

# Case study on environmental requirements, market access and competitiveness in horticultural sector in Vietnam

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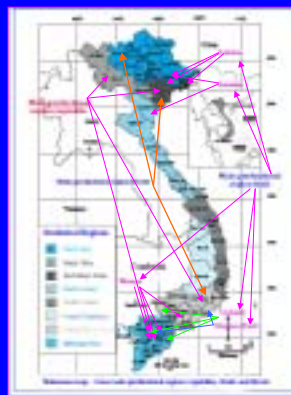
## Study objectives

1. To sketch a scene of horticulture in Vietnam and export market of fruits, vegetables and flowers,
2. To identify requirements of environment, health of some key export markets of above mentioned Vietnamese products,
3. To assess awareness levels by producers, especially small and medium businesses/enterprises about environment and health. To analyze efficiency and effect levels on information management of horticultural product export in Vietnam,
4. To identify current adjustment approach ,
5. To establish the needs for institutional capacity building.

## Contents

1. General information of horticultural sector in Vietnam,
2. Domestic and foreign markets for vegetables, fruits, and flowers of Vietnam,
3. Environment and health requirements of some key export markets,
4. Awareness of domestic producers, small and medium processors on environment and health for horticultural export products,
5. Current adjustment approach,
6. Standards and regulations of horticultural products,
7. Analysis and need for institutional capacity building,
8. Recommendations.

## Introduction Vietnam

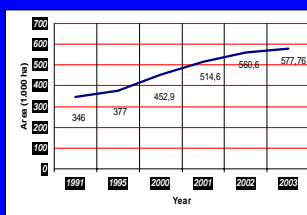


## 1. General information of horticultural sector in Vietnam

### 1.1. Situation of vegetable, fruit and flower production in Vietnam

#### 1.1.1. Vegetable production

Change in vegetable area in Vietnam from 1991 to 2003



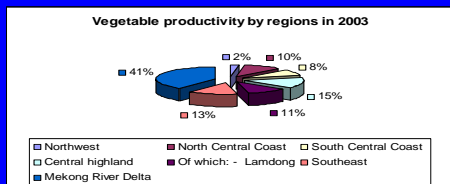
Source: General statistical Department

## 1. General information of horticultural sector in Vietnam

### Vegetable yield

## 1. General information of horticultural sector in Vietnam

### Vegetable productivity



Source: General Statistical Department

## 1. General information of horticultural sector in Vietnam

### 1.1.2. Fruit production

	1995	2000	2003
Area (ha)	346,400	365,784	602,252
Productivity (ton)	-	5,100,000	5,695,000

Source: General Statistical Department

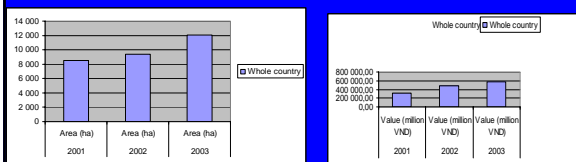
## 1. General information of horticultural sector in Vietnam

- **Fruit production area:** - The biggest specialized fruit region in Vietnam is concentrated in the South.  
- Followed by the Red River Delta.
- **Type of fruits in Vietnam:** - Tropical  
- Subtropical  
- Some temperate fruit.

## 1. General information of horticultural sector in Vietnam

### 1.3. Flower production

#### Change in value and area of flower and ornamental plants



Area

Value

Source: General Statistical Department

## 1. General information of horticultural sector in Vietnam

### Some main types of flower in Lamdong and Red River Delta regions

Year	Ornamental tree		Chrysanthemum		Gladiolus	
	Area (ha)	Value (M. VND)	Area (ha)	Value (M. VND)	Area (ha)	Value (M. VND)
2001	6,450	233,795.7	1,109	114,071	298.0	57,747
2002	7,188	389,989.1	1,138	114,188	310.0	57,907
2003	8,847	458,664.0	1,367	127,942	368.0	54,971

Source: General Statistical Department

## 1. General information of horticultural sector in Vietnam

### 1.3. Situation of vegetable, fruit and flower storage and processing

- **Storage:** - Depending on product storage-scale.
  - More acceptable chemical method: low cost + popularly applied.
  - Less acceptable cool method: high cost + less popularly applied.
- **Processing:**

Year	Number of factories	Capacity (ton)
1999	12 factories + 48 enterprices	150,000
2003	Investment 12 projects	290,000

## 1. General information of horticultural sector in Vietnam

### ➤ Main participants in processing:

- State business : 50%
- Non- state business : 16%
- Foreign cooperation : 34%

### ➤ Others:

- Many individual households realise preliminary treatment: ➡ Dried litchi fruit, dried longan fruits . . .

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### 2.1. Foreign export market

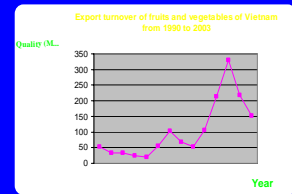
#### 2.1.1. Foreign export market of fruits and vegetables

##### ➤ Period before 1990:

- Value: < 50 million USD
- Key markets: Soviet Union and East Europe

##### ➤ Period of 1991 – 2003:

- Value:



Source: General Statistical Depart.

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### - Key markets:

Country	2000		2001		2002		2003	
	Value	Struct.	Value	Struct.	Value	Struct.	Value	Struct.
<b>Total</b>	<b>213,126</b>	<b>100,00</b>	<b>328,972</b>	<b>100,00</b>	<b>218,521</b>	<b>100,00</b>	<b>182,554</b>	<b>100,00</b>
1. <b>China</b>	120,510	56,54	142,010	43,23	121,523	55,61	67,063	36,74
2. <b>Taiwan</b>	20,841	9,78	23,319	7,07	20,897	9,56	21,584	11,82
3. <b>South Korea</b>	13,691	6,42	20,194	6,12	7,783	3,56	9,660	5,29
4. <b>Japan</b>	11,729	5,50	14,527	4,40	14,527	6,65	16,710	9,15
5. <b>Russia</b>	4,654	2,18	5,030	1,52	8,506	3,89	8,293	4,54
6. <b>Hong kong</b>	3,316	1,56	4,334	1,31	4,581	2,10	3,699	2,03
7. <b>India</b>	2,178	1,02	1,971	0,60	5,318	2,43	8,073	4,42
8. <b>Laos</b>	2,086	0,98	1,626	0,49	4,405	2,02	4,300	2,36
9. <b>Singapore</b>	1,226	0,57	1,696	0,51	3,410	1,56	4,454	2,44
10. <b>France</b>	2,089	0,98	2,183	0,66	2,833	1,30	3,341	1,83
11. <b>Australia</b>	1,368	0,64	2,042	0,62	2,051	0,94	2,709	1,48
12. <b>Malaysia</b>	1,392	0,65	1,373	0,42	1,767	0,81	2,953	1,62
13. <b>UK</b>	871	0,41	1,041	0,32	1,447	0,66	1,812	0,99
14. <b>Germany</b>	1,844	0,87	1,733	0,53	1,792	0,82	2,634	1,44
15. <b>Indonesia</b>	1,374	0,64	2,188	0,66	1,450	0,66	3,519	1,93
16. <b>Others</b>	...	...	...	...	...	...	...	...

Source: Custom Office

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

In 2004: - Vietnamese exportation has difficulty in fruits and veg.: exportation forecast to achieve < US\$ 150 million.

- Key markets: China, Japan, USA and EU.

➡ Key potential markets of Vietnam are **China, Japan, USA and EU**

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### 2.1.2. Foreign export markets of flowers

- Value: < US\$ 1 million
- Key markets: Japan and China
- Type of flowers: Chrysanthemum, rose

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### 2.2. Domestic market :

- The whole population: 80,902,400
- Rural: 60,032,900
- Town: 20,869,500

Influenced by season factors in which vegetables, fruits and flowers are imported:

- Veg.: May to Sept. – China, Thailand, . . .
- Fruits: Tet holiday, off-season - China, Thailand, USA, Newzealand . . .
- Flower: Festivals-day, off-season – China, Thailand.

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

**In brief 2:** - Vietnamese export markets are extended more and more.

- Vietnamese export turnover of fruits, veg. And flower is few and unstable.
- Number of export markets with turnover of more than US\$ 10 million/year is few.
- Key potential markets: China, Japan, USA and EU.

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### 2.3. Market competitiveness

- **China:**

- + China is the biggest country in vegetable and fruit production in the world.
- + China exports many similar vegetable and fruit products to Vietnam,
- + Chinese production price is cheaper that that of Vietnam,
- + China have approached more export markets than Vietnam,
- + China have approached more export markets than Vietnam.

- **Thailand:**

- + Production: better quality of variety accessions, more developed infrastructure, more advanced technologies, better awareness by producers, ...
- + Storage & processing: Good quality of input products, high technologies in harvesting, storage and processing, attractive packaging, labeling . . .

**In short: Veg., fruits and flowers production and exportation not only faced foreign markets but also competes with domestic one.**

## 2. foreign and Domestic markets for vegetables, fruits, and flowers of Vietnam

### 2.4. Market strategy

- To diversify products,
- To strengthen fruit, vegetable and flower export.

## 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

**The common standards in the world are HACCP and SPS**

### 3.1. China

➤ Before China entered WTO:

- Not quite high quarantine and environmental requirements.

➤ Since China entered WTO:

- Higher quarantine and environmental requirements.
- Certificate of Origin (since early 2004)

## 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

### 3.2. Japan

- Plant Protection Law and Food Hygiene Regulations,
- Eco-mark labeling,
- Standard of pesticide residues (applied to more than 130 products),
- Standards of food additives,
- Quarantine methods at border gates.

## 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

### 3.3. European Union market, for example Australian market

- Technical standards (TBT),
- Eco-labeling
- Environmental standards: EMAS-1995; ISO 14 000- 1996),
- Packaging, labeling products should abide labeling requirements (It is seriously applied in Australia, who does not accept any defects).
- Commodity standard: European standards.

**In Australian, in special case, it is applicable of import risk analysis (IRA) with continuously irregular investigating time within 18 months.**

### 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

#### 3-4. USA

- Environ. requirements are related to commodity and service import to USA:
  - Law on substances needed to be checked,
  - Law on appropriate packages and labels,
  - Law on food quality protection...
- Regulations related to environment for imported commodities includes:
  - Regulation on packaging,
  - Regulation on eco-labeling,
  - Requirements on product standard,
  - Requirements on production and processing methods (P.P.Ms),
  - Requirements on food quality control (Obligation),
  - Requirements on safety in consumption,
  - Regulations on epidemics,
  - Regulation on nutrient content.

### 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

#### 3-4. USA (continues)

For fresh vegetable and fruit products of Vietnam have to supply for Animal and Plant Health Inspection Service (APHIS) with following information:

1. Scientific name to determine product origin,
2. Detailed description of delivered product parts,
3. Name of the tree growing country and name of the country from which commodities are delivered to USA since different countries exist different pests and diseases,
4. Description of locality where that tree is grown,
5. Name and address of production unit,
6. Estimation of total weight (kg), and total number of cargoes to be annually delivered and cargoes to be delivered to USA,
7. Estimation of harvesting months and delivery months,
8. Planning destination ports in USA and geographical region to distribute and consume commodities,
9. Transportation means,
10. Description of packaging methods, kinds of packages, containers to be used for transporting imported cargoes to USA that facilitates examination. Some packages and containers should be sterilized before importing to USA.

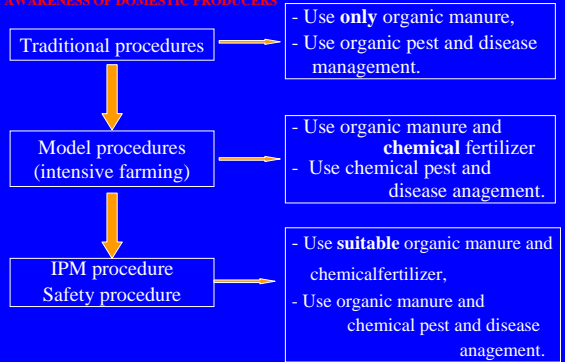
### 3. ENVIRONMENTAL AND HEALTH REQUIREMENTS OF SOME KEY EXPORT MARKETS

#### Summary on environmental requirements in some key export markets of Vietnam

Market	Environmental barrier	
	General	Particular in each market
1. China	HACCP, SPS	Certificate of Origin
2. Japan	HACCP, SPS	JAS, Eco-mark
3. EU/Australia	HACCP, SPS	TBT, ISO 14000, ecological mark
4. USA	HACCP, SPS	Law on anti-bio-terrorism, ecological mark, TBT, ...

### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

#### 4.1. AWARENESS OF DOMESTIC PRODUCERS



### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

- Awareness of producers in production procedure should be summarized as follows:
  - (1) To properly apply new cultural practices combined with traditional ones,
  - (2) To use new varieties that are resistant/tolerant to pests and disease with high yield, proper rate of N, P, K application,
  - (3) To use bio products in safe vegetable and fruit production,
  - (4) To apply IPM procedure in production under local crossing supervision,
  - (5) To strictly abide 4 regulations on safe vegetable production:
    - + No utilization of fresh urine,
    - + No utilization of waste water,
    - + No utilization of too much chemical fertilizers,
    - + No utilization of agricultural chemicals within 10 days before harvesting.

### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

- Awareness progress of producers:
  - To protect environment and protect the health of community: no throwing pesticide jars, bottles away, wearing masks, wearing raincoats . . .
  - Producers are able to be responsible for their products,
  - Vietnamese producers try to harmonize requirements of export markets and then to integrate into international market,
  - To consider environmental and health requirements as pressing problem that is related to existence and development of their enterprises.

#### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

### 4.2. Information management mechanism

#### 4.2.1. State role

- + Role of Ministry of Commerce,
- + Role of Ministry of Agriculture and Rural Development,
- + Role of Vietnam Food Standardization Committee ,
- + Role of Research Institute of Fruits and Vegetables,
- +Role of Southern Fruit Research Institute (SOFRI) ,
- + Role of Post Harvest Technology Institute,
- + Role of plant protection sector.

#### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

### 4.2.2. Role of Association

- + **Role of Horticultural Association of Vietnam,**
- + Role of Fruit Association,
- + Role of Farmer Association,
- + Vietnam trading and Industrial Office.

#### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

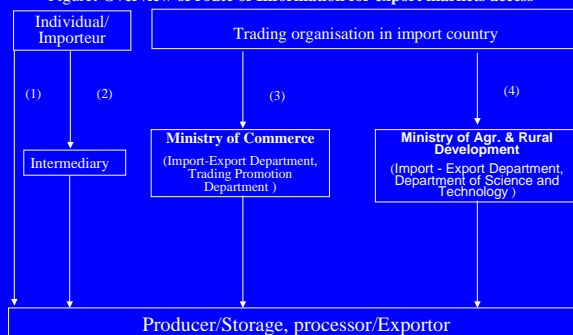
### 4.3. Route of Information for export markets access

Market information is provided via following prioritised channels:

- (1) By Government,
- (2) By media,
- (3) Via internet,
- (4) Based on relationship with organizations, individuals inside and outside country.

#### 4. AWARENESS OF DOMESTIC PRODUCERS, SMALL AND MEDIUM PROCESSORS ON ENVIRONMENTS AND HEALTH FOR HORTICULTURAL EXPORT PRODUCTS.

Figure: Overview of route of Information for export markets access



## 5. CURRENT ADJUSTMENT APPROACH

The current adjustment approach are concentrated on following issues:

- (1) Application of remote precaution method. HACCP standard is required for producers, processors, and exporters,
- (2) Limiting and strengthening state management in terms of utilization of agricultural chemicals and storage chemicals of vegetables, fruits as well as the utilization of additives in food processing,
- (3) Investing in research and development of agricultural chemicals which have no or few damage on environment but are effectively used in production as well pest and disease management,
- (4) Application of new technologies to production, storage, processing of horticultural products.

## 6. STANDARDS AND REGULATIONS OF HORTICULTURAL PRODUCTS

### 6.1. Standards

The base for establishing and issuing standards of foodstuff:

- Requirements of environmental standards in export markets in the world, for example, standards issued by FAO or WTO... for each product (fresh and processed vegetable, fruit)
- Standards issued by Codex based on negotiation/discussion among participating countries
- Situation of production, storage and processing in Vietnam.
- Current adjustment approach of Vietnam: production is oriented in organic, safe trends to reduce pesticide utilization and no pollution of environment.

## 6. STANDARDS AND REGULATIONS OF HORTICULTURAL PRODUCTS

### 6.2. Some acts, regulations related to quality, trade and environment in horticultural sector

- Legal regulations on trades,
- Law regulation on environment.

Especially, a decree on Foodstuff sanitation and safety law was issued on 7 August 2003.

## 7. ANALYSIS AND NEED FOR INSTITUTIONAL CAPACITY BUILDING

### 7.1. Analysis on effectiveness of information management

### 7.2. Need for institutional capacity building

- Standardization of product quality in general, and foodstuff in particular is the most efficient tool for integration process,
- standardization system is the foundation to facilitate better management, supervision, inspection, examination of product quality of producers, processors, exporters and distributors.

## RECOMMENDATIONS

### ➤ For the Government

- (1) To strengthen education and awareness
- (2) To properly invest in scientific research
- (3) To strengthen efficiency of policy, law system on environment which is currently established quite systematically, however, there is a lack of specific situation and uneasy application.
- (4) To gradually accomplish establishment of national standards
- (5) To support small and medium businesses
- (6) To invest and innovate technologies
- (7) To improve international negotiation capacity

## RECOMMENDATIONS

### ➤ For businesses/enterprises

- (1) To establish long term trading strategy:
- (2) To train manpower resources and to improve awareness for workers.
- (3) To invest technological innovation.

**Thank you very much for your attention !**