

Horticulture and plantation crops: A unique opportunity for entrepreneurs in Tamil Nadu

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Abstract

Background/Objectives: Tamil Nadu has a large potential to invest on agro-based industry, because the state is the largest producer of bananas, flowers, tapioca, the second largest producer of mangoes, natural rubber, coconut, groundnut and the third largest producer of coffee, sapota, tea and sugarcane. This study analyses the potentiality in the production of horticulture crops and also discuss new opportunity for entrepreneurs in agro processing.

Methods/Statistical analysis: The present study is entirely relay on secondary data. Data are collected from concerned research articles, Books, Journals, magazines, web sites, various reports and publications relating to horticulture in Tamil Nadu.

Findings: The total area covered under horticulture crops in the State moved up from 10.01 lakh hectares in 2011-12 to 10.81 lakh hectares in 2012-13 (8.0%) and would further rise to 11.46 lakh hectares in 2013-14 (6.0%). Fruits, vegetables, spices and condiments and plantation crops together claimed a share of 96.0 percent of the total area covered under horticultural crops. Considering the wide-ranging and large raw material base, the state offers tremendous opportunities for large investments in food processing.

Improvements/Applications: The government should continue to support the industry with an enabling and growth oriented policy, through which the state will become largest supplier of processed food in the country.

Keywords: Horticulture crops, current scenario, potentiality, policies and Programmes.

1. Introduction

Agriculture is the mile stone in the history of human civilization, due to agriculture man settled at particular place. In spite of growing industrialization and urbanization in the country, nearly fifty percent working population still engaged in agriculture. In developing countries like India, agriculture sector has been a major source of employment and contribution of agriculture to national income is significant. The economy has grown and develops with the pace of changes in agriculture and intensity of modernization. Growth of agriculture and allied sectors is crucial for an overall accelerated performance of the India's economy. Agriculture sector has undergone extensive changes over time from being subsistence in primitive stages to the present day online high-tech agribusiness. The development of agro-processing industries implies the development of agriculture on one hand and the entire set of industries, linkages, and investments that cater to the demands of the masses with improving incomes and environment on the other. It creates space for improving farm-industry linkages along with great export potential. There has been increasing tendency for purchasing processed food items like fruit juice, Juice Powder, pickles, jam, fried cashwnuts, various coffee and tea products and items ready to cook and ready to consume. Thus, stimulating value added activities that build on production of agriculture is a necessary condition for improving the living standards of rural population in India.

Tamil Nadu posse's great potential to be the food processing capital of India. Tamil Nadu is India's fourth major horticulture producing state with over 23,000 tonnes of fruits and vegetables produced across the state annually. Agro-climatic condition is favourable for growing almost all kinds of agricultural and horticultural crops and setting up of food processing industries in the state. Ministry of Food Processing Industries identified potential areas for investment in Tamil Nadu especially in fruit processing, fruit wines, vegetable industry, and medicinal plants [1]. This is an opportunity for entrepreneurs to set a new business based on agriculture, especially horticulture crops. Food processing enhances shelf life and adds value to the agri products only if agri products are merely cleaned, sorted and packaged. Enhanced shelf life leads to reduction in wastages. Further processing into high value-added product is even more advantageous. Value addition enables remunerative prices to farmers. This study analyses the potentiality

in the production of horticulture crops and also discuss new opportunity for entrepreneurs in agro processing in Tamil Nadu.

2. Results and Discussions

2.1 Agriculture Scenario of Tamil Nadu

Tamil Nadu is the seventh most populous (6%) and the eleventh largest state in the Country. Tamil Nadu has a total geographical area of 130.33 L.Ha which is 4% of the total land area of the Country. According to the latest statistical report (2013-2014), the Gross Cropped Area of the State is 58.97 L.Ha and the net area sown is 47.14 L.Ha (36%) when compared to the total geographical area of the State. The State has 3% of water resources of the country with which a gross area of 33.11 L.Ha is irrigated. The number of operational land holdings in the State is 81.18 lakh, operating 64.88 L.Ha. Small and Marginal holdings account for 92% of the total holdings operating 61% of the total sown area. At National level, Small and Marginal farmers account for 85% of the total holdings operating 44.58% of the total sown area. The average size of land holding in the State is 0.80 hectare compared to 1.15 hectare at the National level. The State is also among the top producers in a variety of fruits and Vegetables in the Country. Table 1 shows Tamil Nadu's rank in the production of various agricultural commodities.

Table 1. Production strengths of Tamil Nadu

Products	Ranking of Tamil Nadu at All India Level Production	Units of Production(2012-13)
Bananas	1 st	47.75LMT
Fruits	4 th	4.83 MMT
Sugarcane	4 th	317.60 LMT.
Rice	9 th	40.49 LMT
Turmeric	2 nd	1.90 LMT
Spices	6 th	0.85 MMT
Tea	3 rd	174.7 MMT
Coffee	3 rd	18775 MT
Loose Flowers	1 st	2.61 LMT
Vegetables	9 th	6.15 MMT

Source: National Horticulture Mission .

The State stands first in Vegetable productivity (29.95 MT/ha); ranks second in area of cultivation in Banana (1.18 lakh ha); first in Banana production (56.50 lakh MT) and first in production (49.76 lakh MT) and productivity (41.25 MT/ha) of Tapioca in the Country [2].

2.2. Area, Production and productivity of horticultural crops in Tamil Nadu

State's agro climatic condition is conducive for cultivation of varied horticultural crops viz., Fruits, Vegetables, Flowers, Spices and Condiments, Plantation crops and Medicinal & Aromatic plants [2]. Horticultural crops are cultivated in an area of about 10 lakh Ha occupying around 19% of the Gross cropped area. The details related to cultivation of various Horticultural crops in the State are as follows table 2.

Table 2. Area, Production and Productivity of Horticultural Crops

Crops	2011-12			2012-13			2013-14		
	A	Y	P	A	Y	P	A	Y	P
Fruits	2.87	20.48	58.77	3.10	21.62	67.00	3.29	22.43	73.70
Vegetables	2.54	27.25	69.27	2.74	28.77	78.96	2.90	29.95	86.79
Spices and condiments	1.65	6.11	10.05	1.78	6.44	11.46	1.88	6.69	12.61
Plantation crops	2.55	4.12	10.50	2.75	4.34	11.97	2.92	4.51	13.16
Medical and aromatic crops	0.14	9.20	1.29	0.15	9.73	1.48	0.16	9.91	1.62
Flowers	0.26	10.35	2.74	0.29	10.92	3.12	0.31	11.12	3.43
Total crops	10.01	15.24	152.62	10.81	16.09	173.99	11.46	16.69	191.31

Note: A – Area in lakh hectares; Y – Yield in tonne per hectare; P - Production in lakh tonnes

Source: Department of Horticulture and Plantation Crops, Chennai-5

Horticulture crops in Tamil Nadu account for nearly 19 percent of the total cropped area. There has been a steady increase in the area covered under horticulture crops in the recent past. The total area covered under horticulture crops in the State moved up from 10.01 lakh hectares in 2011-12 to 10.81 lakh hectares in 2012-13 (8.0%) and would further rise to 11.46 lakh hectares in 2013-14 (6.0%). Fruits, vegetables, spices and condiments and plantation crops together claimed a share of 96.0 percent of the total area covered under horticultural crops. The overall yield rate exhibited a steady improvement. The average yield rate of horticultural crops per hectare improved from 15.24 tonnes in 2011-12 to 16.09 tonnes in 2012-13 (5.6%) and would further improve to 16.69 tonnes in 2013-14 (3.7%). The increase in area and yield rate helped to augment the total production of horticultural crops from 152.62 lakh tonnes in 2011-12 to 173.99 lakh tonnes in 2012-13 (14.0%) and further to 191.31 lakh tonnes in 2013-14 (10.0%).

2.3. Tamil Nadu's Competitive Advantage

Tamil Nadu is one of the key food producers of the country and has access to several natural resources. Diverse agro-climatic conditions and wide ranging raw material base adds to the huge advantage of a large untapped domestic customer base [3]. Tamil Nadu has diverse soil and climatic conditions across 7 agro climatic zones which provides ample opportunity to grow a variety of horticulture crops [4]. Table 3 shows production of agricultural crops in different climatic zones.

Table 3. production of crops in climatic zones

Climatic Zones	Districts	Suitable Crops
North-eastern Zone	Kancheepuram, Thiruvallur, Vellore, Thiruvannamalai, Villupuram and Cuddalore	Rice, Shorghum, Pearl millet, Fingermillet, Redgram, Sugarcane, Groundnut, Gingelly.
Cauvery Delta Zone	Trichy, Thanjavur, Thiruvarur and Nagapattinam, Karur, Pudukottai, Ariyalur and Cuddalore	Rice, Maize, Cholam, Cumbu, Ragi, Blackgram, greengram, Groundnut, Coconut, Gingelly, castor.
Southern Zone	Theni, Madurai, Pudukkottai, Ramnad, Sivaganga, Viruthunagar, Thirunelveli, Tuticorin and Ramanathapuram	Rice, Maize, Cholam, Cumbu, Ragi, Blackgram, greengram, Groundnut, Cotton, Fodder crops, Gingelly, castor.
North-western Zone	Dharmapuri, Krishnagiri, Salem and Namakkal	Sorghum, rice, Groundnut, Finger millet, Horse gram, Little millet, Tapioca, Cotton, Sugarcane, Cotton, Gingelly, Kodomillet, Vegetables, Mango, Tobacco, Chillies, Banana, Pulses.
Western Zone	Erode, Coimbatore, Karur, Dindigul, Tiruppur, Theni, Namakkal, Perambalur and Ariyalur	Sorghum, groundnut, Rice, Pulses, Millets, Cumbu, Sugarcane, Cotton, Ragi, Blackgram, Greengram, Gingelly, Sunflower, Redgram, Turmeric, Maize, Banana, Castor, Onion, Tobacco, Vegetables, Spices & Plantation crops, Tuber crops, Flower & others.
High Rainfall Zone	Kanyakumari District	Rice, banana, Mango, Jackfruit Tapioca, Ceshewnut, Cocconut, Tamarind, Palmayr, Clove, Vegetables.
High Altitude	Nilgiris & Kodaikanal (Dindigul District)	Wheat, Garlic, Lime, Lemon, Pomegranate, Beans Chowchow, Cotton, Pineapple, Pepper, Cardemum, Coffee, Potato, Banana, Mandarin, Orange, Pear

Source: National Horticulture Mission (2005)

2.4. Opportunities in Agro Processing

Tamil Nadu's strong agricultural base and accelerating economic growth holds a significant potential for the Food Processing Industry that provides a strong link between agriculture and consumers. An enviable share of the India's agri-produce and diverse agro-climatic regions coupled with changing demographic patterns, food habits and rise in income levels opens up numerous opportunities in the sector, because India as a large consumer market and India as a potential sourcing hub to the world [5]. Naturally, Tamil Nadu is a leading producer of many horticulture products like fruits and vegetables, flowers etc. High potentiality of horticulture production in the state offers an opportunity to setup a processing unit. The National Horticultural Mission was implemented with vision of expanding the cultivation area of fruits, vegetables, flowers, medicinal and aromatic plants and thereby increasing the production of horticultural crops in the state. The potential areas for investment in Tamil Nadu are fruit processing, fruit wines, vegetable industry, and medicinal plants [1]. The main fruits growing in Tamil Nadu are banana, mango, sapota,

grapes, guava and aonla. Tamil Nadu is the largest producer of banana in the country. It is the fourth largest state in fruit production. The main vegetables grown in Tamil Nadu are tapioca, tomato, onion, brinjal and drumstick. These account for over 85 per cent of the total area as well as the production of vegetables. The State has a vast potential for successful cultivation of crops like mango, banana, cashew, tapioca, vegetables and flowers. This gives impetus to production, processing for value addition and marketing of horticultural crops such as vegetables, fruits, flowers and spices [6]. A steady increase in the consumption of ready-to-eat food has brought the food processing industry into focus. Indian economy with its rising per capita income, changing lifestyles and growing younger population with preference for convenience food, is a fertile bed for food processing industries to grow and flourish [7]. In the absence of quality control measures, poor quality packaging material, improper transport of foods, use of contaminated water, high turn-over of food handlers, lack of personnel hygiene and non judicious use of colorants and preservatives cause considerable food safety hazards [8]. The popularity of these foods among consumers clearly reflects an urgent need for stringent food safety regulations for these food processing units. These systems not only provide new opportunities for the food industry but also put across challenges to save attractive and delicious food also ensure that food is wholesome and chemically and bacteriologically safe for human consumption. This is an opportune time for companies and individuals to invest in quality facilities and develop products with features that appeal to the growing Indian consumer base and the export markets.

2.5. Agro Policies and Government Initiatives

The Government of Tamil Nadu provides good support to the industry by providing incentives. The incentives fall under the Tamil Nadu Agro and Agro Processing Policy 2008. Income tax rebates and exemptions are widely available to the industry. It has been declared a priority sector and hence can avail priority lending from financial institutions. Industrial parks and SEZs also promote the industry. New Integrated Sugar Complexes, comprising of co-generation plants, distilleries, ethanol plant and biocomposting facilities, are being built in the State to provide a thrust to the industry. The Government has promoted food processing clusters and has set up an agri export for cashew to take the industry forward. The Government has also undertaken modernization of the sugar mills to make it economically attractive. Agriculture Export Zones have been set up to encourage the exports of agricultural products and food processing has been promoted to minimize wastage of agricultural products. System of rice intensification policy, precision farming, micro-irrigation, farm mechanization has been some of the initiatives taken by the State Government to promote the agriculture and agro based industries.

3. Conclusion

Horticulture is a potential source of diversification in agriculture. Horticultural production base in the state is reasonably strong. There has been a steady increase in the area covered under horticulture crops in the recent past. The total area covered under horticulture crops in the State moved up from 10.01 lakh hectares in 2011-12 to 10.81 lakh hectares in 2012-13 and would further rise to 11.46 lakh hectares in 2013-14. Processing and value addition are the most effective solution to earn higher income, thereby reduce the wastage. A steady increase in the consumption of ready-to-eat food has brought the food processing industry into focus. Considering the wide-ranging and large raw material base in the state offers tremendous opportunities for large investments. For value-added products to be successful, it is recommended that horticulture producers carefully identify goods that utilize local resources and that fulfill gap in the market and adding value also adds cost to production, but careful planning and test marketing can significantly increase the net cash return of a small-scale enterprise. The government policies are more supportive for the growth of horticulture crop production and setting up of agro processing industries. The government should continue to support the industry with an enabling and growth oriented policy, through which the state will become largest supplier of processed food in the country.

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The Publication fee is defrayed by Indian Society for Education and Environment (www.iseeadyar.org)

Cite this article as:

P. Maneesh. Horticulture and plantation crops: A unique opportunity for entrepreneurs in Tamil Nadu. *Indian Journal of Economics and Development*. Vol 3 (10), October 2015.