INVESTMENT OPPORTUNITY

Hermetic Grain Storage in Pakistan

Village-Level Infrastructure for Wheat

→ Rice and Maize as scalable upside

Executive Summary

KEY INVESTMENT HIGHLIGHTS

Market Structural Shift

Wheat procurement has been discontinued, transitioning the sector to open market price discovery. This creates a new imperative for private storage solutions.

Critical Pain Point

Small farmers currently face distress sales at harvest time due to a complete lack of adequate on-farm or near-farm storage infrastructure.

The Scalable Solution

Development of village-level hermetic silos (3,000–5,000 tons capacity) effectively addresses this gap, reducing losses and stabilizing prices.

Investment Case

An attractive, asset-backed opportunity that serves as an inflation hedge, offering stable returns through essential food infrastructure.

The Problem

The current grain supply chain suffers from structural deficiencies that erode value for smallholder farmers and threaten food security.

Seasonal Price Crash

Wheat prices plummet immediately at harvest due to oversupply, forcing farmers into distress sales at non-remunerative rates.

FINANCIAL IMPACT: HIGH

Infrastructure Gap

Small farmers have no on-farm or nearby storage facilities, leaving them with no holding capacity to wait for better prices.

STRUCTURAL DEFICIT

Quality Deterioration

Traditional godowns and open storage lead to significant quantity and quality losses due to pests, moisture, and fungus.

POST-HARVEST LOSS

The Solution

A holistic approach combining modern infrastructure, preservation technology, and an accessible business model to transform the grain value chain.

01

Modern Infrastructure

Deployment of hermetic steel silos at strategic village clusters, creating decentralized storage aggregation points.

- ✓Village-level access
- ✓Steel construction

02

Safe Preservation

Advanced airtight technology enabling safe storage for 6–12 months without the need for chemical fumigation.

- ✓Chemical-free
- ✓Zero quality loss

03

Rental Model

An accessible pay-per-ton-per-month rental model that allows smallholder farmers to store produce without heavy capex.

- ✓OpEx driven
- ✓Flexible terms

Business Model

Target Commodities

Wheat

PRIMARY ANCHOR CROP

Rice

Secondary

Maize

Secondary

Capacity Optimization: Secondary crops ensure utilization during off-peak wheat seasons.

Revenue Streams

Storage Rent

Recurring monthly fee per ton stored

Handling Services

Fees for loading, unloading, and cleaning

Aggregation Services

Market linkage and bulk consolidation fees

Financial Illustration

STANDARD SILO SIZE

5,000 Tons

Optimal village-cluster capacity

COST PER UNIT

$200,000

CAPEX for 5,000 ton silo

TARGET RENTAL RATE

Rs. 230-300

Per ton / per month

Scaling Strategy

Illustrative Model

Single Unit
5k Tons

Multiplier
200 Units

Total Capacity
1 Million Tons

TOTAL VENTURE WORTH

$40 Million

PROJECTED ANNUAL REVENUE

~$12 Million

Technology Advantage

CORE CAPABILITIES

Our proprietary hermetic storage technology ensures optimal grain preservation through four critical mechanisms.

Airtight Steel Silos

Industrial-grade hermetic sealing prevents oxygen exchange, creating a stable internal environment for long-term preservation.

CONSTRUCTION

Zero Infestation

Oxygen depletion naturally eliminates insects and pests without the use of harmful chemical fumigants or pesticides.

SAFETY

Climate Control

Advanced moisture and temperature regulation prevents fungal growth, mold formation, and nutritional degradation.

QUALITY

12–18 Months Life

Extended safe storage duration allows farmers to bypass harvest-season price lows and sell when market rates peak.

LONGEVITY

Market Opportunity

~30M

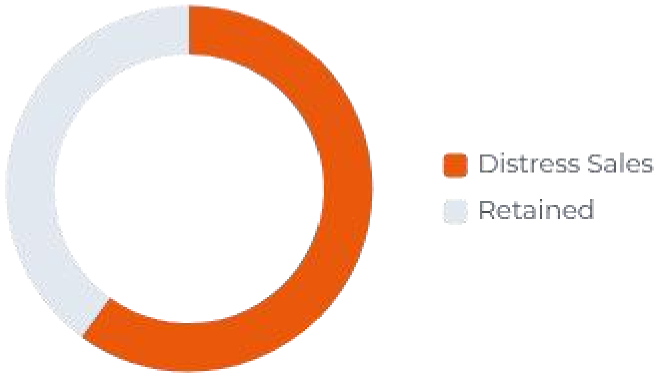
METRIC TONS

Annual Wheat Production in Pakistan represents a massive commodity base.

IMMEDIATE SALES

>60%

Of harvest is sold immediately at low prices due to distress.



THE OPPORTUNITY GAP

Large Unmet Demand for Commercial Storage

- Price Arbitrage
- Food Security

Financial Highlights

ILLUSTRATIVE PROJECTIONS

Basis of Calculation: Standard 5,000 Ton Silo Unit

EBITDA MARGIN

45–55%

High operational efficiency driven by low variable costs and automated handling systems.

INTERNAL RATE OF RETURN

27%

Strong projected returns outperforming traditional real estate and infrastructure benchmarks.

PAYBACK PERIOD

5–7 Years

Moderate capital recovery period backed by steady, asset-based revenue streams.

* Projections are illustrative based on current market rates and optimal capacity utilization.

Impact

Higher Farmer Incomes

Empowers farmers to bypass distress sales at harvest, storing grain to sell when market prices peak.

25-30% Revenue Potential

Reduced Post-Harvest Losses

Eliminates spoilage from pests, mold, and moisture through hermetic technology, preserving quantity and quality.

Zero Chemical Use

Improved Food Security

Strengthens the national grain reserve supply chain by minimizing waste and ensuring consistent availability.

Stabilized Supply

Climate-Resilient Infrastructure

Provides robust protection against erratic weather patterns, floods, and humidity variations typical in the region.

Weather Proof

Potential Partners for JVs

NAME OF FIRM	ADDRESS	PHONE	EMAIL / CONTACT
Meskey & Femte (Pvt.) Ltd.	Suite #: 708, 7th Floor, Progressive Plaza, Beaumont Road, P.I.D.C Civil Line, Karachi	+92 21 35656300	info@meskayfemtee.net
Galaxy Rice	Wahndo Road, Eminabad, Gujranwala, Pakistan	055-4243414-18	connect@galaxyrice.com
Naymat Collateral Management	Office No 214, 2nd Floor, Progressive Plaza, Civil Lines, Beaumont Road Karachi	(+92-21) 35653146	info@naymatcollateral.com
MATCO Foods	B-1/A, SITE, Phase 1, Super Highway Industrial Area, Karachi – 75340	+92-21-36411661	contact@matcofoods.com
Rice Partners Limited	Head Office: Office No. 405, 4th Executive Floor, Sadiq Plaza, The Mall, Lahore	051-2652713	ali.tariq@indusbasin.com
Fauji Fertilizer Company	Sona Tower, 156, The Mall, Rawalpindi	+92-51-8450001	Visit Website

For Further Information

Consulate General of Pakistan, Hong Kong	**Email: consulate@pakistan.hk** **Telephone: +85228271966** **Website: www.pakistan.hk**	**Hong Kong**

Annexure

CONFERENCE
Pak-China Agri Investment

January 2026

STRATEGIC PARTNERSHIP

Cold Chain Systems & Agricultural Logistics

Pakistan and China unite to advance agricultural investment, technology transfer, and export growth

MARKET HIGHLIGHTS

Key indicators driving investment potential

GLOBAL COLD CHAIN (2025)

$370 Billion

↑ High Growth Trajectory

CHINA LOGISTICS (2025)

$94.46 Billion

Source: Mordor Intelligence

PAKISTAN AGRI EXPORTS

$8.0 Billion

Source: SIFC 2024 Report

Investment Thesis & Objectives

This conference aims to unite Pakistan and China to mobilize capital, accelerate technology transfer, and build a world-class cold chain infrastructure.

Mobilize Investment
Unlock bilateral funding for strategic infrastructure projects.

Technology Transfer
Adopt advanced cold chain monitoring and automation from China.

Export Growth
Reduce post-harvest losses to boost exportable agricultural surplus.

Strategic Outlook
The global cold chain market is accelerating towards $1.6T by 2033, with Asia-Pacific leading growth. China's demand scale combined with Pakistan's production potential creates a unique, high-yield investment corridor.

Why Invest Now?

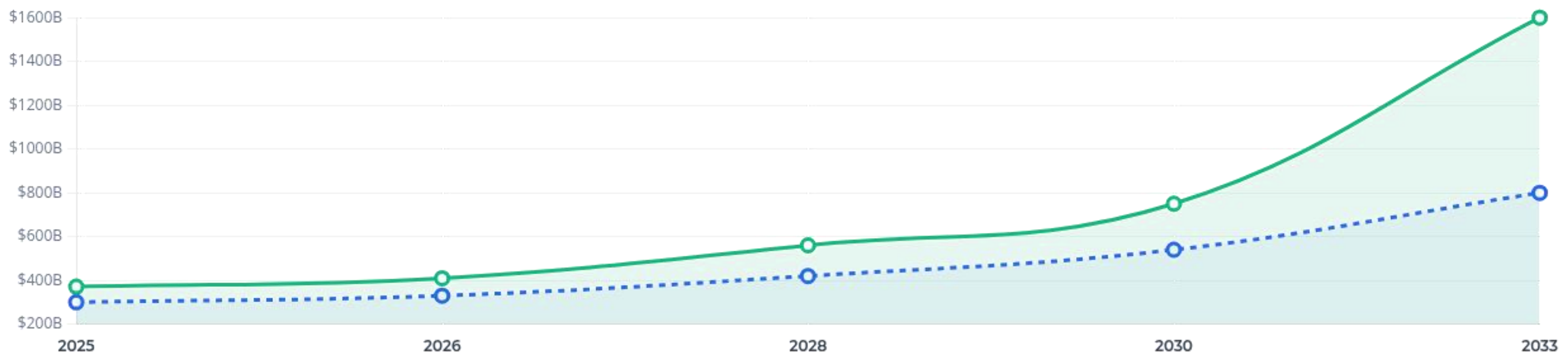
Projected Impact Analysis

Investment Driver	2025 Baseline	2028 Target	Projected Impact
Reduced Spoilage Fruits & Vegetables	High Losses	-15% Loss	Exportable Surplus
Corridor Throughput Pak-China Route	Rising	+3x Volume	Foreign Exchange Earnings
Capital Efficiency Infrastructure Assets	Fragmented	Consolidated	Unit Operational Costs
Tech Integration Cold Chain Monitoring	Manual/Basic	AI-Driven	Global Compliance Standard

PRIMARY OPPORTUNITY
Scaling modern packhouses in Punjab & Sindh for citrus and mango exports.

SECONDARY OPPORTUNITY
Reefer transport fleet expansion for the CPEC northern route.

Global Cold Chain Market: Size & Outlook



2026-2033

15-20%

Projected CAGR with strong momentum in Asia-Pacific markets

Regional Leader

Asia-Pacific is the fastest-growing region, driven by urbanization and rising middle-class demand for fresh food.

→ CAGR ~29.6% (APAC)

Global Market Projections Analysis

Year	Market Size (Base)	Market Size (High)	Key Drivers & Observations	Growth Trend
2025	$300 Billion	$371 Billion	Post-pandemic recovery, pharma demand stabilization	Baseline
2026	$330 Billion	$410 Billion	Expansion of cold storage in emerging markets	+10.5%
2028	$420 Billion	$560 Billion	APAC rapid infrastructure development & tech adoption	+27.3%
2030	$540 Billion	$750 Billion	AI-driven logistics, Green Energy integration, ESG mandates	+28.5%
2033	$800 Billion	$1.6 Trillion	Market maturity, industry consolidation, fully automated hubs	Peak

Sources: Grand View Research, Research Nester, Mordor Intelligence. "High" scenario assumes aggressive tech adoption and infrastructure investments in Belt & Road nations.

China's Cold Chain Leadership

Regional Anchor

Leading technology transfer and demand generation for the corridor.

INDUSTRIAL SCALE

365M

Tons of Cold Chain Demand (2024)

↑ +4.3% Year-over-Year

"China's 14th Five-Year Plan emphasizes the construction of cold chain logistics bases to support rural revitalization."

National Development Strategy

Scale & Growth Metrics

Comprehensive analysis of market infrastructure and projected expansion.

Key Metric	Current Status (2024/25)	Outlook & Strategic Note	Source
Market Size	$94.46 B Estimated 2025	Reaching $152.62B by 2030 Driven by 10.7% CAGR consistent growth	*Mordor Intel.*
Demand Volume	365 M Tons 2024 Actuals	Steady Expansion Rising need for fresh produce & frozen food	*Global Times*
Growth Drivers	E-Grocery & Pharma Logistics	Network Densification Last-mile delivery tech adoption	*Market Analysis*
Policy Support	Strong State-backed	Infrastructure Focus Subsidies for cold storage construction	*Gov. Reports*

Technology Leader

Pioneering use of IoT and automated warehousing in Asia.

Investment Readiness

High willingness for cross-border JV and tech transfer.

High-Growth Potential

Untapped export potential unlocked by cold chain modernization.

AGRI EXPORTS TOTAL

~$8.0 Billion

Record High Value (2024)

↑ Significant rise from $5.8B

"Weak logistics and insufficient cold storage are the primary bottlenecks. Upgrading these systems is key to export growth."

Agricultural Sector Analysis

Market Gaps & Opportunities

Current infrastructure status compared against export performance metrics.

Key Metric	Current Value	Trend & Opportunity	Source
Cold Chain Size	~PKR 88 B 2023 Valuation	Early-Stage Growth High ROI potential for first movers	*TradeData*
Seafood to China	$240 M Jan–Nov 2025	+24% YoY Growth Driven by rising Chinese demand	*Arab News*
Rice Exports	~$4 Billion FY 2024	Stable Pillar Potential for value-added packaging	*Industry Data*
Infra Gap	Critical Storage & Fleet	Priority Upgrade Area Major tech transfer opportunity	*TDAP*

Strategic Geography
CPEC corridor offers direct land route for perishable exports to Western China.

Resource Base
4th largest milk producer, massive fruit yields; hindered only by spoilage.

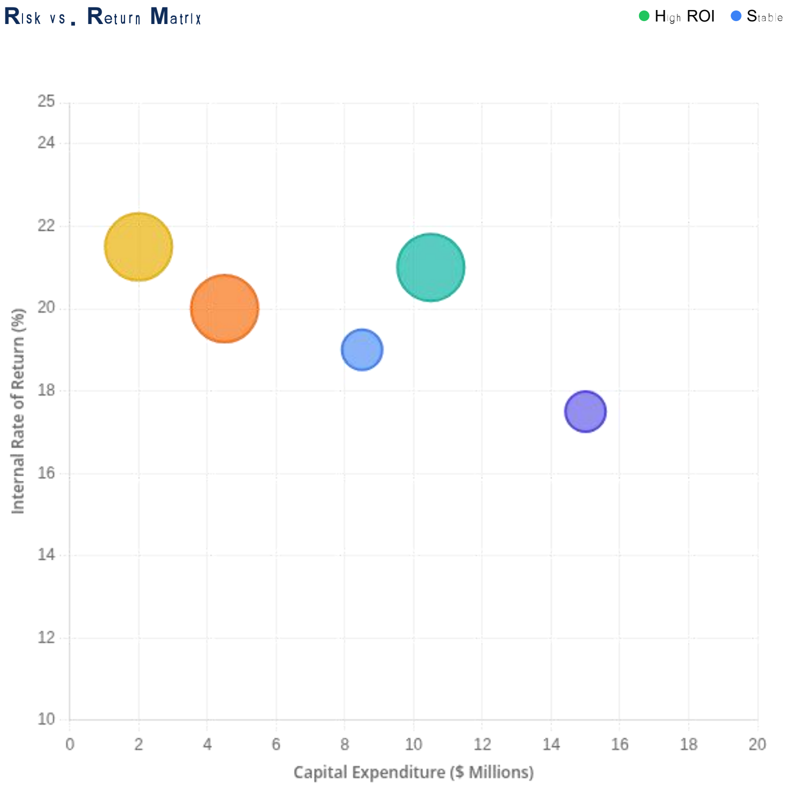
Project Categories & Returns

Asset Class Performance

Comparative analysis of capital requirements and projected returns for key infrastructure projects.

ASSET / PROJECT TYPE	CAPEX RANGE	REVENUE DRIVERS	IRR PROJ.	PAYBACK
Export Packhouse Pre-cooling Hubs	$5M - 12M	Service fees, Throughput volume	16% - 22%	4-5 Years
Urban Cold Store Multi-tenant (10-15k pallets)	$10M - 20M	Rental yield, VAS (Packing)	15% - 20%	4-5 Years
Reefer Fleet 50-100 Units	$3M - 6M	Lane contracts, Backhaul optimization	17% - 23%	3-4 Years
Pharma Cold Chain GDP Certified	$6M - 15M	Premium handling, Temp. assurance	18% - 24%	3-4 Years
Solar Cold Rooms Distributed / Hybrid	$1M - 3M	Energy arbitrage, Reduced opex	18% - 25%	3-4 Years

Risk vs. Return Matrix



Bubble Size = Payback Speed (Larger is Faster)