



PERFORMANCE AUDIT REPORT

ON

DARAWAT DAM PROJECT, HYDERABAD

AUDIT YEAR 2016-17

AUDITOR GENERAL OF PAKISTAN

PREFACE

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 require the Auditor General of Pakistan to conduct audit of Expenditure and Receipts of Government of Pakistan.

This Report is based on performance audit to examine the economy, efficiency and effectiveness aspects of Darawat Dam Project Hyderabad for the period from July, 2010 to February, 2016. The Directorate General of Audit WAPDA conducted the performance audit of the Darawat Dam Project Hyderabad during March, 2016 with a view to reporting significant findings to the relevant stakeholders. In addition, Audit also assessed, on the test check basis whether the management complied with applicable laws, rules and regulations in managing the Darawat Dam Project Hyderabad.

Audit findings indicate the need for taking specific actions to realize the objectives of the Darawat Dam Project Hyderabad besides instituting and strengthening internal controls to avoid recurrence of violations and irregularities.

Audit observations have been finalized in the light of discussion in the Departmental Accounts Committee (DAC) meeting.

The Audit Report is submitted to the President in pursuance of the Article 171 of the Constitution of the Islamic Republic of Pakistan, 1973 for causing it to be laid before the both Houses of Majlis-e-Shoora [Parliament].

Dated: 02 JUL 2018
Islamabad

Sd/-
Javaid Jehangir
Auditor General of Pakistan

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Abbreviations and Acronyms

CDWP	Central Development Working Party
DLP	Defect Liability Period
ECC	Economic Coordination Committee
ECNEC	Executive Committee of the National Economic Council
EOT	Extension of Time
EPC	Engineering Procurement Construction
FC	Foreign Currency
GoP	Government of Pakistan
GST	General Sales Tax
GWH	Gaga Watt Hour
HEIS	High Efficiency Irrigation System
ICB	International Competitive Bidding
IDC	Interest During Construction
KM	Kilo Meter
KW	Kilo Watt
LC	Local Component
LoA	Letter of Acceptance
MoWP	Ministry of Water and Power
NDC	National Development Consultant
NEC	National Economic Council
O&M	Operation and Maintenance
PARC	Pakistan Agriculture Research Council
PC	Planning Commission
PD	Project Director
PKR	Pakistani Rupees
TOC	Taking Over Certificate
US\$	United States Dollar
WAPDA	Water and Power Development Authority

EXECUTIVE SUMMARY

Director General Audit WAPDA conducted performance audit of Darawat Dam Project Hyderabad in March, 2016. The main objectives of the audit were to evaluate the economy, efficiency and effectiveness of the project. The audit was conducted in accordance with the prevailing rules and regulations.

Darawat Dam Project was implemented as part of “Federal Public Sector Development Programme 2009-10” to irrigate an area of 25,000 acres falling in Thatta District. The Dam is located at 70 KM West of Hyderabad and 135 KM North East of Karachi on NaiBaran River in Jamshoro District, Province of Sindh, Pakistan and the command area lies in Thatta District. The General Manager (Projects) South, WAPDA is administering the project. The Project Director, Darawat Dam Project, with office at Hyderabad, is responsible for project implementation.

The project was approved by Executive Committee of the National Economic Council (ECNEC) on September 03, 2009 at a cost of Rs. 3,175.20 million. As a result of bidding on ICB basis, the EPC contract was awarded on June 09, 2010 to the joint venture M/s Sinohydro-MAJ comprising Sinohydro Corporation (Pvt) Limited of the People Republic of China and a local firm Mian Abdul Jabbar & Company at a contract price of Rs. 7,554.69 million to be commenced on June 30, 2010. The scheduled completion period was three (03) years from the date of commencement. The project could not be completed within the scheduled period due to inclusion of work of HEIS, dedicated pipeline to Manchor and improvement of engineering design of the project. The revised PC-I was approved by the ECNEC to cover the additional work on August 16, 2012 after interval of 27 months at a cost of Rs. 9300 million. Phase-I of the project was completed on August 31, 2014. However, Phase-II land acquisition and compensation could not be started by the Government of Sindh uptill March 31, 2016 despite pursuance by the project management which caused loss in the shape of Extension of Time (EOT) cost claim on land acquisition.

The evaluation of economy, efficiency and effectiveness was carried out through performance audit with reference to the objectives of the project. The issues like compensation for delayed payment to Contractor, award of contract at

higher rates, mis-procurement of consultancy services in violation of PPRA Rules clearly indicated that cost of the project could be economized through proper planning and prudent management. The matters regarding EOT cost allowed to the contractor, extension in Consultancy Services, generation loss due to non-construction of power house showing inefficiency on the part of management, resulting in non-achievement of the optimal objectives set for the project .The time over run factor of fourteen months lessened the effectiveness of the project, hereby delaying the envisaged benefits to the public.

AUDIT FINDINGS AND RECOMMENDATIONS

a. Key Audit Findings

- Award of contract at higher rates – Rs. 4,209.84 million (Para No. 4.2.1)
- Non-achievement of economic benefits in terms of thermal saving due to hydel generation – Rs. 887 million (Para No. 4.5.2)
- Acceptance of invalid bid – Rs. 735.48 million (Para No. 4.2.2)
- Generation loss due to non-construction of power house – Rs. 489 million (Para No. 4.3.1)
- Exclusion of component of developing command area from the scope of EPC contract – Rs. 243.06 million (Para No. 4.2.3)
- Mis-procurement of consultancy services in violation of PPRA Rule – Rs.184.98 million (Para No. 4.2.4)
- Compensation for delayed payment to the contractor – Rs. 183.01 million (Para No. 4.1.1)
- Grant of Extension of Time (EOT) cost to the contractor – Rs. 110.04 million (Para No. 4.1.2)
- Grant of extension in Consultancy Services – Rs. 32.45 million (Para No. 4.3.2)
- Non-obtaining of sales tax invoice by the Contractor – Rs. 22.30 million (Para No. 4.1.3)
- Extra payment due to deviation in design parameters of feasibility report (Para No. 4.3.3)
- Non-supply of tools and spare-parts by the EPC contractor (Para No. 4.4.1)
- Non-preparation of Project Completion Report / Project Close out Report (PC-IV) by the Consultant (Para No. 4.5.3)
- Non-development of command area with high efficiency irrigation system (Para No. 4.5.4)
- Non-allotment of command area of state land to landless women as per provision of PC-1 (Para No. 4.5.5)
- Time over-run (Para No. 4.6.1)

b. Recommendations

- To investigate and fix responsibility for loss due to award of contract at higher rates
- To investigate and fix responsibility for non-construction of Power House having capacity of 300 KW
- To investigate and fix responsibility for interest on delayed payments
- To investigate and fix responsibility for delay in managing the land acquisition
- To investigate and fix responsibility for major design changes of the Dam in deviation to Feasibility Report
- To fix responsibility for the claim of EOT for 266 days with cost resulting into financial loss of Rs. 110.04 million
- To take up the matter with Consultants for preparation of PC-IV i.e. Project Completion Report
- To take up the matter with Contractor for provision of tools and spare parts essential for smooth running of the project
- To take up the matter with the Government of Sindh for completion of Phase-II of the project without further delay
- To allot the Land falling under the command area of Dam among the landless women as per requirement of the PC-I of project
- To take up the matter with the Contractor for proper training of O&M engineers
- To investigate the fact for non-incorporating design parameters of the Dam according to Feasibility Report in bidding documents (Vol-II Employer's requirement) and also fix responsibility for undue favor to the contractor at the time of preparation of bidding documents
- To investigate the non-development of command area with high efficiency irrigation system

1. INTRODUCTION

Darawat Dam Project Hyderabad was established with the objectives to tap and store flood water and supply the same to the command area located at the downstream. The Irrigation and Power Department, Government of Sindh (GoS) acquired the services of Joint Venture of M/S National Development Consultants (NDC), Lahore and M/S Techno Consult International Karachi to carry out feasibility of the Dam. The work on the feasibility study was initiated in March, 2007 and completed in March, 2008. The updation of the feasibility study was awarded in June, 2009 to M/s Cameos Consultants in association with M/s Spatsol by the Irrigation and Power Department, Government of Sindh. The services of M/S Cameos Consultants were then transferred to the WAPDA after the work for execution of the Dam transferred from Irrigation and Power Department to the WAPDA. Memorandum of Understanding (MoU) between the Government of Sindh, WAPDA and M/S Cameos Consultants for this purpose was also signed.

The PC-I prepared by I&PD GoS in 2007 was considered by CDWP on July 17, 2009 and recommended to ECNEC for approval of the Project by incorporating the cost of High Efficiency Irrigation System (HEIS). The PC-I amounting to Rs. 3.18 billion was approved by ECNEC on September 03, 2009. Meanwhile WAPDA had upgraded the engineering of the Project and invited tenders on EPC basis. As a result bid price increased more than the cost of PC-I, therefore, revised PC-I of Rs. 17.65 billion was prepared and submitted to the Ministry of Water and Power. The revised PC-I was recommended by the CDWP for approval of ECNEC in its meeting held on June 29, 2010. The committee decided to reframe the Revised PC-I and accordingly it was reframed for Rs. 13.63 billion. The CDWP recommended the Revised Project for consideration of ECNEC at a rationalized cost of Rs. 9,300 million on June 29, 2010, which was approved by ECNEC on December 19, 2011 without FEC, subject to the following conditions: -

- Main Dam and allied structures would be constructed by WAPDA
- Cost of land acquisition, compensation and security arrangement would be borne by the provincial government from their own resources

- Phase-II (command area development) would be executed by the provincial authorities through concerned departments after completion of main dam by submission of new PC-I as per 18th constitutional amendments.

The Phase-I of the project was completed on August 31, 2014. However, Phase-II and land acquisition could not be started by the Government of Sindh uptill March 31, 2016 in-spite of pursuance by the project authorities. Such impediments would cause problems in achieving the benefits envisaged in PC-I in future.

1.1 Project Scope of Work

Darawat Dam Project was a part of ‘Federal Public Sector Development Programme 2009-10’ to irrigate an area of 10,122 hectares (25,000 acres) falling in Thatta District, Sindh, Pakistan. The contractor was responsible to perform and carry out all the following activities within a period of 36 months viz, construction of reservoir, main dam, spillway with flip bucket, intake structure, power plant, irrigation system and infrastructure including carrying out performance test, putting into operation, training of employer’s personnel, execution of all civil works, supply of mandatory tools / spare parts, handing over of the dam in satisfactory operating condition fully meeting all design values, and fulfillment of contractual obligations during the guarantee period.

1.2 Objectives of the Project

The main objectives of the Project were as under:-

- Irrigation of agriculture land of 25,000 Acres
- Conservation of water for more productive use
- Generation of Hydropower Emancipation of women by allotment of developed state land to landless poor women of the area
- Socio-economic uplift of the area, poverty reduction.

2. AUDIT OBJECTIVES

The main objectives of the performance audit were:-

- To evaluate whether the project succeeded in achieving objectives as envisaged in PC-I

- To evaluate whether internal controls were operative and functioning effectively
- To examine whether the awarding of contracts were on merit and successfully executed
- To examine whether the payments made to the consultants were in accordance with the provisions of the agreements and that the consultants fulfilled their obligations successfully
- To evaluate cost and time over-run
- To evaluate issues regarding the economy and efficiency in completion and operation of the project and
- To assess the effectiveness of project in terms of envisaged benefits.

3. AUDIT SCOPE AND METHODOLOGY

The period covered for Performance Audit was from July 01, 2010 to February, 2016. During this period, total expenditure of Rs. 9,223.33 million was incurred by February 29, 2016. The auditable record was available in the office of Chief Engineer / Project Director, Darawat Dam Project, Hyderabad. Audit activity started with the preparation of Preliminary Survey Report (PSR).

Following audit methodology was adopted during the course of execution of performance audit:-

- Interview and discussion with the project management
- Site visits
- Examination of selected project records and necessary auditable documents
- Review of PC-I of the project
- Review of Contract agreement
- Review of Consultancy agreement
- Review of Project Completion Report
- Examination of Bid Evaluation Report
- Review of Progress Report of the project
- Scrutiny of selected cash vouchers

4. AUDIT FINDINGS AND RECOMMENDATIONS

4.1 Financial Management

4.1.1 Loss due to payment of compensation to the contractor for delaying claims – Rs. 183.01 million

According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982 (amended up to June 01, 2001), “all losses whether of public money or of store, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved”.

During performance audit of the Darawat Dam Project Hyderabad, it was noticed that an amount of Rs. 183.01 million was claimed by the Contractor on account of compensation for delayed payment, which was certified by the Engineer of the contract. Timely arrangement of funds for payment to the Contractor was the responsibility of the project management. Financial mismanagement resulted in loss of Rs. 183.01 million due to compensation for delayed payment to Contractor.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that less release of funds by the GoP was beyond the control of Project Management, hence the accrual of delayed payment charges was inevitable and payable to the Contractor under contractual provisions.

The DAC in its meeting held on May 08, 2017 directed the management to pursue the case for release of funds from Planning Commission under intimation to Audit. Further progress was not intimated till finalization of the report.

Audit recommends that the management needs to investigate the matter to identify the causes regarding loss sustained by the Authority on account of compensation on delayed payments besides implementing DAC’s directives.

(Para-4.2.1)

4.1.2 Loss due to payment of Extension of Time cost to the contractor – Rs. 110.04 million

According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982

(amended up to June 01, 2001), “all losses whether of public money or of store, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved”.

During performance audit of the Darawat Dam Project Hyderabad, it was noticed that an Engineering Procurement Construction (EPC) contract for construction of Darawat Dam Project was awarded to the M/s Sinohydro Corporation (Pvt) Limited on June 09, 2010 at contract price of Rs.7,554.69 million. The project was required to be completed on June 29, 2013 from the date of commencement i.e June 30, 2010, but it could not be completed within the scheduled time. Thereafter, the Contractor was granted Extension of Time (EOT) for 285 days from June 30, 2014 to April 10, 2015 with admissibility of compensation for 193 days on account of land acquisition issues. In addition to the above, further EOT for 143 days was also granted with 73 days compensable on account of land acquisition issues. This state of affairs proved that the land acquisition issues were not managed in proper manner at the initial stage of the project. Resultantly, EOT cost of Rs. 110.04 million for 266 (193+73) days on account of land acquisition issues was approved by the competent authority. Project mismanagement resulted in loss of Rs. 110.04 million due to EOT cost allowed to the contractor.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that delay in construction activities was unavoidable; therefore the contractor was entitled for EOT cost under contractual provisions. The reply was not tenable as the timely resolution of land acquisition issues was the responsibility of project management.

The DAC in its meeting held on May 08, 2017 directed the management to get the record of unavoidable delays be verified from Audit within one week. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding non-resolving the issues of land acquisition within stipulated period, which caused loss on account of EoT cost claim besides implementing DAC's directives.

(Para-4.2.3)

4.1.3 Loss on account of GST to WAPDA due to non-obtaining of sales tax invoice by the Contractor -- Rs. 22.30 million

According to Federal Board of Revenue office order No. C.No. 1(42) STM /2009/ 99638-R dated July 24, 2013, all the departments and offices were required to ensure that i) Purchase of Taxable goods may only be made from sales tax registered persons against sales tax invoice and payment through banking channel, ii) in case of public works, it may be ensured that the contractors engaged make purchase only from sales tax registered persons. Since contractors engaged make purchase against public tender are required to have a BOQ (Bill of Quantity), the contracting department / organization much require such contractors to present sales tax invoices of all the material mentioned in the BOQ as evidence of its legal purchase, before payment is released to them, iii) at the time of audit, it may be ensured that the above mentioned legal requirements have been fulfilled.

During performance audit of Darawat Dam Project, it was noticed that a contract for construction of Darawat Dam Project, Hyderabad was signed between M/s Sinohydro Corporation (Pvt) Limited and WAPDA at contract price of Rs. 7,554.69 million. Out of this amount, an amount of Rs. 131.18 million was paid to the Contractor on the procurement of steel without obtaining sales tax invoices. In absence of Sales Tax Invoices, authenticity of sales tax could not be ascertained. Resultantly WAPDA was caused a loss of Rs. 22.30 million on account of Sales Tax.

Non-adherence to the instructions of FBR resulted in loss of Rs. 22.30 million to WAPDA on account of GST due to non-obtaining of sales tax invoice by the Contractor.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the material had been purchased by Contractor from sales tax registered suppliers.

The DAC in its meeting held on May 08, 2017 directed the management to provide the record of the procurement including registered invoices of sales tax. Further progress was not reported till finalization of the report.

Audit recommends that the management needs to expedite provision of requisite record in compliance to DAC's directives. (Para-4.2.2)

4.2 Procurement and Contract Management

4.2.1 Loss due to award of contract at higher rates -- Rs. 4,209.84 million

i) According to Reply-ii & iii to Frequently Asked Questions No.12 by Public Procurement Rules Authority, “whenever a procuring agency is confronted with such a situation whereby the rate quoted by the single bidder cannot be compared so as to declare it as the lowest rate or otherwise it may make a prudent decision. While making a decision, the following factors may be kept in view a.) the comparison of price of the goods, works or services if procured during the current financial year, b) Make price of the goods works and services to be procured, c) in case abnormal increase in price is observed, the procuring agency may like to re-advertise the procurement opportunity, if time permits. And re-advertisement would be preferred option. Direct contracting could also be used provided it meets the prescribed condition for direct contracting.

ii) According to recommendations of the WAPDA Central Contract Cell, Lahore recorded in the Bid Evaluation Report “price reasonability of tender price for Darawat Dam Project cannot be judged to be kept in view before award of contract to the Contractor.

During performance audit of Darawat Dam Project, it was noticed that a tender for construction of Darawat Dam Project was floated and only a single bidder M/s Sinohydro Corporation came up with bid price of Rs. 7,554.69 million and Contract was awarded on June 09, 2009. At the time of bid evaluation, being single quoted bid, the bid price reasonability was not evaluated as required under the PPRA Rules and clear recommendations of WAPDA Central Contract Cell. Resultantly, the contract awarded at a price of Rs. 7,554.69 million was not only irregular but also entailing loss of Rs. 4,209.84 million as the accepted rates were 137.93% higher than the cost provided in PC-I i.e. Rs. 3,175.20 million (Annex-4).

Violation of the Public Procurement Rules-2004 & WAPDA Central Contract Cell resulted in irregular award of contract amounting to Rs. 7,554.69 million at higher rates entailing loss of Rs. 4,209.84 million.

The matter was taken up with the management in March, 2016 and

reported to the Ministry in April, 2016. The management replied that open bids for the construction of the said dam were invited under single stage two-envelope procedure in order to involve post qualification process in line with the PPRA rules. The reply was not tenable as the reasonability of rates should have been assessed as required by PPRA rules and WAPDA CCC.

The DAC in its meeting held on May 08, 2017 directed the management to submit the complete bidding record alongwith correspondence to Audit within one week.

Audit recommends that management needs to inquire into the matter for fixing responsibility regarding non-evaluation of reasonability of bid price as required under PPRA Rules-2004 & WAPDA CCC besides ensuring implementation of DAC's directives.

(Para-4.3.1 & 4.3.4)

4.2.2 Loss due to acceptance of invalid bid -- Rs. 735.48 million

According to Summary of Tender Cost forming a part of Contract Agreement, the tender price of M/s Sinohydro Limited was Rs. 7,384.84 million for construction of Darawat Dam Project.

During performance audit of the Darawat Dam Project Hyderabad, it was noticed that the tender for construction of Darawat Dam Project was opened on November 16, 2009 and M/s. Sinohydro Limited came up, being single bidder, with tender price of Rs. 7,384.84 million as mentioned in summary of tender cost. Meanwhile, another bid price of Rs. 8,120.32 million offered through a separate letter bearing No.SHCLP/WAPDA/P&D/2009/033 dated November 16, 2009 was accepted along with 10% adjustment. This price was accepted as tender price in Bid Evaluation Report (BER). Finally a bid price of Rs. 7,554.69 million was accepted as contract price and accordingly Letter of Acceptance was issued to the contractor. Audit observed that undue favour was extended to the contractor at the time of Bid Evaluation, causing a loss of Rs. 735.48 million to the WAPDA due to acceptance of invalid bid.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the financial proposal was opened in the presence of tender opening committee

wherein, the quoted price and price adjustment (separate envelope) was quoted to the tune of Rs. 7.38 billion and Rs. 8.12 billion respectively, which barred the contractor from claiming any escalation. The financial proposal was also reviewed by the Consultants and approved by the Competent Authority.

The reply was not tenable as the acceptance of separate letter of the contractor was not in order being not a part of bidding documents.

The DAC in its meeting held on May 08, 2017 directed the management to submit revised reply along with documentary evidence within one week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to investigate the matter and fix responsibility of loss upon the person(s) at fault. (Para-4.3.5)

4.2.3 Loss due to exclusion of component of development command area from the scope of EPC contract – Rs. 243.06 million

According to summary of tender cost for construction of Darawat Dam Project, command area development works at a cost of Rs. 516.94 million were included for execution as a component of the project.

During performance audit of Darawat Dam Project, it was noticed that an EPC contract was signed on June 09, 2010 between WAPDA and M/s Sinohydro Corporation (Pvt) Limited for construction of Darawat Dam Project at cost of Rs. 7,554.69 million. According to EPC contract, an amount of Rs. 516.94 million was kept in the summary of tender cost for development of command area of 25,000 Acre. Subsequently, this component of work was deleted from the scope of work on the plea that it would be executed by the Irrigation Department, Government of Sindh at cost of Rs. 750 million as provided in revised PC-I. Project mismanagement resulted in loss of Rs. 243.06 million due to exclusion of component of development command area from the scope of EPC contract.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the component of work was excluded from the scope of work as per decision of CDWP and ECNEC.

The DAC in its meeting held on May 08, 2017 directed the management to get the record verified in support of reply. Further progress was not reported till finalization of report.

Audit recommends that the management needs to implement DAC's directives.

(Para-4.3.6)

4.2.4 Mis-procurement of consultancy services in violation of PPRA Rules – Rs. 184.98 million

According to Rules-20 of Public Procurement Rules-2004, "the procuring agency shall use open competitive bidding as the principle method of procurement for the procurement of goods, services and works".

During Performance Audit of Darawat Dam Project, it was noticed that a consultancy services contract was awarded to a joint venture M/s NDC-CAMEOS at contract price of Rs. 184.98 million without advertisement in print media and open competitive bidding. Violation of Public Procurement Rules-2004 resulted in mis-procurement of consultancy services at contract price of Rs. 184.98 million.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the team of consultants was strengthened by combining with already consultants of the project as they had all the data, maps, reports and knowhow of the project. Accordingly approval was accorded by the Competent Authority.

The reply was not tenable as the services of consultants were hired without competitive bidding in violation of PPRA Rules.

The DAC in its meeting held on May 08, 2017 directed the management to submit revised reply along with reasonability / justification regarding award of contract within one week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding mis-procurement of consultancy services without competitive bidding in violation of Public Procurement Rules besides implementing DAC's directives.

(Para-4.3.2)

4.2.5 Non-imparting training to WAPDA O&M staff by the Contractor

According to Sub-Clause-5.5 General Conditions to Contract, it was mandatory for the Contractor to impart formal and basic Operation and Maintenance (O&M) training to the staff of Employer.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that the formal and basic O&M training for Employer's engineers and staff was not arranged by the Contractor M/s Sinohydro Corporation (Pvt) Ltd despite repeated requests of project management. However, no action was taken against the Contractor for declining to fulfill his contractual obligation to train the O&M Engineers and staff, which was essential for smooth operation & maintenance of the Dam.

Non-adherence to the Contractual provisions resulted in non-imparting training to WAPDA O&M staff by the Contractor.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that compliance regarding training of WAPDA staff by the Contractor had since been made.

The DAC in its meeting held on May 08, 2017 directed the management to provide the record comprising manuals, schedules, attendance of trainees to Audit within one week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to expedite provision of requisite record to Audit in compliance to DAC's directives.

(Para-4.1.3)

4.3 Construction and Works

4.3.1 Generation loss due to non-construction of power house at Darawat Dam Project – Rs. 489 million

According to original as well as revised PC-I, power house having capacity of 300 KW would be constructed at Darawat Dam Project for 1.5 MKWH per annum energy generation. The Benefit / power house revenue would be Rs. 9.18 million per annum. The cost of Power House was provided as Rs. 30 million.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that a power house of 300 KW capacity was to be constructed at Darawat Dam Project as per revised PC-I of the project. The bid price quoted by the Contractor was inclusive of construction of power house however, EPC Contract was awarded by excluding the said item of work. Exclusion of construction of power house had not only deprived WAPDA of annual generation of 1.5 MKWH units for a period of 50 years entailing financial loss of Rs. 489 million but also enabled the Contractor to save the cost of Rs. 30 million.

Non-adherence to the revised PC-I resulted in generation loss of Rs. 489 million due to non-construction of Power house at Darawat Dam Project.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that source of water for this dam was not perennial and there was no precipitation in the catchment area so construction of Power House would become meaningless, therefore, Power house was not constructed.

The reply was not tenable as the construction of Power House was planned in original as well as in revised PC-I.

The DAC in its meeting held on May 08, 2017 directed the management to get the stance verified through the provision in PC-1. Further progress was not reported till finalization of report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding non-construction of power house in violation of revised PC-I and award of EPC contract by excluding the said item of work besides implementing DAC's directives. (Para-4.4.4)

4.3.2 Loss due to extension in Consultancy Services – Rs. 32.45 million

According to Section-III (1) of WAPDA Guidelines for Enforcing Responsibility for Losses due to Fraud, Theft or Negligence of Individuals, 1982 (amended up to June 01, 2001), "all losses whether of public money or of store, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and the amount involved".

During performance audit of Darawat Dam Project Hyderabad, it was noticed that a consultancy contract for Management Consultancy Services of

Darawat Dam Project was awarded to NDC-CAMEOS (JV) initially at a cost of Rs. 248.94 million involving 848 man-months. Subsequently the cost of the consultancy agreement was increased to Rs. 433.92 million with 1,376.50 man months. Later on, two (02) consecutive extensions were made in the consultancy agreement from August 23, 2013 to June 30, 2014 with extended cost of Rs. 32.45 million involving 67.84 man months. The reason for extension in consultancy agreement was delay in construction work due to mismanagement of project activities at various levels by the project management resulting in loss of Rs. 32.45 million due to extension in Consultancy Services for Darawat Dam.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that EOT in consultancy services was granted in order to ensure better quality and close monitoring of the Project. The EOT was granted in the best interest of Authority's work.

The reply was not convincing as it was the project mismanagement that caused delay in contraction works and Authority sustained loss on account of extension in Consultancy Services.

The DAC in its meeting held on May 08, 2017 directed the management to support the stance through documentary evidence.

Audit recommends that the matter needs investigation for fixing responsibility of loss on account of extra consultancy cost incurred due to delay in completion of the project. (Para-4.4.3)

4.3.3 Undue benefit to the Contractor by compromising on construction of dam in deviation to design parameters of feasibility report

According to up-dated Feasibility Report of Darawat Storage Dam Project, following parameters were designed for the construction of Dam: -

Type of the Dam	Concrete Faced Rock fill Dam (CFRD)
Top width of the Dam	(29.50 feet)
Width of the Spill-way	(500 feet)
Type of spill-way	Broad crested weir with flip bucket arrangement
Capacity of spill-way	208,990 cusecs

During performance audit of Darawat Dam Project Hyderabad, it was noticed that the Dam was constructed on the following design parameters contrary to that of Feasibility Report.

Type of Dam	Concrete Gravity Dam
Top width of the Dam	20 ft
Width of the spill-way	310 ft
Type of spill-way	Ogee
Capacity of spill-way	127,000 cusecs

Due to construction of Darawat Dam against the designed parameters of Feasibility Report, an opportunity of benefit of cost-saving was not only deliberately shifted to the Contractor at the cost of WAPDA's funds but also compromised the sustainability / durability of the Dam for the whole life of Dam i.e. 100 years. Hence, undue benefit was provided to the contractor causing loss to the WAPDA.

Non-adherence to the feasibility report resulted in undue benefit to the Contractor by compromising on construction of dam in deviation to design parameters.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the requisite record substantiating the management stance was being provided for audit verification.

The DAC in its meeting held on May 08, 2017 directed the management to get the record verified from Audit within a week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding deviation to design parameters suggested in feasibility report besides implementing DAC's directives. (Para-4.3.3 & 4.4.1)

4.4 Assets Management

4.4.1 Non-supply of tools and spare-parts by the EPC contractor

According to Clause-1.12 (Vol-II employer's requirement) of Contract agreement, the Contractor shall provide to the Employer tools and spare-parts

sufficient for 10 years of operation together with a recommended spare-parts list. The Contractor shall provide storage facility for such tools and spare-parts.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that the Contractor was required to supply sufficient tools and spare-parts together with recommended spare-parts list along with storage facility for ten years operation of Dam. However, Contractor did not supply the tools and spare-parts to the employer so far. Non-supply of spare-parts & tools caused loss to the WAPDA as the contractor had already included the cost of tools and spare-parts in the contract price. It would also hamper the smooth operation of the Dam at later stage

Non-adherence to the Contractual provisions resulted in non-supply of tools and spare-parts by the EPC contractor.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that compliance to audit instructions would be made in letter and spirit and record regarding taking over of the T&P would be got verified from audit on completion of Defect & Notification Period on August 31, 2017.

The DAC in its meeting held on May 08, 2017 directed the management to get the compliance verified from Audit after taking over the T&P on the completion of defect notified period.

Audit recommends that the management needs to implement DAC's directives. (Para-4.5.1)

4.5 Monitoring and Evaluation

4.5.1 Wrong assessment for storage of reservoir entailing less economic benefits – Rs. 2,578.55 million

According to Revised PC-I of Darawat Dam Project, average annual rainfall was assessed 5.37 inches for storage of reservoir of Darawat Dam. After completion of the project, economic benefits amounting to Rs. 2,578.55 million would be achieved.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that Darawat Dam reservoir was never filled up till date since its

completion in August, 2014. Resultantly, envisaged economic benefits amounting to Rs. 2,578.55 million could not be achieved.

The mismanagement resulted in wrong assessment for storage of reservoir entailing less economic benefits of Rs. 2,578.55 million

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the Dam had been completed however, handing over of Dam to the beneficiary (GoS) was under process.

The DAC in its meeting held on May 08, 2017 directed the management to submit supporting documents substantiating the of reply within one week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to submit documents in support of reply as per DAC's directives. (Para-4.6.2)

4.5.2 Loss of hydel generation and non-achievement of economic benefits in terms of thermal saving – Rs. 887 million

According to Table 26 of revised PC-I of the project, there was an economic benefit of thermal saving amounting to Rs. 17.74 million on annual basis due to hydel generation from Darawat Dam Project.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that power house of 300 KW capacity was to be installed at the Darawat Dam Project as per revised PC-I of the project. However, EPC contract without inclusion of power house was awarded to the Contractor. Due to non-construction of power house, WAPDA had to sustain a loss of hydel generation of Rs. 887 million and non-achievement of economic benefits in terms of thermal saving.

Non-adherence to revised PC-I resulted in loss of hydel generation of Rs. 887 million and non-achievement of economic benefits in terms of thermal saving.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that economic benefits in terms of Carbon Credit or Thermal saving could only be

achieved, once Hydel power was generated. Similarly, the power component was not made part of original PC-I and it was also not made part of the first revised PC-I, which was approved by ECNEC in its meeting held on August 16, 2012.

The reply was not acceptable as Table-26 of revised PC-I clearly specified economic benefits of thermal saving due to hydel generation from Darawat Dam Project.

The DAC in its meeting held on May 08, 2017 directed the management to get its stance verified from Audit. Further progress was not reported till finalization of report.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding non-installation of power house. (Para-4.6.3)

4.5.3 Non-preparation of Project Completion Report / Project Close out Report (PC-IV) by the Consultants

According to description of services / Term of Reference (TOR) of consultancy agreement, consultant was required to prepare Project Close out Report / Project Completion Report after completion of Darawat Dam Project.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that M/s Sinohydro Corporation (Pvt) Limited had completed execution of Darawat Dam Project on August 31, 2014. The Project Completion Report (PC-IV) was required to be prepared by the Consultant on completion of the project in order to assess the performance of the project by comparing the benefits envisaged in PC-I with that of actually achieved. But the Consultants did not prepare it uptill now.

Non-adherence to provisions of Consultancy agreement resulted in non-preparation of Project Completion Report / Project Close out Report (PC-IV) by the Consultant.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the 2nd Revised PC-1 of Darawat Dam Project was in process for approval of competent forum.

The DAC in its meeting held on May 08, 2017 directed the management to pursue the case of approval of 2nd revised PC-I under intimation to Audit. Further progress was not reported till finalization of report.

Audit recommends that the management needs to expedite the preparation of PC-IV i.e. Project Completion Report besides implementing DAC's directives.

(Para-4.4.2)

4.5.4 Non-development of command area with high efficiency irrigation system

According to Revised PC-I of Darawat Dam Project, command area development Dam will be executed by the Provincial Government through concerned Department after completion of main dam by submission of new PC-I as per 18th constitutional amendments.

During performance audit of Darawat Dam Project Hyderabad, it was noticed that Govt. of Sindh was assigned to develop the command area of the Dam after completion of the project on August 31, 2014. Subsequently, Government of Sindh (GoS) had neither developed command area with Efficiency Irrigation System uptill March 31, 2016 nor submitted its PC-I as per 18th constitutional amendments. The very purpose for which Dam was constructed had, therefore, gone waste.

Non-adherence to the revised PC-I resulted in non-development of command area with high efficiency irrigation system.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the Irrigation & Power Department, GoS had informed that the PC-1 was under process for approval of competent forum.

The DAC in its meeting held on May 08, 2017 directed the management to submit revised reply along with supporting documents i.e. tender for development of command area and record of water level in Dam within one week. Further progress was not reported till finalization of report.

Audit recommends that the management needs to implement DAC's directives.

(Para-4.1.1)

4.5.5 Non-allotment of command area of state land to landless women as per provision of PC-1

According to Revised PC-I of Darawat Dam Project, command area of the Dam, being state land, was required to be distributed among the landless women by the Government of Sindh (GoS).

During performance audit of Darawat Dam Project Hyderabad, it was noticed that command area of the Dam, being state land, was required to be distributed among the landless women by the Govt. of Sindh as per Revised PC-I of Darawat Dam Project. However, the Govt. of Sindh did not distribute the state land to the landless women uptill March 31, 2016 despite completion of the project on August 31, 2014.

Non-adherence to the revised PC-I resulted in non-allotment of state land to landless women.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the allotment of state land to landless women fell under the purview of GoS, therefore, the Deputy Commissioner Thatta had been requested to intimate the latest status of allotment of land to landless women.

The DAC in its meeting held on May 08, 2017 directed the management to pursue the matter with GoS vigorously and progress achieved be intimated to Audit. Further progress was not reported till finalization of report.

Audit recommends that the management needs to ensure compliance to DAC's directives.

(Para-4.1.2)

4.6 Overall Assessment

Overall assessment refers to performance of project with reference to three "Es" i.e. Economy, Efficiency and Effectiveness as summarized below.

Economy

The economy of the project was affected to the extent that the issues like

compensation of Rs. 183.01 million for delayed payment to the Contractor, award of contract at higher rates of Rs. 4,209.84 million, mis-procurement of consultancy services worth Rs. 184.98 million in violation of PPRA Rules did speak of the fact that cost of the project could be economized through proper and detailed planning.

Efficiency

Certain deficiencies in the planning and construction phase manifested the lapses in efficiency of the project management that required to be addressed. The project was scheduled to be completed within three (3) years of time but it took four (4) years and two months for its completion. Proper surveys / investigations were not made at the outset of the project that caused subsequent diversions / variations resulting in substantial delay in works. Power house for generation of electricity was included in the PC-I, but deleted. If constructed, it would provide power generation worth Rs. 489 million. The matters regarding EOT cost of Rs. 110.04 million allowed to the contractor, extension in Consultancy Services worth Rs. 32.45 million showing inefficiency on the part of management that resulted in non achievement of the optimal objectives set for the project

Effectiveness

The effectiveness of the project can be assessed from the fact that no development of command area was made with high efficiency irrigation system and no command area of state land was allotted to the landless women despite provision in PC-1. Moreover the time over run factor with a delay of one year and two months has further lessened the effectiveness thereby delaying the envisaged benefits of the project.

The observations noted by audit regarding over-all performance were as follows:-

4.6.1 Time over-run

According to Revised PC-I, project was required to be completed within a period of 36 months from the date of commencement i.e. June 30, 2010.

During the performance audit of Darawat Dam Project Hyderabad, it was

noticed that the project was required to be completed within 36 months from the date of commencement June 30, 2010 but the project could not be completed within the scheduled period. However, the project was completed after delay of 14 months. The main reasons of time over-run were delay in acquisition of land, shifting / relocation of the alignment of irrigation canal system, survey for verification of reservoir area, treatment of two defective pits in Dam foundation and Monsoon season of the year 2011-12. This state of affairs reflected project mismanagement right from the award of contract till its completion. Resultantly, envisaged benefits could not be achieved timely on one hand and caused generation loss on the other hand.

Non-adherence to revised PC-I resulted in time over-run of 14 months in the completion of Darawat Dam Project.

The matter was taken up with the management in March, 2016 and reported to the Ministry in April, 2016. The management replied that the time over run was mainly due to delay in land acquisition, which was the responsibility of Provincial Government as per ECNEC's decision.

The reply was not acceptable as no documentary evidence was provided to substantiate the stance.

The DAC in its meeting held on May 08, 2017 directed the management to get the record i.e. less PSDP releases, land acquisition problems and resistance by the local people verified from Audit within one week. Further progress was not intimated till finalization of report.

Audit recommends that the management needs to expedite the provision of requisite record in compliance to DAC's directives.

(Para-4.6.1)

5. CONCLUSION

Darawat Dam Project was approved by ECNEC at a cost of Rs. 7,554.69 million. During execution the project management could not manage and closely monitor all the activities timely. Resultantly, benefits envisaged in PC-I could not be achieved well in time and were delayed due to following factors:-

- Major changes were made in the design of the Dam against the design conceived in feasibility report
- Power house having capacity of 300 KW was not constructed which resulted in heavy loss to the WAPDA
- State-land was not distributed among the landless women
- Government of Sindh did not take interest in construction of Phase-II of Darawat Dam Project being its own responsibility
- High Efficiency Irrigation System was not developed by the Government of Sindh in order to achieve maximum envisaged benefits of the Dam
- EPC Contractor did not follow the design provided in the Feasibility Report
- Main contract was awarded at 137.93% higher rates from the approved cost of PC-I i.e. Rs. 3,175.20 million
- Consultancy contract was awarded without competitive bidding

ACKNOWLEDGEMENT

We wish to express our appreciation to the management and staff of Darawat Dam Project Hyderabad for the assistance and cooperation extended to the auditors during this assignment.

PROJECT DIGEST

Name of Project	Darawat Dam Project, Hyderabad.
Location of the Project	Project is located about 70 m west of Hyderabad and 135 km North East of Karachi across NaiNaran River. The project site lies in Thatta /Jamshoro.
Authorities Responsible for:	
Sponsoring:	Ministry of Water and Power (MoWP), Government of Pakistan.
Execution:	Ministry of Water and Power (MoWP), Government of Pakistan.
Operation and Maintenance:	Water and Power Development Authority (WAPDA) / Irrigation and Power Department, Government of Sindh.

PROJECT OBJECTIVES

The main objectives of the Project are, inter alia, improved irrigated agriculture development, flood control, hydropower generation, fisheries production, creation of recreation facility and provision of drinking water for the population in the command, women emancipation by allotment of state land to poor women of the area.

The Project after implementation will assist in conserving 110 MCM (89,339 Acre ft) of flood water for irrigating about 10,117 hectares (25,000 acres) of fertile culturable land at a cropping intensity of 200%.

The main objectives of the project include:

Irrigated agriculture development of 25,000 acres, conservation of water for more productive use, women emancipation by allotment of developed state land to landless poor women of the area, socio-economic uplift of the area, poverty reduction. And fisheries development. Main objective of the Power Development Programme is to provide adequate facilities for generation, transmission & distribution of electrical power, keeping in view the future power requirements for domestic, commercial, industrial, agricultural & economic development of the country.

PROJECT COMPLETION

The Project was required to be completed within a period of 36 months after award of contract subject to approval of PC-I and completion of pre-implementation activities.

APPROVED COST OF PC-I	Total (in Rs.)
Approved cost	3,175.20 million

ANNUAL OPERATING COST	Total (in Rs.)
Operating Cost	111.37 million

SOURCE OF FINANCING

The project is to be fully financed (100%) by Federal Government as grant. MoU was signed mutually by EAD and Exim Bank of China to provide US\$ 700 million as buyer's credit for small / medium dams including Darawat Dam Project.

FINANCIAL PHASING OF PROJECT

Year	Phasing as per Original PC-I	Phasing as per Approved 1 st Revised PC-I	Phasing as per Approved 2 nd Revised PC-I		PSP Provision	Actual Amount Released	Actual Expenditure	
		Total	Total	FEC	Total	Total	Total	FEC
2009-10	3175.00		500.00	-	500.00	500.00	28.786	-
2010-11		3716.044	500.00	-	500.00	500.00	935.534	145.588
2011-12		2416.044	715.00	-	900.00	715.00	965.494	251.288
2012-13		3167.912	910.00	-	910.00	910.00	2651.776	1583.175
2013-14			1600.00	-	2300.00	1600.00	1346.438	-
2014-15			1000.00	-	1000.00	1000.00	998.303	-
2015-16			1000.00	-	1000.00	400.00	316.952	-
2016-17			4000.00	1980.05	-	-	-	-
2017-18			1542.87	-	-	-	-	-
Total	3175.00	9300.00	11767.87	1980.051	7110.00	5625.00	7243.283	1980.051

CHRONOLOGY OF PROJECT HISTORY

- Preparation of feasibility study March, 2007
- Up-gradation of feasibility study March, 2008
- Estimation of the project cost April, 2008
- Date of PC-I considered by CDWP 17.07.2008
- Date of approval of PC-I by ENCEC 03.09.2009
- Date of bid opening 16.11.2009
- Date of award of contract 09.06.2010
- Date of revised PC-I recommended by CDWP 27.06.2010
- Date of commencement of work 30.06.2010
- Date of award of consultancy contract 03.11.2010
- Date of signing of consultancy agreement 10.11.2010
- Date of recommendation of revise PC-I by Planning and Development Division 28.05.2012
- Date of approval of revise PC-I by ECNEC 16.08.2012
- Date of supplementary agreement 17.08.2012
- Date of completion of contract 29.06.2013
- Date of review of design and drawing by consultants 31.12.2013
- Date of actually project completed 31.08.2014

New Para No.4.2.1**Performance Audit Observations****Irregular award of contract to M/s Sinohydro Corporation at higher rate**

Sr. No.	Initial PAR Para No.	Observation
1	4.3.1	Irregular award of contract to M/s Sinohydro Corporation at contract price of Rs. 7,554.69 million
2	4.3.4	Loss of Rs. 4,209.83 million due to award of contract at higher rates