



**PERFORMANCE AUDIT REPORT
ON
DUBAIR KHWAR HYDROPOWER
PROJECT BESHAM
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 Dubair Khwar Hydropower Project, Besham for the period upto June, 2016. The Directorate General of Audit WAPDA conducted the performance audit of the Dubair Khwar Hydropower Project, Besham during December, 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 Dubair Khwar Hydropower Project, Besham.

Audit findings indicate the need for taking specific actions to realize the objectives of the Dubair Khwar Hydropower Project, Besham 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: 05 JUN 2018
Islamabad

Sd/-
(Javaid Jehangir)
Auditor General of Pakistan

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Abbreviation and Acronyms

BOQ	Bill of Quantity
CDO	Central Design Office
DAC	Departmental Accounts Committee
DEC	Dongfang Electric Corporation
DKP	Dubair Khawar Hydropower Project
DLP	Defect Liability Period
ECC	Economic Coordination Committee
ECNEC	Executive Committee of the National Economic Council
EOT	Extension of Time
EPC	Engineering Procurement Construction
ESP	Economic Survey of Pakistan
FEC	Foreign Exchange Component
GoP	Government of Pakistan
GWH	Gaga Watt Hour
HEPO	Hydro Electric Planning Organization
HHP	Highhead Hydropower Projects
ICB	International Competitive Bidding
IDB	Islamic Development Bank
IDC	Interest During Construction
KV	Kilo Volt
KW	Kilo Watt
KWH	Kilo Watt Hour
LC	Local Component
LoA	Letter of Acceptance
MoU	Memorandum of Understanding
MoWP	Ministry of Water and Power
MW	Mega Watt
MWH	Mega Watt Hour
NCR	Non Compliance Report
NEC	National Economic Council
NSL	National Soil Level
ODA	Overseas Development Authority

O&M	Operation and Maintenance
PKR	Pakistani Rupees
PSDP	Public Sector Development Programme
RTR	Reliability Test Run
SBLC	Standby Letter of Credit
SC	Supplier's Credit
SHYDO	Sarhad Hydel Development Organization
ToC	Taking over Certificate
TRCM	Trash Rack Crane Machine
US\$	United State Dollar
WAPDA	Water and Power Development Authority

EXECUTIVE SUMMARY

Directorate General Audit (WAPDA) conducted performance audit of Dubair Khwar Hydropower Project in December, 2016. Main objectives of the audit were to evaluate whether the project transactions and activities were carried out in economical, efficient, and effective manner. The audit was conducted in accordance with the prevailing rules and regulations. Dubair Khwar Hydroelectric Power Project is located in District Kohistan of the Khyber Pakhtunkhwa Province of Pakistan on the river Dubair Khwar, a right bank tributary of River Indus. The project area is at a distance of 270 KM from Rawalpindi and 300 KM from Peshawar. The project was included in “Vision 2025” Programme approved by the Chief Executive of Pakistan on January 17, 2001.

Original PC-I of the project was approved by Executive Committee of the National Economic Council (ECNEC) on September 02, 2002 at a total cost of Rs. 9,754.26 million including Foreign Exchange Component (FEC) of Rs. 4,147.51 million. FEC of funds amounting to US\$ 80.96 million was provided by the Islamic Development Bank (IDB) whereas local component was arranged through Public Sector Development Programme (PSDP). However, the cost of the project had to be rationalized to Rs. 24,673.57 million. 2nd revised PC-I is in the process of approval from ECNEC.

As per PC-1, the optimized maximum power generation was 130 MW while the annual estimated generation from the power house was 595 GWh (including 187 GWh during the peak hours). The Hydro Power Project started its commercial operation on March 17, 2014.

KEY AUDIT FINDINGS AND RECOMMENDATIONS:

a. Key Audit Findings:

1. Cost incurred over and above the revised PC-I of the project – Rs. 8,073 million (Para No. 4.7.1)
2. Excessive variation orders for execution of civil works awarded to the Contractor – Rs. 2,069.49 million (Para No. 4.3.2)
3. Non-inclusion of essential component of Power House in BoQ items due to lapses in design of the project – Rs. 1,597.98 million (Para No. 4.6.2)

4. Excessive expenditure incurred on consultancy services incurred against the amount provided in revised PC-I – Rs. 347.65 million
(Para No. 4.2.3)
5. Recoverable amount from Contractor for carrying out defective works – Rs. 217.93 million
(Para No. 4.3.3)
6. Non-provision of spare parts for five year's operation by the Contractor as provided in the contractor – Rs. 141.99 million
(Para No. 4.5.3)
7. Irregular issuance of refund of Withholding Tax by the project authorities instead refund of tax was to be issued by FBR under the law – Rs. 65.88 million
(Para No. 4.2.4)
8. Unjustified payment to the contractor by providing flood damages instead of lodging claim on Insurance Company – Rs. 380 million
(Para No. 4.2.2)
9. Defective material procured from market instead of making its replacement from Contractor during defect liability period – Rs. 12.74 million
(Para No. 4.3.4)
10. Interest on delayed payments made to the contractor for not discharging their obligations in time – Rs. 3.28 million
(Para No. 4.2.6)
11. Time over-run of more than seven years as the project was required to be completed within a period of 54 months from the award of contract in July, 2003 whereas commercial operation was started in March, 2014
(Para No. 4.7.2)

b. Recommendations:

In view of the audit findings and the conclusion, following recommendations are outlined for futuristic planning and economical, efficient and effective execution of such projects:

1. Ministry of Water Resources should conduct an inquiry at appropriate level for ascertaining the real causes of delay in the otherwise viable Dubair Khwar Hydropower Project and fix responsibility upon responsible officers/officials who caused enormous delay and huge cost escalation

2. WAPDA's interests should be kept intact while entering into any contract, thereby ensuring insertion of such clauses, besides LD clause, which make the Contractor liable for the loss occurred due to his fault
3. WAPDA should rely on its in-house capacity/capability of managerial and engineering services rather than outsourcing the same through hiring of advisors/consultants and adopt the rotation policy
4. WAPDA should not give extra contractual financial assistance to the Contractors, and if given for any cogent reason, the interest thereupon may be charged at the rate being charged to WAPDA against any loan under current utilization
5. WAPDA should ensure preparation of realistic estimates for PC-1 and discourage issuance of subsequent variation orders as far as possible. These variations and process of approval thereof cause delays as well as cost escalation of the project
6. The performance guarantees of the contracts should be kept intact and duly renewed in case of extension in construction period
7. The project management should check that any rectification work(s) lying pending be invariably got completed from the Contractor at the earliest and within Defect Liability Period (DLP)
8. WAPDA should get opened and operate foreign currency accounts for Foreign Exchange Component (FEC) to mitigate the risk of huge potential loss due to variable foreign exchange rate
9. Responsibility should be fixed through due formal process upon the officials whose negligence any loss is occurred

1. INTRODUCTION

Dubair Khwar Hydropower Project is located in the District Kohistan of Khyber Pakhtunkhwa Province of Pakistan on the river Dubair Khwar, a right bank tributary of River Indus. The project area Pattan accessible by road is at a distance of 270 KM from Rawalpindi and 300 KM from Peshawar.

The project was included in “Vision 2025” Programme approved by the Chief Executive of Pakistan on January 17, 2001. This was a foreign aided project and Islamic Development Bank (IDB) provided loan amounting to US\$ 80.96 million effective from January, 2009 out of which US\$ 68.03 million were utilized up to June, 2013.

The optimized maximum power station output is 130 MW. The annual production of electricity is estimated as 595 GWh, out of which 187 GW is to be generated during peak hours. Prime objective of this hydro power project is to provide cheaper and cleaner electricity to reduce shortage and cater for future electricity requirements. Commercial operation of the project was started on March 17, 2014.

Original PC-I of the project was approved by the Executive Committee of National Economic Council (ECNEC) on September 02, 2002 at a total cost of Rs. 9,754.26 million with local component of Rs. 5,606.75 million and foreign exchange of Rs. 4,147.51 million. 1st revision of the PC-I was approved by ECNEC on August 20, 2009 at a total cost of Rs. 16,324.47 million including FEC of Rs. 8,255.82 million and 2nd revision of PC-I amounting to Rs. 20,823.72 million was cleared by CDWP on November 29, 2013 subject to rationalization of cost. Rationalized/updated cost of Rs. 24,673.57 million was intimated to Ministry of Water & Power on February 06, 2014 which was forwarded to Planning Commission on May 21, 2014. However, the 2nd revision of PC-I has not been approved by the ECNEC to date.

The project was completed through two contracts. 1st contract (Lot C&HS) comprised of the construction of civil engineering works along with design, supply and installation of hydraulic steel whereas the 2nd contract (Lot E&M) was awarded for the execution of electrical & mechanical work.

1.1 Objectives of the project

The main objectives of the Project are:

- Generation of 130 MW of electricity
- Creation of employment Opportunities
- Supporting the socio-economic uplift
- Provision of low cost hydropower for contributing towards sustainable development

1.2 Beneficiaries

People of Islamic Republic of Pakistan

1.3 Time Phasing

As per original PC-I, 54 months were required to complete the project (tentatively from July, 2002 to December, 2006) but construction of the project was started with effect from June, 2003 and commercial operation on March 15, 2014.

- Financial Progress = 139.86 %
- Physical Progress = Completed

1.4 Capital Cost

(Rs. in Billion)

Cost	Date	Local	FEC	Total
Original PC-I	02.01.2002	5.760	4.148	9.754
1 st Revised PC-I	20.08.2009	8.069	8.256	16.324
2 nd Revised PC-I (submitted for approval)	13.07.2106	-	-	24.675

1.5 Source of Finance

- Government of Pakistan
- Islamic Development Bank Loan

1.6 Type of Finance

Foreign Relent Loans (Islamic Development Bank) Rs. 8.10 billion
Local Rs. 11.04 billion

2. AUDIT OBJECTIVES

The main audit objectives were to:

- Evaluate whether the project was successful in achieving objectives as envisaged in PC-I
- Evaluate the extent of economy and efficiency in the completion and operation of the Project
- Assess effectiveness of the Project to date

3. AUDIT SCOPE AND METHODOLOGY

3.1 Audit Scope

The performance audit was conducted for the period from June, 2003 to June, 2016. During this period an expenditure of Rs. 24,397 million was incurred. Auditable record of the project was available at the office of General Manager Projects (Northern Areas), GBHP Colony, Hattian and Chief Engineer (O&M), Dubair Khwar Hydropower Project, Besham.

3.2 Audit Methodology

Audit activity comprised of preparing the detailed Preliminary Survey Report (PSR), Audit Assignment Plan and development of audit program.

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

- Site visits of Power House and Weir
- Interview and discussion with Project Management
- Examination of samples selected from record/documents of the project

4. AUDIT FINDINGS AND RECOMMENDATIONS

4.1 Organization and Management

4.1.1 Non-provision of training to employer's engineers – Rs. 5 million

According to Clause-1.5.1 of the Consultancy Agreement, training of Client's Engineering personnel was to be undertaken by the Engineer. Twelve engineers of civil, mechanical/electrical and controls departments were to be trained for a period of at least six months in the works of a similar plant already in operation having high-head Pelton and Francis type turbines of 20 MW output or more.

During performance audit of the Dubair Khwar Hydropower Project, it was disclosed that an amount of Rs. 5 million for training cost was provided in the Consultancy Contract Agreement signed between WAPDA and High Head Hydropower Consultants (HHC) in November, 2002 but no training was imparted to the engineers for capacity building and smooth functioning of the project during construction as well as the O&M period.

Violation of consultancy agreement resulted in non-provision of training to the employer's engineers despite inclusion of training cost of Rs. 5 million in the contract.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that basic training required for operation of Pelton/Francis turbines was imparted which was evident from the smooth running of the plant. Even the amount of Rs. 5 million, according to consultancy agreement, was not paid to the consultants and saved in favour of WAPDA. The reply was not tenable as no documentary evidence was provided.

The Departmental Accounts Committee (DAC) in its meeting held on May 08, 2017 directed the management to get documentary evidence verified from Audit i.e. contract, evidence of unused cost, list of participants to whom on job training was provided and revised financial proposal.

Audit recommends that the management needs to provide documentary evidence regarding provision of training to the employer's staff.

4.2 Financial Management

4.2.1 Undue financial assistance to the Contractor and non-charging of interest – Rs. 10,523 million

According to the contract agreement, there was no contractual provision for financial assistance to the Contractor.

During performance audit of Dubair Khwar Hydropower Project, it was observed that financial assistance of Rs. 900 million was given to the Contractor M/s DEC for Lot C&HS Works, which was over and above the contractual obligations of the Employer. It was further noticed that neither interest thereon was charged to the Contractor nor an amount of Rs. 153 million @ 17 % per annum in lieu of such interest was recovered from him.

Violation of contract agreement resulted in undue financial favour amounting to Rs. 900 million and non-charging of interest thereon Rs. 153 million to the Contractor.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the financial assistance of Rs. 900 million was not a contractual favour rather it was approved in light of inevitable changes in the design of the project by WAPDA Authority after detailed deliberations. There was no provision of charging interest to the Contractor in the contract. The reply was not tenable as the said payment was not covered under any clause of the contract.

The DAC in its meeting held on May 08, 2017 directed the management to get the documentary evidence i.e., MOU, Authority Approval and Milestone achieved verified from Audit.

Audit recommends that the management needs to expedite recovery of the principal amount along with interest.

4.2.2 Unjustified payment on accounts of flood damages to the Contractor – Rs. 380 million

As per Clause-21.1(a) of the Contract (DK01) for Lot C&HS “the Contractor shall, without limiting his or the Employer’s obligation and responsibility under clause 20, insure the works, together with materials and plant for incorporation therein, to the full replacement cost”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that an amount of Rs. 380 million was paid to the Contractor on account of flood damages of Lot C&HS. According to the above mentioned clause, the works together with material and plant for incorporation therein were to be insured to full replacement cost. The project authority instead of lodging claim with the insurance company, paid huge amount of Rs. 380 million to the Contractor which was unjustified.

Non-adherence to the contract clause agreement resulted in unjustified payment of Rs. 380 million to the Contractor on account of flood damages.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the payment was the component of MOU-2 Package admissible under Sub Clause-4.2.18 (20.4) d of COPA and Sub Clause-21.3 of CoC (FIDIC). The reply was not acceptable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to submit detailed revised reply showing calculation of said amount and justify the payment through concerned clause of approved MOU-2.

Audit recommends that the management needs to justify the payment in the light of concerned contract clauses besides recovering the amount from Contractor.

4.2.3 Excessive expenditure incurred on consultancy services in violation of revised PC-I – Rs. 347.65 million

According to revised PC-I, “an amount of Rs. 359.53 million was reserved as consultancy cost”. (Specific Reference)

During performance audit of Dubair Khwar Hydropower Project, it was observed that an expenditure of Rs. 707.18 million was incurred on account of consultancy services against revised PC-I provision of Rs. 359.53 million as detailed below:

a.	Local Professional staff	Rs.562.99 million
b.	Direct Cost Project office, Lahore	Rs.73.29 million
c.	Direct Cost Site Office, Besham	Rs.70.90 million
	Total	Rs.707.18 million

Hence, an amount of Rs. 347.65 million was spent in excess of the approved PC-I (1st Revised) cost, which was irregular.

Non-adherence to the PC-I provisions resulted in irregular expenditure of Rs. 347.65 million incurred on consultancy services.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the Consultancy Services Contract was for three Hydropower Complex Projects, however, a sum of Rs. 641.61 million was charged to Dubair Khwar Hydropower Project. Excess expenditure on consultancy services was incorporated in 2nd revised PC-I of DKP which would be provided after its approval. Further progress was not reported till finalization of the report.

The DAC in its meeting held on May 08, 2017 directed the management to submit detailed revised reply along with details of proportionate amount charged to each project as explained and get approved the 2nd revised PC-I covering the expenditure.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding excess expenditure on account of consultancy services.

4.2.4 Irregular issuance of refund of Withholding Tax to the Contractor – Rs. 65.88 million

According to the provisions of Sub-Clause-73.2 of Conditions of Particular Application, “nothing in the contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Pakistan on profits made by him in respect of the contract”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that an amount of Rs. 65.88 million on account of Withholding Tax was irregularly refunded to the Contractor M/s CWH-HE JV in contravention of the above clause of contract. Under Section-170 (1) of the Income Tax ordinance, 2001, refund of income tax was to be issued only by the FBR.

Non-adherence to the contract agreement and contrary to the provision of Income Tax Ordinance, 2001 refund of Withholding Tax amounting to Rs. 65.88 million was irregularly issued to the Contractor.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that as per WAPDA's Finance Directorate (P) the amount had been recovered from the Contractor. The reply was not acceptable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to get the recovery verified from Audit along with other documentary evidence i.e., minutes of Authority meeting and Clause 70.8 "Change of Legislation".

Audit recommends that the management needs to provide relevant record regarding recovery of withholding tax. The responsibility for irregular issuance of refunds also be fixed against the officers at fault.

4.2.5 Loss on account of crop compensation out of court settlement – Rs. 33.39 million

According to the instructions issued by WAPDA dated July 17, 1982, "All losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved".

During performance audit of Dubair Khwar Hydropower Project, it was noticed that an amount of Rs. 33.39 million was disbursed to the affectees of Dubair Khwar Hydropower Project on account of crop compensation subject to the withdrawal of court cases by the affectees. Contrary to the out of court settlement, the affectees had again referred their cases to the court. Hence, Authority sustained loss of Rs. 33.39 million as the payment was made without achieving any objective.

Poor financial management resulted in loss of Rs. 33.39 million on account of crop compensation made out of court settlement.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that DC Kohistan had directed AC Pattan to serve notices to land owners to refund the compensation amount to WAPDA as they had violated the agreement of out of court settlement. Further progress was not reported till finalization of the report.

The DAC in its meeting held on May 08, 2017 directed the management to fix the responsibility alongwith recovery from quarter concerned.

Audit recommends that the management needs to implement the decision of AC Pattan besides recovering the amount from land owners.

4.2.6 Loss on account of interest on delayed payments – Rs. 3.28 million

According to Clause-4.2.63 (60.8), Part-II, Conditions of Particular Application, the amount due to the Contractor under any Interim Payment Certificate issued by the Engineer, be paid by the Employer to the Contractor within 56 days after the Contractor's monthly statements has been submitted to the Engineer for certification. In the event of the failure, "the Employer shall pay to the Contractor interest compounded monthly at the rate(s) stated in the Appendix-A to the tender".

During performance audit of Dubair Khwar Hydropower Project, it was observed that the department failed to fulfil its obligations timely, consequently a payment of Rs. 3.28 million on account of interest on delayed payments was made to the Contractor causing loss to the Authority.

Financial mismanagement resulted in loss of Rs. 3.28 million on account of interest on delayed payment.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the Para is a duplication of Audit Para No. 92 already been dealt as an Advance Para. It was further intimated that the para was earlier raised for an amount of Rs. 2.7 million in 2007-2008 and transferred to DP-1254. The reply was not tenable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to submit detailed revised reply so that audit could link the same with DP-1254.

Audit recommends that the management needs to investigate the matter for fixing responsibility for financial mismanagement besides making good the loss.

4.2.7 Irregular adjustment of Advance – Rs. 0.90 million

According to Rule-109 Section-III of Audit Code of office of Auditor General of Pakistan all transactions which are ultimately removed either by payments or recovery in cash or by book adjustment are kept under suspense heads. Audit of transactions under suspense heads is carried out by applying the ordinary procedure of audit of expenditure.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that an advance amounting to Rs. 0.90 million was paid to Central Design Office (CDO) WAPDA. The amount was adjusted during June, 2015 and charged to expense without any adjustment account or Audit Certificate. Adjustment of advance without any adjustment account/audit certificate was irregular.

Financial mismanagement resulted in irregular adjustment of advance of Rs. 0.90 million.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that adjustment account of Rs. 0.90 million had since been received and being provided for verification. The reply was not acceptable as no documentary evidence was provided in support of reply.

The DAC in its meeting held on May 08, 2017 directed the management to submit detailed revised reply showing that the advance amount was properly adjusted and get it verified from Audit.

Audit recommends that the management needs to investigate the matter for fixing the responsibility regarding irregular adjustment of advance.

4.3 Procurement and Contract Management

4.3.1 Unauthentic payment to the Contractor against final claim of dispute settlement – Rs. 2,100 million

As per Clause-58.3 of the Contract Agreement, “the Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of provisional sums, except where work is valued in accordance with rates or prices set out in the tender”.

During performance audit of Dubair Khwar Hydropower Project, it was observed that a Memorandum of Understanding-2 (MOU-2) was signed on March 11, 2013 where an amount of Rs. 2,100 million against the total claims of Rs. 10,132.60 million was paid to M/s Dongfang Electric Corporation (DEC) as final claim /dispute settlement @ 58% of agreed amount in local currency and 42% in foreign currency. The detail of the claims of Rs. 2,100 million granted to the Contractor was not forthcoming from the record. The authentication of payment so made could not be ascertained in the absence of such details.

Non adherence to contract clauses resulted in un-authentic payment of Rs. 2,100 million to the Contractor against final claim dispute settlement.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that after thorough investigation and reconsideration of all the preceding factors, the Authority finally approved MOU-2 and signed the same with the Contractor. As such under Global settlement, an amount of Rs. 2,100 million was paid against the Contractor’s claim of Rs. 10,132.60 million. The reply was not acceptable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to submit a comprehensive reply along with justification to Audit.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding unauthentic payment to the Contractor.

4.3.2 Issuance of excessive variation orders for execution of civil works – Rs. 2,069.49 million

According to Sub Clause-2.1 (b)(vi) Appendix-A to tender Special Stipulations, for the contract of Civil & Hydraulic Steel Works, “Engineer has authority to issue variations upto twenty (20) million per variation and up to one hundred (100) million for all variations”.

During performance audit of Dubair Khwar Hydropower Project, it was observed that a Contract DC-02 for execution of civil works was awarded to M/s Dongfang Electric Corporation, (DEC) China in March, 2003 at a contract price of Rs. 2,744.47 million. During currency of the contract excessive Variation Orders worth Rs. 2,069.49 million were issued as detailed below:

(Rs in Million)

Contract No.	Contractor	Contract Amount	No of VOs	Limit of VO	Amount of VOs	Remarks
DC-02	Dongfang Electric Corp,(DEC) China	2,744.47	08	100	2,069.49	Amount of VOs was 75 % of the Contract amount

The said Variation Orders were issued irregularly beyond the prescribed limit set in the respective contract clauses.

Non- adherence to the contract clauses resulted in issuance of excessive variation orders amounting to Rs. 2,069.49 million.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that due to unforeseen geological disruptions like devastating earthquake and floods of 2010, some inevitable additional works as well as alteration to the existing designs were carried out with Employer's approval. The reply was not acceptable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to provide copy of enquiry report to audit and its implementation status be got verified from Audit.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding non- observance of contract clauses.

4.3.3 Recoverable amount on account of non/poor operation of works – Rs. 217.93 million

As per Clause-30.5(C) Failure of Remedy Defects, B-I General Conditions of the Contract: "if defect or damage is such that the Employer has been deprived of substantially the whole of the benefit of the work or apart thereof, he may terminate the contract in such parts of the work as cannot be put to the intended use. The Employer shall to the exclusion of any remedy under Clause-45 be entitled to recover all sums paid in respect of such parts, clearing the site and thereby turning plant to the Contractor or otherwise disposing of it in accordance with the Contractor's instructions".

During performance audit of Dubair Khwar Hydropower Project, it was noticed that Contractor completed a few works with total cost of Rs. 217.93 million. But the Employer pointed out that the works were still un-operative due to some defects existing therein. In order to avoid heavy loss of Rs. 217.93 million to the Authority, the system may be got functional by either approaching the Engineer/Contractor or at the risk and cost of the Contractor.

Non adherence to the contract clauses resulted in recoverable amount of Rs. 217.93 million from the Contractor due to non/poor operation of works.

The matter was taken up in December, 2016 and reported to the Ministry in February, 2017. The management replied that the Contractor had completed the PLC/Telecommunication work on March 28, 2017 for 220 KV for Allai Khwar ISPR Circuit # 1 whereas due to non availability of the other line,

the said work could not be completed. On the other hand VHF Radio system was deleted from the contract being not required.

The DAC in its meeting held on May 08, 2017 directed the management to get verified from Audit the completion certificates of Water Purification Plant and Diesel Generator while providing documentary evidence of test of one line and waiver of test on other line.

Audit recommends that the management needs to expedite the recovery from the Contractor besides fixing responsibility for such irregularity.

4.3.4 Loss due to non-replacement of defective material during Defect Liability Period (DLP) – Rs. 12.74 million

As per Clause-30.5(A) Failure of Remedy Defects, B-I General Conditions of the Contract: “if the Contractor fails to remedy a defect or damage within a reasonable time, the Employer may fix a final time for remedying the defect or damage if the Contractor fails to do so, the Employer may, carry out the work himself or by other at the Contractor’s own cost, provided that he does so in a reasonable manner. The costs properly incurred by the Employer in remedying the defect or damage shall be deducted from the Contract Price, but the Contractor shall have no responsibility for such work”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that during the Defect Liability Period, the surge arrestor and battery chargers were damaged which were required to be replaced from the contractor. Instead the management decided to purchase the same at a cost of Rs. 12.74 million causing loss to the Authority to the stated extent.

Non adherence to the contract clause resulted in loss of Rs. 12.74 million due to non replacement of defective material during Defect Liability Period.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the surge arrestor was damaged after expiry of the defects liability period further in a recent meeting held at Lahore, the Lot E&M Contractor informed the Employer/Engineer that the battery chargers shipment was under way and would be delivered by March 15, 2017. Further progress was not reported till finalization of report.

The DAC in its meeting held on May 08, 2017 directed the management to provide documentary evidence in support of reply i.e. minutes of meeting and decisions taken. Further, the battery chargers as and when received and installed, the record be provided and got verified from Audit.

Audit recommends that the management needs to expedite the replacement of damaged equipment besides fixing responsibility.

4.4 Construction and Works

4.4.1 Loss due to non-rectification of defects – Rs. 3.90 million

According to the instructions issued by WAPDA dated July 17, 1982, “All losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that during Defect Liability Period, non-rectification of defects occurred in the power plant resulted in generation loss amounting to Rs. 3.90 million (390,000 Kwh* Rs. 10 average rate). The Resident Engineer directed to recover the loss from the Contractor but the recovery of the same amount was not forthcoming from the record.

Non adherence to the Authority’s instructions resulted in loss of Rs. 3.90 million due to non rectification of defects.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that Defect Liability Period (DLP) was meant for rectification of defects observed in the contractual works within a specified period. So there was no justification for any recovery from the Contractor for the said defect under the provision of the contract. The reply was not acceptable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to submit revised reply duly supported with relevant record.

Audit recommends that the management needs to provide documentary evidence in support of reply besides making the loss good.

4.5 Assets Management

4.5.1 Non renewal of performance guarantees – Rs. 1,297.87 million

As per Clause-10.1 and relevant clauses of the special conditions, “the Contractor shall submit the performance security upto 10% on the contract amount as well as on the varied amount from time to time including the DLP period and extension, if required”.

During performance audit of the Dubair Khwar Hydropower Project, it was observed that M/s Andritz failed to submit/extend their performance security during the Defect Liability Period (DLP) as detailed below:-

(Amount in million)

Security Reference No	Expiry date	US\$	Pak Rupees
CPBD/1631/100028dated:07-09-2010	10-08-2014	2.37	1,286.79
BG 10900855 dated 03.11.2009	30-09-2012	0.05	5.54
BG 11300194 dated 08.03.2013	31-01-2016	0.05	5.54
Total:-			1,297.87

In the absence of non-renewal/non-encashment of above mentioned securities, the risk of loss of the items to be rectified could not be ruled out.

Non adherence to the contract clause resulted in non renewal of performance guarantees.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the Para in question had already been taken in PDP-1632 of AR-2016-17. The reply was not acceptable as the works pointed in the PDP were different from those included in this observation.

The DAC in its meeting held on May 08, 2017 directed the management to provide the relevant record to Audit for verification.

Audit recommends that the management needs to investigate the matter for fixing the responsibility besides getting the renewed bank guarantees.

4.5.2 Non-demarcation of land – Rs. 391.01 million.

According to the instructions issued by WAPDA dated July 17, 1982, “All losses, whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved”.

During performance audit of Dubair Khwar Hydropower Project, it was observed that 948.90 Kanals of land was acquired for different components of the project but transfer of ownership/Demarcation of the land in the name of WAPDA worth Rs. 391.01 million was still in process.

Non adherence to the Authority's instructions resulted in non-demarcation of land valuing Rs. 391.01 million.

The matter was taken up in December, 2016 and reported to the Ministry in February, 2017. The management replied that the project had already been transferred to O&M mode. Resident Engineer (O&M) had to take up the matter with local administration for mutation of land. The outcome would be submitted after receipt from concerned quarters. Further progress was not reported till finalization of report.

The DAC in its meeting held on May 08, 2017 directed the management to submit revised reply and complete the pending actions and get it verified from Audit.

Audit recommends that the management needs to expedite the mutation of land.

4.5.3 Loss due to non-provision of spare parts – Rs. 141.99 million

As per Clause-4.7 of condition of contract, “the Contractor shall provide spare parts as specified by the Employer in schedule of prices. Additionally, a list of the spare parts recommended by the manufacturers for five years operation shall also be provided in the schedule of prices. The Employer reserves the right to order any or all of the additional spare parts recommended by the Contractor in the scheduled prices”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that contractor was required to provide spare parts for five year's operation to the engineer but the delivery of spare parts valuing Rs. 141.99 million of Lot E&M was still pending as reported by Director (E&M) Project. No efforts were made to obtain the spare parts from the Contractor.

The matter was taken up with the management in December, 2016 and reported in the Ministry in February, 2017. The management replied that Resident Engineer (O&M) as well as the Engineer had been asked for the

response with record. Further progress was not reported till finalization of the report.

The DAC in its meeting held on May 08, 2017 directed the management to submit complete details of returned spare parts including the spare parts to be replaced and get it verified from Audit.

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

4.5.4 Loss due to non-receipt of assets from consultant – Rs. 17.87 million

According to the instructions issued by WAPDA dated July 17, 1982, "All losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved".

During performance audit of Dubair Khwar Hydropower Project, it was observed that after closure of the project furniture and fixtures, vehicles and other equipments amounting to Rs. 17.87 million were retained by the High Head Hydro Consultants. Therefore, the Manager Finance (Hydel) raised debit to Budget &Accounts Officer Dubair Khwar. Retention of vehicles and furniture having substantial value, by the Consultants after closure of the project beyond the Defect Liability Period (DLP) was irregular causing loss to the Authority.

Non adherence to the Authority's instructions resulted in loss of Rs.17.87 million due to non receipt of assets from the consultant.

The matter was taken up in the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the consulting services were still continuing and the Employer's assets in use with the Consultants would be returned at the expiry of their services. Further progress was not reported till finalization of the report.

The DAC in its meeting held on May 08, 2017 directed the management to get documentary evidence verified from Audit.

Audit recommends that the management needs to finalize matter with the Consultants expeditiously.

4.5.5 Loss due to non availability of vehicles purchased for the project – Rs. 12.45 million

According to the instructions issued by WAPDA dated July 17, 1982, “All losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved”.

During performance audit of the Dubair Khwar Hydropower Project, it was noticed that 16 vehicles were purchased and included in the assets of the project out of which only 1 vehicle was running at the project. This indicated that 15 vehicles valuing Rs. 12.45 million were not physically available at the project. Hence, the chance of misappropriation cannot be ruled out.

Non adherence to the Authority’s instruction resulted in loss of Rs. 12.45 million due to non availability of vehicles purchased for the project.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the vehicles had already been parked in the premises of 3 High head Hydropower Projects. The Chief Engineer (O&M) had constituted a committee for handing/taking over of these vehicles. Further progress was not reported till finalization of the report.

The DAC in its meeting held on May 08, 2017 directed the management to get the record pertaining to handing/taking of vehicles verified from Audit.

Audit recommends that the management needs to expedite the proceedings of committee for handing/taking of vehicles besides making the loss good.

4.5.6 Loss due to non-recovery of 400 KVA diesel generator – Rs. 1.99 million

According to the instructions issued by WAPDA dated July 17, 1982, “All losses whether of public money or of stores, shall be subjected to preliminary investigation by the officer in whose charge they were, to fix the cause of the loss and amount involved”.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that Engineer had allowed 100 % cost and custom duty to the Contractor for the procurement of a 400 KVA capacity diesel generator. The generator was

property of the Employer and required to be handed over to the Employer but the Contractor proposed to provide the generator which was already in his use and whose value had already been declared as zero by the Engineer. The Engineer had asked the Contractor to provide a new generator but needful was not done. This state of affairs put the Authority into a loss to the stated extent.

Non adherence to the Authority's instructions resulted in loss of Rs. 1.99 million due to non recovery of 400 KVA generator from the Contractor.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that the Contractor M/S Sinohydro Corporation had handed over a 450 KVA capacity diesel generator to WAPDA O&M Staff of Dubair Khwar Hydropower Station on December 26, 2016, to fulfil his long outstanding contractual obligations. The reply was not tenable as no documentary evidence was provided.

The DAC in its meeting held on May 08, 2017 directed the management to get the record verified from Audit i.e. copy of complete handing over/taking over certificate showing the exact quality/specification of contractually provided 450 KVA generator set model 2013.

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

4.6 Monitoring and Evaluation

4.6.1 Loss on account of foreign exchange component due to delay in completion of the project – Rs. 10,749 million

According to Para-18(i) of PC-I of the Project, "the project will save an amount of Rs. 1,535.67 million annually that would otherwise be required for import of Oil needed for equivalent thermal plant".

During performance audit of Dubair Khwar Hydropower Project, it was noticed that the project was started during July 2002 with a completion period of 54 months i.e. upto December, 2006. The project could not be completed on scheduled date of completion and was delayed upto 85 months. Resultantly, the WAPDA sustained a loss of Rs. 10,749 million (Rs. 1,535.67 million x 7 years) on account of foreign exchange split on importing oil. If the project had been completed timely, the loss could have been saved.

Non-adherence to the PC-I provisions resulted in loss of Rs. 10,749 million.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that all aspects of cost and time over run were incorporated in 2nd revised PC-I which would be provided to Audit.

The DAC in its meeting held on May 08, 2017 directed the management to get verified the 2nd revised approved PC-I from Audit.

Audit recommends that the management needs to investigate the matter of delay in project completion and fix the responsibility of loss.

4.6.2 Loss due to lapses in design of the project – Rs. 1,597.98 million

According to General Condition-3.4 (Liability of the Consultants) relating to Consultancy Services agreement for implementation of the Indus Tributaries High-Head Hydropower Complete Project (Khan Khwar – DubairKhwar – Allai Khwar), If the client suffers any losses or damages as a result of proven faults, errors or omissions in the design of a project, the Consultants shall make good such losses or damages.

During performance audit of Dubair Khwar Hydropower Project, it was noticed that a Variation Order No.DC02/04 for Rs. 1,597.98 million not priced at BOQ base unit prices, was paid to the Contractor of Lot C&HS. A further probe into the record revealed that the work under Variation Order was relating to implementation of new underground pressure tunnel & shaft arrangement. Being mandatory and essential components of the power house, these were required to be included in the BOQ but needful was not done. An amount of Rs. 1,597.98 million against the Variation Order No. DC 02/4 was paid due to design lapses. Thus, Authority sustained loss due to negligence of the Consultants.

Non adherence to the contract clause resulted in loss of Rs. 1,597.98 million due to lapses in the design of the project.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that 1st revised PC-1 was approved by ECNEC in August, 2009, whereas the

catastrophic floods occurred in 2010 caused increase in the cost of the project for which 2nd revised PC-I was under process of approval with quarter concerned.

The DAC in its meeting held on May 08, 2017 directed the management that the matter be inquired into at the Ministry level for fixing responsibility.

Audit recommends that the management needs to take up the matter at Ministry level besides making good the loss.

4.7 Overall Assessment

Overall assessment has been gauged with reference to three “Es” i.e. Economy, Efficiency and Effectiveness;

Economy

The execution of project development phase cannot be characterised as economical owing to the fact that the project cost stretched from Rs. 9,754.26 million to Rs. 24,397 million, thereby putting loss of Rs. 14,643.25 million as on June 30, 2016. Nonetheless, on its completion, per unit cost of the power generation remained Rs. 1.66 per kWh in 2014-15 and Rs. 2.39 per kWh in 2015-16 against the projected per unit cost of Rs. 3.50 per kWh. The project has therefore, been proved to be operationally economical. Had this viable project been completed within the stipulated period of five (5) years, the said loss on account of increased project cost could have been avoided.

Efficiency

The project management can hardly be attributed to have performed efficiently owing to the following factors:

- Poor selection of site for power house as the same was too proximate to the hilly slope of almost 60 to 80 degrees with unreliable rock surface
- Unnecessary delay in construction of access roads for mobilization of the Contractor to site
- Inability of the project management to ensure timely commencement of work by the Contractor i.e. M/s DEC for lot C&HS
- Slow/poor progress of works by the Contractor due to lack of supervision by the Client as well as the Engineer

- In spite of the weak financial position of the Contractor and slow pace of work, not only the project management refrained from taking any punitive action against the Contractor as per contractual clauses but also rendered undue benefits to the former in the shape of unwarranted financial assistance in an attempt to ensure in-time completion of project albeit in vain
- Extension of Time (EoT) was granted frequently to the Contractors, specially to M/s DEC engaged for civil works; which caused delay in E&M works
- The delay could also be attributed to simultaneous engagement of the Contractor M/s DEC at multiple projects i.e. Dubair Khwar, Allai Khwar and Jinnah Hydropower Projects; thereby causing to scramble the resources which ultimately affected the progress of works
- Project management was expected to complete the project within the stipulated period of five (5) years but it took ten (10) years for its completion
- Proper surveys/investigations were not carried out at the outset of the project that caused subsequent diversions/variations resulting in substantial delay in works and increase in project cost
- Due to delay in completion of the project, WAPDA was deprived of the benefits on account of prospective revenue generation of Rs. 8,326.78 million and potential saving of Rs. 10,749 million in foreign exchange by reducing dependence on thermal power option, as envisaged in PC-1
- The pre-requisite actions like completion of access roads and timely modification in the design of tunnel were obligatory upon the Employer which were not carried out in time. These inordinate delays eventually resulted in time overrun of more than 7 years

Effectiveness

The project can fittingly be characterised as effective primarily due to its affordable low per unit cost and environment friendly operations. This fact is further reinforced and substantiated by the following benefits attributed to the project:

- Per annum revenue is expected to be on higher side due to less operations & maintenance (O&M) costs
- The project, though completed late, has contributed in reducing dependence on thermal power generation. This, in turn, would cause saving of foreign exchange which would otherwise have been spent on import of fuel
- It is adding value to social up-lift and employment opportunities for the local populace
- It has helped reduced the hazardous emissions of Carbon Oxides (COx) and Sulphur Oxides (Sox)
- It has added cleaner and cheaper electric power to the national energy mix

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

4.7.1 Cost incurred over & above the Revised PC-I – Rs. 8,073 million

According to Revised PC-I of the Project, an amount of Rs. 16,324.48 million was total approved cost of the Project.

During the performance audit of Dubair Khwar Hydropower Project, it was noticed that an expenditure of Rs. 24,397 million was incurred upto September, 2016 against the approved cost of Rs. 16,324 million. Thus, expenditure of Rs. 8,073 million incurred in excess of approved amount was irregular which needed justification.

Non adherence to the revised PC-I resulted in cost incurred over and above the revised PC-I amounting to Rs. 8,073 million.

The matter was taken up with the management in December, 2016 and reported to the Ministry in February, 2017. The management replied that 1st revised PC-1 was approved by ECNEC in August, 2009, whereas the catastrophic floods in 2010 caused increase in the cost of the project for which 2nd revised PC-I was under process of approval with quarter concerned. The reply was not acceptable as no departmental inquiry was conducted to probe into the matter.

The DAC in its meeting held on May 08, 2017 directed the management to get verified 2nd revised approved PC-I from Audit.

Audit recommends that the management needs to investigate the matter for fixing responsibility regarding delayed implementation of the project.

4.7.2 Time over-run

According to original PC-I, project was required to be completed within a period of 54 months from the date of commencement i.e. July 2002.

During the performance audit of Dubair Khwar Hydropower Project, it was noticed that the project was required to be completed within 54 months from the date of commencement i.e. July, 2002 but the project could not be completed within the scheduled period. However, it was completed after delay of 85 months. The main reasons of time over- run were:

- Delay in award of contract
- Late signing of contract agreement
- Delay in issuance of construction orders
- Late commencement of the work by the Contractor
- Delay in financial closure by the Employer

This state of affair reflected project mismanagement right from the award of contract till its completion. Resultantly envisaged benefits were not achieved timely on the one hand and caused generation loss on the other hand.

Non-adherence to PC-I provisions resulted in time overrun of the project.

The matter was taken up with management in December, 2016 and reported to the Ministry in February, 2017. The management replied that all aspects of cost and time over run were incorporated in 2nd revised PC-I which would be provided to Audit on its approval.

The DAC in its meeting held on May 08, 2017 directed the management to get the 2nd revised approved PC-I verified from Audit covering time and cost overrun.

Audit recommends that the management needs to expedite the revision of PC-I besides investigating the matter for fixing responsibility regarding time over-run.

5. CONCLUSION

Dubair Khwar Hydropower Project, Besham was envisaged as a valuable addition to power generation assets of the country under WAPDA's vision 2025 program of Water Resources and Hydro Power Development. Owing to certain instances of mismanagement, as depicted in the preceding lines, the envisaged benefits as per PC-I could not be achieved for more than seven (7) years. Accordingly, the cost exorbitantly increased to Rs. 24,397 million against the original PC-I cost of Rs. 9,754.26 million. Various deficiencies in planning like inadequate site selection, award of contract to overworked Contractor, and mis-management of the project resulted in not only escalation of costs but also immense delays in the project life cycle. Resultantly, the project fell prey to avoidable cost and time overrun issues and the envisaged benefits of the project could not be achieved for a considerable period of time. Nevertheless, the project is in operation phase now and generating clean and low-cost electrical energy contributing towards energising the nation.

ACKNOWLEDGEMENT

We wish to express our appreciation to the management and staff of Dubair Khwar Hydropower Project, Besham for their assistance and cooperation extended to the auditors during this assignment.

PROJECT DIGEST

Name of Project	Dubair Khwar Hydropower Project (DKHP).
Location of the Project	Project is located in Pattan Distt: Kohistan
Sponsoring	Ministry of Water and Power (MoWP) through Government of Pakistan (GoP).
Execution:-	Water and Power Development Authority(WAPDA)
Operation and Maintenance	Water and Power Development Authority (WAPDA)
Project Objectives	The prime objective of the implementation of Dubair Khwar Hydropower Project (DKHP) is to provide the cheaper and most needed power future power requirements of Pakistan through installation of 2 No. hydroelectric Pelton generating units of 130 MW with annual energy of about 595 GWh.
Approval of PC-Is by ECNEC	PC-I (Original) approved on 02.01.2002 PC-I(1 st Revised) approved on 20.08.2009 PC-I(2 nd Revised) Proposal was submitted for approval of ECNEC in April,2015 which is not yet approved.
Project Completion	The Project was required to be completed within a period of 54 months after award of contract in July, 2003. However, commercial operation was started in March, 2014

Approved Cost of PC-I (in Million)	Local Costs	Foreign Exchange	Total
(Original)	Rs. 5,760	Rs. 4,148	Rs. 9,754
(1 st Revised)	Rs. 8,069	Rs. 8,256	Rs. 16,324

Source of Financing	IDB LOAN	PSDP	Total
	(US\$.55 million)	Rs. 8069	
		Rs. 8256	Rs.16,324

(As Per 1st Revised proposed PC-I)

Previous approval / anticipatory

The feasibility studies were carried out by the Sarhad Hydrel Development Organization (SHYDO) Government of

Khayber P.K, in collaboration with German Agency for Technical Cooperation, (GTZ) , the studies were completed in September, 2009, which was approved by ECNEC on 8th August, 2002. The contracts for Civil & Hydraulic Steel and Electrical & Mechanical works were awarded in March, 2003 to be completed tentatively in fifty four (54) months. Project location was feasible for the high head hydropower plants on Run-off River of the tributaries of River Indus i.e., Dubair Kkwar Tehsil Pattan in the province Khyber PakhtunKhwa

Completion

The access roads to the site were not completed in time. Hence, the Construction order to the main Contractor was issued in 31 March, 2003. The project became further late due to earth-quake, 2005, Chinese evacuation from the Site due to law & order situation, 2007 and floods, 2010. The Geological conditions were also un-favourable. However, the project started its commercial operation in March, 2014.

Annex-2

**STATEMENT REGARDING PSDP ALLOCATION & AMOUNT
RELEASED**

Rs. in million

Year	PC- 1 Phasing		PSDP Allocation		Releases		Expenditure	
	Foreign	Total	Foreign	Total	Foreign	Total	Foreign	Total
2001-02		12.086		12.086		12.086		12.086
2002-03	421.897	626.339	421.897	626.339	421.897	626.339	421.897	626.339
2003-04	252.119	464.898	252.119	464.898	252.119	464.898	252.119	464.898
2004-05	213.000	417.672	213.000	417.672	-	417.672	-	417.672
2005-06	127.398	720.507	127.398	720.507	127.398	720.507	127.398	720.507
2006-07	322.070	1,312.440	322.070	1,312.440	322.070	1,312.440	322.070	1,312.440
2007-08	345.571	1,536.023	345.571	1,536.023	345.571	1,536.023	345.571	1,536.023
2008-09	961.951	1,652.124	961.951	1,652.124	961.951	1,652.124	961.951	1,652.124
2009-10	1,329.458	3,031.843	1,169.000	3,505.000	1,329.458	3,031.843	1,329.458	3,031.843
2010-11	1,265.453	2,355.739	837.000	3,568.960	1,137.744	2,355.739	1,137.744	2,355.739
2011-12	503.326	1,943.111	660.000	3,581.000	503.326	1,943.111	503.326	1,943.111
2012-13	2,500.000	5,281.158	862.000	4,884.000	1,727.915	5,281.158	1,727.915	5,281.158
2013-14	2,030.561	3,403.279	1,830.561	4,502.000	1,830.561	3,403.279	1,830.561	3,403.279
2014-15	100.000	212.450	16.083	74.469	16.083	74.469	16.083	74.469
2015-16	80.000	179.652	-	41.672	-	41.672	-	41.672
2016-17	950.000	1,524.252	910.000	1,524.252	910.000	1,524.252	910.000	1,524.252
Total	10,372.804	24,673.573	8,928.650	28,423.442	9,886.093	24,385.526	9,886.093	24,397.612