

Regulatory Procedure Export of Horticulture From Pakistan



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1 Disclaimer

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data/information gathered from various reliable sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information.

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2 Abbreviations and Acronyms

Serial	Abbreviation	Description
1	BCA	Bank Credit Advice
2	BRC	British Retailer's Consortium.
3	CFCs	Common Facility Centers.
4	CIF	Cost, Insurance and Freight
5	EDF	Export Development Fund
6	EXIM	Indian Export Import Regulations
7	EIS	Export Information Sheet
8	FAO	Food and Agriculture Organization
9	FY	Financial Year
10	GAP	Good Agricultural Practices
11	GDP	Gross Domestic Product
12	ha	Hectare
13	HACCP	Hazard Analysis and Critical Control Points
14	HRD	Human Resource Development
15	HS	Harmonized Commodity Description and Coding System
16	IAEA	International Atomic Energy Agency
17	LC	Letter of Credit
18	MNFSR	Ministry of National Food Security & Research
19	MRLs	Monitoring of Maximum Residues Limits
20	NOC	No Objection Certificate
21	GMO	Genetically Modified
22	PAEC	Pakistan Atomic Energy Commission
23	PHDEC	Pakistan Horticulture Development and Export Company
24	R & D	Research and Development
25	SPS	Sanitary & Phyto-Sanitary
26	SRO	Statutory Rules and Orders
27	WHO	World Health Organization
28	WTO	World Trade Organization

3 Executive Summary

Agriculture sector is the backbone of Pakistan's economy employing 43.5% of the work force. Nature has blessed Pakistan with an ideal climate for growing a large variety of vegetables and fruits. Agricultural sector is directly or indirectly contributing 20.9% towards GDP¹. Vegetables and fruits are rich source of vitamins, carbohydrates, salts and proteins. With increased health awareness in the general public and changing dietary patterns, vegetables are now becoming an integral part of average household's daily meals. In addition, high population growth rate has also given rise to high demand in basic dietary vegetables. Increased health awareness, high population growth rate, changing dietary patterns of increasingly affluent middle class and availability of packaged vegetables, has therefore generated a year round high demand for vegetables in the country in general and in major city centers in particular. Unfortunately, lack of developed vegetable processing and storage facility deprives our farmers from their due share of profit margins from the national and international markets.

Like vegetables fruits are delicious in taste and are abundantly available in their respective ripe seasons. They are also a good natural source of vitamins, proteins and carbohydrates. Fruits like mango, guava, apricot, strawberry, etc. are processed into pulp, paste, juices, squashes and jam. The people all over the world use these products as part of food item. However, our farmers have yet not been able to en-cash this opportunity and still follow traditional sowing and picking patterns. Additionally they have no information about how to export and where to export; consequently our horticulture produce has not been able to get the maximum benefits of international market.

Export of horticulture involves complex procedures, including filing and exchange of documents, both in the country of export (from where horticulture produce has to be shipped/dispatched) and in the country of import (where the horticulture produce is to be discharged/delivered) due to dissimilarities involved e.g. different languages, customs, preferences, currency and import regulations. In order to facilitate trade between two countries, certain sets of rules have been developed and are being followed in foreign trade. The horticulture trade is governed by rules set by the World Trade Organization (WTO), Food & Agriculture Organization of the United Nations and Hazard Analysis and Critical Control Points (HACCP) etc.

This document is an attempt to provide basic information about export of horticulture from Pakistan to help exporters to explore the international markets in an effective manner.

¹ Economic Survey Pakistan 2014- 2015 <http://www.finance.gov.pk/survey/chapters_15/02_Agriculture.pdf>

4 Introduction to SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

5 Role of Legal Services Cell SMEDA

The Legal Services Cell (LSC) as part of Business & Sector Development Services (B&SDS) Division of SMEDA plays a key role in providing guidance an overall facilitation and support to SMEs on legal matters.

LSC believes that information dissemination to SMEs on the existing regulatory environment is of paramount importance and plays a pivotal role in their sustainable development.

In order to facilitate SMEs LSC has developed user-friendly systems, which provide them detail description of the laws and regulations including processes and steps required for compliance.

The purpose of this document is to provide SMEs with information pertaining to horticultural practices for SMEs and to enhance their understanding on the subject.

6 Introduction

The importance of horticultural crops in human nutrition is well known. These crops play an important role in balancing the human diet by providing not only energy-rich food but also promise supply of vital protective nutrients like minerals and vitamins do. They not only adorn the table but also enrich health from the most nutritive menu and tone up energy and vigor of the people. These crops provide supplementary and protective food. The consumption of these horticultural crops contributes in alleviating malnutrition and other under nutritional problems like night blindness, anemia, goiter, scabies etc. of the poverty stricken people of the society.

The strategic location of the country and potential of horticulture sector creates a good export avenue for horticulture and horticulture products. The consumption of horticulture in the world is on the continuous rise for past two decades, the two most important factors for this increase in consumption are the growth in population, urbanization and increasing income of people. This has led to include a variety of horticultures, in people diets. This increased consumption has created an incentive for the poor farmers to increase horticulture production thus creating an additional source of income. Moreover, horticulture plays a very important role in covering the dietary deficiency for the farmers and human population.

It is assumed that the demand for food from horticulture will continue to rise, so there is a need on the part of the government & representative trade bodies to assist facilitate and guide the potential exporters of horticulture to earn for our beloved country. Primary focus should be on improvement of horticulture production on sustainable basis which depends upon the general agriculture practices and pest/diseases control. In addition the institutions and human resource capacities also have to be strengthened.

As far as export of horticultures is concerned all the horticultures are kept under quarantine for the required period and after necessary tests are allowed for export. There is a great demand for the export of horticultures from Pakistan to Middle Eastern countries and Afghanistan also but it is subjected to government policy for export of horticulture which is on and off banned by the government.

Following are the major opportunities and threats related to the horticulture sector:

Opportunities

- Swift increase in consumption/demand of horticulture; inland and abroad.
- Technological improvement in horticulture production and processing in developed countries, which can be replicated in our beloved homeland.

Threats

- Rise in the use of pesticides for horticulture hence increasing cost and health hazards for human consumption.
- The continuous drought in the past decade and increasing demand of horticulture

7 Horticulture Sector in Pakistan

The Pakistan has a rich topographic and climatic endowments and variations in soil, on which a large range of horticultural crops, such as fruits, vegetables, roots and tuber

crops, ornamental, medicinal and aromatic plants, plantation crops, spices and other are grown.

Since independence in 1947, the major emphasis was laid on achieving self-sufficiency in food production. Development of high yielding wheat varieties and adoption of high production technologies in areas of assured irrigation paved the way towards food security ushering in green revolution in the sixties. It, however, gradually became clear that horticultural crops for which the Pakistani topography and agro climates are well suited is an area for achieving sustainability of small holdings, increasing employment, improving environment, providing an enormous export potential and above all achieving nutritional security.

Production and marketing of fruits, vegetables, floral crops and landscape plants is called horticulture industry. Horticulture plants requires tropical to temperate climatic conditions and

Pakistan is blessed with wide range of agro-climatic conditions i.e. tropical, sub-tropical, warm temperate and temperate regions. This opportunity positions Pakistan amongst privileged countries, where variety of crops particularly horticultural crops can be produced having enormous potential in the global market.

A significant increase has been observed in the export earnings from the horticultural crops during the recent years. This sector has the potential to provide opportunities to increase income and alleviation of hunger and poverty and curve down socio-economic problems of the region.

Total cropped area is about 22.73 million hectare out of which 385,719 hectares is under fruit cultivation and 256,841 hectares is under vegetable cultivation². According to the statistical records of the Ministry of National Food Security and Research (MNFSR) the area under fruit cultivation and production has decreased in all four provinces. However, fruit exports have increased from \$393 million in FY13 to \$438 million FY 14 (Aazim, 2015).³

Production of peach, apples, dates, grapes, persimmon, pomegranate, reflects a strong domestic market demand for horticulture crops. A citrus fruit, primarily the mandarin variety Kino, is the largest fruit crop group by volume and is a major export revenue earner. Pakistan is the fifth largest producer of dates. Though the mangoes production is in millions of tons annually, but only small fraction of the same is exported annually.

In Khyber Pakhtunkhwa and Northern Areas there is great room and scope for promotion of Citrus fruits, Peaches, Plums, Apricot, Persimmon, Apple, Strawberry, Guava etc. In Punjab citrus (Kino, Oranges, etc.), Mango, Guava, while in Sind Mango, Banana, Dates and Papaya and in Balochistan Apple, Grapes, Dates, Stone fruits (Apricot, Peach, Plum, Cherry, etc.) and Pistachio can be targeted for international marketing by promoting processing industry for value addition and export. There is considerable scope for introduction and development of new fruits like Cherries, Strawberry, and Litchi in different parts of the country. There is tremendous potential for production and processing of Tomatoes, Potatoes, and Onions etc.

The government is paying special attention to promote this sector, and established a

²Fruit, Vegetables, and Condiments Statistics of Pakistan 2012-2013
<http://121.52.153.178:8080/xmlui/bitstream/handle/123456789/13242/FRUIT%2c%20VEGETABLES%20Statistics.pdf?sequence=1&isAllowed=y>

³ <http://www.dawn.com/news/1163836>

dedicated body namely Pakistan Horticulture Development and Export Company aiming to encourage and facilitate the growers to grow for export; impart new technologies and techniques to growers and processors; develop / implement export marketing strategies; facilitate creation of export oriented environment and compliance to quality standards through regulations and incentive schemes; attract local and foreign investment; facilitate in setting up of necessary 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 arrangement/ commercial linkages with international companies, technology transfer, and sub-contracting. There is a large potential for value addition to horticultural crops and products, which can enhance foreign exchange earnings to many folds. This can be achieved through Good Farm Management, adopting Good Agricultural Practices (GAP), promotion of products and value added product industry through value addition, processing, improved picking, grading, modern packaging, marketing practices and export.

However, the country has not yet been able to achieve quality standards and marketing potential. There are issues relating to compliance to international certification standards, traceability, farm management; perishability, cool chain, storage, wholesales markets and marketing etc.

7.1 Horti-business

The business of fruits, vegetables, flowers and condiments from sowing through cultivation and food processing till export is termed as agribusiness. The business can be broadly divided into two main categories viz. horticulture crops (pre harvest) and value addition and processing (postharvest)

7.2 Horticultural Crops

The pre harvest horti-business is termed as horticulture, which is one of the most important branches of agriculture. Horticulture deals with fruits, vegetables including condiments, flowers and ornamental shrubs and trees. Horticulture crops often have high cash value and are intensively cultivated on relatively small area. The high cost value of the horticulture crops justifies a large input of capital, labour and technology. There are four main branches of horticulture.

7.2.1 Pomology or Fruit Production

Pakistan is one of the few countries of the world having four seasons and the soil is rich for all kinds of fruits. More than 28 types of fruits are grown throughout the year. The country has also got the position both geographically and strategically to enhance its fresh fruit produce exports to our traditional markets like Middle East, Afghanistan, Iran, and the emerging markets like China, Central Asian Republics along with the highly competitive but lucrative markets of Europe and Far East. The prominent fruit crops are Mangoes, Citrus (Kino, Oranges, etc), Dates, Banana and Apples having significant local consumption as well as exports.

7.2.2 Olericulture or Vegetable Production

Pakistan also produces more than 30 types of vegetables. The sector has immense potential both for local consumption as well as exports. The tunnel farming has also provided a boost for the production of off-season vegetables, which has emerged as most profitable

avenues for farmers. The government is emphasizing for the development of Potato and Onion production on commercial basis as it has a potential for further processing and exports.

7.2.3 Floriculture or Flower Production

In Pakistan floriculture is a relatively new but a fast growing sub sector of horticulture. Traditionally Rose Petals, Jasmine, Tulips and Marigolds have been produced for garlands, worn on festivals and ceremonial occasions. Local growers export to the Middle East and on selected cases, to meet European demand of Red Roses on Valentine day. The mountain valleys of North Western Frontier and Balochistan provinces offer potential to produce off-season and temperate region flowers, Bulbs, Corms and Ornamental plants. Recently new varieties of flowers have been introduced & cultivated that include Gladiolus, Statice, Tuberoses and Carnations. Earnings from these flowers are comparatively high as compared to the traditional flowers.

7.2.4 Ornamental Horticulture or use of Plants for Ornamental Purposes

The production, marketing and maintenance of plants are classified under ornamental horticulture. Its cultivation is increasing in Pakistan⁴ as the profits are considerable high and having large export market in USA, Europe and Japan.

7.3 Export Performance

The world horticulture market is valued at around \$180 billion of which Pakistan's share is 0.3%⁵. Only about 16% of fruits are being processed, although, this activity offers great opportunities to augment volume of value added products using modern technology. The fruits and vegetables exported in fresh form attract discount prices because exporters are unable to provide adequate grading and packing. The potential markets for the Pakistani exporters have been identified in Europe and the Middle East⁶. In the year 1990-91 the total export of fruit was 112,000 tons, valuing Rs. 935 million rupees, which increased to 703,000 tons, valuing at 39,809 million during 2013-14.⁷

The details for export statistics are provided in the following table:

Fiscal Year	Production of Important Fruits (000 tons)								Exports	
	Citrus	Mango	Apple	Banana	Apricot	Almonds	Grapes	Guava	(000 tons)	Value (Mln. Rs)
1990-91	1,609	776	243	202	81	32	33	355	112	935
1991-92	1,630	787	295	44	109	38	36	373	125	966
1992-93	1,665	794	339	52	122	40	38	384	121	1,179
1993-94	1,849	839	442	53	153	45	40	402	127	1,324
1994-95	1,933	884	533	80	178	49	43	420	139	1,256
1995-96	1,960	908	554	82	191	49	72	442	135	1,487
1996-97	2,003	915	569	83	188	49	74	448	219	2,776
1997-98	2,037	917	573	94	189	49	74	455	202	2,793
1998-99	1,862	916	589	95	191	50	76	468	181	2,773
1999-00	1,943	938	377	125	121	32	40	494	240	4,130

⁴Economic Analysis of Static Cut-Flower Production in Punjab, Pakistan <http://pakjas.com.pk/papers%5C2157.pdf>

⁵<http://www.icci.com.pk/event/detail/1629>

⁶The Competitiveness Support Fund (CSF) <http://www.competitiveness.org.pk/index.php>

⁷Economic Survey of Pakistan 2014-2015

2000-01	1,898	990	439	139	126	33	51	526	260	4,575
2001-02	1,830	1,037	367	150	125	26	53	539	290	5,084
2002-03	1,702	1,035	315	143	130	24	52	532	263	4,815
2003-04	1,760	1,056	334	175	211	24	51	550	354	5,913
2004-05	1,944	1,671	352	148	205	23	49	571	281	5,408
2005-06	2,458	1,754	351	164	197	23	49	552	455	7,508
2006-07	1,472	1,719	348	151	177	23	47	555	343	6,894
2007-08	2,294	1,754	442	158	240	27	75	539	411	9,085
2008-09	2,132	1,728	441	157	238	26	76	512	469	12,519
2009-10	2,150	1,846	366	155	194	22	65	509	687	20,094
2010-11	1,982	1,889	526	139	190	22	64	547	669	25,017
2011-12	2,147	1,700	599	97	189	21	64	495	737	32,068
2012-13	2,002	1,680	556	116	179	22	64	500	718	38,085
2013-14 P	2,148	1,659	594	119	189	22	64	495	703	39,809

8 Quality Control Standards

The current state of horticulture – one of the most vibrant sub-sectors of agriculture – generates hopes and fears almost in equal measure. Its exports are going up at a pace of around 15% a year for the last five years. But the challenges related to the quality of the produce are also increasing. Experts believe that if the emerging problem is not resolved on priority basis, exports may not move as fast, largely because of international sensitivity to quality issues.

Quality-conscious foreign buyers want every exporting country to weave the international standards-systems into its supply chain if it wants to maintain and expand its share in the international market. These quality issues include Sanitary and Phytosanitary (SPS) measures, Traceability, Residues of Agrochemicals, Good Agricultural Practices (GAP), Quarantine treatments and Safety of Food Packaging materials etc.

With the country's niche expanding in the global horticulture market, the foreign buyers want the exporters to deal with quality issues through credible systems and get certification for the systems, which include the Hazard Analysis and Critical Control Points (HACCP), the Global GAP, the British Retailer's Consortium (BRC) and the Monitoring of Maximum Residues Limits (MRLs). Unfortunately, horticultural focus, so far has been focused on increasing production, not so much on improving quality.

The annual production of fruit and vegetable is around 3 million tons and annual export is 1.3 million tons⁸. Though exports are expanding at 15% (year 2012)⁹, they are, in no way a sure bet five years down the line if the quality issues are not addressed. Most of the exports are going to lower-end markets, where quality checks are either non applicable or not as strict as in some western countries. But quality issues have been cropping up even in these markets. The Russian ban on agriculture imports and the current Iranian threat to Kino exports can be cited as examples.

The growers can certainly look for foreign investment in value addition, but they should also invest & work in areas like implementing GAP at farm level, HACCP at industry level, establishment of value added processing facilities, cold storages, reefers, and Common Facility Centers (CFCs).

Exports can be boosted if Pakistan can develop an integrated quality system. The government has chalked out plans to expand its share in new markets like the EU, East Europe, China, Canada, Africa and Australia. But the key remains quality of the produce from the farmer to the consumer.

⁸ PHDEC

⁹ <http://www.blackseagrains.net/novosti/pakistan-horticulture-exports-could-reach-magic-figure-of-7-billion>

Following are few guidelines concerning the marketing and commercial quality control of horticulture:

8.1 Identification of Produce

Nearly all the quality standards state the export documents must clearly identify the variety of horticulture and allied information.

8.2 Provisions Concerning Quality

The purpose of the standard is to define the quality requirements of horticulture both at the export and import control stages, after classification, processing and packaging.

a. Minimum requirements

In all cases, subject to the special provisions for each case, if any, and the tolerance limits allowed, the fruit shall be:

- Intact, sound and healthy (fruit affected by rotting or spoilage, which make it unfit for human consumption shall be excluded);
- Free of damage and/or external deterioration caused by frost, bruising or extensive healed-over cuts etc;
- Clean, practically free of any visible foreign matter, smell or taste;
- Free of all external sources' moisture;
- Free of discoloring other than laid down in these standards.
- Free of disease, fruit flies and other quarantine pests;
- Free of any foreign smell and/or taste.

b. Coloring

Coloring shall be normal for the varietal type on at least one -third of the surface of the fruit. Furthermore, the degree of coloring shall be such that, following normal development, the fruit reaches its normal varietals color at the destination point, account being taken of the time of picking, the growing area and duration of transport. Fruit meeting the necessary conditions of physiological maturity may be "de-greened", if so required, provided that it shall be carried out in accordance with the manner internationally accepted and prescribed by the concerned regulatory agency in the country, and that the natural organoleptic characteristics of the fruit shall not be modified.

c. Uniformity in Size

For all fruits arranged in regular layers or packed otherwise, the difference between the smallest and the largest fruit in the same package shall not exceed permissible limit of 5%.

8.3 Provisions Concerning Tolerances

A maximum up to 5% by number of the fruit not satisfying the minimum quality requirements in terms of health, soundness, size and color shall be allowed

8.4 Provision Concerning Presentation

a. Uniformity in Produce

The contents of each package shall contain only the fruit of the species specified on the package, for instance, kino and apple shall be appreciably of the same degree of ripeness and development.

b. Packaging

The fruit shall be securely packed in hard paper cartons or any other suitable packaging as per requirements of the importers. The packaging shall be standardized at the net filling capacity of 6, 8, 10 & 13 kg. The fruits shall be packed in such a way so as to protect the produce during handling, transportation and storage.

The material used inside the package shall be new, clean and of a quality that shall not cause any external or internal damage to the fruit. The use of materials particularly of paper or stamps bearing trade specification shall be allowed provided that the printing or labeling shall be done with a non-toxic ink or glue.

8.5 Labeling

The package shall be labeled clearly indicating the Country of Origin, Trade Mark where relevant, commodity, specie/variety, weight, count, name and address of the supplier. The supplier shall be encouraged to print the name of the buyer where so demanded by them. Labeling of additional qualifications of the produce such as shelf life, nutritional value, green/organic produce or accreditation/certification (like HACCP etc.) or collective branding shall be encouraged.

Labels shall be printed or stamped in waterproof ink on the outside of the package in legible form and shall be attractive

9 Plant Protection & Quarantine -- An Overview

The plant protection measures help in increasing per hectare yield by protecting crops from damages of insects, diseases and weeds. Because, without effective protection against the attack of pests and diseases, the beneficial outcome of other inputs may not be realized either. In this connection, the Department of Plant Protection provides facilities, such as, locust survey and control; pest control by air on field crops, quarantine of agricultural commodities, and monitoring of pesticides imports, manufacture, formulation, repacking, advertisement, sale, use and quality.

Plant quarantine is a pest control method through exclusion. The foreign pests are disallowed from entering through import of plants & plants product and at the same time allowing the export of pest free agriculture material in order to bring about safe trade. Plant Quarantine work is done by the Plant Quarantine Division in the Department of Plant Protection, which has the legal authority and management responsibility. The organizational arrangements are as per Article IV of the International Plant Protection Convention, 1997. The Head Office is at Karachi and the quarantine stations are located at the seaports, airports, dry ports and, land border points for the convenience of traders. These are modestly staffed and equipped. This department is established to facilitate trade of plants and plant products.

- **Pre-Shipment Inspection.**

In order to facilitate the quality of pesticides, the Department of Plant Protection has started the Pre- Shipment Inspection of agricultural pesticides. The main objective of Pre-Shipment Inspection is to ensure the quality of pesticides as per provision of Agricultural Pesticides Ordinance 1971. This is for determining the pesticide quality

10 EXPORT OF HORTICULTURE

Export of horticulture means to sell horticulture in another country. This involves complex procedures, including filing and exchange of documents, both in the country of export (from where the horticulture produce is to be shipped/dispatched) and in the country of import (where the horticulture produce is to be discharged/delivered). The requirement of documentation arises due to the fact that the horticulture that are exported are to be sold to someone who is thousands of miles away, speaking a different language, having different customs, preferences, currency and import regulations. In order to facilitate trade with other countries, certain sets of rules have been developed by the trading nations over the centuries, which are normally followed in foreign trade today. The international horticulture Trade is governed by rules made by the World Trade Organization (WTO) and Food & Agriculture Organization of the United Nations.

The process of export may also require an NOC(s) from a single or various Government departments depending on the nature of the produce meant to be exported and the country of export. Horticulture produce is also required to be kept in quarantine for such period & manner as the Quarantine Officer may determine for carrying out tests and examination before their transportation for export. All horticulture under quarantine is subjected to quarantine fees. The fee for quarantine and issuance of health certificate is different for different varieties that are published in official gazette, from time to time.

Exports can be boosted if Pakistan can develop an integrated quality system. The government has chalked out plans to expand its share in new markets like the EU, East Europe, China, Canada, Africa and Australia. But the key remains quality of the produce from the farmer to the consumer. For improving export quality, experts believe, the process should start by setting quality benchmarks in the domestic market. Pakistan Horticulture Development and Export Company (PHDEC) have developed such standards for different produces, like mango and kinnow, but they await implementation. They need to be implemented strictly. The company should also be made to develop such standards for other produces as well so that erratic domestic market stabilizes on quality issues, and serves as a launching pad for the increasing exports.

The ministry of National Food Security and Research (MNFSR) and the PHDEC had undertaken a Rs 500 million project – PakGAP (equivalent to Global GAP) – for developing and implementing local quality standards. PHDEC developed PC-1 for the development of PakGroup standard. TRTA II also carried out detailed economic analysis and provided cost benefit analysis for the PakGap scheme.¹⁰ One hopes that the Government does not lose steam mid-way, and the project ensures some kind of quality in domestic market

Once these systems are in place, the Government and its relevant agencies should go whole hog for international certifications (GAP, SQF, IFS, Europe GAP¹¹ BRC and HACCP etc.) – demonstrating country's commitment to produce quality food. Along with

¹⁰ http://www.fao.org.pk/news/12/Events/Pesticide_workshop/TRTA_II_presentationr_FAO_pesticide_breifing_10_Sept_ver3%20.pdf

¹¹ <http://www.nsf.org/services/by-industry/food-safety-quality/global-food-safety-certification/>

Government, there is a host of other organizations (foreign-funded projects) that are offering fiscal and technical help for such certifications. But, as the process is relatively slow, the Government needs to quicken it.

Another area, which merits Government's attention, is developing and implementing these standards through time-bound projects. The foreign-funded projects have not been able to make any mark because their vision, scope and commitment are limited. National stakes are too high to leave the export quality matter to non-governmental institutions. These institutions also do not give confidence to stakeholders because of their limited approach and timeframe. Unless the Government shows a deep and long-term commitment in developing standards and converting them into a national initiative, such efforts will not produce any difference. The PakGAP is the first serious attempt to turn the domestic market quality conscious. It should be followed by more quality-specific project for each crop if the country has to claim some share in the global horticulture market.

The Government can certainly look for foreign investment in value addition, but it must itself invest in areas like implementing GAP at farm level, HACCP at industry level, establishment of processing plants and cold storages, reefers, and common facility centers (CFCs) so that every stakeholder knows that the systems are here to stay and the government is committed to protect and project them on sustained basis.

10.1 Export Markets

Pakistan is geographically located close to the Middle East and South-East Asia. Both of these regions are deficient in horticulture products and depend upon import from other countries. The horticulture industry in most of the developed world is highly subsidized. With reduction of subsidies in the wake of WTO, the local horticulture sector should have better opportunities to compete.

10.2 Export Constraints

The export of horticulture faces many constraints both at pre and post harvest stages.

10.2.1 Pre Harvest Issues

Presence of pests, fungi and other micro-organism during harvest stage. To check the infected harvest the modern world has imposed many restrictions, and through different certifications they have regularized the export of horticulture. The major reasons for lack of export trade are:

- Absence of Viral Free Planting materials
- Ineffective enforcement of laws / rules
- Non-existence of modern testing laboratories
- Improper research facilities for development of new varieties
- Quarantine procedures requirement in the importing countries.

10.2.2 Post Harvest Issues

Horticulture commodities are highly perishable. Due to unscientific traditional handling post harvest losses are estimated to the tune of 30% to 40%¹², which is disincentive to

¹² <http://www.brecorder.com/agriculture-a-allied/183:pakistan/1200306:post-harvest-losses-in-fruits-vegetables-discussed/?date=2012-06-14>

horticulture expansion. These losses are mainly due to use of traditional techniques of plucking fruits & vegetables and their transportation / storage. There is a need to have post harvest processing, storage, grading, polishing, packing and other activities in addition to development of cool chain.

- **Food Irradiation Facilities**

Latest technology helps in fulfilling international quarantine requirements and ensures enhanced shelf life of perishable items. To meet this challenge, two irradiation plants have been established at Lahore and Karachi with the support of Export Development Fund (EDF). The plants established jointly by Pakistan Horticulture Development & Export Company (PHDEC) and Pakistan Atomic Energy Commission (PAEC). The PAEC is responsible for running these plants whereas PHDEC would help in marketing the services of the irradiation plants. However, the PHDEC has outsourced the marketing services to the private sector.¹³

The Lahore facility became operational in 2009, however, the Karachi project is yet to be established. The irradiation services for various food items like rice, wheat, cereals, fruits, vegetables and processed food like spices, through gamma ray treatment are being extended through facility established at Lahore namely **PARAS FOODS (Pvt.) Ltd.** According to food technology experts, the facilities can boost exports besides helping meet the phyto-sanitary requirement of many countries under the WTO agreement.

The irradiation services are being provided based on Cobalt 60 Gamma Radiation to kill plant pathogens or at least retard the growth of disease-causing bacteria and parasites in food items. The ultimate aim of irradiation facilities is to increase the storage life of food material in the most economical way, and to fulfill international quarantine requirements such as disinfections and microbial control of horticulture produce. Irradiation technology is widely used abroad in scientific as well as commercial applications in the field of agriculture and animal sciences, pharmaceuticals and medical science. In the agriculture sector, one of the important applications of radiation technology in the service of mankind is post harvest handling and management of foods.

Food irradiation involves treating certain types of foods with ionizing energy or radiation. The process strengthens food conservation and improves hygiene, kills micro-organisms causing spoilage, enhances shelf life and helps overcome quarantine barriers for exports. Other benefits include inhibition of sprouting in tubers, bulbs and rhizomes, and delay in ripening of fruits. It also facilitates packing, storage, transport and the distribution of food.

Is this technology safe? Three international agencies, World Health Organization (WHO), Food and Agricultural Organization (FAO) of the United Nations and the International Atomic Energy Agency (IAEA) have given food irradiation a clean bill of health, by accepting its safety and usefulness.

The process is also endorsed by the American Medical Association, Scientific Committee of the European Union and the American Spice Trade Association.

However, this operation is falling apart in Pakistan. The United States of America is not ready to accept the operation and the capability of the exports. The plant has not even received national registration. It is due to these factors the Karachi office has still not been established¹⁴.

¹³ <http://www.dawn.com/news/719997/adhoc-ism-fails-mango-export-project?view=print>

¹⁴ <http://www.dawn.com/news/719997/adhoc-ism-fails-mango-export-project?view=print>

10.3 Export procedure

The following process flow broadly elucidate the steps required to start export business:

10.3.1 Process Flow / Steps to start Export Business

- a) REGISTER YOUR BUSINESS NAME (Company Formation) and get National Tax Number (NTN), Sales Tax No. Certificate
- b) OPEN A BANK ACCOUNT
- c) REGISTER WITH CONCERNED ASSOCIATION / CHAMBER OF COMMERCE
- d) SELECT A PRODUCT FOR EXPORT
- e) IDENTIFY POTENTIAL / TARGET MARKET
- f) DO SPECIFIC COUNTRY RESEARCH including Size of the Market, Unit price, Import regulations, certifications required, etc
- g) QUOTE A PRICE including packing cost, insurance, credit, agent's commission, Octroi duties, documentation fee, marking charges, transportation charges, export duties, etc.
- h) PACKAGING should be strong, as per the client's, country and the product's requirements
- i) SELECT A MODE OF TRANSPORT keeping in view the perishability of the product
- j) EXPLORE Appropriate Credit Facilities For FINANCING pre-shipment or post-shipment credits are also available
- k) INSURANCE to recover cost in case of loss
- l) SIGN A CONTRACT with the prospective Buyer including names of exporter/importer, unit price, total quantity, terms of delivery (FOB, C&F etc.), currency and terms of payment (Cash Against Documents or through Letter of Credit), mode of shipment, etc.
- m) Get Phyto-sanitary inspection certificate (through Plant Protection & Quarantine Department.)
- n) PREPARE SHIPPING DOCUMENTS
- o) SELECT FREIGHT FORWARDER
- p) TRANSPORT THE CONSIGNMENT
- q) Data to be provided to the bank through which export has been made within 14 days of transaction/exporting of consignment.
- r) Form-E (State Bank Form) (4 Copies) one copy to be retained by Customs Department at the time of export, one copy to be retained by the exporter and one copy to be submitted to the Bank and one copy to be sent to the importer along with the consignment.

10.4 Documentation required for Exports:

The documents required for export of fresh fruits and vegetables vary from country to country. Generally following documents are required:

- a) 1.NTN
- b) GST (General Sales Tax)
- c) E-Form (through authorized Commercial Bank).
- d) B/L (Bill of Lading) or AWB (air waybill)) (through clearing agents)
- e) Commercial Invoice
- f) Packing List
- g) Certificate of Origin (issued by the Chamber of Commerce and Industry)
- h) Phyto-Sanitary inspection certificate (through Plant Protection Department)
- i) Pre-shipment certificate (if required)
- j) Non GMO Certificate (for selected countries like China)¹⁵
- k) A NOC//Permit if required with reference to the product or the country where the horticulture is meant to be exported.

The documents mentioned above are not all together required for all cases. They may vary depending upon the horticultural product meant to be exported and the country of export. Exporters are also advised to consult or hire the services of Clearing or Freight Forwarding Agents to prepare export documentation and to clear export cargo from the Port.¹⁶

10.5 Signing of a Contract

When prices are accepted to export horticulture then a contract is required to be signed with the firm for supply of horticulture, which becomes binding on both the buyer & seller. Contract is a document, which normally contains.

- a) Name of exporter of horticulture
- b) Name of importer of horticulture
- c) Variety of horticulture
- d) Unit price
- e) Total quantity
- f) Terms of delivery (FOB, C&F, CIF etc.) INCOTERMS (international commercial terms) deal with the questions related to the delivery of the products from the seller to the buyer. This includes the carriage of products, export and import clearance responsibilities, who pays for what, and who has risk for the condition of the products at different locations within the transport process. INCOTERMS are always used with a geographical location and do not deal with transfer of title.
- g) Terms of payment (There could be basically two arrangements for payment; first being

¹⁵ http://www.phdec.org.pk/topstoriesEvents/events_detail.php?id=2624

¹⁶ <http://legaladvicepk.com/export-documentation-guide-list-of-documents-required-to-export-2260.html>

through direct funds transfer without involving any credit facility. This funds transfer could be both before the shipment of goods or after the shipment of goods generally referred as Cash Against Documents (CAD). Second arrangement is through the Letter of Credit (LC). The customer's bank provides a 'letter of credit', which promises to pay the supplier as long as the terms are met. There are two types of LC, LC at sight and LC Deferred payment. The payment may be paid immediately at sight or at a later date).

- h) Mode of shipment (Sea, Air, Road etc.)
- i) Currency in which transaction will be made
- j) Validity period of a contract & delivery period
- k) Shipping marks if any
- l) Arbitration clause

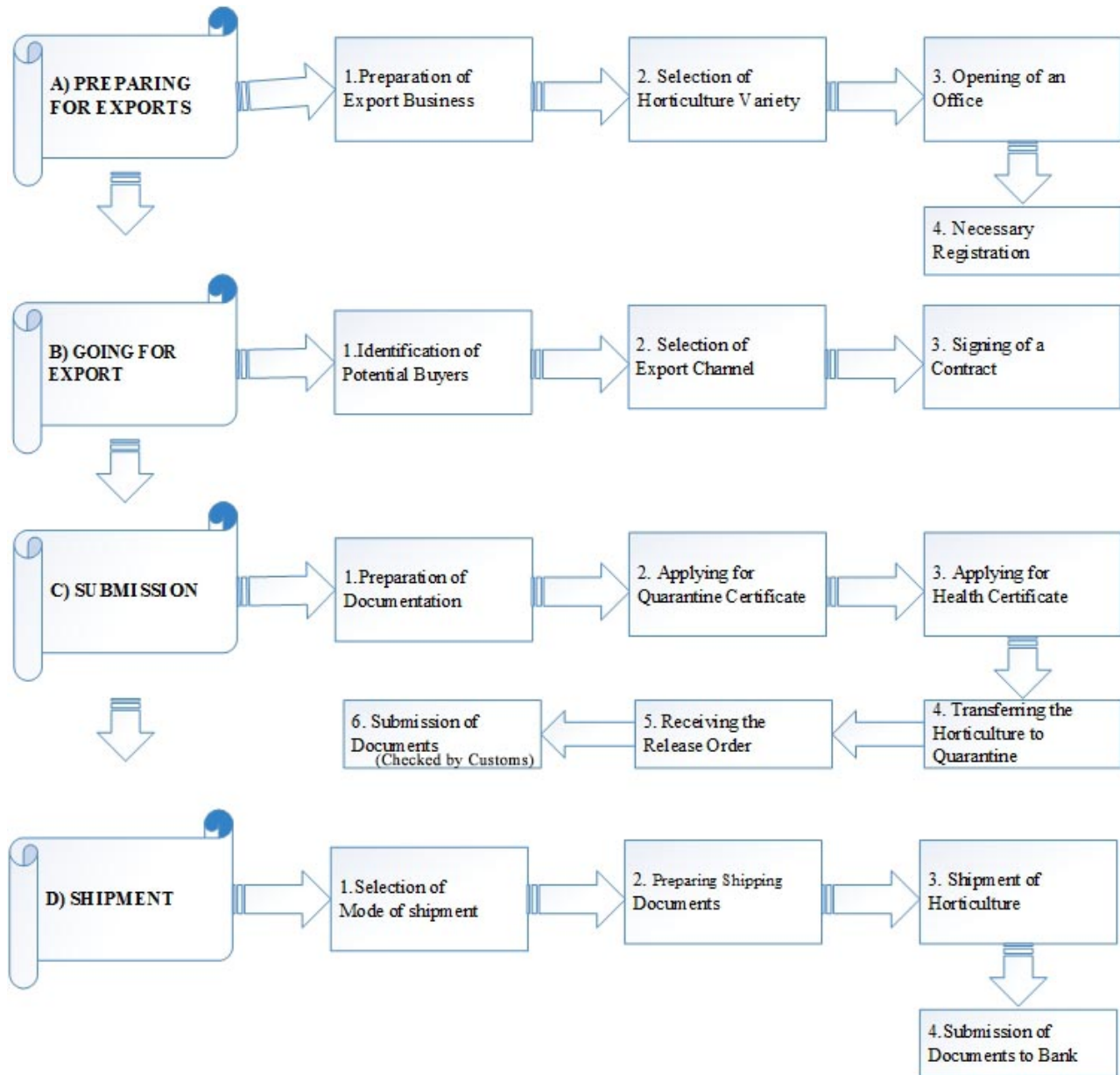
When the exporter is making an offer, he quotes the price of his product. If the offer is accepted then a contract is signed between the buyer & the seller. The contract includes terms and conditions under which goods are delivered.

The buyer sitting in the overseas market is normally not interested to receive charge of goods at one's factory site but he may be interested to get charge of goods on FOB basis (Free on Board) at importer's Airport or Seaport. It means that charges of the consignment are fully paid up to that point and the buyer pays the rest of the freight. Terms of delivery are not only important for quoting price but it also makes clear as to who is responsible for the goods if anything goes wrong.

10.6 Post Shipment Documents

BCA (Bank Credit Advice) to be received from commercial banks after receipt of foreign exchange. The BCA is considered proof for the purpose of any rebates, refinance scheme etc that may be offered by the government.

10.7 Process Flow



11 References:

- Pakistan Horticulture Development and Export Company (<http://www.PHDEC.org.pk/aboutus.php>)
- Department of Plant Protection, Ministry of National Food Security and Research, Government of Pakistan (<http://www.plantprotection.gov.pk/plug.html>)
- Guidelines for Horticulture Financing issued by State Bank of Pakistan (Agricultural Credit Department).
- Procedures and Practices in Plant Quarantine, by Dr. Iqbal H. Pahtan Deputy Director (Quarantine) Department of Plant Protection, Karachi.
- Pakistan Research Repository (<http://eprints.hec.gov.pk/view/subjects/a1.3.html>)
- List of Certified & Approved Kinnow Processing Units (<http://www.PHDEC.org.pk/download/certifiedKinnowExportUnits.pdf>)
- World Trade Organization (<http://www.wto.org/>)
- Pakistan Economic Survey 2014-15 (http://www.finance.gov.pk/survey_1314.html)