



**ESTABLISHMENT  
OF COOL CHAIN SYSTEM  
ALONG THE NATIONAL  
TRADE CORRIDOR UNDER  
PUBLIC PRIVATE  
PARTNERSHIP -  
PRELIMINARY  
INFORMATION  
MEMORANDUM**

August 2009



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# ESTABLISHMENT OF COOL CHAIN SYSTEM ALONG THE NATIONAL TRADE CORRIDOR

*PRELIMINARY  
MEMORANDUM*



*INFORMATION*

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Pakistan Horticulture Development and Export Company (PHDEC), Ministry of Commerce in collaboration with Infrastructure Project Development Facility (IPDF) and Anjum Asim Shahid Rahman (AASR) has prepared this Preliminary Information Memorandum (PIM) based on data and assumptions provided in various studies relating to Agriculture and Horticulture sectors in Pakistan. This PIM does not purport to contain all the information related to the Project. While all efforts have been made to incorporate all information relevant to the proposed transaction, the PHDEC, IPDF and AASR does not make any representations or warranties, express or implied as to the adequacy, accuracy, completeness or reasonability of the information contained in this PIM. No decision should be based solely on the basis of the information provided by this PIM. PHDEC, IPDF and AASR have no liability for any statements, opinions, information provided by this PIM.

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# List of Acronyms

|               |   |
|---------------|---|
| <i>BOO</i>    | <i>Build Operate Own</i>                                    |
| <i>BOOT</i>   | <i>Build Operate Own Transfer</i>                           |
| <i>BOT</i>    | <i>Build Operate Transfer</i>                               |
| <i>CA</i>     | <i>Concession Agreement</i>                                 |
| <i>CAS</i>    | <i>Controlled Atmospheric Storage</i>                       |
| <i>CCS</i>    | <i>Cool Chain System</i>                                    |
| <i>CFC</i>    | <i>Common Facility Centre</i>                               |
| <i>CP</i>     | <i>Concession Period</i>                                    |
| <i>CS</i>     | <i>Cold Stores</i>  |
| <i>EOI</i>    | <i>Expression of Interest</i>                               |
| <i>GDP</i>    | <i>Gross Domestic Product</i>                               |
| <i>GoP</i>    | <i>Government of Pakistan</i>                               |
| <i>HACCP</i>  | <i>Hazard Analysis and Critical Control Points</i>          |
| <i>IPDF</i>   | <i>Infrastructure Project Development Facility</i>          |
| <i>ISO</i>    | <i>International Standard Organization</i>                  |
| <i>MINFAL</i> | <i>Ministry of Food Agriculture and Livestock</i>           |
| <i>MoC</i>    | <i>Ministry of Commerce</i>                                 |
| <i>MoF</i>    | <i>Ministry of Finance</i>                                  |
| <i>NTC</i>    | <i>National Trade Corridor</i>                              |
| <i>PIM</i>    | <i>Preliminary Information Memorandum</i>                   |
| <i>PH</i>     | <i>Pack House</i>   |
| <i>PHDEC</i>  | <i>Pakistan Horticulture Development and Export Company</i> |
| <i>PPP</i>    | <i>Public Private Partnership</i>                           |
| <i>PRAL</i>   | <i>Pakistan Revenue Automation Limited</i>                  |
| <i>PSDP</i>   | <i>Public Sector Development Fund</i>                       |
| <i>RFP</i>    | <i>Request for Proposal</i>                                 |
| <i>RSOQ</i>   | <i>Request for Statement of Qualification</i>               |
| <i>RY</i>     | <i>Refer Yards</i>  |
| <i>WTO</i>    | <i>World Trade Organization</i>                             |

## 1. SUMMARY OF THE PROJECT

|                                  |  |
|----------------------------------|--|
| <b>Project name</b>              | Establishment of Cool Chain System along the National Trade Corridor   |
| <b>Location</b>                  | The project spans all across the National Trade Corridor touching all four provinces.  |
| <b>Implementing Agency</b>       | Pakistan Horticulture Development and Export Company (PHDEC), Ministry of Commerce   |
| <b>Facilitator</b>               | Infrastructure Project Development Facility (IPDF). IPDF is assisting PHDEC in structuring & implementation of this project.   |
| <b>Private Party</b>             | To be selected through transparent competitive bidding process based on the Request for Proposal (RFP) to be issued for this project   |
| <b>Concession Period</b>         | To be decided by the Implementing Agency after completion of the transaction structuring phase of the said project   |
| <b>Industry Classification</b>   | Primary: Agriculture<br>Secondary: Horticulture  |
| <b>Transaction Mode</b>          | GOP through PHDEC, Ministry of Commerce will be developing this project through Public-Private Partnership (PPP) modality  |
| <b>Transaction Type</b>          | At the moment it is envisaged that the investor/operator would be given a concession for a pre-determined period to design, build, finance, operate, maintain and transfer the facility, a BOT transaction. However, whether this transaction remains on the BOT mode or moves to BOO, BOOT, etc. would be decided by the Implementing Agency after completion of the transaction structuring phase.   |
| <b>Project Description</b>       | <p>The GOP has embarked on an ambitious program to revamp its horticulture sector by establishment of a structured Cool Chain System along the National Trade Corridor to improve the post-harvest management infrastructure including grading, packing, storage, testing and transportation phase of the cool-chain cycle.</p> <p>The Cool Chain project will be comprised of following three components:</p> <ul style="list-style-type: none"> <li>• Pack House: These would be 39 in number located at 31 locations across NTC. Would be equipped with grading, washing, waxing, drying, sorting, hot water treatment, packing, and storage facilities.</li> <li>• Cold Store: These would be 23 in number established in fruit production areas, and along with airports and sea ports. Would be cold/controlled atmosphere storage facilities used for maintaining the temperature of fruits and vegetables.</li> <li>• Reefer Yard: These would be 2 in number with a capacity of 250 containers each established in Lahore and Karachi. Parking facility for refrigerated &amp; controlled atmospheric containers used to transport produce within country.</li> </ul> |
| <b>Project Roll-out Strategy</b> | Two Projects would be rolled-out i.e. Baluchistan – Sindh and Punjab – NWFP both having three components each; pack houses, cold stores and refer yards. Each cluster has its own size, market and cost structure. It is envisaged that both these clusters would be taken to the market at the same time but as separate projects. The rationale behind this option is the geographical proximity as it encourages both local as well as international investors  |
| <b>Project Status</b>            | The project is in the Transaction Structuring phase and is moving towards finalization of the feasibility study and preparation of a security package.   |

|                             |  |
|-----------------------------|--|
| <b>Enabling Environment</b> | PHDEC and Ministry of Commerce will provide an enabling environment to the project. A security package for the project to make it bankable would be decided by the Implementing Agency after completion of the transaction structuring phase and will be part of the RFP.  |
| <b>Financial Support</b>    | To be decided by the Implementing Agency after completion of the transaction structuring phase of the said project   |
| <b>Transaction Steps</b>    | <p>Step 1: Expression of Interest (EOIs) from interested parties</p> <p>Step 2: Issuance of Request for Statement of Qualifications (RSOQ)</p> <p>Step 3: Issuance of Request for Proposals (RFP)</p> <p>Step 4: Submission of Proposals by Bidders &amp; Selection of Private Party</p> <p>Step 5: Concession Agreement between GOP and the selected Investor/Operator</p> <p>Step 6: Financial Close by the selected Investor/Operator</p> |
| <b>Taxes</b>                | The project is subject to taxation in accordance with the laws of the Government of Pakistan. However, more information on this would be provided in the RFP once it is issued.  |

## 2. OVERVIEW OF PAKISTAN AND ITS ECONOMY

### 2.1. Location

Pakistan is strategically located and ideally positioned to serve as a major trade route and energy corridor for the region at the mouth of the Gulf over an area of 796,095 sq km. It lies at the junction of four important regions i.e. Oil rich Gulf to the West, Energy rich Central Asian Republics to the North West, fastest growing economy of China to the North East, India to the East and the strategic North Arabian Sea as its southern boundary with 1,064 km of coastline. Additionally, international trade routes to and from the Gulf pass just off its coastline. From Gwadar in its south, the country extends more than 1,800 km to the Khunjerab Pass on China's border. It has a population of approximately 160 million people.

### 2.2. Economy of Pakistan and Investment Climate

The economy of Pakistan has remained buoyant and thriving despite political uncertainties and major catastrophes like earthquake in the country. This progress is the outcome of substantial macroeconomic reforms since 2000, most notably privatizing the banking sector. Poverty levels have decreased and Government has steadily raised development spending in recent years, including year on year increase in the budget allocation for development over the past years.

Pakistan's growth performance over the last ten years (1999-2009) has been positive, growing at

over 3% per annum despite the difficult times the country is facing at the moment due to a global recession, demand & supply position of commodities in the international markets and Pakistan's growing need for infrastructure to keep the economy moving. Average real GDP growth during 2003-07 was the best performance since many decades showing that

Pakistan has decisively broken out of the low growth rut that it was in for more than one decade, thus showing Pakistan's potential for consistent growth. Pakistan's real GDP has grown at an average rate of over 7.5 percent in the last five years (2004-09). Compared with other emerging economies in Asia, this puts Pakistan as one of the fastest growing economies in the region along with China, India, and Vietnam,

The growth is not confined to any particular sector as all sectors of the economy including Banking, IT and Telecom, Oil and Gas, Power and Infrastructure have seen a major growth over the past few years. Today Pakistan has 160 million consumers with an ever growing middle class. Foreign investment has risen sharply from an average of \$400 million in the 1990s to over \$ 6.39 billion in 2009 and Forex reserves have increased from \$500 million in 1999 to \$12.23 billion in July 2009.

### 3. AGRICULTURE SECTOR AND THE COOL CHAIN SYSTEM

#### 3.1. Agriculture Sector Overview

Agriculture has traditionally been the most dominant sector in Pakistan's economy. The reason for the agriculture sector's dominance over the years has been the presence of natural resources like fertile land, diverse climatic conditions and well established irrigation system. Today, agriculture continues to be the backbone of Pakistan's economy with a large share of its Gross Domestic Product (GDP) driven by this sector. The share of agriculture in the fiscal year 2008-09 accounts for 21.8% of the GDP which has fallen from 24.9% since the year 2000-01. However, in monetary terms, share of agriculture sector in GDP, has experienced growth over the same period.

**Table 1: Agriculture Contribution in Pakistan Economy**

| Year          | Value (PKR. Million) | GDP (%) | Labour force Employed (%) |
|---------------|----------------------|---------|---------------------------|
| 2000-01       | 903,499              | 24.9%   | -                         |
| 2001-02       | 904,433              | 24.1%   | -                         |
| 2002-03       | 941,942              | 24.0%   | -                         |
| 2003-04       | 964,853              | 22.9%   | -                         |
| 2004-05       | 1,027,403            | 22.4%   | 43.0%                     |
| 2005-06       | 1,092,098            | 22.5%   | 43.4%                     |
| 2006-07       | 1,132,041            | 21.8%   | 43.4%                     |
| 2007-08       | 1,148,871            | 20.9%   | 43.6%                     |
| 2008 – 09 (P) | 1,203,308            | 21.8%   | 44.7%                     |

*Agri. Statistics of Pakistan, MINFAL, 2007-08, Economic Survey of Pakistan 2008-09*

Agriculture and its associated activities provide employment opportunities to 44.7% of the country's labor force particularly in rural communities where an estimated 95% of the total employed population is attached directly or indirectly to agriculture. Recent data shows that agriculture sector employment growth was 0.9%. Besides being the most labor intensive sector of the economy, the agriculture sector contributes approximately 40% of the foreign

exchange earning through export of raw materials, semi processed and processed agriculture products. Also, the Government plans to reduce the current poverty level of 32.1% to 15% by 2011, and to achieve this target infrastructure projects in agriculture sector in general and horticulture & livestock in particular would create multiple job opportunities which in turn would enable the government to realize its target.

#### 3.2. Horticulture Sector Overview

Horticulture as an industry, occupies a significant place in agriculture economies all over the world and likewise in Pakistan it contributes modestly to its economy. Out of the total cultivated area, 6% is under horticultural crops which produce as many as 28 different fruits and 30 different vegetables<sup>1</sup>. Pakistan remains in the top ten producers list for mango, dates and citrus. The export of horticulture crops earned foreign exchange with a rupee value equal to 12.69 billion<sup>2</sup> with major exported commodities being citrus (215, 061 tons for PKR 3.34 billion) followed by dates (93,137 tons for PKR 2.26 billion) and mangoes (68,879 tons for PKR 1.74 billion)

A considerable part of horticultural crop production deals with the small grower's community, possessing the holding from one acre to few acres. There are about 6.6 million farms in the country, 86% of which are between 0.5-5 hectares of holding and only 1% of the total farms are more than 20 hectares<sup>3</sup>.

In 2007-08, the total area under fruit cultivation was reported at 853,400 hectares where as 7,178,800 tons of fruits were produced in the same period (Figure 1). The average yield per

<sup>1</sup> Computed From Economic Survey of Pakistan (2007-08) and does not include Condiments

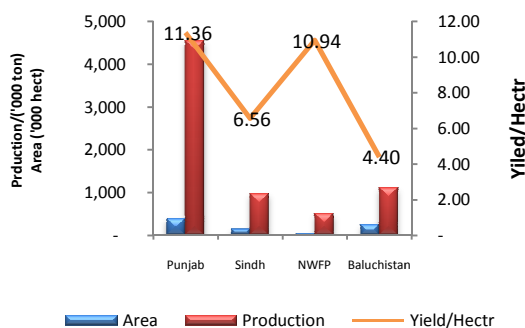
<sup>2</sup> Agri. Statistics of Pakistan, MINFAL (2007-08)

<sup>3</sup> Agri. Statistics of Pakistan, MINFAL (2007-08)



hectare was recorded at 8.41 tons/hectare. Punjab province was witnessed to be the dominant province in terms of area under fruit cultivation with 400,900 hectares followed by Baluchistan (255,200 hectares), Sindh (150,100 hectares) and NWFP (47,200 hectares)<sup>4</sup>.

The production of fruits (Figure 1) was highest in Punjab province which contributed 4,556,200 tons of fruits followed by Baluchistan (1,122,100 tons), Sindh (984,100 tons) and NWFP (516,400 tons). The aggregate production of fruits in 2006-07 was 7,178,800 tons with major contributions coming in from citrus, mango and dates.



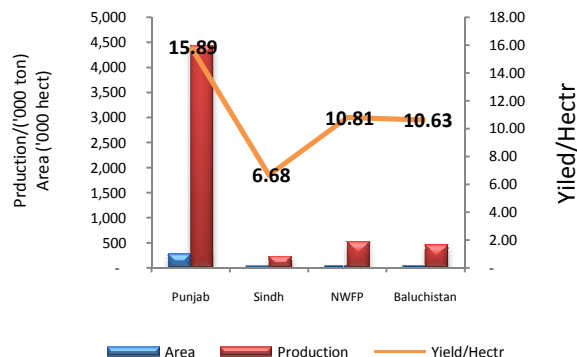
**Figure 1: Province Wise Area, Production and Yield of Fruits (2007-08)**

A large variety of vegetables is grown in all four provinces of the country however the most dominant vegetables in term of production include potatoe, tomatoe and onion. Like in fruits, Punjab province has remained the dominant in terms of area under vegetable cultivation with 279,600 hectares. The rest of the provinces have area under cultivation equalling 128,500 hectares which is significantly smaller in number compared to Punjab province.

In 2007-08, the country's vegetable production was recorded at 5,675,800 tonnes (Figure 2) with Punjab province proving to be the most

<sup>4</sup> Agriculture Statistics of Pakistan, MINFAL (2007-08)

lucrative producer of vegetable with 4,442,100 tonnes followed by NWFP with 527,600 tonnes which landed close to Baluchistan (467,800 tonnes) and Sindh (238,300 tonnes)<sup>5</sup>.



**Figure 2: Province Wise Area, Production and Yield of Vegetables (2007-08)**

It is estimated that 20-40%<sup>6</sup> of the horticultural crops go waste before reaching in the hands of consumers. This loss in harvest is a result of lack of infrastructure including storage facilities, packaging and grading units and temperature controlled transportation.

### 3.3. Cool Chain System (CCS)

Fresh horticulture products are perishable and thus warrant adequate care during post-harvest handling for efficient distribution. Therefore, a good supply chain management system has to be in place for domestic and export marketing which is a weak area in Pakistan. PHDEC, in line with its objectives, has proposed to strengthen the post harvest supply chain for the horticulture sector though the establishment of a network of CCS components across the

<sup>5</sup> Agriculture Statistics of Pakistan, MINFAL (2007-08)

<sup>6</sup> Ibrahim and Anwar, 2004, Horticulture Education, Extension and Training System in Pakistan

National Trade Corridor (NTC) to operate as Common Facility Centers (CFC).

These components, which include Pack Houses, Cold Stores, Refrigerated Yards and Testing Laboratories, are bound to be a back bone for the supply chain infrastructure of horticulture produce. From the growing area, once the crop is harvested, it is sent to wholesale markets where they are picked by retailers and exporters. Exporters have the crop processed and packed in 'Pack Houses' and later, have it tested for quality and content via 'Testing Laboratories' before export through land and sea routes. Retailers, on the contrary, take the crop to domestic markets for local consumption.

Throughout the supply chain, 'Cold Stores' are available to store the crops that preserve its natural characteristics where as along the supply chain all transportation is made via refrigerated trucks which have parking facility available in shape of 'Refrigerated Yards'. The specific role of each of the component of the CCS is as follows;

**i) Pack Houses:** The role of Pack Houses in proposed Cool Chain System is to provide better packing facilities to the producers of horticulture crops. Such facilities are equipped with grading, washing, waxing, drying, hot water treatment, and packaging facilities. These functions not only add value to the crop which facilitate in fetching competitive prices when taken to domestic and international markets but also protects the crop from external hazards including ingress of gas, light and water vapours, which can result in deterioration of colours, oxidation of lipids, and unsaturated fats, denigration of proteins and a general loss of characteristics sensory quality.

**ii) Cold Stores:** are storage facilities to keep the temperature of produce at optimal low temperature which lowers the crop's respiration rate and extends its shelf life. These facilities are normally made available at locations in such a manner that users at various stages of the supply chain are facilitated initiating from the production area and following up till the point where the commodity is either exported or consumed. Typically the areas include the 'Main Fruits and Vegetables Markets', 'Growing Areas' and 'Export Exit Points' like Airports and Sea Ports.

**iii) Refrigerated Container Yard:** The role of refrigerated container yards is to provide parking space for the controlled atmosphere (CA) container and refrigerated container or reefer (which is a shipping container used for the transportation of temperature sensitive cargo). These yards provide electrical power input that makes the CA and refrigerated container functional in maintaining the desired temperature. This facility is availed by containers for domestic and export purposes.

**iv) Testing Laboratories:** The role of Testing Laboratory in any CCS is to ensure that safety and quality of fruits and vegetables is met in line with standard food regulation requirements such as WTO, consumer protection and ISO standards. These laboratories are used for multipurpose testing like; Soil testing, Water testing, Examining adulterated materials, Food additives, Pesticides residual, Aflatoxin level, Pest and Other diseases in plants/fruits. **This component of the CCS is not a part of the project and will be developed by the Public Sector.**

## 4. IMPLEMENTING INSTITUTION

### 4.1. Pakistan Horticulture Development and Export Company (PHDEC)

Pakistan Horticulture Development and Export Company (PHDEC) have been created due to the enormous potential of Pakistan's horticulture products in the global market. In the absence of a single ministry or institution responsible for development at all levels of the horticulture value chains it was considered important to set-up PHDEC to uplift this sector, especially in light of the impact of globalization and WTO regime

### 4.2. Vision Statement of PHDEC

PHDEC envisions the vitalization of a dynamic and market driven horticulture sector, which is resilient, sustainable and responsive to meet the challenges of globalization.

### 4.3. Objectives of PHDEC

The primary objective of PHDEC is to address and resolve problems and issues of the Pakistan horticulture sector through long term and timely interventions aimed at improving quality at key areas of the horticulture value chain, ultimately leading to a substantial increase in exports from Pakistan. Some of the main areas of intervention include:

- Encourage and facilitate the growers to “grow for exports”.
- Impart new technologies and techniques to growers and processors.
- Develop/implement export marketing strategies.
- Create an export orientated environment facilitated through procedures and quality standards through regulations and incentive schemes.
- Attract local and foreign investment.
- Facilitate in setting up of necessary material and quality infrastructure including inter alia cool chain system all over the country.
- Develop linkages and networking with relevant institutions i.e. R&D, banks, training/HRD, joint venture arrangements/commercial linkages with international companies, technology transfer, sub-contracting.

Broadly, PHDEC has the following major objectives:

- i. To create conducive environment through enabling policy/ regulatory measures
- ii. Promotion/Expansion/Diversification of international markets
- iii. Improvement of Supply Chain System including establishment of modern infrastructure
- iv. To work for the development of value addition industry

## 5. FACILITATING INSTITUTION

### 5.1. Infrastructure Project Development Facility (IPDF)

PPPs have been adopted by various governments around the world as a service delivery tool. Instead of the public sector procuring a capital asset and providing a public service, the private sector creates the asset through a dedicated standalone business (usually designed, financed, built, maintained and operated by the private sector) and then delivers a service to a public sector entity / consumer, in return for payment that is linked to performance.

The Government has set up the Infrastructure Project Development Facility (IPDF) under the auspices of the Ministry of Finance (MOF), to generate PPP projects with public sector Institutions (line ministries, provincial Governments, local bodies, state owned enterprises etc.). IPDF facilitates the Institutions to structure the transaction and procure investors for the projects, without becoming a contract signatory to those transactions

### 5.2. Role of IPDF in the Cool Chain Project

Infrastructure Project Development Facility (IPDF) is facilitating PHDEC, Ministry of Commerce to develop Cool Chain System along the National Trade Corridor (NTC). In broader terms, the work undertaken by IPDF includes transaction structuring and implementation (procurement). The Transaction structuring includes undertaking Feasibility study, which includes Needs & Solution option analysis, project due-diligence and procurement plan. During this process market testing regarding the project and determining the final PPP design parameters would be undertaken.

On the approval of the feasibility study, the process would move in to the Project Procurement phase. In Project procurement Phase draft tender documents (RSOQ, RFP, draft Contract) would be prepared. On pre-qualification of parties, RFP would be issued along with draft contract agreement. On receiving bids, these bids would be evaluated. A preferred bidder would be selected & negotiation would be undertaken with the preferred bidder. In case of successful negotiations concession agreement would be finalized & signed leading to the financial closure of the project.

## 6. COOL CHAIN SYSTEM

### 6.1. Project Overview

The need for horticulture infrastructure (components of the CCS) arises from farms (production areas), where crops are grown, right to point where the commodity is consumed domestically or internationally. This infrastructure development, is aimed to reduce the post harvest loss of horticulture produce during harvest and activities thereafter to an acceptable level along with improved quality and shelf life of the products; Price stabilization in the domestic market; Boost to the export volumes by increased production, quality control etc.; Entry into other high value markets by maintaining quality and adhering to international best practices.

The project has been conceived by the Pakistan Horticulture Development and Export Company (PHDEC), as a part of the National Trade Corridor (NTC) improvement initiative. The NTC, itself, is an initiative of the Government of Pakistan (GOP) to create a growth-facilitating infrastructure with the objective to revamp the whole transport sector including ports, roads, railway, aviation etc. The framework of NTC takes a holistic and integrated approach to reduce the cost of doing business in Pakistan by improving the trade and transport logistics chain and bringing it up to international standards.

All of the facilities in the Cool Chain System (CCS) project are proposed to be built across the national trade corridor on grounds that most of the urban markets are located on the NTC; Most of the fruits and vegetable production areas are located across the NTC; and NTC infrastructure can be utilized effectively for cost reduction of transportation of produce to nearby markets as well as for export purposes.

### 6.2. Production Statistics

The locations selected for establishment of the proposed CCS facilities are justified on the basis of production statistics for fruits and vegetables. Prima facie, horticulture crops selected under the CCS are grown in abundance and have a higher export percentage than others. These fruits and vegetables are priority crops as can be seen from the statistical data below:

**Table 2: Area, Production and Export (2007-08)**

| Crop     | Area (hect.) | Production (tons) | Export (tons) | Export (% of Production) |
|----------|--------------|-------------------|---------------|--------------------------|
| Citrus   | 199,400      | 2,294,500         | 215,061       | 9.37%                    |
| Mango    | 166,200      | 1,753,700         | 68,879        | 3.93%                    |
| Apple    | 113,000      | 441,600           | 20            | 0.0 %                    |
| Grapes   | 15,300       | 75,300            | 420           | 0.56%                    |
| Dates    | 90,100       | 557,500           | 93,137        | 16.71%                   |
| Apricot  | 31,300       | 240,200           | 981           | 0.41%                    |
| Peach    | 15,600       | 82,400            | -             | 0.0%                     |
| Plum     | 7,600        | 73,000            | 124           | 0.17%                    |
| Potatoes | 154,300      | 2,539,000         | 152,944       | 6.02%                    |
| Onion    | 153,100      | 2,015,200         | 35,397        | 1.76%                    |

*Source: Agriculture Statistics of Pakistan, MINFALL 2007-08*

### 6.3. Status of Existing Facilities

Isolated cool chain infrastructure facilities are available; however, the country lacks an integrated network of facilities that force a drawback to the benefits that the horticulture as a sector can provide to the national economy. These facilities are deficient in process and product standards and can not meet the present demand which results in an imbalance between the demand and supply forces. Also, the implications for not having an integrated cool chain infrastructure, over the years have caused post harvest losses; loss in foreign exchange earnings, price destabilization, and quality deterioration (reduced shelf life of the produce). In the following paragraphs, we look at the status and drawbacks of the existing

facilities, thus highlighting justification for the establishment of CCS.

### 6.3.1 Cold Stores

The existing cold stores facilities are unevenly distributed between the country with Punjab dominating with 512 units followed by Sindh (25 units), NWFP (16 Units) and Baluchistan (2 units) <sup>7</sup>. These facilities lag far behind the technological developments in the business such as the use of RCC structure in place of the Pre-Fabricated structures, the use of direct labor in place of fork lifters and poor designing & technology, all of which contribute to the heat production in the facility and the foundation for heat/thermal shocks which leads to deterioration of the commodities present in the cold stores. Moreover, most of the facilities are not compartmentalized causing odor transfer between different commodities placed within the cold stores. The existing facilities do not have a blast freezer that enables to bring down the temperature of the produce to a level that is maintained inside the cold store. Its absence causes the produce to be taken directly into the cold store which loses heat within the store that deteriorates the temperature of the commodities already present in the store.

### 6.3.2 Pack Houses

At present, there are 121 known pack houses for as many as 6 horticulture crops. These facilities are mostly indigenous and rely on low technology with the exception of 2 facilities at Karachi that have mechanical grading. The summary of all these facilities is presented in the table below:

**Table 3: Existing Pack House Facilities**

| Commodity | No. | Remarks  |
|-----------|-----|--|
| Citrus    | 92  | 90 in Sargodha - 85 Active<br>1 in Khanewal - active<br>1 in Peshawar - inactive |

<sup>7</sup> Department of Agriculture & Livestock Products Marketing & Grading, MINFAL Provincial Agriculture/Industries Department

| Mostly Indigenous   |    |  |
|---|----|--|
| Mango   | 4  | All in Karachi<br>3 Certified for HWT by Iran and China                            |
| Date  | 9  | 9 Plants include 5 large and 4 small all in Khairpur<br><b>Indigenous low-tech</b> |
| Apple   | 1  | 1 in Quetta<br>Recently activated by PHDEC   |
| Onion, Potato   | 15 | all in Karachi, 2 Equipped with Mechanical Grading                                 |
| <i>Source: PC -1 Cool Chain System; only known number of facilities are provided in the table above</i> |    |  |

The only mentionable existence of Pack Houses is for citrus crops. These pack houses have been recently developed and located mostly in crop growing areas (Sargodha). Most of these pack houses are rudimentary in structure and process with the result the export made is mainly to the Middle Eastern countries.

For the rest of the crops the grading, packaging and labeling facilities is negligible. Those facilities which are present lack proper packing, washing and grading plants. Packaging is done in 10, 20 or 40 kg wooden boxes for fruit whereas hessian sacks are used in case of potatoes and onions, and in some cases mangoes. In many cases sacks are reused which is an extremely unhygienic practice and also is not acceptable made of packing for countries following the WTO Regime and food security.

Such facilities do not conform to the emerging requirements of the international markets in terms of hygiene and production management standards which make them ineligible to get Hazard Analysis and Critical Control Points (HACCP) certification for food security. This limits their marketing especially in Europe and other quality conscious markets creating an opportunity cost equal to the price differential that exists between high and low end consumer markets.

### 6.3.3 Refrigerated Containers Yards

At the national level the country suffers from post harvest losses due to the use of non refrigerated containers and opened trucks for

the transportation of produce from production points to either domestic purpose or for export purpose which causes the damages to fruits and vegetables before reaching the destination points during transportation. For the CCS project refrigeration yards play a secondary role by providing parking facility to those refrigerated containers that await local movement and export as well. This role, seen to be as minute is overshadowed by the fact that there are limited facilities of such nature in the country. This facility would provide power supply and parking facilities to shipping containers.

## 6.4. Proposed Cool Chain Project under the PPP Methodology

### 6.4.1 Public Private Partnership (PPP)

Given the adverse implications of not having an integrated cool chain system and the many benefits that can be reaped from the development of such a project for both the government and the private sector, the GOP via Pakistan Horticulture Development and Export Company (PHDEC), Ministry of Commerce has decided to implement the Project via PPP methodology.

PPP is an alternative way of procurement in which cooperation between public and private sectors is established for funding, construction, management or maintenance of a project or a service. It involves sharing of risks and rewards between public & private sectors. It attempts to utilise multi-sector & multi-disciplinary expertise of both public and private sector to structure, finance and deliver desired policy outcomes that are in public interest.

It is envisaged that the investor/operator would be given a concession (length of concession to be decided after completion of transaction structuring phase) for a pre-determined period to design, build, finance, operate, maintain and transfer the facility, a BOT transaction.

However, whether this transaction remains on the BOT mode or moves towards other modes like; BOO, BOOT, etc. would be decided by the Implementing Agency after completion of the transaction structuring phase of the project. The mode selected would be provided in the RFP at later stage.

## 6.4.2 Proposed Components and Facilities

### 6.4.2.1 Cold Stores

23 independent cold stores are proposed to be built under the CCS project. These stores are proposed for 5 different fruits and vegetables at 9 production centers, 4 different fruit and vegetable markets and 10 exit points covering all major air and sea ports.

|                    | Location            | Capacity (tons) | Commodity              |
|--------------------|---------------------|-----------------|------------------------|
| Baluchistan- Sindh | Chaman              | 1000            | Fruits & Vegetable     |
|                    | Gwadar Port         | 5000            | Fruits & Vegetable     |
|                    | Quetta Airport      | 200             | Fruits & Vegetable     |
|                    | Quetta City         | 5000            | Apple & Vegetable      |
|                    | Turbat              | 5000            | Dates & Other Fruits   |
|                    | Karachi Airport     | 500             | Fruits & Vegetable     |
|                    | Karachi Sea Port    | 5000            | Fruits & Vegetable     |
|                    | Port Qasim          | 5000            | Fruits & Vegetable     |
|                    | Khairpur            | 5000            | Dates                  |
|                    | Sukkur              | 3000            | Dates & other Fruits   |
| Punjab-NWFP        | Faisalabad-airport  | 200             | Fruits & Vegetables    |
|                    | Islamabad - airport | 200             | Fruits & Vegetables    |
|                    | Islamabad - City    | 5000            | Kinnow, Apple & Potato |
|                    | Kot Momin           | 5000            | Kinnow                 |
|                    | Lahore Airport      | 300             | Fruits & Vegetables    |
|                    | Multan Airport      | 200             | Fruits & Vegetables    |
|                    | Sargodha            | 3000, 1500      | Kinnow                 |
|                    | Chitral             | 1000            | Fruits & Vegetables    |
|                    | Peshawar City       | 5000            | Peach, Apple & Potato  |
|                    | Peshawar airport    | 200             | Fruits & Vegetables    |
|                    | Waziristan          | 2000            | Apple                  |
|                    | Mardan              | 2000            | Peach, Apple           |

The proposed cold storage facilities are to be established as state of the art facilitation centers built around the prefabricated material with use of fork lifters for in-house

transportation of commodities. These facilities will have compartmentalized storage i.e. division of total storage space into different temperature zones depending upon local needs. All these factors represent international best practices with respect to cold stores.

In terms of benefit to the national economy, the proposed facilities are to take up the total capacity to 123,300 tons which is sufficient to facilitate 7.90% of the total production of 2007-08 (see table 5 below). Although, the total capacity of these facilities will still be insufficient to cater for majority of the production by leaving a gap of 92.10% however, post harvest losses caused due to non-availability of appropriate storage facilities is likely to fall below the 11%<sup>8</sup> mark.

**Table 5: Cold Stores (Existing and Proposed)**

| Qty ('000 tons)                    | P*           | S*           | N*           | B*           | Total         |
|------------------------------------|--------------|--------------|--------------|--------------|---------------|
| Fruits Prod                        | 4,556        | 984          | 516          | 1,122        | 7,178         |
| Vegetable Prod                     | 4,442        | 238          | 527          | 467          | 5,675         |
| <b>Total Production</b>            | <b>8,998</b> | <b>1,222</b> | <b>1,044</b> | <b>1,589</b> | <b>12,854</b> |
| CS – Installed Capacity            | 850          | 15           | 24           | 3            | 892           |
| CS - Proposed Capacity             | 45           | 23           | 19           | 35           | 123           |
| <b>CS – Total Capacity</b>         | <b>895</b>   | <b>38</b>    | <b>43</b>    | <b>38</b>    | <b>1,015</b>  |
| CS Capacity as % of F&V Production | 9.95%        | 3.11%        | 4.14%        | 2.43%        | 7.90%         |

*Source: Department of Agriculture & Livestock Products Marketing & Grading, MINFAL (2007 – 08), Provincial Agriculture/Industries Department*  
 \*P = Punjab, S = Sindh, N = NWFP, B = Baluchistan

### 6.4.2.2 Pack Houses

39 pack houses with cold storage facilities are proposed to be built for 8 different fruits and vegetables at major crop growing regions.

| Baluchistan-Sindh Cluster | Location | Facility | Capacity CS (tons) | Commodity & Capacity    |
|---------------------------|----------|----------|--------------------|-------------------------|
|                           | Quetta   | PH & CS  | 2000               | Apples (5 t/h) & Grapes |
|                           | Panjgur  | PH & CS  | 5000               | Dates (4 t/h)           |
|                           | Loralai  | PH & CAS | 1000               | A & A (5 t/h)           |

<sup>8</sup> Ibrahim and Anwar, 2004, Horticulture Education

|                     |                 |              |                  |                      |
|---------------------|-----------------|--------------|------------------|----------------------|
|                     | Mustang         | PH & CAS     | 2000             | A & G (5 t/h)        |
|                     | Pishin          | 2 PH & 2 CAS | 2000             | A, A, P & G (10 t/h) |
|                     | Chagai          | PH & VS      | 1000             | Onion (10 t/h)       |
|                     | Kharan          | PH & VS      | 1000             | Onion (10 t/h)       |
|                     | Kalat           | PH & CAS     | 1500             | A & A (10 t/h)       |
|                     | Qila Saifullah  | PH & CAS     | 2000             | A & A (10 t/h)       |
|                     | Zhob            | PH & CAS     | 2000             | A & A (10 t/h)       |
|                     | Sanghar         | PH & VS      | 1000             | Onion (5 t/h)        |
|                     | Mirpurkhas      | PH & CS      | 1000             | Mango (10 t/h)       |
|                     | Hyderabad       | PH & CS      | 1500             | M & B (10 t/h)       |
| PH & VS             |                 | 1000         | Onion (10 t/h)   |                      |
| Punjab-NWFP Cluster | Faisalabad      | PH & CS      | 2000             | Vegetable (5 t/h)    |
|                     | Gujranwala      | PH & CS      | 2000             | Vegetable (5 t/h)    |
|                     | Sheikhupura     | PH & CS      | 2000             | Vegetable (5 t/h)    |
|                     | Khanewal        | PH & CS      | 2000             | M, C & V(5 t/h)      |
|                     | Multan          | 3 PH & 3 CS  | 1000             | Mango (10t/h)        |
|                     | Muzafargarh     | 2 PH & 2 CS  | 1000             | Mango (10t/h)        |
|                     | Rahimyar Khan   | 2 PH & 2 CS  | 1000             | Mango (10t/h)        |
|                     | Kasur           | PH & CS      | 1000             | Potato (10t/h)       |
|                     | Sialkot         | PH & CS      | 1000             | Potato (10t/h)       |
|                     | Okara           | 2 PH & 2 CS  | 2000             | Potato (10t/h)       |
|                     | Pakpattan       | PH & CS      | 2000             | Potato (10t/h)       |
|                     | Sahiwal         | 2 PH & 2 CS  | 2000             | Potato (10t/h)       |
|                     | Mandi Bahauddin | PH & CS      | 3000             | Kinnow (5 t/h)       |
|                     | TT Singh        | PH & CS      | 3000             | Kinnow (5 t/h)       |
|                     | Bhalwal         | PH & CS      | 5000             | Kinnow (20 t/h)      |
|                     | Peshawar        | PH & CAS     | 3000             | Apple (5 t/h)        |
| D.I. Khan           | PH & CS         | 2000         | Vegetble (5 t/h) |                      |
| Swat                | PH & CAS        | 4000         | P & A (10 t/h)   |                      |

\*A&A = Apple & Apricot, A&G = Apple & Grapes, M,C&V = Mango, Citrus & vegetables, P&A = Peach & Apple, M&B = Mango & Banana, A,A,P&G = Apple, Apricot, Peach & Grapes

The proposed pack houses are designed keeping in view the above so as to capitalize the immense potential of increasing exports, which currently stand at 4.9% of the total fruits and vegetables production for 2007-08 (see table 6 below). This will not only result in an influx of foreign exchange but also will make the produce eligible to be exported to high end consumer markets which have stiff grading and processing policies. Moreover, the



establishment of these pack houses will result in reduction of post harvest losses pertaining to rough handling which currently stands at 4% of production.

**Table 6: Fruits and Vegetables Export (2007-08)**

| <b>2007-08</b>                                | <b>Tons</b>       |
|---|-------------------|
| Fruits Production (2007-098)                  | 7,178,000         |
| Vegetables Production (2007-08)               | 5,675,800         |
| <b>Total Fruits and Vegetables Production</b> | <b>12,854,600</b> |
| Total Export of Fruits and Vegetables         | 634,200           |
| Percentage Exports                            | 4.9%              |

#### **6.4.2.3 Refrigerated Container Yards**

Keeping in view the distances from sea port to market and linkages with other countries

through which the flow of fruits and vegetables will take place, 2 locations have been identified namely in city of Karachi and Lahore for the establishment of refrigerated container yards. The selection of these two locations is primarily based keeping in view the reasons mentioned above, where by a parking and charging facility will be provided to refrigerated containers in order to ensure that the horticulture produce during transportation along the NTC are preserved at optimal temperature and no deterioration can take place during transportation either in shape or shelf life or quality of the produce.

## 7. DEVELOPMENT/IMPLEMENTATION OF COOL CHAIN PROJECT

### 7.1. Project Roll-out Strategy/Option

Two Projects would be rolled-out i.e. Baluchistan–Sindh and Punjab–NWFP which will collectively become the Cool Chain System. Each cluster has its own size, market and cost structure. It is envisaged that both these clusters would be taken to the market at the same time but as separate projects. The rationale behind this option is the geographical proximity as it encourages both local as well as international investors.

- **“Baluchistan–Sindh” cluster:** This cluster is the mixture of three components of the CCS which includes ten Cold stores, fifteen Pack houses and one refer yard (Karachi). Pack houses and cold stores will be developed at various locations in this cluster. Crops to be entertained under this cluster include Apple, Peach, Apricot, Plum, Grapes, Dates, Onion and Mango.
- **“Punjab–NWFP” cluster:** This cluster is the mixture of three components of the CSS which include thirteen Cold stores, twenty four Pack houses and one refer yard in Lahore. Pack houses and cold stores will be developed at various locations in this cluster. Major crops in this cluster are Kinnow, Mango, Potato, Peach, Apricot, Plum and Apple. Details of facilities in both clusters are shown in table 7 below:

### 7.2. Enabling Environment

Pakistan Horticulture Development & Export Company (PHDEC) and Ministry of Commerce will provide an enabling environment for this project to facilitate the private sector participation whether it’s local or international. A security package for the project to make it bankable would be decided by the Implementing Agency, PHDEC after completion of the transaction structuring phase. This security package would be part of the RFP that would be issued later.

### 7.3. Indicative Timeline / Transaction Steps

**Step 1:** Expression of Interest (EOI) from interested parties

**Step 2:** Issuance of Request for Statement of Qualifications (RSOQ)

**Step 3:** Issuance of Request for Proposals (RFP)

**Step 4:** Submission of Proposals by Bidders & Selection of Private Party

**Step 5:** Concession Agreement between GOP and the Selected Investor/Operator

**Step 6:** Financial Close by the selected Investor/Operator

**Table 7: Details of Facilities in both Clusters**

| <b>Baluchistan – Sindh Cluster</b> |                       |                                |   |
|------------------------------------|-----------------------|--------------------------------|---|
| <b>Location</b>                    | <b>Proposed CS/PH</b> | <b>Storage Capacity (tons)</b> | <b>Commodity</b>                        |
| Chaman                             | 1 CS                  | 1000                           | Fruits & Vegetable                      |
| Gwadar Port                        | 1 CS                  | 5000                           | Fruits & Vegetable                      |
| Quetta Airport                     | 1 CS                  | 200                            | Fruits & Vegetable                      |
| Quetta City                        | 1 CS                  | 5000                           | Apple & Vegetable                       |
| Turbat                             | 1 CS                  | 300                            | Dates & Other Fruits                    |
| Karachi Airport                    | 1 CS                  | 500                            | Fruits & Vegetables                     |
| Karachi Port                       | 1 CS                  | 5000                           | Fruits & Vegetables                     |
| Port Qasim                         | 1CS                   | 5000                           | Fruits & Vegetables                     |
| Khairpur                           | 1 CS                  | 5000                           | Dates                                   |
| Sukkhur                            | 1 CS                  | 3000                           | Dates & Other Fruits                    |
| Quetta                             | 1 PH & 1CS            | 2000                           | Apples & Grapes ( 5t/h)                 |
| Panjgur                            | 1 PH & 1CS            | 5000                           | Dates (4 t/h)                           |
| Loralai                            | 1 PH & 1CAS           | 1000                           | Apple & Apricot (5 t/h)                 |
| Mustang                            | 1 PH & 1CAS           | 2000                           | Apple & Grapes (5 t/h)                  |
| Pishin                             | 2 PH & 2 CAS          | 2000                           | Apple, Apricot, Peach & Grapes (10 t/h) |
| Chagai                             | 1 PH & 1VS            | 1000                           | Onion (10 t/h)                          |
| Kharan                             | 1 PH & 1VS            | 1000                           | Onion (10 t/h)                          |
| Kalat                              | 1 PH & 1CAS           | 1500                           | Apple & Apricot (10 t/h)                |
| Qila Saifullah                     | 1 PH & 1CAS           | 2000                           | Apple & Apricot (10 t/h)                |
| Zhob                               | 1 PH & 1CAS           | 2000                           | Apple & Apricot (10 t/h)                |
| Sanghar                            | 1 PH & 1VS            | 1000                           | Onion (5 t/h)                           |
| Mirpurkhas                         | 1 PH & 1CS            | 1000                           | Mango (10 t/h)                          |
| Hyderabad                          | 1 PH & 1CS            | 1500                           | Mango & Banana (10 t/h)                 |
| Hyderabad                          | 1 PH & 1VS            | 1000                           | Onion (10 t/h)                          |

\*CS = Cold Stores, PH = Pack Houses, CAS = Controlled Atmospheric Store, VS = Ventilated Store

**Punjab – NWFP Cluster**

| <b>Location</b>    | <b>Proposed CS/PH</b> | <b>Storage Capacity (tons)</b> | <b>Commodity</b>                  |
|--------------------|-----------------------|--------------------------------|-----------------------------------|
| Faisalabad Airport | 1 CS                  | 200                            | Fruits & Vegetables               |
| Islamabad Airport  | 1 CS                  | 200                            | Fruits & Vegetables               |
| Islamabad - City   | 1 CS                  | 5000                           | Kinnow, Apple & Potato            |
| Kot Momin          | 1 CS                  | 5000                           | Kinnow                            |
| Lahore             | 1 CS                  | 300                            | Fruits & Vegetables               |
| Multan             | 1 CS                  | 200                            | Fruits & Vegetables               |
| Sargodha           | 2 CS                  | 3000, 1500                     | Kinnow                            |
| Chitral            | 1 CS                  | 1000                           | Fruits & Vegetables               |
| Peshawar City      | 1 CS                  | 5000                           | Peach, Apple & Potato             |
| Peshawar Airport   | 1 CS                  | 200                            | Fruits & Vegetables               |
| Waziristan         | 1 CS                  | 2000                           | Apple                             |
| Mardan             | 1 CS                  | 2000                           | Peach, Apple                      |
| Faisalabad         | 1 PH & 1 CS           | 2000                           | Vegetable (5 t/h)                 |
| Gujranwala         | 1 PH & 1 CS           | 2000                           | Vegetable (5 t/h)                 |
| Sheikhupura        | 1 PH & 1 CS           | 2000                           | Vegetable (5 t/h)                 |
| Khanewal           | 1 PH & 1 CS           | 2000                           | Mango, Citrus & Vegetable (5 t/h) |
| Multan - City      | 3 PH & 3 CS           | 1000                           | Mango (10t/h)                     |
| Muzafargarh        | 2 PH & 2 CS           | 1000                           | Mango (10t/h)                     |
| Rahimyar Khan      | 2 PH & 2 CS           | 1000                           | Mango (10t/h)                     |
| Kasur              | 1 PH & 1 CS           | 1000                           | Potato (10t/h)                    |
| Sialkot            | 1 PH & 1 CS           | 1000                           | Potato (10t/h)                    |
| Okara (2)          | 2 PH & 2 CS           | 2000                           | Potato (10t/h)                    |
| Pakpattan          | 1 PH & 1 CS           | 2000                           | Potato (10t/h)                    |
| Sahiwal (2)        | 2 PH & 2 CS           | 2000                           | Potato (10t/h)                    |
| Mandi Bahauddin    | 1 PH & 1 CS           | 3000                           | Kinnow (5 t/h)                    |
| TT Singh           | 1 PH & 1 CS           | 3000                           | Kinnow (5 t/h)                    |
| Bhalwal            | 1 PH & 1 CS           | 5000                           | Kinnow (20 t/h)                   |
| Peshawar           | 1 PH & 1 CAS          | 3000                           | Apple (5 t/h)                     |
| D.I. Khan          | 1 PH & 1 CS           | 2000                           | Vegetable (5 t/h)                 |
| Swat               | 1 PH & 1 CAS          | 4000                           | Peach & Apple (10 t/h)            |

\*CS = Cold Stores, PH = Pack Houses, CAS = Controlled Atmospheric Store, VS = Ventilated Store

## 8. TERMS AND CONDITIONS FOR SUBMISSION OF EOI

### 8.1. Advertisement of Expression of Interest

An advertisement has been issued in the leading newspapers inviting interested parties to submit their 'Expressions of Interest' (EOI) to undertake the Establishment of Cool Chain System Project, a copy of which is enclosed as **Annexure I** and is also made available in electronic form at IPDF website ([www.ipdf.gov.pk](http://www.ipdf.gov.pk)).

### 8.2. Information to Interested Parties

- This Preliminary Information Memorandum ("PIM") has been prepared to enable potential interested parties to submit their Expression of Interest ("EOI")
- The interested party shall bear all costs associated with the preparation, submission of the EOI and meeting. The PHDEC and/or IPDF shall not, under any circumstances, be responsible or liable for any such costs.
- EOIs may be assessed and used for completing of the Feasibility study, devising of a security package and preparation of bid documentation.

### 8.3. Information Requirements

- The EOI must be signed by a duly authorized representative of the interested party and should contain the following information:
  - a. Company profile showing current activities, background of key shareholders and capability & strength in terms of Management, Technical, Marketing, Financial and Legal aspects;
  - b. Audited reports including Balance Sheets and Income Statements for the last 3 years;
  - c. Skill and experience of the organization(s);
  - d. Experience & capability of efficiently developing and managing similar kind of projects;
  - e. Brief outline of the project envisaged by the prospective investor and/or operator;
  - f. Contact person with address / contact details

EOIs may be assessed and used for completing the Feasibility study, devising a security package and preparation of bid documentation. In this regard suggestions should be provided regarding the Incentives that prospective investor is expecting from the government. Following key issues shall be addressed at least apart from any other issue that investor/operator feels needs to be highlighted:

- i. Role of the Government as a Facilitator;
- ii. Role of the Investor/Operator as a Concessionaire;
- iii. The Financial Structure of the project i.e. debt / equity proportion etc;
- iv. How to make the project bankable i.e. the security package that is required to provide comfort to the lenders and the investors/operators;

- v. In case if the land is not provided by the Government than in that case the prospects of contributing the land for the project and the structure of the project (form of PPP i.e. whether BOT, BOO or any other form);
- vi. Fiscal concessions required in terms of direct & indirect taxes and levies;

#### 8.4. Enquiries & Meeting

- All queries regarding Submission of Expression of Interest may be made anytime before one week of the deadline for submission of the EOI on the below mentioned address.
- The PHDEC and IPDF reserve the right, in their sole discretion, not to respond to any questions raised or provide clarification sought, if it is considered that it would be inappropriate to do so. Nothing in this section shall be taken or read as compelling or requiring IPDF and PHDEC to respond to any question or to provide any clarification.
- No extension of any time and date referred to in this PIM shall be granted on the basis or grounds that the PHDEC and / or IPDF has not responded to any question/ provided any clarification.
- A meeting will be held on September 08, 2009 at 10.00 hours at IPDF office for parties seeking clarification through meetings. All parties are requested to confirm their participation to the official mentioned below at least 2 days before meeting date.
- Parties shall bear all costs associated with the participation in the meeting, preparation and submission of the EOI.
- The EOI must be submitted by no later than **17.30 hours** (Pakistan Standard Time), **September 29, 2009** at the following address

|   |  |
|---|--|
| <p>Mr. Adil Anwar<br/>         Chief Executive Officer (CEO)<br/>         Infrastructure Project Development Facility<br/>         #2, Street #59, Sector F-7/4,<br/>         Islamabad, PAKISTAN</p> | <p>Tel: +92-51-2270771, 2656090, 2656252<br/>         Fax: +92-51-9205926, 2656252<br/>         E-mail: <a href="mailto:adil.anwar@ipdf.gov.pk">adil.anwar@ipdf.gov.pk</a><br/>         IPDF Website: <a href="http://www.ipdf.gov.pk">www.ipdf.gov.pk</a></p> |
|---|--|

## ANNEXURE

### Annexure 1: Expression of Interest Advertisement



## Invitation for Expression of Interest for “Establishment of a Cool Chain System along National Trade Corridor”

The Government of Pakistan has embarked on an ambitious program to revamp its horticulture sector by the establishment of a well structured Cool Chain System along the National Trade Corridor (NTC) to improve the post-harvest management infrastructure including grading, packing, storage and transportation phases of the cool chain cycle.

GOP through PHDEC, Ministry of Commerce plans to develop this project under the Public Private Partnership (PPP) modality with the investor/operator given a concession for a pre-determined period to design, build, finance, operate, maintain and transfer the facility. The Cool Chain Project (Project) is comprised of three components; 39 Pack houses, 23 Cold stores and 2 Refer yards. Infrastructure Project Development Facility (IPDF) is facilitating PHDEC, Ministry of Commerce to develop Cool Chain System along the National Trade Corridor (NTC). IPDF works under the aegis of the Ministry of Finance and Economic Affairs and has been established to facilitate Public Private Partnership (PPP) projects by providing a focal point and support to Implementing Agencies (line ministries, provincial Governments, etc).

Two Projects would be rolled-out i.e. Baluchistan – Sindh and Punjab – NWFP both having three components each; pack houses, cold stores and refer yards. Each cluster has its own size, market and cost structure. It is envisaged that both these clusters would be taken to the market at the same time but as separate projects. The rationale behind this option is the geographical proximity as it encourages both local as well as international investors. Further information on this project can be obtained from the “Preliminary Information Memorandum” placed on the IPDF website ([www.ipdf.gov.pk](http://www.ipdf.gov.pk))

With a view to gauge the scale and market interest, EOIs are solicited from prospective investors and/or operators of such facilities with the following details:

- b. Company profile showing current activities, background of key shareholders and capability & strength in terms of Management, Technical, Marketing and Financial aspects;
- c. Audited reports including Balance Sheets and Income Statements for the last 3 years;
- d. Experience & capability of efficiently developing and managing similar kind of projects;
- e. Brief outline of the project envisaged by the prospective investor and/or operator;
- f. Contact person with address / contact details.

EOIs may be assessed and used for completing the Feasibility study, devising a security package and preparation of bid documentation. In this regard suggestions should be provided regarding the Incentives that prospective investor is expecting from the government. Following key issues shall be addressed at least apart from any other issue that investor/operator feels needs to be highlighted:

- i. Role of the Government as a Facilitator;
- ii. Role of the Investor/Operator as a Concessionaire;
- iii. The Financial Structure of the project i.e. debt / equity proportion etc;
- iv. How to make the project bankable i.e. the security package that is required to provide comfort to the lenders and the investors/operators;

- v. In case if the land is not provided by the Government than in that case the prospects of contributing the land for the project and the structure of the project (form of PPP i.e. whether BOT, BOO or any other form);
- vi. Fiscal concessions required in terms of direct & indirect taxes and levies;

IPDF and PHDEC reserve the right to ask any investor or operator that submits an EOI questions for clarity. Submitting an EOI does not constitute a binding bid nor does it bound either IPDF or PHDEC in any way.

Interested investors and/or operators are requested to submit their EOI to the IPDF on the address given below latest by September 29, 2009. A meeting will be held on September 10, 2009 at 1000 hrs at IPDF office for parties seeking clarification through meetings. All parties are requested to confirm their participation to the official mentioned below at least 2 days before meeting date. Parties shall bear all costs associated with the participation in the meeting, preparation and submission of the EOI. The PHDEC and/or IPDF shall not, under any circumstances, be responsible or liable for any such costs

The IPDF reserves the right to accept all or reject any or all EOIs without assigning any reason(s) thereof. For any further information/queries, please contact

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