



PERFORMANCE AUDIT REPORT
ON
CONSTRUCTION OF KAHNA KACHA
FLYOVER LAHORE

LAHORE DEVELOPMENT
AUTHORITY
HUD & PHE DEPARTMENT
GOVERNMENT OF THE PUNJAB

AUDIT YEAR 2017-18

AUDITOR-GENERAL OF PAKISTAN

PREFACE

The Auditor-General of Pakistan conducts audit under Articles 169 and 170 of the Constitution of Islamic Republic of Pakistan 1973, read with sections 8 and 12 of the Auditor-General's (Functions, Powers and Terms and Conditions of Service) Ordinance, 2001. The performance audit of the Project "Construction of Kahna Kacha Flyover Lahore" executed by Lahore Development Authority, HUD & PHE Department, Government of the Punjab was carried out accordingly.

The Directorate General of Audit Works (Provincial), Lahore conducted audit of the project in June 2018 for the period from 2014 to 2016 with a view to reporting significant findings to the stakeholders. Audit examined the economy, efficiency, and effectiveness aspects 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 Audit Report indicates specific actions that, if taken, will help the management realize the objectives of the project. The report has been finalized in light of the discussion with management in Special Departmental Accounts Committee (SDAC) meeting held on November 07, 2018 and the results have been duly incorporated in this report.

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

Islamabad
Dated: 12th November, 2021

-Sd-
(Muhammad Ajmal Gondal)
Auditor-General of Pakistan

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ABBREVIATIONS & ACRONYMS

ABC	Asphaltic Base Course
AWC	Asphaltic Wearing Course
BOT	Build, Operate and Transfer
BOQ	Bill of Quantities
Cft	Cubic Feet
m ³	Cubic Meter
DFR	Departmental Financial Rules
EPA	Environmental Protection Agency
EPC	Engineering Procurement Contract
ETC	Electronic Toll Collection
FBR	Federal Board of Revenue
FD	Finance Department
FIDIC	Federation International Des Ingenious Conseils
Govt.	Government
GST	General Sales Tax
i/d	Internal Dia
IRR	Internal Rate of Return
INTOSAI	International Organization of Supreme Audit Institutions
JICA	Japan International Cooperation Agency
JMF	Job Mix Formula
JV	Joint Venture
KFPL	Kahna Flyover Private Limited
LAC	Land Acquisition Collector
LDA	Lahore Development Authority
LUTMP	Lahore Urban Transport Master Plan
MB	Measurement Book
MRS	Market Rates System

MSE	Mechanically Stabilized Earth
NESPAK	National Engineering Services Pakistan
NHA	National Highways Authority
NPV	Net Present Value
NOC	No Objection Certificate
P&D	Planning & Development
PC-I	Planning Commission Performa-I
PPRA	Punjab Procurement Regulatory Authority
PPP	Public Private Partnership
PPPA	Public Private Partnership Act 2014
QAI	Quality Assurance Inspector
RCC	Reinforced Cement Concrete
RR&MTI	Road Research & Material Testing Institute
ROR	Rate of Return
SDAC	Special Departmental Accounts Committee
m ²	Square Meter
TSE	Technical Sanctioned Estimate
ZKB	Zahir Khan & Brothers

EXECUTIVE SUMMARY

Director General Audit Works (Provincial), Lahore conducted the performance audit of “Construction of Kahna Kacha Fly over Lahore” in June 2018 for the period from 2014 to 2016. The main objectives of the audit were to evaluate attainment of project objectives with reference to economy, efficiency and effectiveness and review compliance with applicable rules, regulations and procedures. The audit was conducted in accordance with the INTOSAI Auditing Standards.

Kahna Kacha Flyover is situated on the Defence Road Lahore. The Defence Road Project was part of the Lahore Master Plan (2001-2021) developed by NESPAK in 2002. It had also been recommended in the Lahore Urban Transport Master Plan (LUTMP) 2010-30. It was a major structural road in the southern part of the city that catered to a large volume of traffic.

Lahore Development Authority had taken up the project to be executed on BOT mode under Punjab Public Private Partnership Act, 2014. Concession agreement for construction of flyover at Railway crossing, Kahna Kacha, Defence Road, Lahore, under PPP mode was signed between Lahore Development Authority (LDA) and concessioner (a joint venture of Zaheer Khan & Brothers and Reliable Engineering Services Pvt. Ltd) on 09.01.2015. The cost and length of the project are Rs 2,994 million and 1.5 km across railway line respectively. Two lanes carriage pertaining 100 feet right of way (ROW), service road 2 x 20 feet wide has been developed. The execution of work was completed in April 2016 and the contractor started its operation of toll collection in May 2016.

Audit observed that there were certain lapses in planning of the project. The system of internal controls as laid down in the departmental codes / instructions of the Government were not effectively implemented. During audit, certain observations indicating lapses in financial

management, procurement & contract management and construction works etc. were noticed.

Key audit findings

Audit findings, categorized into major headings of financial management, procurement & contract management and construction & works are as under:

- i. Excess estimation of toll collection revenue due to inclusion of contractor's profit in the cost estimate for Rs 5,969 million¹ resulted in loss to Government due to weak planning.
- ii. Undue financial benefit of Rs 1031.94 million² was extended to the contractor due to not conducting revised financial evaluation on reduction of rates / de-escalation of different items during execution in two cases.
- iii. Undue financial benefit was given due to non-verification of work executed for Rs 154.69 million³.
- iv. Inadmissible reimbursable costs for Rs 132.87 million⁴ were approved in financial model resulting loss to Govt.
- v. Procurement from sales tax registered firms was not confirmed by non-obtaining of sales tax invoices for Rs 81.361 million⁵.
- vi. Incorrect higher rates of various items were approved causing loss to Government for Rs 51.588 million⁶ in four cases.

¹ 4.2.1.1

² 4.2.1.2, 4.2.1.3

³ 4.4.1.3

⁴ 4.2.1.4

⁵ 4.3.1.2

⁶ 4.4.1.4, 4.4.1.5, 4.4.1.6, 4.4.1.7

- vii. Project account and its audited accounts were not submitted to LDA⁷ periodically which was the requirement of the concession agreement under clause 13.7.1 indicating weak supervisory and managerial controls.

Recommendations

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

- i. Award of excess toll collection be recovered by excluding contractor's profit from the rates of items to save public exchequer from loss.
- ii. Financial evaluation be revised due to reduction of rates of different items and recovery of de-escalation be made to save public from loss.
- iii. Work be got completed as per design / scope otherwise recovery be effected.
- iv. Recovery be made on account of acceptance of reimbursable costs in overall cost of the project.
- v. Procurement of items of works from sales tax registered firms be ensured for the confirmation of recovery of sales tax,
- vi. Recoveries as pointed out by audit on account of higher rates may be effected at the earliest along with mark up for the delayed period.

⁷ 4.1.2.1

- vii. Project account and its audited accounts be obtained as required by concession agreement. Internal audit system may be strengthened for ensuring accountability mechanism and for avoiding recurrence of such irregularities / lapses.

1. INTRODUCTION

1.1 The project “Construction of Kahna Kacha Flyover Lahore”, consists of four lanes is 1.5 km long and 100` feet wide. Approximately, 9000 vehicles passed from this flyover on daily basis. In this project, six feet wide foot paths have been constructed on both sides for pedestrians. The project was initiated due to movement of trains on the main line of Pakistan Railway, the gates of this railway crossing were often closed as a result of which the commuters had to wait for long time. The project has been successfully commissioned on build operate transfer (BOT) mode.

The cost of the project was Rs 29,994 million which was to be funded by the contract under PPP mode. Time period of the construction of the project was 12 months. However, the project was completed within six months.

1.2 The work was allotted to the contractor M/s Kahna Flyover (Private) Limited sponsored by JV of M/s ZKB and M/s Reliable on 31.12.2014 after open competition on a single source basis. The term of the concession agreement will commence from the signing of the concession agreement and will continue for 25 years comprising upon 2 years for financial close and design & construction phase and 23 years for operating period. The project’s anticipated completion date was 30th June 2016 and an anticipated expiry date of concession agreement was 30th June 2039.

1.3 Financial proposal submitted by the contractor included project cost for Rs 2,994 million, payback period for six years four months, NPV Rs 1,417.17 million and IRR 16.61%. Bid price was Rs 35 per crossing of car initially comprising a toll collection structure for a period of 23 years and total toll revenue of Rs 29,927 million for the firm.

1.4 Project objectives were as under:

- i. Major link between Multan Road, Raiwind Road and Ferozepur Road.
- ii. Main road for numerous newly developed private housing schemes.
- iii. An approach to the newly built vegetable and fruit market in the south.
- iv. An approach road to Metro Bus System for its starting point at Gajjumatta.
- v. Traffic passing through railway crossing which lies on the main railway line of Pakistan Railways, was often choked at length due to frequent gate closures.
- vi. Ease of traffic flows at this railway crossing would enhance operational efficiency of the road resulting in improved traffic conditions.
- vii. Result in significant reduction in passenger time and vehicle operating cost.
- viii. Improve the local road infrastructure and hence the region's road network.

2. AUDIT OBJECTIVES

The major objectives of the audit were to:

- i. Review project's performance against intended objectives.
- ii. Assess whether project was got executed with due regard to economy, efficiency and effectiveness.
- iii. Review compliance with applicable rules, regulations and procedures.

3. AUDIT SCOPE AND METHODOLOGY

3.1 Audit Scope

The scope of the audit will include a verification of the PPP arrangement to ensure that the public sector agency had effectively put in place a sound system to oversee the efficiency of the project implementation including construction, quality management, compliance with contractual conditions, and integrity of the provision of the targeted public service strictly in terms of the established norms and contract conditions.

3.2 Audit Methodology

Audit methodology included review of all relevant record, analysis of the issues, discussion with the project staff, consultation with the external experts, performing site survey and collection of sufficient evidence in support of audit findings.

4. AUDIT FINDINGS & RECOMMENDATIONS

4.1 Organization and Management

4.1.1 The project was executed by LDA, Lahore under the BOT mode in collaboration with the PPP Cell of the Govt. of the Punjab for making necessary approvals. The Project was headed by a Project Manager, Assistant Director and supported by Sub-Divisional Officers, Sub-Engineers.

4.1.2 The issue relating to the organization and management observed during audit was as under:

4.1.2.1 Non-appointment of Joint Auditor for the audit of project account and non-submission of audited accounts

As per clause 13.7.1 of concession agreement, immediately after the effective date, the Concessionaire shall open, maintain and operate a Project account until the expiry date. All contribution towards the equity, the disbursement of debt as well as receipts from the project collection account and all expenditure made shall be through this project account. The concessionaire shall provide monthly summaries of these transactions to the Joint Auditor. Further, the project account shall be audited by the Joint Auditor bi-annually or at such interval on the request of LDA and the audited report shall be submitted to LDA.

Project Director Kahna Kacha Flyover LDA Lahore did not appoint the joint auditor as per the provision of the agreement for the audit of project account. No audit had been conducted since its effective date. The LDA was fully ignorant about the business of the project. As per the concession agreement the duties and responsibility of joint auditor shall include, conducting an annual inspection of toll collection operations, determination of any additional costs to be borne by LDA, determination of appropriate relief as a consequence of compensation event, determination of termination payments, reporting to lenders on regular basis. Audit was of the view that the concessionaire had not fulfilled the contractual obligation regarding the actual investment made, its disbursement and collection of toll revenue by violating the agreement clause. The same audited accounts were also required by Audit for audit scrutiny.

Weak supervisory and financial controls resulted in non-appointment of Joint Auditor for the audit of project account and non-submission of audited accounts.

Audit pointed out the non-submission of project account and audited accounts to LDA in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department replied that joint audit was not a compulsion. Audit argued that as per concession agreement joint

audit was necessary bi-annually or at such interval on the request of LDA and audited accounts were required to be submitted to LDA authorities. The Committee directed the Authority to get conducted audit by the joint auditor and produce audited accounts to Audit for verification. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends that early compliance of SDAC directives besides fixing of responsibility against the delinquents.

(Para-02)

4.2 Financial Management

4.2.1 The project was awarded on BOT basis in which the contractor had to bear all the costs for the execution of project and the payment in turn would be in terms of toll collection revenue over a defined period. The issues relating to the financial management observed during audit involving an amount of Rs 7,133.81 million were as under:

4.2.1.1 Excess estimation of toll collection revenue due to inclusion of contractor's profit and mega project allowance in cost estimate - Rs 5,969 million

As per financial model annexed with Concession agreement, the IRR of the project was 16.61%. The IRR was the true rate of return for the project which was the acceptance criteria for the contractor to take up the project. Further, as per C&W letter No.CW/614-617/92 dated 16.08.2005, the mega project was allowed on works in which estimates were based on MRS basis only. The subsequent summary moved by FD to the Chief Minister also showed that the mega project allowance was not admissible on engineers' estimate.

Project Director, Kahna Kacha Flyover, LDA Lahore awarded the work at the bid price of Rs 35 per car initially based on comprehensive toll collection structure over the period of 23 years showing toll collection revenue of Rs 29,927 million against the project cost of Rs 2,994 million.

Audit observed that the contractor's profit of Rs 499.83 million and mega project allowance of Rs 93.56 million were included in the rate analyses based on the engineer's estimate. As per financial model, the contractor had to arrange 70% funds from loan and 30% from equity. Audit was of the view that funds were not required to invest on profit amount. Further, mega project was not admissible on the engineer's estimate. So, actual cost of the project without contractor's profit and mega project allowance was Rs 2,400.61 million (2,994 - 499.83 - 93.56) against which a toll collection revenue was required to be estimated. Actual toll collection estimation came Rs 23,958 million on the basis of actual cost of Rs 2,400.61 million on the compound rate of return of 10.52% over the period of 23 years. Hence, agreement was made with excess toll collection for Rs 5,969 million.

Weak managerial controls resulted in excess estimation of toll collection revenue due to inclusion of contractor's profit and mega project allowance in cost estimate - Rs 5,969 million.

Audit pointed out excess award of toll collection revenue in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. Authority replied that the project was a fixed price contract with all risks allocated to concessionaire. LDA was not a client and so any revision before the start of work as pointed out by Audit was not possible. Audit contended that the profit element was included in the toll collection revenue. Comparison of toll collection revenues was required with only cost without any profit element, hence, incorrect comparison had been made. Further, no investment was required on profit element in shape of debt or equity. The Committee pended the para and demanded financial evaluation / study from the Authority and directed to get verified the matter on the issue within 60 days otherwise effect recovery. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery besides fixing of responsibility for the lapse and action against the delinquents.

(Para-12)

4.2.1.2 Undue benefit to the contractor due to non-recovery of de-escalation - Rs 853.89 million

As per Concession Agreement, Annexure Y, total project cost, the price variation / escalation was included in total construction cost.

Project Director, Kahna Kacha Flyover, LDA Lahore awarded the work on BOT mode at a bid price of Rs 35 per car initially. The construction cost of Rs 2,342.70 million of the project was calculated based on the rates of 2nd bi-annual 2013. The project was approved in 17th meeting of the PPP steering Committee on 27.11.2014. The execution of work was started by the contractor in December 2015 after getting all approvals and site clearance. Audit observed that the input rates of Finance Department were reduced due to reduction of diesel prices in 2nd bi-annual period 2015 and 1st bi-annual period 2016. But LDA authorities did not consider reduced rates during construction phase. Audit made analysis by applying the rates of 2nd bi-annual 2015 and found that actual construction cost as per estimated quantities was Rs 1,908.078 million instead of Rs 2,342.70 million. Audit further observed that the cost of executed quantities as per substantial completion certificate was Rs 1843.75 million against which actual cost was Rs 1,488.81 million (calculated as per 2nd bi-annual 2015). Hence, the contractor had saved Rs 853.89 million (2,342.70 – 1,488.81). So, recovery should have been made from the contractor for Rs 853.89 million.

Weak contract management resulted in undue benefit due to non-recovery of de-escalation - Rs 853.89 million.

Audit pointed out undue benefit in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The Authority replied that the project was a fixed price contract. LDA was not a client and so any revision before the start of work as pointed out by Audit was not possible. Audit argued that the project was approved to be executed in June 2015 whereas the work was started after six months by the contractor. Hence, there was a considerable time for evaluation of rates of 2nd bi-annual period 2015 with 2nd bi-annual rates of 2013. The

Committee directed the Authority to calculate amount of de-escalation and recover the same and record of recovery be produced to Audit for verification. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery besides fixing of responsibility for the lapse and action against the delinquents.

(Para-8 & 11)

4.2.1.3 Non-recovery of cost of escalation - Rs 178.05 million

As per Concession Agreement, Annexure Y, Total Project cost, the price variation / escalation was included in total construction cost.

Project Director, Kahna Kacha Flyover, LDA Lahore got approved the project cost of Rs 2,994 million wherein the cost of price escalation of Rs 178.05 million was included and awarded the work at a bid price of toll collection of Rs 35 per car initially. The cost of price escalation was added in the project cost with a view to cover future increase in the rates. Audit observed that during execution period i.e. from December 2015 to date of completion on 13.05.2016, the rates of various items like cement, steel, bitumen, diesel etc were decreased, so, escalation was not admissible.

Weak contract management resulted in non-recovery of cost of escalation of Rs 178.05 million.

Audit pointed out non-recovery in June 2018. The para was discussed in SDAC meeting on 07.11.2018. The department replied that it was a BOT project with fixed cost effect. Further, even the decreased/saving in escalation failed to compensate the concessionaire for the losses suffered in actual revenue collection. 10% escalation cost was added in the project's cost to compensate any future increase in rates. Audit argued that during the construction period December 2015 to April 2016, the rates of items had been decreased. The Committee directed the Authority to recover the cost of escalation. Compliance of the

Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery.

(Para-7)

4.2.1.4 Non-recovery of reimbursable costs of - Rs 132.87 million

As per financial model annexed with the Concession Agreement, in the summary of cost of the project item No. K and item No. M, the costs of financial close bond and performance bond were included for Rs 20 million and 112.87 million respectively.

Project Director, Kahna Kacha Flyover, LDA Lahore got approved the project cost for Rs 2,994 million which included various costs like performance bond and financial close bond for Rs 112.87 million and Rs 20 million respectively. Audit observed that the provision of bank guarantees was the responsibility of the contractor in fulfilling contractual obligation and those were refundable after a specified period of time, was not the part of project cost. Hence, the Authority had given undue benefit to the contract by accepting such cost in the project cost which would result in determining toll rates on higher side.

Weak contract management resulted in non-recovery of reimbursable costs of Rs 132.87 million.

Audit pointed out non-recovery in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department replied that the mentioned costs were the part of EPC price and cannot be dealt with separately. As per concession agreement those costs were the part of project's cost. Audit argued that performance cost and financial close bond were refundable costs and had been returned to the concessionaire on the completion/defect liability period of the project. The Committee directed the Authority to produce minutes of steering committee following the financial evaluation regarding the inclusion of subjected costs in cost

summary. Furthermore, the Authority may also provide study material regarding the project financial evaluation and justify the grounds / reasons on which basis those costs were accepted in the total project's cost. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery besides fixing of responsibility for the lapse and action against the delinquents.

(Para-09)

4.3 Procurement and Contract Management

4.3.1 Issues relating to procurement and contract management observed during Audit, were as under:

4.3.1.1 Non-recovery of excessive contractor's profit -Rs 89.942 million

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD. Further, as per templates of items of FD, 20% contractor's profit and overhead was allowed.

Project Director, Kahna Kacha Flyover, LDA Lahore got approved the project cost for Rs 2,994 million wherein the construction cost was Rs 2342.70 million based on engineer's estimate. Audit observed that in the rate analyses contractor's profit @ 25% was included instead of 20%. As per templates of Finance Department the admissible contractor profit was 20% hence, 5% profit was excessively given to the contractor. The financial impact of 5% contractor's profit came to Rs 89.942 million calculated on the cost of Rs 1,798.845 million ($2342.096 \times 100/104.16 =$

2248.556 x 100/125 = 1798.845). So, recovery of provision of incorrect contractor's profit may be made for Rs 89.942 million.

Weak supervisory and financial controls resulted in undue benefit due to inclusion of excessive contractor's profit of Rs 89.942 million.

Audit pointed out undue financial benefit to the contractor in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The Authority replied that NHA template was used due to higher specification. NHA had used 25% profit in its rates analysis which was applied for that kind of high specification project. Audit contended that 25% contractor's profit was inclusive of 4.167% mega project allowance whereas in this project 25% profit allowance had been applied and mega project allowance was given separately which was incorrect. The Committee and demanded financial evaluation / study from the Authority and directed to get verified the matter on the issue within 60 days otherwise to effect recovery. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery besides fixing of responsibility for the lapse and action against the delinquents.

(Para-13)

4.3.1.2 Non-confirmation of procurement from sales tax registered firms by non-obtaining of sales tax invoices - Rs 81.361 million

According to Para-4(ii) of the FBR letter No.1(42)STM/2009 /99638-R dated 24.07.2013, in case of public works, it may be ensured that the contractors engaged make purchases only from sales tax registered persons. Since contractors carrying out government work against public tender are required to have a BOQ (Bill of quantity), the contracting department/ organization must require such contractors to present sales tax invoices of all the material mentioned in the BOQ as evidence of its legal purchase, before payment is released.

Project Director Kahna Kacha Flyover LDA Lahore did not obtain invoices of GST against the material procured by the contractor as depicted in various sub heads of the work like steel, bitumen, TP paint, RCC / PVC pipes, tuff tiles, electric items, electronic toll system etc. Furthermore, import documents for the purchase of imported items were also not obtained and produced to Audit for scrutiny.

Weak supervisory and financial controls resulted in non-confirmation of procurement from sales tax registered firms due to non-obtaining of sales tax invoices Rs 81,361,000.

Audit pointed out non-confirmation of procurement from sales tax registered firms in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department replied that LDA was not involved in payments for the execution of the project so, LDA had no concern about it. Audit contended that the payments to the concessionaire were made in terms of toll collection revenue. Only the mode of payment was different in BOT mode. So, sales tax invoices were required to be obtained on the items fabrication of mild steel, electric items and ETC/toll system. The Committee directed the Authority to obtain sales tax invoices from the contractor and get it verified from Audit. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends that instructions of FBR be adhered to regarding procurement from sales tax registered firms.

(Para-17, 18 & 19)

4.3.1.3 Unjustified provision of 50% cost of Quality Assurance Inspector (QAI) to be borne by LDA due to defective agreement

As per clause 5.3.3 of concession agreement 50% remunerations of QAI are to be paid by the Concessionaire and 50% shall be borne by LDA.

Project Director Kahna Kacha Flyover LDA Lahore made agreement in which the Concessionaire was responsible to furnish, equip

and maintain site office of Quality Assurance Inspector (QAI) and also 50% remunerations are to be paid by the Concessionaire and 50% shall be borne by LDA. Audit observed that the QAI had been appointed by the contractor and the QAI had worked for the interests of the contractor so 50% of remuneration to be borne by LDA was unjustified. Furthermore, the cost of QAI had already been included in the total project cost on which the toll collection revenue had been determined which showed that the contractor had availed the benefits against his cost. So, 50% cost of QAI should not be paid by LDA.

Weak contract management resulted in loss to government due to unjustified provision of 50% cost of Quality Assurance Inspector to be borne by LDA due to defective agreement.

Audit pointed out loss to government in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department explained that the appointment of Quality Assurance Inspector (QAI) on this project was the part of bid. LDA agreed to pay 50% remuneration to further ensure the neutrality of the QAI. The cost of QAI which was included in the cost summary was the one which was to be borne by the contractor. Moreover, the QAI was primarily the keeper of client's interests. Audit contended that the department admitted that the QAI was primarily the keeper of client's interests. So, the appointment was unjustified. Further, the cost of QAI was entered in the project cost so, the benefit of complete cost had been availed by the concessionaire and the reimbursement of 50% cost of remuneration of QAI by LDA was not required. The Committee directed that LDA would not reimburse 50% cost of QAI to the concessionaire. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends that compliance of SDAC directives be ensured.

(Para-15)

4.4. Construction and Works

4.4.1 Issues like unjustified payment/overpayments due to non-obtaining of vouched account, non-verification of work executed, unauthentic rate analysis etc. involving payment of Rs 1,204.288 million, noticed during audit, were as under:

4.4.1.1 Non-obtaining of vouched account - Rs 610.46 million Revisit

As per rule 2.20 of PFR Volume-I, every payment including repayment of money previously lodged with the government for whatever purpose, must be supported by voucher setting forth full and clear particulars of the claim.

Project Director Kahna Kacha Flyover LDA Lahore made advance payment of Rs 610.46 million (373.773 + 139.188 + 95.429 + 2.07) to LAC Lahore vide different cheques given in February, March and September 2015, October 2016 and March 2017 for the acquisition of land for the project. Audit observed that its vouched account was not obtained from LAC.

Weak supervisory and financial controls resulted in non-obtaining of vouched account for Rs 610,460,000.

Audit pointed out unjustified payment in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department produced only payment vouchers paid to LAC. Audit stated that complete record be obtained from LAC in respect of payment made to affectees and be produced to Audit for verification. The Committee directed the Authority to get verification of complete vouched account from Audit. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends that vouched account be obtained from LAC at the earliest.

(Para-16)

**4.4.1.2 Unjustified provision of higher rate item in rate analysis
- Rs 387.55 million**

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD.

Project Director Kahna Kacha Flyover LDA Lahore accepted the items geo grid wall 0-7 meter height and 7-11 meter height @ Rs 36,600 per m² and Rs 49,080 per m² in sub head "Structures Flyover". The Authority approved the rate analyses for item geo grid wall but executed low rate item i.e. MSE wall as recorded in the measurement sheet by the consultant. It was observed that the Authority executed the item without approval by the competent authority. Further, no quotations for the rates of E-grid material were produced to Audit.

Weak supervisory and financial controls resulted in higher rate item in rate analysis costing Rs 387,550,000.

Audit pointed out unjustified provision due to unauthentic rate analysis in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The Authority produced the quotation of the material E-grid which was verified by Audit. However, Audit demanded sale tax invoices of material E-grid. Audit contended that in the measurement sheet the consultant had recorded the item MSE walls instead of geo grid walls so, the actual cost of MSE walls was required to be paid instead of cost of geo grid walls. The Committee directed the department to get the relevant record verified from Audit within 30 days. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends that matter be probed besides fixing of responsibility for the lapse and action against the delinquents.

(Para-20)

4.4.1.3 Undue financial benefit to the contractor due to non-verification of work executed - Rs 154.69 million

As per Concession Agreement, Annexure P, TORs of the QAI, clause (b and c), the duties and responsibilities of the QAI shall include, periodic inspection of the works for the purpose of issuance of substantial completion certificate, incomplete work list and the completion certificate, verification and checking of quality and quantity of the works accomplished by the Concessionaire as against approved detailed design, and the works programme.

Project Director, Kahna Kacha Flyover, LDA Lahore got approved the project cost for Rs 2,994 million wherein the construction cost was Rs 2342.70 million based on engineer's estimate. Audit observed that actual cost of executed quantities came Rs 1843.75 million as shown from the consultant's final measurement sheets. Hence, the contractor did not execute the whole work as per engineer's estimate and a cost of Rs 498.95 million was saved. In view of Audit recovery of saved cost be made because the bid price of toll collection revenue was accepted on the basis of project's cost of Rs 2,994 million.

Weak supervisory and technical controls resulted in undue financial benefit to the contractor due to non-verification of work executed Rs 498,950,000.

Audit pointed out undue financial benefit to the contractor in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department replied that the statement attached with the para had wrong rates of some items as well as quantities and the residual difference was Rs 154.69 million after correction of those rates and quantities. Further, the final quantity vetted by consultant will be produced later. The department admitted the difference outstanding was Rs 154.69 million. It

was mentioned that final measurement sheets were given by the consultant by issuing substantial completion certificate before the start of operation by the contractor. The department produced rate analysis of five items i.e MSE walls using panels, coping and countable slabs, RCC pipes of 36" i/d, 24" i/d and 18" i/d which have been verified by Audit. The Committee directed the Authority to get verified the record of Rs 154.69 million within 60 days otherwise effect recovery. Compliance of the Committee's directive was not reported till finalization of the report besides effective follow up.

Audit recommends early recovery besides fixing of responsibility for the lapse and action against the delinquents.

(Para No. 10)

4.4.1.4 Loss due to inadmissible cost of carriage on bajri used in asphaltic base course (ABC) and asphaltic wearing course (AWC) - Rs 19.212 million

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD.

4.4.1.4.1 Project Director Kahna Kacha Flyover LDA Lahore got approved the project cost for Rs 2,994 million wherein the construction cost was Rs 2342.70 million based on engineer's estimate. Audit observed that the rate of item of work "Asphaltic base course" was calculated @ Rs 21,576.66 per m³ wherein inadmissible cost of carriage on bajri Rs 319,048 and inadmissible 5 % profit in addition to 4.16 % mega project allowance were included.

Weak supervisory and financial controls resulted in loss due to inadmissible cost of carriage on bajri used in asphaltic wearing course Rs 2,425,979.

Audit pointed out loss in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department stated that item rates of this project were derived as adopted in mega projects in Punjab and National Highway Authority. Audit contended that the item carriage was not required because rate of bajri was at site rate. Actual recovery for a quantity of 5066.428 m³ for an excess rate of Rs 2,218.76 per m³ came to Rs 11.241 million. The Committee did not agree with the version of the Authority and directed to effect recovery within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para-30)

4.4.1.4.2 Project Director Kahna Kacha Flyover LDA Lahore got approved the rate of item of work "Asphaltic wearing course (AWC)" @ Rs 24,513.71 per m³. Audit observed that the in the rate analysis inadmissible cost of carriage on bajri for Rs 379,345 and Rs 135,607.25 on account of extra 12.5% cost of labour in addition to manpower were added.

Weak supervisory and financial controls resulted in loss due to cost of carriage on bajri used in asphaltic wearing course (AWC) Rs 2,081,365.

Audit pointed out loss in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department stated that item rates of this project were derived as adopted in mega projects in Punjab and National Highway Authority. Audit contended that the item carriage was not required because rate of bajri was at site rate. The department further produced revised rate analysis showing rate Rs 24,307.03 per m³ against the accepted rate of Rs 24,513.71 per m³ by reducing the percentage of

labour up to 10% and admitted to recover excess rate of Rs 206.68 per m³. Audit further calculated the rate by excluding cost of carriage @ Rs 21,668.69 per m³. So, excess rate came to Rs 2,845 per m³ and actual recovery came to Rs 7.971 million. The Committee did not agree with the version of the Authority and directed to effect recovery within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para No. 32)

4.4.1.5 Unjustified provision due to unauthentic rate analysis - Rs 11.479 million

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD.

Project Director Kahna Kacha Flyover LDA Lahore accepted the rate of item filling inside ramps with specified material @ Rs 2,155.94 per m³ in sub head "Earthwork and Allied Activities" and "sub-base and base". Audit observed that material rate of specified soil was provided @ Rs 1,225 per m³ which was unauthentic because no specification was mentioned in the rate analysis.

Weak supervisory and financial controls resulted in unjustified provision due to unauthentic rate analysis Rs 277,258,000.

Audit pointed out unjustified provision due to unauthentic rate analysis in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department produced revised rate analysis of the item @ Rs 1,979.27 per m³ against the accepted rate for Rs 2,155.94 per m³ and

admitted to effect the recovery for the excess accepted rate for Rs 176.67 for a quantity of 64975.22 m³. Hence, actual recovery came to Rs 11.479 million. The Committee directed the department to effect recovery within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para-21)

4.4.1.6 Loss due to higher rate of granular sub base - Rs 19.084 million

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD.

4.4.1.6.1 Project Director Kahna Kacha Flyover LDA Lahore accepted the rate of item of work "Granular sub base" @ Rs 3,610.92 per m³ for a quantity of 4080.370 m³. Audit observed that the authority added inadmissible cost of dump trucks, front end loader, delivery pump, foreman earthwork and supervisor and inadmissible 5 % profit in addition to 4.16 % mega project allowance. Audit calculated correct rate of said item of work for Rs 2,628.00 per m³.

Weak supervisory and financial controls resulted in loss due to higher rate of granular sub base Rs 4,010,677.

Audit pointed out loss in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department stated that Dump trucks, Front end loader, Delivery pump and Foreman and Supervisor were need for Granular sub base. Audit contended that loose factor for the material rate and carriage was required to be taken 120 instead of 125. The

department during re-verification produced revised rate analysis and corrected the factor with 120. The revised rate was Rs 3,506.54 per m³ against the accepted rate of Rs 3,610.92 per m³. Hence, recovery of excess rate Rs 104.38 per m³ for a quantity of 18704.73 m³ was admitted by the department. Audit further argued that dump trucks were not needed because the rate of carriage was at site rate. After deducting rate of dump trucks actual rate came to Rs 3,016.78 per m³. So, a difference of rate of Rs 594.14 should have been recovered. The Committee upheld the view point of Audit and directed the Authority to effect recovery of Rs 11.113 million within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para-26)

4.4.1.6.2 Project Director Kahna Kacha Flyover LDA, Lahore accepted the rate of an item of work "base course" @ Rs 4,391.68 per m³. Audit observed that the Authority added inadmissible cost of dump trucks, front end loader, delivery pump, foreman earthwork and Supervisor and inadmissible 5 % profit in addition to 4.16 % mega project allowance. Hence, the correct rate of said an item of work came Rs 3,248.90 per m³.

Weak supervisory and financial controls resulted in loss due to higher rate of water bound macadam base Rs 5,662,169.

Audit pointed out loss in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. The department stated that Dump trucks, Front end loader, Delivery pump and Foreman and Supervisor were needed for granular sub base. Audit contended that loose factor for the material rate and carriage was required to be taken 122 instead of 125. The department during re-verification produced revised rate analysis and corrected the factor with 122. The revised rate was Rs 4,323.49 per m³ against the accepted rate of Rs 4,391.68 per m³. Hence, recovery of excess rate Rs 68.19 per m³ for a quantity of 16049.16 m³ was admitted by the department. Audit further argued that Dump trucks were not needed because the rate of carriage was at site rate. After deducting rate of Dump

trucks actual rate came to Rs 3,895.02 per m³. So, a difference of rate of Rs 496.66 per m³ should have been recovered. The Committee upheld the view point of Audit and directed the Authority to effect recovery of Rs 7.971 million within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para-28)

4.4.1.7 Loss due to higher rate of excavation of unsuitable material - Rs 1.813 million

According to FD's letter No. RO(Tech)FD-18-23/2004, dated 21.09.2004, rate analyses for the non-standardized items shall be prepared by the Executive Engineer/Deputy Director, clearly giving the specifications of the material used and approved by the competent authority not below the rank of Superintending Engineer/Director on the basis of input rate of relevant quarter and template placed at website of FD.

Project Director Kahna Kacha Flyover LDA Lahore accepted the rate of an item of work "excavation of unsuitable material" @ Rs 403.13 per m³ for a quantity of 21309.506 m³. Audit observed that the Authority added inadmissible cost of bull dozer, dump, supervisor and surveyor and inadmissible 5% profit in addition to 4.16 % mega project allowance. Hence, the correct rate of said item of work came Rs 99.67 per m³.

Weak supervisory and financial controls resulted in loss due to higher rate of excavation of unsuitable material Rs 6,646,000.

Audit pointed out loss in June 2018. The para was discussed in SDAC meeting held on 07.11.2018. Audit contended that cost of Bull dozer and Dump was not required because it was an item of excavation. The department admitted to change the Bull dozer with Excavator machine and produced revised rate analysis of the item @ Rs 388.06 per m³ against the accepted rate of Rs 403.13 per m³ and admitted to effect the

recovery for the excess accepted rate for Rs 15.07 per m³ for a quantity of 120338.3 m³. Hence, actual recovery came to Rs 1.813 million. The Committee directed the department to effect recovery within 60 days and get it verified by Audit. Compliance of the Committee's directive was not reported till finalization of the report.

Audit recommends early recovery.

(Para-24)

4.5 Asset Management

As per concession agreement the project Assets will be transferred to LDA on the transfer date in accordance with the Agreement. A list of project's assets was provided to Audit. However, all the project assets should have been mentioned in LDA's Asset record.

4.6 Monitoring and Evaluation

Regular monitoring and evaluation was an integral part of Concession Agreement. Audit was of the view that clauses of the Agreement should have been strictly adhered to by LDA for effective monitoring and evaluation:

4.6.1 As per concession agreement clause 13.7.1, immediately after the effective date the Concessionaire shall open, maintain and operate a Project Account. All contribution towards the equity, the disbursement of debt as well as receipts from the project collection account and all expenditure made shall be through this project account. Further, the project account shall be audited by the Joint Auditor bi-annually or at such interval on the request of LDA and the audited report shall be submitted to LDA. The Authority failed to collect audited accounts periodically and also to provide project account to Audit for audit scrutiny.

4.6.2 Toll collection should be monitored periodically to ensure the receipt of toll collection as per toll collection structure.

4.7 Compliance with grant / loan covenants

No loan and grant was involved in the project.

4.8 Environment

The Authority had obtained NOC from the Environmental Protection Agency before the start of the work. However, no environmental data was available on record / provided by the Authority to check implementation of the conditions of NOC issued by EPA.

4.9 Sustainability

4.9.1 Sustainability was an integral part of operational performance. As per Concession Agreement LDA had to pay compensation to the concessionaire in cases where concessionaire was asked to reduced toll rates, asked to cease operations of toll collection due to change of law and construction of competing route.

4.9.2 As per Concession Agreement, it was the responsibility of the concessionaire for the routine maintenance and major repair after every eight years. LDA had to check the routine maintenance of the project to maintain the benefits of the project for the public.

4.9.3 M/s Kahna Kacha Flyover Pvt Limited (the concessionaire) was responsible for maintenance of bridge over the life of the project for 23 years as per framework agreement and after that LDA would be responsible for overall maintenance of the project.

4.9.4 LDA has the required expertise and skill to watch the operations of the project.

4.10 Overall Assessment

4.10.1 Relevance: Execution of all intra city projects pertaining to roads and buildings fall under the jurisdiction of LDA.

4.10.2 Efficiency: As per agreement, period for completion of the project was one year. The work on the project started in December 2015 and substantial completion certificate was granted on 13.05.2016 by the consultant for the capability of the project to start operations. Operations of the project started on 26.06.2016 after successful completion of the project within six months.

4.10.3 Economy: The work was awarded on single source basis after open competition to Kahna Flyover (Pvt) Ltd under PPP mode on 31.12.2014 and the concession agreement was signed between Lahore Development Authority (LDA) and concessioner (a joint venture of Zaheer Khan & Brothers and Reliable Engineering Services Pvt. Ltd) on 09.01.2015. The reduction of rates during execution phase in the period of 1st bi-annual 2016 was not considered neither by LDA authorities nor by the PPP Cell. So, Audit was of the view that the project was not got executed economically. The toll collection revenue should have been reduced due to decrease in prices or toll collection period should have been decreased in order to ensure economy of the project.

4.10.4 Effectiveness: Operations of the project started on 26.06.2016 after the successful completion of the project. PPP arrangement proved successful in early completion of the project. Operations of the project also seem effective in solving the problems faced by the people. The only problem for the people was that the public had to bear the payment of toll tax amounting to Rs 29,927 million over the period of 23 years which could be reduced with proper financial evaluation. Competing route would result in reduction of toll collection revenue to the concessionaire and loss to Govt. for paying compensation to the concessionaire.

4.10.5 Compliance with Rules: Issues of poor financial management, contract management and construction and works depicting irregularities of Rs 8,509.401 million were noticed. Non-adherence to good financial management practices was critical area which needed to be given a serious thought for improving service delivery and ensuring efficient prices of toll collection / toll collection period to reduce the burden on public in respect of tax payment.

4.10.6 Performance Rating: Satisfactory.

4.10.7 Risk Rating: Medium, due to provision in agreement for payment of compensation in case of compensation event.

5. CONCLUSION

The project was executed well before the targeted date due to adopting BOT mode under PPP arrangement. However, the economy of the project was compromised due to weak contract management wherein contractor's profit was included in cost estimates along with mega project allowance which was inadmissible for engineer's estimate, de-escalation factor was utterly ignored rather only escalation was allowed, complete work was not got executed, undue benefit was given due to acceptance of inadmissible costs and high rates of various items were accepted.

5.1 Key Issues for the Future: Compliance of PPRA Rules, contractual obligations and efficient financial management are required to be ensured in the future projects. Effective financial evaluation is required to be made for determination of toll collection structure.

5.2 Lessons learnt: Non-compliance of contractual obligations, violation of rules and poor financial management are critical areas to be improved. Audit recommends that:

- i. Adherence to contractual obligations needs to be ensured at every stage of execution, during the operation phase and during the concession period up to 23 years.
- ii. Action needs to be initiated and responsibility to be fixed against the officers concerned for the lapses and violation of rules besides effecting recoveries.
- iii. An effective mechanism needs to be ensured for safe transfer of Project's assets to LDA.

- iv. Periodical audit reports audited by the Joint Auditor (Chartered Accountant) in light of the concession agreement should be obtained and watched.
- v. Project account must be watched by LDA authorities and produced to Audit for scrutiny.
- vi. Financial management needs to be improved to define key financial indicators effectively.

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