Chapter III

3.1 Compliance Audit on Construction of Pench Diversion Project

3.2 Audit Paragraphs

Chapter-III

Compliance Audits

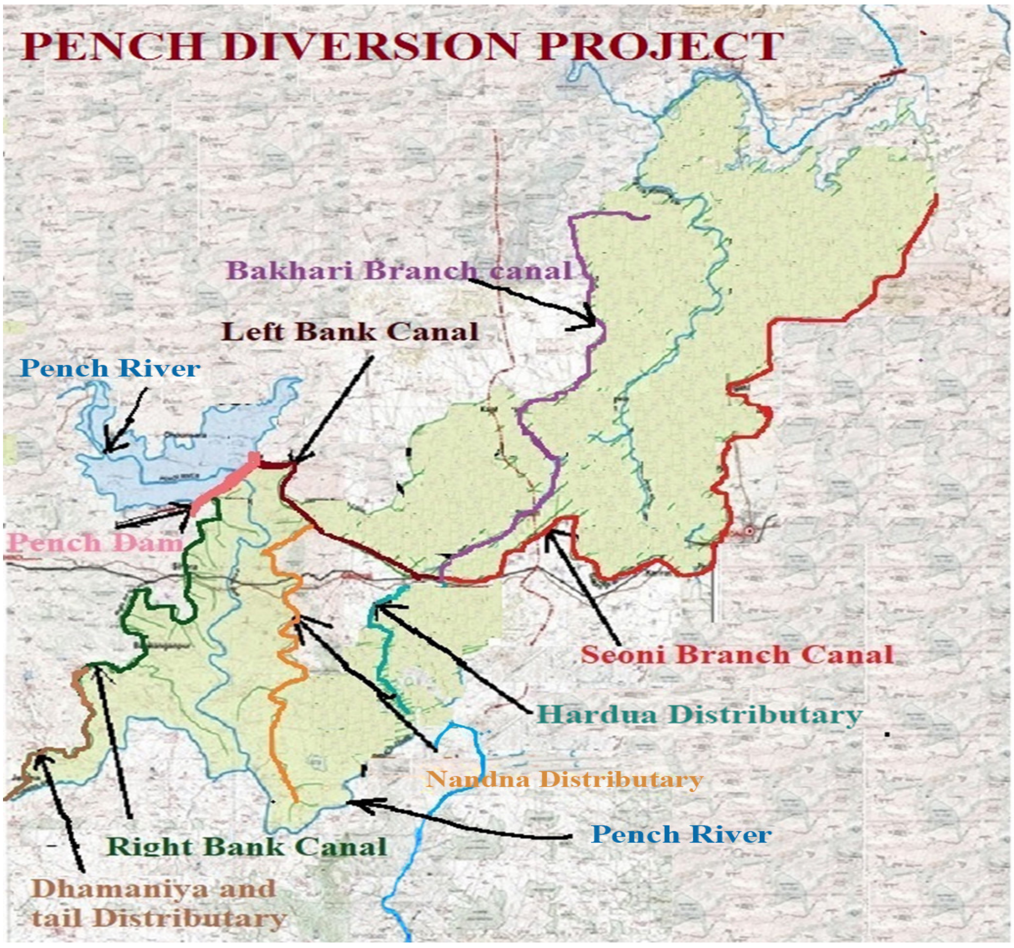
Water Resources Department

3.1 Construction of Pench Diversion Project

3.1.1 Introduction

Pench Diversion Project was taken up in 1987-88 with the objective of providing irrigation in Pench Sub-basin and to divert the water from Pench Sub-basin to Wainganga Sub-basin for irrigating the upper lands of Wainganga Sub-basin. The Project envisaged construction of 5.97 km long earthen dam (42 metre height) and 360 metre long concrete dam (46.5 metre height), across river Pench in Chhindwara district. The canal systems under the project aimed at providing irrigation facility to 85,000 hectare of net culturable command area (CCA) in Chhindwara and Seoni districts. The project was also to provide 7.40 million cubic metres (MCM) domestic water supply to both districts, besides providing 61.68 MCM of water supply for thermal power projects.

The construction of the Pench Diversion Project was taken up in two phases of five years each. Phase-I of the project included construction of dam, entire Right Bank Canal (RBC) system and initial reach of Left Bank Canal (LBC) from zero km to seven km. Phase-II of the project comprised of construction of remaining LBC from seven km to 20.07 km, Seoni Branch Canal, Bakhari Branch Canal off-taking from 20.07 km of LBC and their distribution network.



3.1.1.1 Project cost

The details of administrative approval for Pench Diversion Project by the Government of Madhya Pradesh (GoMP) are given in **Table 3.1.1**.

Table 3.1.1: Administrative Approvals for Pench Diversion Project by GoMP

(₹ in crore)

Month/Year of administrative approval	Approved cost	Target for completion (Years)
April 1988	91.60 (Phase-I only)	1998
September 2003	543.20	2012
September 2013	1,733.06	2015
September 2016	2,544.57	2017

(Source: Orders for administrative approval and detailed project reports)

In April 2006, Planning Commission, Government of India (GoI) approved the project for investment of ₹ 583.40 crore under State Plan for completing it by the financial year 2011-12. Phase-I of the project was included for funding under the Accelerated Irrigation Benefit Programme (AIBP) with 25 *per cent* Central share and 75 *per cent* State share during 2007-08 to 2009-10.

As on September 2017, ₹ 1,978.24 crore was incurred on the project, which included expenditure of ₹ 1,256.37 crore on the dam and ₹ 721.87 crore on the canal system. GoI had sanctioned (November 2017) the project under Fast Track Proforma Clearance with an estimated cost of ₹ 2,544.57 crore for its completion during 2019-20.

3.1.1.2 Organisational set up

Pench Diversion Project is implemented by the Water Resources Department (WRD) of GoMP. The Principal Secretary (PS), WRD is the head at Government level and Engineer-in-Chief (E-in-C) is the administrative head of the Department. At the field level, Chief Engineer (CE), Wainganga Basin, Seoni is responsible for implementation of the project. CE is assisted by Superintending Engineer (SE), Chhindwara, Executive Engineer (EE), Dam Division, Chourai, Chhindwara and EE, Canal Division, Singna, Chhindwara along with the supporting engineers/staff.

3.1.1.3 Scope of Audit

The audit of 'Construction of Pench Diversion Project' was conducted covering the period from 2012-13 to 2016-17. During this period, WRD incurred expenditure of ₹ 1,679.70 crore on the project, which is 85 *per cent* of the total project expenditure of ₹ 1,973.47 crore as on March 2017. The audit objectives were to ascertain whether the execution of the project was efficient and economical; and, whether quality control and monitoring mechanism was effective. Planning, creation and utilisation of irrigation potential (IP) and fund management for the execution of project were also examined.

The objectives, criteria, scope and methodology of audit were discussed with PS, WRD in the entry conference held on 04 April 2017. During the audit, records were examined at the apex level, in the offices of Major Project Control Board[37] and E-in-C, and at the field level, in the offices of respective

[37] Major Project Control Board, presided by Chief Minister, is a control board for execution of major irrigation multipurpose projects of the State selected by the State Government.

CE, SE and EEs. The draft report was issued to WRD in August 2017. The audit findings were also discussed in the exit conference with PS, WRD held on 27 October 2017. A revised draft report incorporating the views expressed during exit conference, was issued to the Department in March 2018. The replies of Department/field offices have been suitably included in the report. However, the replies on the revised report were awaited as of May 2018.

Audit findings

3.1.2 Financing for the project

Audit scrutiny revealed that the project was not approved for financial assistance under AIBP during 2012-13 to 2016-17. The revised cost estimate of ₹ 1733.06 crore of the project was forwarded (September 2013) to Central Water Commission (CWC)[38], GoI. CWC in its various communications (March 2014, June 2014, November 2014, January 2015 and May 2015) sought details of cost estimates with adequate survey and investigation, alignment survey and cross section of branch canals, clarifications on land acquisition and status of approval of Ministry of Tribal Affairs on rehabilitation and resettlement of tribal population.

CE, Wainganga Basin, being engineer of the project, was responsible for providing timely and complete information to CWC. However, information submitted to CWC were only partial. As a result, CWC informed the State Government in December 2016 that the revised cost estimate of Pench Diversion Project was treated as sent back and deleted from the list of projects under appraisal in CWC. Thus, due to delays on the part of WRD to provide information to GoI, the revised estimate of the project was not cleared by CWC and the project could not be funded under AIBP during the period 2012-13 to 2016-17.

WRD, however, continued to account the budget provision and expenditure for Pench Diversion Project under the head 'Additional Central Assistance' in the Detailed Appropriation Accounts. During the period 2012-13 to 2016-17, GoMP incurred ₹ 1,679.70 crore on the project. However, the release of proportionate central assistance of ₹ 419.92 crore[39] under AIBP was not assured in the absence of investment clearance from the Planning Commission during 2012-13 onwards.

In the exit conference (October 2017), PS, WRD stated that the proposal for fast track clearance under AIBP was under submission.

Further scrutiny of records (February 2018) revealed that the sanction of GoI (November 2017) for the project under Fast Track Proforma Clearance included cost of AIBP component of ₹ 1,564.79 crore for Phase-I (approved AIBP component cost - ₹ 310.78 crore in December 2007). Thus, there remained lack of clarity over funding for Phase-II of the project under AIBP as well as reimbursement of central assistance for expenditure already incurred by GoMP on both phases of the project.

38 CWC is responsible for carrying out techno-economic appraisal of irrigation, flood control and multipurpose project proposed by the State Governments.

39 Calculated on the basis of State-GoI ratio (75:25) approved for project funding under AIBP during 2007-08 to 2009-10.

3.1.2.1 Utilisation of funds

Funds for the project are provided through the State budget. Out of total expenditure of ₹ 1,973.47 crore incurred on project up to March 2017, ₹ 16.38 crore was provided by GoI as Additional Central Assistance under AIBP during 2007-08 to 2009-10 and the remaining ₹ 1,957.09 crore was met from State resources. The budget provision and expenditure on the implementation of project during 2012-13 to 2016-17 was as detailed in **Table 3.1.2**.

Table 3.1.2: Budget Allotment and Expenditure

(₹ in crore)

Year	Budget provision			Total allotment	Expenditure	Utilisation (*per cent*)
	Original	Supplementary	Reappropriation			
2012-13	128.61	1.09	(-)59.70	70.00	69.50	99.29
2013-14	103.53	50.00	16.79	170.32	169.92	99.77
2014-15	203.62	150.00	21.67[40]	375.29	375.29	100.00
2015-16	503.76	195.00	53.95	752.71	751.98	99.90
2016-17	303.14	50.00	(-)39.85	313.29	313.01	99.91
Total	**1,242.66**	**446.09**	**(-)7.14**	**1,681.61**	**1,679.70**	

(Source: Detailed Appropriation Account and information provided by Department)

The project had been able to absorb the allotted funds during 2012-13 to 2016-17. However, the targeted physical progress could not be achieved due to delays in execution of canal systems, as discussed in succeeding paragraphs.

3.1.3 Project Implementation

The project consisted of two parts, viz., head work (construction of dam) and construction of canal system. Audit noticed that earthen dam, non-overflow section of the dam and nalla closure[41] were completed by June 2016. The overflow section[42] of dam was completed in November 2017.

Table 3.1.3: Details of progress in construction of dam

Component of work	Date of work order	Stipulated completion	Actual date of completion
Earthen dam section	October 2008	October 2010	Terminated on July 2010
	November 2011	August 2013	June 2016
Over flow section of dam	October 2010	April 2013	November 2017
Non-over flow section of dam	May 2013	November 2014	October 2015

(Source: Records of EE, Canal Division)

Audit noticed that the delays in construction of dam work were attributed to hindrances due to agitation of people residing in the submergence area, change in the location of spill way[43] of the dam as per recommendation made during

40 This includes re-appropriation of ₹ 22.44 crore, not included in the detailed appropriation accounts due to delayed receipt of re-appropriation order by Principal Accountant General (Accounts and Entitlement) MP from WRD.

41 Nalla closure of the dam is the stage at which the river is closed and water starts filling in the dam.

42 Overflow section is built to allow the overflow of surplus water above the top of it. The contract was initially awarded for both overflow and non-overflow sections. However, the non-over flow section was subsequently withdrawn from the scope and this was awarded to another contractor.

43 Spill way is a structure used to provide the controlled release of flow of excess water from a dam into downstream area.

joint inspection (October 2012) of Geological Survey of India, CWC and WRD and withdrawal of non-over flow section of the dam work from original contractor due to increase in quantity of work in view of changed location of spill way and its retendering.

3.1.3.1 Delay in execution of canal works

The construction works of canal and distribution network was awarded to six contractors between September 2012 and October 2013 as detailed in **Table 3.1.4.**

Table 3.1.4: Details of contracts for canals and distribution network

Name of work	Nature of contract	Date of work order	Scheduled completion date
Construction of Hydraulic Tunnel (agreement no. 01/2012-13)	Turnkey contract	13-09-2012	12-03-2015
Construction of Seoni Branch Canal (agreement no. 01/2013-14)	Turnkey contract	13-05-2013	12-05-2015
Construction of Bakhari Branch Canal (agreement no. 02/2013-14)	Turnkey contract	24-07-2013	23-01-2015
Construction of Nandna and Hardua distributary (agreement no. 03/2013-14)	Turnkey contract	08-08-2013	07-02-2015
Construction of Dhamaniya and tail distributary (agreement no. 04/2013-14)	Turnkey contract	08-08-2013	07-02-2015
Construction of LBC and RBC (agreement no. 05/2013-14)	Percentage rate contract[44]	12-10-2013	11-04-2015

(Source: Records of EE, Canal Division)

Audit scrutiny revealed that the work of 'Construction of Hydraulic Tunnel' was completed in October 2016. However, the works under other contracts have not been completed as detailed in **Table 3.1.5**.

Table 3.1.5: Financial Progress of works in canal works

Name of works	By scheduled completion date	By the end of 1st time extension	By the end of 2nd time extension	By the end of 3rd time extension
Seoni Branch Canal and its distribution network	50 *per cent* (May 2015)	61 *per cent* (June 2016)	66 *per cent* (December 2016)	Time extension was granted till June 2018
Bakhari Branch Canal and its distribution network	30 *per cent* (January 2015)	70 *per cent* (December 2015)	83 *per cent* (June 2016)	92 *per cent* (June 2017)
Nandna and Hardua Distributaries and its distribution network	5 *per cent* (February 2015)	15 *per cent* (April 2016)	19 *per cent* (May 2017)	19 *per cent* (Due to slow progress, contract was terminated in August 2017)
Dhamaniya distributaries and its distribution network	6 *per cent* (February 2015)	31 *per cent* (May 2016)	32 *per cent* (December 2016)	34 *per cent* (Due to slow progress, contract was terminated in August 2017, which was subsequently revoked in January 2018)
Construction of LBC and RBC	50 *per cent* (April 2015)	65 *per cent* (December 2015)	79 *per cent* (June 2016)	82 *per cent* (December 2016) (Due to slow progress, contract was terminated in December 2017)

(Source: Records of EE, Canal Division)

44 Under this contract, the contractor has to quote the percentage (above/below/at par) of estimated cost published in the Notice Inviting Tender (NIT). All the items of the work are measured and paid on this quoted percentage rate.

As per clause 115.1 of the standard turnkey agreements[45] and clause 4.3.2 (ii) of the percentage rate agreement, the contractor shall have to pay penalty at the rate of 0.5 *per cent* per week of the total contract value, subject to a maximum of 10 *per cent* of the total contract value, in the event of delay in execution of the works. For the purposes of penalty, the entire work was divided into milestones consisting of two quarters and penalty clause was to be applied automatically for delay in achieving any of the milestones and would continue until the said milestone was achieved.

The contract wise analysis for reasons of delays in canal works is detailed below:

- **Construction of Seoni Branch Canal**

Under the turnkey agreements, the contractor was responsible for preparation and submission of proposals for land acquisition (LA) cases to EE who would further submit these proposals to respective authorities. After approval, the contractor was required to follow up finalisation of awards for timely acquisition by revenue authorities. Contractors were required to submit all proposals for LA cases in the first three quarters.

The contractor[46] was granted (May 2015) first time extension up to June 2016 for completion of Seoni Branch Canal on the ground of hindrance by farmers demanding revised compensation. Audit observed that EE did not properly examine the delays on the part of contractor. The proposals for LA cases and drawings of structures, which were to be submitted by the contractor up to January 2014, were not submitted in their entirety even till March 2017.

Subsequent time extensions were granted to contractor up to June 2018 in the interest of work reserving the right to impose penalty. While recommending (March 2017) the proposal for time extension received from EE, SE noted that the contractor was responsible for delay in submission of LA cases. However, SE did not analyse the period of delays attributable to contractor and penalty to be levied for non-achievement of milestones.

Audit noticed that the contractor did not execute any work during January 2017 to September 2017. EE forwarded (September 2017) the proposal to SE for termination of the contract under clause 115.3 of the agreement which stipulates that total delays in excess of one hundred days (reasons attributable to the contractor) will cause termination of the contract and forfeiture of all security deposits and performance securities. However, the contract was not terminated and penalty was also not imposed on the contractor, which resulted in undue benefit of ₹ 14.55 crore[47] to the contractor.

- **Construction of Bakhari Branch Canal and its distribution network**

As on March 2017, contractor[48] had executed entire work (34.50 kilometre) of Bakhari Barnch Canal (main canal) and 103.44 kilometre (82 *per cent*) of minor and distributary. The work was scheduled to be completed up to January 2015. Subsequently, four time extensions up to June 2018 were

[45] Under Section III of Vol II of turnkey agreement
[46] Sarala Mantena MP JV (joint venture of Sarala Project Works Private Limited and Mantena Infra, Hyderabad)
[47] At the rate of 10 *per cent* of contract amount of ₹ 145.50 crore
[48] Sarala Mantena MP JV (joint venture of Sarala Project Works Private Limited and Mantena Infra, Hyderabad)

granted on the ground of delays in land acquisition not attributable to contractor.

- **Construction of Nandna and Hardua distributary**

Audit observed that there was no progress of work in the construction of Nandna and Hardua distributary by the end of the first milestone in February 2014. The contractor[49] could not achieve any of the milestones by the end of stipulated period of contract (February 2015). Survey work of minors and sub distributaries were not submitted. The land acquisition cases of Nandna distributary (from 17.76 kilometre to 30.60 kilometre) and Hardua distributary (from 8.30 kilometre to 11.26 kilometre) were not submitted by the contractor. Contractor could complete the earth work of 13 kilometre out of 30.16 kilometre canal of Nandna distributary and 700 metre out of 13.50 kilometre canal of Hardua distributary by February 2015.

Due to slow progress in the works, the contract was terminated by the CE in February 2015. However, EE did not enforce the termination and the same contractor continued the execution of canal works. Later on, the CE also granted time extension up to May 2017 to the contractor. Reasons for non-enforcement of CE's order for termination of contract were not recorded by the EE and CE. Audit further observed that the progress of the work after February 2015 remained low (14 *per cent*) due to delays attributable to contractor in submission of drawings of structures and proposals for land acquisition.

The contract was finally terminated in August 2017. However, penalty was neither proposed by EE and SE nor imposed by the CE, which was to be automatically applied for non-achievement of first milestone since February 2014. Non-imposition of penalty resulted in undue benefit of ₹ 12.65 crore[50] to the contractor.

- **Construction of Dhamaniya and tail distributary**

The first time extension up to May 2016 was granted (March 2015) to the contractor[51] on the ground of hindrance to work by farmers demanding revised compensation for land acquisition. By the end of May 2016, contractor could achieve only 31 *per cent* of financial progress and sought for further time extension up to December 2016 on the grounds of non-availability of work fronts due to delays in payments of the compensation to farmers and non-availability of blasting material. While recommending the time extension case to CE, EE and SE concurred with these reasons for delay in the work. Audit scrutiny, however, revealed that EE and SE did not take into account non-submission of land acquisition proposals by the contractor which led to non-availability of work fronts. Subsequently, CE granted (March 2016) the second time extension up to December 2016 by reserving the right to impose penalty.

Audit observed that contractor could complete only one *per cent* of the work during the second time extension (up to December 2016) and two *per cent* of the work during third time extension (up to December 2017). There was no hindrance to the work by farmers and slow progress was attributable to delays in submission of land acquisition cases by the contractor, non-deployment of

---

[49] HES Infra Private Limited, Hyderabad
[50] At the rate of 10 *per cent* of contract amount of ₹ 126.50 crore
[51] HES Infra Private Limited, Hyderabad

sufficient machinery and non-submission of drawings of structures. Under the revised milestone, the contractor had to submit all the land acquisition proposals by July 2016. This was not achieved. Further, due to non-submission of proposals for land acquisition by the contractor, the notifications published (August 2016) for land acquisition in 30 villages also automatically got cancelled (August 2017).

Despite these delays on the part of the contractor, no penalty was proposed by EE though it was automatically to be applied for non-achievement of milestones. SE and CE also did not examine the case for imposition of penalty during review of the work for time extensions. Non-imposition of penalty resulted in undue benefit of ₹ 7.65 crore[52] to the contractor.

The contract was subsequently terminated (August 2017) by EE on the orders of CE on the grounds of delays by the contractor in submission of land acquisition cases, non-submission of drawings of structures, very slow progress in the work during working season of last two years, contractor's lack of interest in completing the work, etc. However, SE revoked (4 January 2018) the termination after contractor requested (23 December 2017) for a hearing to resolve the issue amicably.

Audit scrutiny revealed that there was no provision in the contract for revoking the termination order. The revocation order cited the recommendation of EE as well as the minutes of a meeting (5-6 December 2017) held by Additional Chief Secretary, WRD as the grounds for revocation. However, the said minutes of the meeting only directed CE to take decision on the appeal by the contractor and re-tendering of the work, if required. Further, the recommendation of EE (30 December 2017) was not based on any analysis of records submitted by the contractor and it merely stated that the recommendation for revocation was issued in the interest of providing immediate irrigation facility to farmer.

Thus, SE and EE were complicit in irregular decision of revoking the contractor's termination. However, no action was taken to levy penalty of ₹ 7.65 crore for delays attributable to contractor on the grounds cited in the termination order. Besides, the indecisiveness of WRD in re-tendering the work, after termination of contract, further delayed the construction work of Dhamaniya and tail distributary.

- **Construction of LBC and RBC**

This work was awarded (October 2013) on percentage rate contract for completion by April 2015. However, the contractor[53] could complete only 50 *per cent* of work up to the scheduled completion period. Time extension was granted up to December 2015 on the ground of hindrance by farmers demanding more compensation for land acquisition.

Audit observed that the land acquisition for the canal was already completed before awarding the work. The work was delayed mainly due to non-deployment of sufficient machinery and manpower by the contractor. Though contractor could execute only 15 *per cent* of work in this extended period (May 2015 to December 2015), penalty for slow progress was not imposed and further time extensions up to December 2016 were granted. Non-

[52] At the rate of 10 *per cent* of contract amount of ₹ 76.50 crore

[53] MASS Infrastructure Private Limited, Vadodara

imposition of penalty resulted in undue benefit of ₹ 6.50 crore[54] to the contractor for which EE, SE and CE were responsible.

In view of slow progress of work by the contractor, the earth work was partly withdrawn (December 2016) from the contractor. Out of these withdrawn earthworks, works valued at ₹ 3.55 crore were awarded to two contractors and the work of ₹ 37.26 lakh was executed departmentally. The withdrawn works were completed by February 2017.

Further scrutiny revealed that no time extension was granted to the contractor after December 2016 and contractor also did not execute any work during January 2017 to December 2017. Further, reasons for not taking any decision for extension or termination of the contract in December 2016 were not available on record. Indecisiveness of the field level departmental officers (CE, SE and EE) further delayed the execution of work by one year. The contract was eventually terminated in December 2017 without imposition of penalty. It was also observed that though CE had reserved the right to impose penalty at the time of granting periodic time extensions, no action to impose penalty was taken for reasons not on record.

As discussed above, the construction of canals in Pench Diversion Project could not be completed due to delays in land acquisition and slow progress in works by contractors. The land acquisition, which was essentially a statutory process, was delegated to contractors under the turnkey agreement who delayed the preparation of proposals for land acquisition. The cases of time extensions were approved without adequate analysis of reasons for delays. While letters were issued to contractors for expediting the works, these correspondence were not taken into account at the time granting extension. Penalties were not imposed as per provisions of the agreement, even in cases where delays on the part of contractors were apparent. In view of slow progress in works, E-in-C had directed (November 2016) the CE to take statutory action against the contractors under the contracts of Nandna distributary canal and Dhamaniya distributary canal. However, no action was taken. Thus, the field level officers (CE, SE and EE) had adopted flexible approach towards contractors, which contributed to delay in the execution of canal works.

In the exit conference (October 2017), the PS, WRD accepted the observation regarding delays in completion of project and non-imposition of penalty on contractors and assured to examine the matter and take appropriate action. Further action in this regard was awaited (May 2018).

Recommendation

WRD should review all cases of delays in construction of canals to fix the accountability of contractors and penalty may be imposed as per provisions of agreements. WRD should also review all instances of inaction/failure to levy penalty by departmental officers for appropriate departmental action. WRD should also review the irregular revocation of contract's termination order in the construction of Dhamaniya and tail distributary from a vigilance angle.

3.1.3.2 Creation of less irrigation potential

Out of designed irrigation potential (IP) of 85,000 hectare, the achievement was 17,100 hectare as on March 2017 due to slow progress in canal works as

[54] At the rate of 10 *per cent* of contract amount of ₹ 64.98 crore

detailed in para 3.1.3.1 and low priority in construction of distribution network. The construction of Jamunia micro irrigation scheme (designed IP of 10,000 hectare) was yet to be started and the status of construction of other canals was as detailed in **Table 3.1.6**.

Table 3.1.6: Construction of main canals and its distribution network as on March 2017

Parent Canal	Canal/ Distributary	Designed length (km)	Completed length (km)	Distribution network	Designed length (km)	Completed length (km)	Designed IP (ha)	Created IP (ha)
RBC	RBC	30.20	30.20	16 minor, Dhamaniya and tail Distributary	95.08	56.11	13,050	4,500
LBC	LBC	20.07	20.07[55]	5 minors	5.15	0	671	0
	Seoni Branch Canal	49.47	46	Minors and Distributaries	98	6	28,903	4,600
	Bakhari Branch Canal	34.50	34.50	Minors and Distributaries	125.89	103.44	14,506	8,000
	Nandna and Hardua Distributaries	42.51	13.15	Minors and Sub distributaries	196.15	0	17,870	0
Total		**176.75**	**143.92**		**520.27**	**165.55**	**75,000**	**17,100**

(Source: Records provided by EE, Canal Division)

The physical progress in construction of main canals was 81 *per cent* whereas only 32 *per cent* of distribution system could be completed as on March 2017. Due to non-execution of distribution network, no irrigation potential was created even after incurring ₹ 24.02 crore on Nandna and Hardua distributaries. One of the reasons for low priority on construction of distribution system was the absence of any clause in the agreements of turnkey contracts for simultaneous execution of main canal and distribution networks.

WRD stated (April 2018) that due priority was given for canal network construction. The agencies, which were lagging behind were terminated and fresh tenders were invited. As of November 2017, IP of 30,000 hectare was created and 20,256 hectare was irrigated during the year 2016-17.

The reply is not acceptable, as simultaneous construction of distribution systems of canals were not ensured either in contract or during execution, which affected creation and utilisation of IP. As a result of delays in construction of canal system, the benefit of water available in the dam could not reach to cultivators.

Recommendation

WRD should ensure timely construction of distribution system of canals under Pench Diversion Project and fix the accountability for non-inclusion of appropriate clause in the agreement for simultaneous execution of main canal and distribution networks.

3.1.4 Contract Management

Contract management under turnkey contracts

3.1.4.1 Payments to contractors without recording detailed measurements

The Madhya Pradesh Works Department (MPWD) Manual prescribes the measurement book (MB) as the initial record upon which the accounts are

[55] Cement concrete lining of two km was yet to be done.

based. The description of works in MB must be lucid enough to ensure easy identification and check. All measurements must bear the dated signature of an official by whom they are taken and at the time of payment all the pages of measurement should be crossed off.

The standard turnkey agreements stipulated that the contractor shall give bill of quantities (BOQ) based on the detailed estimates prepared on the basis of approved design and drawings. The items of the estimate shall be suitably clubbed or grouped for assessment of value of work done. Further the contract provides that contractor shall record joint measurements for work carried out as per procedure laid down by Department for the purpose of keeping record and the same shall be got checked from competent authority before payment. All hidden measurement shall be got 100 *per cent* checked from the competent authority before payment.

Audit scrutiny revealed that none of the turnkey contractors submitted BOQ and clubbing statement based on the detailed estimates. As a result, the executable components of the works and their payable contract rates were not available with WRD. Payments were made to the contractor on kilometre basis without recording detailed measurement of work done in MB. There was no record in the Division to verify the execution of individual items under the contract, such as, watering and compaction of earthwork, execution of cohesive non-swelling soil (CNS), use of low density polyethylene (LDPE) film, etc.

To rectify the above situation, the E-in-C issued a circular (March 2015) to all CEs reiterating that there was no clause in the turnkey agreement nor any para in the MPWD manual which exempts recording of measurement in turnkey contracts. Further audit scrutiny, however, revealed that the practice of not measuring component wise works in the turnkey contracts under Pench Diversion Project continued even after the directions of E-in-C. The EE, Canal Division, sub divisional officer (SDO) and sub engineer were accountable for the irregularity in recording of measurements. The Divisional Accountant also failed to check the measurement books as required under the MPWD Manual.

In the exit conference (October 2017), the PS, WRD assured that appropriate action would be taken. Incidentally, after this being pointed out in Audit, E-in-C had issued charge sheet (September 2017) to the SDO for irregular acceptance of measurement and to the sub engineer for irregular recording of measurement. However, further reply of WRD on the action taken on these irregularities was awaited (May 2018).

Recommendation

WRD should ensure that detailed measurements of the works, including those of hidden items are recorded in turnkey contracts and payment to contractors should not be passed without due verification.

3.1.4.2 Irregular revision of payment schedule

The turnkey agreements stipulated that, the contractor's price bid shall be divided among component of works to their respective percentage as stipulated in the 'Schedule of Payment - Appendix-F'. These components shall be further divided into appropriate sub-components and their stages for the purpose of payments and the sum of all stages of particular component should be equal to the percentage of that component shown in the 'Schedule of

Payment - Appendix-F'. The detailed schedule of payments was to be approved by CE.

Audit observed that the CE without authority and contrary to the agreement, amended upwards, the percentage of earthwork component at the request of the contractor. This resulted in irregular payment of ₹ 13.41 crore as detailed in **Table 3.1.7.**

Table 3.1.7: Details showing irregular revision of payment schedule

(₹ in crore)

Name of work	Approved earthwork percentage	Revised earthwork percentage	Difference of percentage	Amount paid	Excess payment
1	**2**	**3**	**4**	**5**	**6=5×4/3**
Seoni Branch Canal	18.00	20.00	2.00	24.87	2.49
Bakhari Branch canal	11.00	20.14	9.14	15.33	6.96
Dhamaniya Distributary	10.69	21.00	10.31	8.06	3.96
				Total	**13.41**

(Source: Records of EE, Canal Division)

WRD stated (April 2018) that the contractor had to submit component wise revised schedule of payment and CE after taking due cognizance of the interdependency of various construction activity, was empowered to approve the schedule of payment submitted by the contractor. Further, as the turnkey contract was a fixed price contract, there was no question of excess payment.

The reply of the WRD is not acceptable, as the CE was not authorised to amend the 'Payment Schedule Appendix-F', which was an integral part of the turnkey agreement. The irregular upward revision of payment schedule for earthwork component of the work led to undue financial aid of ₹ 13.41 crore to the contractor that would be adjusted only after completion of entire work.

Contract management under percentage rate contracts

3.1.4.3 Extra cost on inadmissible leads of materials

The Unified Schedule of Rates (USR) 2009 for 'providing plain cement concrete lining of M-15 grade with paver machine' includes all leads on all materials.

Audit observed, however, that the technical sanction[56] (January 2013) for the works of 'construction of LBC and RBC' provided for additional leads for cement, sand, metal and water in cement concrete (CC) lining resulting in increase of clubbed rate for CC lining by ₹ 348.03 per cubic metre (cum), as detailed in **Appendix 3.1**. Since the contract was awarded at the rate of 7.71 *per cent* above the tender amount, the payments for CC lining were also made at the rate of 7.71 *per cent* above the clubbed rate. Thus, incorrect clubbed rate for CC lining, which included inadmissible rates for lead, resulted in extra cost of ₹ 1.95 crore on 51,977.55 cum of executed quantity of CC lining.

In the exit conference (October 2017), PS, WRD stated that the item had been amended in prevailing USR effective from April 2016.

The reply is not acceptable, as the technical sanction for the works of 'construction of LBC and RBC' was prepared on the basis of USR 2009,

[56] The EE, SDO and Sub engineer of the Canal Division prepared the estimate and the CE granted technical sanction.

which did not provide for separate lead in CC lining work. Further, the USR 2016 also does not provide for any additional lead for CC lining.

3.1.4.4 Non-recovery of cost of hard rock

In view of slow progress of work, the balance earthwork for construction of LBC from RD[57] 13,515 metre to 15,000 metre was withdrawn (December 2016) from the scope of the original contractor and awarded (December 2016) to two contractors on piece-work basis on the same rate as payable to the original contractor.

The agreement for these piece-works provided that all excavated material would be the property of the Government. The hard rock would be issued to the contractor at the rate of ₹ 94 per cum *plus* royalty charges for *bona fide* reasons in the concerned work. The royalty for hard rock under Madhya Pradesh Minor Mineral Rules, 1996 (as amended in September 2014) is ₹ 50 per cum.

As per general note 1(d) of chapter 4 of USR, for accounting the excavated hard rock, the quantity of utilisable rock to be recorded in the books shall be 1.3 times of the quantity paid in excavation. The excavated hard rock shall be kept and accounted for in material-at-site (MAS) account of the sub engineer. The hard rock which is to be utilised will have to be issued after account for in material-at-site (MAS) account and is to be recovered from the contractor at the issue rate.

Audit scrutiny of MAS account revealed that 98,952.25 cum of excavated hard rock were issued to both contractors at site in December 2016. However, EE did not recover ₹ 1.85 crore[58] for the cost of hard rock from the final payments (January 2017 and February 2017) made to contractors for reasons not on record.

The reply of WRD was awaited (May 2018).

Recommendation

WRD should take appropriate departmental action on the officers responsible for undue favour to contractors.

3.1.5 Quality Control

3.1.5.1 Non-execution of PVC strips in canals

Under the turnkey agreements, the EE is responsible for execution of the work. Further, the MPWD manual stipulates that the measurements taken by subordinates shall be checked by the SDO before payment and EE/SDO shall be responsible for measurement recorded/checked by him.

The estimates of turnkey contracts of Seoni Branch Canal provided for placing PVC strips in panel joints in CC lining. As per Irrigation Specification issued by WRD, PVC strips shall be inserted in the concrete lining, before the concrete sets.

Audit noticed during the site visit of Seoni Branch Canal that contractor did not insert PVC strips in CC lining and the EE and SDO failed to ensure this.

---

57 Reducing distance

58 ₹ (98,952.25 × 1.3 × ₹ 144)

CC lining in Seoni Branch Canal between 0 km and 1.925 km without PVC strips

Since estimate forms the basis for arriving at the cost of work in turnkey contract, non-execution of PVC strip resulted in undue benefit of ₹ 3.22 crore to the contractor as detailed in **Table 3.1.8**.

Table 3.1.8: Undue benefit due to non-placing of PVC strip

Canal	Quantity (in metre)	Rate per metre as per provision made in the estimate (in ₹)	Amount (₹ in crore)
Seoni Branch canal	3,35,737	96	3.22

(Source: Records of EE, Canal Division)

WRD stated (April 2018) that the drawing of CC lining was approved by the competent authority and accordingly lining was executed at site. The provision of joint filler by filler material was approved hence joints were filled by fillers. The joints which were found unfilled would be filled as the works were under progress.

The reply is not acceptable, as the approved drawings provided for execution of CC lining with PVC strip which was required to be executed along with the concreting as per irrigation specification. Further, the payment for CC work, which included the cost for providing and inserting PVC strip at joints, had already been made to the contractor.

3.1.5.2 Defective execution of work by contractor

As stipulated in the turnkey agreement, the Engineer or Engineer-in-Charge shall give notice to the contractor of any defects before the end of the defects liability period, which begins at completion. The contractor shall correct the notified defects within the defects correction period, which is within 14 days from the date of receipt of notice by the contractor, at no cost to the employer. The Department may arrange for a third party to correct the defect, if the contractor has not corrected it within the defect correction period. The cost of correction will be deducted from the contract price.

Audit noticed that in respect of three agreements[59], the EE instructed (December 2016) the contractors that lining work in various reaches of canal was not of acceptable quality. As a result, cracks were occurred in various reaches and panels were broken. The contractors were instructed to rectify the defective works.

[59] Agreement number - 01/2013-14, 04/2013-14 and 05/2013-14

	
View of defective work of Dhamaniya Distributary near Village Road Bridge at RD 90 metre (Status: April 2017)	**View of defective work of SBC near RD 1500 m (Status: April 2017)**

During site visit (April 2017), Audit noticed that the rectification works were neither carried out by the contractor nor was it got rectified departmentally at the risk and cost of contractor.

In the exit conference (October 2017), PS, WRD accepted the facts and instructed EE to prepare liability statement and to recover the amount accordingly from the defaulting contractors.

Recommendation

WRD should ensure that provisions relating to rectification of defects within the stipulated period are scrupulously followed.

3.1.5.3 Execution of service and non-service banks with lesser width

The turnkey contract stipulates that the construction of service roads/inspection path in the canal system shall be as per canal parameters appended with the tender documents. The 'Design criteria for distribution system – as per Indian Standard (IS) Codes' appended with the contract provided that the minimum bank top width of service[60] and non-service banks should be seven metre and 3.5 metre respectively where the discharge of the canal is 15 cubic metre per second (cumec) to 30 cumec (IS Code:7112-1973).

Audit noticed that the IS Code: 7112-1973 was for design of cross section of unlined canals in alluvial soil. The Seoni Branch Canal was lined canal and as such the standards of IS Code:10430-2000 was applicable in this canal, which provided for bank top width of five metre for service banks and four metre for non-service banks where the discharge of the canal is 10 cumec to 30 cumec.

The discharge of Seoni Branch Canal was 18.745 cumecs. Accordingly, contractor submitted drawing for the canal with seven metre service bank and 3.5 metre non-service bank as per IS Code: 7112-1973. However, while approving the design submitted by the contractor, CE reduced the width of service and non-service bank to six metre and 1.5 metre respectively without recording any reasons. Thus, the approved drawing for non-service bank was less than even the minimum top width prescribed under IS Code: 10430-2000. As the canal works was executed with reduced bank top width, this resulted in undue financial benefit to the turnkey contractor as the payments were not proportionately reduced for execution of approximately 28.5 *per cent* less

[60] For proper inspection and maintenance of canal works, service banks on one side carries a service road for normal movement of inspection vehicles.

earthwork amounting to ₹ 7.09 crore[61].

WRD stated (April 2018) that top width of canal banks was reduced to minimise the land acquisition. This saved 25.79 hectare land of farmers, which resulted in savings of ₹ 3.86 crore on land acquisition. It was further stated that the reduced top bank width had no adverse effect on stability of banks and also there was no change in canal flow parameters.

The reply of WRD is not acceptable, as it is an afterthought not supported by records. The reduction in banks width without proportionate reduction in payment to contractor resulted in excess payment of ₹ 7.09 crore for earth work which should be recovered from the contractor. Further, the primary purpose of canal banks is to retain water and the minimum top width of canal banks have been prescribed in the IS codes keeping in view the designed discharge of the canal. Therefore, the failure of CE to follow the prescribed specification for the width of canal banks would affect stability of banks.

3.1.6 Internal Control and Monitoring Mechanism

3.1.6.1 Non-maintenance of records

Audit scrutiny revealed that Canal Division did not maintain the records prescribed in the MPWD Manual, as detailed in **Table 3.1.9**.

Table 3.1.9: Statement showing registers not maintained

Name of register	Codal Provision	Purpose of register
Annual Inspection Register	Para 4.113 of MPWD manual	This record is maintained in Division office for recording results of the inspection of higher officers.
Works abstract	To be maintained in form CPWA 33	This is an account of all the transactions relating to a work during a month in respect of estimates. It is prepared by EE, which is to be closed and checked under the supervision of Divisional Accountant.
Contractor Ledger	To be maintained in form CPWA 43	A separate folio or set of folios is reserved for all the transactions with each contractor. This record is maintained in Division office.
Register of work	Para 4.147 of MPWD Manual and to be maintained in form CPWA 40	To monitor the progress of expenditure on each work by SDO and EE.
MAS accounts	Para 4.070 of MPWD Manual and to be maintained in form CPWA 35	The account is prepared by Sub-engineer and verified by SDO for control on issue of materials. MAS account was not maintained, except for agreement number 01/P/2016-17 and 02/P/2016-17.
Register of interest bearing securities	To be maintained in form CPWA 85	It is maintained to watch the receipt and disposal of securities. EE is required to exercise great care in determining date beyond which securities would cease to operate.

(Source: Records of EE, Canal Division)

As a result of non-maintenance of records as per codal provisions, following irregularities were noticed:

61 In view of total payment of ₹ 24.87 crore for earth work and considering less execution earthwork by approximately 28.5 *per cent* due to reduced banks width as compared to specification provided in the agreement.

- ***Non-accountal of hard rock***

Audit noticed that, in the construction work of LBC[62], the contractor excavated (December 2016) 1.30 lakh cum hard rock. Therefore, the sub engineer was required to account for 1.69 lakh cum hard rock in MAS account[63]. Further scrutiny revealed that Canal Division recovered the cost of 14,721 cum hard rock from contractor at the rate of ₹ 94 per cum *plus* royalty charges. However, no MAS account was maintained by the Division and therefore, the actual quantity of issued hard rock to contractor could not be ascertained. Since the availability of remaining 1.55 lakh cum excavated hard rock of ₹ 1.46 crore at the work site could not be ascertained from the records of Division, the loss to the Government due to subsequent pilferage cannot be ruled out.

- ***Failure to renew bank guarantee***

The standard agreement stipulates that the contractor shall furnish performance security equal to five *per cent* of contract value or ₹ 1.00 crore, whichever is less, which can be in the form of Bank Guarantee (BG). The security shall not be refunded before the expiry of 12 months after issue of the certificate, final or otherwise, of completion of the work and in no case it shall be refunded before the settlement and payment of the final bill. On termination of contract, all security deposits and performance securities would be forfeited.

Audit noticed that in respect of construction work of LBC, performance security of ₹ one crore in the form of BG, was submitted by the contractor. The BG was valid up to 27 September 2015, which was extended up to 27 September 2016. Thereafter, the EE did not take action to renew the BG. Later on, the contract was terminated in December 2017 due to inability of contractor to complete the work within the extended scheduled date for completion, as detailed in **para 3.1.3.1**. Since BG was not valid, EE could not forfeit the performance security.

In exit conference (October 2017), PS, WRD assured that detailed reply will be furnished. However, the same was still awaited (May 2018).

Recommendation

WRD should fix the accountability of departmental officers for non-maintenance of records prescribed under the MPWD manual and for failure to extend bank guarantee.

3.1.6.2 Incorrect technical sanction without detailed survey and field investigation

The MPWD manual prescribes that when the survey is completed and the final alignment is inspected and approved by the EE, plans and estimates will be prepared realistically after conducting judicious field investigation and sanctioned by the competent authority.

Audit noticed that the estimates for Seoni branch canal system of ₹ 152.55 crore was prepared without conducting detailed survey and field

---

[62] Agreement No. 05/2013-14 (earth work for construction of LBC from RD 9,000 m to RD 9,810 m and RD 13,515 m to RD 20,070 m and RBC from RD 0 m to RD 30,200 m)

[63] The USR stipulates that the quantity of utilisable rock to be recorded in MAS account shall be 1.3 times of the quantity paid in excavation.

investigation. The estimate was prepared on *pro rata* basis, without any justification, by working out quantity of each item for the canal length of 30 metre and then multiplying it by the length of canal to arrive at the total quantity of work. The CE, SE, EE, SDO and draftsman were responsible for violating the MPWD manual as the estimates were certified by them.

As a result of preparation of estimates without detailed survey, unwarranted items were included in the estimates, as detailed in **Table 3.1.10**.

Table 3.1.10: Details of unwarranted provisions in the estimates

Codal Provision	Audit findings
Para 4.9.7.1.3 of the Irrigation Specifications of WRD provides that tamping is to be provided in locations where compaction of the earthfill material by means of roller is impracticable or undesirable.	Provision of ₹ 48.24 lakh for compaction of earthwork with rollers was included in the estimate for entire canal length. The estimate simultaneously included provision of ₹ 1.08 crore for tamping in the entire length of canal, which was unwarranted in view of the Irrigation Specifications.
Para 25.3.1.4 and 25.3.1.5 of the Irrigation Specifications provides for execution of CNS material depending on the swelling pressure of expansive soil. Thus, swelling pressure test should be conducted for assuring the necessity of CNS.	Provision of filling foundation with hard moorum[64] as CNS were made in entire length of canal without ascertaining its necessity by conducting swelling pressure tests. As a result, the estimate included works of CNS amounting to ₹ 15.07 crore though the CNS was not required for available strata in the section of canal.
As per clarification of E-in-C (February 2012), LDPE film is not to be used at places where CC lining is done by paver machine.	Unwarranted provision of ₹ 2.86 crore for LDPE film was made in the estimate for entire canal even though the lining was provisioned through paver machine.

The inclusion of unwarranted items of ₹ 19.01 crore for tamping, CNS and LDPE film in the turnkey contract resulted in incorrect technical sanction by CE. Further, the actual execution of these items could not be assured due to non-recording of the detailed measurement in MB.

In the exit conference (October 2017), PS, WRD accepted the fact and stated that action had already been initiated and detailed reply would be submitted. Incidentally, after this being pointed out in Audit, WRD issued charge sheet (September 2017) to SE, EE and SDO for preparation of estimate on *pro rata* basis and for inclusion of unwarranted items. However, departmental enquiry against SE and EE was closed (March 2018). Further reply of WRD was awaited (May 2018).

3.1.7 Supply of drinking water from Pench Dam

One of the objectives of the project was to provide 7.40 MCM drinking water to Chhindwara and Seoni districts. Audit scrutiny revealed that the Major Project Control Board had allocated (April 2017) six MCM annual water to Municipal Council, Chhindwara for supply of drinking water. However, no allocation was made for Seoni district.

Municipal Council, Chhindwara was responsible for construction of necessary infrastructure for drinking water supply, viz., construction of intake well and other civil and mechanical works. The work order for this work was issued in July 2017 with scheduled completion of the project in July 2019.

On this being pointed out in Audit, WRD accepted (April 2018) the fact.

[64] Moorum is a type of soil which consisted powdered rock with or without boulders.

3.1.8 Summary of conclusions

- Pench Diversion Project, which was taken up in 1987-88 and undergone several time extensions, was still lagging behind. Due to delays in construction of canal system, the benefit of water available in the dam could not reach the cultivators. The creation and utilisation of IP was also affected due to low priority on construction of distribution network.

- The project could not be included under AIBP during the years 2012-13 to 2016-17 due to delays on the part of WRD in providing requisite information to GoI. As a result, WRD could not ensure the release of proportionate central assistance under AIBP.

- Despite slow progress in construction works, penalty was not imposed and time extensions were granted to contractors in routine manner without adequate analysis for the reasons of delays. WRD had to eventually rescind three out of six contracts for canal construction in August 2017 and December 2017. However, SE unauthorisedly revoked one termination order, besides indecisiveness of field level departmental officers (CE, SE and EE) in retendering the work further delayed the canal works.

- Departmental officers violated provisions of the MPWD manual. Technical sanction was granted without detailed surveys and investigation, which led to inflated estimation of the project. The payments were made to turnkey contractors without recording detailed measurement in MB. Prescribed records for internal control and monitoring of works were not maintained.

- The provision of agreement was also unauthorisedly revised in favour of contractors. Instances of non-adherence to agreement clauses and provisions of schedule of rates were also noticed.

- The construction of Seoni Branch Canal was executed with the reduced bank top width in violation of the prescribed technical specification. Audit noticed substandard and defective works, which were neither rectified by contractors nor by WRD.

3.1.9 Summary of recommendations

- *WRD should review all cases of delays in construction of canals to fix the accountability of contractors and penalty may be imposed as per provisions of agreements. WRD should also review all instances of inaction/failure to levy penalty by departmental officers for appropriate departmental action. WRD should also review the irregular revocation of contract's termination order in the construction of Dhamaniya and tail distributary from a vigilance angle.*

- *WRD should ensure timely construction of distribution system of canals under Pench Diversion Project and fix the accountability for non-inclusion of appropriate clause in the agreement for simultaneous execution of main canal and distribution networks.*

- *WRD should ensure that detailed measurements of the works, including those of hidden items are recorded in turnkey contracts and payment to contractors should not be passed without due verification.*
- *WRD should take appropriate departmental action on the officers responsible for undue favour to contractors.*
- *WRD should ensure that provisions relating to rectification of defects within the stipulated period are scrupulously followed.*
- *WRD should fix the accountability of departmental officers for non-maintenance of records prescribed under the MPWD manual and for failure to extend bank guarantee.*

3.2 Audit Paragraphs

Compliance audit of transaction of the Government Departments, their field formulation brought out instances of lapses in management of resources and failures in the observance of the norms of propriety and economy. These have been presented in the succeeding paragraphs.

FOREST DEPARTMENT

3.2.1 Cost overrun due to delayed execution of compensatory afforestation

Principal Chief Conservator of Forest delayed the inclusion of the compensatory afforestation works under Rajiv Sagar Irrigation Project in Annual Plan of Operations despite availability of sufficient funds in State Compensatory Afforestation Fund Management and Planning Authority, which resulted in delayed commencement of afforestation work and increase in cost by ₹ 2.00 crore.

As per State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA[65]) guidelines issued (July 2009) by Ministry of Environment and Forests (MoEF), Government of India (GoI), money available with the State CAMPA is to be utilised for development, maintenance and protection of forests and wildlife management as per approved Annual Plan of Operations (APOs). State Level Executive Committee, headed by Principal Chief Conservator of Forest (PCCF) at Department level, is responsible for preparation of the APO and its submission to Steering Committee at Government level before the end of December for each financial year so as to obtain their concurrence for release of funds from MoEF (Ad-hoc CAMPA[66]). After receipt of money, State CAMPA shall release funds to the field officers in predetermined instalments as per the APO finalised by the Steering Committee.

GoI accorded (May 2008) in principle approval for diversion of 473.310 hectare of forest land for construction of Rajiv Sagar Irrigation Project (Bawanthadi) of Water Resources Department (WRD), Government of Madhya Pradesh (GoMP). As per the GoI sanction, read with corrigendum (March 2009), the compensatory afforestation was to be raised and maintained over 119.938 hectare of degraded forest land at the cost of user agency (WRD). Based on the labour rate that prevailed in March 2009, the Divisional Forest Officer (General) Balaghat South (DFO) demanded (March 2009) ₹ 1.38 crore from WRD for compensatory afforestation for seven years.

Scrutiny of records of Forest Department and DFO, Balaghat revealed that though the entire amount of ₹ 1.38 crore was deposited by WRD in August 2009, and final approval of GoI for land diversion was received in April 2010, the PCCF (CAMPA) did not commence the compensatory afforestation works. The project was included in the APO 2013-14 after delay of two years. Audit

65 State CAMPA administers the amount received from the Adhoc CAMPA and utilise the monies collected for undertaking compensatory afforestation, conservation and protection of forests, wildlife conservation and protection and other related activities.

66 Adhoc CAMPA was constituted by the Hon'ble Supreme Court of India vide order dated 5th May 2006 for management of monies received towards compensatory afforestation, net present value, etc.

noticed that sufficient funds were available in the account of State CAMPA during 2010-11 to 2012-13, ranging from ₹ 23.54 crore to ₹ 69.48 crore. The reasons for delayed inclusion of this project in APO, despite availability of funds in State CAMPA and deposit of money by the user agency (WRD), was not available in the records of the Department.

The DFO started the compensatory afforestation work for the project in the year 2014-15 and incurred ₹ 1.31 crore till October 2017. During the execution of works, the Chief Conservator of Forest revised (April 2016) the project cost to ₹ 3.63 crore for ten years compensatory afforestation in view of the labour rates notified for the year 2014 and 2015. Thus, delay in commencing the compensatory afforestation works led to increase in project cost by ₹ 2.00 crore[67].

In the exit conference (December 2017) the ACS, Forest Department stated that the Department was not receiving adequate funds as and when demanded under 'Compensatory Afforestation'. Therefore, there was delay in taking up of such works and the taking up of work would have been delayed even if the project was included in APO 2010-11.

The reply is an afterthought and not acceptable, as no reasons were found recorded for exclusion of the compensatory afforestation works of Rajiv Sagar Irrigation Project (Bawanthadi) from the APO after its sanction by GoI. Further, the Department had savings ranging from ₹ 23.54 crore to ₹ 191.20 crore in State CAMPA account during 2010-11 to 2016-17. GoI had also been regularly observing that the Department was not utilising the funds released to it under 'Compensatory Afforestation' during the previous years.

[67] As per revised estimate of May 2016, the cost of project was ₹ 3.63 crore for ten years which included ₹ 0.25 crore for last three years. Thus, the cost of project for seven years was ₹ 3.38 crore and the extra cost due to revised estimate = ₹ 3.38 crore – ₹ 1.38 crore = ₹ 2.00 crore.

HORTICULTURE AND FOOD PROCESSING DEPARTMENT

3.2.2 Blocking of funds under horticulture schemes

Directorate of Horticulture and Farm Forestry released funds to implementing agencies for implementation of three horticulture schemes without assessing actual requirement of funds, which resulted in blocking of funds amounting to ₹ 10.63 crore as on March 2017, besides non-recovery of interest of ₹ 3.85 crore earned on unspent balances by these implementing agencies. On this being pointed out in Audit, Department recovered unspent amount of ₹ 8.92 crore from implementing agencies under two schemes.

Directorate of Horticulture and Farm Forestry (Directorate) implemented two State schemes relating to food processing through Madhya Pradesh State Agro Industries Development Corporation Limited (MPSAIDC) and one scheme for development of cold chain infrastructure through Madhya Pradesh Agricultural Marketing Board. Audit scrutiny of implementation of these schemes revealed that funds were released under these schemes without assessing actual requirement of funds resulted in blocking of funds, as discussed in succeeding paragraphs:

- ***Scheme for Establishment of Fruit Based Wine/Food Park***

The Directorate released ₹ 5.04 crore (annual release of ₹ 72.00 lakh over 2008-15) to MPSAIDC towards development of necessary infrastructure[68] for fruit based wine/food park in the State under Public Private Partnership (PPP) model. Government of India also released (October 2010) ₹ 20.00 lakh to MPSAIDC for preparation of detailed project report (DPR) for food park. Out of these releases, MPSAIDC incurred ₹ 16.19 lakh (February 2010 and May 2010) on preparation of detailed project report (DPR), which was approved (July 2011) by State Level Empowered Committee. In the above context, the audit observed as follows:

- ❖ MPSAIDC selected three sites at Bhopal, Ratlam and Harda for the development of food park. However, no further progress was made under the scheme as no proposals were received for PPP. Finally, MPSAIDC informed (February 2014) the Directorate that there was no justification for development of food park in the changed scenario, as the Government was allotting land to industries for developing food processing units in industrial areas. However, Directorate did not take any decision on the continuance of scheme.
- ❖ During 2009-10 to 2015-16, MPSAIDC incurred expenditure of ₹ 31.83 lakh on preparation of DPR, printing of request for proposals, demarcation of boundary wall for the Ratlam food park, etc. As per the scheme guideline, MPSAIDC was required to submit the details of expenditure incurred after its certification by a Chartered Accountant. However, certified accounts of the expenditure under the scheme were not submitted to the Directorate.

  On this being pointed out by Audit, MPSAIDC informed (May 2018) that the expenditure was not got certified by Chartered Accountant in view of less expenditure which was incurred through account payee cheque. The reply is not acceptable, as the non-submission of

[68] Cold storage, water treatment plant, godowns and milk chilling plants, etc.

certified accounts to the Directorate was in contravention of scheme guidelines.

Thus, Directorate released ₹ 5.04 crore to MPSAIDC from 2008-09 to 2014-15 without assessing the actual requirement of funds and available unutilised balance with MPSAIDC. Further audit scrutiny of records of MPSAIDC revealed that it was investing its excess funds in the form of fixed deposits in Banks and thus, earned interest ₹ 2.61 crore[69] on the cumulative outstanding balances of funds released by the Directorate between 2008-09 and 2016-17.

On this being pointed out in Audit, the unspent amount of ₹ 4.92 crore[70] was recovered by the Directorate in September 2017. However, the interest of ₹ 2.61 crore was not recovered.

The Horticulture and Food Processing Department stated (March 2018) that funds would be released in future for other projects.

Fact remains that the Directorate released funds under the scheme to MPSAIDC without ascertaining actual requirement of the fund resulting in blocking of funds, besides the interest of ₹ 2.61 crore on these excess releases had not been recovered.

- ***Scheme for Development of Food Processing Industries under Industrial Promotion Policy***

GoMP introduced (February 2008) scheme for development of Food Processing Industries under Industrial Promotion Policy 2004 for providing financial assistance to entrepreneurs engaged in food processing sector. MPSAIDC was appointed as the nodal agency for implementing this scheme. The entrepreneurs were required to apply to District Trade and Industries Centre (DTIC) and the assistance amount would be sanctioned after verification of proposal by a committee headed by District Collector. Sanctioned amount would be deposited in the account of applicant by DTIC after obtaining the amount from MPSAIDC.

Audit observed that the Directorate released funds to MPSAIDC every year in a routine manner, as detailed in **Appendix 3.2**. Out of 12.73 crore[71] released during the period 2008-17, the cumulative unspent balance at the end of each year ranged from ₹ 21 lakh to ₹ 7.51 crore. The entire release of ₹ 0.41 crore for SC category and ₹ 1.29 crore for ST category during the years 2008-16 remained unutilised as on March 2018, as DTIC could not identify the entrepreneurs under these categories. Further scrutiny revealed that Directorate did not monitor the scheme as MPSAIDC was not forwarding the monthly progress report as required under the scheme guidelines.

Thus, failure of the Directorate to take into account unutilised balance at the end of each year under the scheme led to accumulation of fund at the level of MPSAIDC. Since MPSAIDC was investing its excess fund in fixed deposits, the interest on the cumulative outstanding balances at end of each year during

---

69 Calculated on unutilised balances at the end of each year at the minimum rate of interest earned by MPSAIDC during the year.

70 ₹ 4.92 crore includes an amount of ₹ 20.00 lakh provided by the GoI for preparation of DPR.

71 ₹ 11.03 crore for General category, ₹ 0.41 crore for SC category and ₹ 1.29 crore for ST category.

2008-17 worked out to ₹ 1.24 crore[72]. The Directorate did not recover the unspent fund and interest thereon from MPSAIDC.

The Horticulture and Food Processing Department stated (March 2018) that MPSAIDC had been directed to refund the balance to the State Government.

- ***Promotion of Integrated Cold Chain Infrastructure Development under Post Harvest Management***

The scheme was introduced by GoMP in the year 2011-12 with an objective to develop integrated cold chain infrastructure under post-harvest management so as to increase shelf life of horticultural crops and to promote inter and intra state export which would enable the farmers to get right value for their horticulture crops. MP State Agricultural Marketing Board (Board) was appointed as the nodal agency for implementation of the scheme. As per scheme guidelines 75 *per cent* of unit cost was to be provided from the State plan head and remaining 25 *per cent* was to be borne by the Board. The inspection of units developed under scheme was to be done by the senior technical officers of the Department.

Audit scrutiny revealed that Directorate provided (March 2012) ₹ 50.00 lakh for preparation of detailed project report (DPR) on the basis of demand of the Board. The Directorate further released (June 2012) ₹ 3.50 crore for construction of cold chain infrastructure at Indore and Jabalpur without ensuring the status of preparation of DPR. Further scrutiny revealed that the Directorate did not follow up the matter with the Board and there was no record as to whether any expenditure was incurred by the Board on preparation of DPR and development of infrastructure.

The Horticulture and Food Processing Department replied (March 2018) that correspondence was being made with Board to refund the amount. The Directorate further informed (June 2018) that ₹ 4.00 crore had been returned by the Board in April 2018.

Thus, the progress of scheme was never watched by the Directorate after release of funds to the Board and the objective of the scheme to develop integrated cold chain infrastructure under post-harvest management could not be achieved. Besides ₹ 4.00 crore remained idle with the Board for six years.

3.2.3 Irregular release of funds

Directorate of Horticulture and Farm Forestry released excess financial assistance of ₹ one crore to MP State Co-operative Dairy Federation Limited (MPSCDFL) in violation of the guidelines of National Mission on Food Processing. Besides, the failure of the Directorate to ensure utilisation before release of subsequent instalments of financial assistance during March 2014 to May 2015 led to accretion of unutilised fund of ₹ 2.97 crore with MPSCDFL.

National Mission on Food Processing (NMFP), a Centrally Sponsored Scheme, was launched by Government of India (GoI) during 12th Five Year Plan (2012-17) to promote technology up-gradation, establishment of food processing industries and establishment of preservation infrastructure for non-horticulture produce. As per the scheme guidelines (August 2012),

[72] Cumulative interest calculated on the basis of lowest rate of interest of each year earned by the MPSAIDC on fixed deposits from banks.

financial assistance at the rate of 50 *per cent* of the total project cost for development of infrastructure[73], subject to maximum of ₹ 10 crore could be provided in three instalments to the individual entrepreneurs, partnership firms, registered society, co-operatives societies, companies and corporation. The guidelines of the scheme were revised in July 2013 and the quantum of assistance under the scheme was reduced to 35 *per cent*, subject to maximum of ₹ five crore. GoI further directed (July 2013) that applications received upto 31 March 2013 were to be sanctioned financial assistance according to pre-revised guidelines of August 2012.

Applicants seeking financial assistance were required to submit their applications to the Director of Horticulture and Farm Forestry Directorate with required documents and the Directorate would submit the same to State Level Empowered Committee (SLEC) for approval. After approval of SLEC, the Directorate would release the first instalment of grant to the applicants. The second and third instalments of grant was to be released only after submission of utilisation certificate indicating that the previous grants has been utilised. The Director of Horticulture and Farm Forestry Directorate (Directorate) was designated as the State Mission Director (SMD) and was responsible for execution of the scheme in the State.

Audit scrutiny revealed that SLEC approved (February 2014) financial assistance of ₹ 3.35 crore[74] to MPSCDFL[75], being the 50 *per cent* of total project costs for establishment of cold chain, value addition and preservation infrastructure of non-horticulture produce in Indore and Bhopal. Accordingly, the Directorate disbursed (February 2014 to May 2015) financial assistance of ₹ 3.35 crore in three instalments for both projects. In this context, audit observed the following:

- The proposal for financial assistance under the NMFP was received in the Directorate from MPSCDFL in January 2014 and approved by SLEC in February 2014. Therefore, the projects were eligible for 35 *per cent* financial assistance in view of revised NMFP guidelines issued in July 2013. Thus, failure of the Directorate to comply with the revised guidelines of NMFP resulted in granting of excess financial assistance of ₹ 1.00 crore to MPSCDFL.

- The Directorate released (March 2014) the second instalment of ₹ 83.83 lakh (Bhopal Project: ₹ 33.83 lakh and Indore Project: ₹ 50 lakh) without submission of utilisation certificate from MPSCDFL for the first instalment (February 2014) of ₹ 83.83 lakh (Bhopal Project: ₹ 33.83 lakh and Indore Project: ₹ 50 lakh). Similarly, the third instalments of ₹ 0.68 crore for Bhopal project and ₹ 1.00 crore for Indore project were released in May 2015 without submission of utilisation certificates from MPSCDFL for previous grants, which was in violation of NMFP guidelines. MPSCDFL informed (January 2018) Audit that the Indore project was in tendering stage. Further, MPSCDFL could utilise ₹ 38.42 lakh on Bhopal project till November 2017. Thus, the release of second and third instalments of ₹ 2.51 crore to MPSCDFL

---

73 Cold chain, value addition and preservation infrastructure of non-horticultural produce.

74 ₹ 2.00 crore for Indore project and ₹ 1.35 crore for Bhopal project.

75 MPSCDFL is a registered co-operative society registered under MP Cooperative Act, 1960. The share capital of Government of India is 6.93 *per cent* and State Government is 49.21 *per cent.*

was premature, as entire released fund of ₹ 2.00 crore for Indore project and ₹ 0.97 crore for Bhopal project remained unutilised as on January 2018.

- Physical verification and concurrent evaluation as per the scheme guidelines was not conducted by the SMD at any stage of the project work and the status of project was not ascertained at Directorate level.

In the exit conference (January 2018) Principal Secretary, Horticulture and Food Processing stated that on the date of approval from SLEC the applicable rates should have been considered, but being a Government Agency, relaxation was accorded. Later on, the Government replied (March 2018) that the original proposals of Bhopal and Indore projects were received before 14 March 2013, and revised proposals were received on 08 January 2014 and 19 December 2013 respectively which were under process for sanction. Further, a committee under the chairmanship of Additional Director were also formed (March 2017) for physical verification, which was still in progress.

The reply is an afterthought and is not acceptable, as there was no documentary evidence available either for receipt of application before 14 March 2013 or for sanction of relaxation for financial assistance. It was also confirmed by the Directorate (May 2018) that the original proposals of MPSCDFL, for Bhopal and Indore projects, received before March 2013 were not available. Moreover, pre-mature release of second and third instalments to MPSCDFL resulted in accumulation of ₹ 2.97 crore with MPSCDFL.

NARMADA VALLEY DEVELOPMENT DEPARTMENT

3.2.4 Non-imposition of penalty for delays and irregular payment of mobilisation advance

In the work of Nagod branch canal with distributary systems, Narmada Valley Development Authority did not impose penalty of ₹ 13.14 crore for delays attributable to the contractor. The contractor was also granted mobilisation advance of ₹ 2.30 crore in violation of the agreement, besides the interest of ₹ 2.17 crore on mobilisation advance was also not recovered.

Narmada Valley Development Authority (NVDA) awarded (May 2012) the work of Nagod (Satna) branch canal with distributary systems from RD km 33.30 to RD km 55.60 under the Bargi Diversion Project on turnkey contract basis to a contractor[76] at a cost of ₹ 131.43 crore with the condition to complete work within 30 months (November 2014). The financial progress in the work was ₹ 18.85 crore up to November 2014 and ₹ 34.70 crore up to November 2016. No further payment was made thereafter.

Scrutiny of records (March 2017) of Executive Engineer (EE), Narmada Development Division No.7, Satna revealed the following:

Non-imposition of penalty

- As per Clause 115.1 of the agreement, in the event of any shortfall in financial progress of work by more than 10 *per cent* of the respective six month slab, penalty[77] for delays shall be imposed on the contractor at rate of 0.2 *per cent* per week of initial contract value till shortfall is made up and shall be deducted from the intermediate payments. Delay in completion of work beyond 25 *per cent* of initial contract period due to contractor's fault may cause for termination of the contract and forfeiture of all security deposit and performance securities.

Scrutiny of records revealed that the financial progress in the work was 14.34 *per cent* during the agreement period. Due to slow progress in work attributable to contractor, penalty at the rate of 0.2 *per cent* per week was imposed (November 2014). Subsequently, EE proposed (February 2015) for exemption of penalty on appeal of contractor for waving off the penalty as contractor is partially responsible for delay. However, in the analysis of reasons for delays in works submitted (July 2015) to Chief Engineer (CE), Superintendent Engineer (SE) concluded that contractor was responsible for delay in execution of works. The component wise delays attributable to contractor were – delay in preparation and submission of land acquisition cases (18 months), delay in submission of drawings and designs (12 months), delay in execution of earth work (18 months) and delay in construction of structures (23 months). This analysis was forwarded (July 2015) by CE to NVDA for approval of the time extension reserving the right to impose the penalty and also with the recommendation to keep in abeyance the penalty imposed on the contractor.

Audit observed that NVDA granted (18 August 2015) the first time extension from November 2014 to November 2016 with the condition that the

76 M/s. Ramkey Infrastructure Limited, Hyderabad

77 At the rate of 0.2 *per cent* per week of initial contract value, limiting the cumulative penalty to 10 *per cent* of the contract value

Department reserved the right to impose the penalty and no price escalation was payable on the works executed during the first time extension. NVDA also ordered recovery of 0.2 *per cent* of additional security deposit from the contractor. However, for reasons not on record, NVDA did not impose penalty on the contractor and ignored the substantial delays attributable to contractor. Non-imposition of penalty of ₹ 13.14 crore[78] for delays attributable to contractor at the time of granting first time extension resulted in undue benefit of ₹ 11.55 crore[79] to the contractor.

Irregular payment of mobilisation advance and delayed recovery

- As per Clause 113.6 (A) of the contract, mobilisation advance not exceeding five *per cent* of the contract price shall be paid to contractor during the first twelve months from the date of work order. The first instalment (maximum of two *per cent*) of contract price will be paid within seven days of the date of work order and subsequent instalments were payable on furnishing proof of having incurred adequate expenditure towards mobilisation.

Clause 113.6 (B) further stipulates that the deductions of mobilisation advance shall be made after payment of 10 *per cent* of contract value or on completion of 20 *per cent* of initial contract period (six months), whichever is earlier, so that full recovery to be effected before completion of 80 *per cent* of initial contract period (24 months). As per Clause 113.6 (E) (ii) (b), if completion period is extended due to fault on the part of the contractor, then interest[80] will be charged on the amount of the advances pending recovery.

Audit observed that the contractor was paid mobilisation advance of ₹ 6.57 crore in four instalments as given in **Table No. 3.2.1**.

Table 3.2.1: Mobilisation advance paid to the contractor

(₹ in lakh)

Date of payment of mobilisation advance	**Amount of mobilisation advance paid**	**Percentage of mobilisation advance paid**	**Amount for which utilisation submitted**	**Date of utilisation certificate**
30.05.2012	262.86	2 *per cent*	Not applicable	
14.09.2012	164.29	1.25 *per cent*	310.00	10.09.2012
09.11.2012	131.43	1 *per cent*	Not submitted	
14.08.2013	98.57	0.75 *per cent*	150.00	14.08.2013
Total	**657. 15**	**5 *per cent***	**460.00**	

As detailed above, the third instalment of mobilisation advance of ₹ 1.31 crore was paid without furnishing any proof of having incurred adequate expenditure towards mobilisation. Subsequent payment of fourth instalment of ₹ 98.57 lakh was paid after 12 months from the date of work order, which was in violation of the terms and conditions of contract. Besides, the release of fourth instalment was also not justified in view of available balance of ₹ 98.58 lakh with the contractor against earlier released mobilisation advance.

78 10 *per cent* of ₹ 131.43 crore (contract amount) being the maximum leviable under clause 115.1 of the agreement.

79 ₹ 13.14 crore *minus* ₹ 1.59 crore (recovered as extra deposit for delay recovered during the period June 2014 to November 2016).

80 At the rate of Prime Lending Rate (PLR) of State Bank of India on the date of floating the tender (March 2011) plus three *per cent* i.e. at the rate of 16 *per cent* per annum.

Thus, SE and EE made irregular payment of the third and fourth instalments of mobilisation advance ₹ 2.30 crore to the contractor.

Audit further observed that against ₹ 6.57 crore mobilisation advance paid, NVDA could recover ₹ 3.18 crore only up to last running account bill (November 2016). Thus, mobilisation advance of ₹ 3.39 crore remained unrecovered. The interest of ₹ 2.17 crore leviable[81] on unrecovered mobilisation advance was also not recovered (March 2018), as detailed in **Appendix 3.3**. Thus, failure of EE to recover the interest on mobilisation advance resulted in undue financial benefit to the contractor.

On this being pointed out, the Narmada Valley Development Department stated (August 2017) that mobilisation advance would be recovered, with the progress of work. Besides, the decision on extension was under consideration, the interest on balance would be recovered, if required.

The matter was again referred to the Government (February 2018) and the reply was awaited. However, examination of further information from EE (May 2018 and June 2018) revealed that the contract was terminated by SE in March 2018. While NVDA invoked (February 2018) the Bank Guarantee of ₹ 6.57 crore against the mobilisation advance, it came to notice that City Civil Court Hyderabad vide its order dated 20 August 2015 had imposed restriction on invoking bank guarantee and prohibited any coercive action against the contractor. Thus, the recovery of outstanding mobilisation advance and interest became uncertain.

WATER RESOURCES DEPARTMENT

3.2.5 Extra cost due to award of work to ineligible contractor

Failure of the CE (Dhasan Ken Kachar, Sagar) in complying with the instructions of Major Project Control Board for verification of pre-qualification documents led to entering into agreement with an ineligible contractor for construction of earthen dam of Pawai Medium Irrigation Project. The agreement was subsequently terminated and re-tendering of the work resulted in extra cost of ₹ 11.08 crore, out of which extra cost of ₹ 7.47 crore was already incurred on the work as on March 2018.

In order to reduce the time lag and simplify the procedure of tendering, Water Resources Department (WRD) introduced (2011) the process of centralised tender processing through e-tendering for which a Tender Cell, headed by CE (Procurement) was established in the office of Engineer-in-Chief. As per the prescribed procedure for e-tendering, the data, document and affidavit were to be uploaded by bidder through digital signature and only these documents were to be considered while finalising the bidder's eligibility for the tender. These documents may be verified, if required. However, the technical offers of contractors may be accepted without waiting for the result of document verification, unless other bidders participating in the bid complained that a particular contractor had submitted incorrect information. The financial bid of technically qualified bidders were to be accepted by an empowered

[81] There was a delay of five months and six days on the part of Department. Thus the interest on mobilisation advance was calculated after 80 *per cent* of initial contract period (16 May 2014) plus five months and six days i.e., from 23 October 2014.

committee[82].

WRD invited (August 2013) e-tender for the work of construction of earthen dam of Pawai Medium Irrigation Project with estimated cost of ₹ 64.13 crore. Out of three bidders, the offer of L-1 bidder (M/s Rajkamal Builders Pvt. Ltd.) for ₹ 67.24 crore[83] was accepted (September 2013) by the empowered committee[84] of Major Project Control Board (MPCB[85]). Accordingly, the agreement was executed and work order was issued (27 September 2013) by Executive Engineer (EE), Water Resources Division, Pawai, Panna.

Audit scrutiny of records of EE, Pawai, Panna revealed that the eligibility certificate of the contractor was got verified (February 2014) by EE, Pawai, as WRD had found (February 2014) the eligibility certificate of M/s Rajkamal Builiders to be fake in another work of Mohanpura Dam. Subsequently the eligibility certificate submitted for Pawai Dam work was also found fake (March 2014). Therefore, the contract was terminated (April 2014) by the EE. The earnest money and performance security of the contractor amounting to ₹ 1.00 crore was forfeited.

Further scrutiny revealed that the sanction communicated (September 2013) by MPCB for acceptance of tender had specifically directed the CE, Dhasan Ken Kachar, WRD, Sagar to verify pre-qualification documents[86] submitted by the contractor in all respect before entering into the agreement. However, CE (Dhasan Ken Kachar) did not conduct any verification before execution of the agreement with M/s Rajkamal Builiders.

CE (Procurement) informed (November 2017) Audit that in view of the affidavits of bidders, the information submitted by them were considered as correct and price bid was accepted. CE (Procurement) further stated that CE (Dhasan Ken Kachar) was directed to verify the documents. Thus, neither CE (Procurement) nor CE (Dhasan Ken Kachar) verified the documents submitted by the bidder before entering into agreement with M/s Rajkamal Builders.

The contractor had not executed any work at the time of termination and no payment was made. For rearranging the work, fresh tender was invited in December 2014 and Department awarded (March 2015) the work to another contractor at a cost of ₹ 79.13 crore, which was 14.45 *per cent* above estimated cost (USR 2009).

Had the instruction of MPCB been followed by the CE (Dhasan Ken Kachar), the L-1 contractor would have been ineligible for the agreement and work would have been awarded to L-2 contractor who had quoted ₹ 68.05 crore[87]. Thus, the failure of CE (Dhasan Ken Kachar) to verify the pre-qualification

---

82 For estimated cost of work between ₹ 20 lakh and ₹ 7.50 crore by the empowered committee is headed by Engineer-in-Chief, WRD. For estimated cost of work above ₹ 7.50 crore, the empowered committee is constituted at State Government level.

83 L-1 (4.85 *per cent* above), L-2 (6.12 *per cent* above) and L-3 (12 *per cent* above) the estimated cost at Unified Schedule of Rates (USR) 2009 issued by WRD.

84 The meetings of *Sadhikar Samiti (*empowered committee) was attended by Additional Chief Secretary, Food, Civil Supplies and Consumer Protection; Principal Secretary, Planning Department, Principal Secretary, WRD/Narmada Valley Development Department; Secretary, Department of Finance; CE, BODHI, WRD.

85 MPCB, presided by Chief Minister, is a control board for execution of major irrigation multipurpose projects of the State selected by the State Government.

86 Pre-qualification documents included details of contractor's eligibility in respect of experience, financial and physical turnover etc.

87 6.12 *per cent* above USR 2009.

documents of M/s Rajkamal Builiders before entering into agreement led to extra cost of ₹ 11.08 crore[88]. The new contractor has executed the work amounting to ₹ 116.36 crore up to 35th running account bill so far (March 2018). As a result, the extra cost on work as on March 2018 was ₹ 7.47 crore[89] excluding the forfeited deposits ₹ 1.00 crore of the contractor.

On this being pointed out, WRD stated (March 2018) that for the purpose of simplification of the procedure in e-tendering, the correctness of documents and affidavits submitted by bidders were accepted. There was no case of incorrect certificates submitted by bidder, except this case pointed out by Audit. After termination of the agreement with M/s Rajkamal Builders, the tenders were invited in May 2014, June 2014 and August 2014. However, these tenders were cancelled due to receipt of bids at high rates or lack of competitiveness. The estimated cost of the work was revised in February 2015 and the bid of another contractor, M/s Sarthi Constructions Private Limited, amounting to ₹ 79.13 crore was accepted. WRD further stated that the extra cost computed by Audit was imaginary, as tenders invited at different point of time had been compared.

The reply is not acceptable, as Audit has compared the bids of L1 (M/s Rajkamal Builders) with L2 of the same tender process. Further, the failure of CE (Dhasan Ken Kachar) to comply with the direction of MPCB for examination of pre-qualification bid of M/s Rajkamal Builders led to entering into agreement with ineligible contractor. As a result, the contract could not be awarded to the second lowest bidder, which resulted in extra cost of ₹ 11.08 crore for construction of Pawai Dam as L2 of the first estimate was better than L1 of the revised estimate.

3.2.6 Extra cost in canal works of Pawai Medium Irrigation Project

WRD awarded (September 2013) the work for construction of complete canal system including earth work, structure and lining of Pawai Medium Irrigation Project to a contractor at a cost of ₹ 74.21 crore (7.02 *per cent* above the estimates). The work was to be completed by September 2015. Time extension up to October 2017 was granted (November 2016) by CE, Dhasan Ken Kachhar, Sagar under force majeure clause. Further, time extension was under process (March 2018) in the office of Superintending Engineer.

Compliance audit of office of EE, Water Resources Division, Pawai, Panna district revealed the following:

3.2.6.1 Extra cost due to failure of EE to ensure rectification in bill of quantity

Failure of EE, Pawai to ensure rectification in the bill of quantity (G-schedule of the contract) before entering into agreement resulted in extra cost of ₹ 1.34 crore on execution of M-10 grade canal lining which was paid at the higher rate applicable for M-15 grade canal lining.

Audit noticed that the estimated cost of ₹ 69.34 crore for the canal work

88 Cost of second tender ₹ 79.13 crore *minus* ₹ 68.05 crore (quoted rate of second lowest bidder in first tender).

89 = ₹ 116.36 crore – {₹ 116.36 crore ×106.12/114.45} (as tender of L-2 bidder in first tender was 6.12 *per cent* above estimated rate and of new contractor was 14.45 *per* cent above estimate rate) - ₹ 1.00 crore (forfeited amount of earnest money and the performance security of contractor).

the estimated cost of ₹ 15.78 crore for M-15 grade (1:2:4)[90] Cement Concrete (CC) canal lining at the rate of ₹ 3836.72 per cubic metre (cum). However, the mixture for M-15 grade was incorrectly mentioned in the G-schedule (bill of quantity) of the published NIT (15 June 2013) as 1:3:6 (M-10) CC mix. Later on, EE Pawai requested (25 June 2013) CE (Procurement) for rectification of this mistake in the G-schedule of published NIT in departmental website, which was corrected in the NIT by CE (Procurement). However, the same EE, while executing the agreement (September 2013), did not ensure rectification of this mistake in G-schedule forming part of the agreement.

Consequently, the agreement for the construction of canal works provided for the execution of 41,123 cubic metre (cum) of canal lining in 1:3:6 CC mix. However, the payment was made for this item as rate applicable to 1:2:4 CC mix due to incorrect G-schedule of the agreement. This resulted in extra cost of ₹ 1.34 crore[91] on 16,329.41 cum of executed works till 48th running bill (June 2017).

Further scrutiny revealed that the discharge of Pawai canal was ranging from 8.65 to 9.96 cubic metre per second (cumec) and water depth was ranging from 1.95 to 2.0 metre. The Unified Schedule of Rates (USR) 2009 provided for 1:2:4 CC lining in case of canals having more than three cumec discharge with water depth more than one metre. Therefore, the execution of canal lining with 1:3:6 CC mix also resulted in substandard canal lining[92].

On this being pointed out, WRD stated (March 2018) that the provision for M-10 CC lining was made in the G-schedule of the agreement and the payment was made to the contractor accordingly. It further stated that there was no effect on quoted rate due to any discrepancy in estimated rates.

The reply is not acceptable, as the agreement was entered into without rectification of mistake with reference to grade of CC lining in the G-Schedule though it was corrected in the NIT. This resulted in substandard CC lining and extra cost of ₹ 1.34 crore due to payment to contractor at a higher rate applicable for M-15 (1:2:4) grade CC lining, whereas the work actually executed was M-10 grade (1:3:6) CC lining.

3.2.6.2 Extra cost due to incorrect estimates of work

Failure of Chief Engineer (Dhasan Ken Kachar, Sagar) to finalise technical estimates of the canal works before publishing NIT resulted in substantial increase in the estimated quantity during execution of works. A portion of the work was subsequently withdrawn from the contractor and re-awarded to another contractor at higher cost resulting in extra contractual obligation of ₹ 6.49 crore.

According to para 2.028 of the Madhya Pradesh Works Department (MPWD) Manual, an officer according the technical sanction to an estimate is

---

90 The grades of cement concrete indicate the designed compressive strength of cast in situ lining work. The nominal mix strength of M 15 is equivalent to 1:2:4 of cement, sand and metal whose strength is equal to 150 kg per square cm. For M 10 grade, the nominal mix is 1:3:6 whose compressive strength is not less than 100 kg per square cm.

91 {₹ 3,836.72 (clubbed rate with M-15 CC) -₹ 3,068.07 (clubbed rate with CC lining M-10)} = ₹ 768.65 × 16,329.41 cum *plus* 7.02 (tender percentage) = ₹ 1.34 crore

92 M10 (1:3:6) CC lining is to be done for canal having discharge up to three cumec and less and depth of water less than one metre.

responsible for incorporating all the items required for inclusion in the estimate with reference to the drawing.

Audit noticed that the technical sanction of the estimated cost for the canal work was approved (January 2012) by CE Dhasan Ken Kachar, Sagar for ₹ 69.34 crore without finalisation of drawings and design of structures in the canal. The work was awarded (September 2013) to the contractor for ₹ 74.21 crore[93]. While the work was in progress (32 *per cent*), the Engineer-in-Chief (E-in-C) noticed (February 2015) during a meeting with representatives of the contractor that the estimated quantity of work was very less as compared to the actual work to be executed and the work would cost ₹ 128 crore as against the contract value of ₹ 74 crore.

Further scrutiny of records revealed abnormal increase in the quantities of various items of work, such as excavation (107 *per cent*), earth work (73 *per cent*), RCC works (137 *per cent*) and steel works (598 *per cent*). EE attributed (October 2017) these variations to increase in number of structures and change in bed width of canal after award of work. The reply is not acceptable, as these increase in quantity of works was due to failure of Sub Divisional Officer, EE, SE and CE to finalise the drawings and design of structures in the technical sanction.

In view of substantial increase in the cost of work, E-in-C directed (March 2015) the Superintending Engineer, Chhatarpur to withdraw a portion of work[94] from the contractor and invite separate tender for the same. Departmental enquiry was also ordered (March 2015) for negligence in preparation of the estimated cost of the work. The withdrawn work (estimated cost of ₹ 59.91 crore) was awarded (September 2015) to another contractor at a cost of ₹ 70.63 crore.

Thus, the overall contract amount of Pawai Medium Irrigation Project became ₹ 144.93 crore, which was 12.04 *per* cent above the estimated cost of ₹ 129.35 crore[95] (USR 2009) as against initial agreement with the original contractor at 7.02 *per cent* above the estimates (USR 2009). On this being pointed out by Audit, CE attributed (July 2017) the higher rate in case of withdrawn work to increase in rates of material, labour and machinery due to passage of two years after the previous NIT for the work.

The reply is not acceptable. The failure of CE to finalise technical estimates before publishing NIT led to extra contractual obligation of ₹ 6.49 crore[96] on the work, as it had to withdraw a portion of the work from the contractor after two years of agreement and the withdrawn work was subsequently awarded to another contractor at higher rate. Out of this, extra cost of ₹ 2.70 crore[97] was already incurred till 14th running bill of the second contractor (September 2017). Further, no departmental enquiry was initiated

[93] 7.02 *per cent* above the estimated cost of ₹ 69.34 crore at USR 2009 of WRD.

[94] Feeder Canal from RD km 0.00 to RD km 11.95, Narainpura Minor, etc.

[95] Estimated cost of work (as per revised estimate) with first contractor (₹ 69.44 crore) *plus* estimated cost of work with second contractor (₹ 59.91 crore).

[96] Average tender *per cent* 12.04 minus 7.02 tender *per cent* of first work=5.02 *per cent* of total cost of work ₹ 129.35 crore.

[97] Difference of tender *percent* of first work (7.02 *per cent* above) and tender *per cent* of second work (17.89 *per cent* above) = 10.87 *per cent* {₹ 59.91 crore (estimated cost of second work) × ₹ 29.28 crore (up to date payment of second work)/ ₹ 70.63 crore (contract cost of second work).

(as of January 2018) for fixing accountability for the negligence in preparation of estimate. On this being pointed out in Audit, E-in-C directed (January 2018) CE, Dhasan Ken Kachar, Sagar to examine the matter and fix the accountability.

The matter was referred to the Government (June 2017), and their reply was awaited (May 2018).

3.2.7 Extra cost due to application of incorrect rates for earth work

Adoption of incorrect rates for earth work of canal with lead resulted in extra cost of ₹ 7.05 crore on works of cement concrete lining of Tawa Project and Barna Project.

A. WRD awarded (March 2014) the works of "cement concrete lining with paver machine" under Tawa Project for ₹ 89.97 crore, to be completed by March 2016.

As per item 415 (C) of USR 2009 of WRD (as amended in January 2010), the rates for earth work for maintenance and repairs, on bunds and on canal banks[98] including all lifts and lead is ₹ 38 per cubic metre.

Scrutiny of the records of CE, WRD, Hoshangabad revealed that the estimate of earth work was prepared[99] with the provision of excavation (USR 2009 item no. 401 b) and transportation of soil from spoil banks[100] with average lead[101] of 1.5 km (USR item 2903). As a result, the rate for execution of earth work was worked out to ₹ 73.18 per cubic metre, whereas the rate for this composite item in the USR {item no. 415 (C)} was only ₹ 38 per cum. Thus, adoption of incorrect rate in estimate and tender resulted in extra cost of ₹ 3.33 crore as detailed in **Appendix 3.4**.

On this being pointed out, the WRD stated (January 2018) that the canal was 42 years old and therefore canal section increased from 24.47 metre to 25.27 metre. Canal section was constructed in partial filling and cutting to bring the inner slope of canal section in designed section. As the earth was not available in filling reaches, earth was transported from spoil banks and provision for transportation of earth was made.

The reply is not acceptable, as the renovation of the widened canal section in Tawa Project was of the nature of repair and maintenance of canal and item 415 (C) of USR (as amended in January 2010) provides composite rate of earth work for repair and maintenance of canal including all transportation cost.

The matter was again referred to Government (February 2018); their reply was awaited (April 2018).

---

98 In hearting or casing with approved soils, including dressing breaking of clods, cutting and finishing in required bed grade and side slopes of bund and canal.

99 The estimate was prepared by EE, recommended by SE and sanctioned by CE.

100 Surplus material from excavation is deposited outside on one or both side of the canal banks to form spoil banks.

101 As per para 1.3 of subhead 1.0 of CPWD specifications, lead is the distance of carriage measured over the shortest practical route or route approved by Engineer-in-Charge along with the reasons.

B. WRD awarded (September 2013) the works of "renovation of existing canal lining, construction of CC lining, remodeling and raising of canal banks of Combined Main Canal (CMC) and Left Bank Main Canal (LBMC) and construction of service road over CMC and LBMC" of Barna Project for ₹ 32.18 crore.

As per item 415 (A) of USR of the WRD (as amended in January 2010), the rate for earth work for bunds is ranged from ₹ 31 to ₹ 64 per cubic metre depending upon distance of transportation of soil.

Scrutiny of the records of EE, Barna LBC Division, Bari, District Raisen revealed that the clubbed rate of earth work was prepared[102] with the provision of excavation (USR 2009 item no. 401 b) and transportation of soil with lead of 0.50 km to two km (USR 2009 item no 2903). Since the composite rate for the earth work was already available in the USR {item 415 (A) of USR}, the preparation of different clubbed rate for this item was incorrect and it resulted in extra cost of ₹ 3.72 crore to Government, as detailed in **Appendix 3.5**.

On this being pointed out, the Government stated (January 2018) that the work of raising of existing canal bank and renovation and strengthening of bank was carried out for increasing the discharge capacity of canal for additional 10,000 hectare command area. Item No. 415 (C) was applicable for construction of new canal. Excavated earth from housing was not sufficient for raising of canal banks and outer slope of canal. Maximum filling quantity is carried out from borrow area. The excess earth was not available nearby so the required earth was transported from borrow area for raising of canal banks. In canal excavation, the earth excavated from surplus reaches were utilised in adjoining deficit reaches so that the land acquisition for disposal of surplus earth and borrow area in deficit reaches was reduced to minimum. The average distance from borrow area to both ends of canal was approximately 7.45 kilometre. The Technical Sanction (TS) was accorded (February 2013) with consideration of USR 2009 for transportation of material beyond free lead. The lowest rate for earth work was as per TS accorded and the maximum of two km of lead was provided.

The reply is not acceptable, as item No.415 (C) of USR 2009 is applicable for earth work for maintenance and repairs on canal banks and not on construction of new canal. Further, item 415 (A) of USR, which provides a composite rate for earth work including all transportation cost of soil in case of new canal work, was applicable in this case as the work of raising of existing canal bank and renovation and strengthening of bank was carried out for increasing the discharge capacity of canal. Moreover, Audit has worked out the rate of earth work under item 415 (A) of USR with lift and lead beyond two kilometre, which is higher (₹ 64 per cum) than the rate payable for earth work (₹ 38 per cum) under item 415 (C) of USR.

The matter was again referred to the Government (February 2018); their reply was awaited (May 2018).

[102] The estimate was prepared by EE, recommended by SE and sanctioned by CE.

3.2.8 Irregular payment to contractor

Executive Engineer, Keoti Canal Division, Rewa did not regulate payment to the contractor as per the payment schedule under the agreement for construction of Bahuti canal, which resulted in irregular payment of ₹ 153.25 crore to the contractor without achieving milestones for creation of irrigation potential.

The Department awarded (September 2013) the works of construction of Bahuti canal, which is off taking from Bansagar Dam, to a contractor for ₹ 428 crore on turnkey contract basis. The scope of work included completion and commissioning of earthen canal system and its distribution network from RD km 18.00 to RD km 74.00 (excluding tunnel portion) and lining of main canal and all distributaries, minor and sub-minors up to one cumec[103]. The work was scheduled to be completed by September 2016.

The work was divided into four milestones. Clause 12 of the Notice Inviting Tender (NIT), which was part of the contract and Section VI (milestone schedule) of the contract stipulated that the turnkey contractor as a milestone must ensure the planning of the construction of main canal, its distributaries and minors along with structure in such a way that by the end of second milestone of stipulated period about 35,000 hectares of command is fully developed, excluding lining. Similarly, by the end of third milestone, remaining 30,000 hectares of command is developed in all respects excluding lining of the third milestone but including lining work for second milestone. At the end of fourth milestone, all canal systems should be completed including lining of 30,000 hectares in all respects. The payment schedule (Appendix F of the contract) was also linked to phase wise development of command area of Bahuti canal, as detailed in **Table 3.2.2**.

Table 3.2.2: Payment schedule for construction of Bahuti canal

Stages of payments	Details of works to be executed	Percentage of bid amount
First stage	After survey, fixing alignment, design-drawing, etc.	one (revised by CE to two *per cent* in October 2014)
Second stage	After development of command area of 20,000 hectare complete in all respects by constructing complete canal system	25
Third stage	After development of command area of 20,000 hectare complete in all respects by constructing complete canal system	30
Fourth stage	After development of command area of 24,910 hectare complete in all respects by constructing complete canal system	39
Fifth stage	After commissioning and trial of constructed system and after defect liability period is over	five (revised by CE to four *per cent* in October 2014)

103 Cubic metre per second (cumec) is the unit of discharge of water.

Scrutiny of records of Executive Engineer (EE), Keoti Canal Division, Rewa revealed that contractor could achieve only 35 *per cent* of physical progress by the end of stipulated completion date. The contractor was granted (November 2016) time extension up to December 2017 after reserving the right to impose penalty, as the grounds on which time extension was sought by contractor was not considered justifiable. However, none of the milestones was achieved till January 2018. The contractor was granted (April 2018) further time extension up to December 2018 after reserving right to impose penalty.

Further scrutiny revealed that the works of second milestone was commenced in January 2014. Subsequently, the works of third and fourth milestones were taken up in March 2015 without developing any command area under second milestone. At the time of commencement of the work of third and fourth milestones, 8.095 km of main canal (47 *per cent*) and 2.619 km of distributary/minor/sub-minors (one *per cent*) of second milestone were executed. The reason for such scattered execution of canal works, which was contrary to the stipulation of the agreement, and the authority which allowed to execute the works of second and third milestone were not available on record. Audit noticed that EE made payments to the contractor for canal works executed under each milestone, as detailed in the **Table 3.2.3**.

Table 3.2.3: Status of works under Bahuti canal as on January 2018

Stages of payments	Main canal (km)		Distribution system (km)		Payment made (₹ in crore)
	Designed	Achieved	Designed	Achieved	
First stage	survey, fixing alignment, design-drawing, etc.				7.92
Second stage	17.23	14.66	226.01	11.36	57.49
Third stage	17.23	15.18	226.01	61.55	82.80
Fourth stage	21.54	19.04	280.90	73.12	101.05

Thus, EE did not link payment to the contractor with the achievement of command area, as prescribed under the payment schedule of the contract. On this being pointed out, EE cited (June 2018) a letter from Chief Engineer (CE) (May 2017) providing the approval of payments for work done in subsequent milestones without achieving the first milestone. However, examination of the said letter revealed that CE had directed the EE to regulate payment as per payment schedule (Appendix F). Moreover, clause 16 of the agreement specifically provided that CE had no authority to amend the contract and the payment schedule (Appendix F) was the integral part of the contract. Thus, the reply of the EE is not acceptable.

The contractor was paid ₹ 249.26 crore (58 *per cent* of contract value) till January 2018 without even achieving second milestone of 20,000 hectare up to which only 26 *per cent* of contract amount was payable as per contract provisions. Keeping in view the creation of 14,800 hectare irrigation potential (22.80 *per cent*) as on January 2018, the contractor was eligible for payment of ₹ 96.01 crore[104].

104 ₹ 4.28 crore (for survey and investigation) + ₹ 91.73 crore (22.80 *per cent* of total payable amount of ₹ 402.32 crore for creation of irrigation potential of 64,910 hectares).

Thus, the failure of EE to adhere to the payment schedule of the contract resulted in irregular payment of ₹ 153.25 crore. This also defeated the objective of phase wise development of command area of Bahuti Canal and the expenditure on construction of main canal and distribution network remained unfruitful due to non-creation of irrigation potential.

The matter was referred to the Government (June 2017); their reply was awaited (May 2018).

Bhopal **(BHAWANI SHANKAR)**
The 18 August 2018 **Accountant General**
(Economic and Revenue Sector Audit)
Madhya Pradesh

Countersigned

New Delhi **(RAJIV MEHRISHI)**
The 21 August 2018 **Comptroller and Auditor General of India**