA	Expenditure as on June 2013	Up to date cost as on June 2013	Cost overrun over expenditure	Balance cost	Balance cost of total LIS
TIDC <sup>80</sup>	7	2	509.34	908.59	2273.97	399.25	1365.38	6393.79
GMIDC	4	2	2.99	116.76	660.94	113.77	544.18	553.60
MKVDC	20	14	2334.75	4757.49	10442.17	2422.74	5684.68	7022.24
VIDC <sup>81</sup>	32	17	578.98	1285.91	2205.28	706.93	919.38	2334.68
KIDC	1	0	0.00	0.00	0.00	0.00	0.00	12.70
<b>Total</b>	<b>64</b>	<b>35</b>	<b>3426.06</b>	<b>7068.75</b>	<b>15582.36</b>	<b>3642.69</b>	<b>8513.62</b>	<b>16317.01</b>

Source: Information furnished by the IDCs

Table 3.14 indicated that there was cost overrun of ₹ 3,642.69 crore (106.32 per cent) and the WRD would require an estimated amount of ₹ 16,317.01 crore for completion of the 62 ongoing LI schemes. Audit findings on test-checked LIS under MKVDC and TIDC are discussed in Table 3.15.

Table 3.15: Audit findings on test-checked LI Schemes

Name of the LIS and other details of AA etc.	Salient features of LIS	Audit remarks and Government reply
<p>(1) <b>Tembhu LIS under MKVDC</b></p> <ul style="list-style-type: none"> <li>➤ AA for ₹ 1,416.59 crore (February 1996).</li> <li>➤ RAA for ₹ 2,106.09 crore (January 2004).</li> <li>➤ Updated cost ₹ 3,832.98 crore.</li> <li>➤ Total expenditure incurred (June 2013) on the entire project was ₹ 1,417.03 crore and balance updated cost of completion was ₹ 2,415.95 crore (June 2013).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Envisaged lifting of 22.13 TMC of water in five stages from Tembhu barrage on Krishna river near village Tembhu Taluka Karad, District Satara.</li> <li>➤ To utilize the water through canals of 350 Km to irrigate 1,11,856 ha of drought prone area of 211 villages in the talukas of Karad (Satara), Kadegaon, Khanapur, Tasgaon, Kavathemahankal, Atpadi (Sangli) and Sangola (Solapur).</li> </ul>	<ul style="list-style-type: none"> <li>➤ Of the total IP projected to be created (1,11,856 ha), IP of 4,437 ha was created (June 2013) from Stage 1 (IA, IB and II) after incurring an expenditure of ₹ 778.30 crore.</li> <li>➤ Balance IP to be created was 1,07,419 ha (including 9,359 ha from Stage 1 and 2).</li> <li>➤ No IP was created from Stage 3 to 5 even after incurring an expenditure of ₹ 492.66 crore.</li> <li>➤ Construction of Visapur Pundi LIS and Ghatnandre Tisangi LIS, which were also an integral part of this LIS, did not commence.</li> <li>➤ Second RAA of ₹ 3,832.98 crore was pending with GoM since December 2011 (as of October 2013). The Government stated (July 2013) due to shortage of funds works could not be completed as per schedule.</li> <li>➤ In the work of Tembu LIS, two contractors were paid interest free advance of ₹ 16.39 crore though there was no such provision in the contract, resulting in undue benefit to the contractors. An amount of ₹ 11.80 crore<sup>82</sup> was still pending adjustment (June 2013).</li> </ul> <p>The Government stated (October 2013) that advance payment was made towards erection, testing and commissioning of pumps. Reply is not acceptable as payment of mobilisation advance was not provided in the tender/contract conditions.</p>

<sup>80</sup> In respect of two out of seven LIS only; in the remaining ongoing LIS there was no cost overrun as of June 2013

<sup>81</sup> In respect of 17 out of 32 LIS only; in the remaining ongoing LIS there was no cost overrun as of June 2013

<sup>82</sup> (1) M/s Kirloskar Brothers Ltd  
Advance paid: ₹ 11.55 crore (May 2005 to April 2010); Advance adjusted ₹ 3.81 crore (September 2007 to February 2010); Balance to be recovered: ₹ 7.74 crore  
(2) M/s Mather & Platt and Subhash Project: Advance paid ₹ 4.84 crore (February 2007 to April 2010); Advance adjusted: ₹ 0.78 crore (July 2010); Balance to be recovered: ₹ 4.06 crore

<p><b>(2) Janai-Shirsai LIS (JSLIS) under MKVDC</b></p> <ul style="list-style-type: none"> <li>➤ AA for ₹ 56.92 crore (November 1993)</li> <li>➤ RAA for ₹ 144.24 crore (February 2000)</li> <li>➤ Second RAA ₹ 199 crore (December 2004) and</li> <li>➤ Third RAA for ₹ 411.72 crore (June 2011)</li> <li>➤ An expenditure of ₹ 279.78 crore was incurred on the scheme (June 2013) and the balance cost for completion of the project was ₹ 131.94 crore.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Envisaged lifting of 3.60 TMC of water in three stages, through Janai (IP of 8,350 ha) and Shirsai Lifts (IP of 5,730 ha).</li> <li>➤ targeted IP of 14,080 ha in drought prone areas of Daund, Baramati and Purandar talukas in Pune District.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Stage I and II of Janai Lift (3,289 ha) and Stage I of Shirsai Lift (4,772 ha) have been completed in 2000, creating an IP of 8,061 ha, with IP utilisation of 600 ha only;</li> <li>➤ Stage III of Janai Lift was in progress; three switchyard equipment and two power transformers (₹ 66.90 lakh), pump sets, induction motors (₹ 2.04 crore) procured in 2000-01 remained uninstalled (October 2013) for want of forest clearance and non-completion of civil works due to paucity of funds. Further, an additional amount of ₹ 41.69 lakh was estimated for repairs of the equipment (July 2012) which were damaged and had rusted in the intervening period.</li> <li>➤ The Chaskaman Division took up the execution of distributaries in Kusegaon branch of Janai LBC from Km one to Km 13. Scrutiny revealed that three<sup>83</sup> works were stopped by the farmers as the irrigation was carried out by them through private lift irrigations on Victoria tank (Warwandi). Thus, lack of survey before taking up the work resulted in abandonment of the works and consequent wasteful expenditure of ₹ 95.84 lakh.</li> </ul> <p>The Government stated that the equipment would be used after commissioning the said project. Since the equipment and machinery have not been put to use for more than 12 years, its installation and commissioning after the project is completed appears doubtful as the wear and tear and obsolescence in these equipment would render them inefficient.</p>
<p><b>(3) Khura Vadhoda LIS under TIDC</b></p> <ul style="list-style-type: none"> <li>➤ AA for ₹ 207.08 crore (July 1999)</li> <li>➤ First RA for ₹ 503.64 crore (August 2007)</li> <li>➤ Second RAA for ₹ 842.40 crore (May 2009).</li> <li>➤ Total expenditure incurred as of July 2013 was ₹ 523.42 crore</li> </ul>	<ul style="list-style-type: none"> <li>➤ The scope of LIS included lifting of 50.79 mcum of flood water and storing in the dam to irrigate 9,725 ha of land.</li> <li>➤ Initially the dam site was selected at Charthana village, Muktainagar, District Jalgaon and work order for construction of dam and LIS was issued in 1999.</li> <li>➤ Due to high cost of acquisition (₹ 42 crore) of forest land, it was decided to shift the dam site to Islampur in Buldhana district. Irrigation of 17,967 ha was proposed in first RAA which was increased to 25,898 ha in second RAA considering drip irrigation.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Expenditure of ₹ 1.45 crore incurred on the initial work of planning and designing (July 1999) was unfruitful due to high cost of acquisition of forest land necessitating the shifting of dam site from Charthana, Jalgaon district to Islampur, Buldhana district. The proposal of ED, TIDC sent in January 2009 for regularisation of the said expenditure was awaited (November 2013) from the Government.</li> <li>➤ The work of LIS commenced in December 2008 i.e. even before commencement (May 2009) of dam work. Total expenditure of ₹ 523.42 crore has been incurred (July 2013) on the project (dam component has been completed up to 30 per cent while the LIS has been completed up to 75 per cent as of June 2013). No IP was created as of June 2013.</li> </ul> <p>The Government stated that work would be completed as per availability of funds. Reply is not acceptable as TIDC could have paid ₹ 42 crore for forest land instead of shifting the dam site, which led to cost overrun of ₹ 635.32 crore (₹ 842.40 crore – ₹ 207.08 crore).</p>

<sup>83</sup> (i) Construction of earth work and structure for Minor No. 8: expenditure ₹ 6.13 lakh-work was withdrawn in January 2011 under Clause 15  
(ii) Construction of earth work and structure for Minor No. 3: ₹ 40.51 lakh-contractor has not yet applied for withdrawal under Clause 15  
(iii) Construction of earth work and structure for Minor No: 6 to 7: expenditure ₹ 49.20 lakh-contractor applied for withdrawal in April 2009 but final decision not yet taken

<p><b>(4) Varangaon Talvel Parisar LIS (in Jalgaon district) under TIDC:</b></p> <ul style="list-style-type: none"> <li>➤ AA for ₹ 302.26 crore (July 1999)</li> <li>➤ TIDC entered (August 2008) into a Memorandum of Understanding (MoU) with MAHAGENCO<sup>84</sup> for supply of additional 23.76 mcum of water for its thermal power station at Bhusawal through LIS.</li> <li>➤ As per the MoU, in which the GoM was also a signatory, the GoM was to plan and complete the dam and lift components of the project and make necessary budget provisions for two financial years.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Of the total revised project cost of ₹ 351 crore, MAHAGENCO was to bear one-third <i>i.e.</i> ₹ 117 crore of the cost and the remaining two-third <i>i.e.</i> ₹ 234 crore was to be borne by TIDC.</li> <li>➤ MAHAGENCO was to provide an advance of ₹ 60 crore to be adjusted against the water charges payable by it.</li> <li>➤ The project was to be completed by 31 December 2010.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The project remained incomplete (June 2013) even after passage of 30 months from the agreed date of completion. The cost of project has shot up to ₹ 822.49 crore from ₹ 351 crore.</li> <li>➤ Of the total expenditure of ₹ 422.74 crore incurred (June 2013), MAHAGENCO paid ₹ 158.67 crore.</li> <li>➤ TIDC had contributed only ₹ 148.54 (63 <i>per cent</i>) crore out of its share of ₹ 234 crore.</li> <li>➤ There was a shortfall of ₹ 85.46 crore in release of funds by TIDC disregarding the conditions of MoU.</li> </ul> <p>The Government stated that RAA for the increased cost of ₹ 822.49 crore was pending.</p>
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### 3.3 Contract management

Review of the contract management in the five IDCs revealed deficiencies such as awarding of work without invitation of tenders, irregular sanction of extra item of work, irregular sanction of mobilization advance to contractors, irregularities in recovery of royalty charges and insurance premium as discussed below:

#### 3.3.1 Execution of works without inviting tenders

As per paragraph 200 of MPW Manual, tenders should invariably be invited publicly for all works to be given out on contract except extra items which have to be undertaken as part of a scheme for which tenders have originally been invited publicly and which are required to be executed while the work originally undertaken is in progress and which are really inseparable from the original contract and cannot conveniently be done by a different agency. Audit however, observed that in 19 projects, 24 individual items of works like construction of tunnel work, ring road, Irrigation cum Power Outlet (ICPO), canal work *etc.* amounting to ₹ 424.56 crore (**Appendix 3.6**) were attached to the respective original works without invitation of tenders, as summarised in **Table 3.16**.

<sup>84</sup> Maharashtra Electricity Generation Company Limited

Table 3.16: Awarding of works without inviting tenders (₹ in crore)

Name of the IDC	Number of individual works awarded without inviting tenders	Cost of work awarded without inviting tenders
MKVDC	5	193.32
GMIDC	12	196.59
KIDC	3	25.33
TIDC	4	9.32
<b>Total</b>	<b>24</b>	<b>424.56</b>

The Government stated (July 2013) that the additional works were executed with the original work to save time required in tender process.

The reply is not acceptable as awarding of works without inviting tenders violated the provisions of MPW Manual and extended undue benefit to the contractors.

### 3.3.2 Irregular sanction of extra items

As per the MPW Manual, estimates should be prepared in sufficient detail to ensure that the responsible officer has given proper consideration to the requirements of the work. Further, the tender conditions required the contractors to familiarize themselves with the nature of work, site conditions *etc* before submitting the bids. Extra items may arise due to inadequate survey before preparation of the estimates, non-consideration of items in the original estimates, change in scope of works *etc*. Audit scrutiny revealed irregular sanction of extra item rate list (EIRL) to the contractors amounting to ₹ 28.53 crore as discussed in Table 3.17.

Table 3.17: Extra items sanctioned to contractors

Name of the IDC	Details of EIRL sanctioned	Name of the work and agency (Date of work order)	Audit remarks and Government reply
1	2	3	4
MKVDC	<b>Urmudi major irrigation project:</b> The difference between the rate of controlled blasting and normal blasting amounting to ₹ 1.02 crore was sanctioned (August 2009) as EIRL, though the contract was inclusive of controlled blasting, wherever required.	Construction of earthen dam with gated spillway across river Urmodi at Taluka Parali, District Satara  M/s Mulay Brothers Private Limited and M/s Amit Constructions (Joint Venture)] (Date of work order- December 1997)	An amount of ₹ 98.06 lakh <sup>85</sup> was released to the contractor up to June 2013.  The Government stated (October 2013) that EIRL was given due to proximity of canal to a fort, a temple and Village Parali. This necessitated excavation of 1,26,157 cum by controlled blasting as an extra item instead of normal open blasting, duly sanctioned by the competent authority. The reply is not acceptable as the same should have been considered by the contractor at the time of tendering and therefore, the payment was irregular.

<sup>85</sup> 1,21,657.59 cum x differential rate ₹ 80.60 per cum



1	2	3	4				
MKVDC	<p><b>Pimpalgaon (Dhale) medium irrigation Project</b>                      (1) Extra lead charges for bringing materials (1,68,514 cum) for hearting zone and 1,12,200 cum for casing zone amounting to ₹ 57.88 lakh and ₹ 46.28 lakh respectively were approved (June 2001) as EIRL by the SE, Bhima Canal Circle, Solapur on the ground that the excavated material from the work site was not of appropriate quality.</p>	<p>Construction of earthen dam, ungate spillway, tail and head regulator of Pimpalgaon (Dhale) medium irrigation project</p> <p>M/s Patil and Company</p> <p>(Date of work order- March 1997)</p>	<p>It was stipulated in the contract that it would be the responsibility of the contractor to utilize the excavated material or arrange additional material at his cost, if enough material could not be excavated. Payment of ₹ 2.44 crore<sup>86</sup> as extra items was contrary to the provisions of the agreement.</p> <p>The Government stated (July 2013) that the excavated material was not of good quality for hearting and casing and cut-off trench. As a result, the remaining quantity was brought from outside the designated zone entailing extra lead. The reply is not acceptable as the quantity executed under EIRL was within the tendered quantity and it was the responsibility of the contractor to arrange the additional material at his cost.</p>				
	<p>(2) SE, Bhima Canal Circle, Solapur sanctioned (October 2008) EIRL of ₹ 2.01 crore for obtaining the requisite material for rock toe, stone pitching and quarry spaul from another source on the ground that the material excavated from the work site was of poor quality.</p>			KIDC	<p><b>Roshani minor irrigation project</b>                      EIRL for ₹ 99.09 lakh was sanctioned for “manufacturing, providing and supplying spirally welded fabricated MS pipes”.</p>	<p>Constructing earth work and CD work for Km 1 to Km 5 of Roshani RBC</p> <p>M/s R.N. Shinde</p> <p>(Date of work order - November 2007)</p>	<p>Sanction of EIRL was not justified as the item of work was already provided in the tender (item no. 17) resulting in avoidable expenditure of ₹ 27.66 lakh.</p> <p>The Government stated (July 2013) that tender item number 17 was for providing and supplying of pipes at work site. The item of erection of pipe was not considered in the estimates.</p> <p>Reply is not acceptable as rate analysis based on which estimates were prepared was inclusive of erection charges.</p>
KIDC	<p><b>Roshani minor irrigation project</b>                      EIRL for ₹ 99.09 lakh was sanctioned for “manufacturing, providing and supplying spirally welded fabricated MS pipes”.</p>	<p>Constructing earth work and CD work for Km 1 to Km 5 of Roshani RBC</p> <p>M/s R.N. Shinde</p> <p>(Date of work order - November 2007)</p>	<p>Sanction of EIRL was not justified as the item of work was already provided in the tender (item no. 17) resulting in avoidable expenditure of ₹ 27.66 lakh.</p> <p>The Government stated (July 2013) that tender item number 17 was for providing and supplying of pipes at work site. The item of erection of pipe was not considered in the estimates.</p> <p>Reply is not acceptable as rate analysis based on which estimates were prepared was inclusive of erection charges.</p>				
	<p><b>Nardave medium irrigation project</b>                      ₹ 22.33 crore was sanctioned (June 2009) as extra items by CE, Konkan Region in a ‘C’<sup>87</sup> tender for controlled blasting (₹ 5.57 crore) and extra efforts for breaking boulders (₹ 16.76 crore).</p>			<p>Construction of Mohammadwadi medium project on turnkey basis</p> <p>M/s R.N. Nayak and Sons, Engineers and Contractors, Karnataka</p> <p>(Date of work order- May 1999)</p>	<p>The sanction of extra items and payment of ₹ 22.33 crore to the contractor was irregular as per Clause 18 (1) of the agreement, which prohibited such payments.</p> <p>The Government stated (July 2013) that sanction of extra items was required owing to site conditions viz. presence of houses in the vicinity of dam site and presence of boulders in the quarries.</p> <p>Reply is not acceptable as ‘C’ tender clearly prohibit the provision of extra items unless the scope of work is changed.</p>		

<sup>86</sup> Includes ₹ 1.04 crore as lead charges for material for casing and hearting + ₹ 1.40 crore for rock toe, stone pitching and quarry spaul, being the differential rate between tender and sanctioned rate in EIRL towards excavated material

<sup>87</sup> An all inclusive tender where execution is as per the contractor’s own design

1	2	3	4
KIDC	<p><b>Korle-Satande medium irrigation project</b> The Irrigation Project Construction Division, Ratnagiri, proposed a single work for construction of 600 m tunnel work of Irrigation-Cum- Power Outlet (ICPO<sup>88</sup>). The Chief Engineer, Konkan Region WRD, Mumbai, sanctioned (April 2007) the execution of ICPO tunnel by splitting the work in two parts. First part involving construction of 300 m ICPO tunnel work was attached to the contractor executing canal work as EIRL and the other 300m ICPO tunnel work was awarded to the same contractor executing canal work, by tendering.</p>	<p>Construction of tunnel work for ICPO at chainage 300 m  Premier Construction Company  (Date of work order- February 2008)</p>	<p>The sanction did not specify any reasons for splitting of the work in two parts.  An amount of ₹ 1.14 crore was paid on the work executed as EIRL and ₹ 2.10 crore paid to the contractor awarded through tendering.  The Government stated (July 2013) that the work was split up to speed up its execution.  Reply is not acceptable as attachment of ICPO work (being part of dam work) to contractor executing canal work was not justified and the complete work should have been tendered as one work instead of splitting it into two.</p>

### 3.3.3 Irregular sanction of mobilisation advance to contractors

Audit observed that the Acts of MKVDC, GMIDC and TIDC did not provide for payment of interest bearing monetary advances to the contractors. In 37 cases, mobilisation advance of ₹ 478.95 crore was paid (February 2007 to October 2011) to 27 contractors, though the contract conditions did not provide for payment of such advances. The details are indicated in **Table 3.18**.

**Table 3.18: Mobilisation advance granted to contractors** (₹ in crore)

Name of the IDC	Mobilisation advance granted	No of contracts involved	Amount outstanding for recovery as on June 2013	Period of payment of advance
GMIDC	15.05	7	2.29	April 2007 to January 2010
VIDC	405.44	25	22.60	February 2007 to October 2010
KIDC <sup>89</sup>	42.96	3	23.07	April 2007 to October 2011
TIDC	15.50	2	0	October 2008
<b>Total</b>	<b>478.95</b>	<b>37</b>	<b>47.96</b>	

**Source:** Information furnished by the IDCs

As of June 2013, an amount of ₹ 47.96 crore was pending recovery.

The Government stated (July 2013) that mobilisation advances were paid in exceptional circumstances for early start of work and as per the IDCs Acts and to speed up the works.

The reply is not acceptable as the provision for payment of mobilisation advances existed only in the Acts of KIDC and VIDC. Moreover, the tender/contract conditions did not provide for payment of mobilisation advances to the contractors. Further, no exceptional reasons were found adduced for the release of ₹ 478.95 crore as mobilization advance and this was an undue benefit granted to the contractors.

<sup>88</sup> An outlet for rerelease of water for irrigation purpose as well as power generation

<sup>89</sup> Mention was also made in the Audit Report (Civil) of the Comptroller and Auditor General of India for the year ended March 2009 regarding irregular sanction of advance amounting to ₹ 15 crore by KIDC to M/s F A construction in Shahi river project.

### 3.3.4 Non-recovery of royalty charges

The estimates for works involving use of material like metal, sand, murum *etc* are prepared by the division offices by including or excluding the element of royalty payable to the Revenue Authority. On failure to produce the challan by the contractors, royalty charges are recoverable from the contractors' bills. Audit scrutiny revealed that in six works royalty charges amounting to ₹ 5.72 crore were either not recovered or short-recovered. Details are shown in **Appendix 3.7**.

### 3.3.5 Non-recovery of insurance premium

As per the guidelines issued (19 August 1998) by the Finance Department, the contractors were required to get the work insured with the Director of Insurance, Maharashtra to the extent of cost of work awarded and produce the insurance papers to the Engineer-in-charge of the work. On failure by the contractors to insure the work, an amount equivalent to one *per cent* of the cost of work was to be deducted from the contractors' bills as insurance premium and remitted to the Director of Insurance, Maharashtra. In 13 cases, insurance premium amounting to ₹ 4.10 crore was not recovered, despite failure of the contractors to insure these works. The details are indicated in **Table 3.19**.

**Table 3.19: Non-recovery of insurance premium by IDCs**

Name of the IDC	No. of works	Non-recovery of insurance premium (₹ in crore)	Remarks
MKVDC	4	0.35	The Government stated (July 2013) that recovery would be made from the contractors' next bills.
GMIDC	5	0.41	The Government stated (July 2013) that in one case the contractor obtained the insurance policy. However, a copy of the policy was not provided to audit for verification. In the remaining four cases, the Government added that recovery would be made from the contractors.
KIDC	1	2.86	The Government stated (July 2013) that the record of the insurance policy from commencement of work will be verified and the recovery of the same would be done, if required.
VIDC	3	0.48	The Government accepted (July 2013) the observation and stated that recovery is being done.
<b>Total</b>	<b>13</b>	<b>4.10</b>	

Audit also noticed non- incorporation of an insurance clause in the contracts due to which the loss could not be indemnified. Some of the cases are illustrated below:

#### **KIDC**

The right and left flank of embankment of Korle-Satandi medium irrigation project constructed by the contractor slipped during 2007 and 2008 due to heavy rains. Additional work to reconstruct the slipped embankment at a cost of ₹ 3.68 crore was sanctioned (October 2009) by the CE, which included price escalation of ₹ 94.27 lakh. However, due to non-incorporation of insurance Clause in the contract, the loss of ₹ 3.68 crore could not be offset by WRD through insurance claim.

## **GMIDC**

In four works under GMIDC, the contract did not include an insurance Clause. However, while fixing the rates for tender items where the quantities increased over 125 *per cent* of tender quantities under Clause 38, insurance cost was incorrectly included resulting in excess payment of ₹ 1.59 crore to the contractors. The Government stated (July 2013) that recovery would be made if the contractors fail to produce the insurance policies. The reply is not tenable because inclusion of insurance relating only to items where quantities increased beyond 125 *per cent* does not arise, as the original work was not insured.

## **VIDC**

In VIDC, an amount of ₹ 2.38 crore was included in the estimates of three works on account of insurance charges. However, the amount of insurance premium paid for these works as noticed from the premium receipts submitted by the contractors was actually valued at ₹ 0.50 crore only. Thus, excess insurance charges of ₹ 1.88 crore included in the estimates rendered an undue benefit to the contractors to that extent. The Government stated (July 2013) that contractors were the lowest bidders and quoted considering actual insurance amount required. However, the justification of contractors for quoted tender rates was not provided in support of reply.

### **3.3.6 Undue benefit to contractors**

#### **3.3.6.1 Release of final bill pending recovery of excess payment**

Construction of earthen dam, ungate spillway, tail and head regulator of Pimpalgaon (Dhale) medium irrigation project under MKVDC was entrusted to M/s Patil and Company at a cost of ₹ 9.28 crore (4.95 *per cent* above the estimated cost) in March 1997. The stipulated date of completion was March 2000. After incurring expenditure of ₹ 40.03 crore, the work was completed in September 2008.

As per Clause 55 (2) of the contract, where total quantity for excavation in soft and hard strata exceeds 125 *per cent* of the total tendered quantity, the excess quantity would be distributed in the ratio of quantity of individual item executed to total quantity executed and will be paid as per Clause 38 (2) of the contract. Audit observed that payment for excess quantity (beyond 125 *per cent* of the tendered quantity) on account of excavation in soft and hard strata was in contravention of tender Clause 55(2) which resulted in an excess payment of ₹ 1.79 crore to the contractor (November 2009). Anticipating recovery of excess amount by the project authorities, the contractor filed (December 2006 ) a Civil Suit in the District Court, Solapur. The District Court issued a stay order (August 2008) on the recovery of the amount till issue of final orders. In November 2008, the CE, Specified Projects directed the SE, Bhima Canal Circle to fix the responsibility and initiate disciplinary action against the officials concerned for non-invoking of tender Clause 55 (2) while determining excess quantity in excavation of soft and hard strata and payment thereof. However, there was no evidence on record to indicate that action was taken against the concerned officials.

Audit further observed that while the matter was still *sub judice*, EE, Minor Irrigation Division, Solapur paid (November 2009 and January 2010) ₹ 2.85 crore to the contractor towards his final bill and security deposit of ₹ 38.31 lakh was also refunded (April 2010 and November 2011) to the contractor thereby jeopardising the financial interest of the Department. The final order of the Court was awaited (July 2013).

The Government accepted (July 2013) the facts and stated that an explanation from the officers responsible was called for (December 2012) by CE (Specified Projects), Pune. Further action in this regard was awaited (October 2013).

### 3.3.6.2 Irregular payment of excess quantities

MKVDC accorded (February 2000) AA of ₹ 8.18 crore for construction of minor irrigation tank (MI tank) at Niwakne. In a review meeting held in May 2000, the Minister for Public Works suggested increase in height<sup>90</sup> of the dam on the demand by the local population. Accordingly, the revised estimates of ₹ 19.87 crore for the dam with increased height was submitted by the EE in May 2001, which was approved by MKVDC in June 2002.

Audit observed that even though the issue of increase in dam height was under consideration (May 2000), MKVDC awarded a lump sum contract 'C' tender to M/s Maruthi Civil Works, Navi Mumbai in June 2000 for construction of dam with original height of 37.80 meters at a total cost of ₹ 5.87 crore. However, approval of the revised estimates subsequently (for increase in dam height up to 50.80 metres) necessitated incorporation of excess quantities in the work after its award in June 2000. The award of work when increase in the height of the dam was under consideration was irregular. Moreover, increase in height of the dam on the demand of the local representative indicated that the stakeholders were not consulted before the project was awarded. Award of the 'C' tender before final decision to increase the height of the dam also resulted in increase in cost by ₹ 26.29 crore<sup>91</sup> up to June 2013.

### 3.3.6.3 Change in contract condition

Work order of ₹ 185.03 crore (DSR of 2000-01)<sup>92</sup> for construction of Mumari dam (under Bhatsa irrigation project of KIDC) was issued (February 2009) to M/s Noble India Construction Company to be completed in 60 months. As per tender conditions, the payment for price variation was to be regulated based on the price index of three components<sup>93</sup> prevailing in the month preceding the month in which the work actually commenced.

<sup>90</sup> As per AA: 37.80 meter; Revised height: 50.80 meter as decided in the review meeting held in May 2000

<sup>91</sup> Being the difference of expenditure up to June 2013 *i.e.* ₹ 34.47 crore less cost of original AA *i.e.* ₹ 8.18 crore

<sup>92</sup> Though the estimates were prepared based on DSR 2000-01, the work on the project was not taken up as acquisition of forest land was pending. After in-principle approval for forest land by MoEF in July 2008, tenders were invited and work order was issued in February 2009

<sup>93</sup> Material, labour and petrol, oil and lubricants

Audit observed that upon request of the contractor (May 2010), KIDC renegotiated the contract for ₹ 173.03 crore and issued a revised work order (June 2010)<sup>94</sup> by amending<sup>95</sup> the original price variation clause, which was likely to render substantial financial benefits to the contractor. The revision of price variation clause subsequent to issue of work order violated the principles of equity in tendering and resulted in undue favour to the contractor as the clause was not known to other bidders and the change was made subsequent to bidding procedure and issue of work order. As of November 2013, the work has not commenced due to non acquisition of forest land.

The Government stated (July 2013) that revised negotiations were done after removing the earlier condition in price variation and the contractor's new offer was much lower than his previous offer. The Government further stated that provision for balance net present value of ₹ 34.53 crore was made in the budget for 2013-14 and work would start after payment of this amount to the Forest Department. The reply is not acceptable as post-award negotiations vitiated the tendering process and KIDC should have retendered the work in order to obtain competitive rates. Further, award of work without acquisition of forest land also contravened paragraph 251 of the MPW Manual.

### **3.4 Monitoring**

#### **3.4.1 Internal control mechanism**

Internal control is an integral component of an organisation's management process. It is intended to give a reasonable assurance to the management that the operations are carried out according to laid down rules and regulations in promoting orderly service consistent with the organisation's mission.

#### **3.4.2 Monitoring by the Governing Council**

The GC of the IDCs functions as the monitoring body to review the financial and physical progress of the projects on behalf of each IDC. The IDCs were required to convene meetings once in a month as per Clause 7(1) of respective IDC Acts. The Minister of Water Resources Department is the Chairman of the GC and the Secretaries Finance, Revenue and Forest and Planning departments are the *ex-officio* members of the GC.

Further, as per Governor's Directives dated 15 December 2001, one member from the Regional Development Boards (Rest of Maharashtra, Marathwada and Vidarbha) was to be the part of GC so as to ensure equitable and balanced regional development. GoM issued directives (December 2003) for appointment of members of respective Development Boards in GC of IDCs.

Details of meetings conducted in various IDCs and shortfalls are discussed in the **Table 3.20**.

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<sup>94</sup> The date of completion was same as the original work order

<sup>95</sup> As per the amended Clause, the contractor was expected to get the benefit of escalation between the base index of the quarter preceding the month in which the tender was accepted (December 2008) and the month preceding the month in which the work actually commenced

Table 3.20: Status of GC meetings to be held *vis-a-vis* actually held

1	2	3
MKVDC	206 (1996 -2013)/ 75	It was noticed that issues such as preparation of long term and annual plans for completion of irrigation projects, constraints in completion of projects were not discussed in the GC meetings. The Chief Secretary, Secretaries of RFD (Relief and Rehabilitation), Finance Department, Planning Department and Agriculture Department, who were the members of GC never attended the meeting held during 2007-08 to 2011-12.  In the second meeting of the GC held in June 1996, an important decision regarding delegation of powers to accord AAs to ED was taken. The meeting was however, attended by only six out of 22 members. The MKVDC also did not frame rules as per the Act specifying the quorum for the meeting.
GMIDC	174 (1998-2013)/ 50	There was no discussion on preparation and implementation of long term and medium term plans to speed up the creation of IP and its effective utilisation. The GMIDC also did not frame rules as per the Act specifying the quorum for the meeting.
VIDC	192 (1997-2013)/ 52	The <i>ex-officio</i> members from financial institutions, Legislative Assembly/Council did not attend any of the meetings. Absence of key members in GC meetings defeated the purpose of establishment of an effective monitoring system.
KIDC	180 (1998-2013)/ 55	It was seen from the annual reports of KIDC that no members of concerned Development Board (Board for rest of the Maharashtra) were included in the GC of KIDC, except for the period from 16 October 2006 to 16 October 2008.
TIDC	183 (1998-2013)/ 44	There was no discussion on preparation and implementation of long term, medium term and annual plans to speed up the creation of IP and its effective utilisation.
	935/ 276	

Audit observed that monitoring and internal controls in WRD was weak as the projects were executed without obtaining environmental and forest clearances; issues relating to rehabilitation of PAPs were not adequately addressed; and project and contract managements were deficient, leading to time and cost overruns. Further, rampant increase of arrears in collection of water charges (**Paragraph 6.2**) was another indicator of weak internal controls in the Department. No norms for site visits by Controlling Officers (Executive Director, Chief Engineer and Superintending Engineer) were fixed and the adequacy of monitoring and supervision conducted at various supervisory and controlling levels could not be ascertained. Compliance to the inspection notes of the Quality Control Organisation on the construction works was also poor.

The Management Information System was poor. The data furnished in Water Account<sup>96</sup> of individual irrigation projects are compiled in Irrigation Status

<sup>96</sup> Water Account is the primary data of a project prepared by the Division executing the project and containing information about the water storage, its utilisation and balance existing as on end of June each year

Report (RISR) of the region, which further gets compiled in the ISR<sup>97</sup> of the State. However, there were discrepancies in the number of projects, IP created, IP utilized, designed storage, actual storage and use of water in RISR and ISR, apart from discrepancies in the number of projects indicated in ISR and that indicated in the Economic Survey Reports (**Appendix 3.8**).

The Government stated (July 2013) that the meetings of GC were held as and when the issues concerned with the GC arose. The fact remained that the provisions of the Act for holding monthly meetings was violated by all the five IDCs.

Regarding MIS, the Government stated (August 2013) that the matter is being examined and the figures will be reconciled.

### **3.4.3 Role of Maharashtra Water Resources Regulatory Authority**

As already pointed out in paragraph 2.2.1, Section 21 (1) of the MWRRA Act, 2005 vested the Authority with special responsibility for removal of irrigation backlog as per the Governor's directives. In addition, the powers and functions of MWRRA as per Section 11 of the MWRRA Act, 2005 were to:

- a) determine the distribution of entitlements (quantum of water) for various categories of use (sectoral allocation amongst agriculture, drinking and industrial) and the equitable distribution of entitlements of water within each category of use on such terms and conditions as may be prescribed;
- b) enforce the decision or orders issued under the Act;
- c) determine the priority of equitable distribution of water available at the water resource project, sub-basin and river basin levels during periods of scarcity;
- d) establish a water tariff system and to fix the criteria for water charges at sub-basin, river basin and State level after ascertaining the views of the beneficiary public, based on the principle that the water charges shall reflect the full recovery of the cost of the irrigation management, administration, operation and maintenance of water resources project; and
- e) administer and manage interstate water resources apportionment on river systems of the State.

In this connection Audit observed that:

- MWRRA did not determine the sectoral allocation of water though empowered under the Act (refer (a) above) and the High Power Committee (HPC) constituted earlier in January 2003 headed by the Minister, Water Resources continued to determine the sectoral allocation up to January 2011. Thus, an important function envisaged in the Act was not exercised by MWRRA despite a lapse of six years of its establishment. In April 2011, the MRRWA Act, 2005 was amended and the role of the HPC constituted by GoM in January 2003 allocating water to any person or a water user entity was recognised under the Act. The

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<sup>97</sup> Annual report showing status of live storage in the reservoirs as on 15 October, total yield and utilisation of water, IP utilised from project canals, wells, river/nallas, the season and crop-wise utilisation of IP during the irrigation year *etc.*



amended Act further provided that the GoM would be responsible<sup>98</sup> for the sectoral allocation of water. The amendment was made effective retrospectively from June 2005, when MWRRA came into existence. It can thus, be seen that the responsibility of MWRRA for sectoral allocation of water was first taken over by the HPC and subsequently, ratified by an amendment, its functions were taken over by the GoM.

- The original powers conferred on the MWRRA enabled it to determine the entitlements for various categories of use for the entire river basin. However, the amendment to the Act in April 2011 restricted the jurisdiction of MWRRA to determine the entitlements to such area as delineated by the Maharashtra Management of Irrigation System by Farmers (MMISF) Act, 2005, where water is to be provided to the water users' association through public canal system.
- MWRRA did not determine the priority of equitable distribution of water during periods of scarcity. As per the draft Rules to the Act proposed by GoM (August 2012), the powers to determine equitable distribution of water during scarcity, after meeting drinking water requirements, was to be decided by the river basin agencies *i.e.* the IDCs. In the exit conference (July 2013), the Principal Secretary, WRD, stated that the process of determining equitable distribution of water during scarcity has been started.
- The Authority fixed the bulk water tariff for irrigation, industrial and domestic consumption with effect from May 2011 *i.e.* after a period of more than six years of its constitution.

The MWRRA thus, failed to perform its role as a regulator, as the envisaged major functions were not exercised by it.

#### 3.4.4 State Level Technical Advisory Committee

In accordance with the State water Policy of 2003, the GoM restructured the WRD in October 2010 and constituted a State Level Technical Advisory Committee (SLTAC) consisting initially of four<sup>99</sup> members. The SLTAC was to scrutinize proposals valuing ₹ 25 crore and above pertaining to AA and RAA of water resources projects (prior to constitution of SLTAC, the proposals were scrutinized by GoM).

In order to facilitate expeditious clearance to AAs/RAAs related to the Minor Irrigation (MI) projects, the GoM, as per directions of the GoI (December 2010), included in October 2011 the CE, Local Sector and the Regional CE of the concerned projects and the representative of Central Water Commission for the projects under AIBP as invitees to the SLTAC. Further, the Director (Monitoring) CWC, Nagpur was also included (May 2012) as the member of SLTAC for the MI projects under AIBP.

Audit observed the following:

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<sup>98</sup> By adding Section 16 A to the MWRRA Act, 2005 in the said amendment of April 2011  
<sup>99</sup> Director General DTHRS, Nashik; CE DTHRS, Nashik; CE Planning and Hydrology, Nashik; SE Data Collection, Planning and Hydrology, Nashik

- The GoM took almost a year, after issue of GoI directives, to include the representative of the CWC as a member.
- GoM did not prepare any Rules/Manuals for the SLTAC. As such, the scrutiny of the documents received along with proposals was being done by the SLTAC without any prescribed guidelines.
- Though SLTAC was established in October 2010, the time limit for clearance of AAs and RAAs of the projects (34 days; including holidays) was stipulated by GoM only in September 2011. Scrutiny revealed that of the 81 proposals received between January 2011 and December 2011, the SLTAC cleared 27 proposals after a period ranging from 45 to 394 days. The SLTAC attributed the delays in clearance of proposals to delay in receipt of full and final compliance to the queries raised by them from the field offices.