



GOVERNMENT OF THE PUNJAB
PLANNING & DEVELOPMENT BOARD
(L&DD Sector)

WORKING PAPER FOR PDWP

Part – A Project Profile

1.	Name of the project	CM Punjab: Progressive Control of Foot & Mouth Disease (FMD) in Punjab														
2.	Name included in ADP (2024-25) at GS No.3309	CM Punjab Foot & Mouth Disease Eradication Programme														
3.	Location	All Divisions of Punjab Province														
4.	Sponsoring Agency	Government of the Punjab, Livestock and Dairy Development Department														
5.	Executing Agency	1. Director General Extension (DG Ext) L&DD Punjab, 2. Director General Research (DG Res) L&DD Punjab, through Directorate of Animal Disease Diagnostic Reporting and Surveillance. 3. Project Management Unit														
6.	Cost of the project:	<div>Rs. In million</div> <table><tr><th>Cost Discussed in PDWP meeting held on 30.9.2024</th><th>Cost discussed in PDWP meeting held on 20.12.2024</th><th>Proposed cost in recent PC-I</th><th>Recomm ended by Pre-PDWP</th><th>Difference</th></tr><tr><td>7500.0</td><td>6322.90</td><td>7500.00</td><td>863.496</td><td>6636.504</td></tr></table>					Cost Discussed in PDWP meeting held on 30.9.2024	Cost discussed in PDWP meeting held on 20.12.2024	Proposed cost in recent PC-I	Recomm ended by Pre-PDWP	Difference	7500.0	6322.90	7500.00	863.496	6636.504
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7500.0	6322.90	7500.00	863.496	6636.504												
7.	Allocation in ADP (2024-25)	Rs. 242.00 million														
8.	Gestation period	2024-25 to 2026-27 (26 Months)														

9. Description & Justification of the Project

9.1: Livestock and Foot-and-Mouth Disease (FMD) in Pakistan

Livestock plays a vital role in Pakistan's economy, contributing approximately 60.84% to the agricultural value-added and 14.63% to the national GDP (Economic Survey of Pakistan 2023–24). The overarching strategy for livestock development centers on increasing per-animal productivity through enhanced health coverage, improved management practices, advanced breeding techniques, efficient artificial insemination services, balanced nutrition, and control of economically significant livestock diseases. This approach aims to unlock the sector's potential for economic growth, food security, and rural socio-economic development. However, Foot-and-mouth disease (FMD) is a transboundary viral disease affecting cloven-hoofed animals across Asia. It is a highly contagious disease with serious economic implications, affecting cattle, buffalo, sheep, goats, and other ruminants. The following are **Modes of FMD Transmission**:

- **Direct contact:** Through physical interaction with infected animals or carcasses.
- **Contaminated surfaces:** The virus can survive on surfaces and in water for up to a month, depending on environmental conditions.
- **Contaminated clothing or footwear:** Humans can act as carriers.
- **Contaminated equipment:** Tools and machinery used with infected animals can spread the virus.

- **Aerosol transmission:** Infected animals release large quantities of virus particles through exhalation. Although less common, airborne transmission is possible under favourable conditions.
- **Movement of animals, people, and vehicles:** This significantly contributes to the spread of the disease.

FMD is classified as a Transboundary Animal Disease (TAD), which severely impacts livestock production and disrupts both regional and international trade. Countries free of FMD without vaccination remain under constant threat of incursion. Approximately 75% of the global costs associated with FMD prevention and control are borne by low- and lower-middle-income countries. In 2012, the Food and Agriculture Organization (FAO) and the World Organization for Animal Health (WOAH) launched a 15-year **Global Control Strategy for FMD**, under the Progressive Control Pathway (PCP-FMD), aiming to reduce disease prevalence in endemic areas and safeguard FMD-free countries. FMD has far-reaching economic implications. Outbreaks trigger trade restrictions and lead to the enforcement of stringent import/export regulations for animals and animal products. In Pakistan, vaccination of susceptible animal populations is mandatory. However, current indigenous production stands at only 10 million doses of non-purified vaccine annually, which fails to meet international trade standards due to the absence of DIVA (Differentiating Infected from Vaccinated Animals) compliance.

Surveillance and Digital Monitoring: An efficient surveillance system is crucial for effective FMD control. Currently, Punjab relies on a combination of passive and limited active surveillance. Livestock & Dairy Development Department is shifting towards a more coordinated strategy through the ICT-based **ADRS Info System**. While this system enables real-time reporting, data storage, and lab management, it lacks features such as outbreak response monitoring, data analytics, and AI-driven alerts. Therefore, an upgraded **AI-powered Disease Surveillance and Information System (DSIS)** is needed. This system will be piloted in an FMD-free compartment and will support a more effective, risk-based vaccination strategy. This initiative will bolster Pakistan's efforts to meet global trade standards and unlock export potential.

9.2: **Project Justification:**

The livestock sector holds a unique position in the national development agenda, serving as a crucial source of foreign exchange. Traditionally, livestock in Pakistan has been a subsistence sector, managed predominantly by smallholders for milk production, food security, and daily income. It provides a stable livelihood, particularly for landless and small-scale rural farmers, and contributes significantly to rural employment. Livestock also mitigates income volatility, especially during crop failures. Over 8 million rural families in Punjab are directly or indirectly involved in livestock production. Among the following challenges, **livestock diseases pose the greatest threat**, with FMD being one of the most serious. However, the dairy sector faces several challenges including:

- Frequent disease outbreaks
- Fodder and feed shortages
- High cost of milk replacers
- Low productivity of indigenous breeds
- Marketing constraints

9.3: **Implications of FMD:**

As the saying goes, *"FMD doesn't kill the animal, but it always kills the farmer."* The disease causes substantial losses to the meat and dairy sectors through:

- Calf mortality
- Reduced milk yield
- Abortions
- Veterinary treatment costs
- Decreased working efficiency and weight loss

FMD typically reduces productivity by one-third and remains a key obstacle to livestock development and trade. Although limited local data exists, global evidence shows its devastating impact. For example, Latin America reportedly lost over **USD 50 billion in exports between 1990 and 2004** due to FMD.

9.4: **CM Punjab: Progressive Control Program for Foot & Mouth Disease in Punjab:**

To address the critical challenges posed by Foot-and-Mouth Disease (FMD) in the livestock sector—including economic losses, trade barriers, and social impacts—the **Livestock & Dairy Development (L&DD) Department** has launched the **CM Punjab Foot & Mouth Disease Eradication Programme**. This flagship initiative aims to strengthen FMD control through a comprehensive and integrated approach.

10. **33rd PDWP PROCEEDINGS**

The scheme was deliberated in 33rd PDWP meeting held on 30.09.2024 at a cost of Rs. 7,500.00 million and was deferred with the following directions:

- i. The PC-I of the scheme submitted by the Administrative Department shall be returned immediately for resubmission after incorporating all the proposals discussed during the PDWP meeting.
- ii. The department shall propose visit of departmental officials to relevant countries to observe the establishment and operation of FMD-free zones for replication in the Punjab.
- iii. The department shall identify the most suitable geographical location for the FMD-free zone in the Punjab.
- iv. A comprehensive PC-I shall be prepared including necessary interventions in line with WOAHA guidelines, detailed planning for specific activities, resource estimation, structural and institutional arrangements, and legal provisions for establishing FMD-free zones.

- v. The proposed funding for procurement of vaccine shall be minimized since substantial vaccine procurement is already being done through non-development budget.
- vi. If any vaccine is required to be procured out of these ADP funds, that vaccine shall be only for the use in FMD free zones, once established.

Now, L&DD Department has re-submitted PC-I in the light of observations / directions 33rd PDWP meeting. A comparison of the original and amended scope is tabulated below:

Category	Old Project Proposal (Sep 2024)	Revised Project Proposal (March 2025)
Project Duration	2024-25 to 2026-27 (3 years)	2024-25 to 2026-27 (3 years)
Budget	Rs. 7,500 Million	Rs. 863.496 Million
Scope	Focus on Establishment of FMD Free Zones in District Bahawalnagar.	<p>Establishment of PMU: A PMU comprising of following experts for preparation of comprehensive PC-I including interventions, detailed planning for specific activities, resource estimation, structural and institutional arrangements, and legal provisions for establishing FMD-free zones in line with WOAHP guidelines:</p> <ol style="list-style-type: none"> i. Project Coordinator ii. FMD Specialist iii. Epidemiologist iv. GIS Analyst v. Data Scientist vi. Data Base Administrator vii. Monitoring Officer <p>Feasibility Study: An internationally renowned consultant / firms will be engaged to carry out detail feasibility study to recommend the most suitable location for FMD Free Zone.</p> <p>FMD Free Compartments: 15 FMD Free Compartments will be established by engaging private sector:</p>

11. PROJECT OBJECTIVES

The key objectives of the project are as follows:

- Promote export surplus by establishing FMD-Free Compartments and FMD-Free Zones in accordance with international standards.
- Prepare Punjab to advance from Stage 2 to Stage 3 under the Progressive Control Pathway (PCP) for Foot-and-Mouth Disease (FMD).
- Ensure the sustainability of the livestock sector by implementing systems that make animals traceable, tagged, and disease-free.
- Conduct virus characterization of prevalent FMD serotypes to inform targeted disease control strategies.

The above planned objectives will be achieved through following interventions: -

- Establishment of Project Management Unit (PMU) by recruiting qualified personnel on a Project Pay Scale (PPS) from the open market to ensure professional project execution.
- Establishment of FMD Compartments utilizing the existing human and infrastructure

resources of the Livestock & Dairy Development Department (L&DD)

- Development of a FMD-Free Zone based on findings and recommendations from feasibility studies.

12. PROJECT SCOPE / KEY INTERVENTIONS

The project focuses on the following three key interventions:

1. Establishment of Project Management Unit
2. Establishment of FMD Free Compartments in Punjab
3. Establishment of FMD Free Zone(s) in Punjab

12.1 Establishment of Project Management Unit:

A **Project Management Unit (PMU)** will be established to implement and coordinate the project activities. The PMU will hire a consultant firm and other staff under this project to achieve the following interventions for the establishment of new FMD Free Zones in the Punjab.

- The PMU will conduct the feasibility study through an internationally renowned consultant/firm to identify areas for the establishment of FMD Free Zones in Punjab.
- Technical and financial assessment of potential areas for establishing FMD free zone in future along with operation and maintenance model.
- Preparation of PC-1 for the identified FMD Free zones according to WOAHP guidelines.
- Implementation and monitoring of all activities including biosecurity, animal identification and traceability, immunization, disease surveillance and emergency response in the proposed FMD Free Zones.
- Preparation of training modules for the field vets / para vets and laboratories staff
- Preparation of dossier for FMD free zones for submission to the concerned agencies for endorsement.
- Follow up of third-party evaluation reports for corrective measures.
- Follow up for acknowledgments of the FMD Free-zone with the relevant agencies.

A total budget amounting to Rs. 405.099 million has been allocated for these interventions. The PMU will initially be stationed at the Directorate of Planning & Evaluation; however, a separate office will be established for the PMU at Livestock Complex, Cooper Road, Lahore later. The Project Steering Committee will review and monitor the progress of PMU as well as the overall project activities.

12.2 Establishment of FMD Free Compartments in Punjab

The FMD Free Compartments will be established by L&DD Department under the Punjab Animal Health Act, 2019. The Director General (Ext.) / CVO Punjab through Director General (Res.), Director ADDRS, Divisional Directors Livestock, ADLs, DDLs, ADIOs will implement and monitor all the project interventions. The establishment of FMD Free Compartments will be achieved through the following interventions:

- Expression of interest will be invited for willing farmers having 300 or more than 300 animals. A maximum of **15 FMD free compartments** will be established under this project.

- Boundaries of compartments and buffer areas (3 km) will be defined.
- Control of animal movement and biosecurity measures will be implemented.
- Complete survey of the area will be performed for livestock population and relevant parameters as per Punjab Animal Health Rules, 2021.
- The CVO will submit complete case to the competent forum under the Punjab Animal health act 2019, for notification of the compartment.
- The required vaccination and tagging/registration on PAITS inside the compartment, check posts, boundary walls or fencing and quarantine stations will be established by the owner of the compartment.
- Vaccination, tagging and movement control in the buffer area will be undertaken by the department.
- Disease surveillance and monitoring of the compartment and buffer area will be conducted by the livestock department.
- Establishment of Rapid Response Units by the provision of customized vehicles for disease outbreak handling.
- All the data regarding vaccination, tagging, diseases surveillance, post vaccination monitoring, etc will be uploaded on relevant databases i.e PAITS, 9211.
- L&DD Department will also utilize the existing human and infrastructure resources for establishment of 15 No. FMD Compartments at various locations.
- Funds amounting to Rs. 348.397 million has been proposed for development of 15 FMD Free Compartments in Punjab.

12.3 Establishment of FMD Free Zone(s) in Punjab

After conducting the feasibility study, the PMU will submit the revised PC1 for the establishment of new FMD Free Zone(s) by the consultant. The FMD Free Zone(s) will be established under the Punjab Animal Health Act, 2019 and its subsequent rules. All the activities including demarcation of geographical boundaries, the establishment of check posts, quarantine units, animal vaccination, tagging and movement control will be outsourced and monitored by the PMU. Civil Veterinary Officer Punjab will notify animal quarantine units, check posts and other legal provisions for FMD Free Zone(s) as proposed by the PMU under the Punjab Animal Health Act, 2019 and subsequent rules its under. The PMU will prepare dossier for notification and further evaluation of FMD Free Zone(s) from the national and international agencies through CVO Punjab.

The total tentative allocation of the budget for the establishment of FMD Free Zone(s) is Rs. 100.00 million. As the cost for the establishment of FMD Free Zone(s) depends upon the geographical area, animal population, natural boundaries, buffer area, animal movement, no. of check posts and quarantine units, type of vaccine and immunization strategy, therefore, the detailed breakup of cost will be provided in the revised PC-1 as proposed in the feasibility study.

13. DEFINED ROLES OF COLLABORATIVE DEPARTMENTS

Director General (Ext) and Director General (South Punjab)

- Will coordinate with Project coordinator for overall monitoring of project activities.
- Director General (Ext) will notify monitoring teams of divisional directors for inspection of

vaccine inoculation, cold chain maintenance, and data uploading on 9211/PIATS.

- On the basis of expression of interest, the DG Ext / CVO Punjab will fulfill all codal formalities for the establishment of FMD free compartment and submit case to competent forum for the notification.
- DG Ext / CVO Punjab will be responsible to accomplish all the requirements regarding FMD Free compartment establishment through its field formation; e.g. define boundaries and buffer areas, animal registration/tagging, animal movement control, vaccination etc.
- DG Ext will make arrangement for tagging of the cattle and Buffalo in the compartment through the successful supplier / bidder for the animals tags.

Director General (Research)

- Prepare and notify the SOPs for disease surveillance, post vaccination monitoring, virus circulation for FMD free compartments.

Will notify research and development (R&D) committee for the isolation, characterization and allied research regarding the field viruses.

14. PROJECT MANAGEMENT THROUGH PROJECT STEERING COMMITTEE

The following project steering committee comprising of following members and TORs will be constituted to oversee the project implementation:-

• Secretary L&DD, Department	Convener
• Special Secretary Livestock South Punjab	Member
• Deputy Commissioner concerned	Member
• Animal Husbandry Commissioner	Member
• Representative from P&D Department	Member
• Representative from PITB	Member
• Representative of VC, UVAS	Member
• Director General (Research)	Member
• Director General (Extension)	Member
• Director Planning & Evaluation	Member
• Director ADDRS	Member / Secretary

The proposed TORs for the committee are as following:-

- Review of overall Project activities
- Review of surveillance plan covering all the compartments and buffer area
- Review of plan for post vaccination monitoring
- Discharge of any other responsibility as deemed necessary by the Admin Department or as required
- To suggest any changes in scope of project if required, during execution phase

15. COST BREAKDOWN

The detail cost breakdown of the project is as under:

(Rs in Million)

Sr. No.	Object Code	Object Classification	Cost before pre-PDWP	Cost rationalized by L&DD Section	Difference
1.	A01106	Pay of Project Staff (lump sum)	92.24	78.02	14.21
2.	A03988	Purchase of Vaccine (FMD)	204.00	205.20	-1.20
3.	A01273	Honoraria for the staff	8.00	0.00	8.00
4.	A03807	P.O.L (for cold chain vehicle, project monitoring staff, MVLs rapid response, power generators etc)	28.00	14.10	13.90
5.	A09701	Purchase of Furniture & Fixture (P MU, Check posts)	8.00	5.04	2.96
6.	A09201	Purchase of Hardware (computers with Printers), laptops, Communication sensors cameras, Photocopier, etc.	20.00	17.98	2.03
7.	A03955	Computer Stationary	3.00	2.00	1.00
8.	A09501	Purchase of Transport (3 single cabin customized rapid response vehicles, three 1300 cc & one Hiace customized as monitoring unit vehicle)	62.00	55.00	7.00
9.	A03603	Registration of vehicles, 7 vehicles	5.50	5.50	0.00
10	A09503	Others (Canopy conversion/customization)	8.00	7.00	1.00
11	A01300 1	Repair of transport	4.50	3.00	1.50
12	A09601	Purchase of machinery & equipment (AC, fridge, generator, UPS)	36.00	27.25	8.75
13	A03919	Payment to Others for services rendered (consultancy, TPV, etc.)	260.00	260.00	0.00

Sr. No.	Object Code	Object Classification	Cost before pre-PDWP	Cost rationalized by L&DD Section	Difference
14	A03942	Cost of other stores (LEDs, batteries, signboards, tagging machines, cool boxes etc.)	16.00	9.54	6.47
15	A03801	Training foreign / domestic	6.00	15.00	-9.00
16	A03907	Advertisement / Publicity / Seminars / workshops/cost of branding	14.00	8.00	6.00
17	A03970-0017	Purchase of diagnostic kits, chemicals, glassware	34.00	19.00	15.00
18	A03970-001	Others (Tags, Ice Bag, Vacutainers, Syringes, Gloves, needles, etc.)	98.00	31.88	66.13
		Sub Total (Million) for DCC, PMU & feasibility study for FMD Free Zone	907.24	763.50	143.74
		Allocation for new FMD Free Zone(s)*	6592.76	100.00	6492.76
		Grand Total (million)	7500.00	863.496	6636.50

16. Comparative Cost Statement (discussed by previous PDWP Vs Revised proposed cost):

Sr. No.	Object Code	Object Classification	Cost Discussed in PDWP meeting held on 30.9.2024	Proposed cost (PC1)	Difference
1.	A01106	Pay of Contract Staff	39.000	92.23632	53.23632
2.	A01273	Honoraria for the staff	5.000	8.000	3
3.	A03801	Training Foreign / domestic (for exposure, visit of FMD free zone abroad, lab & field staff training)	40.00	6.000	-34
4.	A03959	Incentives for vaccinators and sample collectors (Rs.10/-dose, Rs.300/- sample)	250.000	0.000	-250
5.	A03988	Purchase of Vaccine (FMD)	6045.00	204.000	-5841
6.	A03807	P.O.L (for cold chain vehicle, project monitoring staff, MVLs etc)	26.00	28.000	2
7.	A09701	Purchase of Furniture & Fixture (PIU) and district labs	10.000	8.000	-2
8.	A09201	Purchase of Hardware (computers with Printers), laptops, printers, high-speed processors,	24.000	20.000	-4
9.	A03204	Cost of Electronic Communication sensors cameras etc.	2.000	Cost added in Purchase of Hardware	-
10.	A03955	Computer Stationary	4.500	3.000	-1.5

Sr. No.	Object Code	Object Classification	Cost Discussed in PDWP meeting held on 30.9.2024	Proposed cost (PC1)	Difference
11.	A09501	Purchase of Transport (one Toyota Hiace, One 1300 cc & one 1000 cc car, 10 customized mobile veterinary labs)	108.000	62.000	-46
12.	A03603	Registration	-	5.500	5.5
13.	A09503	Canopy, conversion of vehicle	-	8.000	8
14.	A09601	Purchase of machinery & equipment	52.000	36.000	-16
15.	A03907	Advertisement / Publicity / Seminars / workshops	29.000	14.000	-15
16.	A03919	Payments to others for services rendered (for ISO accreditation of FMD tests, 3rd party evaluation etc)	25.000	260.000	235
17.	A03970-001	Others (Tags, Ice Bag, Vaccutainers, BD syringes, Gloves, cool box, needles, Gloves etc.)	165.000	98.000	-67
18.	A03942	Cost of other store (solar plates, batteries, quarantine, unit accessories, spray machines security and surveillance cameras, portable check posts, barriers, sign boards, warning boards etc)	-	16.000	16
19.	A03970-017	Diagnostic Kits, Chemicals & Glassware	151.000	34.000	-117
20.	A013001	Repair of Transport (cold chain vehicles, MVLs etc)	25.000	4.500	-20.5
21.	A12403	Structure (detail cost will be submitted with the report of FMD expert)	499.500	0.000	-499.5
22.	A09101	Purchase of land (minimum 6 kanal for one quarantine unit x 6)	-	0.000	0
23.	A03940	Unforeseen expenditure	-	-	-
24.		Allocation for new FMD Free Zone(s)*		6592.764	6592.764
		Grand Total	7500.0	7500	

17. Staff required under the project:

Sr.#	Name of Post	PPS	No of posts	Monthly salary (M)	(2025-26)	(2026-27)	(2027-28)	Total
1	Project Coordinator	PPS-10	1	0.85	1.7	10.71	11.246	23.656
2	FMD Specialist	PPS-10	1	0.5	1	6.3	6.615	13.915
3	Epidemiologist	PPS-9	1	0.5	1	6.3	6.615	13.915
4	Data Scientist	PPS-7	1	0.2	0.4	2.592	2.799	5.791
5	Monitoring Officer	PPS-7	1	0.2	0.4	2.592	2.799	5.791
6	Data Base administrator	PPS-6	1	0.125	0.25	1.62	1.750	3.620
7	GIS Analyst	PPS-6	1	0.125	0.25	1.62	1.750	3.620
8	Driver	PPS-2	7	0.04	0.56	3.408	3.749	7.717
Grand Total Million			14	2.54	5.56	35.142	37.322	78.024
Qualification and Eligibility Criteria at Annex-A								

18. List of Chemicals/Kits proposed in the project:

Sr. No	ITEM DESCRIPTION	Est. price/Unit (Million)	Quantity	Total Est. cost (Million)	Justification
1	ELISA kit for FMD for Detection of antibodies against O, A Asia 1, (5 Plates Kit)	0.4	30	12	To monitor the antibody level of vaccinated animals.
2	ELISA kit for FMD, NSP antibodies, 5 Plates Kit	0.4	10	4	To monitor virus circulation
3	FMD Antigen Detection and Serotyping ELISA (FMDV O, A Asia 1, C, SAT1, SAT2), 5 plates Kit	0.5	5	2.5	For surveillance of FMD virus
4	PBS tablets pack of 100	0.01	15	0.15	Sample collection
5	Glycerol 99% pure, 2.5lit	0.015	10	0.15	Sample collection
6	Miscellaneous	different	different	0.2	Lab ware
Total (Million)				19	

19. List of Machinery/ Equipment required under the project:

Sr. No	ITEM DESCRIPTION	Est. price/Unit	Quantity	Est. cost	Justification
1	Electricity Generator 6KVA	0.45	15.00	6.75	Electric supply for cold chain of vaccine storage in vaccine monitoring centres in the field
2	Electricity Generator 15 KVA	1.50	1.00	1.50	Electric supply for PMU
3	Refrigerators for vaccine storage, Glass door, Large size	0.90	15.00	13.50	Vaccine storage in the CVD or CVH of the buffer area
5	UPS with backup	0.25	3.00	0.75	Electric supply for PMU office
6	Air Conditioner 1.5 ton inverter	0.25	19.00	4.75	15 AC for the vaccine storage room and 4 AC for PMU office
Grand Total				27.25	

20. DETAIL OF VEHICLES PROPOSED IN THE PC-I**Rs. In Million**

Sr. No.	Detail of Vehicles to be purchased	Unit(s)	Unit cost	Total Cost	Justification
1	Toyota Hiace	1	16.00	16.00	Toyota Hiace has been proposed in the project for purpose build vehicle to move in the province for rapid response for epidemiology, disease surveillance on spot outbreak handling, sample collection by the project team for effective and smooth FMD control in the FMD free compartment and zone
2	Car 1300 CC	3	6.00	18.00	The instant project pertains different functions / activities related with the extension and research wings of the department, moreover the project is of high economic impact in nature. Thus for day to day meetings, coordination with the other stakeholders and field activities the vehicle is required for the project team.
4	Single cabin vehicle	3	7.00	21.00	Three Single Cabin customized to Rapid Response Unit vehicles will be deputed to work as rapid response unit in FMD free zone and the buffer area.
Total (Million)		7		55.00	

21. DETAIL OF OTHERS PERTAINING TO VACCINATION**Rs. In Million**

Sr. No	Item description	Est. price/Unit	Quantity Million	Total Est. cost millions	Justification
		(Rs.)			
1	Tags	115	0.18	20.7	To identify the animal and registration on PAITS. It includes animal population of FMD free compartments buffer area.
2	Vacutainers (blood, serum) pack of 100	2000	0.0005	1	For sample collection for surveillance
3	Syringes 10 ml disposable pack of 100	2500	0.0005	1.25	For sample collection
4	Latex gloves pack of 50 pairs	1000	0.0002	0.2	Sample collection and disease handling
5	Vaccinator syringe BD	1000	0.0003	0.3	Vaccine inoculation
6	Ice packs	200	0.001	0.2	Vaccine cold chain
7	Needles pack of 12, for cattle	100	0.06	6	Vaccine inoculation

Sr. No	Item description	Est. price/Unit	Quantity Million	Total Est. cost millions	Justification
8	PPEs kits	1000	0.0005	0.5	Disease outbreak handling
9	Hand sanitizer ,500 ml	500	0.0005	0.25	For handling infectious material
10	Disinfectant Spray pack	1000	0.0003	0.3	For farm and vehicles disinfection
11	Soap and detergent	150	0.0005	0.075	For cleanliness
12	Face mask boxes	500	0.0005	0.25	Personnel protection
13	Lab coats	1000	0.0001	0.1	Personnel protection for work in lab and vaccination
14	Cotton rolls absorbent 300-400 g	500	0.0001	0.05	Surface cleaning in vaccination and lab work
15	Shoe covers disposable, pack of 50 pairs	500	0.0005	0.25	PPE for biosecurity
16	Safety goggles	500	0.0001	0.05	PPE for biosecurity
17	Head covers packs	500	0.0002	0.1	PPE for biosecurity
18	Sodium Hypochlorite 10% solution	1500	0.0002	0.3	For disinfection of disease farms
Total (Million)				31.875	

22. COST OF OTHERS STORE ITEMS (FOR PMU & QUARANTINE STATIONS)

Rs. In Million

Sr. No	ITEM DESCRIPTION	Est. price/Unit (Million Rs.)	Quantity	Total Est. cost millions	Justification
1	Display screen 75 inch size	0.5	1	0.5	Display of project activities in Project implementation unit Office
2	Cool boxes 90-100 L capacity, durable plastic, insulated	0.09	15	1.35	Vaccine transport in cold chain
3	Cool boxes small size insulated	0.006	75	0.45	Vaccine inoculation in field with cold chain
5	Instrument sterilizer	0.001	60	0.06	For sterilization of syringes and instruments
6	Tagging machines	0.005	300	1.5	Tagging of animals
7	Sign boards Boards caution sign with pole	0.07	75	5.25	For public awareness in FMD free compartments
8	Infrared medical thermometer	0.005	30	0.15	Clinical examination of animals at the checkpoint, Quarantine units, FMD free compartments
9	Standee Display aluminum, Rollup	0.005	10	0.05	For Display of information
10	Water dispenser	0.075	3	0.225	For PIU offices, Quarantine stations
Total (Million)				9.535	

23. DETAIL OF HARDWARE**Rs. In Million**

Sr No	Particulars	Approx. unit cost (Million Rupees)	Quantity	Total cost in Million rupees	Justification
1	Laptop computers 13th Generation i7	0.35	7	2.45	For Project Management Unit and field staff of Rapid response units and animal registration team
2	Desktop computers, 13th Generation i7	0.26	15	3.9	For 15 FMD free compartment monitoring offices in field
3	Photocopier machine RICOH	0.35	1	0.35	Copy of record files
4	Printer Laser Jet HP	0.075	17	1.275	Office work and display of reports in PMU, main Check posts, Quarantine units
5	Colored printer HP	0.25	1	0.25	Office work
6	CCTV cameras set 4MP color VU, Dahua/Hikvision set of 12, night vision, high resolution, 15 days network infrastructure, display at site and control office complete installation	0.65	15	9.75	To be installed at Compartments and the quarantine units check posts.
	Total (Million)			17.975	

24. DETAIL OF FURNITURE & FIXTURES**Rs. In Million**

Sr. No.	Name of items	Quantity	Estimated Unit cost Rs. (Millions)	Total Cost	Justification
1.	Executive chairs	4	0.06	0.24	Project management unit offices
2.	Executive table	4	0.12	0.48	Project management unit offices
3.	Chester Sofa Set with 2 + 1 + 1 Seatings	4	0.14	0.56	Project management unit offices, Meeting room
4.	Center Table Wooden frame with Glass	4	0.036	0.144	Project management unit
5.	Side racks	4	0.02	0.08	With office Tables
6.	Revolving chairs with rexin	26	0.03	0.78	Meeting room project management unit
7.	Conference room table	2	0.4	0.8	Meeting room
8.	Computer Chairs	17	0.025	0.425	Computer work PMU / check post
9.	Computer table	17	0.034	0.578	Computer work PMU / check post

Sr. No.	Name of items	Quantity	Estimated Unit cost Rs. (Millions)	Total Cost	Justification
10	Office chairs	20	0.025	0.5	Use in PMU offices
11	Visitor chairs	10	0.025	0.25	For use in office
12	Steel Almirah	4	0.05	0.2	For use in office
	Grand Total Million			5.037	

Part – B

25. TECHNICAL SCRUTINY / APPRAISAL by , P&D BOARD:

The PC-I of the project was deliberated in pre-PDWP meeting held on 09.04.2025 under the chairmanship of Member (Agriculture) with all stakeholders. The major observations/ comments of L&DD section of P&D Board, Reply of AD and remarks in this regard are as follows:

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
A. <u>L&DD Section</u>			
1.	The PC-I lacks a clearly defined methodology and timeline for the establishment of the FMD-free zone in the identified areas. This omission makes it difficult to assess the feasibility, phasing, and monitoring of progress towards achieving the FMD-free status.	A tentative methodology and timeline for establishing FMD free zones have been prepared following the WOAHA guidelines aligned with the Punjab Animals Health Act 2019 and the Punjab Animal Health Rules, 2021 (Annex-B). The comprehensive plan and timelines will be provided in the revised PC 1 after the feasibility report.	Noted.
2.	The PC-I does not specify any tentative proposed site for establishing the FMD-free zone, nor does it provide any timeline for its development. The department may identify and propose potential sites for the FMD-free zone, along with associated timelines and a tentative comparative cost analysis for each proposed site to facilitate effective planning and decision-making.	<p>The following three potential areas have been identified for feasibility study:</p> <ul style="list-style-type: none"> i. Muzaffargarh-Layyah district between Sindh and Chenab River, ii. Jhang, Chiniot and Sargodha area between River Jhelum and Chenab iii. Sialkot, Shakargarh, Zafarwal Narowal surrounded by Indian border and Marala-Ravi Link Canal. <p>The comparative analysis of area alongwith google maps are attached as Annex-C.</p> <p>As the cost for establishment of FMD-free zone mainly depends on geographical area, check posts, quarantine unit, animal population, biosecurity, animal movement control, tagging, disease surveillance and monitoring etc. Therefore, the selection of area, associated timelines, and comparative cost analysis for each</p>	Noted.

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
		proposed site will be provided after the detailed survey and feasibility study to be conducted by an international consultant/firm.	
3.	The reference to the Punjab Health Act, 2019 in the PC-I should be clarified—specifically, whether it constitutes a law, legal framework, or guiding policy. The department is advised to provide a clear explanation of the Act's relevance, legal status, and applicability in the context of FMD control activities to ensure legal and procedural alignment.	Section 3 of the Punjab Animal Health Act, 2019 and Section 3 of the Punjab Animal Health Rules, 2021 provide the necessary legal framework for establishing FMD free zones. “Declaration of controlled areas.– (1) The Government may, by notification in the official Gazette, declare an area to be a disease-free area or an eradication area in respect of any scheduled disease.” The copy of the Punjab Animal Health Act, 2019 and the Punjab Animal Health Rules, 2021 will be annexed with PC1.	Submitted to PDWP for consideration. It has been observed that Punjab Animal Health Act, 2019 empowers L&DD Department to “declare an area to be a disease -free area or an eradication area in respect of any scheduled disease” but it does not empowers the department to make FMD Free Compartments.
4.	The department has proposed the establishment of 15 compartments; however, the PC-I lacks critical details regarding their specific locations, the implementing entity (i.e., whether these compartments will be developed by the private sector or the L&DD Department itself), and the mechanism for post-establishment maintenance and operation. The department may provide this information to ensure clarity in implementation strategy and responsibility.	The 15 FMD-free compartments will be established under the regulatory framework of the Punjab Animal Health Act, 2019, utilizing the existing human resources of the L&DD Department. i. These compartments will be developed on selected private sector farms with a minimum of 300 animals, proper biosecurity measures, and secured boundaries. ii. Private farms will be selected through an Expression of Interest (EOI) process, ensuring transparency and engagement of commercial stakeholders. The L&DD Department will oversee the implementation, certification, and monitoring of these compartments. iii. Post-establishment maintenance	Noted

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
		will follow standard operating procedures under the Act, supported by routine surveillance and compliance checks. This approach leverages public-private collaboration, optimizes resources, and aligns with international disease control standards, supporting the goal to enhance meat exports.	
5.	The annual operating & maintenance cost of the FMD Free Compartments after the project's completion is estimated at Rs. 100 million, which will need to be monitored and managed by private farms.	The annual operation and maintenance (O&M) of FMD Free Compartments will be managed by the private farms. However, the disease surveillance and monitoring will be conducted by L&DD Department through regular budget. This cost component has been removed from the PC-I.	Noted.
6.	The department should clarify whether the feasibility study will be conducted by the PMU, or if a consulting firm will carry out the study with the PMU overseeing the firm's work.	The PMU will conduct the feasibility for FMD free zones through hiring an international consultant/firm. The same has been added in the PC-1. The TORs for consultancy and tentative costing are attached as (Annex-D) .	Noted.
7.	The department has proposed a total project cost of Rs. 7,500 million, with a cost breakdown provided for Rs. 907.236 million. However, there is no cost breakdown for the remaining amount of Rs. 6,592.764 million, which is allocated for the establishment of FMD-free zones to be proposed by the firm based on the feasibility study's outcome. The AD may either provide a detailed cost breakdown for the Rs. 6,592.764 million or include a token allocation in the PC-I.	The detailed cost breakdown of the two interventions has been rationalized in the PC1 at Rs. 763.496 . However, an initial allocation of Rs. 100M has been proposed as a token allocation for the establishment of an FMD-free zone.	Noted.
8.	The department may provide details for the Rs. 204 million mentioned in PC-I for the purchase of vaccinations, including the basis of the rates and the requirements for 15 compartments. The provision may then be adjusted accordingly	The vaccine cost has been revised as 205.2 M instead of 204 M. The cost is calculated for 0.72 M FMD purified doses. The cost for one dose is Rs. 285, which has been quoted as lowest in a recent tender document. The details are attached as Annex-E .	Noted.

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
9.	The specifications for all items under hardware (costing Rs. 20.00 million), such as laptops, communication sensors, cameras, and photocopier machines, are missing. The cost of these items cannot be determined without the specifications. The AD should provide the specifications for all items.	The cost of hardware has been reduced from 20.0 M to 17. 975 M. The detailed cost breakup along with quotation and specifications are attached as (Annex-F) . The same has been added in the PC-1.	Noted.
10.	The cost has increased from Rs. 183 million to Rs. 260 million for the component related to payments for services rendered. The details of these services should be explicitly mentioned in the PC-I. Additionally, the specific work, tasks, and processes to be executed under the 'services rendered' heading, amounting to Rs. 260 million, should be outlined as project deliverables, along with their respective timelines. If the department plans to hire a firm to conduct a feasibility study for identifying the suitability of developing FMD-free zones, the TORs for the firm should be included in the PC-I.	The amount of 260 M has been proposed in the PC-1 because the component includes feasibility studies for new FMD-free zones by international consultants and Third-Party Validation (TPV). The tentative ToRs, costing, and deliverables with timelines for feasibility are attached as Annex-D .	Noted.
11.	The AD should provide the quantities and justifications for the P.O.L. costing Rs. 28.00 million, the purchase of diagnostic kits, chemicals, and glassware costing Rs. 34.00 million, as well as other items, including tags, ice bags, vacutainers, syringes, and needles costing Rs. 98.00 million. These costs should be justified and rationalized.	The cost for POL has been rationalized and reduced from 28.0 M to 14.1 M. The budget for diagnostic kits, chemicals, and glassware has been reduced from 24.0 Million to 19.0 Million. The quotations for all relevant components are attached as Annex-G . Moreover, as well as other items, including tags, ice bags, vacutainers, syringes, and needles has been reduced as 31.875 million from 98.00 M. The detailed budget breakup is attached as Annex-H . The same has been revised in the PC-1.	Noted.
12.	The specifications for all machinery and equipment, including LEDs, batteries, and tagging machines costing Rs. 16.00 million, should be provided.	The cost has been rationalized as 9.535 M rather than 16.00 M. The specifications along with quotations for machinery and equipment are attached as Annex-I . The cost of tagging is 1.5 M for 300 machines.	Noted.
13.	The pay for project staff required	The pay of project staff for PMU has	Noted.

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
	for the PMU should be revisited in light of the P&D Board's revised standard pay packages for the respective posts.	been revised in light of the P&D Board's revised standard pay packages. The details of proposed salaries are attached as Annex-J	
14.	The justification for the establishment of 15 FMD-free compartments is missing and should be provided with solid reasoning.	<p>The detailed response for establishment of FMD free compartments have been provided at Sr. # 04. Justification for FMD free compartments in Punjab are as follow:</p> <ul style="list-style-type: none"> • Livestock Hub: Punjab is the center of Pakistan's dairy and meat production, requiring effective disease control. • Export Readiness: FMD-free status enables access to international markets, boosting trade potential. • Economic Loss Prevention: Reducing FMD outbreaks helps avoid production losses and trade restrictions. • Strong Infrastructure: Existing veterinary services and labs support compartment-level disease management. • Biosecure Farms: Many commercial farms already follow biosecurity and vaccination practices suitable for FMD-free compartment designation. <p>The same has been added in the PC-1.</p>	Noted
15.	The KPIs for the method of procurement of staff, along with their qualifications (including details of specialization), need to be mentioned in the PC-I. Additionally, a higher degree in the relevant field may be specified in the qualifications.	Job descriptions and KPIs for PMU staff have been included in PC-I. Higher degree qualifications have been specified for the relevant field.	Noted
16.	The quantity of tagging machines mentioned in Annexure-I appears to be excessive and may be rationalized	Based on the requirement of one machine per 500–600 animals, 300 machines are justified for tagging approximately 180,000 animals across Punjab under this project. The total estimated cost for tagging machines is Rs. 1.5 M.	Noted
17.	The department has proposed 08 laptops and 15 desktop computers without providing specifications, which need to be rationalized. The department may provide the specifications along with 03 quotations. Furthermore,	The quantity of laptops has been rationalized. The budge cost has been reduced from 20 Million to 17.975 Million. The justification along with specifications and quotations have been attached as Annex-F .	Noted.

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
	the department may propose either laptops or desktop computers, with a justified quantity and cost.		
18.	The quantity of laser jet printers mentioned in Annexure-K of the PC-I appears excessive and needs to be rationalized, along with the cost. The department should provide the specifications and 03 quotations.	The number of laser jet printers has been rationalized. Specifications and quotations are attached as Annex-F .	Noted
19.	The department may provide the specifications and 03 quotations for the photocopier machine, color printer, CCTV cameras, and other assorted items. Additionally, the quantity of CCTV cameras needs to be rationalized.	Specifications and quotations for all listed equipment, including CCTV cameras, have been attached as Annex-F .	Noted
20.	An amount of Rs. 4.500 million has been proposed for the repair of transport, whereas 07 new vehicles, amounting to Rs. 62.000 million, have been proposed for purchase. Since there is no need to repair new vehicles in the first year with only 03 months remaining, the department may delete this amount. Furthermore, the department may provide the detail of existing vehicles with department.	Repair cost has been reduced from Rs. 4.5M to Rs. 3M. This amount is allocated for the 2 nd and the 3 rd year of the project. Cost for new vehicles has also been rationalized and reduced from 62 to 55 million (Annex-K). Justification for the purchase of new vehicles have been included. The list of vehicles used for the field services is attached as (Annex-L)	Noted.
21.	A lump sum cost of Rs. 6,592.764 million has been included for the new FMD-free zone without any detailed breakdown. The department should provide detailed civil work estimates for this cost to be vetted by the Technical Section of the P&D Board.	An initial allocation of Rs. 100M has been proposed as token allocation. Detailed civil work estimates will be developed based on survey of proposed geographical areas as per feasibility studies.	Noted.
22.	The provision of honoraria to the staff, amounting to Rs. 8.00 million, may be deleted.	The provision has been deleted.	Noted.
23.	The department may rationalize the unit costs and quantities of following items mentioned in the PC-I, as they appear high.	The unit cost has been reviewed and rationalized. The specifications and quotations have been annexed in PC1. The cost has been reduced from 36 M to 27.25 M. The cost breakup along	Noted

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
	<p>Specifications are also missing and should be provided along with 03 quotations. The department may propose either a generator or UPS. The following items may be reviewed:</p> <ul style="list-style-type: none"> • 6 KVA electricity generators (15 units at Rs. 0.600 million each, totaling Rs. 9.000 million) • 15 KVA electricity generator (1 unit at Rs. 1.500 million) • UPS with backup (15 units at Rs. 0.300 million each, totaling Rs. 4.500 million) • 1.5-ton inverter air conditioners (19 units at Rs. 0.300 million each, totaling Rs. 5.700 million) • Refrigerators (17 units at Rs. 0.900 million each, totaling Rs. 15.300 million)" 	<p>with quotation are attached as (Annex-M)</p>	
24.	<p>In line with the decision of the 33rd Provincial Development Working Party (PDWP) meeting held on 30-09-2024, it is observed that a comprehensive departmental visit plan may be included in the PC-I. The purpose of this component is to provide exposure and practical insight into international best practices related to FMD control & zone management to the officials who were involved in the preparation of this project and those who will oversee its implementation. These officials are proposed to undertake exposure visits to relevant countries where Foot and Mouth Disease (FMD) Free Zones have been successfully established in accordance with WOA (World Organisation for Animal Health) guidelines.</p>	<p>Proposed Foreign Exposure Visit Plan (Training & Visits Component – PKR 15.00 Million) Proposed Participants (Total: 10 Officials):</p> <ol style="list-style-type: none"> Veterinary Officer (DCC), Office of DG (Extension), L&DD Department Director, Animal Disease Diagnostics, Reporting & Surveillance Epidemiologist, L&DD Department Additional Director, Livestock (HQ or Project Related) Epidemiologist, Project Management Unit (PMU) FMD Specialist, PMU GIS Analyst, PMU Divisional Director Livestock, Concerned Division Director General (Extension), L&DD Department Director General (Research), L&DD Department <p>Proposed Countries for Visit: Countries where FMD Free Zones are recognized and well-established under WOA standards, such as: Thailand, Turkey, Brazil, South Korea, Argentina</p>	Noted.

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB																					
		<p>(One or two countries will be selected based on embassy coordination, cost-effectiveness, and relevance to Punjab's context.)</p> <p>Tentative Duration: 7 to 10 days (including travel)</p> <p>Key Areas of Focus:</p> <ul style="list-style-type: none">• Establishment and maintenance of FMD Free Zones• Surveillance systems and reporting mechanisms• Epidemiological data analysis and GIS-based tracking• Vaccine production, procurement, and cold chain logistics• Public-private partnership models for livestock disease control• Legal, regulatory, and administrative frameworks <p>Estimated Cost Breakdown (PKR 15.00 Million):</p> <table><tr><th>Sr. No.</th><th>Item</th><th>Cost Estimate Rs. (In Millions)</th></tr><tr><td>1</td><td>A travel (Economy class)</td><td>6.000</td></tr><tr><td>2</td><td>Boarding and lodging</td><td>4.000</td></tr><tr><td>3</td><td>Local Transport, Visa fee and insurance</td><td>2.000</td></tr><tr><td>4</td><td>Training material and institutional coordination, study tours, fee</td><td>2.000</td></tr><tr><td>5</td><td>Contingencies</td><td>1.000</td></tr><tr><td></td><td>Total</td><td>15.000</td></tr></table>	Sr. No.	Item	Cost Estimate Rs. (In Millions)	1	A travel (Economy class)	6.000	2	Boarding and lodging	4.000	3	Local Transport, Visa fee and insurance	2.000	4	Training material and institutional coordination, study tours, fee	2.000	5	Contingencies	1.000		Total	15.000	
Sr. No.	Item	Cost Estimate Rs. (In Millions)																						
1	A travel (Economy class)	6.000																						
2	Boarding and lodging	4.000																						
3	Local Transport, Visa fee and insurance	2.000																						
4	Training material and institutional coordination, study tours, fee	2.000																						
5	Contingencies	1.000																						
	Total	15.000																						
25.	The department may provide detailed information on Pakistan's current meat export volume, its export potential, and the key challenges hindering the growth of meat exports. This may include data on existing export markets, quality and certification bottlenecks, and compliance Issues. What is the year wise FMD	The detailed information regarding Pakistan's current meat export volume, its export potential, and the key challenges hindering the growth of meat exports are attached as Annex-N .	Noted																					

Sr. No.	Observations of P&DB	Reply of AD	Remarks by P&DB
	Incidence in Punjab till 2025		

26. Recommendation:

The scheme is placed before PDWP forum at a cost of Rs.863.496 million for gestation period of 03 years (2024-25 to 2026-27) for consideration with the following recommendations:

- i. **Review & Finalization of ToRs by Consultancy Section:** It is recommended that the Terms of Reference (ToRs) for hiring a consultant/firm to undertake the feasibility study for FMD Free Zones be reviewed and vetted by the Consultancy Section of the P&D Board. The consultancy should be time-bound, with a maximum duration of six months.\
- ii. **Rationalization of Consultancy Cost:** The proposed cost for hiring the consultant appears to be on the higher side. It is advised that the cost be reviewed and streamlined to ensure value for money and alignment with market norms.
- iii. **Allocation of Notional Allocation for FMD Free Zone (Yet to be finalized):** It is recommended that the detailed cost estimates for the establishment of FMD Free Zones be finalized based on the findings of the feasibility study. In the interim, a notional allocation of Rs. 50 million may be indicated in the PC-I. The currently proposed lump sum of Rs. 6,592.76 million without supporting breakdown should not be retained in its present form, as it lacks justification.
- iv. **Provision of Baseline information / Data of proposed 15 Compartments:** The department is advised to provide complete baseline data, including:
 - District-wise physical layout of the proposed 15 compartments
 - Estimated livestock population in each compartment
 - Financial requirements for development and operationalization
 - Clarity on Implementation Mechanism for Compartment
- v. **Zone Selection Strategy:** It is recommended that the consultant / firm to be hired for feasibility study may be required to evaluate the comparative advantages of the three proposed zones—(i) Muzaffargarh-Layyah, (ii) Jhang-Chiniot-Sargodha, and (iii) Sialkot-Narowal. The most suitable zone for initiating the FMD Free Zone should be identified, supported by a clear implementation timeline.

Composition of Project Management Unit (PMU)

Sr. No.	Name of Post	BPS/ PPS	PPS Range	Monthly pay proposed	No. of Post	Job description / Qualification
1	Project Coordinator	PPS-11	612,500-980,000	850,000	01	<p>Qualification: PhD in Veterinary Sciences with 15 year experience in disease control activities including minimum 5 year experience in project management</p> <p>Job Description:</p> <ul style="list-style-type: none"> Over all coordination with the stakeholders / executing and implementation agencies for smooth operations Prepare and proposed necessary guidance / functions for implementation as per scope of the project
2	FMD Specialist	PPS-10	437,500-700,000	500,000	01	<p>Qualification: DVM, PhD (Epidemiology/Microbiology) with 10-year experience in disease control activities including minimum 5-year experience with international agencies like FAO or WOA on FMD control.</p> <p>Job Description:</p> <ul style="list-style-type: none"> Monitor project activities in line with WOA guidelines for FMD Preparation of FMD dossier for submission to WOA. Coordination with international agencies for FMD PCP stage 3 achievement
3	Epidemiologist	PPS-09	306,250-502,250	500,000	01	<p>Qualification: DVM, PhD (Epidemiology) with 5-year experience in disease control activities.</p> <p>Job Description:</p> <ul style="list-style-type: none"> Preparation of disease surveillance plan Epidemiological survey and studies Assess the FMD risks Overall assist to the team lead in implanting the project activities Analysis of the surveillance and post vaccination data and to furnished recommendation Compilation and analysis of ADDRS info data and its submission
4	Data Scientist	PPS-07	157,500-258,300	200,000	01	<p>Qualification: BS in data science from HEC recognized university. Having minimum 05 years of relevant experience</p>

Sr. No.	Name of Post	BPS/ PPS	PPS Range	Monthly pay proposed	No. of Post	Job description / Qualification
						<p>Having proficiency in statistical analysis, machine-learning algorithms etc.</p> <p>Job Description</p> <ul style="list-style-type: none"> • Devise mechanism for data sourcing, data analysis and reporting • Generate different data analysis reports by using IT and AI tools for reporting to the authorities • Identify the troubleshooting and their solution • Conduct regular audit of the data sets • Development of Machine-learning System
5	Monitoring officer	PPS-07	157,500-258,300	200,000	01	<p>Qualification: DVM, MPhil in Epidemiology / Microbiology from reputed foreign or local HEC recognized university. Having minimum 05 years of relevant experience</p> <p>Job Description</p> <ul style="list-style-type: none"> • Monitoring of field activities under the project • Monitoring of uploading data on SPMS 9211 and PAITS • Collection of surveillance data from all sources of information and its consolidation- • Assist the project team in different assignments
6	Database Administrator	PPS-06	105,000-172,200	125,000	01	<p>Qualification: BS in Computer Sciences / Data Science / Statistics from HEC recognized university. Having minimum 02 years of relevant experience</p> <p>Job Description</p> <ul style="list-style-type: none"> • Data managements related to project • Maintenance of record project activities • Preparation of project reports • Prepare update on Communication and correspondence with other offices
7	GIS Analyst	PPS-06	105,000-172,200	125,000	01	<p>Qualification: BE in Geo-informatics / BS in remote Sensing & GIS from HEC recognized university. Having minimum 02 years of relevant experience</p> <p>Job Description</p> <ul style="list-style-type: none"> • Analysis of GIS data using GIS software to create maps, spatial

Sr. No.	Name of Post	BPS/ PPS	PPS Range	Monthly pay proposed	No. of Post	Job description / Qualification
						analysis, and reports. <ul style="list-style-type: none"> • Explaining geographical trends of diseases • GIS survey for FMD free zones and compartments
8	Driver	PPS-02	35,000-56,000	40,000	07	Have a valid driving license for LTV

Methodology and Timeline for the Establishment of an FMD-Free Zone in Punjab, Pakistan (Tentative)

The establishment of a Foot-and-Mouth Disease (FMD) Free Zone in Punjab, Pakistan, is a strategic initiative aimed at protecting the province's substantial livestock resources, improving animal health, and enabling greater access to international markets for meat and dairy exports. This initiative will be implemented in accordance with the guidelines of the World Organisation for Animal Health (WOAH/OIE), and aligned with national and provincial priorities.

The initial phase of the project, covering the first six months, will focus on assessment and planning. A detailed baseline study will be conducted across Punjab to assess the current epidemiological situation of FMD, including the identification of high-risk districts and livestock movement patterns. Stakeholder consultations will involve the Punjab Livestock and Dairy Development Department, private dairy and meat producers, veterinary associations, and international partners such as the FAO and OIE. Existing laws and regulations governing animal health, disease reporting, and livestock transport will be reviewed and strengthened. A suitable zone will be identified within Punjab—preferably a region with manageable livestock movement and strong veterinary infrastructure—for the establishment of the FMD-Free Zone.

From months seven to eighteen, the focus will shift to infrastructure development and capacity building. Veterinary services in Punjab will be strengthened through recruitment and training of staff in epidemiology, vaccination, and surveillance. Provincial veterinary laboratories will be strengthened with the necessary equipment and diagnostic kits to conduct ELISA and PCR tests for FMD diagnostics. Additionally, district and provincial border control posts and quarantine stations will be established, along with livestock identification and traceability systems, particularly at key animal markets and transit points.

The third phase, scheduled from months nineteen to thirty, will involve zoning and targeted disease control activities. The selected FMD-Free Zone in Punjab will be formally delineated, along with surrounding buffer and surveillance zones. Mass vaccination campaigns will be initiated, using appropriate FMD vaccines to achieve at least 80% herd immunity. Strict enforcement of livestock movement control and farm-level biosecurity protocols will also be carried out.

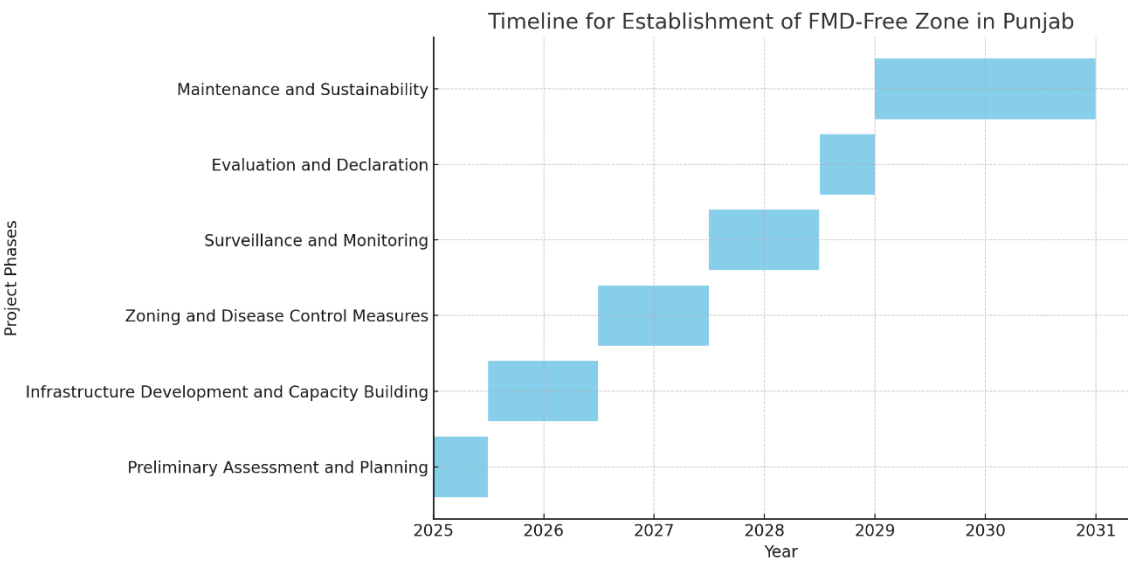
Between months thirty-one and forty-two, the program will enter the surveillance and monitoring phase. Active and passive surveillance mechanisms will be implemented, including serological testing, clinical inspections, and community-based reporting. A centralized data management platform with GIS capabilities will be used to monitor FMD dynamics and inform policy decisions.

The fifth phase, spanning months forty-three to forty-eight, will focus on internal evaluation and preparation for formal recognition. The Government of Punjab, in coordination with the federal government, will review all disease control and surveillance records to ensure compliance with OIE standards. Upon successful validation, a formal application will be submitted to the OIE for official

recognition of the FMD-Free Zone, with or without vaccination. Risk assessments and emergency response plans will also be finalized.

The final phase involves long-term maintenance and sustainability. Post-recognition, continuous surveillance, periodic vaccination (if required), public awareness campaigns, and routine evaluation of disease control measures will be ensured. Institutional and financial mechanisms will be developed to maintain and expand the FMD-Free Zone across Punjab in a phased manner.

The total duration for establishing the FMD-Free Zone in Punjab is estimated to be 48 months, with ongoing efforts beyond this period to ensure sustainability. This comprehensive, phased approach is intended to improve animal health and open significant export opportunities for Punjab’s livestock sector.



PROPOSED AREAS TO CONDUCT THE FEASIBILITY STUDY FOR THE ESTABLISHMENT OF FMD FREE ZONES IN PUNJAB

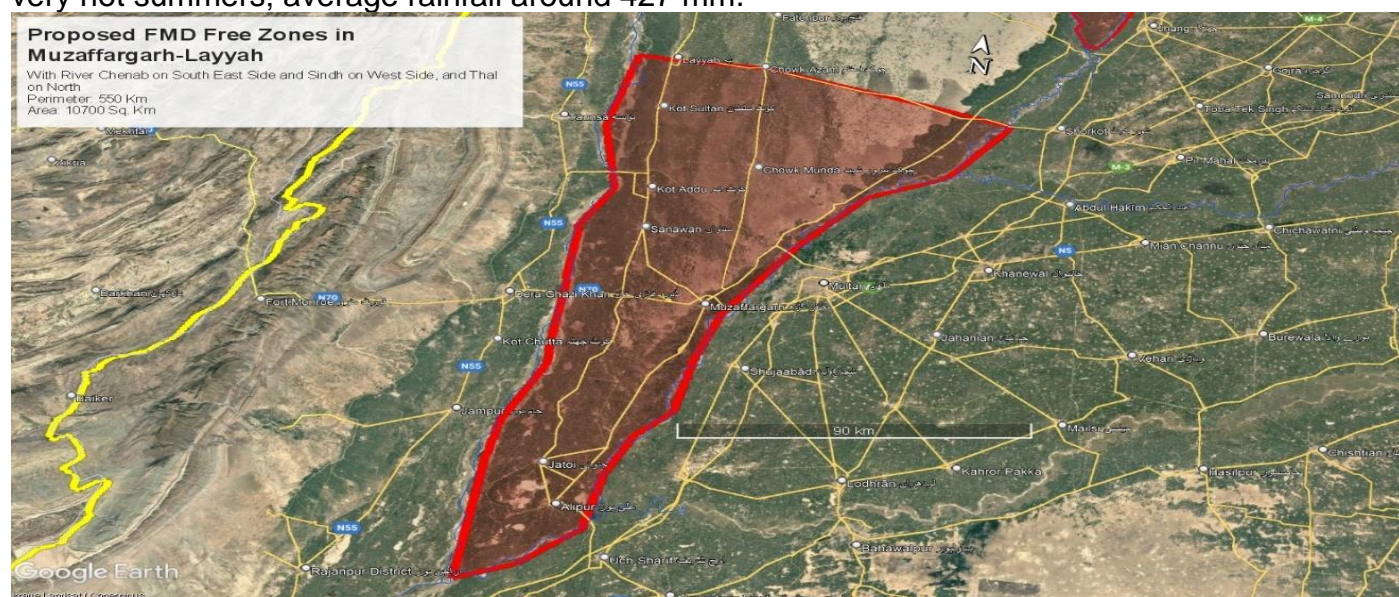
Currently, the following three potential areas have been identified for feasibility study. However, the final selection of the area will be based on the detailed physical survey of all the suitable areas in the Punjab.

- i. Muzaffargarh district between Sindh and Chenab River
- ii. Jhang, Chiniot and Sargodha areas between River Jhelum and Chenab
- iii. Sialkot, Shakargarh and Narowal areas surrounded by the Indian border and Marala-Ravi Link Canal

Area I: Muzaffargarh District (Between Indus and Chenab Rivers)

Geographical Overview

Situated between the Indus River (west), Chenab River (east) and Thal desert on North side, forming a natural corridor with perimeter: ~550Km and Area: ~10,700 km². Climate: Semi-arid with very hot summers; average rainfall around 427 mm.



Livestock and Agriculture

Fertile alluvial plains ideal for crops like wheat, cotton, and sugarcane. There are about 2.5 Million population of large animals (cattle and buffaloes) and 2.3 Millions on small ruminants (sheep and goats).

Infrastructure

Presence of veterinary hospitals and livestock extension services. Connected via road networks; proximity to Multan enhances logistical support.

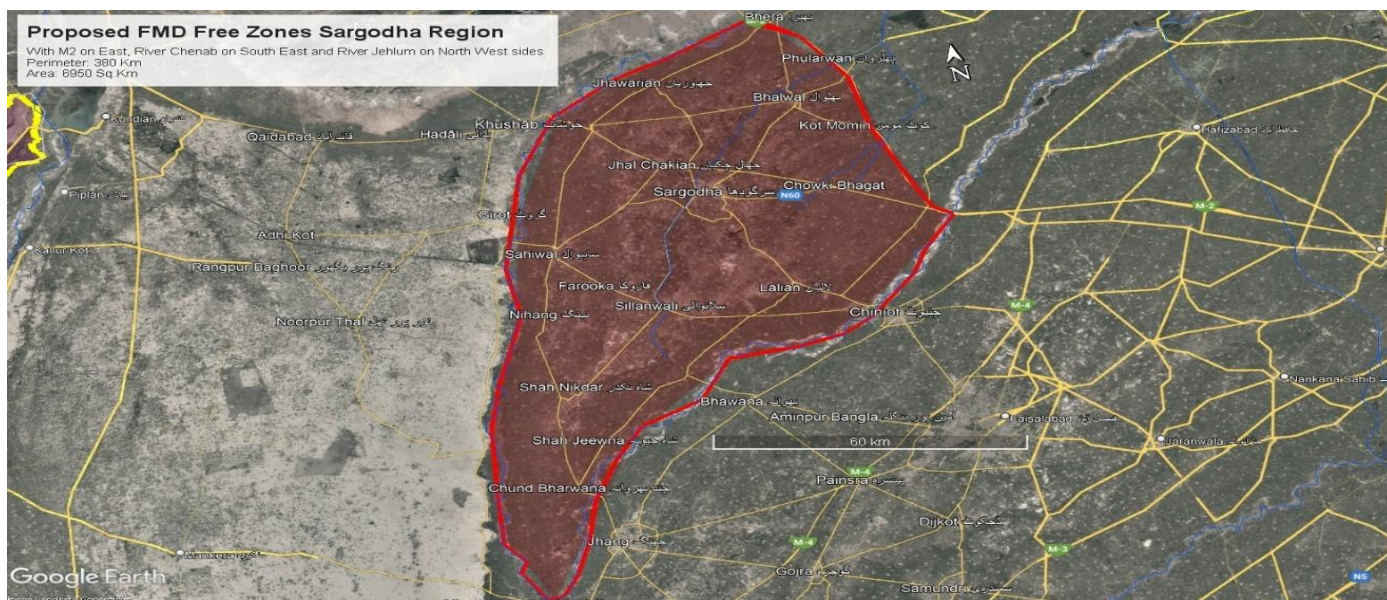
Challenges

Prone to flooding during monsoon seasons. Disease surveillance requires strengthening.

Area II: Jhang, Chiniot, and Sargodha Districts (Between Rivers Jhelum and Chenab)

Geographical Overview

Situated between the Jhelum and Chenab rivers, and M2 on East side offering natural boundaries. Combined area: ~6,950 km² and perimeter is 380Km. Climate: Hot summers with moderate rainfall.



Livestock and Agriculture

Rich in citrus (especially Sargodha), wheat, and rice. High density of dairy and meat-producing animals with large animal population as 3.0 Million and small ruminant as 1.3 Million.

Infrastructure

Well-established veterinary hospitals and diagnostic labs. Robust road and rail connectivity; agro-industrial presence.

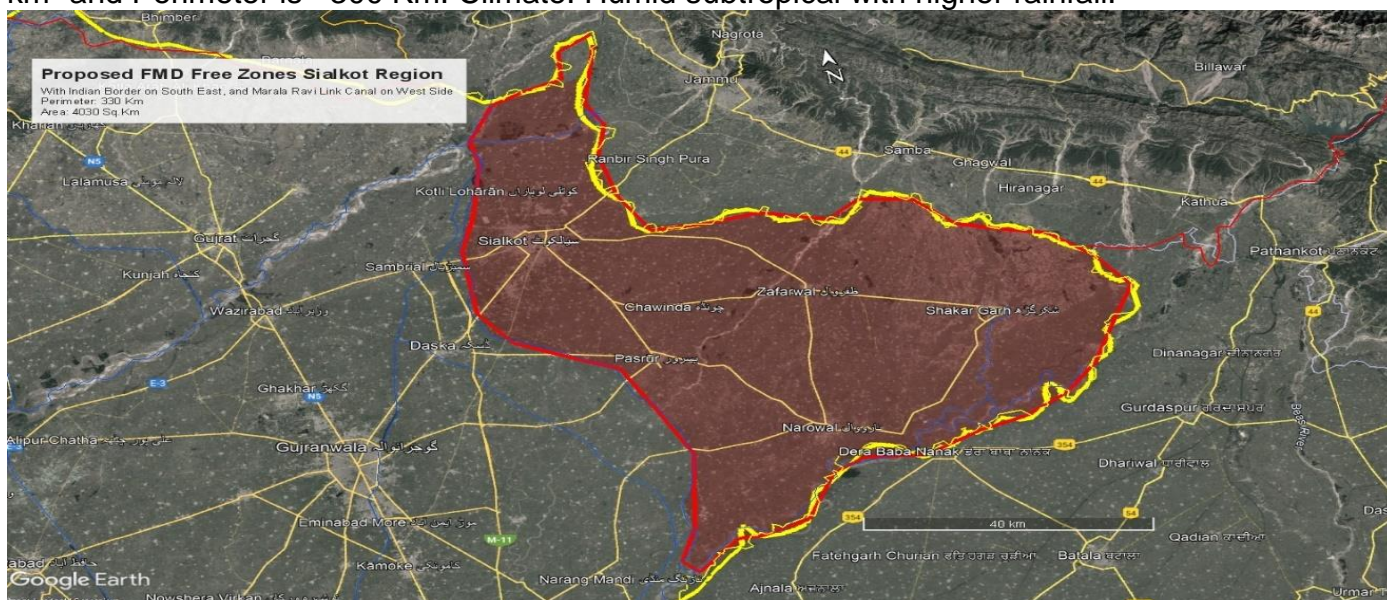
Challenges

High inter-district livestock movement; needs strict control. Requires inter-district coordination for FMD control.

Area III: Sialkot, Shakargarh, and Narowal Districts (Bordering India and Marala-Ravi Link Canal)

Geographical Overview

Northeastern Punjab, bordered by India and the Marala-Ravi Link Canal. The total Area: ~4,030 km² and Perimeter is ~300 Km. Climate: Humid subtropical with higher rainfall.



Livestock and Agriculture

Diverse cropping patterns with rice, wheat, and vegetables. Moderate livestock density with large animal population as 1.07 and small ruminant as 0.3 Millions, potential for dairy expansion.

Infrastructure

Adequate veterinary facilities and ongoing development. Strategic location with Sialkot Dry Port.

Challenges

Requires coordination with border security. Needs enhanced cross-border disease monitoring.

Table 1: on the comparative analysis of three potential areas for feasibility study to establish FMD free zone.

Criteria	Muzaffargarh	Jhang-Chiniot-Sargodha	Sialkot-Shakargarh-Narowal
Natural Boundaries	High	Moderate	High
Livestock Density	Moderate	High	Moderate
Veterinary Infrastructure	Moderate	High	Moderate
Flood Risk	High	Low	Moderate
Border Control	Low	Low	High
Surveillance Needs	Moderate	High	High
Implementation Feasibility	Moderate	High	Moderate

TERMS OF REFERENCE

**Feasibility Study for the Establishment of Foot and Mouth Disease Free Zone
(With vaccination) in Punjab****INTRODUCTION & BACKGROUND:**

Pakistan has large animal resource base and considerable potential for production by virtue of animal numbers and export by virtue of Pakistan's strategic position on the globe, halal production and processing of animals. Livestock contributes 14.63% in national GDP and 60.84 % in agriculture GDP. The global meat market is estimated to be over one trillion US\$ while, Pakistan's share is less than 1% of this market that attract attention to the livestock sector in Pakistan.

The low share of Pakistan in the global meat market is mainly due to presence of Trans-boundary Animal Diseases (TADs) such as Foot & Mouth disease, Peste des Petits Ruminants (PPR) and highly pathogenic Avian Influenzas besides mistrust of main importing countries in our animal health information system. This information system is predominantly paper based and devoid of generating reliable animal disease data required to satisfy the trading partners in terms of the requirements of WTO's SPS agreement for international trade. Secondly, reliable disease data in terms of animal, place and time, and economical losses associated with respective diseases is also not available which is single ingredient for informed policy and operational decisions for control of TADs in the country.

Contribution of Punjab province in the total national production of four major livestock products i.e. milk, beef, mutton and poultry meat is estimated at 62.2%, 43.2%, 32.6% and 65.22%.

The control of TADs is imperative if Pakistan wishes to enhance its exports of animals and animal products. Given the financial crunch in Pakistan and magnitude of resources required the entire country approach for control of TADs perhaps is not possible therefore progressive control of TADs especially FMD is the only alternate under Progressive Control Pathways (PCP) which aims to progressively control FMD circulation from at least one zone of the country in line with WOAHP guidelines.

Foot and Mouth Disease is one of the most common Trans-boundary Animal Diseases (TADs) in the country and its control has a significant importance in preventing economic losses associated with the disease, promoting profitability of the livestock business and enabling Pakistan to meet export market requirement.

Pakistan has made significant efforts to control FMD from its territory during the early part of last decade under financial assistance from USDA and the Government of Japan, implemented by FAO Pakistan. Benefitting from this assistance, Pakistan

attained stage 2 of 5 stages FMD Progressive Control Pathway (PCP-FMD) by 2015. Stage-3 was the target in the next few years which required National FMD Control Program to be in place as per WOAAH standards to get facilitation in access to markets of EU, USA, Russia, Japan, Indonesia, Malaysia and Central Asian Republics for our livestock products especially meat and meat products. The current plan/feasibility study for establishment of FMD free zone (with vaccination) is an attempt to contribute in the National FMD Control Programme of the country to retain PCP-FMD Stage-2 in the first instance and to target stage-3 in next few years following endorsement of this program by World Animal Health organization (WOAH). At present Pakistan is at stage 2 of PCP-FMD.

OBJECTIVE OF CONSULTANCY:

The establishment of FMD free zone (with vaccination), being a highly complex intervention requires hiring of the consultancy services for a well thought out study of different geographical locations, interventions required under WOAAH guidelines, a comprehensive plan to chalk out the precise activities, resource estimation and structural and institutional arrangements as well as legal provisions to develop a zone on sustainable model. Such a study would help establish an FMD free zone in Punjab in the light of WOAAH guidelines and preparation of PC-1 in the light of its recommendations.

The consultant firm will outline a detailed study/analysis and strategic planning for the successful establishment of the zone; however, the approval from WOAAH for its acknowledgment will be after its implementation. The intervention is in accordance with WOAAH guidelines under PCP which says that a control strategy should be developed aimed to progressively reduce FMD circulation from at least one zone/area of the Punjab province.

IMPLEMENTING AGENCY AND NATURE OF THE PROGRAM:

Directorate General (Ext.), L&DD Department is the implementing/executing agency. The project will be executed through the project management unit. The consulting firms selected under Terms of Reference (TORs) will carry out the project under scope of work mentioned below.

LOCATION OF THE PROJECT:

The project will be executed in different locations with suitable natural geographic boundaries following the guidelines of World Organization of Animal Health (WOAH) to conduct the feasibility for the establishment of FMD-free zone with vaccination.

Currently, the following three potential areas have been identified for feasibility study:

- iv. Muzaffargarh district between Sindh and Chenab River
- v. Jhang, Chiniot and Sargodha areas between River Jhelum and Chenab

- vi. Sialkot, Shakargarh and Narowal areas surrounded by the Indian border and Marala-Ravi Link Canal

DETAILED SCOPE DUTIES AND RESPONSIBILITIES OF CONSULTANT:

The scope duties and responsibilities of consultant will include but not limited to the following tasks to undertake;

1. Cost-Benefit Analysis of FMD free zone in Punjab and Social impact of proposed FMD Free Zone.
2. Gap analysis and to make recommendations on the following:
 - a) Livestock production system and value chain in proposed area to improve the same and its linkages with proposed FMD Free Zone.
 - b) Necessary legal framework required for establishment of FMD Free Zone at Provincial & National level.
 - c) Communication and extension strategy and interventions required for establishment of said FMD Free Zone.
 - d) Existing disease reporting and surveillance system and suggestion to make it compatible with requirements of OIE for establishment of FMD Free Zone.
3. Identification and costing of suitable animal identification and traceability system for the proposed zone in Punjab. Strategic plan for animal traceability, identification, control of animal movement, quarantine measures & other prophylactic and bio-security measures as per WOAHP guidelines for establishment of FMD Free Zone.
 - a) To suggest any improvement in the already existing Pakistan Animal Identification and Traceability system
 - b) To suggest animal movement documentation & requirements as per WOAHP Guidelines.
 - c) To suggest training / capacity-building programs of relevant stakeholders.
 - d) To suggest documented arrangements for performance monitoring, enforcement, evaluation and periodic reviews of animal identification and traceability system.
 - e) To suggest the use of artificial intelligence system in animal movement control
4. Identification of trading partners and their requirements, quality standards & SOPs for export of livestock products from proposed FMD Free Zone.
5. Assessment of Economic losses by FMD in Punjab
6. To prepare PC-I of the project regarding establishment of FMD Free zone in Punjab.

Preparation of Comprehensive Road-map for the Establishment of FMD Free Zone

The Consultant firm will finally prepare a comprehensive Road-map for the Establishment of FMD Free Zone in accordance with WOAHS guidelines based on the outcome of above mentioned studies with cost estimates, in form of PC-I.

ROLE OF THE CONSULTANT:

Consultant firm shall carry out the following activities;

i. Need Assessment:

The consultant shall ascertain the need and define the extent of field data collection (topographical survey, geological, Geo technical investigations etc.), analysis of data, feasibility study, detailed design, economic analysis or any other study required to prepare the feasibility report for the establishment of FMD free zone which will be technically and economically viable.

ii. Quality Assurance:

The consultant shall supervise the work related to data collection, surveys, other studies and will ensure the correctness, quality, quantity and authenticity of work as per scope of the assignment.

iii. Certification:

The consultant shall certify the correctness and authenticity of gathered data i.e topographic surveys, geo technical investigations, maps, drawings and all other reports. Moreover, the consultant shall also certify the work done along with its quality for feasibility study and detailed design before releasing the payment to the contractors/vendors (if any) as the data will become base for the establishment of the FMD free zone.

ROLE OF CLIENT AGENCY:

Client will try to assist consultant in following role for the implementation of study

- i. Provide to the consultant, any such document prepared by client as shall be necessary to perform the services.
- ii. Assists to obtain the existing data/approval/clearances pertaining or relevant to the carryingout the studies with various government and other organization

TIME DURATION FOR CONSULTANCY:

The Consultant firm will be required to complete all studies and furnish the final report within six (06) months starting from the award of the contract.

PROFESSIONAL LIABILITY OF THE CONSULTANT:

1. The consultant selected and awarded a contract shall be liable for consequence of errors or omissions on its part. The extent of liability of the consultant should be incorporated in the contract and in no case should it be less than remunerations excluding the out of pocket expenses, nor should the liability

exceed twice the remunerations.

2. The procuring agency may demand insurance on part of the consultant to cover its liability under sub-regulation (I) and necessary costs shall be borne by the consultant which shall be reimbursed by the procuring agency as out of pocket expenses by the consultant.
3. The Consultant shall be held liable for all losses or damages suffered by the procuring agency on account of any misconduct and unsatisfactory performance by the Consultant in performing the consulting services.

DELIVERABLES ALONG WITH TIMELINES:

#	Report Type & Description	Time Elapsed	No. of Copies	Payment Terms
1	<p>Inception Report:</p> <ul style="list-style-type: none"> • Reflecting the Consultants' understanding of the assignment, specifying approach, clear methodology, staffing, schedules & work plan along with timelines in detail with presentation. 	2 weeks after the date of the Agreement	03 Hard copies + 02 USBs	5% upon the approval of the inception report
2	<p>Interim Report:</p> <ul style="list-style-type: none"> • Detailed report on the most suitable area/site amongst the identified FMD-free zones in terms of: <ul style="list-style-type: none"> i) Available infrastructure, animal health facilities, and role of other departments in the light of WOAHA guidelines for the purpose. ii) FMD prevalence and reporting mechanism and identification of gaps under WOAHA compliances. iii) Identification of animal movement areas and suggest the animal check posts and quarantine stations to be established and plan a comprehensive animal traceability and movement control system, infrastructure requirements and legal provisions including drawings, maps and cost estimates iv) Operational model with regards to different arrangement/ activities for establishment of FMD free zone. v) Propose legal amendments in existing legal framework (if any) for establishing a sustainable FMD free zone (with Vaccination) vi) Propose a comprehensive plan for improving animal 	After 3 Months from the date of Agreement	05 Hard copies + 02 USBs	40 % upon the approval of interim report

	health/extension services for establishment and maintenance of FMD free zone vii) Identification and mitigation plan of all possible risks and challenges including socio-political aspects along with export potential.			
4	Draft Comprehensive Report: <ul style="list-style-type: none"> Based on all studies including proposed plans for establishment of FMD free zone and draft PC-I A summary report by the Consultant firm with attached full reports on above mentioned studies 	After 5 Months from the date Agreement	05 Hard copies + 02 USBs	10% Upon approval of comprehensive report
6	Final Comprehensive Report & PC-I: <ul style="list-style-type: none"> To be amended after comments from the office of the Director General (Ext.), L&DD Punjab, Lahore. 	Within 6 Months before completion of the contract period	05 Hard copies + 02 USBs	45 % upon the approval of Final comprehensive report and submission of PC-1

TIME FRAME:

Total Time to complete the assignment in 06 months after the signing of the agreement. Final PC-1 has to be submitted within 06 months of the commencement of the project.

WORKING LANGUAGE:

The working language of the assignments, reports and works prepared by the consultant will be English.

DISPUTE SETTLEMENT:

Venue of arbitration shall be Lahore and the courts located in Lahore shall have jurisdiction in thematter.

STAFFING REQUIREMENTS:

The consultancy firm is encouraged to use the expertise available in Pakistan to the extent of possible. The consultant firms are free to propose a staffing plan and skill mix necessary to meet the objectives and scope of services. If all the required skills are not available within the consulting firms as per PEC guidelines, they are encouraged to make joint ventures with other firms. Following is an indicative skill list required for carrying the assignment.

CORE TEAM OF EXPERTS /STAFF:

The Consultant Firm will appoint a Team leader who will further Supervise and execute the project till the end along with the main team of senior experts from each study. Following is the Qualification, expertise and major responsibilities of the Team Leader

and his team.

#	Name of Post	Qualification	Experience	Responsibilities
1	Team Leader	DVM, PhD in Epidemiology/Microbiology/Medicine/Tropical Veterinary Medicine/Pathology/Infectious Diseases	<ul style="list-style-type: none"> • Min 15 years' post-qualification experience with PhD in disease control or eradication • Strong understanding of WOAHP guidelines and standards regarding FMD free zone • Have International working experience with WOAHP 	<ul style="list-style-type: none"> • Head of the Project. • Preparation and Submission of work plans, inception reports, interim reports and Final PC-I as per schedule. • Supervise & coordinate with all formations of the projects with the client department. • Top supervision, Planning and management of all ongoing activities of the project. • Supervision of Administrative and Financial issues related to Project
2	Epidemiologist	DVM, PhD in Veterinary Epidemiology	<ul style="list-style-type: none"> • Min 10 years' post-qualification experience with PhD in epidemiology • 5 Year Experience in Animal Disease Diagnostic & Surveillance with an international organization 	<ul style="list-style-type: none"> • Team will work under supervision of Team Leader to carry out: designing and implementing surveillance system • Collecting and analyzing epidemiological data from veterinary clinics, farms, wildlife populations, and other relevant sources. • Designing and conducting epidemiological studies to investigate the factors influencing disease transmission, prevalence, and distribution in animal populations. • Using statistical and spatial analysis techniques to interpret data and draw conclusions.
3	Animal Health Expert	DVM, PhD in Veterinary clinical Medicine/Infectious disease/Microbiology/Pathology	<ul style="list-style-type: none"> • Min 10 years' post-qualification experience with PhD in clinical Veterinary Medicine/Infectious disease/Microbiology/Pathology • Minimum 5 yrs experience with an international organization for animal disease surveillance and control 	<ul style="list-style-type: none"> • Conduct random health checks of livestock particularly regarding Foot & Mouth Disease across Punjab • Develop a mechanism regarding animal health programs, including a vaccination strategy
4	GIS Specialist	Bachelor's or Graduate's Degree in, engineering, computer science, surveying, preferably GIS from	<ul style="list-style-type: none"> • Minimum 08 years post qualification relevant work experience 	<ul style="list-style-type: none"> • Acquiring, organizing, and maintaining geographic data from various sources (satellite imagery, maps, surveys, etc.). • Ensuring data accuracy, completeness, and

#	Name of Post	Qualification	Experience	Responsibilities
		a recognized University		<p>consistency.</p> <ul style="list-style-type: none"> • Developing databases and data dictionaries for efficient storage and retrieval of spatial data • Creating maps and visualizations to represent spatial data and analysis outcomes. • Designing map layouts and cartographic presentations. • Incorporating various data layers and symbology to effectively communicate information.
5	Civil Engineer	Bachelor's or master's degree in civil engineering from HEC recognized institute and Registered with (PEC)	<ul style="list-style-type: none"> • Minimum 10 years post qualification relevant work experience with a focus on design, construction, and project management 	<ul style="list-style-type: none"> • Creating detailed designs and technical drawings using CAD (Computer-Aided Design) software for various • Assessing the viability of proposed project. Developing project plans, including timelines, budgets, and resources required
6	Legal & Institutional Expert	Bachelor's degree in law (LL.B.) & Postgraduate degree in law (L.L.M)	<ul style="list-style-type: none"> • Minimum 10 years of experience in legal practice with regards to Public sector 	<ul style="list-style-type: none"> • Conducting legal research and analysis on complex issues related to institutional policies, regulations, and statutes. • Providing expert legal advice and opinions • Contributing to the development and review of institutional policies and procedures to ensure legal compliance and best practices
7	Financial Expert	MBA, MSF from HEC recognized University	<ul style="list-style-type: none"> • Minimum 10 years post qualification experience in financial analysis, planning, and strategy, financial modeling, forecasting, and data analysis 	<ul style="list-style-type: none"> • Developing and maintaining financial models to forecast future financial implications. • Creating and managing budgets, financial forecasts, and projections to guide strategic planning and resource allocation

STATEMENT OF COST

Sr. No.	Description	Qty.	Man Months	Unit Rate incl. All taxes (PST, income tax etc.) Rs.	Total Cost (Rs.)	Total Cost (Rs. in millions)
HR Related Cost:		A03919 - Payment to Others for Services Rendered.				
1	Team Leader	1	6	15,000,000	90,000,000	90
2	Epidemiologist	1	6	10,000,000	60,000,000	60
3	Animal Health expert	1	6	10,000,000	60,000,000	60
4	GIS Expert	1	3	500,000	1,500,000	1.5
5	Civil Engineer	1	3	500,000	1,500,000	1.5
6	Legal & Institutional Expert	1	2	500,000	1,000,000	1
7	Financial Expert	1	2	500,000	1,000,000	1
Total HR Related Cost-(a)					215,000,000	215
Other Expenses		A03907 - Advertisement / Publicity / Seminars / workshops/ cost of branding				
1	Advertisement/Printing	-	-	5,000,000	5,000,000	5
2	Lodging and Transportation	-	-	20,000,000	20,000,000	20
3	Third party validation	-	-	20,000,000	20,000,000	20
Total other expenses-(b)					45,000,000	45
Grand Total: (a+b)					260,000,000	260

Key FMD control Intervention	Estimated Animal Population (in Million)	Required doses per year (in Million)	Estimated Budget (in Million)
1 st year	5 x 12000 =0.06	0.12	Total Cost @Rs. 285/ FMD vaccine dose Rs. 205.2 M
2 nd year	10x 12000=0.12	0.24	
3 rd Year	15 x 12000=0.18	0.36	
Total requirement for FMD free Compartments including buffer area (15 Nos)		0.72	

List of Hardware

Sr No	Particulars	Approx. unit cost (Million Rupees)	Quantity	Total cost in Million rupees	Justification
1	Laptop computers 13th Generation i7	0.35	7	2.45	For Project Management Unit and field staff of Rapid response units and animal registration team
2	Desktop computers, 13th Generation i7	0.26	15	3.9	For 15 FMD free compartment monitoring offices in field
3	Photocopier machine RICOH	0.35	1	0.35	Copy of record files
4	Printer Laser Jet HP	0.075	17	1.275	Office work and display of reports in PMU, main Check posts, Quarantine units
5	Colored printer HP	0.25	1	0.25	Office work
6	CCTV cameras set 4MP color VU, Dahua/Hikvision set of 12, night vision, high resolution, 15 days network infrastructure, display at site and control office complete installation	0.65	15	9.75	To be installed at Compartments and the quarantine units check posts.
	Total (Million)			17.975	

Info code



Quote # 450-25

To,

Dated : 08/04/2025

The Director General (Ext.)

Livestock and Dairy Development Department Punjab,

16-Cooper Road Lahore

QUOTATION

Sr No	Particulars	unit cost (Million Rupees)	Quantity	Total cost in Million rupees
1	Laptop computers Dell 13th Gen i7	0.35	7	2.45
2	Desktop computers Dell 13th Gen i7	0.26	15	3.9
3	Photocopier machine RICOH	0.35	1	0.35
4	Printer Laser Jet HP	0.075	17	1.275
5	Colored printer HP	0.25	1	0.25
6	CCTV IP cameras 4MP Color VU Dahua/Hikvision set of 12 , night vision, high resolution, data backup 15 days and network infrastructure, display at site and control office complete installation	0.65	15	9.75
Total (Million)				17.975

INFOCODE (Private) Ltd

Office No.2-b Kashmir Plaza, Jinnah Avenue Blue Area Islamabad

info@infocode.pk

0333-5587045

Sr. No	ITEM DESCRIPTION	Est. price/Unit (Million)	Quantity	Total Est. cost (Million)	Justification
1	ELISA kit for FMD for Detection of antibodies against O, A Asia 1, (5 Plates Kit)	0.4	30	12	To monitor the antibody level of vaccinated animals.
2	ELISA kit for FMD, NSP antibodies, 5 Plates Kit	0.4	10	4	To monitor virus circulation
3	FMD Antigen Detection and Serotyping ELISA (FMDV O, A Asia 1, C, SAT1, SAT2), 5 plates Kit	0.5	5	2.5	For surveillance of FMD virus
4	PBS tablets pack of 100	0.01	15	0.15	sample collection
5	Glycerol 99% pure, 2.5lit	0.015	10	0.15	sample collection
6	Miscellaneous	different	different	0.2	lab ware
Total (Million)				19	



CellBio Technologies

To,
The Director General (Ext).
Livestock and Dairy Development,
Departement Punjab, 16-Cooper Road,
Lahore.

Ref;
Dated

CBT-0013/04-25	
8/7/2025	

Quotation				
Sr No	Description	Make	Packing	Units Price
1	Elisa Kit for FMD for detection of antibodies against O, A Asia 1, (5 Plate kit	Izslar	5 Plates	400,000.00
2	Elisa Kit for FMD NSP, antibodies, 5 Plate Kit	Izslar	5 Plates	400,000.00
3	FMD Antigen Detection and serotyping Elisa (FMDV O,A Asia 1, C ,SAT 1, SAT 2) 5 Plate kit	Izslar	5 Plates	500,000.00
4	PBS Tablets	Invitrogen	100Tab	100,000.00
5	Glycerol 99% Pure	Sigma	2.5Lit	15,000.00

Term and Conditions:-

Quotation Validity:

45 Days

Delivery Period :

6-8 weeks after confirm order

Sales Tax NO:

35404-1070989-9

Sales Tax:

As per Governemnt Rule

Thank you for your inquiry if need any information please contact us

Amir Shahzad

Director Sales (Life Sciences)

cellbiotechnologies@gmail.com

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Email: cellbiotechnologies@gmail.com

Ph: +92-300-8554447

Sr. No	Item description	Est. price/Unit (Rs.)	Quantity Million	Total Est. cost millions	Justification
1	Tags	115	0.18	20.7	To identify the animal and registration on PAITS. It includes animal population of FMD free compartments buffer area.
2	Vacutainers (blood, serum) pack of 100	2000	0.0005	1	For sample collection for surveillance
3	Syringes 10 ml disposable pack of 100	2500	0.0005	1.25	For sample collection
4	Latex gloves pack of 50 pairs	1000	0.0002	0.2	Sample collection and disease handling
5	Vaccinator syringe BD	1000	0.0003	0.3	Vaccine inoculation
6	Ice packs	200	0.001	0.2	Vaccine cold chain
7	Needles pack of 12, for cattle	100	0.06	6	Vaccine inoculation
8	PPEs kits	1000	0.0005	0.5	Disease outbreak handling
9	Hand sanitizer ,500 ml	500	0.0005	0.25	For handling infectious material
10	Disinfectant Spray pack	1000	0.0003	0.3	For farm and vehicles disinfection
11	Soap and detergent	150	0.0005	0.075	For cleanliness
12	Face mask boxes	500	0.0005	0.25	Personnel protection
13	Lab coats	1000	0.0001	0.1	Personnel protection for work in lab and vaccination
14	Cotton rolls absorbent 300-400 g	500	0.0001	0.05	Surface cleaning in vaccination and lab work
15	Shoe covers disposable, pack of 50 pairs	500	0.0005	0.25	PPE for biosecurity
16	Safety goggles	500	0.0001	0.05	PPE for biosecurity
17	Head covers packs	500	0.0002	0.1	PPE for biosecurity
18	Sodium Hypochlorite 10% solution	1500	0.0002	0.3	For disinfection of disease farms
Total (Million)				31.875	

Sr. No	ITEM DESCRIPTION	Est. price/Unit (Million Rs.)	Quantity	Total Est. cost millions	Justification
1	Display screen 75 inch size	0.5	1	0.5	display of project activities in Project implementation unit Office
2	Cool boxes 90-100 L capacity, durable plastic, insulated	0.09	15	1.35	Vaccine transport in cold chain
3	Cool boxes small size insulated	0.006	75	0.45	Vaccine inoculation in field with cold chain
5	Instrument sterilizer	0.001	60	0.06	For sterilization of syringes and instruments
6	Tagging machines	0.005	300	1.5	Tagging of animals
7	Sign boards Board caution sign with pole	0.07	75	5.25	For public awareness in FMD free compartments
8	Infra-red medical thermometer	0.005	30	0.15	Clinical examination of animals at the checkpost, Quarantine units, FMD free compartments
9	Standee Display aluminium, Rollup	0.005	10	0.05	For Display of information
10	Water dispenser	0.075	3	0.225	For PIU offices, Quarantine stations
Total (Million)				9.535	

Info code



Quote # 451-25

To,

Dated: 08/04/2025

The Director General (Ext.)

Livestock and Dairy Development Department Punjab,

16-Cooper Road Lahore

QUOTATION

Sr. No	ITEM DESCRIPTION	price/Unit (Million Rs.)	Quantity	Total Est. cost millions
1	Display screen 75 inch size TCL	0.5	1	0.5
2	Cool boxes 90-100 L capacity, durable plastic, insulated	0.09	15	1.35
3	Cool boxes small size insulated	0.006	75	0.45
5	Instrument sterilizer	0.001	60	0.06
6	Tagging machines	0.005	300	1.5
7	Sign boards Boards caution sign with pole	0.07	75	5.25
8	Infra red medical thermometer	0.005	30	0.15
9	Standee Display aluminum, Rollup	0.005	10	0.05
10	Water dispenser PEL	0.075	3	0.225
Total (Million)				9.535

INFOCODE (Private) Ltd

Office No.2-b Kashmir Plaza, Jinnah Avenue Blue Area Islamabad

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0333-5587045

Sr. #	Name of Post	PPS	No of posts	Monthly salary (M)	(2025-26)	(2026-27)	(2027-28)	Total	Justification
1	Project Coordinator	PPS-11	1	0.85	1.7	10.71	11.246	23.656	Over all coordination with the stakeholders / executing and implementation agencies for smooth operations
2	FMD Specialist	PPS-10	1	0.5	1	6.3	6.615	13.915	Preparation of FMD free Zones specifications / requirement as per WOAHS guide lines
3	Epidemiologist	PPS-10	1	0.5	1	6.3	6.615	13.915	Preparation and implementation of disease surveillance plan
4	Data Scientist	PPS-7	1	0.2	0.4	2.592	2.799	5.791	Devise mechanism for data sourcing, data analysis and reporting using IT.
5	Monitoring Officer	PPS-7	1	0.2	0.4	2.592	2.799	5.791	managing the project documents, Technical Specifications etc, Identification of program requirements for digitalization of DSIS, research and plan the program model
6	Data Base administrator	PPS-6	1	0.125	0.25	1.62	1.750	3.620	Data managements related to project, preparation of project reports.
7	GIS Analyst	PPS-6	1	0.125	0.25	1.62	1.750	3.620	Analysis of GIS data using GIS software to create maps, spatial analysis, and reports.
8	Driver	PPS-2	7	0.04	0.56	3.408	3.749	7.717	For 7 new vehicles
Total			14	2.54	5.56	35.142	37.322	78.024	
Grand Total Million									

List of Vehicles

Sr. No.	Detail of Vehicles to be purchased	Total No. of Unit	Unit cost (Rs.) Million	Total Cost (Rs.) Million	Justification
1	Toyota Hiace	1	16	16	Toyota hiace has been proposed in the project for purpose build vehicle to move in the province for rapid response for epidemiology, disease surveillance on spot outbreak handling, sample collection by the project team for effective and smooth FMD control in the FMD free compartment and zone
2	Car 1300 CC	3	6	18	The instant project pertains different functions / activities related with the extension and research wings of the department, moreover the project is of high economic impact in nature. Thus for day to day meetings, coordination with the other stakeholders and field activities the vehicle is required for the project team.
4	Single cabin vehicle	3	7	21	Three Single Cabin customized to Rapid Response Unit vehicles will be deputed to work as rapid response unit in FMD free compartments and the buffer area.
	Total (Million)	7		55	

Sr. No.	District	No. of Tehsils	No. of MVDs	No. of MVDs Functional	No. of MVDs barely Functional and need replacement	No. of MVDs Non-functional	No. of New MVDS required	Remarks
1.	Lahore	5	16	16	0	0	0	
2.	Kasur	4	5	4	1	0	1	MVD Kot Rakha Kishan
3.	Sheikhupura	5	5	5	0	0	0	
4.	Nanakana Sahib	3	4	4	0	0	0	
5.	Sahiwal	3	5	4	0	0	0	MVD Sahiwal-I requiring Engine Overhauling
6.	Okara	3	5	5	0	0	0	
7.	Pakpattan	2	4	4	0	0	0	
8.	Gujranwala	3	3	3	0	0	0	
9.	Sialkot	4	5	3	1	0	0	MVD Pasrur
10	Narowal	4	4	3	1	0	1	MVD Zafarwal
11.	Gujrat	3	4	4	0	0	0	
12	Hafizabad	2	4	1	1	1	2	MVD Vanike Tarar auctioned MVD Jalalpur Bhattian
13.	M.B Din	3	4	4	0	0	0	
14.	Wazirabad	2	1	0	0	0	1	MVD Wazirabad
15.	Faisalabad	5	5	5	0	0	0	
16.	Jhang	4	7	7	0	0	0	
17.	Chiniot	3	4	4	0	0	0	
18.	T. T. Singh	4	4	4	0	0	0	
19.	Rawalpindi	5	4	4	0	0	1	No MVD in Tehsil Kotli Sattian
20.	Attock	6	5	5	0	0	1	No MVD in Tehsil Hazro
21.	Jhelum	4	4	4	0	0	0	
22.	Chakwal	3	3	3	0	0	0	
23.	Murree	2	1	0	1	0	2	02 MVD required – MVD Murree & MVD Kahuta
24.	Talagang	2	2	2	0	0	0	
25.	Sargodha	7	6	6	0	0	1	MVD Sahiwal Funds already demanded in ADP Scheme 5640.

Sr. No.	District	No. of Tehsils	No. of MVDs	No. of MVDs Functional	No. of MVDs barely Functional and need replacement	No. of MVDs Non-functional	No. of New MVDS required	Remarks
26.	Khushab	4	4	4	0	0	0	
27.	Mianwali	3	4	4	0	0	0	
28.	Bhakkar	4	5	5	0	0	0	One new MVD being converted to Pet Clinic
29	Multan	4	5	4	0	1	1	MVD Multan-I
30	Khanewal	4	5	4	1	0	1	MVD Kabirwala (Toyota Hilux 1986)
31	Lodhran	3	4	3	1	0	1	MVD Karor Pakka (Suzuki Bolan)
32.	Vehari	3	5	5	0	0	0	
33.	Bahawalpur	5	6	6	0	0	0	
34.	Bahawalnagar	5	5	5	0	0	0	
35.	R. Y. Khan	4	4	4	0	0	0	
36	D.G. Khan	4	9	7	1 (MVD DG Khan – II)	1 (MVD K. Chutta)	2	
37.	M/Garh	4	5	5	0	0	0	
38.	Layyah	3	5	5	0	0	0	
39.	Rajanpur	3	6	6	0	0	0	
40.	Cholistan B/Pur	0	12	7	5	0	0	All Land lovers need replacement MVD Chananpir Cholistan MVD Chapu Cholistan MVD Derawar Cholistan MVD 229/1L Cholistan MVD HeadFareed Cholistan
41.	TOTAL		202					

List of Machinery and equipment

Sr. No	ITEM DESCRIPTION	Est. price/Unit	Quantity	Total Est. cost (In Million)	Justification
1	Electricity Generator 6KVA	0.45	15	6.75	Electric supply for cold chain of vaccine storage in vaccine monitoring centers in the field
2	Refrigerators for vaccine storage, Glass door, Large size	0.9	15	13.5	Vaccine storage in the CVD or CVH of the buffer area
3	Electricity Generator 15 KVA	1.5	1	1.5	Electric supply for PMU office
4	UPS with Batttries	0.25	3	0.75	Electric supply for PMU office
5	Air Conditioner 1.5 ton inverter	0.25	19	4.75	15 AC for the vaccine storage room and 4 AC for PMU office
Total				27.25	

Info code



Quote # 452-25

To,

Dated: 08/04/2025

The Director General (Ext.)

Livestock and Dairy Development Department Punjab,

16-Cooper Road Lahore

QUOTATION

Sr. No	ITEM DESCRIPTION	Est. price/Unit	Quantity	Total Est. cost (In Million)
1	Electricity Generator 6KVA Homeage	0.45	15	6.75
2	Refrigerators for vaccine storage, Glass door, Large size Infitek	0.9	15	13.5
3	Electricity Generator 15 KVA CUMMINS	1.5	1	1.5
4	UPS with Battries 2KVA Systech	0.25	3	0.75
5	Air Conditioner 1.5 ton inverter Mitsubishi	0.25	19	4.75
Total (Million)				27.25

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In the fiscal year 2020–21, Pakistan produced approximately 4.9 million tonnes of meat, yet only about 2% (95,991 tonnes) was exported, primarily to GCC countries and some Far Eastern markets.

Pakistan has the capacity to significantly increase its meat exports, with projections suggesting potential earnings of up to \$1 billion annually.

- **Key challenges include:**

- Prevalence of Foot-and-Mouth Disease (FMD), limiting market access.
- Outdated infrastructure such as slaughterhouses.
- Inadequate disease surveillance and traceability systems.
- Difficulties in meeting international sanitary and phytosanitary (SPS) standards.

Current Exports:

- In the fiscal year 2024, Pakistan's meat exports reached **\$512 million**. The export volume rose to **124,000 tons**, up from 100,000 tons in the previous years. The UAE and Saudi Arabia were the top destinations, accounting for **39%** and **28%** of exports, respectively

Emerging Markets:

China has emerged as a significant new market for Pakistani meat. From January to September 2024, Pakistan exported **694 tons** of boiled meat to China, valued at **\$3.37 million**. This development follows the approval of Pakistani companies by China's General Administration of Customs (GACC) to export boiled meat.

Future Projections: Pakistan aims to further enhance meat exports, targeting **\$500 million** in the next fiscal year, **\$650 million** in 2023-24, and reaching **\$750 million** by 2024-25. These figures underscore Pakistan's growing presence in the global meat market, with strategic efforts to diversify export destinations and increase export volumes.

- Long-term potential: **\$2–3 billion annually** with policy and infrastructure support (*Dawn Business News*).
- **4th largest** livestock population globally (*Pakistan Economic Survey*)
- Over **200 million** animals: cattle, buffalo, sheep, and goats.
- Surplus animals available beyond domestic demand.
- Pakistan is a **100%** halal meat producer.
- Can tap into the **\$3 trillion** global halal food market (*Halal Research Council & TDAP*)
- Growing Middle East and Asia safe, hygienic, and halal meat.
- UAE, Saudi Arabia, and Malaysia are expanding import volumes (*TDAP Meat Export Strategy 2022–26*).
- Over **80** registered meat processing units (with export licenses) (Punjab Board of Investment & Trade (*PBIT*))
- New Market Opportunities, **China** has opened its market to boiled meat from Pakistan.
- Ongoing efforts to access **Russia, Indonesia, Iran, and Central Asia**.
- Potential to enter the **EU and US markets** with FMD-free zones and compliance.

Major Challenges

1. Endemic Foot-and-Mouth Disease is a key non-tariff barrier.

- Countries only import meat from FMD-free zones (with or without vaccination).
- FMD limits market access to high-value regions like EU, USA, Japan, and China (for fresh/frozen meat)
- Lack of FMD-Free Zones in Pakistan (as per WOAHS standards)

- Exports are mostly limited to deboned or heat-treated meat, reducing competitiveness.

2. Poor Traceability Systems from farm to slaughterhouse.

- International buyers demand proof of animal health, origin, and disease-free status

3. Slaughterhouse Standards & Compliance many abattoirs lack modern facilities and do not comply with international hygiene (HACCP/GMP)

4. Livestock Quality & Productivity Issues, Poor genetic potential, underfeeding, and disease burden in local breeds. Low meat yield per animal, affecting export volume and quality.

Global Epidemiological Status of FMD and Precedence in Asia

Globally, FMD remains endemic in many regions. The World Organisation for Animal Health (OIE) maintains a list of FMD-free countries.

Asian Precedence:

- Japan & South Korea: FMD-free without vaccination through strict controls.
- Malaysia: FMD-free with vaccination.
- China: Has designated FMD-free zones to support trade.

These examples highlight the critical role of biosecurity, surveillance, and policy enforcement in attaining FMD-free certification.

The map below shows the FMD status worldwide along with prevalent serotypes in different regions.

