

## CHALLENGES AND OPPORTUNITIES IN HALAL BEEF EXPORTS FROM PAKISTAN

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### INTRODUCTION

#### ***Background of the Study***

Livestock is a crucial sector in Pakistan's agro-based economy, accounting for 60.84% of the agricultural value addition through products like milk and meat, contributing 14.63% to the national GDP, and 1.6% to total exports. Over 8 million rural households engage in animal husbandry, deriving 35-40% of their livelihoods from this sector. The national herd includes 57.5 million cattle, 46.3 million buffaloes, 87 million goats, and more. Among meat-producing animals, cattle have shown the highest compound annual growth rate (CAGR) of 3.5% from 1991 to 2024. However, the average carcass weight for cattle/buffalo in Pakistan is 196 kg per animal, significantly lower than the 297 kg per animal that has been observed in leading producing countries. Improving this requires focusing on healthy meat animals, modern husbandry practices, adequate feeding resources, and proper feeding plans. Enhancing per-animal meat productivity could make Pakistan a significant player in the international halal beef market.

Pakistan's halal meat industry is expanding rapidly. In 2024, total halal meat production, including beef, mutton, and poultry, reached 5.8 million tons with a CAGR of 3.9%. The country's meat consumption in 2022 was 3.5 million tons with a CAGR of 0.8%. The significant difference between meat production and consumption growth rates indicates a substantial surplus, presenting an opportunity to increase foreign exchange earnings through meat exports. Failure to capitalize on this potential could reduce profitability or drive the illegal sale of live animals.

Meat exports were negligible until the 1998 Annual Trade Policy. According to the State Bank of Pakistan, exports of meat and edible meat offal increased from US\$ 14 million in 2003 to US\$ 467 million in 2023, with a CAGR of 18%. Among meat types, beef is the largest export sector, contributing US\$ 332 million, followed by fish, mutton, offal, poultry, and others. Despite being the 15th largest meat producer globally, Pakistan ranks 57th in meat exports, highlighting the underperformance and the need to address constraints hindering expansion.

#### ***Beef Exports of Pakistan: Challenges and Potentials***

The global beef industry has experienced exponential growth over the past two decades. The market value for beef (cattle meat) has quadrupled from US\$ 166 billion in 2002 to US\$ 332 billion in 2022 and is projected to reach US\$ 422 billion by 2028, with a CAGR of 4% from 2022 to 2028.

Pakistan's exports of bovine (cattle and buffalo) meat are continuously rising since 2003. Bovine meat exports have surged from US\$ 0.747 million in 2003 to US\$ 332.271 million in 2023, with a CAGR of 37%. Despite a 9% decline in 2022, attributed to a drop in export prices, exports showed a fast recovery (31% increase), reaching US\$ 570 million in 2023. However, 92%-98% of exports are

in the fresh/chilled category, expanding at a CAGR of 34%. Pakistan's share of the global beef market is just 0.08%, highlighting instability.

Pakistan exported approximately 86,886 tons of bovine meat, representing 3.3% of its total beef production (2.6 million tons), to six Gulf Cooperation Council (GCC) countries—United Arab Emirates (UAE) (51%), Saudi Arabia (16%), Kuwait (12%), Qatar (9%), Bahrain (5.4%) and Oman (3.3%)—which collectively accounts for 95.7% of exports, highlighting that these markets are relatively more accessible to Pakistan because of less stringent import restrictions. The frozen beef market is expanding, dominated by Brazil, Australia, and the USA. The demand for frozen beef is attributed to its prolonged shelf life and transportation viability. Pakistan's high electricity prices make it uncompetitive in the international market.

The global demand for halal meat is increasing due to its quality and nutritional value. The halal meat market was valued at US\$ 202 billion in 2021 and is projected to reach US\$ 375.1 billion by 2030. Despite producing organic halal beef, Pakistan's market share remains minimal, highlighting the need for attention from researchers and policymakers.

## **Objectives**

The key objective of this policy brief is to evaluate the current practices in halal beef exports including sourcing, transportation, processing, and storage, and government efforts to establish an FMD-free zone. Moreover, the study aims to identify challenges faced by exporters such as regulatory issues, infrastructure, logistics, and quality control, and to explore opportunities to enhance halal beef exports.

## **STUDY AREA AND DATA COLLECTION**

Exporters in Karachi, Lahore, and Islamabad are mainly involved in beef exports. The study employs a mixed-method approach. A questionnaire was designed to conduct face-to-face interviews of beef exporters in the Karachi, Lahore, and Islamabad export markets to record different information. The questionnaire covers the demographic characteristics of exporters, current practices in the supply chain of halal beef exports, challenges faced by exporters in halal beef exports (including regulatory, infrastructure, logistics, and quality control issues) and opportunities to enhance beef exports. A profitability analysis is also conducted to explore the economic feasibility of beef export.

## **FINDINGS**

### ***Foot and Mouth Disease in Pakistan and Government Efforts***

Internationally, two primary approaches are used to achieve FMD-free status: (1) government subsidies for FMD vaccination, (2) enforcement of FMD vaccination certificates during animal mobility or purchase. Pakistan has an opportunity to significantly enhance its beef exports by eradicating FMD. Preventing FMD requires just two doses of vaccination annually, costing Rs. 500 per animal. The national-level marginal cost for FMD vaccination would be US\$ 179 million annually (Rs 51.9 billion/year=Rs. 500\*103.8 million cattle and buffaloes). This marginal cost of vaccination can be easily recovered by boosting beef exports, potentially reaching 2.5 million tons valued at US\$ 13 billion to China and other high-value markets. The government of Pakistan is also attempting to establish an FMD-free zone with vaccination under the China-Pakistan Economic

Corridor (CPEC) initiative. In addition to this, recently, the government of Punjab and the Chinese Royal Group has established an FMD disease control compartment in Sheikhpura. By achieving and maintaining an FMD-free status in this compartment, Pakistan can enhance the health of its livestock, improve productivity, and gain access to high-value international markets that require strict compliance with animal health standards.

In 2017, the Government of Pakistan (GoP) signed an MoU with the Food and Agriculture Organization (FAO) of the United Nations to implement a preventive FMD vaccination program in the Cholistan region. This region is chosen to establish an animal quarantine zone due to its geographical location as it has two natural boundaries: Indian frontier from the back side and the river Sindh border from the front side. Under this program, the FAO assists the GoP by procuring FMD vaccines, training both government and private sector staff in animal treatment and vaccination, and establishing veterinary diagnostic laboratories across the region. All cattle and buffaloes are vaccinated free of charge twice a year. The program has expanded to the Bahawalpur division, covering the districts of Bahawalpur, Bahawalnagar, and Rahim Yar Khan. Since its inception, 12 inoculation cycles have been completed, administering 800 million doses of vaccine in the Bahawalpur division. The Bahawalpur Livestock & Dairy Development Department (BLLLD) has reported zero incidence of FMD in 2023, indicating the program's success.

### ***Descriptive Analysis of Beef Exporters***

Survey data reveals a notable difference in the ownership of slaughterhouses: about 33% of beef exporters in Lahore own slaughterhouses, whereas in Karachi and Islamabad, the ownership proportions are 75% and 100%, respectively. This implies that majority of beef exporters in Karachi and Islamabad can have more integrated supply chains, enabling exporters to better control the quality and activities. Exporters in Lahore have more penetration in international beef markets and exported the highest volume (2,951 tons) of beef during the last six months, followed by Karachi (2,275 tons) and Islamabad (100 tons). The low volume of Islamabad's exports is because this exporter is relatively new to the market.

### ***Features of Halal Beef Demanded from Exporters***

The features of halal beef demanded from Pakistan vary by importers. For instance, three certifications are demanded by importers of Qatar, Kuwait, and Oman: Halal Certificate to ensure the bovine animal is slaughtered and processed according to Islamic laws issued by Halal International or Punjab Halal Department); Animal Health Certificate to assure high standards of quality compliance issued by Animal Quarantine Department (AQD) in Lahore and Karachi, and Certificate of Origin issued by Chamber of Commerce and Industry. Although UAE, Saudi Arab, Egypt, Iran, Indonesia, and Malaysia demand four certifications: Halal Certificate, Animal Health Certificate, Certificate of Origin, and Self Certification of slaughterhouses (issued to those slaughterhouses that adhere to strict hygiene and safety standards).

In addition to these certifications, halal beef importers demand various features, including meat from younger animals, desi breeds, pink color, fat layer, lean meat, and specific packaging types. Exporters must adapt to these demands to maintain their market position.

### ***Practices in Halal Beef Exports from Pakistan***

Beef exporters source live animals from their farms, livestock markets, contract farming, or cattle feedlot farms. After this, bovine animals are transported to slaughterhouses, where they are provided with sweet water and feed and allowed to rest for 24-48 hours before slaughtering. Then,

the animals are slaughtered by trained personnel and are given a rest of about 5-7 minutes according to Islamic laws. After removing the skin and cutting the animal from the center, a veterinary doctor at the slaughterhouse inspects the liver and heart of slaughtered animals and prepares an ante mortem report, which must be endorsed by the Animal Quarantine Department (AQD). Meanwhile, the animals are processed into two or four pieces of carcasses or bone in cut or boneless, after removing offal. After cutting, meat is chilled or frozen in the chiller or freezer of the slaughterhouses, according to the export order. After this, beef is subsequently packed in cloth or vacuum packaging, depending on the mode of travel or type of meat. Finally, the packed beef is transported in reefer containers via chiller van from the slaughterhouses to the airport.

### **Profitability Analysis of Halal Beef Exports**

The animal buying cost is the largest component of costs, which hampers Pakistan’s exporters’ ability to compete with Indian frozen beef products in the Middle East. The second most significant cost component is the air freight charges, which are crucial for the rapid transportation of this perishable product. Among the minor costs are transportation costs of animals from the livestock market to the slaughterhouse and from the slaughterhouse to the airport, animal handling costs, slaughtering costs, the costs of animal health certificate and export development charges. In short, 90% of the costs are attributed to raw materials.

*Table 1: Profitability analysis of chilled halal beef exports*

Items	Value (Rs/animal)	Value (Rs/kg)
Animal buying cost	78,000	975
Livestock market charges	340	4
Transport cost from market to slaughterhouse	1,000	13
One-day feeding + deworming costs	400	5
Slaughtering + packaging + chilling costs	1,000	13
Animal health certificate cost	240+200=440	6
Transport cost from slaughterhouse to airport	500	6
Air freight charges	326.5*80= 26,120	327
Export Development Charges (0.25%)	287	4
<b>Total cost</b>	<b>108,087</b>	<b>1,351</b>
Revenue from beef	1,316*80=105,280	1,316
Skin	1,500	19
Offal earnings	8,000	100
<b>Total Revenue</b>	<b>114,780</b>	<b>1,435</b>
<b>Profit</b>	<b>6,693</b>	<b>84</b>

*Note: we assume that an average animal has 80 kg of meat production.*

A sizeable revenue comes from offal earnings, which highlights how crucial it is to use every part of the animal to maximize profitability. The profit per animal is Rs 6,693, while the profit per kg of beef is Rs 84. This analysis suggests that exporting chilled halal beef from Pakistan to GCC countries is both viable and profitable. Moreover, the beef export industry in Pakistan is a high-volume

business, with an average profitability of Rs 24.8 million per month (Rs 84 per kg\*(1,775,333 kg/6 months)).

### **Challenges and Opportunities in Halal Beef Exports from Pakistan**

Table 2 enlists four major challenges faced by Pakistan’s halal beef export industry as well as possible interventions and proposed outcomes.

*Table 2: Challenges and opportunities in halal beef export from Pakistan*

Challenges	Consequences	Interventions	Outcome
<b>Regulatory Challenges</b>			
Regulation of meat prices	Lower the quality of meat Disincentive the producer and exporter	Deregulation of meat prices	Pull factor for productivity enhancement Attract investment
Illegal slaughtering of female and young animals	Decrease horizontal growth	Strict enforcement of Animal Slaughter Control Act	Preservation of breeding female population Encourage fattening of young calves
Smuggling of live animals to Iran and Afghanistan	Difficulty to find healthy animals for beef exports Damages local industry of byproducts (casing, bones, gelatin etc.)	Cut on smuggling of live animals	Potential to increase formal exports
High electricity tariff and energy crisis	Expensive fodder and transport High cost of beef production Reduce international competitiveness	Reduce agri-energy tariff on fodder production, livestock farming and meat processing for export	Enhance international competitiveness Shift from chilled to frozen beef export Compete in boneless meat
No National FMD Control Programme	Huge production losses and trade barriers to high-end markets Delay in FMD approval of zone from WOAHA	Development of National FMD Control Programme Development of FMD Control compartments and zones	Access to new high-value markets
<b>Logistic Challenges</b>			
Limited air space in passenger flights for exports	Increase costs of exports	Fix air space in passenger flights or provide cargo flights	Enhance export volume
Limited availability of cold	Reduce export volume	Subsidize import of cold	Improve export

vans		vans	quality
<b>Infrastructure Challenges</b>			
Unavailability of cold storehouse at airports/seaports	Reduce beef quality and increase cost of export	APMEPA needs space from govt. to build cold storehouse at the airport	Increase international competitiveness
Few breeding farms	Difficulty in finding healthy animals	Encourage breeding farms through subsidy or credit	Increase beef exports
Few fattening farms	Low carcass weight: 196 kg per animal	Effectives awareness and capacity building of farmers	Export at high international price
<b>Quality Challenges</b>			
Unnecessary inspection at airport	Compromise product quality and safety	Efficient and streamlined monitoring	Increase competitiveness of exporters in the global marketplace
Expensive and cumbersome process to get animal health certificate	Delay in consignment	Online and 24/7 certification	Timely delivery of export order
Lack of animal traceability	Cannot track disease or breed	Increase the scale of Pakistan Animal Identification and Traceability System (PAITS)	Gain trust of importers

This table identifies that beef exporters face several challenges related to regulatory, logistic, infrastructure and quality that hinder their profitability and expansion of beef industry. By putting focused interventions—like process simplification, infrastructure development, skill training, and policy reforms—into practice, Pakistan may improve its standing in the international halal beef market, fostering sustainable growth and providing access to high-value markets.

## RECOMMENDATIONS / POLICY IMPLICATIONS

1. Implement an integrated regulatory framework, enforcing the Animal Slaughter Control Act, banning live animal smuggling, and developing a national FMD control program.
2. Encourage investments in cold storage facilities and imports of cold vans.
3. Ensure dedicated space for beef exports in passenger flights.
4. Establish a robust quality control system at the slaughterhouses and airports
5. Promote PAITS to track breed and disease
6. Build the capacity of farmers and exporters through training programs focused on best practices in feedlot management, animal health, and export procedures
7. Develop training programs covering biosecurity measures, early disease detection and reporting
8. Encourage public-private partnerships to mobilize resources for infrastructure development, research, and technology adoption

9. Deregulating meat prices in the domestic market to promote quality. It will help to narrow down the quality difference in the domestic and international markets
10. Target high-value markets in China by ensuring compliance with their specific requirements
11. Promote the halal aspects of Pakistani beef, particularly in the Middle East and Southeast Asia