

HORTICULTURE SECTOR IN SRI LANKA

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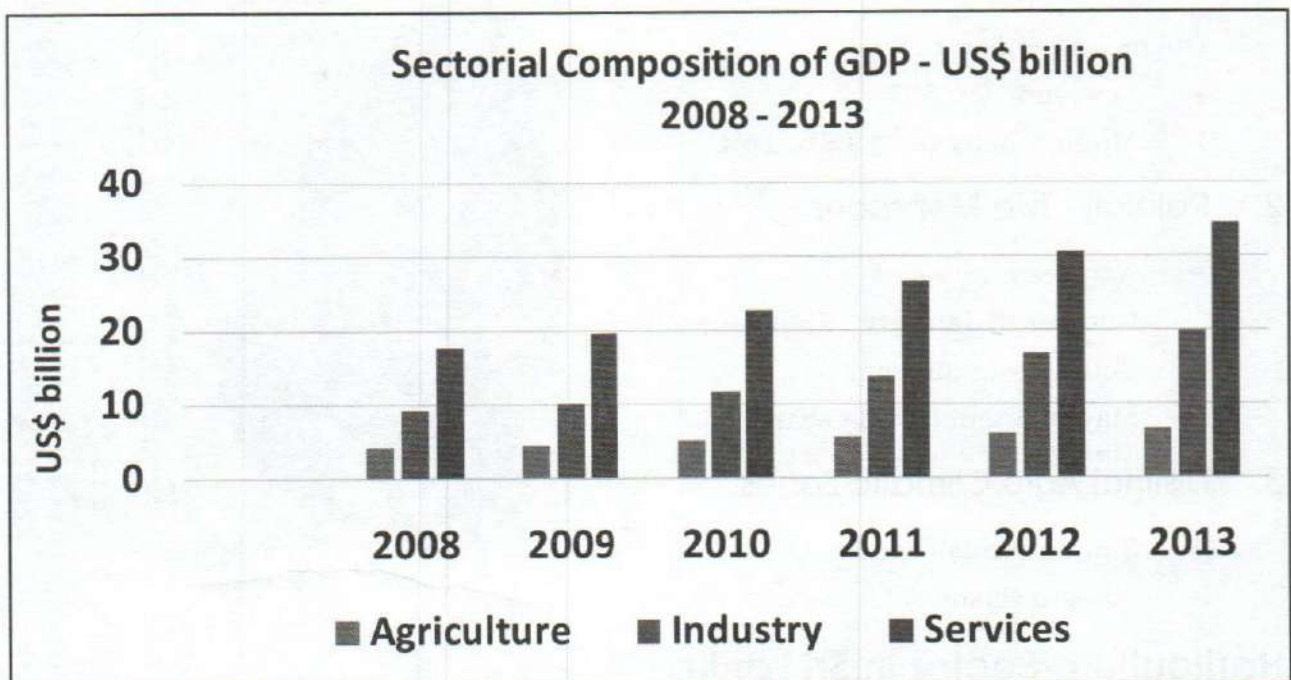
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Agriculture Sector

- Sector components - Rice, Plantation Crops, Field Crops, **Horticulture Crops**, Spice Crops, Forestry, Fisheries, Livestock
- Agriculture has a strong tradition throughout Sri Lanka
- Labour force employed in Agriculture 29.8%
- The contribution from agriculture to GDP is 10.8%



Different Sectorial Composition of GDP in SAARC Countries

	Sri Lanka	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan
Agriculture	10.8	n.a.	17.7	16.2	17.4	3.8	35.7	24.4
Industry	31.5	n.a.	28.5	41.3	25.8	20.5	14.9	22.0
Services	57.5	n.a.	53.8	42.5	56.9	75.7	49.4	53.6

Source: Key Indicators for Asia and the Pacific 2013

Agricultural Land Use

- Total area - 6.56 m ha.
- Arable - 3.5 m ha.
- Under cultivation 1.5 m ha
- Out of the total agricultural land under cultivation about 20% is used to grow fruits and vegetables

Climate for Horticultural Produce

1. Topography Vary

The mean temperature

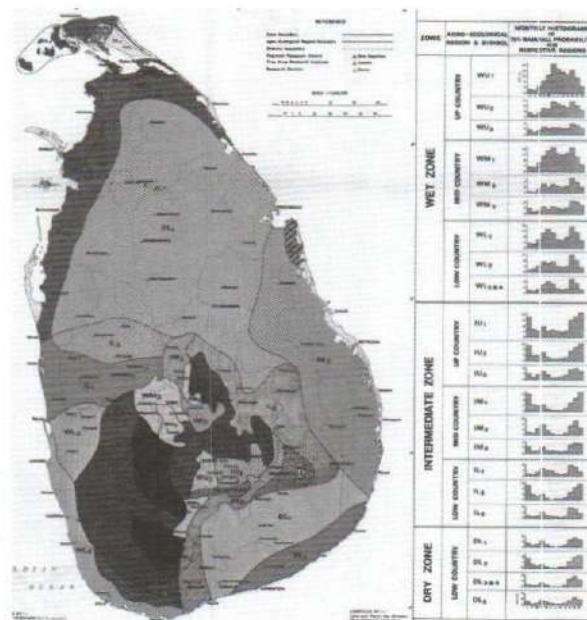
- Lowland - 27.5°C
- Mountain areas - 13°C – 16°C

2. Rainfall - Two Monsoons

- Northeast monsoon
October to January : Maha season
- Southwest monsoon
May to August : Yala season

3. Distinct Agro Climatic Zones

- 3 main rainfall zones
- 46 agro ecological regions



Horticulture Sector in Sri Lanka

- Fruits, Vegetables & Ornamental plants
- Contribution from the horticulture to the economy account for 3% of GDP (Rs. 20 billion)
- Fruit and vegetable are mainly grown by semi-commercialized small farmers (individual extent of land less than 1 ha)

Demand for Fruits and Vegetables - Local Market

Production is mainly for domestic consumption

There is an increasing demand

1. Increase in Economic growth
2. Increasing income levels of the people
3. Development of the tourism
4. Below average per capita consumption

Recommended consumption

Fruits & Vegetable: 200 g each/person/day

Current consumption: vegetables - 100 g; fruits 114 day/person

Vegetable Sector

- About 40 vegetables
- Total area: 85,000 ha (2015); Production: 1.07 m ton; Average yield: 12.7 mt/ha
- National Food Production Programme targets
- Increase Vegetable cultivated extent to 103,083 ha & production to 1,415,350 mt in 2018
- 90 % of requirement met by local production

Vegetable Production Systems

Vegetable Production in Up Country

- Favourable climate, 3 - 4 cycles /year without a fallow period
- Sloppy lands & small plots, intensive management
- Tomato, Capsicum, Cabbage, Cauliflower, Leek, Carrot, Lettuce, Beet etc.

Vegetable Production in Low Country

- Cultivated less intensively, low input systems
- Brinjal, bitter gourd, pumpkin, luffa, cucumber, snake gourd, okra etc.

Vegetables in Rice Based Systems

- Major Season (maha) – Rice , Minor Season (yala)– Vegetables
- Vegetables - Tomato, Chili, Brinjal, Okra, Yard long bean, Snake gourd, Luffa, etc.
- Grown across the country in wetter areas
- Common leafy vegetables - Centella asiatica, Alternanthera sessilis, Amaranthus tricolor, Sesbania grandiflora

Vegetables Under Protected Agricultural Systems

- High value and high quality crops
- 60% of greenhouse growers located in upcountry
- 40 % exported
- Locally - hotel industry
- Bell pepper, Tomato, Salad cucumber, Salad lettuce, Broccoli

Fruit Sector

- About 35 fruit crops
25 species of underutilized fruit crops
- Majority grown in small scale and few large scale fruit orchards - Total extent 135,000 ha
Production 916,527 mt
- From Annual production
50% is locally consumed
30-40% is wasted
10% is exported

Extent and Production of Fruits

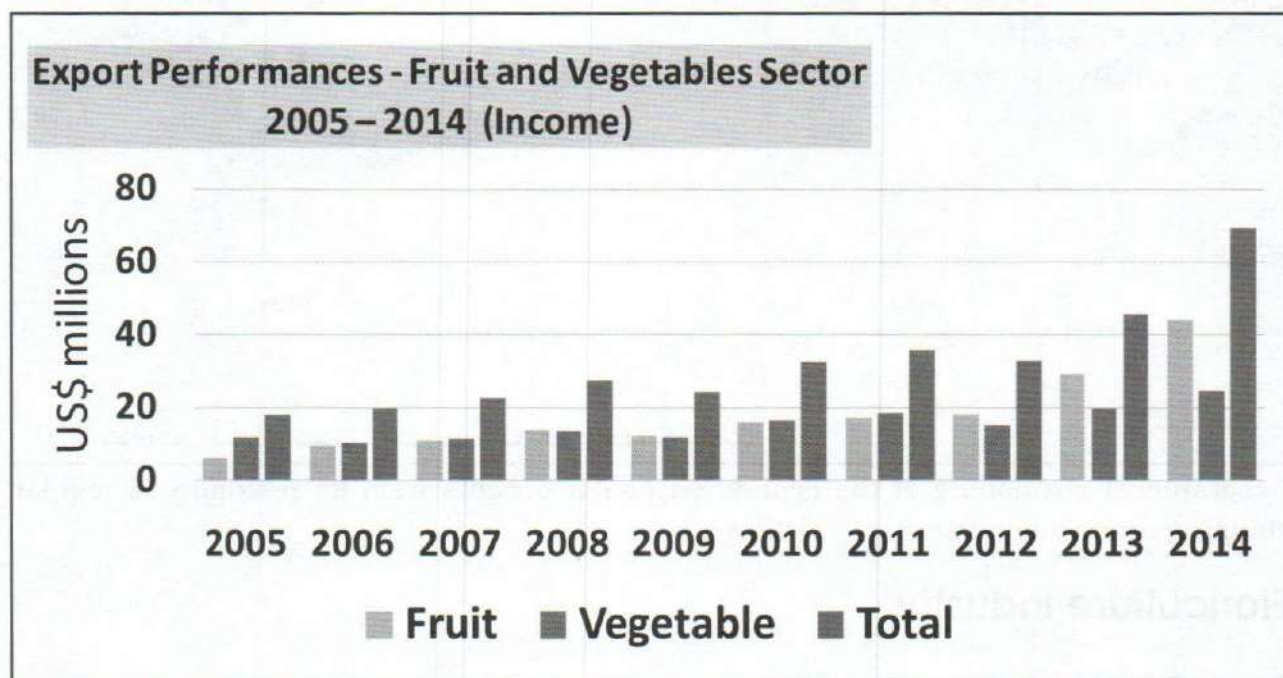
Crop	Extent (ha)	Production (mt)
Banana	52,888	498,396
Mango	27,604	134,369
Papaw	7,108	84,606
Rambutan	5,987	65,889
Pineapple	5,496	47,463
Water melon	1,053	44,617
Avocado	1,859	19,592
Guava	1,393	10,673
Lime	11,979	7,468
Cashew	21,981	6,501
Orange	6,476	4,775
Pomegranate	1,006	3,931
Mandarine	574	961
Passion fruit	479	476
Total	145,883	929,717

Constraints to the Development of Horticulture Sector

Technical	Socio-Economic
<ul style="list-style-type: none"> • Inadequate availability of quality seed & planting materials • Inefficient resource management by farmers • Supply chain inefficiencies • High post harvest losses 	<ul style="list-style-type: none"> • Low farm-gate price and profitability • Unavailability of land for large scale Production • Lack of farmer group activities • Inadequate marketing facilities & extension staff
Policy	Natural resources
<ul style="list-style-type: none"> • Ad-hoc changes in the trade pol 	<ul style="list-style-type: none"> • Dependence on the rain fed system • Seasonality of production and drastic price fluctuation

Export Market for Fruits & Vegetables

- Export 60,000 metric tons of fresh fruits & vegetables annually
- Value -US\$ 69.1 million
- Earnings from vegetable exports went up by 25 % & fruits by 51 % in 2014
- Export farmers are educated about the maintenance of Good Agriculture Practices (GAP)
- 90% of fruits and vegetables are exported to Middle east and Maldives



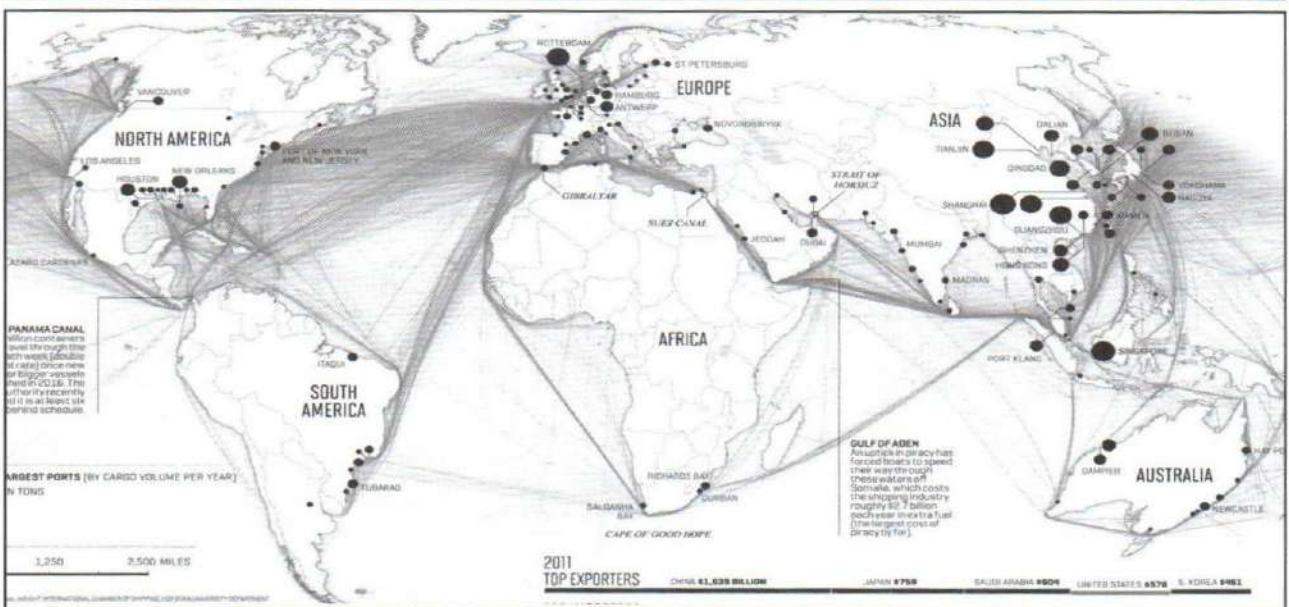
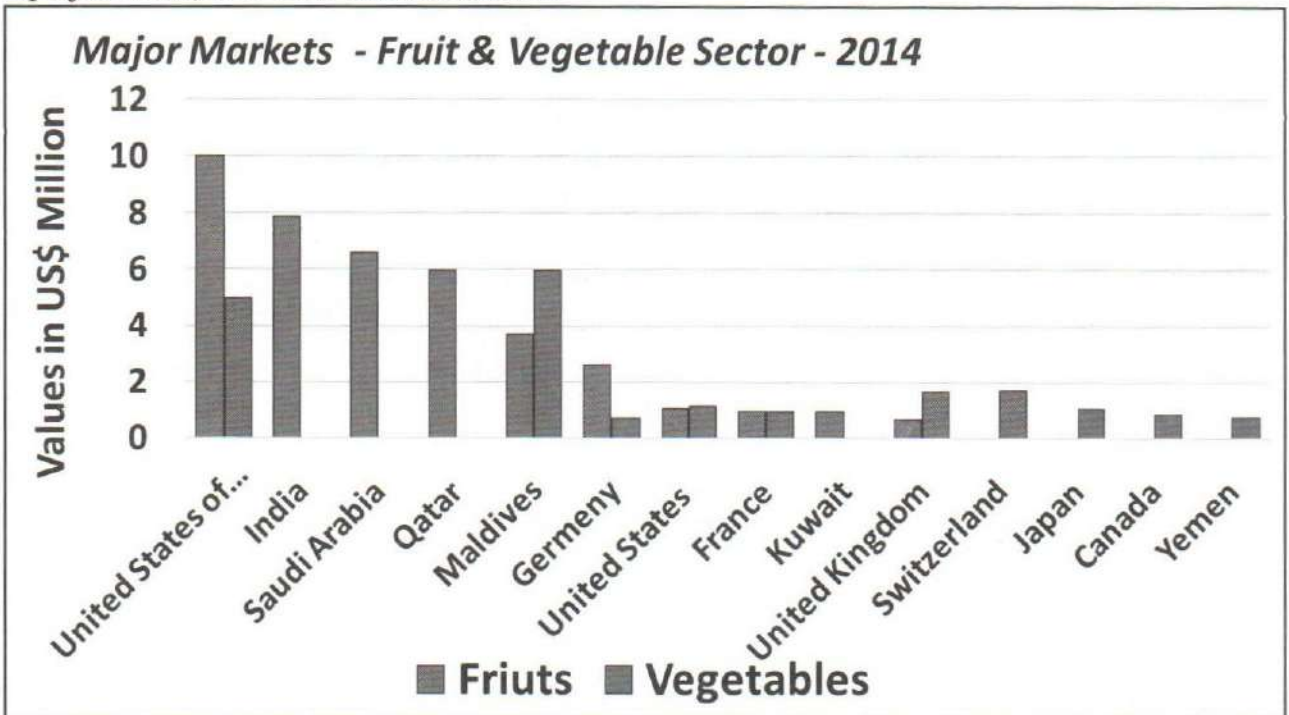
Exportation of Fruits & Vegetables

Vegetables

Chilli, gherkin, bread fruit, young jack, moringa, pumpkin, bitter gourd

Fruits

Banana, melons, mangoes, mangosteen, avocado, sour sop, pineapple, papaya, lemon, ripe jackfruit, star fruit and rambutan



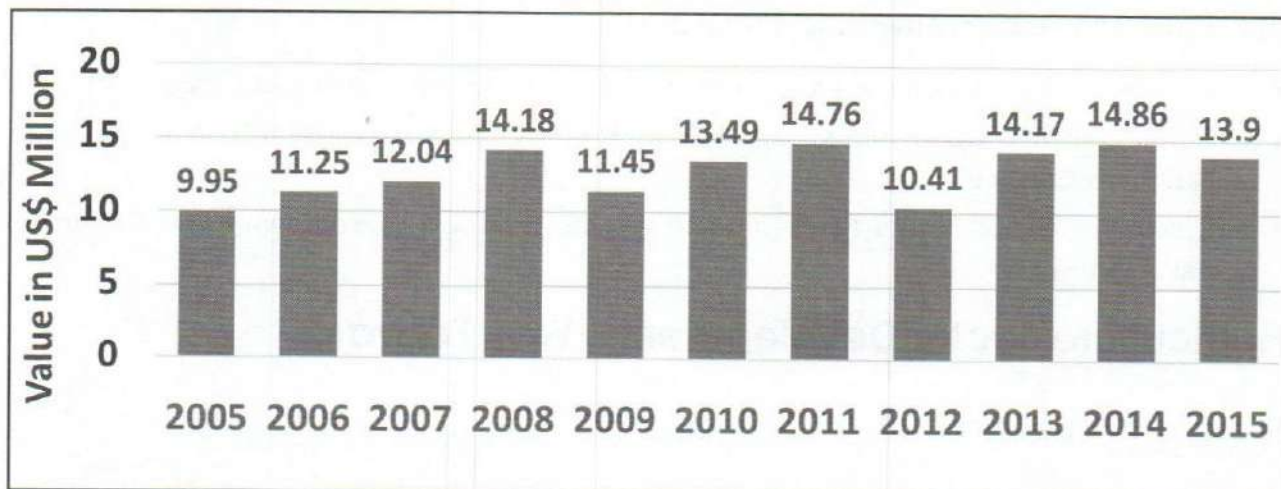
Geographical positioning of the island: Sri Lanka benefits from its proximity & regular shipping connections to export markets

Floriculture Industry

- Established during year 1980/81
- Employees more than 10,000 families
- Floriculture identified as a priority sector for promotion
- 40 Major export companies - operate their own nurseries
- Export companies have obtained environmental and quality certifications
(GLOBALGAP, MPS and FAIR TRADE label)

- Europe - Major market
- Accounts for less than 0.2% of the global floriculture trade

Export Performances - Floriculture Sector - 2005-2015



Stake Holders of the Horticulture Sector

1. Department of Agriculture

- Research, training & extension
- National agricultural research system employs 500 scientists
- 11 research institutes

2. Government Institutes and Ministries

- National Botanical Garden - Floriculture
- Export Development Board - Assist in exporting products
- NARP is responsible for facilitating research activities

3. The Local Authorities

4. UN & Other Agencies

- FAO funded programs
Eg. Strengthening the agriculture extension system and farmers on Agri-enterprise development and marketing

5. Universities

- Research & training

6. Private Sector

- Supply of inputs: seeds, fertilizer, agrochemicals, equipment
- Production: organic horticulture, environment control agriculture
- Extension: pest and disease control, agronomic practices
- Export trade

7. NGOs

- Promotion of organically grown products
- Rural farmers living standards

8. Public Private Partnership Programs

- Project for “improving the safety and quality of Sri Lankan fruits and vegetables”
- Public partner institutions: the Ministry of Agriculture & Health; National Agri Business Council
- Private partner : Lanka Fruits and Vegetable Producers, Processors and Exporters Association

Horticulture Sector Development – Way Forward

Technical Aspects

- Action on improper pesticide & fertilizer use and promotion of organically grown products
- Promotion of year round production
- Reduction of post-harvest losses
- Introducing modern Information Communication Technology to farmers (ICT)
- Floriculture : Introducing native flora to export market

Socio-Economic Aspects

- Improve marketing channels of fruits and vegetables
- Strengthening farmer associations and developing farmer entrepreneurships
- Enhance coordination among different stakeholders
- Strengthening extension service
- Improving farmer accessibility to microfinance