



PC-1

Revamping of Lahore Zoo

ORIGINAL APPROVED COST	PKR Million. 1,836.469/-
1st REVISED APPROVED COST	PKR Million. 1,836.324/-
2nd REVISED PROPOSED COST	PKR Million. 2,034.648/-
ORIGINAL APPROVED GESTATION	24 Months Till June 2025
1st REVISED APPROVED GESTATION	24 Months Till June 2025
2nd REVISED PROPOSED GESTATION	24 Months Till June 2025
APPROVAL FORUM	PDWP (PDWP)

1. NAME OF THE PROJECT

Revamping of Lahore Zoo

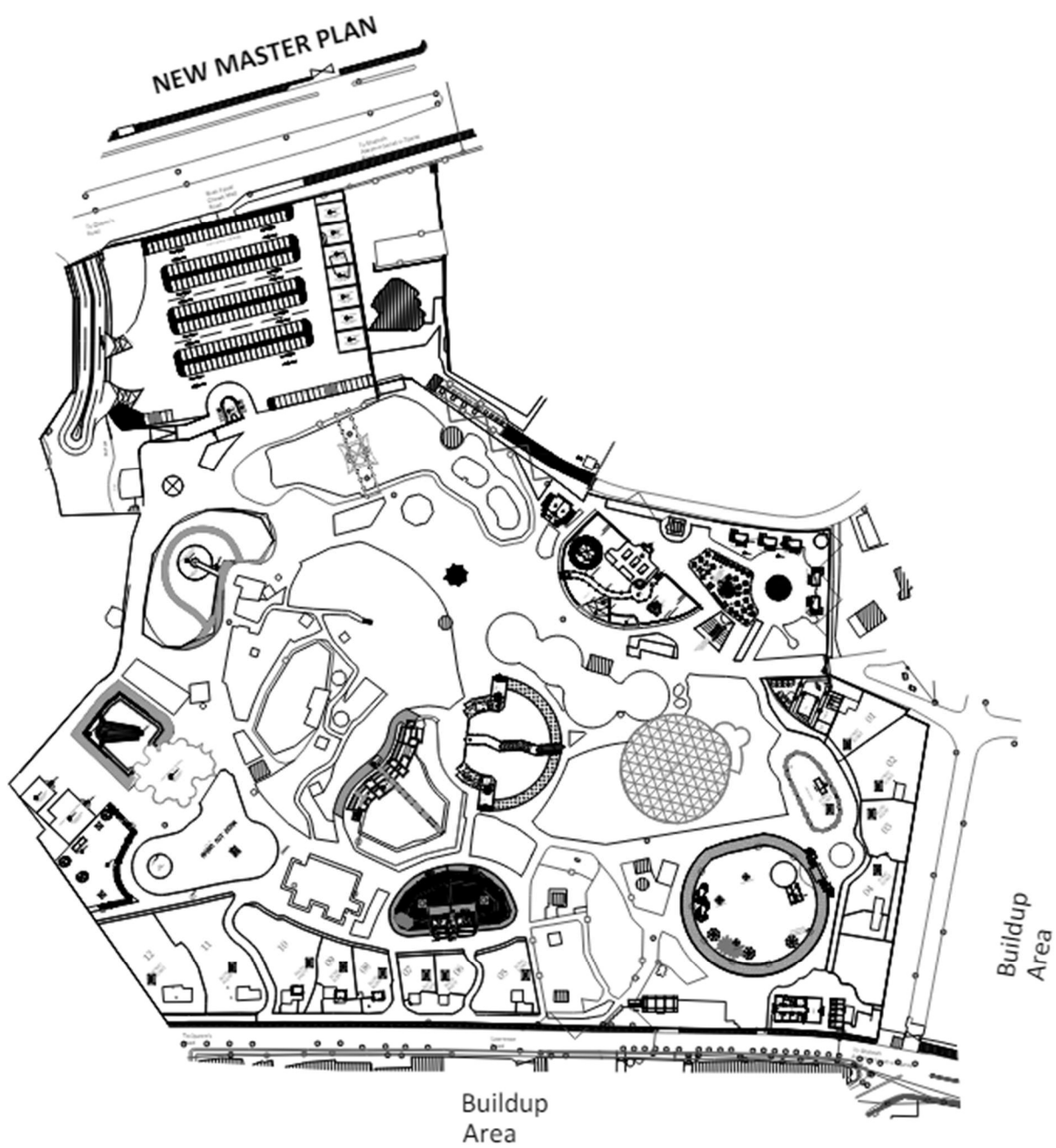
2. LOCATION OF THE PROJECT

2.1. DISTRICT(S)

I. LAHORE

2.2. TEHSIL(S)

I. LAHORE CITY



3. AUTHORITIES RESPONSIBLE FOR

3.1. SPONSORING AGENCY

- FORESTRY, WILDLIFE, FISHERIES

3.2. EXECUTION AGENCY

- COMMUNICATION & WORKS DEPARTMENT
- FORESTRY
- WILDLIFE

3.3. OPERATIONS AND MAINTENANCE AGENCY

- WILDLIFE

3.4. CONCERNED FEDERAL MINISTRY

4. PLAN PROVISION

Sr #	Description
1	Source of Funding: Scheme Listed in ADP CFY
2	GS No: 3263
3	Total Allocation: 704.664

Comments:

5. PROJECT OBJECTIVES

The objectives of the project are defined under following broad categories:

1. Revamping of Existing Facilities

- Extension of parking area at Mall Road Gate
- Redesigning of Zoo entrance
- Redesigning of Lion House
- Improvement of Big Mammal House and Monkey House
- Improvement of railings / fencing of Ungulates enclosures
- Restructuring / rehabilitation of walk-through Aviary
- Rehabilitation of old Snake House

2. Addition of New Facilities

- Construction of Food Court
- Construction of Aquarium
- Development of Hologram Zoo
- Implementation of smart solution for entry ticket and queue management
- Development of Lawns / Public sitting area
- Construction of Vet Complex and Amphitheater

3. Procurement of Zoo Exhibits

- Addition of species to improve pairing of existing animals and increase variety at the Zoo.

6. DESCRIPTION AND JUSTIFICATION OF PROJECT

6.1 JUSTIFICATION OF PROJECT:

The Lahore Zoo was established in 1872 and is one of the largest zoos in Pakistan. The Zoo operates as a centre for ex-situ conservation, while also providing a valuable source / avenue for education, awareness, and research. The interactive zoo exhibits, educational programs, and guided tours at zoos can raise awareness about biodiversity issues and inspire visitors to take action for wildlife protection. It provides a

unique and immersive learning environment for people of all ages, particularly for children. It also offers an opportunity to observe and connect with a wide variety of animals up close, which can foster curiosity, understanding, and empathy towards the natural world.

Over the past years, a public and international outcry / concern has been raised regarding the lack of animal facilitation and care offered at various Zoos. The primary concern has been regarding the lack of animal care, habitat enrichment and use of heavy infrastructure for animal display. Consequently, the honourable Chief Minister Punjab has been pleased to approve revamping of the Lahore Zoo. The present PC-1 scheme envisions redesigning / revamping of animal enclosures, housing and improving visitor experience by providing an immersive environment.

Currently, Lahore Zoo is housing about 1100 wild animals belonging to 118 species. Lahore Zoo is among the oldest Zoo of the Pakistan but facing problems like improper pairing and fewer variety of exhibits. Hence, under present condition objectives of Zoo particularly captive breeding and public recreation is not being achieved adequately. To address this issue procurement of exhibits for pairing of existing exhibits and addition for new variety of exhibits have been included in this project for which infrastructure / housing facilities are already available.

A public sentiment analysis was conducted through AI based models for the Lahore Zoo to determine the public response towards the Zoo facilities and environment. The response has provided an overview of public sentiment against major factors including variety of species, zoo environment and public facilities provided. The response generated is provided in the figure below:

Factors	Sentiment Type	Sentiment	Highlighting Factors
Animal Species	Negative	Lack of variety and animal species	The zoo has a limited number of animal species, This can make the zoo less interesting for visitors who are looking to see a variety of animals.
Animal Enclosure	Negative	Small, and less spacious enclosures	Many of the animals at the zoo are kept in small, cramped enclosures that are not suitable for their natural behaviors. Small enclosures can also make it difficult for visitors to see the animals and learn about them. This can make the zoo a less enjoyable experience for visitors.
Overall Zoo Environment	Negative	Bad smell , congestion at entry point,	There are complaints of bad smell, sanitation, and hygiene in zoo.

		High level of congestion	The zoo can get very crowded, especially on weekends and holidays. This can make it difficult to see the animals and enjoy the zoo.
Recreational Activities	Negative	Lack of availability of recreational activities	There are not many recreational activities available at the zoo, such as playgrounds, rides, and animal shows.
Educational Aspect	Negative	Poor quality of education awareness	The educational awareness offered at Lahore Zoo are often poorly designed and delivered.
Ushering	Negative	Poor quality of ushering services	The ushering services at Lahore Zoo are often inefficient and unhelpful. Large interactive displays, guides and signage should be placed at important locations of zoos
Technological Attractions	Negative	Lack of availability of technological attractions	There are not many technological attractions available at Lahore Zoo, such as interactive exhibits and live-streaming cameras. This can make the zoo a less engaging and educational experience for visitors.
Food Court	Negative	Low quality and variety	The food court at Lahore

		of food options	Zoo offers a limited selection of food options, and the quality of the food is often poor. The food is often overpriced, and there are not many options for vegetarians and vegans.
One Window fun and interaction activities	Negative	Lack of availability of one-window fun and interaction activities	There are not many one-window fun and interaction activities available at Lahore Zoo for visitors of all ages. The few activities that are available are often poorly maintained and not very exciting.
Outdated Ticketing System	Negative	Inefficient and time-consuming	The ticketing system at Lahore Zoo is outdated and inefficient. It can take a long time to purchase tickets, and the system is often prone to errors.
Congested Entrance	Negative	Difficult to enter and exit the zoo	The entrance to Lahore Zoo is very narrow and often congested, especially on weekends and holidays. This can make it difficult to enter and exit the zoo.

An analysis of negative sentiment highlights that the zoo has a limited number of animal species which makes it less interesting for visitors who are looking to see a variety of animals (summarized in figure below). The animal exhibits are usually kept in small, cramped enclosures that are not suitable for their natural behaviour / habitat. Similarly the public resents the bad smell, inadequate sanitation and hygiene at Zoo. The food court at the Zoo also has limited selection of food options while notable food chains are not present.

Factor	Positive Sentiment	Negative Sentiment
Animal Species	30	70

Overall Zoo Environment	20	80
Congestion in Zoo	10	90
Recreational Activities	20	80
Educational Aspect	40	60
Ushering	10	90
Technological Attractions	20	80
Food Court	30	70

The proposed PC-1 scheme also caters to the animal specific habitat requirement and provides an immersive experience to the visitors through minimizing use of heavy infrastructure and addition of natural looking structures. The scheme will also cater to the shortfalls in existing structures such as provision of adequate shade, water and drainage. The modifications / revamping of the Lahore Zoo will improve the animal habitat quality, their care and allow an interactive experience for the visitors. The immersive experience will help reach out to the public to educate and increase awareness regarding the biopersity, threats and the measures how inpiduals can contribute towards their protection and conservation.

A feasibility has been conducted through the Engineering Consultancy Services Punjab (Pvt.) as owners consultant for aquisition of animals and birds for Lahore Zoo. The feasibility study proposed the species and their number along with relevant details of animal welfare and security. The feasibility study has provided insight on following aspects of animal procurement:

- Procurement strategy for procurement of animals for Lahore Zoo
- Procurement strategy for procurement of consultancy services of international consultant for procurement of animals
- Conclusion [this component covers overall summary of the comprehensive feasibility study]
- Recommendations [this component covers the recommendations]

The feasibility is enclosed in relevant annexure.

6.2 SECTORAL SPECIFIC INFORMATION:

As per provisions of the Punjab Government Rules of Business 2011 and Punjab Zoos and Safari Park Rules, 2012, and now, Captive Wildlife Management Committee Rules, 2023 the Punjab Wildlife Department is entrusted with the management of Zoological Gardens and Wildlife Parks across Punjab.

7. CAPITAL COST ESTIMATES:

Financial Components: Capital
Cost Center:OTHERS- (OTHERS)
Fund Center (Controlling):LE4203

Grant Number:Government Buildings - (PC12042)
LO NO:LO23004231
A/C To be Credited:Account-I

PKR Million					
Sr #	Object Code	2023-2024		2024-2025	
		Local	Foreign	Local	Foreign
1	A12403-Other Buildings	674.991	0.000	330.451	0.000
Total		674.991	0.000	330.451	0.000

Financial Components: Revenue
Cost Center:OTHERS- (OTHERS)
Fund Center (Controlling):LE4217

Grant Number:Development Revenue - (PC22036)
LO NO:LO23000645
A/C To be Credited:Account-I

PKR Million					
Sr #	Object Code	2023-2024		2024-2025	
		Local	Foreign	Local	Foreign
1	A01106-Pay of Contract Staff	0.000	0.000	0.300	0.000
2	A02203-Consultant based Research and Surveys	13.711	0.000	26.289	0.000
3	A03807-P.O.L Charges A.Planes H.Coptors S.Car	0.951	0.000	2.049	0.000
4	A03906-Uniforms and Protective Clothing	2.027	0.000	5.973	0.000
5	A03907-Advertising and Publicity	5.535	0.000	24.465	0.000
6	A03919-Payments To Others For Service Rendere	160.000	0.000	70.000	0.000

7	A03942-Cost of Other Stores	0.732	0.000	9.268	0.000
8	A03970-Others	1.941	0.000	13.059	0.000
9	A09501-Purchase of Transport	6.008	0.000	10	A09601-Purchase of Plant and Machinery
11.118	0.000	40.780	0.000	11	A09701-Purchase of Furniture and Fixture
1.662	0.000	13.338	0.000	12	A09801-Purchase of Livestock
155.700	0.000	344.300	0.000	13	A13304-Structures
14.940	0.000	38.060	0.000	14	A13370-Repair & Maintnance Of Building & Stru
0.396	0.000	26.604	0.000	15	A13801-Maintenance of Gardens
1.650	0.000	38.350	0.000	Total	

YEAR-WISE AND OBJECT CODE-WISE REQUIREMENT OF FUNDS

Sr. No.	Object Code	Description	Amount / Years		Total
			2023-24	2024-25	
1.	A012403	Civil Works	674.991	330.451	1005.442
Sub Total			674.991	330.451	1005.442
2.	A01106	Pay of Contract Staff	-	0.300	0.300
Sub Total			-	0.300	0.300
3.	A02203	Consultant Based Research & Survey	13.711	26.289	40.000
4.	A03807	POL Charges	0.951	2.049	3.000
5.	A03906	Uniforms & Protective Clothing	2.027	5.973	8.000
6.	A03907	Advertisement & Publicity	5.535	24.465	30.000
7.	A03919	Payment to others for services rendered	160.000	70.000	230.000
8.	A03942	Cost of Other Store	0.732	9.268	10.000
9.	A03970	Others	1.941	13.059	15.000
10.	A09501	Purchase of Transport	6.008	-	6.008
11.	A09601	Purchase of Plant & Machinery	11.118	40.780	51.898
12.	A09701	Furniture & Fixture	1.662	13.338	15.000
13.	A09801	Animal Purchase	155.700	344.300	500.000
14.	A13304	Structure	14.940	38.060	53.000
15.	A13370	Repair & Maintenance of Building	0.396	26.604	27.000
16.	A13801	Maintenance of Gardens	1.650	38.350	40.000
Sub Total			376.371	652.535	1028.906
Total			1051.362	983.286	2034.648

8. ANNUAL OPERATING COST (POST COMPLETION)

Financial Components: Capital
Cost Center:OTHERS- (OTHERS)
Fund Center (Controlling):N/A

Grant Number:Government Buildings - (PC12042)
LO NO:N/A
A/C To be Credited:Account-I

PKR Million

Sr #	Object Code
Total	

Financial Components: Revenue
Cost Center:OTHERS- (OTHERS)
Fund Center (Controlling):N/A

Grant Number:Development Revenue - (PC22036)
LO NO:N/A
A/C To be Credited:Account-I

PKR Million

Sr #	Object Code
Total	

9. Demand and Supply Analysis:

Not Applicable

10. FINANCIAL PLAN AND MODE OF FINANCING

10.1 FINANCIAL PLAN EQUITY INFORMATION:

The project is being financed through ADP of Government of Punjab.

10.2 FINANCIAL PLAN DEBT INFORMATION:

Not applicable

10.3 FINANCIAL PLAN GRANT INFORMATION:

Not applicable

10.4 WEIGHT COST OF CAPITAL INFORMATION:

Not applicable

11. PROJECT BENEFITS AND ANALYSIS

11.1 PROJECT BENEFIT ANALYSIS INFORMATION:

The project will provide following social benefits:

- Provide an opportunity for people, especially children, to learn about a wide variety of animals from around the world. This firsthand experience can foster a sense of wonder and curiosity about the natural world.
- Educational programs and exhibits at zoos teach visitors about biopersistency, ecosystems, and the importance of wildlife conservation.
- Serve as a safety net for endangered species, preserving genetic persistency and providing a potential source of animals for reintroduction into the wild.
- They offer spaces for family outings, picnics, and social gatherings, enhancing the quality of life in the community.
- Personal connections formed with animals at zoos can lead to increased empathy for animals and a sense of responsibility for their welfare.
- It will serve as rescue and rehabilitation centers for injured wild animals, giving them a chance to recover and rehabilitate.

11.2 ENVIRONMENTAL IMPACT ANALYSIS:

The project is expected to have a positive environmental impact through:

1. Promoting scientific research, contributing to our understanding of animal behavior, reproduction, and physiology. This research can have broader implications for wildlife management and conservation.
2. Raise public awareness about environmental issues, conservation, and the importance of protecting natural habitats. They educate visitors about wildlife, ecosystems, and the need for conservation action.
3. The Lahore Zoo can effectively serve as a genetic reservoir for rare and endangered species, preserving genetic persistency that might be lost in the wild. Moreover, it will facilitate to educate the public about the importance of biopersistency and the threats to it, fostering a sense of responsibility for the environment
4. As a centre of ex-situ conservation, it can help maintain genetic persistency for species that may face

population declines or diseases in the wild, enabling future reintroduction efforts.

5. The immersive experience provided by the zoo will allow community engagement in conservation efforts, fostering a sense of environmental responsibility among residents.

11.3 ECONOMIC ANALYSIS:

The Lahore Zoo has a major contribution towards the economic growth:

1. Revenue generation through various means, including ticket sales, memberships, concessions, gift shops, and special events. This income contributes directly to the zoo's operational budget.
2. Employment opportunity for a perse workforce, including animal care professionals, educators, administrative staff, and maintenance workers.
3. Establishment of an auditorium and amphitheatre will facilitate to implement educational programs for schools and community groups, attracting students and teachers and generating revenue.

11.4 FINANCIAL ANALYSIS:

The project will improve the overall outlook of the Lahore Zoo, enhance public experience, generate economic opporunity. As a self sustained Zoo, the project has the potential to greatly boost revenue generation, which in turn would improve improve animal health and quality.

12. IMPLEMENTATION SCHEDULE

12.1 IMPLEMENTATION SCHEDULE/GANTT CHART:

The project will be implemented from October, 2023 to 30th June, 2025 (2023-24 to 2024-25).

12.2 RESULT BASED MONITORING (RBM) INDICATORS:

As enclosed in relevant annexure.

12.3 IMPLEMENTATION PLAN:

As enclosed in relevant annexure.

12.4 M&E PLAN:

The regular monitoring of the project during the implementation phase will be conducted by the PM&E wing of the wildlife department and DG M&E, while the evaluation of the project will be done by the Directorate General Monitoring & Evaluation, Planning & Development Department.

12.5 RISK MITIGATION PLAN:

As enclosed in relevant annexure.

12.6 PROCUREMENT PLAN:

As enclosed in relevant annexure.

13. MANAGEMENT STRUCTURE AND MANPOWER REQUIREMENTS

The Director General Wildlife & Parks Punjab being Head of Department will be the overall in-charge of the project during its implementation, while Director Lahore Zoo will implement the project. Current staff of Lahore Zoo will assist Director Lahore Zoo during the implementation of the project.

Being DDO of the project / Project Director, the Director Lahore Zoo shall be responsible for the execution of project as per approved scope & specification of the project. The PM&E Wing / PMU of department will facilitate the field formation with regard to its execution as and when required. The Planning & Development Board will undertake final evaluation after completion of the project.

14. ADDITIONAL PROJECTS / DECISIONS REQUIRED

15. CERTIFICATE

Focal Person Name: Muhammad Zahid Iqbal

Email: lahorezoolahore@gmail.com

Fax No:

Address: 90-Shahrah-e-Quaid-e-Azam, Jinnah Town, Lahore Zoo, Lahore, Punjab. 54000

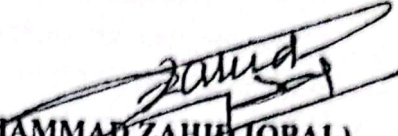
Designation: Director, Lahore Zoo, Lahore

Tel. No.: 04236314684

Certificate

It is certified that the Project has been prepared as per instruction issued by the planning commission for the preparation of PC-I Project.

PREPARED BY:

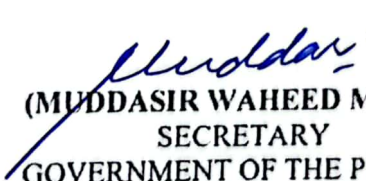

(MUHAMMAD ZAHID IQBAL)
DIRECTOR, LAHORE ZOO
(042-36314684)

COUNTERSIGNED BY:


(MUDDASSIR RIAZ MALIK)
DIRECTOR GENERAL
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checked by 
M. R.

SUBMITTED BY:


(MUDDASIR WAHEED MALIK)
SECRETARY
GOVERNMENT OF THE PUNJAB
FOREST, WILDLIFE & FISHERIES
DEPARTMENT
(042-99211695, 99212361)

16. REVISION HISTORY

16.1 ORIGINAL

The idea for upgradation of Lahore Zoo was conceived by the then Director General, Wildlife & Parks Punjab and presented before the then caretaker Chief Minister of Punjab in order to create a more engaging, educational, and sustainable environment for both the animals and visitors. Incorporating naturalistic enclosures that mimic the animals' native habitats to not only improve their quality of life but also educate the public about conservation efforts. Accordingly, a PC-I scheme "Revamping of Lahore Zoo" was prepared and then placed before the PDWP on 20.09.2023 and subsequently approved at a total cost of Rs. 1836.469 million with its gestation period starting from 01.07.2023 to 30.06.2025 (24 months).

16.2 REVISION 1

As per directions of the then caretaker Chief Minister Punjab, international zoo experts were invited to visit Lahore Zoo. During their brief stay, the project designs were discussed at length and resultant valuable input was obtained to modify / improve the proposed structures to ensure better housing / enrichment and visitor experience. Hence, the PC-I scheme was revised to incorporate the proposed structural changes / improvements suggested by the foreign zoo experts. The revised scheme was then approved by PDWP during its 45th meeting held on 30.01.2024 at a total cost of Rs.1836.324 with the same gestation period.

2nd REVISED

Now the PC-I scheme is being again revised as changes have been carried out in the scope to ensure timely execution of project, keeping in view the requirements of animals and public & animal safety. After renovation of existing Snake house, the new Reptile house to be made was converted into aquarium; due to non-availability of penguins, the pond was converted to house crocodiles; electrification component was added to ensure power supply to the newly constructed buildings. Hence, the 2nd revised PC-1 is proposed with a total cost of Rs. 2034.648m while keeping the same gestation period.

COMPARATIVE STATEMENT

CONSERVANCY AND WORKS

(Rs. in million)

1st Revised approved PC-I			2nd Revised PC-I		Diff.
Sr. No.	Description	Amount	Description	Amount	
1	Bear House	42.260	Bear House	41.424	(-) 0.836
2	Giraffe House	22.812	Giraffe House	22.312	(-) 0.500
3	Hippo House	8.890	Hippo House	6.789	(-) 2.101
4	Monkey house	29.174	Monkey house	27.068	(-) 2.106
5	Reptile house	68.215	Reptile house	88.097	(+) 19.882
6	Hospital Building	17.841	Hospital Building	15.216	(-) 2.625
7	Sick Cages	8.064	Sick Cages	5.899	(-) 2.165
8	Kangaroo House	8.794	Kangaroo House	7.254	(-) 1.540
9	Rhino House	12.904	Rhino House	12.848	(-) 0.056
10	Ostrich Building	6.554	Ostrich Building	4.908	(-) 1.646
11	Ungulates House	38.594	Ungulates House	35.960	(-) 2.634
12	Back Gate	9.734	Back Gate	7.356	(-) 2.378
13	Lion House	101.872	Lion House	106.230	(+) 4.358
14	Tiger House	14.578	Tiger House	13.186	(-) 1.392
15	Entrance Gate (Mall Road)	5.332	Entrance Gate (Mall Road)	5.304	(-) 0.028
16	Sewerage System	55.818	Sewerage System	54.291	(-) 1.527
17	Bird Aviary	12.097	Bird Aviary	15.533	(+) 3.436
18	Hologram Zoo	67.993	Hologram Zoo	65.400	(-) 2.593
19	Main Gate	30.683	Main Gate	29.800	(-) 0.883
20	Food Court	13.860	Food Court	13.175	(-) 0.685
21	Amphitheatre	16.499	Amphitheatre	12.740	(-) 3.759
22	Parking	150.020	Parking	150.216	(+) 0.196
23	Road Path	36.935	Road Path	50.258	(+) 13.323
24	Toilet Block	5.737	Toilet Block	6.108	(+) 0.371
25	Boundary Wall	-	Boundary Wall	73.234	(+) 73.234
26	Electrification (HT & LT)	-	Electrification (HT)	36.112	(+) 36.112

1 st Revised approved PC-I			2 nd Revised PC-I		Diff.
Sr. No.	Description	Amount	Description	Amount	
	Panels)		< Panels)		
	Total	785.260	Total	906.718	(+) 121.458
	Add 2% Consultancy Charges (Detailed Engineering Design & Detailed Resident Construction Supervision)	12.734	Add 2% Consultancy Charges (Detailed Engineering Design & Detailed Resident Construction Supervision)	12.711	(-) 0.023
	WASA Charges (external sewerage connection)	-	-	20.000	(+) 20.000
	Add 2% Contingency	12.734	Add 2% Contingency	18.135	(+) 5.401
	Total:	810.728	Total:	957.564	(+) 146.836
	5% PST	39.263	5% PST	47.878	(+) 8.615
	Grand Total:	849.991	Grand Total:	1005.442	(+) 155.451

MACHINERY, STORES AND EQUIPMENT

(Rs. in million)

Sr. No.	1 st Revised Approved PC-I				2 nd Proposed Revised PC-I				Difference
	Items of Work	Qty	Rate/Unit	Total	Items of Work	Qty	Rate/Unit	Total	
1	Installation of CCTV Camera,(Static, PTZ with wiring)	L.S	20.000	20.000	Installation of CCTV Camera,(Static, PTZ with wiring)	L.S	20.000	20.000	-
2	Procurement of Wireless set	12	0.064	0.768	Procurement of Wireless set	7	0.102	0.718	(-) 0.050
3	Procurement of Walk Through Gate	8	0.800	6.400	Procurement of Walk-Through Gate	8	0.735	5.880	(-) 0.520
4	Procurement of Dustbins	60	0.018	1.080	Procurement of Dustbins	60 <u>60</u> 120	0.018 0.025	2.580	(+) 1.500
5	Procurement of Sound system (public address system)	1	2.500	2.500	Procurement of Sound system (public address system)	1	2.500	2.500	-
6	Transportation cages of animals	8	0.200	1.600	Transportation cages of animals	8	0.200	1.600	-
7	Purchase of Central Ventilation System (Air & heating)	8	0.400	3.200	Purchase of Central Ventilation System (Air & heating)	8	0.400	3.200	-
8	Procurement of mist fan (24inch)	15	0.035	0.525	Procurement of mist fan (24inch)	15	0.034	0.514	(-) 0.011
9	Procurement of bracket fan (18 inch)	10	0.016	0.160	Procurement of bracket fan(18 inch)	10	0.016	0.160	-
10	Procurement of Air Conditioner (1.5 ton , heat & cool, haier or equivalent)	4	0.250	1.00	Procurement of Air Conditioner (1.5 ton heat & cool, Haier or equivalent)	4 <u>6</u> 10	0.247 0.250	2.488	(+) 1.488
11	Procurement of Cabinet Air Conditionor (4 ton, heat & cool, Gree, Haier or equivalent)	2	1.000	2.000	Procurement of Cabinet AirConditioner (4 ton, heat & cool, Gree, Haier or equivalent)	2 <u>1</u> 3	0.987 1.000	2.974	(+) 0.974

Sr. No.	1 st Revised Approved PC-I				2 nd Proposed Revised PC-I				Difference
	Items of Work	Qty	Rate/Unit	Total	Items of Work	Qty	Rate/Unit	Total	
12	Procurement of AC Chillers (8ton, Acson or equivalent)	2	0.900	1.800	Procurement of AC Chillers (8ton, Ascon or equivalent)	2	2.350	4.700	(+) 2.900
13	Purchase of Vehicle 1480 CC	1	5.500	5.500	Purchase of Vehicle 1480 CC	1	4.599	4.599	(-) 0.901
14	Purchase of Motorcycle 125CC	6	0.300	1.800	Purchase of Motorcycle 125CC	6	0.235	1.409	(-) 0.391
15	Purchase of Desktop Computer, 12 TH GEN, i-3 orhigher, 4 gb RAM, 1 TB hard drive, with LCD screen andaccessories.	3	0.300	0.900	Purchase of Desktop Computer, 12 th GEN, i-3 orhigher, 4 gb RAM, 1 TB hard drive, with LCD screen and accessories.	3	0.295	0.884	(-) 0.016
16	Procurement and installation of Projector (Minimum loops 2800-3000, Sony or equivalent)	2	0.300	0.600	Procurement and installation of Projector (Minimum loops 2800-3000, Sony or equivalent)	--	--	0	(-) 0.600
17	Purchase of Electric Water Coolers (45 litr)	8	0.150	1.200	Purchase of Electric Water Chiller (300 litre)	2	0.600	1.200	-
18	Purchase of Photocopier	1	1.000	1.000	Purchase of Photocopier	-	-	0	(-) 1.000
19	Furniture	LS	15.000	15.00 0	Furniture	LS	15.000	15.000	-
20	-	-	-	0	LED Screens 72"	02	1.250	2.500	(+) 2.500
				67.033				72.906	(+) 5.873

COST OF ESTABLISHMENT

(Rs. in Million)

	1 st Revised approved PC-I				2 nd Revised PC-I				
	Name of Post	Scale	No. of Post	Total	Name of Post	Scale	No. of Post	Total	Diff.
1	Project Director	PPS 10	1	3.300	Project Director	PPS 10	1	0.300	(-) 3.000
Total			0	3.300	Total		0	0.300	(-) 3.000

COMMODITIES & SERVICES

(Rs. in Million)

Sr. No.	1 st Revise Approved PC-I		2 nd Revised Proposed PC-I		Difference
	Item	Total	Item	Total	
1	Purchase of Zoo Exhibits	570.000	Purchase of Zoo Exhibits	500.000	-70.000
2	Making and fixing of Sculpture (A13304)	30.000	Procurement of Sculpture (A13304 –Structure)	53.000	+23.000
3	Zoo APP, Website Development, Smart Solution Based Zoo Entry (hardware and software) A03919 - Payment to other services rendered	30.000	Zoo APP, Website Development, Smart Solution Based Zoo Entry (hardware and software)	30.000	-
4	POL Charges	3.000	POL Charges	3.000	-
5	Turnkey Hologram Zoo Solution (incl. hardware, software and content) A03919 - Payment to other services rendered	200.000	Turnkey Hologram Zoo Solution (incl. hardware, software and content)	200.000	-
6	Publicity & Advertisement Charges	10.000	Publicity & Advertisement Charges	30.000	+ 20.000
7	Cost of Other Store	5.000	Cost of Other Store	10.000	+5.000
8	Landscaping, Habitat Enrichment	35.000	Landscaping, Habitat Enrichment / Development and Maintenance of Lawns	40.000	+5.000
9	Uniform	3.000	Uniform	8.000	+5.000
10	Consultancy	15.000	Consultancy	40.000	+25.000
11	Other Structure (A13370)	15.000	Other Structure (A13370)	27.000	+12.000
12	-	0	Other (A03970)	15.000	+15.000
	Total	916.000	Total	956.000	+40.000

SUMMARY OF COST

(Rs. in million)

Sr. No.	1 st Revised Approved PC-I		2 nd Revised Proposed PC-I		Diff.
	Items	Total	Items	Total	
1.	Conservancy & Works	849.991	Conservancy & Works	1005.442	(+) 155.451
2.	Machinery, tools, Stores and Equipment	67.033	Machinery, tools, Stores and Equipment	72.906	(+) 5.873
3.	Establishment	3.300	Establishment	0.300	(-) 3.000
4.	Commodities & Services	916.000	Commodities & Services	956.000	(+) 40.000
	Total:	1836.324	Total:	2034.648	(+) 198.324

18. RELATION WITH OTHER PROJECTS

20. FOCUS ON MARGINALISATION

SR.NO.	CRITERIA	YES/NO	ACTION	COMMENTS
Description & Objectives				
1	Do the description / Objectives of the PC-I specify link / alignment with provincial strategies and sectoral policies?	NO		
Use of Gender Disaggregated Data				
1	Was gender disaggregated data used to determine rationale / need of the project for select beneficiaries?	NO		
Social Impact				
1	Do project objectives/justification include focus on marginalised groups (women, PWDs, minorities, transgender, poor etc.)?	NO		
1a	Have marginalised groups (Women, PWDs, Minorities, Transgender Persons, Poor etc.) been included in project objectives / justification and / or as beneficiaries of the project?	NO		
2	Does the PC-1 include specific provisions for capacity building / training of marginalised group (if applicable)?	NO		
Results Based Monitoring				
1a	Does the PC-I include a Results Based Monitoring Framework (RBMF)/Logical Framework?	NO		
2	Were SDG indicators used for determining targets included in the PC-I?	NO		
Inclusion/Participation				

1	Did the Stakeholder consultation(s) held during ADP Formulation and / or PC-I development include experts and representatives of marginalised groups and CSOs?	NO		
Monitoring & Evaluation				
1	Does the project provide a role to communities in project monitoring and/or implementation (if relevant)?	NO		
2a	Does the project include formation of a Steering Committee and/or Project Implementation Committees?	NO		
2b	Is there a provision to ensure representation of women in these committees?	NO		

AREA STATEMENT

The project is being implemented at Lahore Zoo over an area of nearly 25 acres, situated at 90 Shahrae Quaid e Azam, Lahore.

CONSERVANCY & WORKS

(Rs. in million)

Sr. No.	Description	2023-24	2024-25	Total
1.	Bear House	41.424	0.000	41.424
2.	Giraffe House	22.312	0.000	22.312
3.	Hippo	6.789	0.000	6.789
4.	Monkey house	27.068	0.000	27.068
5.	Reptile house	58.213	29.884	88.097
6.	Hospital Building	15.216	0.000	15.216
7.	Sick Cages	5.899	0.000	5.899
8.	Kangaroo House	7.254	0.000	7.254
9.	Rhino	12.848	0.000	12.848
10.	Ostrich Building	4.908	0.000	4.908
11.	Ungulates House	19.410	16.550	35.960
12.	Back Gate	7.356	0.000	7.356
13.	Lion House	77.865	28.365	106.230
14.	Tiger House	13.186	0.000	13.186
15.	Entrance Gate (Mall Road)	5.304	0.000	5.304
16.	Sewerage System	27.491	26.800	54.291
17.	Brid Aviary	12.098	3.435	15.533
18.	Hologram Zoo	41.700	23.700	65.400
19.	Main Gate	29.800	0.000	29.800
20.	Food Court	13.175	0.000	13.175
21.	Amphitheatre	12.740	0.000	12.740
22.	Parking	150.058	0.158	150.216
23.	Road Path	11.840	38.418	50.258
24.	Toilet Block	5.803	0.305	6.108
25.	Boundary Wall	0.000	73.234	73.234
26.	Electrification HT & LT Panels	0.000	36.112	36.112
Total:		629.757	276.961	906.718
Add 2% Consultancy Charges:		0.000	12.711	12.711
WASA Charges:		0.498	19.502	20.000
Add 2% Contingency:		12.595	5.540	18.135
Total:		642.850	314.714	957.564
PST 5%:		32.141	15.737	47.878
Grand Total:		674.991	330.451	1005.442

MACHINERY, STORE AND EQUIPMENTS**(Rs. in million)**

Sr. No.	Items of Work	Qty	Rate / Unit	2023-24	2024-25	Total
1	Installation of CCTV Camera, (Static, PTZ with wiring)	L.S	20.000	-	20.000	20.000
2	Procurement of Wireless set	7	0.102	0.718	-	0.718
3	Procurement of Walk-Through Gate	8	0.735	5.880	-	5.880
4	Procurement of Dustbins	60 <u>60</u> 120	0.018 0.025	-	2.580	2.580
5	Procurement of Sound system (public address system)	1	2.500	-	2.500	2.500
6	Transportation cages of animals	8	0.200	-	1.600	1.600
7	Purchase of Central Ventilation System (Air & heating)	8	0.400	-	3.200	3.200
8	Procurement of mist fan (24inch)	15	0.034	0.514	0	0.514
9	Procurement of bracket fan (18 inch)	10	0.016	0.160	0	0.160
10	Procurement of Air Conditioner (1.5 ton heat & cool, Haier or equivalent)	4 <u>6</u> 10	0.247 0.250	0.988	1.500	2.488
11	Procurement of Cabinet AirConditioner (4 ton, heat & cool, Gree, Haier or equivalent)	2 <u>1</u> 3	0.987 1.000	1.974	1.000	2.974
12	Procurement of AC Chillers (8ton, Ascon or equivalent)	2	2.350	-	4.700	4.700
13	Purchase of Vehicle 1480 CC	1	4.599	4.599	-	4.599

Sr. No.	Items of Work	Qty	Rate / Unit	2023-24	2024-25	Total
14	Purchase of Motorcycle 125CC	6	0.235	1.409	-	1.409
15	Purchase of Desktop Computer, 12 th GEN, i-3 or higher, 4 gb RAM, 1 TB hard drive, with LCD screen and accessories.	3	0.295	0.884	-	0.884
16	Purchase of Electric Water Chiller (300 litre)	2	0.600	-	1.200	1.200
17	Furniture	LS	15.000	1.662	13.338	15.000
18	LED Screens 72"	02	1.250	-	2.500	2.500
Total				18.788	54.118	72.906

COST OF ESTABLISHMENT

(Rs. in million)

Sr. #	Name of Post	Scale	No. of Post	2023-24	2024-25	Total
1	Project Director	PPS-10	1	-	0.300	0.300

COMMODITIES & SERVICES**(Rs. in Million)**

Sr No.	Items	2023-24	2024-25	Total
1.	Purchase of Zoo Exhibits	155.700	344.300	500.000
2.	Procurement of Sculpture (A13304 –Structure)	14.940	38.060	53.000
3.	Zoo APP, Website Development, SmartSolution Based Zoo Entry (hardware and software)	0.000	30.000	30.000
4.	POL Charges	0.951	2.049	3.000
5.	Turnkey Hologram Zoo Solution (incl.hardware, software and content)	160.000	40.000	200.000
6.	Publicity & Advertisement Charges	5.535	24.465	30.000
7.	Cost of Other Store	0.732	9.268	10.000
8.	Landscaping, Habitat Enrichment	1.650	38.350	40.000
9.	Uniform	2.027	5.973	8.000
10.	Consultancy	13.711	26.289	40.000
11.	Other Structure (A13370)	0.396	26.604	27.000
12.	Other (A03970)	1.941	13.059	15.000
Total:		357.583	598.417	956.000

SUMMARY OF COST

(Rs. in million)				
Sr. No.	Items	2023-24	2024-25	Total
1.	Conservancy & Works	674.991	330.451	1005.442
2.	Machinery, tools, Stores and Equipment	18.788	54.118	72.906
3.	Cost of Establishment	0.000	0.300	0.300
4.	Commodities & Services	357.583	598.417	956.000
Total:		1051.362	983.286	2034.648

RESULT-BASED MONITORING (RBM) INDICATORS

Sr. #	Input	Output	Outcome		Targeted Impact
			Baseline Indicator	Targets after Completion of Project	
1.	Construction of animal houses/ enclosures, addition of animals/birds, amusement and educational facility	Renovation and modernization of Lahore Zoo	Traditional housing/ enclosure designs with poor animal visibility.	After renovation of Lahore Zoo, better animal welfare standards will be maintained providing enhanced immersive experience, technology driven recreation and education to the visitors	International animal welfare standards. Imparting wildlife awareness through recreation. Enriched experience development. Digitization of ticketing system.

IMPLEMENTATION PLAN / WORK PLAN / ACTIVITY PLAN

CONSERVANCY & WORKS

(Rs. in million)

Sr. No.	Name of component	Total Cost	2023-2024	2024-2025
1	Bear House	41.424		
2	Giraffe House	22.312		
3	Hippo	6.789		
4	Monkey house	27.068		
5	Reptile house	88.097		
6	Hospital Building	15.216		
7	Sick Cages	5.899		
8	Kangaroo House	7.254		
9	Rhino	12.848		
10	Ostrich Building	4.908		
11	Ungulates House	35.960		
12	Back Gate	7.356		
13	Lion House	106.230		
14	Tiger House	13.186		
15	Entrance Gate (Mall Road)	5.304		
16	Sewerage System	54.291		
17	Brid Aviary	15.533		
18	Hologram Zoo	65.400		
19	Main Gate	29.800		
20	Food Court	13.175		
21	Amphitheatre	12.740		

Sr. No.	Name of component	Total Cost	2023-2024	2024-2025
22	Parking	150.216		
23	Road Path	50.258		
24	Toilet Block	6.108		
25	Boundary Wall	73.234		
26	Electrification HT & LT Panels	36.112		
27	Add 2% Consultancy Charges	12.711		
28	WASA Charges	20.000		
29	Add 2% Contingency	18.135		
30	PST 5%	47.878		

MACHINERY, STORE & EQUIPMENT

(Rs. in million)

Sr. #	Items	Total Cost	2023-24	2024-25
1.	Installation of CCTV Camera, (Static, PTZ with wiring)	20.000		
2.	Procurement of Wireless set	0.718		
3.	Procurement of Walk-Through Gate	5.880		
4.	Procurement of Dustbins	2.580		
5.	Procurement of Sound system (public address system)	2.500		
6.	Transportation cages of animals	1.600		
7.	Purchase of Central Ventilation System (Air & heating)	3.200		
8.	Procurement of mist fan (24inch)	0.514		
9.	Procurement of bracket fan (18 inch)	0.160		
10.	Procurement of Air Conditioner (1.5 ton heat & cool, Haier or equivalent)	2.488		
11.	Procurement of Cabinet Air Conditioner (4 ton, heat & cool, Gree, Haier or equivalent)	2.974		
12.	Procurement of AC Chillers (8ton, Ascon or equivalent)	4.700		
13.	Purchase of Vehicle 1480 CC	4.599		
14.	Purchase of Motorcycle 125CC	1.409		
15.	Purchase of Desktop Computer, 12 th GEN, i-3 or higher, 4 gb RAM, 1 TB hard drive, with LCD screen and accessories.	0.884		
16.	Purchase of Electric Water Chiller (300 litre)	1.200		
17.	Furniture	15.000		
18.	LED Screens 72"	2.500		

COMMODITIES & SERVICES

(Rs. in million)

Sr. #	Name of Item	Total Cost	2023-24	2024-25
1	Purchase of Zoo Exhibits	500.000		
2	Procurement of Sculpture (A13304 –Structure)	53.000		
3	Zoo APP, Website Development, Smart Solution Based Zoo Entry (hardware and software)	30.000		
4	POL Charges	3.000		
5	Turnkey Hologram Zoo Solution (incl.hardware, software and content)	200.000		
6	Publicity & Advertisement Charges	30.000		
7	Cost of Other Store	10.000		
8	Landscaping, Habitat Enrichment	40.000		
9	Uniform	8.000		
10	Consultancy	40.000		
11	Other Structure (A13370)	27.000		
12	Other (A03970)	15.000		

PROCUREMENT PLAN 2023-2024

Sr. No.	Name of Procurement	Date of publication	Bid opening	Date of Contract Award	Completion Date
1.	Animals (National Bidding)	30-10-2023	15-11-2023	01-12-2023	15-03-2024
2.	Animal (International Bidding)	30-10-2023	30-11-2023	01-12-2023	30-06-2025
3.	Purchase of Birds	15-01-2024	15-03-2024	15-04-2024	30-06-2024
4.	Purchase of Reptiles	01-02-2024	20-02-2024	15-03-2024	30-06-2024
5.	Procurement of Wireless set	01-01-2024	20-01-2024	01-02-2024	30-03-2024
6.	Procurement of WalkThrough Gate	01-01-2024	20-01-2024	01-02-2024	30-03-2024
7.	Procurement of mist fan (24inch)	01-01-2024	20-01-2024	15-02-2024	15-06-2024
8.	Procurement of bracket fan(18 inch)	01-01-2024	20-01-2024	15-02-2024	15-06-2024
9.	Procurement of Air Conditioner (1.5 ton , heat & cool, haier or equivalent)	15-04-2024	20-05-2024	15-06-2024	15-08-2024
10.	Procurement of Cabinet Air Conditioner (4 ton, heat & cool, Gree, Haier or equivalent)	15-04-2024	20-05-2024	15-06-2024	15-08-2024
11.	Purchase of Vehicle 1480 CC	15-04-2024	20-05-2024	15-06-2024	15-08-2024
12.	Purchase of Motorcycle 125CC	15-04-2024	20-05-2024	15-06-2024	15-08-2024
13.	Purchase of Desktop Computer, 12 TH GEN, i-3 orhigher, 4 gb RAM, 1 TB	15-03-2024	05-04-2024	15-04-2024	30-06-2024
14.	Furniture	26-12-2023	09-01-2024	19-01-2024	30-01-2024
15.	Turnkey Hologram Zoo Solution (incl. hardware, software and content)	15-11-2023	15-12-2023	05-01-2024	30-12-2024
16.	E-Ticketing system	15-11-2023	15-12-2023	05-01-2024	30-12-2024
17.	Installation of CCTV Camera	15-04-2024	05-05-2024	15-06-2024	30-01-2025
18.	Procurement of Dustbins	01-05-2024	20-06-2024	01-07-2024	30-10-2024
19.	Procurement of Sound system	01-05-2024	20-06-2024	01-07-2024	30-10-2024
20.	Procurement of AC Chillers	15-04-2024	20-05-2024	15-06-2024	15-08-2024

PROCUREMENT PLAN 2024-2025

Sr. No.	Name of Procurement	Tentative date of publication	Tentative Bid opening	Tentative date of Contract Award	Tentative Completion
1.	Furniture	15-12-2024	02-01-2025	15-01-2025	15-03-2025
2.	Purchase of Air conditioner	15-12-2024	01-01-2025	15-01-2025	15-03-2025
3.	Purchase of LED Screens 72”	01-01-2025	15-01-2025	30-01-2025	15-03-2025
5.	Purchase of Dustbin	15-01-2025	30-01-2025	15-02-2025	30-03-2025
7.	Procurement of animals	15-01-2025	30-01-2025	15-02-2025	30-03-2025
8.	Transportation cages of animals	01-01-2025	20-01-2025	15-02-2025	30-03-2025
9.	Purchase of Central Ventilation System (Air & heating)	01-02-2025	20-02-2025	01-03-2025	30-05-2025
10.	Purchase of Electric Water Chiller (300 litre)	15-01-2025	05-02-2025	15-02-2024	30-03-2025

PROJECT STEERING COMMITTEE

1	Secretary, Government of Punjab, Forestry, Wildlife & Fisheries Department	Chairman
2	Secretary Livestock and Diary Development	Member
3	Member Environment, Planning and Development Board, Punjab	Member
4	Additional Secretary (Technical) Forestry, Wildlife & Fisheries Department	Member
5	Director General Wildlife & Parks Punjab	Member
6	Project Director	Member / Secretary
7	03 members from private sector having expertise in zoo management and best practices to be notified by the Administrative Department	Member

Term of References

- i. To oversee the implementation of the Project towards achieving desired objectives.
- ii. Provide policy guidance for issues identified during implementation phase.
- iii. Review the quarterly physical and financial progress.
- iv. Review the periodic monitoring and evaluation reports.
- v. Approve financial and physical readjustments during implementation process.
- vi. Approve change in number or variety of species to be procured as per its availability and while considering the suitability of housing facility.

ANIMAL PROCUREMENT COMMITTEE

1	Project Director	Chairman
2	Director Lahore Zoo	Member
4	Director, Wildlife and Parks Department.	Member
5	Director Livestock and Dairy Development	Member
6	Director Budget & Accounts (FWF), Punjab, Lahore	Member

Term of References

The committee shall be responsible for purchase of all listed animals / birds as per provisions of PPRA Rules. The procuring agency may revise list, species and number / ratio of animals and birds to be procured. Procuring agency shall approve bidding documents and technical criteria of animals and birds to be procured.

GRIEVANCE REDRESSAL COMMITTEE FOR PURCHASE OF ANIMALS / BIRDS

1	Additional Secretary, PM&E, FWF Department	Chairman
2	Chief Conservator Forest, Central Zone	Member
3	One member to be notified by the Planning and Development Board	Member
4	One member to be notified by the Punjab Public Procurement Authority	Member
5	One member to be notified by the Finance Department	Member

Term of References

The committee shall act as per provision of PPRA Rules to review and redress grievances reported to the committee regarding the procurement process of animals /birds.

TENTATIVE LIST FOR ACQUISITION OF ANIMALS / BIRDS

Sr. No.	Name of the Animal/Species	Quantity
1.	Black Mangabey Monkey (<i>Lophocebus aterrimus</i>)	2 Trio (02 Male 04 Female)
2.	Capuchin Monkey (<i>Cebinae</i>)	2 Trio (02 Male 04 Female)
3.	Debrazas Monkey (<i>Cercopithecus neglectus</i>)	2 Trio (02 Male 04 Female)
4.	Patas Monkey (<i>Erythrocebus patas</i>)	2 Trio (02 Male 04 Female)
5.	Mona Monkey (<i>Cercopithecus mona</i>)	2 Trio (02 Male 04 Female)
6.	Spider Monkey (<i>Simia Paniscus</i>)	2 Trio (02 Male 04 Female)
7.	Sika Deer (<i>Cervus nippon</i>)	1 Pair (01 Male 01 Female)
8.	Arabian Oryx (<i>Oryx leucoryx</i>)	1 Trio (01 Male 02 Female)
9.	Addax (<i>Addax nasomaculatus</i>)	1 Trio (01 Male 02 Female)
10.	Sindh Ibex (<i>Capra aegagrus blythi</i>)	2 Trio (02 Male 04 Female)
11.	Scimitar Oryx (<i>Oryx dammah</i>)	1 Trio (01 Male 02 Female)
12.	Smooth Coated Otter (<i>Lutrogale perspicillata</i>)	1 Trio (01 Male 02 Female)
13.	Nyala (<i>Tragelaphus angasii</i>)	1 Trio (01 Male 02 Female)
14.	Gemsbok (<i>Oryx gazella</i>)	1 Trio (01 Male 02 Female)
15.	Sable (<i>Martes zibellina</i>)	1 Trio (01 Male 02 Female)
16.	Eland (<i>Taurotragus oryx</i>)	1 Trio (01 Male 02 Female)
17.	Blesbok (<i>Damaliscus pygargus phillipsi</i>)	1 Trio (01 Male 02 Female)
18.	Spring Bok (<i>Antidorcas marsupialis</i>)	1 Trio (01 Male 02 Female)
19.	Chiltan Markhor (<i>Capra falconeri</i>)	1 Pair (01 Male 01 Female)
20.	Rhinoceros (<i>Ceratotherium simum</i>)	01 (Female)
21.	Hippopotamus (<i>Hippopotamus amphibius</i>)	01 (Male)
22.	Giraffe (<i>Giraffa camelopardalis</i>)	1 Trio (01 Male 02 Female)
23.	African Penguin (<i>Spheniscus demersus</i>)	02 Pair (02 Male 02 Female)
24.	Black Jaguar (<i>Panthera onca</i>)	01 (Male)
25.	Rhea (<i>Rhea americana</i>)	1 Pair (01 Male 01 Female)
26.	Puma (<i>Felis concolor</i>)	1 Pair (01 Male 01 Female)
BIRDS		
27.	Nicobar Pigeon (<i>Caloenas nicobarica</i>)	14 Pair (14 Male 14 Female)
28.	Crested Dove (<i>Ocyphaps lophotes</i>)	30 Pair (30 Male 30 Female)
29.	Bronzewing Dove (<i>Phaps chalcoptera</i>)	04 Pair (04 Male 04 Female)
30.	Spotted Neck Dove (<i>Spilopelia chinensis</i>)	10 Pair (10 Male 10 Female)
31.	Wood Dove (<i>Turtur abyssinicus</i>)	15 Pair (15 Male 15 Female)
32.	Frillback Pigeon (<i>Columba livia Domestica</i>)	05 Pair (05 Male 05 Female)
33.	Victorian Crowned Pigeon (<i>Goura Victoria</i>)	03 Pair (03 Male 03 Female)
34.	Pied Diamond Dove (<i>Geopelia cuneata</i>)	10 Pair (10 Male 10 Female)
35.	Optical Dove	04 Pair (04 Male 04 Female)
36.	Lady Amherst Pheasant (<i>Chrysolophus Amherstiae</i>)	1 Trio (01 Male 02 Female)
37.	Reeves's Pheasant (<i>Syrnaticus reevesii</i>)	1 Trio (01 Male 02 Female)
38.	Swinhoe's Pheasant (<i>Lophura swinhoii</i>)	1 Trio (01 Male 02 Female)
39.	Khalij Pheasant (<i>Lophura leucomelanos</i>)	1 Trio (01 Male 02 Female)
40.	Elliot Pheasant (<i>Syrnaticus ellioti</i>)	1 Trio (01 Male 02 Female)

Annexure13 - Tentative List for Acquisition of Animals

41.	Pure Green Java Peacock (<i>Pavo muticus</i>)	2 Pair (02 Male 02 Female)
42.	Scarlet Macaw (<i>Ara macao</i>)	01 Pair (01 Male 01 Female)
43.	Blue & Gold Macaw (<i>Ara ararauna</i>)	01 Pair (01 Male 01 Female)
44.	Green Winged Macaw(<i>Ara chloroptera</i>)	01 Pair (01 Male 01 Female)
45.	Mini Macaw (<i>Primolius auricollis</i>)	1 Trio (01 Male 02 Female)
46.	Sun Conure (<i>Aratinga solstitialis</i>)	10 Pair (10 Male 10 Female)
47.	Pineapple Conure (<i>Pyrrhura molinae</i>)	05 Pair (05 Male 05 Female)
48.	Patagonian Conure (<i>Cyanoliseus patagonus</i>)	01 Pair (01 Male 01 Female)
49.	Monk Parrot (Blue/Green/Yellow) (<i>Myiopsitta monachus</i>)	10 Pair (10 Male 10 Female)
50.	Vesmiru Eclectus Parrot (<i>Eclectus roratus</i>)	04 Pair (04 Male 04 Female)
51.	Major Mitchell Cockatoo (<i>Lophochroa leadbeateri</i>)	01 Pair (01 Male 01 Female)
52.	Palm Cockatoo (<i>Probosciger aterrimus</i>)	01 Pair (01 Male 01 Female)
53.	Moluccan Cockatoo (<i>Cacatua moluccensis</i>)	01 Pair (01 Male 01 Female)
54.	Galah Cockatoo (<i>Eolophus roseicapilla</i>)	02 Pair (02 Male 02 Female)
55.	Bare-Faced Curassow (<i>Crax fasciolata</i>)	01 Trio (01 Male 02 Female)
56.	Helmeted Curassow (<i>Pauxi pauxi</i>)	02 Pair (02 Male 02 Female)
57.	Vulturine Guinea Fowl (<i>Acryllium vulturinum</i>)	01 Pair (01 Male 01 Female)
58.	Crowned Crane (<i>Balearica regulorum</i>)	02 Pair (02 Male 02 Female)
59.	Finch Java White, Grey (<i>Padda oryzivora</i>)	20 Pair (20 Male 20 Female)
60.	Strawberry Finch (<i>Amandava amandava</i>)	20 Pair (20 Male 20 Female)
61.	Gouldian Finch Mixed Colour (<i>Chloebeia gouldiae</i>)	30 Pair (30 Male 30 Female)
62.	Canary Mix Colour	10 Pair (10 Male 10 Female)
REPTILES		
63.	Iguana Green Lizard (<i>Iguana iguana</i>)	03 Pair (03 Male 03 Female)
64.	Iguana Blue Lizard (<i>Cyclura lewisi</i>)	01 Pair (01 Male 01 Female)
65.	Iguana Yellow Lizard (<i>Cyclura lewisi</i>)	01 Pair (01 Male 01 Female)
66.	Iguana Red Lizard (<i>Iguana iguana</i>)	01 Pair (01 Male 01 Female)
67.	Bearded Dragon Lizard (Red, White, Yellow, Orange) (<i>Genus: Pogona</i>)	02 Pair (02 Male 02 Female)
68.	Chameleon (Chamaeleonidae)	02 Pair (02 Male 02 Female)
69.	Reticulated Python (Purple Phase) (<i>Malayopython reticulatus</i>)	01 Pair (01 Male 01 Female)
70.	Reticulated Python (Tiger Retic) (<i>Malayopython reticulatus</i>)	01 Pair (01 Male 01 Female)
71.	Burmese Python (<i>Python bivittatus</i>)	02 Pair (02 Male 02 Female)
72.	Ball Python (Pied) (<i>Python regius</i>)	01 Pair (01 Male 01 Female)
73.	Ball Python (Banana) (<i>Python regius</i>)	01 Pair (01 Male 01 Female)
74.	Ball Python (Pastel) (<i>Python regius</i>)	01 Pair (01 Male 01 Female)
75.	Ball Python (Pinto) (<i>Python regius</i>)	01 Pair (01 Male 01 Female)
76.	Leopard Geckos (<i>Eublipharis macularius</i>)	25 Nos.
77.	Black Emperor Scorpions (<i>Pandinus imperator</i>)	50 Nos.
78.	Tarantula Spider (<i>Theraphosidae</i>)	06 Nos.
79.	Sri Lankan star Tortoise (small) (<i>Geochelons elegans</i>)	02 Pair (small)
80.	Sri Lankan star Tortoise (adult) (<i>Geochelons elegans</i>)	01 Trio (Adult)
81.	Leopard Tortoise (<i>Stigmochelys pardalis</i>)	02 Pair (02 Male 02 Female)
82.	Iguana albino (Adult)	1 pair (01 male, 01 female)
83.	Rhino Iguana (adult)	1 pair (01 male, 01 female)
84.	Sail fin dragon (adult)	1 pair (01 male, 01 female)
85.	Bearded dragon brown (adult)	1 pair (01 male, 01 female)
86.	Skink lizard blue tailed (sub-adult)	1 pair (01 male, 01 female)
87.	Skink lizard red tailed (sub-adult)	1 pair (01 male, 01 female)

Annexure13 - Tentative List for Acquisition of Animals

88.	Blue tongue skink lizard (sub-adult)	1 pair (01 male, 01 female)
89.	Hypo Burmese python (Atleast 2.5 ft)	1 pair (01 male, 01 female)
90.	Albino Burmese python (Atleast 2.5 ft)	1 pair (01 male, 01 female)
91.	Ultra ivory rectic python (Atleast 2.5 ft)	1 pair (01 male, 01 female)
92.	Blue Spotted tree monitor lizard (sub-adult)	1 pair (01 male, 01 female)
93.	Tegu Lizard (blue/albino) Adult	2 pair (02 male, 02 female)
94.	Snake head turtle adult	3 pair (03 male, 03 female)
95.	Rhino Iguana (<i>Cyclura cornuta</i>)	1 pair
96.	Panther tree Iguana (<i>Liolaemus pantherinus</i>)	5 pair
97.	Sailfin dragon lizard (<i>Hydrosaurus pustulatus</i>)	1 pair
98.	Blue Spotted tree monitor (<i>Varanus macraei</i>)	1 pair
99.	Tegu Lizard (blue/albino) (<i>Salvator merianae</i>)	2 pair
100.	Snake head Turtle (<i>Chelodina</i>)	3 pair
101.	Pacman frog (<i>Genus Ceratopyrs</i>)	4 pair
102.	Bearded dragon brown (<i>Genus Pogona</i>)	1 pair
103.	Blue tongue skink (Genus Tiliqua)	1 pair
104.	Skink lizard blue tailed (<i>Plestiodon fasciatus</i>)	1 pair
105.	Skink lizard red tailed (<i>Plestiodon gilberti</i>)	1 pair
106.	Hypo Burmese python (<i>Python bivittatus</i>)	1 pair
107.	Albino Burmese python (<i>Python bivittatus</i>)	1 pair
108.	Ultra ivory rectic python (<i>Malayopython reticulatus</i>)	1 pair
109.	Tortoise (adult)	6 pair (06 males, 06 females)
110.	Ivory Reticulated Python (12 to 16 feet, Adult)	01 No
111.	White Phase Reticulated Python, (12 to 16 feet, Adult)	01 No
112.	Purple Phase Reticulated Python (12 to 16 feet, Adult)	01 No.
113.	Albino Burmese (12 to 16 feet, Adult)	01 No
114.	Panther Mix colour Chameleon (Adult)	05 Pair

*The species and number of animal / bird to be procured may be amended as per housing / zoo requirement.

Risk Mitigation Plan

Sr. No.	Risks	Causes / Factors	Effects	Risk Mitigation Plan	Institution/s Responsible to take corrective measures to mitigate risks	Nature of Risk
1.	Lack of funds for timely execution of the project.	No funds released by provincial Government.	Delay results in increase in project cost.	Government may prioritize funding for the project considering its impact / importance.	P&D Department, Finance Department	High
2.	Insufficient funding for the execution of the project.	Short funding of project.	Delay results in increase in project cost.	Government may prioritize funding for the project considering its impact / importance.	P&D Department, Finance Department	
3.	Non-timely release of funds for the execution of the project.	Delay in release of funds due to approval / procedural matters.	Delay results in increase in project cost.	Timely initiation of approval procedure to ensure early processing of case for release of funds.	Wildlife & Parks Department	
4.	Delay / failure to undertake procurement of animals / birds	Uncertain economic situation may result in delay in delivery of hardware. Uncertain economic situation may result in price escalation of hardware. Ban on import of animals by High Court / MoCC prolongs.	Hindrance in implementation of project.	Reference may timely be initiated to MoCC for issuance of import permits.	Wildlife & Parks Department	

Tentative List of Furniture and Fixture

Sr. No	Item name	No.
1	Cafeteria	
i	Rectangular table with 6 seats	30 set
ii	Square table with 4 seats	40
2	Office Furniture	
i	Committee Room	30 seat with center table
ii	Officer's office	6 set (1 table, 3 chairs)
iii	Office staff (partitioning and furniture)	LS
v	Coffee table/sofa set	6 set
vi	Vet Complex (partitioning and furniture)	LS

RECRUITMENT CRITERIA AND JOB DESCRIPTION OF PROJECT DIRECTOR

Duties and Responsibilities:

i. The Project Director shall ensure proper management of project, periodic and timely monitoring & evaluation for accomplishment of various components and preparation of progress reports for onward submission to relevant quarter. Following progress reports shall be prepared:

- Monthly Progress Reports
- Half Yearly Monitoring Reports
- Annual Evaluation Reports
- Project Termination Report
- Post project completion impact assessment report

ii. Lead the project implementation under the overall supervision of Director General, Wildlife & Parks Department & act as DDO for relevant components of the project.

iii. Ensure implementation, monitoring of project interventions through proper coordination with a team of Regional Implementation Agencies.

iv. Prepare, compile monthly ADP Progress Reports and participate in ADP Progress Review Meetings.

v. Additional Charge of Project Director (if any) assigned to run the project during implementation phase shall stand regularized.

vi. Oversee the implementation of the project to ensure smooth implementation of the project interventions.

Required Qualification and Experience:

i. M. Phil in Zoology / Wildlife Management / Project Management or Higher Qualification in relevant field

ii. 10 years of experience of procurement / administration / project management.

iii. If none available, the Project Director may be posted from among the senior Deputy Directors Wildlife in Punjab Wildlife & Parks Department.

of Lahore Zoo

FEASIBILITY STUDY REPORT

SEPTEMBER-2023



PUNJAB WILDLIFE DEPARTMENT

REVAMPING OF LAHORE ZOO



ENGINEERING CONSULTANCY SERVICES PUNJAB (PVT) LTD.

A Premier Engineering Consultancy Firm Owned by Government of the Punjab



Punjab Wildlife Department
Sardar Rd, Islamabad, Lahore
Tel: (042) 99212438



33-A, E/1, Main Boulevard, Gulberg - III, Lahore.
Tel: (042) 35717681-44, 0333-4342777
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www.ecsp.com.pk

EXECUTIVE SUMMARY

Lahore Zoo was established in 1872 with the objectives of public recreation and education and has completed 150 years in 2022. Since 1982, it is working under the administrative control of Punjab Wildlife & Parks Department. The Department is striving hard for achieving the objectives of its establishment through implementation of various development project. After the execution of development scheme “Master Planning, Development and improvement of Lahore Zoo” during 2005-2012, no further improvement plan was added for further up-gradation of this important National Heritage.

The interim Chief Minister has shown keen interest in the Development and upgradation of Lahore Zoo and has asked Punjab Wildlife & Parks Department in a meeting held on 01 august 2023 to plan revamping of Zoo on modern lines with emphasis on the upgradation, enriching habitats of existing wildlife exhibits with addition of new and rare wildlife species and provision of maximum civic amenities to visitors.

- a. To prepare comprehensive plan for improving overall condition of Lahore Zoo*
- b. To propose animal species, which should be added in the Zoo to enhance its recreational and educative value.*

This report comprising of deliverable No.1 “Feasibility Study of Procurement Strategy” covers feasibility study for (i) Animals to be supplied from within Pakistan, (ii) Animals to be supplied from outside Pakistan, (iii) Consultancy in preparing RFP for the supplier of animals, and (iv) Consultancy in Pre-shipment and post shipment inspection of animals.

This report has been prepared to cover the aforementioned scope in following order:

- ❖ Procurement strategy for procurement of animals for Lahore Zoo*
- ❖ Procurement strategy for procurement of consultancy services of international consultant for procurement of animals*
- ❖ Conclusion [this component covers overall summary of the comprehensive feasibility study]*
- ❖ Recommendations [this component covers the recommendations; the consultant may suggest after undertaking comprehensive feasibility study of procurement strategy]*

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1 INTRODUCTION:

Punjab Wildlife Department is entrusted with the management of Zoological Gardens and wildlife parks across Punjab as per provisions of Punjab Government Rules of business 2011 and Punjab Zoos and Safari Rules 2012.

Lahore Zoo is one of the oldest zoos in the world. The Lahore Zoo occupies a prime location on the city's Mall Road, next to Lawrence Garden, and covers a total area of 25 acres. It became a operation in 1872. Before being transferred to the Punjab Wildlife Department in 1982, it was still under supervision of a number of organisations and departments, including the Lahore Municipal Corporation, the District Administration, and the Livestock and Dairy Development Department.

It is believed to have begun as a small enterprise in the 1860s and was officially constituted as a zoo with the addition of an aviary donated by Lala Mela Ram in 1872. Over time, it expanded and its animal collection grew as well; currently, the Zoo is home to around 1000 animals from 116 different species. From 1872 until 1921, Lahore Municipal Committee continued to be in charge of it. After that, until 1962, the Deputy Commissioner and Commissioner of Lahore were in charge of it. After that, the Livestock and Dairy Development Department took over control of it, followed by the West Pakistan Agriculture Department. The Punjab Wildlife Act, 2007's Section 18-A designated Lahore Zoo as a zoo. The Wildlife & Parks Department was given control of the zoo's management in 1982. The Lahore Zoo Management Committee was established in 2012 in accordance with Rule 3 of the Punjab Zoos & Safari Parks Rules. It remained a minor entity with practically little development occurring from 1872 to 1982. Since it was transferred to the Wildlife Department in 1982, there have been a lot of changes made to the administration, housing of the displays, building layouts, and landscape patterns. With the help of this development, the organization became self-sufficient, covering all of its expenses out of its own earnings. People from all walks of life may easily visit it because it is situated in the centre of the city.

On July 25, 2005, a master planning, development, and improvement project with an 18-month timeframe was approved. It was carried out by the "Zoo Maintenance Committee" using funding provided by the Punjab Government's Planning and Development Department. The project, which cost about 202.830 million Pakistani rupees, was designed to upgrade and expand facilities.

Ex-situ conservation of species and actively supporting Pakistan's international responsibility under the Convention on Biological Diversity are the zoo's declared goals, in addition to offering top-notch facilities for education and recreation.

The project titled "Re-Vamping of Lahore Zoo" on Mall Road, Lahore represents a comprehensive study aimed at creating an internationally recognized facility. This facility is designed to meet the diverse needs of recreation, education, research, and the preservation of wildlife species within Lahore district. This endeavour is in accordance with the Punjab Wildlife (Protection, Preservation, Conservation, and Management) Act of 1974, which empowers the Wildlife Department to re-introduce and supplement wildlife species that are endangered within their natural habitats.

This feasibility report is first step of focusing Procurement Strategies that will pave way for tasks needed to successfully complete the mega project. The focus of the evaluation report is on all factors that have a bearing on the preparation of PC-I of the scheme keeping in view the specific intentions for creating this facility as well as to use the existing facilities available at site in the most productive way to avoid the wastages.

2 BACKGROUND:

Wildlife has always been an influential factor in rangeland health. It refers to all non-domesticated plants, animals, and other organisms. Domesticated organisms are those that have adapted to survival with the help of (or under the control of) humans, after many generations. Domesticating wild plant and animal species for human benefit has occurred many times all over the planet, and has had a major impact on the environment, both positive and negative. Wildlife can be found in all ecosystems, deserts, rainforests, plains, and other areas—including the most built-up urban sites—all have distinct forms of wildlife. While, the term usually refers to animals that are untouched by human factors. Wildlife preservation depends on type, scale, purpose, and location. It includes key habitat areas in various ecosystems, environmental resource areas, flora and fauna, habitat for threatened/endangered species, breeding, shelter, migration corridors, rare landscape elements, areas of cultural significance, water-related ecosystems, opportunities for education & research, and is beneficial to Bio-diversity etc.

Wildlife plays a crucial role in maintaining the health of rangelands and ecosystems. It encompasses all non-domesticated plants, animals, and other organisms. Domesticated organisms, on the other hand, have adapted to coexist with or be controlled by humans over

generations. The process of domesticating wild plant and animal species for human benefit has occurred worldwide and has had significant environmental impacts, both positive and negative.

Wildlife can be found across diverse ecosystems, ranging from deserts and rainforests to plains and even heavily urbanized areas. However, the term "wildlife" typically refers to animals that exist independently of direct human influence.

Lahore Zoo represents ecology in the region of the central Punjab. The population of Punjab has increased; consequently, pressure has increased on Lahore more because of mass migration of rural population to the region.

Lahore Zoo was established in 1872 with the objectives of public recreation and education and has completed 150 years in 2022. Since 1982, it is working under the administrative Control of Punjab Wildlife & Parks Department. The Department is striving hard for achieving the objectives of its establishment through implementation of various development projects. A development scheme namely “Master Planning Development and Improvement of Lahore Zoo” during 2005-2012 and scheme named “Modernization of Lahore Zoo” during 2016 – 18 was implemented to improve existing infrastructure, enhance recreational facilities and provide education regarding importance of wildlife to the local people as well as public visiting the Lahore. Since the execution of the above said projects, no further improvement plan was added for further upgradation of this important National Heritage.

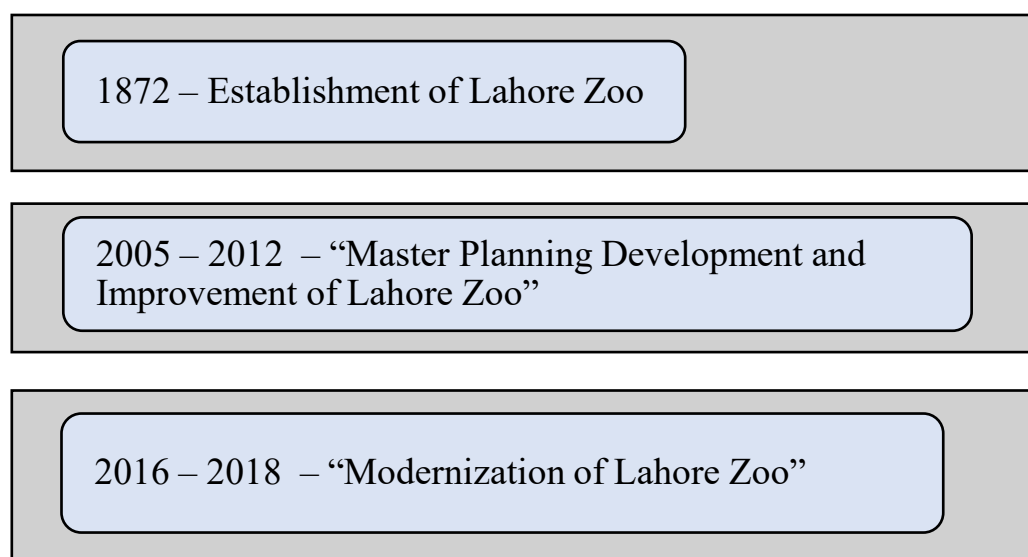


FIGURE 1: LAHORE ZOO TIMELINE

Timeline of Lahore Zoo development is shown in Figure 1. The Punjab Wildlife & Parks Department has implemented various schemes for the conservation of wildlife in the province of Punjab. Several projects are under implementation which envisage protection and conservation of wildlife in nature, propagation of wildlife in captivity, training of staff in wildlife management, research in different aspects of wildlife ecology and biology.

The interim Chief Minister has shown keen interest in the Development and upgradation of Lahore Zoo and has asked Punjab Wildlife & Parks Department in a meeting held on 01 august 2023 to plan revamping of Zoo on modern lines with emphasis on the upgradation, enriching habitats of existing wildlife exhibits with addition of new and rare wildlife species and provision of maximum civic amenities to visitors.

- c. To prepare comprehensive plan for improving overall condition of Lahore Zoo
- d. To propose animal species, which should be added in the Zoo to enhance its recreational and educative value.

3 PROJECT LOCATION

Lahore Zoo is one of the oldest zoos in the world. The Lahore Zoo occupies a prime location on the city's Mall, next to Lawrence Garden, and covers a total area of 25 acres.

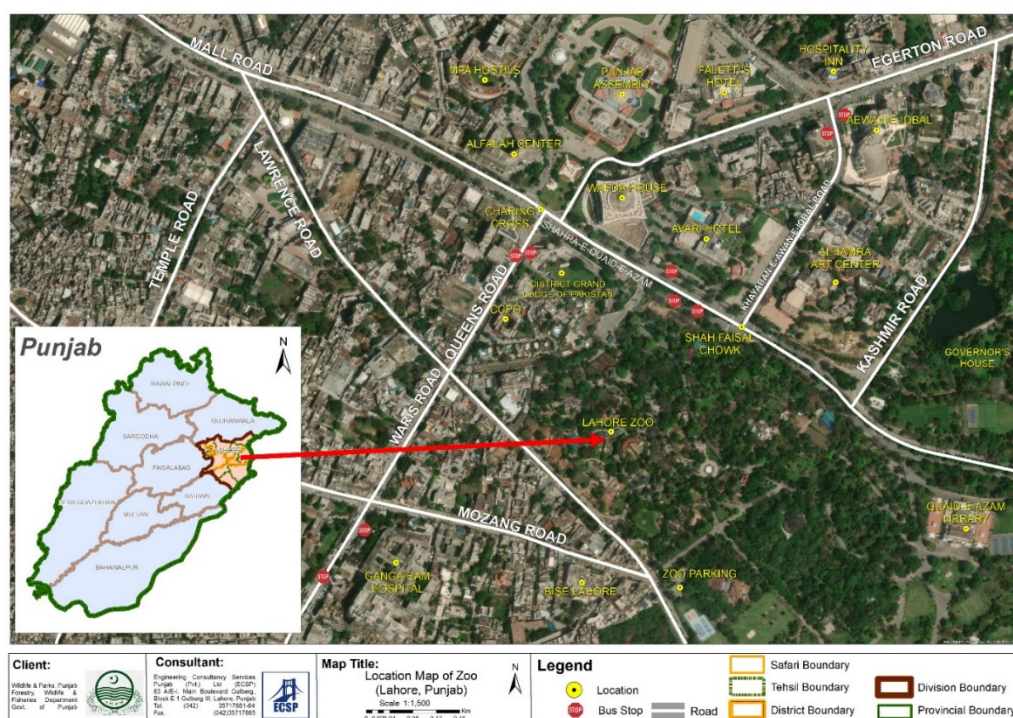


Figure 2: LOCATION MAP OF LAHORE ZOO

4 PROJECT DESCRIPTION:

Lahore Zoo is a prominent zoological and recreational facility situated in Lahore, Pakistan. Lahore Zoo is an ambitious and innovative project aimed at providing a unique wildlife experience to visitors while promoting conservation, education, and sustainable tourism. Located on the outskirts of Lahore, this Lahore Zoo aims to create a harmonious environment where animals can thrive in settings closely resembling their natural habitats.

The park features traditional zoo exhibits with a wide array of animals, including mammals, birds, reptiles, and more. Lahore Zoo places a strong emphasis on conservation and education. Informational signs, guided tours, and interactive exhibits are strategically placed throughout the park to educate visitors about various species, their habitats, and the importance of conservation efforts.

The management of Lahore Zoo continually works to enhance the facilities and experiences offered to visitors. This might include improvements to animal enclosures, the addition of new exhibits, and the incorporation of innovative technologies for education and conservation purposes.

5 DATA COLLECTION METHODS

Information has been collected through multiple means where findings are triangulated to assess the situations. Focus group discussions and interviews are done to obtain data. The focus groups included representatives from the wildlife department. In order to have a better understanding of the shortcomings of the current system, interviews with employees and staff were also undertaken. Local sanitary workers, sweepers, managers, and other staff members were included in this. Numerous telephone interviews were performed to gather information about the methods used to procure animals and birds. Online sources were also employed in order to compile the preceding information regarding the project's redesign.

DATA TOOLS & INSTRUMENTS

The data was collected through use of multiple tools. As a preliminary guide following data collection tools were designed and used for data collection:

- a) Visits to Project Site.
- b) Interviews, Focus Group Discussions and Q &A with stakeholders
- c) Review of official record.

d) Semi-Structured Interview Questionnaire

- e) A series of interviews and telephonic conversation with the procurement and breeding firms in Pakistan.**

6. PROCUREMENT STRATEGY FOR PROCUREMENT OF ANIMALS FOR LAHORE ZOO

The animals that are to be incorporated in the Lahore Zoo may be categorized in following two classifications:

- i. Animals to be supplied from within Pakistan
- ii. Animals to be supplied from outside Pakistan

a. Animals to be Supplied from within Pakistan

The list of the wildlife animals that has been shared by the Employer involve certain animals that are breed in Pakistan and availably locally. Supply of such animals is relatively straightforward and simple. Therefore, it may not be rational to engage supplier collectively for local as well as imported animals. Accordingly, separate procurement process may be conducted for the engagement of supplier for local animals. Multiple procurement may have already been conducted in Pakistan for supply of animals from the local market therefore achieving this task through separate procurement may prove less costly then combined procurement. This procurement may be accomplished through national competitive bidding with availability of multiple suppliers locally. **Annex 2** provides list of animals to be procured locally as well as their tentative prices as obtained from a multiple local firms and contacts. Consultant did analysis for the prices of animals as per market survey which includes online consultation for international animals and market survey from different suppliers and stakeholders for local animals.

Further the task of inspection at breeding site and at destination can be achieved through local expertise and therefore foreign expertise may not be required. A committee of local experts as well as officials of Wildlife Department may be constituted to inspect and approve locally procured animals. Details of standards will be put in detail in RFP of bidding documents.

b. Animals to be Supplied from Outside Pakistan

The major part of this project is supply of wildlife animals from outside Pakistan. The procurement strategy is crucial to ensure supply of such animals in timely manner. Such strategy must be consistent with completion of construction activity and availability of foreign expert to undertake pre-shipment and post-shipment inspection of the animals. Moreover, the procurement strategy for hiring of supplier nationally or internationally require careful consideration of (i) capacity of local market, (ii) foreign currency requirement and (iii) risks associated with local supplier

Annex 2 provides list of animals to be procured from abroad as well as their tentative prices as obtained from a multiple local firms and contacts.

Further the task of inspection at breeding site and at destination can be achieved through local expertise as well as foreign expertise may be required. A committee of local experts as well as officials of Wildlife Department and international expert (s) may be constituted to inspect and approve imported animals. Details of standards will be put in detail in RFP of bidding documents.

i. Capacity of Local Market

The local suppliers in Pakistan have the experience of supply of import of animals from outside Pakistan for mostly to private parties. Therefore, the qualification criteria may be devised for procurement of animals from outside Pakistan through National Competitive Bidding. However, in most recent time, no such procurement of animals for outside Pakistan has been conducted due to ban imposed by the Government of Pakistan. Hence, the desired competition in local market may not be achieved due to limited experience unless the qualification requirements may be relaxed to enable participation of local suppliers. However, the financial capacity of the supplier and history of procurement of goods of such cost may be the factors that may result in limited competition.

ii. Foreign Currency Requirement

Foreign currency availability is another parameter which may impact the procurement of animals from outside Pakistan. As foreign supplier may not be interested to be paid in Pakistani Rupee and may desire payment in foreign currency as a condition for participation in the

procurement process. Whereas, in case of local suppliers the probability of acceptance of payment in Pakistani Rupee by the local supplier is relatively higher.

iii. Risks Associated with Local Supplier

The local supplier carries more risk with respect to handling of procurement of such high cost and lack of skills to deal with the specific breed of the animals to be procured from outside Pakistan. Whereas such risks may be mild in case the foreign supplier are engaged who have dealt previously in procurement of such value and breed of animals. However, regarding the risk to manage disputes with international supplier involve higher risks of associated cost as well as lack of control is holding responsible. This aspect however may be covered by mandatory engaged of local supplier in collaboration with foreign supplier to ensure that supplier may be held responsible through its local partner if required.

Whereas in contrary, the risk of probable delay on part of the Employer to obtain any NOC or approvals may delay the procurement of animals from outside Pakistan. Under such scenario, the international supplier may generate claims or the entire contract may be suspended thus increasing the risk of unsuccessful completion of supply contract or incurring additional cost. However, such risk is less in case of local suppliers.

In consideration of the above factors, the International Competitive Bidding may offer better opportunity for supply of animals from outside Pakistan however the risks associated with International Supplier may impact the project cost or successful procurement of the animals under certain circumstances. Whereas, the engagement of local supplier through National Competitive Bidding may limit the competition, however, may provide flexibility to the Employer in contract terms and conditions thus reducing the risk of additional cost or unsuccessful procurement.

In view of the above, more viable option may be International Competitive Bidding by permitting local as well as international supplier to enhance the probable competition. However, success of such supply contract shall depend upon the timely performance of the reciprocal obligations of the Employer such as obtaining NOC/ Approval and release of payment etc.

7. PROCUREMENT STRATEGY FOR PROCUREMENT OF CONSULTANCY SERVICES OF INTERNATIONAL CONSULTANT FOR PROCUREMENT OF ANIMALS

The Consultancy Services that are required for the entire project may be categorized into following:

- (i) Preparing RFP for the supplier of animals and For Hiring of International Consultant (if required)
- (ii) Pre-shipment and post shipment inspection of animals
- (iii) Bid Evaluation Reports for supply of animals
- (iv) Contract Documents for supply of animals

a. Consultancy in Preparing RFP for the Supplier of Animals

The procurement of animal is critical part as far as the wildlife animal to be imported from outside Pakistan. However, the local expertise is qualified enough to draft specific requirement for (i) the eligibility and the qualification of the suppliers, (ii) animals to be procured and (iii) requirements for their safe and proper transportation to the destination.

Therefore, input of a specialized consultancy expertise of international firm may not be necessary to undertake procurement process for engagement of suppliers of imported wildlife animals.

b. Consultancy in Pre-shipment and Post Shipment Inspection of Animals

The scenario under which input of foreign expert are requisite is to undertake pre-shipment and post shipment inspection of the animals and their safe inclusion in the constructed infrastructure of Lahore Zoo. The proper pre-shipment and post shipment inspection of the animals cannot be achieved in the absence of such expert.

This expertise may be required once the supplier for imported animals has been engaged and the wildlife animal are ready to bring to the Lahore Zoo. Therefore, the expert input of international consultant for this task shall commence once the construction is completed and animals can be safely incorporated in the Lahore Zoo. However, limited number of such experts will be required so this assignment can be either accomplished through (i) individual experts or (ii) key personnel of consultancy firm to be engaged for the design build phase.

i. Individual experts

If the Employer decides to engage individual foreign expert to undertake the assignment, then separate procurement process shall be required to be conducted for hiring of such expert. This will require International competitive bidding explicitly for hiring of foreign individual expert that may result costly procedure in comparison with the benefit that such procurement may offer.

ii. Key personnel of consultancy firm to be engaged for the design build phase

The engagement of experts to undertake pre-shipment and post shipment inspections of animals can be achieved through provision of key personnel to be provided by the Consultancy Firm. Specific positions of such wildlife experts may be incorporated in the RFP document for the procurement of the consultancy firm wherein such consultancy firm shall be required to provide such expert personnel. However, the issue that may arise under this scenario may be that the design consultancy firm(s) may be reluctant to take such liabilities which generally are not in business scope of the consultants. However, if such situation arises then the Employer may opt for hiring of individual consultant to undertake pre and post shipment inspections.

8. RECOMMENDATIONS

In view of the requirement of the Employer, the procurement regulations and implementation of the Project, the following recommendations are proposed:

- (i) The procurement for the supply of animals from domestic market, attached (Annex 2) may be conducted separately from the procurement of supplier for animals from outside Pakistan, attached (Annex 2). The supplier for animals from local market may be through National Competitive Bidding whereas the procurement of animals from outside Pakistan may be conducted through International Competitive Bidding. The Expert for pre-shipment and post-shipment inspections may be hired as key personnel of the design review consultant.
- (ii) The aforementioned procurement strategy is recommended to maximize the probability of (i) successful procurement, (ii) reduction in liability of the Employer for the associated risk for complete Procurement Process of supply of animals (iii) reduce the overall Procurement cost, (iv) earliest engagement of the suppliers for

Animals, (v) smooth execution of the Procurement Process, (vi) minimize the foreign currency requirement, simplify the procurement plan., (vii) provide viable commercial terms to the Employer.

- (iii) Other procurement strategies carry their own pros and cons and the Employer may give due consideration to those possibilities as well to arrive at the model which best suits Employer's requirement.
- (iv) Successful achievement of the desired results of the aforementioned procurement strategy are dependent upon multiple unknown factors and therefore cannot precisely be ascertained.
- (v) For the procurement of animals (local & international), final decision would be taken by Project Steering Committee at any point in time.

ANNEX 1: FIELD VISITS – LAHORE ZOO

Date: September 1, 2023

INTRODUCTION:

The director of the Lahore Zoo (Mr Azeem Buttar) and Deputy Director (Ms Kiran), gave a detailed briefing on the major problems and improvements that are needed to be undertaken in order to improve visitor satisfaction, animal welfare, conservation efforts, educational programmes, sustainability, technology, safety, and security. The goal is to address the current issues and provide suggestions for creating a more appealing, educational, and environmentally conscious zoo.

VISITOR EXPERIENCE AND SATISFACTION:**Attraction Points:**

The zoo offers a variety of attractions including the Chimpanzee House, Reptile House, Boating, Walkthrough areas, Zebra Enclosure, Bird Aviary, and Lawns for Picnics, contributing to a diverse visitor experience.

Complaints:

- Entrance: The entrance area requires improvement to create a welcoming and organized first impression for visitors.
- Signage: Clear and well-placed signage is needed to guide visitors effectively throughout the zoo.
- Toilets: Upgrading and maintaining restroom facilities is essential for visitor comfort.

ANIMAL WELFARE AND CONSERVATION:**Concerns:**

- Water Pipelines: Address the issue of water pipeline leakages to ensure a constant supply for animals.
- Sewerage System: Implement a centralized sewerage system to manage waste effectively.
- Drainage System: Install a proper drainage system to prevent water accumulation in animal enclosures.
- Cage Floors: Ensure that cage floors are not slippery to provide a safe environment for animals.

EDUCATIONAL PROGRAMS AND INTERPRETATION:**Concerns:**

- Tour Guides: Train and deploy knowledgeable tour guides to provide insightful information to visitors.

- Education Officer and Staff: Appoint an education officer and supporting staff to educate visitors about ecosystems and conservation practices.

SUSTAINABILITY AND ENVIRONMENTAL PRACTICES:

Concerns:

- Solar Lighting: Integrate solar lighting systems to reduce energy consumption.
- Water Troughs: Install water troughs with autofill and protective walls to conserve water.
- Food Points: Cover and cement food points to prevent waste and maintain cleanliness.

TECHNOLOGY AND INNOVATION:

Concerns:

- Camera System: Install high-quality cameras inside and outside enclosures for monitoring and research purposes.
- Night-Vision Cameras: Implement night-vision cameras for 24/7 surveillance.
- Motion Sensors: Integrate motion sensors for enhanced security and animal monitoring.
- Remote Access and Cloud Backup: Enable remote access and cloud backup for data security and accessibility.
- Mobile App: Develop a mobile app to provide information, maps, and attraction details to visitors.
- Wall-mounted Displays: Install display screens to share information and educational content.
- Integration with e-Pay Punjab: Allow visitors to make payments through the e-Pay Punjab system.
- Access Control and Ticketing: Implement an automated access control and ticket issuance system.
- Vehicle Tracking: Provide real-time vehicle tracking for enhanced visitor management.
- Alert and Video Management: Establish an alert and video management system for emergencies.

SAFETY AND SECURITY:

Concerns:

- Visitor Safety Guide: Create a comprehensive safety guide for visitors to ensure their well-being.
- Emergency Coordination: Establish a coordinated approach with various departments across Punjab for emergencies.

CONCLUSION:

- (i) By addressing these concerns and implementing the recommended improvements, the zoo can significantly enhance visitor experience, animal welfare, conservation efforts, infrastructure, educational programs, sustainability practices, technology

integration, and safety and security measures. These enhancements will contribute to the zoo's reputation as an educational, entertaining, and environmentally conscious destination. However, For the procurement of animals (local & international), final decision would be taken by Project Steering Committee at any point in time.

ANNEX 2: LIST OF ANIMALS TO BE PROCURED AS PER CURRENT RATES

LOCAL PURCHASE			
Sr .	NAME OF ANIMALS	No. OF ANIMALS	AVERAGE
			Prices in Million
1	Smooth Coated Otter	01 trio	1.5
2	Sindh Ibex	02 trio	2.2
3	Chiltan Markhor	01 pair	3.2
4	Addax	01 trio	10
5	Nyala	01 trio	9
6	Gemsbok	01 trio	9
7	Sable	01 trio	11
8	Eland	01 trio	13
9	Bleskob	01 trio	9
10	Springbok	01 trio	10
11	Black Mangabey Monkey	01 trio	-
12	Capuchin Monkey	01 trio	-
13	De Brazza's Monkey	01 trio	-
14	Lemur	01 trio	35
15	Patas Monkey	01 trio	-
16	Mona Monkey	01 trio	-
17	Spider Monkey	01 trio	-
18	Racoon	01 trio	7
19	Caracal Cat	01 pair	6
20	Sika Deer	01 pair	4
21	Arabian Oryx	01 trio	10
22	Variety of Parakeet	LS	12
23	Variety of Pheasant	LS	18
24	Variety of Peafowl	LS	18
25	Variety of Lizards	LS	18
26	Variety of Snakes	LS	16
27	Variety of Chelonia	LS	14
28	Meerkats	10 Nos	12

INTERNATIONAL PURCHASE			
Sr.	NAME OF ANIMALS	No. OF ANIMALS	AVERAGE
			Prices in Million
1	Panda	01 pair	-
2	Rhinoceros	01 female	85
3	Hippopotamus	01 male	70
4	Giraffe	01 trio	100
5	African Penguin	02 pair	50
6	Black Jaguar	01 male	40
7	Chimpanzee	02 trio	-
8	Orangutan	01 trio	150
9	Rhea	01 pair	5
10	Scimitar Oryx	01 trio	12
11	Puma	01 pair	20

ANNEX 3: NEED ASSESSMENT REPORT FOR REVAMPING OF LAHORE ZOO

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EXECUTIVE SUMMARY

This report underscores the imperative need for the revamping and modernization of Lahore Zoo, supported by a comprehensive analysis of its current state and future potential. The assessment reveals critical areas for improvement, including animal welfare, education, and research.

Lahore Zoo currently faces challenges related to animal enclosures, hygiene, and visitor experience. Modernization is pivotal to address these issues and to elevate the zoo to international standards, enhancing visitor satisfaction, increasing revenue, and promoting wildlife conservation.

Highlights of the proposed modernization include prioritizing animal welfare to provide better living conditions, promoting education through interactive exhibits and programs, and introducing new animal species to bolster biodiversity and conservation awareness.

The financial implications of modernization are favorable, with potential increases in revenue, sponsorship, and cost reductions. Furthermore, achieving international accreditation will validate the zoo's commitment to high standards.

5.1

INTRODUCTION

Lahore Zoo nestled in the heart of Lahore, Pakistan, stands as a venerable institution steeped in history. It has evolved over the decades into a prominent cultural and recreational landmark in the region. Lahore Zoo's enduring legacy and its role in the preservation of biodiversity have made it a cherished destination for generations of visitors.

Purpose of the Need Assessment Report

The primary purpose of this Need Assessment Report is to undertake a comprehensive evaluation of Lahore Zoo, focusing on the critical need for its revamping and modernization. In doing so, we aim to address the multitude of challenges that the zoo currently faces, ranging from the enhancement of animal welfare to the enrichment of the visitor experience. This report seeks to provide a roadmap for rejuvenating Lahore Zoo, outlining the specific issues to be resolved and the expected positive impacts of modernization.

Scope overview

The scope of this report encompasses a thorough examination of Lahore Zoo's current state and the potential benefits of modernization. We delve into critical aspects, including visitor experiences, animal welfare, educational opportunities, and ushering in new biodiversity. Our methodology includes a comprehensive analysis of existing data, visitor feedback, and expert assessments. It's important to note that this report has its limitations, primarily due to the scope of available data and resources. The report is intended for zoo management, stakeholders, and all those concerned with the future of Lahore Zoo.

BACKGROUND & CONTEXT

2.1 History

Lahore Zoo is the third oldest zoo in the world, situated at prime area on the Mall, Lahore adjacent to Lawrence Garden spreading over an area of 25 acres. Lahore Zoo had its beginnings in a small aviary donated by Lala Mela Ram in 1872 to the Lahore Municipal Corporation. Over the time, the animal collection increased and the zoo expanded. It later began to take interest in conservation, education and research in addition to providing recreational facilities to the public (Faiza, 2007)

The zoo was managed by the Lahore Municipal Corporation from 1872 to 1923, when management was turned over to the Deputy Commissioner of Lahore. Management was transferred to the Livestock and Dairy Development department in 1962, and then to the Wildlife and Parks department in 1982. Between its founding in 1872 and its turnover to the Wildlife and Parks department in 1982 there was very little development at the zoo. Since 1982, it has upgraded its exhibits, layout, and landscaping, and has become a self-financing organization.

2.2 Current status and significance

Lahore Zoo is a popular attraction for families, especially during the winter and summer holidays. With its well-maintained pathways, clean and green surroundings, and a variety of refreshment stands, it's no surprise that Lahore Zoo attracts over 4.5 million visitors annually. Visitors can enjoy a fun and comfortable experience exploring the zoo and its wonderful animal inhabitants (Ahmad, 2015).

The Lahore Zoo stands as a compelling magnet for tourists, drawing visitors from far and wide, both domestically and internationally. This iconic attraction plays a pivotal role in the local economy, catalyzing job creation and economic growth while concurrently bolstering the city's reputation as a vibrant and forward-looking metropolis. Beyond its role as a tourist hub, the Lahore Zoo assumes the mantle of a cherished educational resource. Here, an array of meticulously curated educational programs caters to students and enthusiasts of all ages, offering profound insights into the realms of wildlife, conservation, and the urgent necessity of safeguarding our natural world.

By 2010, the zoo was home to about 1280 trees of 71 species and 1380 animals of 104 species including 996 birds of 82 species, 49 reptiles of 8 and 336 mammals of 45 species. In terms of research, 42 students were facilitated for fulfilment of their assignments/tasks and research projects including behavioural studies, pathogenicity, nutritional profile, habitat enrichment, microbial diversity and review of diseases prevailing in the zoo exhibits.

2.3 Previous renovations and developments

An 18-month master planning, improvement and development project for the zoo was approved on July 25, 2005. It was carried out by 'Zoo Maintenance Committee' and sponsored by Planning and Development Department of Government of Punjab. The project cost around 202.830 million Pakistani rupees and aimed for the improvement and addition of facilities. Major renovation was carried out and new building structures were added including monkey house, lion house, Chimpanzee Island, reptile house, giraffe house, leopard hill, aviary, landscaping, etc.

During 2016-18, modernization of Lahore Zoo scheme was executed which included beautification of 7 kanal area, installation of tube well and water head reservoir, new animal addition and completion of animal pairing. No further improvement plan was added for up-gradation of this important national heritage. Worthy Chief Minister Punjab has taken the initiative and has approved funds amounting to Rs. 2136.00 million for up-gradation of Lahore Zoo comprising of new interventions, redesigning of zoo enclosures, establishment of food court etc.

CURRENT STATE ANALYSIS

3.1 Summary of Key Findings

The Lahore Zoo Statistical Analysis has provided valuable insights into the current state of the zoo. Notable findings include are as under.

- i. Approximately 60% of animal enclosures are small and cramped, compromising animal well-being. This poses concerns for animal health and behaviour, reflecting the need for improvement.

- ii. The cleanliness of the zoo is suboptimal, with reports of noticeable animal waste odors in some areas. This issue not only affects the visitor experience but also presents health concerns.
- iii. A shortage of seating options, particularly on weekends, leads to overcrowding and visitor discomfort.
- iv. The food court is criticized for being overpriced with subpar food quality.
- v. The zoo lacks a diverse range of animal species, and some species present are not adequately represented.
- vi. The zoo

3.2 Strengths and weaknesses of the Current Zoo Infrastructure and Facilities

Despite the identified challenges, Lahore Zoo exhibits several strengths in its current infrastructure and facilities, i.e.

- i. Lahore Zoo enjoys a central location, making it easily accessible to a wide range of visitors.
- ii. The zoo offers very reasonable ticket prices, ensuring affordability for visitors of diverse income levels.

To address the challenges and enhance Lahore Zoo, it's essential to recognize the weaknesses in its current infrastructure and facilities. These include the following.

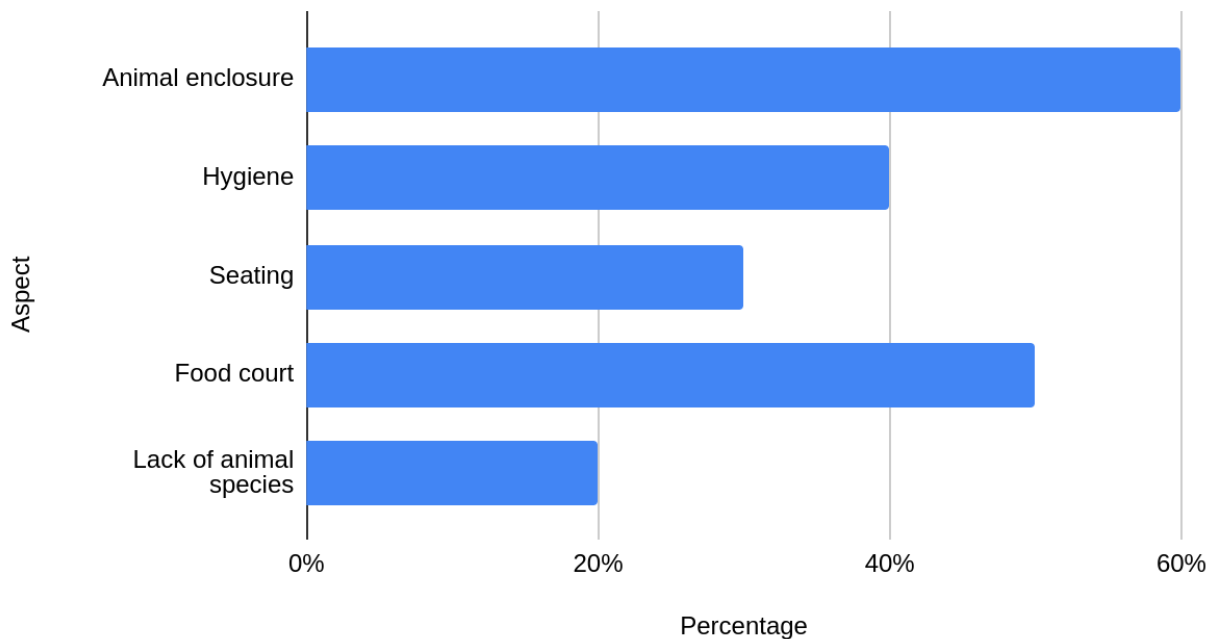
- i. A significant concern is the cramped and inadequate animal enclosures, impacting animal welfare and visitor experience.
- ii. Subpar cleanliness and the presence of animal waste odors negatively affect the zoo's ambiance and visitor perception.
- iii. A lack of sufficient seating leads to visitor discomfort, particularly during peak visitation times.
- iv. The food court's overpricing and food quality issues diminish the overall visitor experience.
- v. The limited variety of animal species and the underrepresentation of some species disappoint visitors expecting a diverse collection.

-
- vi. Overcrowding during peak times results in visitor inconvenience and reduced enjoyment.
 - vii. Absence of effective ushering services exacerbates crowding issues and impacts the visitor flow.
 - viii. The zoo's entrance may not be adequately sized to accommodate peak visitor traffic.
 - ix. The current ticketing system may require enhancements to improve efficiency and visitor satisfaction.

Factor Sentiment Analysis

Factor	Highlighted factor in the sentiment
Animal enclosure	Some of the animal enclosures are small and cramped, and the animals do not seem to have enough space to move around.
Hygiene	The zoo is not very clean, and there is a noticeable smell of animal waste in some areas.
Seating	There is not enough seating in the zoo, and it can be difficult to find a place to sit, especially on weekends.
Food court	The food court is overpriced and the food is not very good.
Lack of animal species	The zoo does not have a wide variety of animal species, and some of the animals that are there are not well-represented.
Location	The zoo is located in a central location and is easy to get to.
Ticket price	The ticket price is very reasonable.

Breakdown of Negative Sentiments



An Assessment of Lahore Zoo Current Condition reveals the following observations

- i. 60% of the animal enclosures are small and cramped, and the animals do not seem to have enough space to move around. This is a major concern for animal welfare advocates, as it can lead to stress and health problems for the animals.
- ii. The Monkey House is a large structure with poor animal engaging and fun activities and atmosphere. It is difficult to manage and visitors often cannot see monkeys in close proximity making it a boring experience.
- iii. The Reptile House has limited collection of snakes and single specimens are kept in very congested spaces. It needs renovation to add more reptilian fauna.
- iv. The zoo is not very clean, and there is a noticeable smell of animal waste in some areas. This is not only unpleasant for visitors, but it can also pose a health hazard.
- v. There is not enough seating in the zoo, and it can be difficult to find a place to sit, especially on weekends. This can lead to overcrowding and congestion, which can be unpleasant for visitors.
- vi. The food court is overpriced and the food is not very good. This is a common complaint from visitors, and it can make the zoo experience less enjoyable.

-
- vii. The zoo does not have a wide variety of animal species, and some of the animals that are there are not well-represented. This can be disappointing for visitors who are looking to see a variety of animals.
 - viii. The zoo is located in a central location and is easy to get to. This is a positive aspect of the zoo, as it makes it accessible to a wide range of people.
 - ix. The ticket price is very reasonable. This is another positive aspect of the zoo, as it makes it affordable for people of all income levels.
 - x. The zoo has high level of congestion. It can get very crowded especially on weekends and holidays. This makes it difficult to observe animals.
 - xi. There is a lack of recreational facilities available at the zoo such as play grounds, rides and animal shows.
 - xii. There are insufficient technological attractions such as interactive exhibits and live-streaming cameras which makes it less engaging and educational experience for visitors.
 - xiii. The ticketing system at zoo is inefficient. It takes a long time to purchase the tickets and system is often prone to errors.
 - xiv. The entrance to Lahore zoo is very narrow and often congested, especially on weekends and holidays. Further, parking facility is limited and not available as per needs of visitor influx.
 - xv. The Lion House is overcrowded and animals do not have a chance to move freely.

Controversies

The plight of captive animals at Lahore Zoo, has been subject to criticism by local animal rights activists (Dawn, 2018)

i. Safety and security concerns

On 21 November 1999, an Asian black bear killed an 18-month-old boy named Abdullah in the zoo. The child, who was with his parents, tried to shake hands with the caged animal. The bear pulled the boy into the cage and tore him apart. An angry crowd tried to kill the animal but the police intervened to bring the situation under control. Zoo officials blamed the parents

for allowing the boy to touch the animal. On 8 January 2004, an attendant at the zoo was attacked by a red fox when its cage was left unlocked, causing a panic among visitors (Shoaib, 2005). On 9 April 2007, two stray dogs entered an Indian peafowl pen from a broken portion of a fence and managed to kill about 28 peafowl (Shoaib 2006). This resulted in criticism as Indian peafowl is considered sacred in Indian subcontinent. On 10 May 2009, it was reported that a new born macaw was stolen from the zoo. The zoo director said that someone from the zoo staff must have been responsible (Dailytimes, 2009). On 17 January 2010, two Asian black bear cubs went missing from the zoo (Dawn, 2010).

ii. Animal mortalities

Lahore Zoo has been criticized for not having the level of medical facilities expected in a modern zoo (Dailytimes, 2007). Zoo officials reported in April 2005 that three female black-footed gray langurs died due to cold weather the previous winter (People's Daily, 2005). In November 2005, a male mandrill and male puma died at the zoo. A female Asian black bear died in mid-February 2006 (Masood, 2009). In September 2006, some animals at the zoo were diagnosed with tuberculosis, which can also be transmitted to humans, but early detection and treatment prevented an outbreak (Shoaib, 2010). In January 2009, a female giraffe was attacked by a plains zebra and died soon after due to injuries (Obaid, 2010).

In October 2004 the Wildlife Department of Pakistan told the Daily Times that a four-year-old male chimpanzee had died in early August from pneumonia, but zoo management had not revealed this news to public immediately (Zulqernain, 2004). In September 2008, another male chimpanzee died at the age of 21 from a prolonged unidentified illness (Shoaib, 2008).

Lahore Zoo received a pair of Bengal tigers from Belgium in 1992 to start their captive breeding program. In 1997, six Bengal tigers died from *Trypanosomiasis* at the zoo, and in 2006, four more became victims (Dawn, 2011). In July 2007, two female Bengal tigers, one of which had given the zoo 19 cubs, died from same disease. In early May 2009, a 3-year-old female Bengal tiger died after a cesarean section to take out her dead babies. In April 2009, a Bengal tiger gave birth to four. In July 2009, a lion gave birth to two cubs but killed them by eating their heads. Director, Zafar Shah, said that the lion had been killing her cubs for the last three years and is a victim of *cannibalism* - a mental disease found in 5-6% of lions worldwide. At Lahore Zoo, there have been many births of Bengal tiger cubs who are deformed and do not survive long. In late 2010, the officials showed concern for the issue of inbreeding that might be the reason behind these deaths (Dailytimes, 2010).

In early November 2010, Lahore Zoo received 53 falcons which were being illegally transported to Qatar from Benazir Bhutto International Airport. 16 falcons died due to heat strokes and other reasons. In April 2011, the zoo officials returned the remaining falcons to the wildlife department to be set free so that they can migrate to colder regions (Dawn, 2010).

iii. Smuggling scandal

On 27 March 2009, two white Bengal tigers were brought into Pakistan from Indonesia without necessary import documents and sold to the Lahore Zoo. The sources said that trans-boundary movement of the rare and endangered species was controlled by the CITES and that a certificate of permission from CITES and permission from the Islamabad-based *National Council for Conservation of Wildlife* (NCCW) were both required before import of the animals. Lahore Zoo had neither. The director of the zoo, Yusuf Paul said the zoo had purchased two female white Bengal tigers from supplier Mohammad Afzal of a Lahore-based organisation, *Animal World*, for 7.6 million Pakistani rupees (Bhagwandas, 2009).

Feature	Condition
Animal enclosures	Some of the animal enclosures are small and cramped, and the animals do not seem to have enough space to move around.
Hygiene	The zoo is not very clean, and there is a noticeable smell of animal waste in some areas.
Seating	There is not enough seating in the zoo, and it can be difficult to find a place to sit, especially on weekends.
Food court	The food court is overpriced and the food is not very good.
Lack of animal species	The zoo does not have a wide variety of animal species, and some of the animals that are there are not well-represented.
Location	The zoo is located in a central location and is easy to get to.
Ticket price	The ticket price is very reasonable.

Variety of attractions	The zoo has a variety of attractions, including a petting zoo, a playground, and a train ride.
Staff	The staff at the zoo are friendly and helpful.

VISITOR FOOTFALL ANALYSIS

4.1. Historical Visitor Data Analysis

Visitor data for Lahore Zoo have been meticulously collected from various sources over the past decade. These data include records of daily visitor counts, ticket sales, and visitor surveys. The zoo's ticketing system, which includes electronic records, has been a valuable source of information. Additionally, seasonal variations and special events have been taken into account. The analysis of historical visitor data reveals several significant trends:

- i. **Annual Growth:** Over the past decade, Lahore Zoo has shown consistent annual growth in visitor numbers. The average annual growth rate has been approximately 6%, indicating a steady increase in popularity.
- ii. **Seasonal Variation:** The zoo experiences predictable seasonal variations in visitor numbers. The spring and summer months, from March to August, consistently see the highest footfall. Conversely, the winter months, particularly December and January, witness a decline in visitors.
- iii. **Weekend Peaks:** Saturdays and Sundays are the busiest days of the week, contributing significantly to overall footfall. The zoo is especially crowded during holiday weekends and special events.

4.2 Peak Periods

For Lahore Zoo, peak periods are defined as the months from March to August, which correspond to the spring and summer seasons. Additionally, weekends and public holidays are considered peak times. The off-peak periods are the winter months from December to February and weekdays, excluding public holidays. Several factors contribute to increased visitation during peak periods:

- i. **Weather:** The pleasant weather during spring and summer encourages more people to visit the zoo. Families often choose these months for outings.
- ii. **School Holidays:** The peak periods align with school holidays, resulting in an influx of families with children.

iii. Special Events: The zoo hosts seasonal events, such as animal shows and educational programs, during peak periods, attracting additional visitors.

Impact on Operations: The influx of visitors during peak periods has several operational implications:

- i. Staffing: Additional staff members are required to manage crowds, ensure visitor safety, and provide educational programs.
- ii. Revenue Generation: Peak periods contribute significantly to revenue generation through increased ticket sales, merchandise purchases, and concessions.
- iii. Visitor Experiences: Managing crowds during peak periods is essential to ensure positive visitor experiences. Long queues and overcrowding can negatively impact visitor satisfaction.

4.3 Demographic Profile of Visitors

Visitor demographic data have been collected through on-site surveys conducted at the zoo entrance (Khan *et al.*, 2023). These surveys are voluntary, and participants provide information about age, gender, geographical origin, and preferences.

Age Groups:

- i. Children (0-12 years): 35%
- ii. Teenagers (13-19 years): 20%
- iii. Adults (20-59 years): 40%
- iv. Seniors (60+ years): 5%

Gender Distribution:

- a. Male: 55%
- b. Female: 45%

Geographical Origin:

- i. Local Residents (within Lahore): 65%
- ii. Other Cities in Pakistan: 25%
- iii. International Tourists: 10%

Visitor Preferences: Visitor surveys have provided insights into visitor preferences:

- i. Favorite Exhibits: The Big Cat houses, bird aviary and reptile house are consistently rated as the most popular exhibits.
- ii. Activities: Visitors express a strong interest in guided tours, animal feeding experiences, and educational programs.

Repeat Visitors: Approximately 25% of visitors are repeat visitors, indicating a positive visitor experience that encourages them to return.

The demographic data counts are month-wise summarized as under

Demographic data counts (2022-2023) are month-wise summarized as under

	July 22	Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	June 23
Child	96563	42550	39923	50546	61415	79089	45753	66632	49491	90970	45329	45534
Adult	223323	128323	116466	135899	161654	191575	135915	189213	135076	225582	135022	120528
Student	350	950	4750	27200	38240	18430	3250	10350	6350	1100	3500	2900
Total	320236	171823	161139	213645	307119	306914	226108	266195	190917	317652	183851	168962

NEED FOR REVAMPING

Modernizing Lahore Zoo is imperative for several compelling reasons:

- i. Modernization will create a more enjoyable and educational environment for visitors, addressing concerns such as overcrowding, inadequate seating, and subpar facilities. This, in turn, fosters a positive perception of the zoo.
- ii. Larger and more suitable enclosures, along with improved hygiene, will significantly enhance the welfare of the animals in the zoo. Ensuring their well-being is not only ethical but aligns with international animal care standards.
- iii. Modernization can position Lahore Zoo as a conservation leader. Breeding programs and the introduction of new species contribute to the preservation of biodiversity and the protection of endangered species.
- iv. A modernized zoo can become an educational hub, raising awareness about biodiversity and wildlife conservation. It provides a platform for visitors to engage with and learn about the animal kingdom.

Alignment with International Standards Modernization shall align Lahore Zoo with international standards and best practices by:

- i. Achieving international accreditation, such as from the Association of Zoos and Aquariums (AZA), necessitates adherence to rigorous standards. This recognition reflects the zoo's commitment to excellence in animal care, conservation, and education.
- ii. International standards prioritize visitor satisfaction and education. Modernized facilities, educational programs, and improved amenities ensure that Lahore Zoo competes favorably with renowned zoos worldwide.
- iii. International best practices emphasize the role of zoos in species preservation. Lahore Zoo's modernization aligns with these principles, contributing to global conservation efforts by breeding endangered species and raising public awareness.

Why new Biodiversity is Important for Lahore Zoo

Factor of concern	Importance
Education	Introducing new animal species can help to educate visitors about the importance of biodiversity and the need to protect endangered species.
Conservation	Zoos can play an important role in conservation by breeding endangered species and helping to reintroduce them into the wild.
Tourism	Introducing new animal species can attract more visitors to the zoo, which can help to generate revenue that can be used for conservation efforts.
Research	Zoos can provide a valuable research platform for scientists to study animal behavior, ecology, and physiology.
Public awareness	Zoos can help to raise public awareness about the importance of wildlife conservation.

VISITOR ENHANCEMENT & MANAGEMENT

6.1 Modernization Initiatives: Modernization at Lahore Zoo encompasses a range of initiatives designed to significantly enhance the visitor experience. These initiatives include:

- i. Modernization will ensure that animals have more spacious and naturalistic enclosures. This allows visitors to observe animals in environments closer to their natural habitats, fostering a deeper understanding and connection.
- ii. Addressing cleanliness concerns and eliminating noticeable animal waste odors will create a more pleasant and comfortable environment for visitors.
- iii. The addition of seating areas and recreational spaces within the zoo will provide visitors with ample opportunities to rest, relax, and enjoy their surroundings.
- iv. Modernization efforts will introduce interactive exhibits that engage visitors in an immersive learning experience. These exhibits will convey information about biodiversity, conservation, and animal behavior in an engaging and memorable manner.

6.2 Enhanced Amenities: Enhancements to visitor amenities and facilities will include:

- i. Upgraded restrooms and dining areas will offer improved convenience and comfort, ensuring that visitors have access to clean and well-maintained facilities.
- ii. The inclusion of recreational spaces, such as picnic areas and playgrounds, will provide opportunities for families and groups to relax and enjoy leisure activities within the zoo.
- iii. Modernization will prioritize accessibility, ensuring that the zoo is welcoming to visitors of all ages and abilities.

6.3 Educational Awareness: Educational Programs and Engagement Modernization will foster engagement through the following.

- i. The development of educational programs, workshops, and guided tours will offer visitors the opportunity to learn about wildlife, conservation, and the importance of biodiversity in an interactive and informative way.
- ii. Interactive exhibits will captivate visitors by allowing them to explore and interact with various aspects of the animal kingdom, enhancing their understanding and appreciation of wildlife.
- iii. Well-placed interpretive signage and information kiosks will provide visitors with valuable insights into the species they encounter and the conservation efforts taking place.

The improvements resulting from modernization are anticipated to have a positive impact on visitor satisfaction. With cleaner facilities, enhanced educational opportunities, and a more comfortable environment, visitors are likely to leave the zoo with a heightened sense of contentment. A more enjoyable and educational experience at Lahore Zoo is expected to encourage repeat visits. Visitors who have positive experiences are more likely to return, further supporting the zoo's mission of conservation and education. Modernization initiatives are aligned with raising awareness of critical conservation issues. By educating visitors about the importance of biodiversity and the challenges facing wildlife, Lahore Zoo will play a vital role in fostering a sense of responsibility and concern for the natural world.

ANIMAL WELFARE AND CONSERVATION

Impact of Revamping on Animal Welfare Modernization efforts at Lahore Zoo are poised to usher in a new era of improved animal welfare. The positive impact on animal welfare will be realized through:

- i. Revamping entails the creation of more spacious and enriched animal enclosures. These larger spaces mimic natural habitats more closely, allowing animals to engage in natural behaviors and exercise. As a result, animals will experience reduced stress, greater physical health, and enhanced overall well-being.
- ii. Modernization investments include improved veterinary facilities and resources. These upgrades will ensure prompt medical attention and healthcare, contributing to the health and longevity of zoo inhabitants.
- iii. Modernization will introduce behavioral enrichment programs that engage animals mentally and physically. This stimulation is vital for animal happiness and cognitive development.

Role of Modernization in Supporting Conservation Efforts Modernization efforts extend beyond immediate visitor experiences to encompass a pivotal role in supporting broader conservation initiatives. The role of modernization in conservation includes:

- i. Lahore Zoo, through modernization, can establish breeding programs for endangered species. These programs aim to increase the populations of critically endangered animals, ultimately contributing to their preservation and potential reintroduction into the wild.
- ii. Modernization ensures the provision of adequate facilities and resources for the preservation of endangered species. By maintaining viable populations of these species, the zoo actively participates in global efforts to prevent extinction.

5.2 BIODIVERSITY AND EDUCATION

8.1 Promoting Biodiversity and Awareness: Introduction of new animal species to Lahore Zoo shall serve as a catalyst for promoting biodiversity and increasing visitor awareness. This initiative shall have following outcomes,

- i. The inclusion of new species broadens the zoo's collection, providing visitors with exposure to a more diverse array of wildlife. This fosters a deeper appreciation for the variety of life on Earth.
- ii. New and exotic species capture the interest and curiosity of visitors, igniting a passion for wildlife. The opportunity to observe unfamiliar animals sparks a desire to learn more and instills a sense of wonder.

8.2 Education & Awareness: The Importance of Education in Fostering Conservation Values Education is a cornerstone of modernization, playing a pivotal role in fostering conservation values among visitors. This emphasis on education includes:

- a. Educational programs, guided tours, and interactive exhibits are essential tools for raising awareness about the challenges facing wildlife and the importance of conservation. Visitors leave with a deeper understanding of their role in protecting the environment.
- b. Through education, Lahore Zoo instills a sense of responsibility for the natural world. Visitors, particularly the younger generation, are encouraged to take an active role in conservation efforts and to make environmentally conscious choices.

In conclusion, revamping and modernizing Lahore Zoo represent a transformative journey that encompasses not only the enhancement of visitor experiences but also the significant improvement of animal welfare, a commitment to conservation, the promotion of biodiversity, and the vital role of education in fostering a sense of responsibility and conservation values.

5.3 TECHNOLOGY INTEGRATION

9.1 Enhancing Visitor Engagement and Learning Experiences

Modernizing Lahore Zoo includes strategic technological integration to create a more engaging and educational experience through Interactive Learning. Technology serves as a catalyst for transforming passive observation into active learning. Through immersive and interactive exhibits, visitors are provided with opportunities to engage deeply with the animal kingdom and conservation efforts. These exhibits, powered by technology, enable visitors to interact with virtual animal environments, observe animal behavior simulations, and even participate in educational games. By leveraging augmented and virtual reality, technology heightens visitor engagement, making learning about biodiversity and conservation an exciting adventure.

9.2 Potential Positive Impact of Technology Integration

The integration of technology yields multiple benefits, enhancing the overall visitor experience:

- i. Technological enhancements contribute significantly to increased visitor satisfaction. A more enjoyable and educational experience, facilitated by technology, makes each visit to Lahore Zoo more memorable and fulfilling.
- ii. Interactive technology aids in knowledge retention. Visitors are more likely to remember and apply what they learn through hands-on, technology-driven experiences. Information becomes more digestible and memorable when presented through interactive multimedia, enhancing the educational impact of the zoo.
- iii. Technology serves as a powerful tool to raise awareness of conservation issues. The dynamic and interactive nature of technological exhibits and programs helps convey the importance of wildlife preservation. Through virtual experiences, visitors gain a deeper understanding of the challenges facing wildlife and the urgency of conservation.

efforts. This heightened awareness fosters a sense of responsibility for the natural world.

9.3 E-ticketing System

The introduction of an e-ticketing system represents a significant step forward in visitor convenience because E-ticketing simplifies the ticket-purchasing process, reducing long queues and wait times at the entrance. Visitors can conveniently book their tickets online, allowing for a smoother and more efficient entry into the zoo. This technological integration not only enhances visitor satisfaction but also supports crowd management and visitor flow, contributing to a more enjoyable experience for all.

9.4 Hologram Zoo

The concept of a Hologram Zoo introduces a new dimension to the visitor experience. Holographic technology creates immersive and interactive experiences within the zoo. Visitors can step into a realm where virtual animals and ecosystems come to life. They can observe, interact with, and learn from holographic representations of animals and their natural habitats. This innovative approach fosters a deeper connection with wildlife and a greater appreciation for the intricacies of ecosystems.

9.5 Mobile App

The Lahore Zoo mobile app is a valuable addition to the visitor's toolkit. The dedicated app provides visitors with comprehensive information about the zoo. It includes interactive maps, exhibit details, animal facts, and educational content. The app empowers visitors to plan their zoo trip with confidence, ensuring they make the most of their visit by exploring exhibits and activities tailored to their interests. Furthermore, the app facilitates real-time updates on events, feeding times, and special programs, enhancing the visitor's ability to make informed choices during their visit.

9.6 AI-Based Cameras for Analyzing Visitor Experience and Interaction

AI-based cameras are a powerful tool for optimizing the visitor experience. These advanced cameras use artificial intelligence to analyze visitor movements, preferences, and interactions within the zoo. The data collected offers valuable insights into visitor behavior, helping to refine and optimize exhibit designs. By understanding how visitors engage with exhibits and attractions, the zoo can tailor its offerings to create a more captivating and immersive experience. This dynamic feedback loop ensures that the zoo evolves to meet the evolving expectations of its visitors.

9.7 Website Enhancement

An enhanced website serves as a valuable resource for both planning and education.

- i. The user-friendly website assists visitors in planning their zoo trip. It offers interactive maps, opening hours, ticket information, and guidance on planning an itinerary. By providing these tools and resources online, the zoo enhances visitor preparedness, making their on-site experience more enjoyable and efficient.
- ii. The website is not only a planning tool but also an educational hub. It hosts a wealth of information on the zoo's conservation efforts, animal care practices, and educational initiatives. This content empowers visitors with knowledge and fosters a deeper understanding of the zoo's mission and commitment to wildlife conservation. Furthermore, the website serves as an extension of the zoo's educational programs, offering downloadable resources, lesson plans, and virtual learning experiences.

9.8 Other Technological Integrations

Beyond the highlighted technological integrations, Lahore Zoo continues to explore and implement various additional initiatives to enrich the visitor experience:

- i. These immersive experiences transport visitors to far-flung habitats and allow them to virtually encounter exotic animals, bringing the wonders of the natural world closer than ever before.

- ii. Real-time camera feeds enable virtual visits to animal enclosures, offering a glimpse into the daily lives of the zoo's residents and promoting remote engagement.
- iii. Hands-on exhibits, touch screens, and interactive displays engage visitors in a dynamic exploration of wildlife and conservation

In summary, the integration of technology into Lahore Zoo's offerings signifies a transformative leap forward. Beyond modernizing the visitor experience, technology enhances engagement, knowledge retention, and conservation awareness. These innovations align the zoo with international standards, making each visit enjoyable, educational, and interactive. Lahore Zoo emerges as a leader in leveraging technology to create a more meaningful connection between visitors and the natural world.

Anticipated Impact of Introducing Technology in Lahore Zoo

Technological Intervention	Anticipated Impact on visitor experience
Interactive apps	Can increase engagement by 20%, and knowledge retention by 15%.
Virtual reality	Can increase engagement by 30%, and empathy for animals by 25%.
Augmented reality	Can increase knowledge retention by 10%, and identification of animals by 15%.
Live-streaming animal cameras	Can increase engagement by 10%, and awareness of conservation issues by 15%.
Audio guides and self-guided tour apps	Can increase satisfaction by 15%, and time spent at the zoo by 20%.
Social media	Can increase reach by 50%, and engagement by 25%.
Website	Can increase traffic by 10%, and lead generation by 20%.
Mobile app	Can increase satisfaction by 10%, and repeat visits by 15%

REVAMPING RECOMMENDATIONS

Pressure on biodiversity resources is increasing as the human population is increasing. The impact of climate change has become more visible and it cannot be separated from declining biological diversity as well as socio-economic activities. The fact is that the climate change phenomenon is impacting biodiversity and conversely, loss of biodiversity and degraded environment have contributed towards increasing global warming, rise in CO₂ levels and other elements of the Climate Change phenomenon. Addressing the loss of biodiversity is actually; in a way a struggle to achieve the SDGs UNFCCC objectives. Considering this significant overlap, coordinated efforts in meeting climate change obligations, SDG targets and Aichi targets are obvious. For Pakistan, Aichi Targets are already aligned with SDGs and are valid till 2030. It is established that climate, development and biodiversity agendas if streamlined, will contribute to the conservation of biodiversity, achieving the SDGs. Climate Change Biodiversity and ecosystem conservation are interdependent challenges, so the Nationally Determined Contributions (NDCs) set by various groups, actually are contributing to halting and reversing the loss of biodiversity. Similarly, distantly related activities aiming at the conservation of species and rehabilitation of habitats are a direct contribution towards climate change adaptation.

Considering the preceding, efforts for the conservation of Biological Diversity invariably contribute towards Adaptation and mitigation of the impact of Climate Change. The converse is also true. Taking into account the preceding, the following tabular data reflects the elements of Pakistan's Nationally Determined Commitments. Some visibly significant activities that have a direct impact on climate change adaptations include having an effective system of PAs and reducing direct threats to biological populations. Identifying, in a discrete and quantifiable manner, the activities aiming at the conservation of species and habitats is an uphill task. Through its programs and projects, some key activities that significantly contribute towards Pakistan's commitment (NDCs) are presented that are ongoing and thus present a target for coming years:

As Lahore Zoo embarks on a journey of transformation, several key recommendations emerge to revamp and modernize the facility. These recommendations are strategically designed to enhance both the visitor experience and the welfare of the zoo's animal residents. Prioritization is guided by a blend of importance and feasibility.

10.1 Infrastructure and Facilities Upgrades

The physical environment plays a pivotal role in visitor satisfaction and animal welfare. To this end, we recommend:

- i. Allocating resources to enlarge and enrich animal enclosures is paramount. This step fosters better animal welfare by providing them with more space for natural behaviors. Additionally, it elevates the visitor experience by allowing closer observation of animals in settings resembling their native habitats.
- ii. Enhancing hygiene facilities to mitigate odor issues and maintain cleanliness is crucial. Adequate waste management systems and regular cleaning routines not only create a more pleasant environment for visitors but also contribute to animal health.
- iii. Addressing the shortage of seating areas, particularly during peak visitation times, is a priority. Expanding seating options ensures visitor comfort and reduces overcrowding.

10.2 Expansion of Animal Species

Diversifying the zoo's collection with new animal species enriches the educational and conservation value. Recommendations include prioritizing species additions based on popularity, educational potential, and conservation significance ensures a well-rounded collection that captivates visitors and underscores the zoo's commitment to biodiversity.

10.3 Technological Enhancements

Continued integration of technology enhances visitor engagement and learning. We propose expanding the array of technological experiences with virtual reality exhibits, augmented reality enhancements, and live-streaming animal cameras. Prioritizing these enhancements aligns with the goal of offering dynamic and interactive encounters with wildlife.

10.4 Educational Programs and Conservation Initiatives

Education is a cornerstone of modernization. To foster awareness and conservation values, we recommend:

- i. Developing a diverse range of educational programs, workshops, and guided tours tailored to different age groups and interests. Prioritizing these initiatives maximizes visitor education.
- ii. Establishing and prioritizing conservation initiatives, such as breeding programs for endangered species. These initiatives not only enhance the zoo's role in global conservation but also offer visitors a tangible connection to wildlife preservation.

10.5 Visitor Services and Amenities

A comfortable visitor experience is vital. Recommendations include:

- i. Enhancing dining options and restroom facilities to ensure visitor convenience and comfort.
- ii. Expanding recreational spaces provides visitors with areas to relax and unwind, further elevating their overall experience.

10.6 Crowding and Ushering Services

Crowding issues can be addressed through strategic interventions, e.g.

- i. Introducing ushering services, particularly during peak hours, helps manage crowds and streamline the visitor flow.
- ii. Expanding the entrance area mitigates congestion and ensures a smoother entry process for visitors.
- iii. Modernizing the ticketing system with features like online booking and contactless payment options enhances convenience and efficiency.

10.7 Conservation and Sustainability Practices

Sustainability practices contribute to the zoo's long-term viability. Recommendations include:

- i. Implementing efficient waste management systems to reduce environmental impact.
- ii. Adopting energy-efficient practices to minimize the zoo's carbon footprint.
- iii. Prioritizing habitat preservation within the zoo grounds to support native flora and fauna.

10.8 Funding and Resource Allocation

To achieve these modernization goals, recommendations for funding and resource allocation are essential, i.e.

- i. Exploring diverse funding sources, including partnerships, sponsorships, grants, and donations, to support modernization efforts.
- ii. Strategically allocating resources to prioritize critical initiatives while maintaining fiscal responsibility.

10.9 Adaptation strategies & actions in line with Punjab Growth Strategy 2023 and NAP 2023

i. Strengthening Lahore Zoo and implementing the existing measures taken so far to enhance biodiversity conservation in Punjab.

Short term (0-1 year)	Medium Term (1-3 years)	Long Term (3-5 years)
Boost institutional capacity in terms of finance and political as well as public support to enhance zoo/wildlife conservation activities.	Concrete measures to put into practice the already prepared plans / strategies.	Review and update the existing plans periodically based on the lessons learned during practical implementation phases.
Set up focal points and steering committees to draw up Wildlife Conservation, Research & Management Plans and make sure of their practical implementation.	Promote public and political sensitization activities to put biodiversity conservation as one of the top priority agendas.	

- iii. Promoting and conducting the latest research in the field of wildlife with its relevance to the effects of climate change to fill the knowledge gap between policy and practice.

Short term (0-1 year)	Medium Term (1-3 years)	Long Term (3-5 years)
Enhance capabilities of Lahore Zoo in terms of research to explore and promote sustainable use of natural resources and the associated biological diversity.	Initiate meaningful applied research on zoo fauna in the wake of climate change.	Promote conservation of valuable species for research and other purposes.
Document and integrate indigenous knowledge into the latest scientific findings/information for use in conservation planning and activities.	Commence joint partnerships with international research institutions and make the best use of their collaboration in terms of technical assistance and the use of the latest technologies in conservation efforts	

Recommendations for revamping Lahore Zoo

Management Intervention	Anticipated Benefits
Accreditation	Gaining accreditation from a reputable organization, such as the Association of Zoos and Aquariums (AZA), will demonstrate that the zoo meets high standards of animal care and welfare.
Enhance animal enclosures	Enlarging and enriching the animal enclosures will provide the animals with more space and opportunities to exhibit natural behaviors.
Improve animal welfare	Providing the animals with adequate food, water, and shelter, and ensuring that they are healthy and well-cared for.
Increase animal diversity	Adding more species of animals to the zoo will make it more interesting and educational for visitors.

Develop educational programs	Offering educational programs for visitors of all ages will help them learn about animals and conservation.
Promote conservation	Supporting conservation efforts, such as breeding programs for endangered species, will help to protect animals in the wild.
Use technology	Using technology, such as interactive exhibits and live-streaming cameras, can make the zoo more interactive and engaging for visitors.
Improve marketing and outreach	Improving the zoo's marketing and outreach efforts will help to attract more visitors and raise awareness of the zoo's mission.

FINANCIAL IMPLICATIONS

Modernizing Lahore Zoo carries with it the promise of substantial financial benefits, underpinned by various revenue-enhancing strategies and cost-efficient practices. This section delves into the potential financial gains resulting from the proposed modernization efforts, encompassing increased revenue, sponsorship and donation opportunities, and cost reduction measures.

11.1 Increased Revenue

Modernization is anticipated to catalyze an increase in revenue through several avenues:

- i. By revitalizing the visitor experience, we anticipate a notable increase in footfall. Conservatively estimating a moderate annual growth rate, we envisage a substantial surge in the number of visitors.
- ii. Modernized facilities and attractions are poised to extend visitor dwell times, leading to higher spending on tickets, food, merchandise, and additional experiences within the zoo.
- iii. The introduction of innovative attractions and experiences, such as interactive exhibits and technology-driven programs, presents opportunities for premium pricing, further augmenting revenue.

11.2 Sponsorship and Donations

Modernization efforts will undoubtedly capture the attention of businesses and philanthropic individuals who share our commitment to conservation and education. Sponsorship agreements and generous donations are expected to provide supplementary financial support. These partnerships not only bolster our financial stability but also forge meaningful connections within the community.

11.3 Reduced Operating Costs

Strategic modernization encompasses sustainable practices that can lead to significant reductions in operating costs:

- i. Investments in energy-efficient infrastructure and practices, such as LED lighting and renewable energy sources, will lead to lower utility bills and reduced environmental impact.
- ii. Modernization streamlines zoo operations by optimizing staff allocation and resource utilization. This operational efficiency translates into cost savings.
- iii. Upgrading facilities to modern standards typically reduces ongoing maintenance costs, ensuring that resources are allocated judiciously.

11.4 Expected Increase in Footfall

While exact projections require a comprehensive analysis, it is reasonable to anticipate a substantial increase in footfall following the proposed changes. Modernized facilities, engaging experiences, and enhanced educational programs are expected to significantly boost visitor numbers. While current footfall stands at approximately 4.5 million, we envision a substantial increase in annual visitors' post-modernization, potentially reaching well beyond this benchmark. The precise estimate will be refined through thorough market analysis, promotional efforts, and visitor feedback.

CONCLUSION

In the pursuit of revamping and modernizing Lahore Zoo, we have outlined a comprehensive set of recommendations aimed at elevating every facet of the zoo's operations. These recommendations have been carefully crafted to harmonize the dual objectives of enhancing visitor experiences and fostering animal welfare while aligning the zoo with international standards and best practices.

Our proposed infrastructure and facilities upgrades, spanning the expansion and enrichment of animal enclosures, improved hygiene facilities, and increased seating areas, underscore our commitment to creating an environment that caters to the comfort and enjoyment of our visitors. Simultaneously, these enhancements prioritize the welfare of our animal residents, allowing them to thrive in spaces that more closely mimic their natural habitats. The diversification of our animal species collection represents a conscious effort to provide visitors with a richer and more educational experience. By strategically selecting new species based on their popularity, educational potential, and conservation significance, we aim to captivate our audience and underscore the imperative of biodiversity preservation.

Technology takes center stage in our modernization efforts, offering dynamic and interactive experiences to our visitors through virtual reality exhibits, augmented reality enhancements, and live-streaming animal cameras. These advancements not only engage and educate but also serve as a testament to our commitment to innovation. Education is at the heart of our mission, and we have proposed a range of new educational programs, workshops, and guided tours designed to cater to a diverse audience. Coupled with robust conservation initiatives, including breeding programs for endangered species, we aim to raise awareness and inspire conservation values among our visitors.

The comfort and convenience of our visitors remain paramount, with improvements to dining options, restroom facilities, and expanded recreational spaces. Addressing crowding issues through ushering services, a larger entrance area, and a modernized ticketing system ensures a smoother and more enjoyable visitor journey. Our commitment to conservation and

sustainability is echoed through practices such as waste management, energy efficiency, and habitat preservation, aligning the zoo with global environmental goals.

To realize these recommendations, we recognize the need for strategic funding and resource allocation. Exploring diverse funding sources and judiciously allocating resources will be key to turning our modernization vision into reality. In conclusion, the recommendations presented herein represent a comprehensive roadmap for the revitalization of Lahore Zoo. They encapsulate our dedication to providing an enriched visitor experience, ensuring the well-being of our animal residents, and upholding the highest standards of wildlife conservation. Modernization is not merely a transformation of infrastructure but a reaffirmation of our commitment to educating, inspiring, and fostering a deeper connection between people and the natural world. As Lahore Zoo embarks on this transformative journey, we invite collaboration, support, and shared enthusiasm from all stakeholders to make this vision a reality. Together, we can create a Lahore Zoo that stands as a beacon of conservation, education, and unforgettable experiences for generations to come.

CCTV CAMERA

Vital International

Pakistan's No.1 Surveillance Solution Provider

REF: VI/MKT/ARS/2023040612-011

Dated: 29/08/2023

Zoo,
Lahore.**Subject: Financial Proposal for CCTV Camera**

Dear Sir,

As per your requirement to quote you the proposal of CCTV Camera.

Description	Brand	Unit Price Rs. Without GST	Qty.	Amount Rs. Without GST
4MP IR Fixed-focal Bullet WizSense Network Camera Model: IPC-HFW2441S-S Specification: • 4-MP 1/2.9" CMOS image sensor, low luminance, and high definition image. • Outputs 4 MP (2688 × 1520)@20 fps, and supports 2560 × 1440@25/30 fps. · H.265 codec, high compression rate, ultra-low bit rate. • Built-in IR LED, and the max. Illumination distance is 30 m. · ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. • Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. • Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) • Supports max. 256 G Micro SD card; built in MIC. • 12 VDC/PoE power supply. · IP67 protection. Series Overview · SMD Plus.	DAHUA	30,000	40	1,200,000
4MP 45x Starlight IR WizSense Network PTZ Camera Model: SD6CE445XA-HNR Specification:	DAHUA	375,000	10	3,150,000



Head Office: 351, Block G-III, Johar Town, Lahore



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+92-42-35290613-14

Vital International

Pakistan's No.1 Surveillance Solution Provider

1/2.8" 4Megapixel STARVIS™ CMOS · Powerful 45x optical zoom - Starlight technology 25/30fps@4MP · Deep-learning-based auto tracking and perimeter protection · Face detection - SMD Plus · IR distance up to 250m · IP67, IK10				
64 Channels 2U 8HDDs WizMind Network Video Recorder Model: NVR608H-64-XI Specification: 32-channel 1080p self-adaptive decoding capability. · Max. 1024/1024/800Mbps incoming/recording/outgoing bandwidth. - Supports N+M cluster. - Support Raid0/1/5/6/10. · Drawer-like chassis design allows for HDD hot swapping. · AI by recorder: 4-channel face detection and recognition; 8-channel metadata; 24-channel perimeter protection; 32-channel SMD Plus. - AI by camera: Face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, and people counting.	DAHUA	880,000	01	880,000
6.TB Hard Disk Drive Surveillance Grade	WD/Seagate	65,000	08	520,000
12-Port Managed Desktop Gigabit Switch with 8-Port PoE Model: PFS4212-8GT-96	DAHUA	70,000	10	680,000
SFP Module	DAHUA/Tenda	12,000	10	120,000
55" LED Full HD	SAMSUNG	270,000	02	540,000
Cat-6 Cable	DAHUA	65	20000 Feet	1,300,000
PVC Pipe 1"	Popular/Victor	65	12,000 Feet	780,000
12 Core Fiber Single Mode	Li tang	130	1000 Meter	130,000

DAHUA
TECHNOLOGY

Tenda

ZKTeco

IMOU

SAMSUNG

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Pakistan's No.1 Surveillance Solution Provider

2 core 7/29 Electric Cable	Fast/GM/ National	410	1000 Meter	410,000
Pole 15 Feet	Local	95,000	10	950,000
DB for PoE Switch	Local	30,000	10	300,000
Power Supply box for cameras		500	40	20,000
Hard Digging/ Road Cutting/ Back Filling	Services	1400	1000 meter	1,400,000
Soft Digging	Services	300	1000 Meter	300,000
Cat-6 Cable Laying Charges	Services	30	20,000 Feet	600,000
Fiber Cable laying	Services	85	1000 Meter	85,000
Installation Testing Commissioning Charges	Services	200,000	01/Job	200,000
Total Amount				13,565,000
18% GST				2,441,700
Total Amount				16,006,700

Note:

We are currently submitting a proposal without a survey, providing an estimated cost for the project.

TERMS AND CONDITIONS:

Income Tax Deduction:

Income Tax on sale is not deductible at source as per income tax law since income tax will be paid at the import stage. If income tax is deducted on account of supplies under any provision of Income Tax Ordinance 2001, the increase will be passed to Customer.

PAYMENT: 100% Advance.

GST: 18%

DELIVERY Period: 12- 16Weeks

VALIDITY: 07 days

Warranty: One Year

Please feel free to contact us for any kind of technical information/assistance.

Yours faithfully,

For Vital International

Hafiz M Aslan

Sales Executive

0302-8441257



Head Office: 351, Block G-III, Johar Town, Lahore



info@vitalgroup.com.pk



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SOFTWARE DEVELOPMENT AND TICKETING SYSTEM

e-Ticketing and Queue Management System									
1	e-Ticketing Application Software (Enterprise Edition)	1	4.6				3-4 Months	2.9	7.7
2	e-Ticketing POS Terminal / Thermal Printer / Cash Drawer / Customer Display	8	4.6					2.9	7.7
3	Cordless Industrial Handheld Barcode Scanner	8	2.8					1.7	4.5
4	Self Service Kiosks	4	3.6					2.2	5.3
5	Accessories Paper Rolls / Printer Accessories / Maintenance Parts	1	0.9					0.5	1.4
6	LED Signage Board	18	1.2					0.7	1.9
7	Handheld Metal Detector for Carriage/Bag Checking	8	1.6					1.0	2.9
8	AI Cam s for Footfall Counting & AI Software	8	1.6					1.1	2.9
9	Infrastructure	1	1.5					0.9	2.4
10	Enterprise BI Deployment for Analytics & Dashboards	1	0.7					0.4	1.1
Grand Total			23.7	0.0	0.0	0.0	0.0	14.2	37.9

NOTE: Above Prices are exclusive of all taxes.
The prices mentioned is subject to Confirmation.

GREEN EARTH BENCHES



14 Round Picnic Table



13 Classic Picnic Table



15 Hexagonal Picnic Table



16 Garden Table with Benches



Village Heyr, 12-Km Bedian Road, Lahore
 Tel: 042 35600165-8, Cell: 0300-8440-472 Fax: 042 35600116
 Email: sale@greenearthrecycling.com, earth@greenearthrecycling.com
 URL: www.greenearthrecycling.com

Price List of Green RPC Products (for Registered Person)				
Fig No	Product Name	Rate	Sales Tax (18%)	Net Price (Rs.)
1	Children Outdoor Play set	690,750	124,335	815,085
2	Children Outdoor Play set	765,000	137,700	902,700
3	Children Outdoor Play set	432,000	77,760	509,760
4	Children Outdoor Play set	450,000	81,000	531,000
5	Children Outdoor Play set	485,000	87,300	572,300
6	Children Outdoor Play set	3,150,000	567,000	3,717,000
7	Monster Truck	472,500	85,050	557,550
8	Merry Go Round, Dia 10ft	168,750	30,375	199,125
9	Garden Bench 4ft long with arms	17,550	3,159	20,709
10	Garden table with 2 benches 4ft with arms	51,750	9,315	61,065
11	Straight bench 6ft long	23,400	4,212	27,612
	Straight bench 4ft long	14,850	2,673	17,523
12	Garden Bench 4ft long	21,150	3,807	24,957
13	Classic Picnic table	91,350	16,443	107,793
14	Picnic table in round shape	101,250	18,225	119,475
15	Picnic table in hexagon shape	90,000	16,200	106,200
16	Garden table 4ft x 4ft with 2 benches 4ft	87,300	15,714	103,014
17	Picnic area Hexagonal Shape with round table and dustbin	421,200	75,816	497,016
18	Picnic area complete with Plastic base (10ft x 10ft)	522,000	93,960	615,960
19	Plastic Planks		On Demand	
20	Kiosk 6ft x 6ft with sloping roof	333,000	59,940	392,940
	Kiosk 6ft x 6ft with canopy roof	383,000	68,940	451,940
21	Bus Stop 8ft x 12ft with 4 waiting benches	409,500	73,710	483,210
22	Check Post with sloping roof	209,250	37,665	246,915
	Check Post with canopy roof	213,750	38,475	252,225
23	Garden table 3ft x 3ft with 4 chairs	88,200	15,876	104,076
24	Dining set with 4 chairs	59,850	10,773	70,623
25	Dining set with 6 chairs	82,350	14,823	97,173
26	Easy chair	18,000	3,240	21,240
27	Chair with armrest	18,000	3,240	21,240
28	Rocking Chair	20,500	3,690	24,190
29	Two Seater chair	28,800	5,184	33,984
30	Chair	13,500	2,430	15,930
31	Trellis with 7' opening	105,750	19,035	124,785
32	Toilet with sanitary fittings	350,000	63,000	413,000
33	Planter	7,650	1,377	9,027
34	Planter	7,650	1,377	9,027
35	Ice Cream & Milk Crate holes on base and sides		On Demand	
	Ice Cream & Milk Crate solid base and sides		On Demand	
36	Muskoka Chair	42,750	7,695	50,445
37	Pool/ beach chair	29,250	5,265	34,515
38	Garden table 26" x 26" with 2 benches 13" x 26"	31,500	5,670	37,170
39	Table 22" x 48" with two benches 13" x 48"	56,250	10,125	66,375
40	School children Desk & Bench		On Demand	
41	School children Desk & Bench with Back		On Demand	
42	See Saw	42,750	7,695	50,445
43	Swing Chair	112,500	20,250	132,750
44	Dustbin 1.5ft x 3ft with plastic base	34,200	6,156	40,356
	Dustbin 1.75ft x 3.5ft with plastic base	40,500	7,290	47,790
45	Dustbin 1.5ft x 3ft with steel base	21,600	3,888	25,488
	Dustbin 1.75ft x 3.5ft with steel base	27,000	4,860	31,860
46	Garden bench 6ft long	30,150	5,427	35,577
47	Main gate per sq ft		On Demand	
48	Plain Plastic sheets		On Demand	
49	Two swings with plastic pillars	119,250	21,465	140,715
50	Baby Playset with 4ft slide	52,650	9,477	62,127
51	Baby Playset with 2 slide	356,850	64,233	421,083
52	RPC Manhole Cover & Frame 24" Dia Round Shape Black color	7,300	1,314	8,614
53	RPC Manhole Cover & Frame 24" x 24" Square Shape Black color	7,300	1,314	8,614
54	RPC Manhole Cover & Frame 18" x 18" Square Shape Black color	6,100	1,098	7,198
55	RPC Gully Grating (Light Duty) Cover & Frame 24" x 18" Rectangular Shape Black color	5,500	990	6,490
56	Poly-Al Corrugated Tuff Board		150/ sq ft	
57	RPC Corrugated Tuff Board		175/ sq ft	

Terms & Conditions:

- 100% advance on confirmation of order in form of PO/DD in favor of company.
- Technical persons will be provided (if Required) by GER.
- Transportation, Off-Loading, Civil work (with material), labor etc will be borne by the purchaser.
- Delivery will be made within 120 working days after receiving advance payment.
- Prices are valid for 15 days.



SOUND SYSTEM



NEW NATIONAL TRADERS
EVI PROFESSIONAL AUDIO
 Suite 12, 3rd Floor, Sadiq Plaza, Mall Road, Lahore 54000, Pakistan
 Tel: +92(42)3628 0333, 3628 0334 Fax: +92(42) 3628 0666
 E-mail: nntev1@hotmail.com, muhammadakmal-1@hotmail.com
 Website: www.nntaudio.com

QuotationSr.No: 21255/conference system/2023Dated: 30,Aug,2023

Ref No: _____

To: Director Lahore Zoo

Sr.No:	Description	Qty	U/P	Total
1	Pro Speaker Wall Mounted EV Electro Voice Model: EVID 4.2	10 Pcs	85,000.00	850,000.00
2	Pro Powered Amplifier Bheringer Model: EP 4000	1 Pc	375,000.00	375,000.00
3	Pro Microphone EV PL 84	1 Pc	35,000.00	35,000.00
4	Pre Mixer 4 Channel	1 Pc	65,000.00	65,000.00
5	PVC Popular Pipe 1"	5000 ft	40.00	200,000.00
6	DVD Player Pioneer 320	1 Pc	15,000.00	15,000.00
7	Installation, Testing & Commissioning With Cable 2 Core	10000 ft	50.00	500,000.00
Total:				2,040,000.00
G.S.T 18%				367,200.00
Total:				2,407,200.00

Muhammad Akmal
 CEO
 New National Traders





NEW NATIONAL TRADERS
EVI PROFESSIONAL AUDIO
 Suite 12, 3rd Floor, Sadiq Plaza, Mall Road, Lahore 54000, Pakistan
 Tel: +92(42)3628 0333, 3628 0334 Fax: +92(42) 3628 0666
 E-mail: nntev1@hotmail.com, muhammadakmal-1@hotmail.com
 Website: www.nntaudio.com

Quotation

Sr.No: 21255/conference system/2023

Dated: 30, Aug, 2023

Ref No: _____

To: Director Lahore Zoo

Sr.No:	Description	Qty	U/P	Total
1	Pro Speaker Wall Mounted Martin Audio Model: A55	10 Pcs	85,000.00	850,000.00
2	Pro Powered Amplifier Bheringer Model: EP 4000	1 Pc	375,000.00	375,000.00
3	Pro Microphone EV PL 84	1 Pc	35,000.00	35,000.00
4	Pre Mixer 4 Channel	1 Pc	65,000.00	65,000.00
5	PVC Popular Pipe 1"	5000 ft	40.00	200,000.00
6	DVD Player Pioneer 320	1 Pc	15,000.00	15,000.00
7	Installation, Testing & Commissioning With Cable 2 Core	10000 ft	50.00	500,000.00
Total:				2,040,000.00
G.S.T 18%				367,200.00
Total:				2,407,200.00

Muhammad Akmal
 CEO
 New National Traders



SOLAR SYSTEM FOR CCTV ROOM

Date: 29.08.2023

Ref: RC/LHRZOO/SOLAR/1-31025

To,

Director Lahore Zoo,

90 - Shahrah-e-Quaid-e-Azam, Mall Road Lahore, Punjab Pakistan

Phone: (042-36314684)

Subject: BUDGETED ESTIMATE FOR P/F OF 8KW SOLAR SYSTEM FOR CCTV ROOM

DESCRIPTION/WORK NAME		QTY
Solar Panels:	Tier 1 (A grade solar Panel) /JA/Jinko/Trina Solar /Canadian Solar Panels / Longi 535w – 550w	14
PV Inverter:	10 KW Frounus / Solar Max / Crown / ENVT - Hybrid Inverter	01
Normal Structure:	L2 14 Gauged Pre Galvanized SST Nut Bold 96 inch 14 Panel Structure	14
Safety Box:	DC Breaker, CNC AC Breaker DC SPD, DP Box	1 Jobs
AC, DC Cables:	6mm AC cable, 4mm flexible double pvc White Copper	1 Jobs
Piping & Ducting:	Popular Pipes, Class Pipes	1 Jobs
Installation :	Panel, inverter, structure, wiring etc	1 Jobs
Civil Work	Concrete, Cements, Soil, Labour	1 Jobs
Transportation:	Deliveries Charges	1 Job
Battery Wire:	35 mm Flexible	1 Job
Tall Tubular Battery:	Phoenix / Osaka / Exide TA 2500 230 AMP	4
TOTAL COST:		<u>2,000,000.00</u>

Yours truly,




(CEO)

SOLAR SYSTEM FOR OFFICES

Date: 29.08.2023

Ref: RC/LHRZOO/SOLAR/1-31026

To,

Director Lahore Zoo,

90 - Shahrah-e-Quaid-e-Azam, Mall Road Lahore, Punjab Pakistan

Phone: (042-36314684)

Subject: BUDGETED ESTIMATE FOR P/F OF 25KW SOLAR SYSTEM FOR OFFICES

DESCRIPTION/WORK NAME		QTY
Solar Panels:	Tier 1 (A grade solar Panel) /JA/Jinko/Trina Solar /Canadian Solar Panels / Longi 545 W	47
PV Inverter:	10 KW Frounus / Solar Max / Crown / Hybrid Invertor	02
	5KW Frounus / Solar Max / Crown / Hybrid Invertor	01
Normal Structure:	L2 14 Gauged Pre Galvanized SST Nut Bold 96 inch	47
	47 Panel Structure	
Safety Box:	DC Breaker, CNC AC Breaker DC SPD, DP Box	3 Jobs
AC, DC Cables:	6mm AC cable, 4mm flexible double pvc White Copper	3 Jobs
Piping & Ducting:	Popular Pipes, Class Pipes	3 Jobs
Installation :	Panel, inverter, structure, wiring etc	3 Jobs
Civil Work	Concrete, Cements, Soil, Labour	3 Jobs
Transportation:	Deliveries Charges	1 Job
Battery Wire:	35 mm Flexible	3 Job
Tall Tubular Battery:	Phoenix / Osaka / Exide TA 2500 230 AMP	20
TOTAL COST:		<u>7,520,500.00</u>

Yours truly,



 (CEO)

SOLAR SYSTEM FOR TUBEWELL

Date: 29.08.2023

Ref: RC/LHRZOO/SOLAR/1-31024

To,

Director Lahore Zoo,

90 - Shahrah-e-Quaid-e-Azam, Mall Road Lahore, Punjab Pakistan

Phone: (042-36314684)

Subject: BUDGETED ESTIMATE FOR P/F OF 35KW SOLAR SYSTEM FOR 40HP TURBINE

DESCRIPTION/WORK NAME		QTY
Solar Panels:	Tier 1 (A grade solar Panel) /JA/Jinko/Trina Solar /Canadian Solar Panels / Longi 535w – 550w	64
PV Inverter:	10 KW Frounus / Solar Max / Crown / ENVT - Hybrid Inverter	03
	5KW Frounus / Solar Max / Crown / ENVT - Hybrid Inverter	01
Normal Structure:	L2 14 Gauged Pre Galvanized SST Nut Bold 96 inch 64 Panel Structure	64
Safety Box:	DC Breaker, CNC AC Breaker DC SPD, DP Box	3 Jobs
AC, DC Cables:	6mm AC cable, 4mm flexible double pvc White Copper	3 Jobs
Piping & Ducting:	Popular Pipes, Class Pipes	3 Jobs
Installation :	Panel, inverter, structure, wiring etc	3 Jobs
Civil Work	Concrete, Cements, Soil, Labour	3 Jobs
Transportation:	Deliveries Charges	1 Job
Battery Wire:	35 mm Flexible	3 Job
Tall Tubular Battery:	Phoenix / Osaka / Exide TA 2500 230 AMP	10
TOTAL COST:		<u>7,980,992.00</u>

Yours truly,




(CEO)

DUSTBIN



BILAL TRADERS

Govt. Contractor & General Order Supplier

0308-0112765

GST: 3277876275710
NTN: 9610356-3

Ref. No: N/A

Date: 29/08/2023

Quotation

Supply of Dust Bins.

Customized Dustbins in Fiber Glass
molded design with Paint and iron fitting
with powder coating gROUTING and
fixing complete :-

	H	W	D
Size	42"	24"	18"

Rs:- 14500/-

with out GST.

THIS QUOTATION IS VALID FOR
1 Month Only.

Bilal

Address: 28 NISBAT ROAD, 1st FLOOR BATRA MANSION, LAHORE.

DEALS IN: FURNITURE PURCHASE/REPAIR, MACHINERY PURCHASE/REPAIR, HARDWARE & TOOLS, SANITARY, ELECTRIC ITEMS, AUTO SPARE PARTS/ REPAIR OF VEHICLES, TYRES, BATTERIES, UTILITY, ITEMS CROCKERY, WOODEN WORKS, IRON ANDLE, IT APPLIANCES, TONERS, MEDICINE & SURGICAL, ITEMS, EVENT PLANER, PLANTS & VASE, AGRICULTURE & LIFESTOCK EQUIPMENT, ALL KIND OF UNIFORMS, FLEX, SIGN BOARD & PRINTING OF MUG AND SHIRTS & GENERAL ORDER SUPPLIERS

OFFICE FURNITURE



NNA & CO.

GOVERNMENT CONTRACTOR & GENERAL ORDER SUPPLIERS

Ref. No: N/L

G.S.T. No. 03-11-4817-001-73
NTN No. 1033717-2
P.S.T. No. 1033717-2

Date: 31-08-2023

Quotation

① Visitors Chair

Rs:- 24000/- Without GST

Specifications:-

- 1- Size: 26W/19D/36H (Inches).
- 2- Material: High Quality Fabric Seat and Back.
- 3- Base: Wooden in Smoked Walnut Polish.

② Executive Chair

Rs:- 60,000/- without GST

Specifications:-

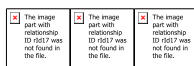
- 1- Size: 29W/23D/27H (Inches)
- 2- Material: Black Fabric
- 3- Base: Aluminium Pedestal
- 4- Base Finish: PVD Coating.

③ Sofa Set (only 3 Seater).

Rs:- 1,00,000/- without GST

- 1- Size: 1930W x 760D x 635H (MM)
- 2- Material: Black Leatherite with grey Fabric Seat
- 3- Base: Wooden Base with Smoke Walnut Polish

Head Office: 36-Allama Iqbal Road, Lahore. Mob: 0333-4537408

Ref. No: N/AG.S.T. No. 03-11-4817-001-73
NTN No. 1033717-2
PST No. 1033717-2Date: 31-08-2022Quotation1) Office Set

- i. High Back Chair (each) = 34000/-
- ii. Visitor Chair (each) = 20000/-
- iii. Center Table (each) = 40,000/-
- iv. Side Rack (each) = 46000/-

140,000/- (For Each Set)
without GST.

2) MEETING TABLE

Rs:- 4,50,000/-
without GST.

- i. Material: Wood/Veneer Polish Finish
- ii. Size: 8 Feet (W) x 15 Feet (L) x (2.5 Feet) (H)

3) Coffee Table

Rs. 45000/-
without GST

- i. Size: 1000W x 500D x 450H (mm)
- ii. Made in pre laminated MDF Sheet
- iii. Partial Wood legs

Qadeem
Alam

Head Office: 36-Allama Iqbal Road, Lahore. Mob: 0333-4537408

LAPTOP



Dated: 31-08-2023

Ref#: N/C

QUOTATION

LAPTOP:-

HP Envy 14 x 360

Brand: HP

- 13th Generation
- Core i5 1335u Raptor Lake Processor
- 08 GB Ram DDR4
- 512 GB Hard Drive
- 512 GB SSD
- Resolution 1920 x 1080
- International warranty

Rs. 3,60,000/- without GST

This quotation is valid for one month only


31/8/2023

MIST FAN



ezmakaan.com

GFC Pedestal Mist Fan 24"

 In stock - updated 8 days ago

Rs. 24,150

Set Price Alert 

Visit Site 

Price Comparison

VENTILATION SYSTEM



COOL Mate ENGINEERING
Square & Round Duct & Mechanical Job Grill Aluminum & Diffuser
We Deals in all kinds of Kitchen Hood & Bloor Cabinets & Air Cooler.

Quotation for imported cooler 4/9/2023

Fresh air unit size 42"X42"X36"
Unit C.F.M 10,500 in single phase
Inverter unit 12' speed with touch L.C.D
and remote Auto water drain
4inch cooling pad 4 side with filter

Imported Unit price = 165000

Ducting GI sheet per square feet .
R.S 370 Round about total square feet 255

Ducting price = 95000

2 Fresh air grills price = 12000

Heating Duct Box with fitting price = 30,000

Englarron unit stand fitting price = 10,000

Total 312000



0315-7333776
0321-7000264
mussaazeem001@gmail.com

Shalimar Town, Lahore.
www.ductinginlahore.com

HOLOGRAM

Axiom Holographics Price List (2023)

All prices are in USD. Prices do not include shipping, installation, and local taxes. Prices are valid until 31-December 2023



FULL CENTRES

Small Centre (1 tunnel, 2 rooms, 1 arcade, 1 theatre)
\$610k or \$305k + \$8133 a month for five years (total = \$793k)

Medium Centre (2 tunnel, 3 rooms, 2 arcade, 2 theatre, bridge & giant animals)
\$1.24m or \$620k + \$16,533 a month for five years (total = \$1.662m)

Large Centre (3 tunnel, 5 rooms, 3 arcade, 3 theatres, bridge & giant animals)
\$1.85m or \$925k + \$24,666 a month for five years (total = \$2.40m)

Giant Centre (5 tunnel, 8 rooms, 8 arcade, 4 theatre, 2 bridges & giant animals)
\$3.45m or \$1.725m + \$46k a month for five years (total = \$4.485m)

Content is as shown below per item.

INDIVIDUAL EQUIPMENT

Hologram Tunnel (4 contents upfront, and 2 a year, max 8)
\$200k or \$100k + \$2.6k a month for five years

Hologram Room (4 contents upfront, and 2 a year, max 8)
\$120k or \$60k + \$1.5k a month for five years

Hologram Arcade (6 contents upfront)
\$120k or \$60k + \$1.5k a month for five years

Hologram Theatre (4 contents upfront, and 2 a year, max 8)
\$50k or \$25k + \$667 a month for five years

Hologram Bridge (8 contents upfront)
\$80k or \$40k + \$1k a month for five years

Giant Hologram Animals (8 contents upfront)
\$60k or \$30k + \$800 a month for five years

Restaurant Hologram Theatre (6 contents upfront and 6 more for next 2 years, max 12)
\$150k or \$75k + \$3.2k a month for five years

Double Hologram Enclosure (9 content dinosaurs) (usually on the back of a tunnel)
\$50k or \$25k + \$667 a month for five years

Support

For those who pay the one off sales price: you can purchase Premium Support for 5% of the sale price per year or 1% of the sale price per year for Basic Annual Support. Support is not compulsory you can choose to go without. For those who pay off over 5 years Premium Support is included automatically. Additional content and training will be given to Premium Support customers at Axiom Holographics discretion.

WATER CHILLERS

Union Refrigeration Electro Gas Co.

.Manufacturer of = Water Coolers Industrial Model, Water Chiller, Gas Water Heater, Electric water heater, Gas Room Heater.H.V.A.C, All type of Evaporators,Condensers,Refrigerant Parts, Gas R-22 Etc

Spacification

Water Chiller Model UC-300

- 1= Body= M/s Sheet 20-swg powder painted imported
- 2=Condenser= 3-HP Heavy Duty
- 3=Compressor= 1.5- Ton
- 4=Fan Motor= Heavy Duty
- 5=Expansion valve= Danfoss for refrigerant control
- 6=Tank= S.S Non Magnat 304-Grade 16-swg
- 7=Cooling system= S.S tube 18-swg 304 grade Dip in water for 100% cooling
- 8= Digital Elitech
- 9=Complete Electric Panal with all safties
- 10= Chiller stand and Drain pot
- 11= Gas R-134 USA
- Not= No triping in hot weather work in 50C"successfully.

Pervaiz Iqbal=03004006618

49 Railway Shop Shalamar Link Road Lahore

[E-Mail=pervaizunion@hotmail.com](mailto:pervaizunion@hotmail.com) naseermalikunion@gmail.com

Union Refrigeration Electro Gas Co.

.Manufacturer of = Water Coolers Industrial Model, Water Chiller, Gas
Water Heater, Electric water heater, Gas Room Heater.H.V.A.C, All type of
Evaporators,Condensers,Refrigerant Parts, Gas R-22 Etc

Quotation

05-9-2023

Lahore Zoo

Electric water chiller uc 300 capacity =580000/

UNION BRAND

With GST

1 year compressor guarantee 3 year tank leakage

Specification

Attached

Pervaiz iqbal 03004006618

Factory= 83-A Bilal Town Gulshon-e-Hababa Chandria Road Chungi

Umer sudho

49-Railway Shop Shalimar Link Road Lahore 042-

36812345/03004376120

E-Mail=pervaizunion@hotmail.com

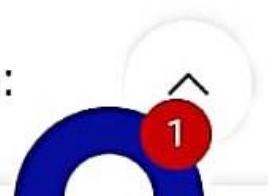
naseermalikunion@gmail.com

CABINET AC



Gree GF-48TFIH 4.0 Ton Floor Standing T-Fresh Inverter AC

- BTUs Capacity: 48000 BTUs
- Capacity Cooling – BTU/H (H/S/L*):
33437/24566/3412
- Capacity Heating – BTU/H (H/S/L*):
37873/25590/5459



ZOO UNIFORM



BAKSH ENTERPRISES

Approved Government Contractors & General Order Suppliers
Police, Ranger & Army Suppliers

G.S.T. No. 32-77-8761-201-03
NTN No. 1155725-7

Ref. No. _____

QUOTATION

Date: 4/9/23

Director Zoo Lahore

Commando Uniform	7600/-
Sholeen Kameez	3600/-
Shawl Commando	6000/-
Shawl Maccchi Bahu/Servi	4000/-

Socks
 Dori with whistle
 Shoulder badge
 Belt
 Name Plate
 Mubhatig
 Chest badge

2000/- set

Rates are inclusive of 4.5% SMC
18% Sales tax.

[Signature]
BAKSH ENTERPRISES
28 - Empress road

28 - EMPRESS ROAD, LAHORE. PHONE: 042 - 36302653



COOL Mate ENGINEERING
Square & Round Duct & Mechanical Job Grill Aluminum & Diffuser
We Deals in all kinds of Kitchen Hood & Bloor Cabinets & Air Cooler.

Quotation for imported cooler 4/9/2023

Fresh air unit size 42"X42"X36"
Unit C.F.M 10,500 in single phase
Inverter unit 12' speed with touch L.C.D
and remote Auto water drain
4 inch cooling pad 4 side with filter

Imported Unit price = 165000

Ducting GI sheet per square feet .
R.S 370 Round about total square feet 255

Ducting price = 95000

2 Fresh air grills price = 12000

Heating Duct Box with fitting price = 30,000

Englarron unit stand Fitting price = 10,000

Total 312000



☎ 0315-7333776
0321-7000264
✉ mussaaazem001@gmail.com

📍 Shalimar Town, Lahore.
www.ductinginlahore.com

VEHICLE





Variant	Price	Filer	>>
Cultus VXR	PKR 3,718,000/-		
Cultus VXL	PKR 4,084,000/-	PKR 20,000/-	
Cultus VXL-AGS	PKR 4,366,000/-		

Prices effective from : Apr 06, 2023

*Accessories are not included in the standard model





Honda | Pakistan
honda.com.pk





Honda City 1.2LS MT

Starting From PKR 4,799,000

Honda City 1.2LS CVT

Starting From PKR 4,929,000

***For detailed price kindly use price calculator**

[Explore More >](#)





AD-FLEX®
ADVERTISING

Your business Publicity
on a Best Way . . .

www.ad-flex.webs.com

Quotation

For Dise toor Lahore Zoo Lahore
Making & Bounding Animals Sculptures Fibre material.

(1) Sculpture of Animals Size 15'x8'x6' in fibre and iron
structure, paint coating, making & firing complete.
cost: Rs: 1500,000/-

(2) Sculpture as per above specifications
Size 10'x6'x5' complete: cost Rs: 1200,000/-

(3) Size 8'x5'x5' " cost Rs: 1000,000/-

(4) Size: 6'x5'x4' " cost Rs: 800,000/-

(5) Size: 5'x5'x3' " cost Rs: 600,000/-

(6) Size: 4'x3'x2' " cost Rs: 400,000/-

[Signature]

Date: _____

Ref: _____



6-B Crystal Tower Liberty Market
Gulberg III, Lahore - Pakistan.

+92 - 321-800 3300
+92 - 321-511 7080

+92 - 423-7000 456
adflexx@gmail.com



PKR 234,900/=

Buy Now:



Technical Specifications

Engine	4-Stroke OHV Air Cooled
Bore & Stroke	56.5 x 49.5 mm
Starting	Kick Start
Final Drive	Roller Chain
Transmission	4 Speed Constant Mesh
Dimension(LxWxH)	1912 x 735 x 1026 mm
Seat Height	764 mm
Ground Clearance	132 mm

PHOTOCOPIER



W'11 Stop
One Stop, All Solutions



👁️ **PRODUCT VIEWS: 6469**

- **STOCK AVAILABILITY:** Inquiry
- **MODEL:** RICH-02

RICOH

RICOH

Rs. 600,000/-

TRANQUILIZING GUN
BARLEX AGENCIES

 ATTN: THE DIRECTOR
LAHORE ZOO LAHORE.

Date:

QUOTATION

SR NO.	PARTICULARS	DESCRIPTION	QTY	UNIT PRICE	TOTAL
01	TELINJECT Applicator Model G.U.T. 50 with Accessories	1. Solid Plastic carry case -01 2. Gas cylinder CO2 16gram -01 3. Training syringe -01 4. Special syringe 10cc -01 5. Special syringe 05cc -01 6. Special syringe 03cc -01 7. Special Needle 1.5 x 20 mm -01 8. Special Needle 1.5 x 30 mm -01 9. Sealing sleeves -10	01	2,495,000=	2,495,000=
				TOTAL	2,495,000=

IMPORT NOC & CUSTOMS CLEARANCE

1. NOC is required from ministry of commerce which you will obtain.
 2. Will require a letter for custom to clear the applicator from customs on your behalf.
- Validity of Quotation = 31.12.2023
 Warranty of Applicator = one year
 Delivery Period = one month
 Payment Terms = 100% advance.

Tax are not included in the quotation.

We may mention here that we are the Sole Distributor for Telinject – Germany in Pakistan for the last 30 years.

SARDAR ALEEM


Tel: +92 42 35178464 Fax: 92-42-35170144

Suit # 11-12, Second Floor, Akram Complex, Model Town, Link Road, Lahore-Pakistan

E-mail: barlex@hotmail.com

Import / Export Govt. Contractor & General Order Supplier

"Save Trees & Protect Environment"



No.CEB(CZ)/ 662/D(3)
OFFICE OF THE CHIEF ENGINEER
PUNJAB BUILDINGS DEPARTMENT
CENTRAL ZONE



Dated Lahore the October 21, 2024.

To

**The Secretary,
Government of the Punjab,
Forestry, Wildlife & Fisheries Department,
Lahore.**

Subject: - **2ND REVISED ROUGH COST ESTIMATE FOR REVAMPING OF
LAHORE ZOO -ADP NO.3263/2024-25.**

The 2nd Revised Rough Estimate amounting to **Rs.1005.442 Million** framed on MRS 2nd Bi-annual 2023 duly signed/vetted by the Chief Engineer, Punjab Buildings Department, Central Zone, Lahore is sent herewith for further necessary action regarding its Administrative Approval and arrangement of funds.

The responsibility regarding all field data 100% lies upon the field formation.

D.A/Estimate
Rs.1005.442(M)


DEPUTY DIRECTOR-I
for Chief Engineer,
Punjab Buildings Department,
Central Zone, Lahore

No.& Date Even.

Copy is forwarded to the:-

- i) Superintending Engineer, Buildings Circle No.03, Lahore for information with reference to his memo No.868/D-SE-3, dated 08-10-2024.
- ii) Superintendent Monitoring (Local),
- iii) Chief Draftsman (Local).

DEPUTY DIRECTOR-I
for Chief Engineer,
Punjab Buildings Department,
Central Zone, Lahore

To,

**THE EXECUTIVE ENGINEER,
5th Buildings Division,
Lahore.**

No SDO/CMO/ 970

Dated 12-08-2024

SUBJECT: **2ND REVISED ESTIMATE OF REVAMPING OF LAHORE ZOO.**

Kindly find enclosed herewith the subject cited estimate amounting to ~~Rs. 955.00 Million~~ ^{1005.00M} submitted to your good office for information and further necessary disposal please.

DA/As Above


Sub Divisional Officer
Building Sub Division C.M Sectt:
Lahore.

THE EXECUTIVE ENGINEER (BUILDINGS)

5th Building Division Lahore.



2ND REVISED ESTIMATE OF **REVAMPING OF LAHORE ZOO**

ESTIMATED COST RS.955.0 MILLION

BASED ON MRS: 2ND BI ANNUAL 2023

PREPARED BY :

SUB DIVISIONAL OFFICER
Buildngs Sub Division
C.M Sectt: Lahore

PROVINCE

PUNJAB

STATION

LAHORE

DIVISION

5TH BUILDING DIVISION LAHORE.

SUB DIVISION

**BUILDINGS SUB DIVISION C.M SECTT:
LAHORE.**

NAME OF WORK

**2ND REVIESED ESTIMATE OF
REVAMPING OF LAHORE ZOO.**

TOTAL AMOUNT

RS. 955.00 MILLION

ESTIMATE FRAMED BY:

Executive Engineer
5th Buildings Division
Lahore.

Name of Work:

2ND REVISED ESTIMATE OF
REVAMPING OF LAHORE ZOO.

HISTORY:

The Government of the Punjab Wildlife Department Planed to execute revamping / renovation works in all most all Animal Houses. The Competent Authority, Wildlife Department of Punjab has requested for the Revamping of Lahore Zoo.

Keeping in the view, the 2nd revised estimate has been framed amounting to Rs. 955.00 Million and is hereby submitted for according its Administrative Approval from competent forum. The reasons of revision are hereby enclosed in the letter received by the client.

SCOPE OF WORK:-

- | | | | |
|-------------------------------|----------------------|----------------------|---------------------|
| 1. BEAR HOUSE | 2. GIRAFFE HOUSE | 3. HIPPO | 4. MONKEY HOUSE |
| 5. REPTILE HOUSE | 6. HOSPITAL BUILDING | 7. SICK CAGES | 8. TOILET BLOCK |
| 9. KANGRO HOUSE | 10. RHINO HOUSE | 11. OSTRICH BUILDING | 12. UNGULATES HOUSE |
| 13. OFFICE BUILDING | 14. BACK GATE | 15. LION HOUSE | 16. TIGER HOUSE |
| 17. ENTRANCE GATE (MALL ROAD) | 18. SEWERAGE SYSTEM | 19. BRID AVERY | 20. HOLOGRAM ZOO |
| 21. MAIN GATE | 22. FOOD COURT | 23. AMPHITHEATRE | 24. PARKING |
| 25. ROAD PATH | | | |

SPECIFICATION:

Standard PWD specification has been observe during the execution of work.

RATE:

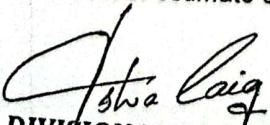
Rate based on MRS. 2nd Bi Annual 2023.

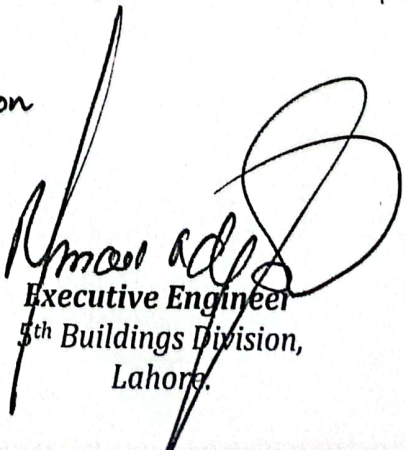
TIME LIMIT:

It will take 24-Months to complete the work after receiving of funds from the competent authority.

COST:

Total cost of estimate comes to **1005 Million**
Rs. 955.00 Million


SUB DIVISIONAL OFFICER
Buildngs Sub Division
C.M Sectt: Lahore.


Executive Engineer
5th Buildings Division,
Lahore.

2ND REVISED ROUGH COST ESTIMATE REVAMPING OF LAHORE ZOO

SUMMARY OF COST

Sr.#	Description	As Per A.A Rough cost Estimate		As Per Work Allotted		As Per Work Yet to be Allotted		TOTAL	Excess	Saving	Remarks
		Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)				
1	Bear House	42,259,547	42,259,547	42,259,547	-835620	41,423,927	0	835,620		As per detailed design	
2	Giraffe House	22,812,000	22,812,000	22,812,000	-499353	22,312,647	0	499,353		RCC Railing is omitted from the scope	
3	Hippo	8,889,881	8,889,881	8,889,881	-2101086	6,788,795	0	2,101,086		Glass railing is omitted from the scope	
4	Monkey house	29,173,765	29,173,765	29,173,765	-2105362	27,068,403	0	2,105,362		Glass pannel is reduced from the original scope	
5	Reptile house	68,214,714	68,214,714	68,214,714	19,882,911	88,097,625	19,882,911	0		Acquarium chambers are added as per steel bridge i/c crocodile pond is added as per the requirement of client	
6	Hospital Building	17,841,033	17,841,033	17,841,033	-2624640	15,216,393	0	2,624,640		As per detailed design	
7	Sick Cages	8,063,893	8,063,893	8,063,893	-2164942	5,898,951	0	2,164,942		As per detailed design	
8	Admin Building	-	-	-	-	-	0	0			
9	Kangro House	8,794,324	8,794,324	8,794,324	-1539908	7,254,416	0	1,539,908		Housing is omitted from the scope	
10	Rhino	12,904,395	12,904,395	12,904,395	-56738	12,847,657	0	56,738		Glass railing is omitted from the scope	
11	Ostrich Building	6,554,219	6,554,219	6,554,219	-1646319	4,907,900	0	1,646,319		As per detailed design	
12	Ungulates House	38,594,091	38,594,091	38,594,091	-2633924	35,960,167	0	2,633,924		As per detailed design	
13	Auditorium Building , Office Building	-	-	-	-	-	0	0			
14	Back Gate	9,734,331	9,734,331	9,734,331	-2378739	7,355,592	0	2,378,739		As per detailed design	
15	Lion House	101,872,157	101,872,157	101,872,157	4357425	106,229,582	4,357,425	0		As per detailed design	
16	Tiger House	14,577,880	14,577,880	14,577,880	-1391794	13,186,086	0	1,391,794		Cladding work is omitted from the scope	
17	Entrance Gate (Mali Road)	5,332,000	5,332,000	5,332,000	-27740	5,304,260	0	27,740		As per detailed design	
18	Sewerage System	55,817,780	55,817,780	55,817,780	1,526,845	54,290,935	0	1,526,845		As per detailed design	
19	Brid Avery	12,096,772	12,096,772	12,096,772	3,435,737	15,532,509	3,435,737	0		Internal brid housings are added in the scope	
20	Hologram Zoo	67,993,066	67,993,066	67,993,066	-2592599	65,400,467	0	2,592,599		Steel building is converted into RCC Structure in the new scope	

2ND REVISED ROUGH COST ESTIMATE REVAMPING OF LAHORE ZOO

SUMMARY OF COST

Sr.#	Description	As Per A.A Rough cost Estimate		As Per Work Allotted		As Per Work Yet to be Allotted		TOTAL		Excess	Saving	Remarks
		Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)	Amount (PAK RS)			
21	Main Gate	30,682,627		30,682,627		-883,066		29,799,561	0			Construction of new gate is omitted from the scope
22	Food Court	13,860,196		13,860,196		685,140		13,175,056	0			As per detailed design
23	Amphitheatre	16,499,116		16,499,116		-375,937		12,739,739	0			As per detailed design
24	Parking	150,020,341		150,020,341		195,517		150,215,858	195,517		0	As per detailed design
25	Road Path	36,935,124		36,935,124		13,323,121		50,258,245	13,323,121		0	Tuff paver area increases in the new scope
26	Toilet Block	5,737,041		5,737,041		371,449		6,108,490	371,449		0	As per detailed design
27	Boundary Wall					73,233,646		73,233,646	73,233,646		0	new scope
28	Electrification (HT & LT Panels)					36,111,998		36,111,998	36,111,998		0	new scope
	Total Cost:	785,260,293		785,260,293		121,458,612		906,718,905	-			
	Add 2% Consultancy Charges (Detailed Engineering Design & Detailed Resident Construction Supervision)	12,710,732		12,710,732		2,429,172.24		12,710,732.00	-			
	WASA Charges (External Sverage Connection)					20,000,000		20,000,000	-			NEW SCOPE
	Add 2% Contingency	12,710,732		12,401,732		2,429,172.24		18,134,378.10	-			
	Grand Total Cost:	810,681,757		810,372,757		146,316,956		957,564,015	-			
	5% PST	40,534,087		40,534,088		7,315,847.82		47,878,200.76	-			
	Total Cost: in Million	851.00		851.000		453.633		1,005.442	18.15%			

TECHNICAL REVIEWED

For Rs. 1005.442 (M)
 Prepared by: One Building, Zero Fine Dining
 Four Star Two million and 400 thousand

Chief Engineer
 Punjab Building Dept.
 Lahore

Superintending Engineer
 Building Circle No.3
 Lahore

Executive Engineer
 5th Building Division
 Lahore

SUB DIVISIONAL OFFICER
 BUILDINGS SUB DIVISION CM Sectt
 LAHORE