



**PERFORMANCE AUDIT REPORT**

**ON THE**

**CONSTRUCTION OF CHAHAN DAM**  
**RAWALPINDI**

**IRRIGATION DEPARTMENT**  
**GOVERNMENT OF THE PUNJAB**  
**FOR THE YEAR 2014-15**

**AUDITOR GENERAL OF PAKISTAN**

## **PREFACE**

The Auditor-General conducts audit under Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with sections 8 and 12 of the Auditor General's (Functions, Powers, Terms and Conditions of Service) Ordinance, 2001. The performance audit of the project "Construction of Chahan Dam Rawalpindi", executed by the Irrigation Department, Government of the Punjab was carried out accordingly.

The Directorate General Audit Works (Provincial), Lahore conducted performance audit of the project "Construction of Chahan Dam Rawalpindi" during 2014-15 for the period 2011-12 to 2014-15 with a view to reporting significant findings to the stakeholders. Audit examined the economy, efficiency, and effectiveness aspects of the Project. Audit also assessed, on test check basis, whether the management complied with applicable laws, rules, and regulations in executing & managing the Project. The Audit Report indicates specific actions, if taken, will help the management to realize the objectives of the Project.

All the findings included in this report have been finalized in the light of written responses and discussion in SDAC meeting held in August, 2015.

The report is submitted to the Governor of Punjab in pursuance of Article 171 of the Constitution of the Islamic Republic of Pakistan 1973, for causing it to be laid before the Provincial Assembly.

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Rana Assad Amin  
**Auditor General of Pakistan**

Dated: 24.11.2016

## ABBREVIATIONS & ACRONYMS

AA	Administrative Approval
ADP	Annual Development Programme
B&R	Buildings and Roads
BC Ratio	Benefit Cost Ratio
Cft	Cubic Feet
DFR	Departmental Financial Rules
DAO	Divisional Accounts Officer
DNIT	Draft Notice Inviting Tender
EIA	Environmental Impact Analysis
KM	Kilometer
LAC	Land Acquisition Collector
MB	Measurement Book
M&R	Maintenance & Repair
MRS	Market Rates System
MTDF	Medium Term Development Framework
NICL	National Insurance Corporation Limited
O&M	Operations & Maintenance
PC-I	Planning Commission Performa-I
P/L	Providing / Laying
PDWP	Provincial Development Working Party
PFR	Punjab Financial Rules
Pft	Per Feet
PPRA	Punjab Procurement Regulatory Authority
PWD	Public Works Department
PAO	Principal Accounting Officer
RCC	Reinforced Cement Concrete
RD	Reduced/Road Distance
Sft	Square Feet
TSE	Technical Sanction Estimate

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## **EXECUTIVE SUMMARY**

Directorate General Audit Works (Provincial), Lahore conducted the performance audit of the project “Construction of Chahan Dam Rawalpindi” in January, 2015. The dam is under construction on a tributary of Sill River, on Chakri Road 35 km south west of Rawalpindi city. The project was designed to boost up the agrarian economy of the area by irrigating 12000 acres of barani land through gravity flow, drinking water supply to the people / cattle in the area and development of fish culture & livestock.

Main objectives of the audit were to evaluate the financial/physical performance, achievements of project objectives and the desired benefits as envisaged in PC-I with respect to economy, efficiency and effectiveness. The audit was conducted in accordance with the INTOSAI auditing Standards.

The scheme was funded through Annual Development Programme (ADP) and original PC-I was approved at a cost of Rs 787.317 million in March, 2012. As per original PC-I Benefit Cost ratio was envisaged as 1:2.68 with Net Present Benefit of Rs 1929.38 million.

The work “Construction of Chahan Dam Rawalpindi” was awarded to the contractor in June, 2012 at a cost of Rs 521.305 million, with completion period of 28 months i.e. upto 30.09.2014. During execution of work, an additional work “Construction of Irrigation Channel Chahan Dam” was added in the original scheme and PC-I was revised to Rs 1,567.429 million in April, 2013. The additional work “Construction of Irrigation Channel” was awarded to a different contractor in June, 2014 with agreement amount of Rs 698.850 million, to be completed within 470 days i.e. up to 13.10.2015. Only 30% physical progress could be achieved till the planned completion date of 30.09.2014.

At the time of finalization of report in September, 2016, latest figures of physical and financial progress were obtained, according to

which an expenditure of Rs 1170.83 million was incurred upto 30<sup>th</sup> August, 2016 and work was still in progress ( the expenditure incurred after January, 2015 was not audited).

Project objectives and targets as envisaged in the PC-I could not be evaluated as the project was not yet complete. As per PC-1 total socio-economic benefits of the project were envisaged to be worth Rs 17,304 million to be reaped during next 50 years on account of improvement in crop productivity / yield and up-lifting of livestock and fisheries.

The system of internal controls as laid down in the departmental codes / instructions was not found to be effectively implemented. During audit, certain observations indicated lapses in financial management, procurement & contract management, construction & works and monitoring & evaluation of the project.

### **Key audit findings**

Audit findings, categorized into Financial Management, Procurement & Contract Management, Constructions & Works and Monitoring & Evaluation, were as under:

1. Under the category of financial management irregularities of Rs 560.108 million were observed including non-utilization of funds, non-obtaining of vouched accounts from Land Acquisition Collector (LAC) Rawalpindi, loss due to delayed inclusion of channel work and non-recovery of secured advances etc.
2. Audit of Procurement and Contract Management revealed irregularities of Rs 55.332 million which included non-recovery of compensation due to non-completion of work in stipulated time, non-recovery due to non-employment of qualified engineers, overpayment due to non-application of

rebate on price variation and extra expenditure due to payment to consultants beyond stipulated period.

3. Under Construction & Work, irregularities of Rs 122.080 million which included overpayment due to non-utilization of available earth and extra expenditure due to excess over estimate were pointed out.
4. Monitoring & Evaluation aspect revealed that no detailed progress reports had been prepared by the consultants to monitor the progress of work and workmanship of the contractor.

### **Recommendations**

Audit observed that most of the irregularities were either due to weak technical, supervisory and financial controls or poor contract management. Principal Accounting Officer (PAO) needs to strengthen internal controls regime in the department in the light of following recommendations:

- (i) Fund need to be utilized efficiently to achieve objective of projects well in time.
- (ii) Adherence to contractual obligations needs to be ensured at every stage of execution.
- (iii) Action needs to be initiated and responsibility fixed against the officers concerned for lapses and violation of rules besides effecting recoveries.

## **1 Introduction**

Water is essential for sustenance of all forms of life on earth. It is not evenly distributed all over the world and even its availability at same locations is not uniform throughout the year. Parts of the world, which are scarce in water, are prone to drought, other parts of the world, which have abundant water, face a challenging job of optimally managing the available water resources. The dams and reservoirs, all over the world, have been playing dual role of harnessing the river waters for accelerating socio-economic growth and mitigating the miseries of a large population from floods and droughts.

In Potohar region, the crop yields are extremely poor and crop failures are quite frequent due to uncertain rains. Therefore, socio economic condition of people is not enviable. The only solution to this problem is to conserve the rain water run-off for agriculture and other domestic usage through building dams. The dam under audit i.e. Chahan Dam is located on Sill Kas a tributary of Sill River at 35 km south west of Rawalpindi city on Chakri Road. The proposed project would boost up the agrarian economy of the area by irrigating 12000 acres of barani land through gravity flow, drinking water supply to people, cattle in the area, development of fish culture and live stock. As per original PC-I Benefit Cost ratio was envisaged as 1:2.68 with Net Present Benefit of Rs 1929.38 million.

The Project Construction of Chahan Dam Project, Rawalpindi was funded through Annual Development Programme (ADP). Original PC-I was approved at a cost of Rs 787.317 million in March 2012. The work of "Construction of Chahan Dam Rawalpindi" was awarded to a contractor in June 2012 at a cost of Rs 521.305 million to be completed within 28 months upto 30.09.2014. During execution of work, an additional work "Construction of Irrigation Channel Chahan Dam" was incorporated in original schemes and PC-I was revised to Rs 1567.429 million in April, 2013. The additional work "Construction of Irrigation Channel" was awarded to a different contractor in June, 2014 with agreement amount of Rs 698.850 million to be completed in 470 days i.e. up to 13.10.2015. Till the time of audit, the work was in progress especially the work "Construction of Chahan Dam" was extremely slow. Only 30% physical progress was achieved on 30.06.2014 which was the date of completion.

Project objectives and targets as envisaged in the PC-I could not be evaluated due to non-completion of project as per schedule.



### 1.1 Responsible Authorities:

Sponsoring address:	Government of the Punjab, Irrigation Department
Executing Agency	Small Dams Division, Islamabad
Operation and Maintenance:	Small Dams Division, Islamabad
Controlling Department:	Irrigation Department
Operation & Maintenance:	Small Dams Division, Islamabad
Operation & Maintenance Cost	Rs 8.000 million per annum

### 1.2 Objectives and main benefit

As per PC-I, the project would irrigate 12,000 acres of land through gravity flow. The project will boost up the agrarian economy of the area by irrigating 12,000 acres of barani land, providing drinking water to people / cattle in the area, development of fish culture, livestock etc. The project would also generate employment opportunities (direct and indirect) for the local inhabitants.

### 1.3 Beneficiaries

As per PC-I the main beneficiaries of the project are farmers and inhabitants because increase in crop intensity and yield would result in increase in income, improvement in quality of life and reduction of poverty in the area.

### 1.4 Time phasing of the project

As per agreement the project “Construction of Chahan Dam Part-I” was to be completed within 28 months (upto 30-09-14) and “Construction of Irrigation Channel” for Chahan Dam Part-II (included in revised estimate) was to be completed on 13.10.2015.

### 1.5 Capital cost of the project

<b>Works</b>	<b>Amount</b>
Part-I Construction of Chahan Dam	833.080
Part-II Construction of Irrigation Channel	734.348
<b>Total</b>	<b>1,567.428</b>

**Table-II Project expenditure (Audited) (Rs in million)**

Project cost as per original PC-I	As per revised PC-I	Expenditure as on 30.06.2014	% Expenditure
787.317	1,567.428	607.635*	38.77%

**Table-III Updated Project Expenditure (Rs in million)**

Project cost as per original PC-I	As per revised PC-I	Expenditure as on 30.08.2016	% Expenditure
787.317	1,567.428	1170.826*	<b>74.70%</b>

\* The expenditure includes cost of land acquisition of Rs 133.866 million

1.6 **Source of Finance:** Government of the Punjab

1.7 **Project Stage:** The project was at implementation stage with total expenditure of Rs 1170.826 million upto 30.08.16 including cost of land.

## **2. AUDIT OBJECTIVES**

Audit objectives were to:

- 2.1 Review project performance against intended objectives.
- 2.2 Assess whether project was managed with due regard to economy, efficiency, effectiveness.
- 2.3 Review compliance with applicable rules, regulations and procedures.

### **3. AUDIT SCOPE AND METHODOLOGY**

3.1 Audit methodology included preparation of PSR, data collection, examination/analysis of record, discussions with engineering staff and site visits to have a physical view of the work done.

3.2 The audit scope included the examination of accounts of the scheme for the financial years from 2008-09 to 2011-12 and 2011-12 to 2014-15 with special emphasis on economy, efficiency and effectiveness.

### **4 AUDIT FINDINGS AND RECOMMENDATIONS**

#### **4.1 ORGANIZATION AND MANAGEMENT**

4.1.1 The scheme was executed by the Small Dams Division, Islamabad under the administrative control of Irrigation Department. The division was also executing other schemes during the same period. The division was headed by an Executive Engineer, assisted by Sub-Divisional Officers, Sub-Engineers and Divisional Accounts Officer.

4.1.2 Job descriptions of the said staff are well defined in the Public Works Department Code. The Sub-Engineer was supposed to be present at site throughout execution of the work. The Sub-Divisional Officer was to visit the site in routine and was responsible for 100% checking of work whereas Executive Engineer was to visit the site occasionally. He was responsible to carry out 10% check measurements of work done. The Chief Engineers and Superintending Engineers concerned were also required to carry out physical inspections of the schemes under execution and review project performance against intended objectives of the project.

4.1.3 As per financial management and accounting procedure, the contractor submits the bills to consultants for checking the quality/quantity of work. The consultant refers the bill to the Executive Engineer, Small Dams Division, Islamabad. The Sub-Engineer, Sub-Divisional Officer and Divisional Accounts Officer pre-audit the bills which are passed/sanctioned by the Executive Engineer after checking the bill in all respects. Finally the cheques are issued to the contractors by the Sub-Divisional Officer for payment.

4.1.4 The accounts of formations are compiled on monthly basis and submitted to the Director General Accounts Works, Lahore for

consolidation and onward transmission to the Accountant General Punjab for incorporation thereof in the monthly accounts of the province.

4.1.5 Internal audit mechanism does not exist as such in the organizational setup of the department.

## 4.2 FINANCIAL MANAGEMENT

4.2.1 Cash flows/release of funds are regulated by the Finance Department through its cash management plan depending on the cash flows. Generally, funds are released to the executing agency at the start of the financial year to take up execution of works as per work plan issued by the executing agency.

4.2.2 Funds released for the project were not fully utilized during the period from 2011-2012 to 2014-15, resulting in lapse of Rs 225.201 million.

4.2.3 Details of allocation & release as on 30.6.2014 are as under:

**(Rs in million)**

Sr. No	Year	ADP Allocations	Releases	Actual Expenditure	Saving
01	2011-12	250.000	250.000	149.152	100.848
02	2012-13	362.836	362.836	238.852	123.984
03	2013-14	70.000	70.000	69.991	0.008
04	2014-15	150.000	150.000	149.639	0.360
		<b>832.836</b>	<b>832.836</b>	<b>607.635</b>	<b>225.201</b>

### Component wise detail of expenditure

**(Rs in million)**

Sr No.	Work	Expenditure as on 30.06.2016
1.	Construction of Chahan Dam	269.279
2.	Construction of Irrigation Channel	136.278
3.	Land Acquisition	133.866
4.	Miscellaneous	68.212
	<b>Total</b>	<b>607.635</b>

Perusal of above table shows that the department did not fully utilize the released funds efficiently during the financial year 2011-12 and 2012-2013.

4.2.4 Accounts are submitted on monthly basis to the account offices upto 5<sup>th</sup> of every calendar month.

4.2.5 Reconciliation of expenditures is done with the accounting offices on monthly basis by the spending units as prescribed in the Punjab Budget Manual.

4.2.6 Payments are regulated by the provision of contract agreements, Departmental Financial Rules (DFR) and MRS.

4.2.7 Engineering divisions maintain their accounts manually.

4.2.8 The issues relating to the financial management observed during audit involving an amount of Rs 560.18 million are as under:

**4.2.8.1 Non-obtaining of vouched accounts from Land Acquisition Collector -Rs 133.867 million**

As per Rule 2.20 of PFR Vol-I every payment including repayment of money previously lodged with Government for whatever purpose must be supported by voucher setting forth full and clear particulars of the claims.

Executive Engineer, Small Dams Division, Islamabad made an advance payment of Rs 133.867 million to Land Acquisition Collector (LAC) Rawalpindi for acquisition of land for Construction of Chahan Dam. However, neither vouched accounts of said advance payment were obtained from LAC nor mutation of the land in the name of Irrigation Department was on record.

Weak financial and supervisory controls resulted in non-obtaining of vouched account for Rs 133.867 million from Land Acquisition Collector and non-mutation of land with Irrigation Department.

Audit pointed out the irregularity in February, 2015. The Department replied that Land acquisition activity has yet not been finalized and vouched accounts would be provided by LAC after

finalization of land acquisition activity. Further, that mutation would also be carried out after final payment by LAC to land holders. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not agree with the view point of department and directed that vouched accounts may be obtained at the earliest but no progress was reported till finalization of the report in September, 2016.

Audit recommends obtaining of vouched accounts and mutation of land in the name of the department.

**(Para-11)**

#### **4.2.8.2 Non-achievement of Socio-economic benefits - Rs 115.74 million**

As per PC-I the main objectives of construction of Chahan Dam were to irrigate 12,000 acre of land through gravity flow, uplift of living standards, poverty reduction, employment generation and provision of drinking water and obtaining socio-economic benefit of Rs 1929.380 million.

The work, "Construction of Chahan Dam Part-I (main dam)" was awarded in June, 2012 with agreement amount of Rs 521.305 million and "Construction of irrigation channel at Chahan Dam Part-II in June, 2014 at a cost of Rs 698.500 million to two different contractors. The original works were to be completed on 30.09.2014 but only 30% physical progress was achieved as on 31.12.2014. Therefore, the community was put to socio-economic loss of at least Rs 115.74 million (Net present value of socio economic benefits envisaged as per PC-I Rs 1,929/50 x3years).

On account of non-completion of project, the envisaged socio-economic benefits, Net Present Value of which comes to Rs 115.74 million, could not be achieved.

Audit pointed out the loss in February, 2015. The Department replied that the adopted/designed life of the project is 50 year after its completion but practically the project will remain beneficial till operational life of the dam which would be more than 50 years. The para was discussed in DAC meeting held on August 13, 2015. The Committee directed to complete the project within time to achieve the intended objectives but no progress was reported till finalization of report in September, 2016.

Audit recommends timely completion of the project in the interest of public and to avoid cost overrun. Responsibility for delay in completion of project may also be fixed.

**(Para 08)**

#### **4.2.8.3 Non-recovery of secured advance - Rs 3.232 million**

As per instructions of Government of the Punjab issued by department vide letter dated 29.05.1997 read with Rule 7.20 of DFR, secured advance should be recovered within three months.

The work “Construction of Chahan Dam Part-I” was awarded to a contractor in June, 2012 with agreement amount of Rs 521.305 million. During execution of work secured advance of Rs 15,680,050 was paid to the contractor against the work “wire netting” from March 2013 to July, 2014 but recovery of Rs 12,447,540 only was made. Remaining amount of Rs 3,232,510 was yet to be recovered.

Weak financial and supervisory controls resulted in non-recovery of Rs 3,232,510.

Audit pointed out the irregularity in February, 2015. The Department replied that recovery of material utilized had been made and balance recovery of Rs. 3,232,510 would be made after use of material in physical work component. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not agree with the reply of the department and directed that total amount may be recovered within 30 days. No progress towards recovery was reported till finalization of report in September, 2016.

Audit recommends early recovery from the contractor.

**(Para-19)**

#### **4.2.8.4 Non-application of financial analysis tools to ascertain economic viability of project.**

As per instruction contained in Guideline for Project Management Government of Pakistan Islamabad, financial / economic analysis with assumption will be carried out to derive financial economic and social benefits.

The project Construction of Chahan Dam was administratively approved for Rs 787.317 million in March, 2012. The PC-I was revised to Rs 1,567.429 million in May, 2013. While conducting financial analysis and to ascertain economic viability of the project, the tools for financial analysis i.e. profitability index, payback period, net present value and internal rate of return (economic) were not applied. Only benefit/cost ratio was calculated which is considered as a weak tool for analysis of a project especially for a mega project costing more than Rs1500 million. The non-application of financial tools was not justified.

Weak financial and supervisory controls resulted in non-application of financial analysis tool to ascertain economic viability of project.

Audit pointed out the irregularity in February, 2015. The Department replied that economic analysis as required for the project was carried out which is part of approved PC-I of the project. Environment report was also part of PC-I approved by competent forum i.e. P&D Department, Government of the Punjab. The reply was not tenable as only benefit/cost ratio was calculated in PC-1 on hypothetical data. Detailed financial analytical tools were also required to be employed to evaluate the sustainability of the project. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not agree with the view point of department and directed that case may be sent to P&D department for advice but no progress was reported till finalization of report in September, 2016.

Audit recommends that advice may be sought at the earliest as per DAC decision.

**(Para 07)**

### **4.3 PROCUREMENTANDCONTRACTMANAGEMENT**

4.3.1 No procurements were involved in the project. The materials consumed in the project were supplied by the contractor and payments were made on the basis of MRS.

4.3.2 Civil works were executed in accordance with the approved specifications, drawing & design and quality of the construction work was checked by supervisory consultants.



4.3.3 Payments to the contractors were regulated by the framework provided in the DFR and Department's Codes/instructions. However, some lapses were observed.

4.3.4 Issues/lapses relating to contract management observed during audit involving Rs 55.332 million were as under:

**4.3.4.1 Non-recovery of liquidated damages and award of contract at belated stage -Rs 218.92 million**

As per PC-I, the project was to be completed within 28 months after award of work and the project might not be feasible if delayed.

The work Construction of Chahan Dam Rawalpindi was awarded to a contractor in June, 2012 with agreement amount of Rs 521.305 million at 17.44% below the estimated cost. The work was started on 06.06.2012 with completion period of 28 months i.e. upto 30.09.2014. The work could not be completed because pace of work by the contractor was slow and workmanship was poor. In spite of issuance of notices by the department and pointation of lapse by supervisory consultants, only 30% physical progress was achieved upto January 2015. Audit observed that:

- a) During execution of work the department revised the Admn Approval to Rs 1567.428 million with inclusion of construction of irrigation channel in June, 2014 and same was awarded to another contractor with agreement amount of Rs 698.850 million i.e. 4.36% above the estimated cost. Had both the works been started simultaneously (being one project) at a rate of 17.44% below estimated cost, the saving of Rs 166.790 million could be achieved in construction of channel work.
- b) The project was delayed because of poor workmanship and slow pace of work by contractor but liquidated damages Rs 52,130,179 (10% of contract cost) were not recovered as required under the agreement.

Weak supervisory, financial and technical controls resulted in non recovery of liquidated damages and loss due to award of contract at belated stage, both amounting to Rs 218.92 million

Audit pointed out the matter in February, 2015. The department replied that time extension was granted by the competent authority and that the funds could not be utilized due to un-precedent rain fall. Regarding the irrigation channel it was stated that work was to be started after partial completion of main dam so tenders were called separately. It was further replied that the engagement of supervisory consultant beyond stipulated period was also due to delay in completion of work due to heavy rain falls.

The para was discussed in DAC meeting held in 13.08.2015. The committee took serious view of non-completion of work in stipulated time and non utilization of funds and directed the department to accelerate the speed of work. The committee also directed to ascertain loss due to award of work of irrigation channel at belated stage at higher rates and to probe in the expenditure on consultant beyond stipulated time by Chief Engineer concerned. No progress on Committee directives was reported till finalization of this report in September, 2016.

Audit recommends early recovery of liquidated damages and loss besides regularization of irregularity from the competent authority.

**(Para No.2,4,10,12)**

#### **4.3.4.2 Overpayment of price variation due to non-application of rebate - Rs 1.852 million**

As per rule 2.10 of DFR Vol-I same vigilance should be exercise in respect of expenditure from public money as a person of ordinary prudence would exercises in respect of his own money.

The work Construction of Chahan Dam Part-I was awarded to a contractor in June, 2012 with agreement amount of Rs 521.305 million at quoted rate of contractor 17.44% below the estimated cost. While making payment of price variation on cement, labor and diesel for Rs 10,619,263 upto 31.12.2014 the quoted rebate @ 17.44 below was not applied.

Weak financial and supervisory controls resulted in overpayment due to non-application of rebate on price variation Rs 1,851,999.

Audit pointed out overpayment in February, 2015. The department replied that price variation was payable at different base price and monthly notified rates by the Finance Department, Government of the Punjab. The

below percentage of 17.44% was applicable only for work done. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not accept departmental point of view and directed the department to move the case to the Finance Department, Government of the Punjab for clarification. No progress towards overpayment was reported till finalization of report in September, 2016.

Audit recommends early recovery from the concerned.

**(Para No.29)**

**4.3.4.3 Non-employment of qualified Engineers by the contractor - Rs 1.350 million**

According to Clause 18 of the agreement the contractor should employ a whole time qualified graduate engineer to the satisfaction of Engineer in-charge for the supervision of the work for each contract. One diploma Engineer when contract cost is upto 7.5 million and a graduate Engineer when contract cost is above 7.5 million. If the contractor fails, such engineer will be employed by the department at risk and cost of contractor.

The work "Construction of Chahan Dam Part-I" was awarded to a contractor in June, 2012 with agreement amount of Rs 521.305 million. The contractor did not employ one qualified senior engineer and one junior graduate engineer at site as per agreement. This resulted in non-provision of employment opportunity to qualified persons and non-recovery of Rs 1,350,000 from the contractor as the contractor has already included this in quoted rates of different items.

Weak technical/supervisory control resulted in non-recovery due to non-employment of qualified Engineers for Rs 1,350,000.

Audit pointed out the irregularity in February, 2015. The Department replied that qualified engineering staff was employed by the contractor at site of work and list of staff employed was available in the record of this office. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not agree with the departmental reply and directed to get the record verified in detail but no record was shown till finalization of the report in September, 2016.

Audit recommends recovery from the concerned contractors.

**(Para-9)**

## **4.4 CONSTRUCTION AND WORKS**

4.4.1 Design and drawings were prepared by the field engineers concerned and got vetted/approved from the competent authority through Planning & Design Directorate of the department.

4.4.2 Cost estimates of the scheme were prepared according to the approved specifications and design on the basis of MRS.

4.4.3 Execution of work was supervised through construction schedule agreed between the employer and the contractor. Progress of execution was supervised through periodic progress reports and physical inspection of works by the Field Engineers for ensuring quality as well as quantity.

4.4.4 Issues relating to “Construction and Work” observed during audit amounting to Rs122.080 million were as under:

### **4.4.4.1 Overpayment due to non-utilization of available earth - Rs 83.858 million**

As per Specification for execution of works, 1967, Vol-I, part-II page 221 if cutting and filling of earth work are being executed simultaneously all suitable material obtained from excavation shall be used in filling.

The work “Construction of Chahan Dams Part-I” was awarded to contractor in June, 2012 with agreement amount of Rs 521.305 million. During execution of work, the items regular excavation and excavation in irrigation channel were measured and paid for 12769751 cft but available earth was not utilized. Rather, excess earth was brought from outside resulting in overpayment.

Weak technical and supervisory controls resulted in overpayment due to non-utilization of available earth for Rs 83,858,379.

Audit pointed out the overpayment in February, 2015. The Department replied that the subject para has already been taken by the Annual Audit Inspection team. The para was discussed in DAC meeting held on August 13, 2015. The Committee did not agree with reply of the department and directed the department that a technical probe by the Chief

Engineer concerned may be got completed within 30 days but no progress was reported till finalization of report in September, 2016.

Audit recommends early recovery from the concerned.

**(Para-20)**

#### **4.4.4.2 Expenditure over & above the estimate -Rs 38.222 million**

As per Clause 10 of the contract agreement the work shall be executed as per drawing design and specifications.

The work "Construction of Chahan Part-I" was awarded to contractor in June, 2012 with agreement amount of Rs 521.305 million. During execution of work two items of works i.e. medium rock not requiring blasting with extra lead 400 meter and borrow pit excavation dressed lead 1 km in ordinary soil were measured and paid in excess of original TSE/DNIT and without its provision in estimate respectively.

Weak technical and supervisory control resulted in extra expenditure of Rs 38,222,292.

Audit pointed out the irregularity in February, 2015. The Department replied that during course of execution the quantities of excavation in medium rock increased and item of borrow pit excavation was required as per condition. The para was discussed in DAC meeting held on August 13, 2015. The Committee kept the para pending till finalization of project. No progress towards extra expenditure was reported till finalization of the report in September, 2016.

Audit recommends early recovery.

**(Para-21)**

### **4.5 ASSET MANAGEMENT**

Data and manual record of small dam under the jurisdiction of Irrigation Department was being maintained dam wise and location-wise as prescribed in the Department's Codes and Manuals.

## **4.6 MONITORING AND EVALUATION**

4.6.1 Progress of schemes under execution was reviewed on monthly basis and quarterly basis by the Chief Engineers, Principal Accounting Officer (PAO) concerned and Planning & Development Department.

4.6.2 Internal checks such as inspections, regular monitoring, supervision by field engineers, mechanized testing and laboratory test reports of the executed works are also vital to ensure qualitative execution of work in line with the specifications and approved design.

4.6.3 Issue relating to monitoring and evaluations noticed during audit is as under:

### **4.6.3.1 Non-submission of detailed progress reports by consultant**

As per Rule 2.20 of PFR Vol-I every payment including repayment of money previously lodged with Government for whatever purpose must be supported by voucher setting forth full and clear particulars of the claims.

As per record of Executive Engineer, Small Dams Division Islamabad, M/s NESPAK was appointed as consultant by Secretary Irrigation Lahore for supervision of project but consultants of the project did not furnish detailed progress report of the project which depicted critical information such as the project activities plans, project physical progress, project financial progress, lab tests, specification implementation, contractor activities, workmanship of contractor test check reports and sub-contractors activities. In the absence of these reports the progress of the project could not be evaluated and payment made to M/S NESPAK by Secretary Irrigation Department, Lahore was unjustified.

Weak technical and supervisory controls resulted in non-submission of detailed progress reports by M/s NESPAK.

Audit pointed out the irregularity in February, 2015. The Department replied that the Consultants were appointed by Secretary, Irrigation Department through Chief Engineer, P&R for ADP of Irrigation Department, Punjab. The bills were verified by the Consultants and payments to contractors were made after verification by the consultant.

The para was discussed in DAC meeting held in 13 August, 2015. The Committee did not accept the view point of department and directed to obtain progress report of project from M/S NESPAK and get it verified by audit. No record was got verified till finalization of report in September, 2016.

Audit recommends that TORs of agreement with the consultants, consultant's performance and payment details may be scrutinized by the competent authority.

**(Para-13)**

#### **4.7 ENVIRONMENT**

4.7.1 As per Section 12 of Pakistan Environmental Protection Act, 1997 Environmental Impact Analysis (EIA) was not carried out.

4.7.2 Environmental data was not compiled by the project authorities despite it was indicated in the PC-I that the project would help to improve the environment in the area. However, the actual impact of environment can only be evaluated after completion of the project

#### **4.8 SUSTAINABILITY**

4.8.1 Sustainability is an integral part of operational performance. Sustainability of the project depends mainly upon the sufficient flow of financial resources during implementation as well as during operation.

4.8.2 Operational and maintenance cost for Rs8.00 million per annum was provided in the PC-I of the scheme by the department.

4.8.3 Irrigation Department was responsible for overall maintenance of small dam.

#### **4.9 OVERALL ASSESSMENT**

4.9.1 **Relevance:** The scheme was within the Medium Term Development Framework(MTDF)and in line with the government policies.

4.9.2 **Efficiency:** Review of various schemes indicated that cost and time overrun were a permanent feature prevailing in Irrigation Department resulting in delay in the achievement of the project objectives/targets as

envisaged in the original PC-I. The project which was planned to be completed within twenty eight months upto 30.09.2014 had been substantially delayed. The cost over-run could not be evaluated at the time of audit because only 30% physical work was executed in respect of work “Construction of Chahan Dam Part-I”. The work “Construction of Irrigation Channel at Chahan Dam Pt-II” was awarded in June, 2014 and was scheduled to be completed in 470 days i.e. upto 13.10.2015.

**4.9.3 Economy:** The work pertaining to Part-I and Part-II were awarded through open competition at competitive rates.

**4.9.4 Effectiveness:** Since the project was at an initial stage and in progress, therefore, successful achievement of objectives, targets and desired results could not be analyzed and assessed.

**4.9.5 Compliance with Rules:** Issues of poor financial management, contract management and construction and works depicting irregularities were noticed. Poor/ineffective financial management was a critical area which needed to be given a serious thought for improving service delivery and ensuring timely execution of quality work.

**4.9.6 Performance Rating:** Project execution was still at initial stage as only 30% physical progress was achieved. As per original PC-I, the project was to be completed within 28 months i.e. 30.9.2014. Hence, performance of project construction work was not satisfactory.

**4.9.7 Risk Rating:** Medium.

## **5 CONCLUSION**

**5.1 Key Issues for the Future:** Fluctuation in the prices of materials/labour and climatic conditions besides inadequate funding are likely to affect project's/scheme's execution and achievement of objectives.

### **5.2 Lessons Learnt:**

- i. Critical areas like compliance of contractual obligations and compliance of rules are required to be improved.



- ii. Timely action against defaulting contractors needed to be taken to safeguard the public interest.
- iii. Adherence to contractual obligations needed to be ensured at every stage of execution.
- iv. Action needed to be initiated and responsibility fixed against the officers concerned for lapses and violation of rules besides effecting recoveries.

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