



**PERFORMANCE AUDIT REPORT
ON
ADDITION OF 3RD, 4TH & 5TH LANES
TO KASHMIR HIGHWAY FROM
PESHAWAR MOR TO G.T. ROAD
(INCLUDING CONSTRUCTION OF NEW BRIDGES
FOR THE ADDITIONAL CARRIAGEWAY)**

**CAPITAL DEVELOPMENT AUTHORITY
CAPITAL ADMINISTRATION AND
DEVELOPMENT DIVISION
GOVERNMENT OF PAKISTAN**

AUDIT YEAR 2015-16

AUDITOR GENERAL OF PAKISTAN

PREFACE

The Auditor General conducts audit subject to Articles 169 and 170 of the Constitution of the Islamic Republic of Pakistan, 1973 read with Section 8 of the Auditor General's (Functions, Powers and Terms and Conditions of Service) Ordinance, 2001. The performance audit of the project "Addition of 3rd, 4th & 5th lanes to Kashmir Highway from Peshawar Mor to G.T. road (including construction of new bridges for the additional carriageway)" was carried out accordingly.

The Directorate General Audit Works (Federal), Islamabad conducted audit of the Project during March 2016 for the period 2011-2015 with a view to reporting significant findings to the stakeholders. The Report covers both Performance Audit and Financial Audit with regard to the economy, efficiency, and effectiveness of the Project. In addition, Audit also assessed, on test check basis, whether the management complied with applicable laws, rules, and regulations in managing the Project. The Report indicates specific actions that, if taken, will help the management realize the objectives of the project. Audit observations included in this report have been finalized in the light of written response and discussions in DAC meeting.

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

Islamabad
Dated: 23rd February, 2017

Sd/-
(Rana Assad Amin)
Auditor General of Pakistan

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Abbreviations and Acronyms

ABC	Asphaltic Base Course
ACC	Associated Consultancy Center (Pvt) Ltd
ACBC	Asphaltic Concrete Base Course
ACWC	Asphaltic Concrete Wearing Course
BOQ	Bill of Quantities
CADD	Capital Administration and Development Division
CDA	Capital Development Authority
CMT	Central Mechanical Transport
CSR	Composite Schedule of Rates
Cu.m	Cubic Meter
DAC	Departmental Accounts Committee
ECNEC	Executive Committee of the National Economic Council
EIA	Environment Impact Assessment
EOT	Extension of Time
GSB	Granular Sub Base
INTOSAI	International Organization of Supreme Audit Institutions
JV	Joint Venture
IPC	Interim Payment Certificate
MB	Measurement Book
NIT	Notice Inviting Tenders
NHA	National Highway Authority
PAC	Public Accounts Committee
PEC	Pakistan Engineering Council
PSDP	Public Sector Development Programme

RCC	Reinforced Cement Concrete
RD	Reduced Distance
Sq.m	Square Meter
TST	Triple Surface Treatment

EXECUTIVE SUMMARY

The Directorate General Audit Works (Federal), Islamabad carries out the audit of Federal Government Departments/Autonomous Bodies engaged in development works, namely Capital Development Authority, Civil Aviation Authority, National Highway Authority, Pakistan Public Works Department, Estate Offices, Workers Welfare Fund/Boards under the administrative control of various Principal Accounting Officers who consume major portion of the Public Sector Development Programme funds/budget.

The office is mandated to conduct regularity (Financial Attest Audit and Compliance with Authority Audit) and Performance/Project Audit of mega projects executed by these Departments/Autonomous Bodies.

This report contains the result of Performance Audit of project, “Addition of 3rd, 4th & 5th lanes to Kashmir Highway from Peshawar Mor to G.T. road (including construction of new bridges for the additional carriageway)”. The project was executed by the Capital Development Authority.

Capital Development Authority, established under the CDA Ordinance promulgated on 27.06.1960, is managed through an Executive Board constituted by the Federal Government under Section 6 of CDA Ordinance, 1960. The Secretary, Capital Administration and Development Division (CADD), is the Principal Accounting Officer of CDA. Member (Finance), CDA is incharge of Finance/Accounts Wing and is responsible for preparation of budget and allocation/distribution of funds to different Divisions/Formations. The major objectives/services entrusted to CDA include:

- Municipal services
- Allotment and transfer of plots
- Maintenance of Sectors

- Provision of health and medical services in Islamabad and Federal Capital Territory
- Traffic signals control
- Rescue Service 1122 in Islamabad and Rawalpindi

The Directorate General Audit Works (Federal), Islamabad conducted Performance Audit of project “Addition of 3rd, 4th & 5th lanes to Kashmir Highway from Peshawar Mor to G.T. road (including construction of new bridges for the additional carriageway)” during March 2016, which covered period from 2011 to 2016. The Report covers both Performance Audit and Financial Audit.

The objective of the Performance Audit was to assess whether the resources had been utilized for the purposes for which they were provided for, with due economy, efficiency and effectiveness. The report was intended to analyze the management decisions by highlighting the weaknesses in project performance with recommendations for improvements. The audit was conducted in accordance with the INTOSAI Auditing Standards.

Kashmir Highway was constructed in 1964 and serves vehicular as well as freight traffic and occasionally it is also used for VIP movement. During last decade, a substantial increase in traffic volume, especially multi axle vehicles has been observed with rapid development of Capital and opening of Motorways. The Authority has previously dualized the Kashmir Highway and now three lanes (two rigid and one flexible) on each side of highway have been added to make it five lanes. The rigid lanes were considered to resolve the recurring problem of rutting and premature deformation of Flexible pavement due to uncontrolled overloaded vehicles carrying crush/sand from Margalla hills.

PC-I of the project was originally approved in 2007 by addition of one flexible and two rigid lanes on either side of highway which was later on revised in 2011 with one flexible and two rigid lanes on either side with TST shoulders. The project was divided in three sections:

		Revised PC-I Cost (Rs in million)
Section-I	South Carriageway: from Peshawar Mor to Golra Chowk (8.5 Km)	1,675.828
Section-II	North Carriageway: from Golra Chowk to Peshawar Mor (8.5 Km)	1,749.995
Section-III	Golra Chowk to GT Road (2.5 Km)	890.431
Sub-Total		4,316.254
Other Charges		537.921
Grand Total		4,854.175

The contracts for construction of the project were awarded in two sections. Section-I (South Carriageway) was awarded to M/s Muhammad Ayub & Brothers and Section-II (North Carriageway) was awarded to Joint Venture (JV), M/s KK Engineers-M/s Ch. Abdul Latif & M/s Arif & Co. The construction supervision was assigned to M/s Associated Consultancy Services (Pvt) Ltd. However, work in Section-III from Golra Mor to GT Road was not awarded.

On completion of the project, the following benefits were envisaged in PC-I to accrue to the road users.

- Saving in vehicle operating cost and travelling time
- Safe and uninterrupted traffic flow.
- Reduction in environmental pollution due to traffic jam.
- Through traffic to new Islamabad International Airport, Motorways and various housing societies

Major issues highlighted in the Report are:

- i. There was time overrun of one and half year as compared with revised provisions of PC-I. Inadequate funding and improper planning were major contributor towards delayed completion. (Para 4.9)
- ii. Work valuing Rs 890.431 million on Section Golra Chowk to GT Road was not executed. (Para 4.3.1)

- iii. Extra expenditure on price escalation was incurred due to delay in completion of project - Rs 92.721 million
(Para 4.2.1)
- iv. Extra expenditure was incurred on interest/idle charges due to delay in release of payments - Rs 16.842 million
(Para 4.2.4)
- v. Overpayment was made due to allowing separate item of prime coat for Triple Surface Treatment in violation of specifications - Rs 4.254 million
(Para 4.4.2)

Recommendations

- i. Progress of work be properly monitored. Critical activities that can affect time schedule should be identified and properly managed.
- ii. Proper planning based on accurate survey and feasibility studies be undertaken to avoid delays due to subsequent changes in design and scope of work.
- iii. CDA should track and systematically analyze the revisions issued on construction projects to identify the types of revisions and their causes.
- iv. In order to maintain progress of work commensurate with the given programme, sufficient resources, manpower and essential equipment should be deployed in future projects.
- v. Ensure availability of funds as per approved phasing to avoid extra expenditure due to delay in shape of price escalation and other overheads.
- vi. Proper measures for protection of environment as provided in the Environment Impact Assessment Study, be adopted.
- vii. A system for independent monitoring and inspection of projects should be in place to ensure quality of the work.

1. INTRODUCTION

During the last few years, the development works in Islamabad have increased significantly. Besides, the population has registered phenomenal rise in the last two and a half decades. Rapid economic growth and government policies during last six years further accelerated development activities in the transport sector. Consequently, over the last two decades, the traffic volume also increased manifolds. Therefore, significant traffic congestion was constantly observed at Kashmir Highway. Long rows of vehicles were becoming a routine feature during the peak hours, which was causing inconvenience to the general public as well as VVIP (Very Very Important Person) movements. It, therefore, became necessary to rehabilitate the existing Kashmir Highway besides addition of three lanes.

CDA engaged services of the consultants for preparation of design of the highway with approval of Chairman, CDA in November 2007 at a cost of Rs 2.630 million, subsequently approved by CDA Board in its meeting held on 03.03.2011. A consultant, M/s Associated Consultancy Center (Pvt) Ltd was engaged for Design and Construction supervision with date of start as 12.02.2011 at cost of Rs 19.337 million (Detailed design cost Rs 2.637 million + Supervision cost Rs 16.700 million).

The project cost estimate was prepared in September 2007. The quantities were worked out from design / drawings prepared by the consultants. The rates of cost estimates were based on NHA CSR 2005 for Rawalpindi District. PC-I of the project costing Rs 2,191.827 million was approved in September 2007 by ECNEC, as the project was financed by CDA and Government of Pakistan on equal cost sharing (50:50) basis through Public Sector Development Programme (PSDP) grant and CDA's resources.

Applications for pre-qualifications of firms were invited on 27.10.2008 (Section-I) and 28.10.2008 (Section-II). Five contractors participated in bidding process of Section-I and M/s Kingcrete builders offered lowest bid of Rs 1,530.492 million by quoting 47% above the

Notice Inviting Tender (NIT) cost based on NHA CSR 2008 and non-scheduled items. Four contractors participated in bidding process of section-II and M/s GRC offered lowest bid of Rs 1,527.285 million by quoting 44.69% above on NIT cost based on NHA CSR 2008 and non-scheduled items. These bids were not accepted due to high rates.

After rejection of bids, fresh applications were invited for prequalification of firms in June 2009. Forty-two (42) firms participate in process and thirteen (13) firms were prequalified, which obtained 65 or more marks out of 100. Tenders were again invited on 19.01.2009 and lowest bids of 30.80% and 30.90% above the NIT cost were also not accepted being on higher side.

Tenders were again invited third time on 10.05.2010 on the basis of revised scope of work and revised NIT cost based on NHA CSR 2009. Twelve firms participated in bidding of Section-I and M/s Muhammad Ayub & Brothers quoted lowest bid of Rs 1,649.501 million being 05% above the NIT cost of Rs 1,571.893 million. Whereas JV – M/s KK Engineers, M/s Ch Abdul Latif & M/s Arif & Co stood first lowest out of thirteen firms by quoting lowest bid of Rs 1,699.520 million being 4.46% above the NIT cost of Rs 1,633.970 million. Contracts were awarded to the lowest bidders in February 2011 after nine (9) months of bid opening.

The project has total length of 11.068 Km from Peshawar Mor to G.T. Road with five (5) lanes on each side. Three lanes were flexible and two rigid with shoulders. It also included six (6) bridges and pedestrian walkways and bridges to be provided as per requirement.

Project Digest		
Name of Work	Addition of 3 rd , 4 th & 5 th lanes to Kashmir Highway from Peshawar Mor to G.T. road (including construction of new bridges for the additional carriageway)	
Original PC-I Cost	Rs 2,191.827 million	
Revised PC-I Cost	Rs 4,854.175 million	
Active Sections	Section-I (South Carriageway)	Section-II (North Carriageway)
Contractor	M/s Muhammad Ayub & Brothers	M/s CALC, KKE, MAC
Contract cost	Rs 1,649.501 million	Rs 1,699.520 million
Consultant	M/s Associated Consultancy Center (Pvt) Ltd	M/s Associated Consultancy Center (Pvt) Ltd
Date of Commencement	12.02.2011	12.02.2011
Planned date of completion	730 days	730 days
Defect Liability Period	02 years	02 years
Revised completion date	06.10.2014	26.07.2014
Up to date work done payment	Rs 1,260.589 million	Rs 1,277.991 million
Price Escalation payment	Rs 284.502 million	Rs 247.716 million
Total Payment	Rs 1,545.091 million	Rs 1,525.707 million

Note: Section-III - Golra More to G.T. Road has not been constructed.

2. AUDIT OBJECTIVES

The objectives of the project audit were to evaluate whether the Project has been successfully executed with respect to economy, efficiency and effectiveness, and whether the desired goals and targets were achieved efficiently and effectively. The audit also aimed at reviewing compliance with applicable rules, regulations and procedures.

3. AUDIT SCOPE AND METHODOLOGY

3.1 The audit scope included the examination of the Project documents, record, accounts, etc. The project audit was included in the Audit Plan for the year 2015-16. The audit team comprising three members conducted audit in the office of the Divisional Office Road-II and Road-III, Old Naval Headquarters, Islamabad. Site visits were also conducted.

3.2 Audit methodology included data collection, analysis/consultation of record including previous Audit Reports, discussion with staff, survey, site visits and report writing, etc.

4. AUDIT FINDINGS AND RECOMMENDATIONS

4.1 Organization and Management

4.1.1 Review of organization structure

Capital Development Authority, which was established under the CDA Ordinance promulgated on 27.06.1960 is managed through an Executive Board constituted by the Federal Government under Section 6 of CDA Ordinance, 1960. The Secretary, Capital Administration and Development Division (CADD) is the Principal Accounting Officer of CDA. Member Finance, CDA is incharge of Finance/Accounts Wing and is responsible for preparation of budget and allocation/ distribution of funds to different constituted Divisions/Formations. Initially the Authority was administered by a Board consisting of three members: the Chairman,

Financial Advisor and one other Member, with the Commissioner, Rawalpindi acting as an ex-officio Member. With time, experience and added responsibilities, the CDA Board is now composed of the Chairman and Members of Planning, Finance, Administration, Estate, Environment and Engineering. Each member is in-charge of various Directorates comprising different disciplines. CDA is responsible for coordinating all endeavours for the development of the whole of the capital region so that the unity of purpose is ensured at all times. Within Islamabad area, CDA is not only the planning and coordinating Authority but also the executive Authority.

4.1.2 Turnover against key posts including post of the Project Director

No specific qualification was mentioned in the PC-I for the project staff, including Project Director. CDA posted a qualified engineer as Project Director on contract for overall supervision of the work on behalf of the Employer. The project was designed and supervised by the Consultant while the department could have established a core team of its own experts by associating the departmental cadre in all phases of the project, from designing to final completion. Although the overall supervision of the project was the responsibility of the Project Director, yet, as a matter of fact he lacked technical support staff for the monitoring of the work. CDA, therefore, remained totally dependent on the Consultant for supervision of the quality and quantity. No inspection notes of site visits of the Project Director, Director and Member (Engineering) were available in the record.

Effective monitoring and reporting is essential to determine the progress, status and achievements of any project. For this purpose the Project Director should monitor the inputs, processes and outputs, and submit quarterly review/progress reports on the approved format, i.e. quarterly progress report of ongoing project on PC-III, completion report of the project on PC-IV and post completion review of project on PC-V. Audit observed that the project management did not prepare PC-III of the project which showed that up to date information/data regarding financial

and physical progress of the project was not brought on record.

The Project Director, with the assistance of the Consultant was responsible for management of the project. Maintenance of information systems is crucial to effective management of any project. The record relating to the projects, from its feasibility study, designing, approval, awarding and execution to completion, and the finalization of the project was maintained in various Wings of the Authority.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that initially PD was hired by the Authority on contract basis. Subsequently a qualified Senior Engineer of the Authority was deputed as PD. The Engineer's representative/consultants also carried out task of quality/quantity verification. The consultant was hired as per PEC guidelines as Authority does not have the capacity to design and supervise such mega project. The consultant provided the detailed design, cost estimates, tender documents and prepared PCI, EIA reports, feasibility study, site supervision. A very effective monitoring system was in place and progress reports were generated monthly. Site visits were made frequently by Chairman CDA along Member Engineer to monitor the progress. That is why the project was completed expeditiously when the necessary funds were made available for the project.

DAC directed CDA to improve project management and funding mechanism. DAC further directed CDA to provide site inspection reports, progress reports and other relevant documents in support of departmental stance for verification by Audit.

Audit recommends that CDA should take measures to enhance its capacity to carry out mega projects and ensure compliance of DAC's directive.

4.1.3 Actual vs. sanctioned strength.

The approved staff according to the PC-I and actual strength available is as under:

Category	Approved Strength	Actual strength
Project Director	1	1
Assistant Project Director	1	0
Highway Engineer	1	0
Bridge Engineer	1	0
Material Engineer	1	0
Admin/Accounts Officer	2	2
Head Clerk	1	1
Upper Division Clerk	1	1
Lower Division Clerk	1	1
Computer Operator	2	2
Quantity Surveyor	1	1
PA/Steno	1	1
Naib Qasid	3	3
Total	17	13

The Project Director had no sufficient supporting technical staff for checking the quality and quantity of the executed work. The Project Director was dependent on CDA management and Consultant for administrative/financial and technical matters as these administrative and financial powers were not delegated to the Project Director.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that services of pavement and highway expert were utilized for the project. Moreover, available technical staff of the Road Directorate CDA including Engineer and Sub-Engineer, was also used, whenever required. Further, the consultant was responsible to check and verify the work quality and quantities. DAC observed that posts like Assistant Project Director, Highway Engineer, Bridge Engineer and Material Engineer were included in the PC-I for efficient administration of the project but these were not appointed. Even, if CDA's own staff was available, they must have been allocated to the project specifically on full time basis. This exercise creates flaw in project execution. DAC directed that in future it may be ensured that essential posts are included in the PC-I and accordingly deployed on the project.

Audit recommends that measures be taken to ensure that proper manpower is deployed on projects and contractors/consultants be monitored by deploy staff on required qualification for successful implementation of the project.

4.1.4 Mode of appointment of management and staff

No technical staff was separately hired for the project. Engineering staff including Project Director already working on strength of CDA was deployed as Site Engineer. Other ministerial staff was appointed on contingent basis. However, services of pavement expert were hired @ Rs 50,000 per month.

CDA took the stance that skilled and experienced technical staff was hired in the form of consultants for project execution and monitoring. In addition, the experienced staff available in the Road Directorate was utilized during project execution exercising economy and convenience.

Audit recommends that CDA should take measures to enhance its capacity to carry out mega projects.

4.1.5 Training and capacity building of the staff

The need for training and capacity building of the staff was realized while working on previous projects. However, training for CDA engineers, especially newly appointed was not incorporated in contractor/consultant agreement.

CDA responded that there new appointments have not been made in CDA for last more than nine years. The existing staff was deputed on the project, who gained further experience. Numerous surveyors, diploma engineers, engineering students and fresh engineer graduates were deputed as trainee.

Audit recommends that data of such trainees may be shared with

Audit and appropriate provision for training may be included in bidding documents of future projects.

4.1.6 Quality and periodicity of internal work plan

Under Clause 14 of the Condition of Contract, the contractor was responsible to submit programme of work within 28 days after acceptance of his tender. The programme was to be revised every three months and included a chart of the principal quantities of the work forecast for execution every month, and an updated schedule of payments expected to be made to the contractor. The work was required to be completed by the contractor within 24 months. The work programmes showing month-wise schedule of work and cash flow estimates were submitted by the contractor but the same were not implemented efficiently and work could not be completed within stipulated period.

An amount of Rs 1.43 million was recovered from the contractor of Section-I for delay of 286 days in submission of work programme @ Rs 5,000 per day.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that work plan was submitted by the contractor before signing of the contract but the same could not be implemented due to inadequate funding by Federal Government, delay in vetting of Railway Bridge design by Pakistan Railways, abnormal rains and stoppage of work because of VVIP movements. Revised work plan was submitted by the contractor and Extension of Time was granted due to said unavoidable reasons. DAC observed that it is a systemic issue. While preparing plan, schedule should not be overambitious. Once a project is approved by Government and included in PSDP, it should be adequately financed/funded as per financial phasing.

Audit recommends that DAC's directive be implemented in letter and spirit.

4.1.7 Internal Audit

CDA Internal Audit is responsible for all Interim Payment Certificates/payments which are pre-audited before release.

4.2 Financial Management

4.2.1 Overview

The project was financed by CDA and Federal Government on 50:50 sharing. The accounts of the project are maintained by the Divisional Office and Director Accounts, CDA. The allocation made for each year was utilized as detailed below:

(Rs in million)

Year	PSDP			Self Financing		
	Allocation	Release	Expenditure	Allocation	Release	Expenditure
2010-11	241	112.095	112.095	0	0	0
2011-12	291	204.372	204.373	277	280	280
2012-13	452	275	275	600	114	114
2013-14	334.373	334.373	334.256	1130	1,130	1,170.394
2014-15	1,419.939	709.91	275.725	320	320	129.374
Total	2,738.312	1,635.75	1201.449	2,327	1,844	1,693.768

Details of phasing of Cash Flow as provided in the revised PC-I, actual releases and expenditure are as under:

(Rs in million)

Year	PC-I Phasing	Actual Releases	Actual Expenditure
2010-11	2,912.000	112.095	112.095
2011-12	1,942.000	484.372	484.373
2012-13	-	389.000	389.000
2013-14	-	1,464.373	1,504.65
2014-15	-	1,029.910	405.099
	4,854.000	3,479.750	2,895.217

Note: Above table shows that the funds were not released as per phasing provided in the revised PC-I.

After execution of work at the site, the Contractor submits 'check requests' which are approved by the Resident Engineer (the Consultant). Then contractor submits Measurement Sheets containing item-wise detailed work done to the Consultants for checking. After certification by the Consultants and approval by the Project Director running payments were made to the contractors. However, after approval of Member (Finance/Operations), the payments of price adjustment were made to the Contractors. No separate bank account of the project was being maintained, and all financial transactions were made through main account of CDA.

The matter was discussed in DAC meeting held on 19th August, 2016, wherein CDA explained that the project was executed on 50:50 funding sharing by CDA and Federal Government. The project costing over Rs 3.0 billion was required to be completed in two years but only Rs 500 million were made available in two years, equal to 16% of the awarded work. The major cause of delay was inadequate funding.

DAC decided to link the Para with Para 4.1.6 and refer to PAC for issuance of appropriate directions.

Audit recommends that PAC may issue appropriate directions regarding improvement of funding mechanism.

FINANCIAL MANAGEMENT FINDINGS

Following are the irregularities observed in financial management of the project:

4.2.1 Extra expenditure on accounts of escalation due to delay in completion of work - Rs 92.721 million

According to Clause 43.1 of the agreement, the work was to be completed in 730 days from the date of commencement i.e. 12.02.2011.

Audit noted that Project Management, CDA, Islamabad, made payment of escalation under clause 70 of the agreements. Audit observed that the project was delayed abnormally as only 22% progress was achieved on section-I and 10% on section-II in stipulated period of 730 days. Escalation of Rs 201.583 million and Rs 262.021 million was paid for section-I and Section-II respectively against value of work executed in extended period. Audit holds that had the work been completed in stipulated period, about 20% escalation paid against work done in extended period would have saved as prices of basic materials were increased more in extended period as compared to increase in prices upto original contract period i.e. February 2013. Delay in completion of work resulted in extra expenditure on account of price escalation about Rs 92.721 million $\{(Rs\ 201.583\ million + Rs\ 262.021\ million) \times 20\%\}$.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that price adjustment was payable to the contractor as per contract agreement. The project could not be completed within the stipulated period due to inadequate funding by Federal Government, delay in vetting of Railway Bridge design by Pakistan Railways, abnormal rains and stoppage of work because of VVIP movements. These were beyond the control of the employer as well as the contractor. Extension of time was granted to the contractor as per contract agreement after detailed scrutiny / checking by consultants and Quantity Survey Directorate, CDA and with the approval of the Employer.

DAC observed that delay in completion of project put extra burden on the public exchequer in shape of price escalation, idle charges of labour & machinery and extra expenditure on consultancy charges which have been pointed out by Audit in the report. The Committee held that main cause of delay in completion of the project was inadequate financing. The Committee decided to place all such paras before PAC for directions that in future only such projects are undertaken against which adequate funds are available for immediate disbursement of due payments.

Audit recommends that PAC may issue appropriate directions in this regard.

4.2.2 Extra expenditure on consultancy services due to delay in completion of work - Rs 2.758 million

According to revised PC-I approved in 2013, an amount of Rs 35.00 million was provided for consultancy services for design and supervision.

Audit noted that Project Management, CDA, Islamabad, paid amount of Rs 37.757 million (as detailed below) for consultancy charges of project for the period February 2011 to May 2015 against PC-I provision of Rs 35.00 million.

Description	Reference	Amount (Rs in million)
Design fee	MB No. 13754 Page No. 06	3.502
Supervision fee	MB No. 15337 Page No. 67	34.255
Total		37.757

Audit observed that the project was started in February 2011 and was to be completed in February 2013 but the work could not be completed in stipulated period. Audit holds that delay in completion of work resulted in extra expenditure for Rs 2.758 million (Rs 37.758 million – Rs 35.00 million).

The matter was discussed in DAC meeting held on 18th August, 2016 wherein CDA explained that the consultants M/s Associated Consultancy Center was hired for the design and supervision of Kashmir Highway project. Cost of design increased due to award of additional assignments to the Consultants with the approval of the Employer (Chairman, CDA). Furthermore, due to unavoidable circumstances, the Consultants were granted extension of time up to 30.06.2015. The variation in scope of work and time of supervision was approved by the Employer. The services of the consultants were utilized in a very cost effective manner, deploying bare minimum staff and the project was completed satisfactorily under the supervision of the consultants.

The Committee held that this issue is attributable to delay in completion of the project, which was caused by inadequate financing. DAC decided to link the Para with Para 4.2.1 and place it before PAC for directions that in future only such projects are undertaken against which adequate funds are available for immediate disbursement of due payments.

Audit recommends that PAC may issue appropriate directions in this regard.

4.2.3 Wasteful expenditure due to non-adherence to conditions of the time extension - Rs 4.168 million

According to clause 2.6 of General Conditions of Contract, “if scope or duration of the Services is increased, i) the consultant shall inform the Client of the circumstances and probable effects, ii) the increase shall be regarded as Additional Services and iii) the Client shall extend the time for Completion of the Services accordingly.”

According to clause 2.4 of Special Conditions of Contract, “the period of completion of Services shall be 730 days from the Commencement Date of the Services or such other period as the Parties may agree in writing. The services are estimated to be completed before December 2013.”

Audit noted during examination of accounts record of Director, Road Directorate (North), CDA (Construction supervision contract for addition of 3rd & 4th Lane of Kashmir Highway Section-I South carriageway- M/s ACC) that work was to be started on 12.02.2011 to be completed on 11.02.2013. Due to non-completion of the construction work by the contractor, duration of the services was increased/extended upto June 2015. Last extension was recommended by the Divisional Officer from 30.09.2014 to 30.06.2015 on account of supervision of three flyovers and initiative of phase-III (Golra more to GT Road project). The extension was approved by the Chairman CDA with financial effect of Rs 8.9 million upto 30.06.2015. A review of the MB & IPCs indicates that consultant was paid an amount of Rs 4.168 million on account of

Consultancy Services for this last extended period. Audit observed that neither the construction work on three flyovers was executed nor work on phase-III started which indicated that deployment of consultant's establishment was not commensurate with the supervisory activities performed and it remained idle, consequently objectives of the extensions could not be achieved as such the entire expenditure incurred on account of consultancy services proved futile. Non-adherence to conditions of the time extension caused undue burden on the Authority exchequer for Rs 4.168 million.

The matter was discussed in DAC meeting held on 18th August, 2016 wherein CDA explained that as per provisions of the contract the contractor has to complete his ancillary works after the substantial completion and issuance of Taken Over Certificate, which was recommended w.e.f. 6th October, 2014. The construction supervision from the consultants was, therefore, required even after substantial completion. The consultant staff was reduced keeping in view the work activities at the site and paid for accordingly at reduced rate. Some staff is even required during the maintenance period to monitor the project, finalization of as built drawings, finalization of project accounts and replying audit paras. Therefore, the payments made to the project consultants for their supervision services were in order.

The Committee held that this issue is attributable to delay in completion of the project, which was caused by inadequate financing. DAC decided to link the Para with Para 4.2.1 and place it before PAC for directions that in future only such projects are undertaken against which adequate funds are available for immediate disbursement of due payments.

Audit recommends that PAC may issue appropriate directions in this regard.

4.2.4 Extra expenditure on account of idle charges/interest due to mismanagement - Rs 16.842 million

GFR-10 (i) states every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money.

Para 2.1 of Guidelines for Project Management issued by Planning Commission provides that policy of the Government of Pakistan is to efficiently utilize natural and economic resources of the country for socio-economic welfare of the people. This objective may be achieved only when development projects are planned and executed with vigilant management. Objective of development planning is to have projects implemented for the benefit and social uplift of the society. For achievement of stipulated targets and tangible returns, it is imperative to entrust management and supervision of the project during implementation stage to capable and competent persons of required qualifications, experience and caliber. Para 3.6 of Guidelines for Project Management provides that the rationale behind the project appraisal is to provide the decision-makers financial and economic yardsticks for the selection/rejection of projects from among competing alternative proposals for investment. If the project is found technically sound, financially & economically viable and socially desirable only then project is approved.

Audit noted that Project Management, CDA, Islamabad, made payment of Rs 16.842 million on account of Prolongation Claim for period 29.01.2012 to 18.10.2012 being cost of rental machinery, equipment owing cost and other overheads. Audit observed that reasons for payment of such claim have not been given in the claim. In absence of the same, admissibility of the claim cannot be authenticated. Audit holds that payment of prolongation claim without recording detailed reasons and reference of clause of contract agreement is irregular. This resulted in irregular payment of Rs 16.842 million.

Audit maintains that payment of prolongation / idle charges to the contractor was mismanagement on the part of CDA and undue favour to the contractor. Had the work schedule been observed and design been timely approved, then expenditure on account of idle charges could have been saved/avoided.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that the contract period of Section-I of the project was two years up to 11th February, 2013 with total contract amount of Rs 1,649.501 million. However, the contractor was granted Extension of Time after detailed scrutiny as the project could not be completed within the stipulated period due to inadequate funding by Federal Government, delay in vetting of Railway Bridge design by Pakistan Railways, abnormal rains and stoppage of work because of VVIP movements. These were beyond the control of the employer as well as the contractor and the contractor was entitled to such extension of time and compensation for idle labour and machinery under clauses 44, 53 and 69 of the contract agreement.

The Committee held that this issue is attributable to delay in completion of the project, which was caused by inadequate financing. DAC decided to link the Para with Para 4.2.1 and place it before PAC for directions that in future only such projects are undertaken against which adequate funds are available for immediate disbursement of due payments.

Audit recommends that PAC may issue appropriate directions in this regard.

4.3 Procurement and Contract Management

Contract management relates to implementation of contract clauses and compliance with the procedures for the award and completion of works. The Consultancy Contract for 'Detailed designing & construction supervision' and a contract for 'Construction' of the project were procured through competitive bidding on PEC Standard Bidding Documents Edition June-2007 as detailed below:

- Construction contract for Section-I of the project was awarded to M/s Muhammad Ayub and Brother for Rs 1,649.05 million and Section-II to JV – M/s KK Engineers, M/s Ch Abdul Latif & M/s Arif & Co for Rs 1,699.520 million.
- Design preparation/review, contract management and construction supervision was awarded to M/s Associated Consultancy Services (Pvt) Ltd Rs 19.337 million (Detailed design cost Rs 2.637 million + Supervision cost Rs 16.700 million).

Issues relating to non-observance of contractual obligations/rules & regulations are as under:

4.3.1 Non-execution of works approved in PC-I - Rs 890.431 million

According to revised PC-I of project “Addition of 3rd, 4th & 5th Lanes to Kashmir Highway from Peshawar Mor to GT Road (including construction of new bridge for the additional carriageway)”, there is provision for Section-III of Kashmir Highway for Rs 890.431 million.

Audit noted that Project Management, CDA, Islamabad, awarded the works of Section-I (contract cost Rs 1,649.500 million) and Section-II (contract cost Rs 1,699.520 million) of the project. Audit observed that work on Section-III of the project has not been awarded despite its approval in the PC-I. Audit maintains that the works not executed yet may yield higher up 30% to 50% if executed in future. This resulted in non-execution of works valuing Rs 890.431 million.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that third section of Kashmir Highway from Golra More to GT Road was transferred to NHA as per the decision made in the Planning Commission to become part of the new airport project. This part of road was accordingly included in the PC-I of airport road by NHA, however, the ECNEC during consideration of the PC-I of airport

road for approval, decided that CDA will construct the third section. Accordingly, CDA is going to take up the project by completing its design and estimation work. The project is being executed on 50:50 sharing basis by PSDP and CDA. There is no PSDP funding available. A problem is being faced regarding possession the area occupied by CMT Golra in the alignment of Kashmir Highway. This issue is being resolved amicably to take up the project at the earliest.

DAC directed the Authority to resolve the issue expeditiously as a matter of national interest and being an important link of the route to New Islamabad International Airport. It is also a concern of Public Accounts Committee.

Audit recommends early compliance of DAC's directive.

4.3.2 Non-execution of works relating to safety measures - Rs 128.00 million

According to agreement/BOQ of the project, there is provision for four (04) pedestrian overhead steel bridges @ Rs 32.00 million per bridge on Kashmir Highway.

Audit noted that Project Management, CDA, Islamabad, awarded the works of Section-II (North Carriage) of the project at cost of Rs 1,699.520 million. Audit observed that pedestrian bridges provided in Bill No. 06 of BOQ have not been installed on Kashmir Highway. Audit hold that pedestrian bridges were necessary for safety of road users as crossing of pedestrian/motor bikes over median create traffic hurdle. This item of work, if executed in future, its cost would increase by 30% to 50%. This resulted in non-execution of works valuing Rs 128.00 million.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that during the approval of revised PC-I of the project, ECNEC excluded the pedestrian bridges from the PC-I of the project on the recommendation of the Planning Commission of Pakistan. Since the project is also being funded through PSDP, therefore as per directions of ECNEC, the same were not constructed under the contract

agreement of the project. A separate PC-I has been prepared for providing pedestrian bridges, and will be got constructed from Heavy Mechanical Complex, Taxila on availability of funds.

DAC directed the Authority to get the PC-I for pedestrian bridges finalized/approved as a matter of public safety and interest.

Audit recommends early compliance of DAC's directive.

4.3.3 Creation of liability due to defective clause of consultancy agreement - Rs 2.575 million

According to note given in appendix-E of consultancy agreement for the project, provision of escalation was deleted.

Audit noted that Project Management, CDA, Islamabad, signed agreement with consultant (M/s ACC) for construction supervision of the project and deleted the provision of escalation in appendix-E to agreement but clause 6.2(a) was not amended accordingly. This created ambiguity which caused creation of extra liability as the consultants has lodged a claim for escalation in charge rate of man-months for Rs 2.575 million which is under process for payment. Audit holds that this happened due to defective agreement. This resulted in creation of liability due to defective clause of consultancy agreement amounting to Rs 2.575 million.

The Authority replied that the Consultants M/s ACC was hired for the supervision of the Kashmir Highway project and the provision of enhancement in salary of the staff was made in the consultancy agreement as per Clause 6.2 (a). The bidding documents were based on PEC guidelines, therefore, these clauses are not defective and as such are binding on the Employer. However, the case is still under approval, the payment would be made to the consultants after the approval of the competent authority.

The reply was not accepted because appendix-E of consultancy agreement for the project, provision of escalation was deleted and the price adjustment as per clause 6.2(a) as referred in reply was to be

calculated on the basis of data in the appendix-E. No price escalation was, therefore, admissible.

Audit recommends that no price escalation be paid to the consultants.

4.4 Construction and Works

Proper planning, estimation, approval and execution are the benchmarks to ensure economical and sustainable execution of works. Detail of construction of road lengths and major structures which were component of the project are detailed below:

Type	Road with 03 flexible & 02 rigid lanes and 3.65 meter wide TST shoulders
Length	11.068 Km
Bridges on nullahs	06
Pedestrian bridges	04
Design speed	120 Km/hour
Typical design	
Rigid	Concrete Layer (JPCP) 14" (350 mm)
	Lean concrete 5" (125 mm)
	Granular sub base 10" (250 mm)
Additional lane Flexible	ACWC 50 mm
	ACBC 80 mm
	ABC 300 mm
	GSB 250 mm

Audit, noticed the following irregularities committed during execution of the work:

4.4.1 Undue/unjustified payment beyond the provision of contract – Rs 25.881 million

Clause 69.4 of COC Part-I provides contractor's entitlement to suspend the work wherein if the contractor suspend the work, the Engineer shall determine any extension of time and the amount of the such cost which shall be added to the contract price.

Audit noted that Project Management, CDA, made payment of Rs 7.266 million on account of interest on the delayed payments as the Employer could not manage the due payments to contractor within stipulated time. Further, another claim of idle charges for Rs 18.615 million was also paid to the contractor. Audit holds that payment of Rs 25.881 million (Rs 18.615 million + Rs 7.266 million) on account of idle charges/interest was due to mismanagement.

The matter was discussed in DAC meeting held on 19th August, 2016 wherein CDA explained that there were various reasons for delay in release of payments to the contractor. The main reason was allocation and release of inadequate funds from self-financing and PSDP head of accounts, which was beyond the control of contractor and the employer. The tender documents were based on PEC guidelines approved by the Planning Division and ECNEC which allow payments on account of interest on delayed payment and idle hours under the clause 60.10 and 69 when EOT is granted to contractor.

The Committee held that this issue is attributable to delay in completion of the project, which was caused by inadequate financing. DAC decided to link the Para with Para 4.2.1 and place it before PAC for directions that in future only such projects are undertaken against which adequate funds are available for immediate disbursement of due payments.

Audit recommends that PAC may issue appropriate directions in this regard.

4.4.2 Overpayment due to allowing separate payment of prime coat for T.S.T item - Rs 4.254 million

According to item 304.4.2 of NHA specifications, the aggregate and asphaltic material shall be paid for at the contract unit price per square meter for a particular item and shown on the bill of quantities, which payment shall be full compensation for furnishing all labour, materials, tools equipment and incidental for performing all the work in the

construction of bituminous surface treatment or seal coat complete in place and according to specification, including priming of surface.

Audit noted that Project Management, CDA, Islamabad, measured and paid an item of prime coat for Triple Surface Treatment (TST) for a quantity of 38,046.921 Sq.m @ Rs 47 plus 5% premium in Section-I and 30,229.21 Sq.m @ Rs 47 per Sq.m plus 4.46% premium in Section-II.

Audit observed that item of prime coat for TST was executed measured and paid separately contrary to the provision of specifications. Audit holds that prime coat was not payable separately as its cost was covered in the rate of TST. This resulted in overpayment of Rs 4.254 million as calculated below:

Section	Quantity (sq. m)	Rate	Amount (Rs in million)
Section-I	38,046.921	Rs 47	1.788
Section-II	30,229.21	Rs 47 plus 4.46% premium= Rs 49.09	1.484
Sub-Total			3.272
Add price escalation @ 30%			0.982
Grand Total			4.254

The Authority replied that TST was the non-BOQ item and was included in the contract on the decision of Planning Commission of Pakistan during the approval of revised PC-I by ECNEC and the prime coat was paid to the contractor after the approval of the Engineer. However, stance of Audit has been well taken and accepted. The amount would be recovered in the up-coming final bill.

Audit recommends early recovery from the contractor.

4.4.3 Overpayment due to non-utilization of available material - Rs 2.397 million

According to item 106.1 of NHA specifications, the work shall consist of excavation and disposal of unsuitable or surplus material arising from roadway excavation, which is declared in writing by the Engineer to be unsuitable for use or surplus to the requirements of the Project. When excavation of unsuitable material requires special attention for a known condition on a specific project, construction requirements and payment shall be covered under relevant provisions. This also includes the material of existing structures and obstructions that are required to be removed as shown on the Drawings or as directed by the Engineer.

According to item 106.2 of NHA specifications, “when unsuitable materials are ordered to be removed and replaced, the soil left in place shall be compacted to a depth of twenty (20) cm to the density prescribed under item 108.3.1. Payment for such compaction shall be included in the contract prices for the excavation materials.”

Audit noted during review of accounts record of Section-I South Carriageway that an item of work “106-b-ii Excavation unsuitable medium rock material” was got executed but supporting lab test and Engineer’s decision for declaration of unsuitability was not forthcoming. This indicated that unsuitability was determined without keeping in view specified requirement and in order to avoid utilization in the embankment. Had this excavated material would have used the authority could have saved extra expenditure incurred on the formation of embankment from borrow material.

<ul style="list-style-type: none">• Quantity of item formation of embankment from borrow excavation in common material 16,201.766 Cu.m @ Rs 243.15 (rate of 108c)= Rs 3.939 million
<ul style="list-style-type: none">• Quantity of item formation of embankment from borrow excavation in common material 16,201.766 Cu.m @ Rs 543.18 (108bii NHA CSR 2009) = Rs 8.800 million
<ul style="list-style-type: none">• Payment made under item 106bii Rs 7.258 million (Qty 16,201.766 Cu.m @ Rs 447.95)
<ul style="list-style-type: none">• Overpayment Rs 2.397 million (Rs 7.258 million + Rs 3.939 million - Rs 8.800 million)

Non-adherence to contract provision resulted in overpayment of Rs 2.397 million to the contractor.

Audit maintained that the overpayment was due to weak internal controls and inadequate oversight mechanism for enforcing relevant rules and regulations.

The Authority admitted that the material would be adjusted in the up-coming final bill.

Audit recommends early recovery from the contractor.

4.4.4 Site visit

Project site was visited along with Project Management on 25th March, 2016. Settlement in embankment in RD 2+760, in stone pitching at RD 4+100 and along abutment walls of bridges was also observed. Work executed at RD 0+000 to 0+500 was suffered badly due to construction of Peshawar Mor Interchange. New bridges were constructed at RD 0+487.308 to 0+555.383 (bridge No. 1&2) and RD 2+247.083 to 2+231.167 (bridge No. 3 & 4 alongwith existing bridges because these were not utilized which created curve in highway causing hurdle in smooth flow of traffic.

CDA was of the view that minor hairline temperature cracks in the top surface of concrete do not have any adverse effect on the pavement load bearing and design life. However, wider cracks have been got repaired.

CDA further replied that the project has been executed after proper planning and completing all due process as per PPRA rules and PEC tender documents. PC-I was approved before taking up the project and revised PC-I was also got approved from ECNEC incorporating change of scope. Variation technically required for completion of the project were got approved.

The Authority could not justify the audit contention with reference to curve created in highway causing hurdle in smooth flow of traffic.

Audit recommends that proper planning in respect of Design/Drawing should be ensured to avoid any subsequent material changes.

4.5 Asset Management

4.5.1 Non-accountal/disposal of dismantled material - Rs 3.385 million

According to item 510.1 of NHA General Specifications, “this work shall consist of dismantling, removal, wholly or in part and satisfactory disposal of broken material from buildings, fences, bridges, culverts, drainage facilities at different locations and any other obstructions which are not designated or permitted to remain on those sections of existing highways except for the obstructions to be removed and disposed of under other items in the Contract. It shall also include the salvaging of designated materials and backfilling the resulting trenches, holes, pits and ditches.”

Audit noted during review of accounts record of Director, Road Directorate (North), CDA (work: addition of 3rd & 4th Lane of Kashmir Highway Section-I South Carriageway) that items of work 604a, 604b & 604d were got executed as detailed below:

Item	Quantity	Rate (Rs)	Amount (Rs in million)
604a Metal Guard Rail	3,731 meter	2,093.10	7.809
604b Guard Rail End Pieces	37 pieces	1,540.39	0.057
604d Steel posts for Guard Rail	1,491 pieces	6,075.50	9.059
Total			16.925

Audit observed that *metal guard rail* was earlier installed /fixed at Kashmir Highway and in replacement thereof new *metal guard rail* was installed vide afore-narrated items, therefore, dismantled/removed items were required to be accounted/disposed off in the interest of Authority. But no such accountal/disposal is forthcoming in absence of which chances of mis-appropriation cannot be ruled out. Non-accountal/disposal of metal guardrail may result in loss of Rs 3.385 million (20% of Rs 16.925 million).

The Authority replied that metal guardrail removed from various locations of site was stacked at site in safe custody after taking it on stock register. The material taken on stock is being handed over to the CDA Main Store, for its further utilization/ disposal.

Audit stresses proper accountal of the material and its further utilization.

4.6 Monitoring and Evaluation

Internal checks such as inspection, monitoring, supervision, mechanized testing/laboratory test reports of executed works are also vital to ensure proper execution of works. However, during audit scrutiny, following audit observations have been noticed.

The Consultant hired for the project was responsible for exercising qualitative and quantitative checks, including laboratory tests, to ensure proper execution of the project. Overall supervision of Contractor's work rested with the Project Director but on ground, he had no technical supporting staff for monitoring of the work. CDA was completely dependent upon the Consultant for construction supervision. CDA had its own Inspection Wing for inspecting projects in order to ensure the quality checks but as per record, no periodical inspection notes by the Inspection Wing were available which showed that no such inspections were carried out.

Clause 3.1.1 of consultancy contract provides that the Consultant shall perform the services and carry out their obligations with all due diligence, efficiency and economy in accordance with generally accepted professional techniques and practices, and shall observe sound management practices and employ appropriate advance technology and safe methods.

During execution of the contract, following changes in design were made, which had material deviations from the original design. These changes caused heavy extra cost, which indicated that consultant did not perform his obligations with all due diligence, efficiency and economy.

- i. Rigid shoulders were changed with Triple Surface Treatment (TST)
- ii. Provision of underpass was deleted after award of work
- iii. Change of Mechanized Stabilized earth walls with RCC walls

CDA responded that:

- i. The rigid shoulders were changed from rigid pavement to TST by ECNEC during consideration of revised PC-I for approval. The change was not suggested by the consultants.
- ii. Underpasses were falling on 10th, 11th and 12th Avenues, which have not yet been constructed, therefore, the competent authority considered not to construct the underpasses because they would not be useful without the avenues and further there was also shortage of funds.
- iii. Change of Mechanized Stabilized earth walls with RCC walls was made after recommendation of the consultants due to stability issue being abutments in wet conditions close to nullahs.

Audit recommends that proper planning in respect of Design/Drawing should be ensured to avoid any subsequent material changes and the consultant should be made responsible for any unwarranted subsequent changes.

4.7 Environment

According to the Environment Protection Act, 1997 an Environment Impact Assessment (EIA) comprising collection of data, prediction of qualitative and quantitative impact, comparison of alternatives, evaluation of preventive, mitigatory and compensatory measures, formulation of environmental management and training plans and monitoring arrangements and framing recommendations, etc. shall be carried out for each project.

In order to assess the environmental impacts of the proposed project, an Initial Environmental Examination (IEE) report was prepared by the project Director in 2009. Pakistan Environmental Protection Agency (Pak-EPA) through their letter No. 2(16)/09-EIA(KH)-DD(EIA) dated 24.09.2009 conveyed decision of the competent authority on EIA report of the Kashmir Highway. Several measures were suggested in the report to mitigate the major impacts on physical, ecological & socio-culture environment, as follows:

- i. Project Management will constitute Environmental Management Committee responsible for the management of solid/liquid/hazardous/hospital waste and other issues related to the environment
- ii. Project Management shall abide by for the implementation of Environmental Management Plan (EMP) for the construction and operation phases of the project
- iii. Project Management may ensure to develop proper plantation plan and maintenance mechanism, which should be approved by CDA environmental directorate & plan may also be shared with the office of Inspector General

(Forest), Ministry of Environment. There should be clear cut programme/plan whereby identifying types of plants and species to be planted

- iv. Project Management should ensure for the proper management of solid/construction waste, which will be generated during the construction and operation of the project
- v. Project Management should ensure to avoid dumping of debris and construction material into the down slope and green belts. To stabilize sloppy areas along the retention walls etc to be done by planting grasses/shrubs in order to avoid soil erosion.
- vi. Project Management may ensure that there is no environmental/social case, pending in the court against the proposed project
- vii. After completion of the project, project area (camp site, workshops, and batching plant and stockpile sites) will be restored to its original condition. For this purpose documentation, in the shape of video and photographs should be kept on record.

In order to raise and maintain plantation for better environment, an estimated amount of Rs 9.935 million was provided in the PC-I for Environmental Works.

No such plan was found to be implemented during the construction of the project and no plantation/environmental works were carried out as funds provided in PC-I for plantation were not utilized. Non-planting of trees is detrimental to environment of project area and the adjoining localities.

CDA took the stance that EIA report was prepared and got approved from Pak EPA. The consultant ensured to get all the requirements implemented from the contractor. The site was left clean

after project completion. Necessary plantation has also been carried out by the Environment Wing of CDA.

Audit recommends that protection of environment be given top priority in development projects and outcome may be shared with Audit.

4.8 Sustainability

Sustainability is an integral part of operational performance. Sustainability of the project depends mainly upon the sufficient flow of financial resources, both during implementation and operation.

Annual recurring cost of Rs 33.00 million per year for maintenance has been provided in the approved PC-I. CDA will be responsible for maintenance of the project.

Recommendations: Steps need to be taken to ensure smooth funding for operation/maintenance of the project in future as provided in PC-I.

4.9 Overall Assessment

Audit noticed issues of contract management from planning to execution, including change in design & scope of work, allowing excess quantities, award of additional work without open bidding, etc. This reflected inefficient internal controls towards implementation of contract clauses.

Time overrun

Date of commencement	12.02.2011
Planned date of completion	24 months up to 11.02.2013
Revised completion period	
Section-I	06.10.2014
Section-II	26.07.2014
Time overrun	February 2013 to July 2014 (18 months)
%age increase	75%

5. CONCLUSION

Proper planning and assurance of funds availability are the basic requirement for success of any project. The project was to be completed in 24 months up to February 2013 but the Section-II was completed in July 2014 and Section-I in October 2014. The delay in achievement of the set objectives also delayed the accrued/desired benefits of the project, besides public inconvenience.

Audit noticed that most of the irregularities were either, due to absence of, or weak internal controls and lack of proper monitoring system. The management needs to strengthen internal controls in the light of following recommendations:

- i. Availability of funds as per phasing given in PC-I may be ensured for timely completion of the project besides avoiding extra expenses due to delay.
- ii. Proper planning based on accurate survey and feasibility studies be undertaken to avoid unnecessary delays involving frequent revisions/changes in design during execution.
- iii. CDA should systematically track and analyze the revisions issued on construction projects to identify the types of revisions and their causes.
- iv. In order to maintain progress of work commensurate with the given programme, sufficient resources, manpower and essential equipment should be deployed.
- v. Proper measures for protection of environment as provided in the Environment Impact Assessment Study, approved by the concerned agency (Environment Protection Agency), should be adopted.

Acknowledgement

We wish to express our appreciation to the management and staff of Capital Development Authority for the assistance and cooperation extended to the auditors during this assignment.