

Asian Resonance

Scope for the Horticulture Industry To Grow and Flourish in India



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Abstract

India has been bestowed with wide range of climate and geographical conditions. India is suitable for cultivating various types of horticultural crops. Its horticulture production has increased by 30 percent in the last five years. Its input in the world production of fruits and vegetables is escalating. Keeping in view the significance of horticulture sector, the government of India has launched a centrally sponsored scheme National Horticulture Mission in 2005-06 but still horticulture faces severe challenges like it is characterized by small, segregated farms with low per hectare yields and huge post-harvest losses, poor cold storage facilities. We have seen that horticulture sector is growing in India and it has great potential. But it needs more attention, in this paper we have come up with some suggestions and recommendations for further overall development of horticulture sector.

Keywords : Horticulture and Agripreneurship.

Introduction

India is the seventh largest country in the world with a total geographical area of 328.73 m ha and has second largest population 121 crores (2011), after China. The total arable land available is 144 million hectare of which 70% is under rain fed cultivation. Around 55-60 % of the total population depends on agriculture and allied activities. Horticulture crops constitute a significant portion of total agricultural production in the country.

The term HORTICULTURE is derived from two Latin words - "HORTUS" meaning 'GARDEN' and "CULTURA" meaning 'CULTIVATION'.

In ancient days the gardens had protected enclosures with high walls or similar structures surrounding the houses. The enclosed places were used to grow fruit, vegetables, flowers and ornamental plants. Therefore, in original sense "Horticulture refers to cultivation of garden plants within protected enclosures".

Definition

Horticulture is a science and technique of production, processing and merchandizing of fruits, vegetables, flowers, spices, plantations, medicinal and aromatic plants.

Review of Literature

For Žmija (2001) entrepreneurial development in rural areas has been connected with a progressive modernization of agriculture and is connected with multifunctional rural development. The aims of entrepreneurial development in agribusiness are modernization and reconstruction of fragmented agriculture, building an agriculture environment and creating new jobs in rural areas.

For de Lauwere, Verhaar, and Drost (2002) the definition of entrepreneurship in agriculture has changed during over the years. In the past being a good entrepreneur was being a good craftsman, whilst striving for a high level of production and product quality and making efficient use of inputs (labour, nutrients, crop protection and energy). The focus on craftsmanship to be cost efficient needs now to be combined with the challenge for sustainable production through finding a balance between People, Planet and Profit. According to Smit, (2004), entrepreneurship has become probably the most important aspect of farming and will increasingly continue to be so.

Kallio and Kola (1999) in a study of farmers in Finland attempted to determine what factors gave farmers competitive advantage over other farmers. Their results suggested that characteristics of a successful farm and farmer can be roughly divided into seven groups:

1. Profitable production seemed to be associated with continuous

- follow-up of production, incomes and expenditures;
2. Constant development of cognitive and professional skills;
 3. Farmers seemed to benefit from such an attitude which indicates that they are ready to work hard and believe in what they are doing;
 4. Goal-oriented operation, i.e., the ability to set goals, to reach them and to set new ones;
 5. Utilization of recent information that is relevant for own circumstances and needs;
 6. Favourable starting points for the enterprise, meaning good condition of machinery, buildings, land or proper proportion between pricing of the farm and investments in production;
 7. Utilization of cooperation.

According to Gnyawali and Fogel (1994) the entrepreneurial environment can be grouped into five dimensions:

1. government policies and procedures,
2. socio-economic conditions,
3. entrepreneurial and business skills,
4. financial support to businesses, and
5. non-financial support to businesses.

Harvey (2003) reconsiders the evolution of farm policies and the economic assessment of their costs and benefits, and draws conclusions as to the general shape of reforms likely to reconcile economic efficiency with political acceptability. The paper concludes with a substantial challenge to the agricultural economics profession.

For Knudson et al. (2004) except for a few important exceptions, the role of entrepreneurship and innovation has been given little emphasis in agricultural economics. However, whilst agricultural economists have not placed much emphasis on entrepreneurship and innovation, it has become a priority with policy makers and is a critical aspect of value-added agriculture. Furthermore, few of the techniques associated with the generic entrepreneurship literature have been used to inform farm entrepreneurship research. Indeed, this literature search identifies only a small number of articles that attempt to define farm entrepreneurship and only several, which attempt to apply literature from other sectors to the farm sector.

For Duczkowska-Małysz (1993) farm entrepreneurship equates to all the activities, which help farmers to adjust to a free market economy.

According to Firlej K. (2001) the development of entrepreneurship means also a change of quality of management in the process of farming. The necessary condition for risk reduction in activities other than farming in rural areas necessitates the organisation and support of local community government.

David Abler (2010) With regard to fruits and vegetables, the studies reviewed here suggest that per capita food demand may grow significantly for many types of fruits and vegetables. Examples include citrus fruits, bananas, grapes, and pears in China, for which Shono et al. (2000) estimate income

elasticities of demand of about one. Studies for the other BRIIC countries generally estimate income elasticities for all fruits, all vegetables, or all fruits/vegetables. Some of these estimates are close to or greater than one, but they do not indicate which specific products are highly responsive to income.

As per N.G.Hegde (2005), the major problem of Indian farmers is that as agriculture is considered as family tradition a majority of farmers continue to practice what their forefathers had practiced. Agriculture must be considered as an enterprise, which should have a sound management back-up. As in any other enterprise, there should be proper planning about demand forecast, choice of technology, inventory of resources, need for external inputs, skill level of the available human resources and their training needs, infrastructure and services needed for carrying out various operations and marketing. This change in the mind set among the farmers and agricultural extension agencies is the primary step for promoting successful entrepreneurship in agriculture.

Taufiq Ahmed, Shamsul Hasan and Rifat Haneef (2011) have mentioned Agripreneurship is an employment strategy that can lead to economic self-sufficiency of rural people. Training is a key element for the promotion of Micro, Small and Medium Enterprises (MSMEs) for agripreneurship development, particularly for the first generation agripreneurs. These can result in improved performance of an individual which can contribute to employment generation, poverty reduction and Human Resource Development. Acharya (2006), writes that A shift from 'agriculture' to 'agribusiness' is being viewed as an essential pathway to revitalize Indian agriculture. While the share of pure agriculture in GDP may decline, the share of agribusiness will not and is bound to go up with the demand for value addition continuously increasing. It is in this context that it has long been argued for redefining agriculture as 'the science and practice of activities relating to production, processing, marketing, distribution and trade of food, feed and fibre'.

A paper presented by Surabhi Mittal (2007) talks about turning agriculture into an organised business with the farmer as the entrepreneur should be the key to the second green revolution and for the much desired evergreen revolution in India. Farming should be taken up with the motive of profit making rather than just making a subsistence living. With huge diversity in the number and variety of crops that we produce, variations in agro-climatic conditions, soil type, prevailing inequalities in the state growth levels, it is utter most essential to implement the plans through micro level initiatives and proper coordination between all the stake holders.

For Katinka Weinberger and Thomas A. Lumpkin (2005) Horticultural produce and processed products from the developing world are becoming increasingly popular both in domestic and in international markets. Global production and exports are rising steadily. However, yield increases have

Asian Resonance

been smaller than area growth and have been negligible or even negative in the least developed countries. While experience shows that horticulture can offer good opportunities for poverty reduction because it increases income and generates employment, care must be taken that small and poor farmers are not excluded from the opportunities in these market sectors.

Branches of Horticulture

Horticulture is a wide field which includes a great variety and diversity of crops.

The science of horticulture can be divided into several branches depending upon the crops it deals with. Following are the branches of horticulture.

- i. **Pomology** : study of fruit crops.
- ii. **Olericulture** : cultivation of vegetables.
- iii. **Floriculture** : cultivation of flower crops.
- iv. **Plantation crops** : cultivation of coconut, arecanut, rubber, coffee, tea, etc.
- v. **Spices crops** : cultivation of cardamom, pepper, nutmeg etc.
- vi. **Medicinal and aromatic crops**: cultivation of medicinal and aromatic crops.
- vii. **Post harvest technology**: deals with post harvest handling, grading, packaging, storage processing, value addition, marketing etc. of horticulture crops.
- viii. **Plant propagation** : deals with propagation of plants

Horticulture in India

Horticulture has emerged as one of the budding agricultural enterprise in accelerating the growth of economy. Its role in the country's nutritional security, poverty alleviation and employment generation programmes are becoming increasingly important. It offers not only a wide range of options to the farmers for crop diversification, but also provides ample scope for sustaining large number of Agro-industries which generate huge employment opportunities. On account of significant increase in production in horticultural crops across the country, a Golden Revolution is in the offing and India has emerged as a leading player in the global scenario. It has now emerged as the world's the largest producer of and exporter of Tea, Coffee, Cashewnut, Spices Exports of fresh and processed fruits, vegetables, cut flowers, dried flowers have also been picking up. As a result of a number of thoughtful research, technological and policy initiatives and inputs, horticulture in India, today, has become a sustainable

and viable venture for the small, marginal & big farmers. It is a matter of satisfaction that their food consumption levels and household income have increased

Scope of Horticulture

Financial Incentive for the farmer

The biggest incentive for the farmer is money.

Adaptability

India is bestowed with a great variety of climatic and edaphic conditions as we have climates varying from tropical, subtropical, temperate and within these humid, semi-arid, arid, frost free temperate etc. Likewise we have soils from loam, alluvial, laterite, medium black, rocky shallow, heavy black, sandy etc., and thus a large number of crops can be accommodated with very high level of adaptability. Thus, there is lot of scope for horticultural crops.

Necessity

After having achieved the self sufficiency in food, nutritional security for the people of the country has become the point of consideration/priority. To meet the nutritional requirement in terms of vitamins and minerals horticulture crops are to be grown in sufficient quantities to provide a bare minimum of 85 g of fruits and 200 g of vegetables per head per day with a population of above 121 crores.

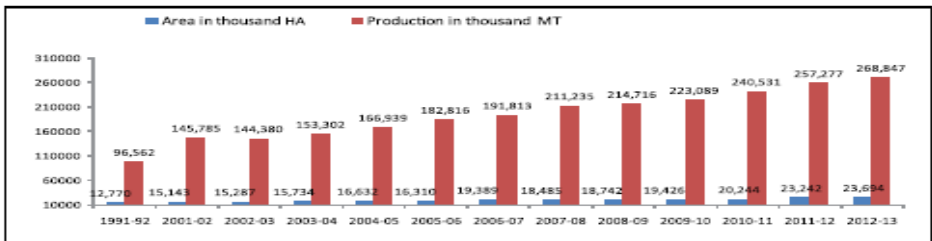
Export value

European and *gulf* countries are major importer of horticultural produce. Among fresh fruits- mangoes and grapes; in vegetables- onion and potato; among flowers, roses; among plantation – cashew nut, tea, coffee, coconut, arecanut, and spice crops like black pepper, cardamom, ginger, turmeric, chillies, etc., constitute the bulk of the export basket.

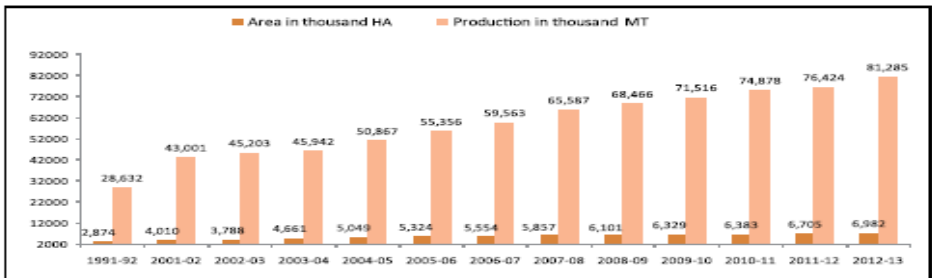
Recent Scenario

During the last decade, area involved in production of horticultural crops has increased by about 55 % from 15,287 in 2002-03 to 23,684 thousand hectares in 2012-13 whereas the production has increased by about 86% from 144,380 thousand MT in 2002-03 to 268,847 thousand MT in 2012-13. Increase in production has far outpaced the increase in area. This is indicative of improved productivity. However there is still considerable scope of improvement in the same specially in case of vegetables where the productivity in case of India is significantly lower than the world average.

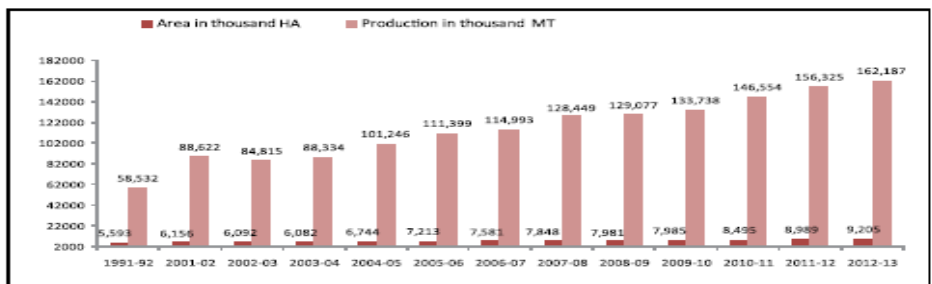
Area and Production Growth Trends for Horticulture Crops



Area and Production Growth Trends for Fruit Crops



Area and Production Growth Trends for Vegetables Crops



. Source : Director of Horticulture/Agriculture of respective State/UT's

Suggestions and Recommendations

We have seen that horticulture sector is growing in India and it has great potential. But it needs more attention so here are some suggestions and recommendations for further overall development of horticulture sector.

Farmers should be provided with Minimum support price (MSP)

certain cereals have government minimum support price but fruits and vegetables don't have it. Farmers will find it reassuring if MSP exists and may influence open market prices and/or demand for their produce.

Risk of crop failure

Pulses, fruits and vegetables are more vulnerable to adverse weather, leading to higher risk of failure. That's why majority of farmers prefer to simply avoid these crops. Cereals require less care and effort to grow than horticulture.

Increase storage facilities

India has comparatively less cold storage units, the majority of which are appropriate for potatoes. So farmers don't really have much of an option for other horticulture produce because of which farmers are at the mercy of current market prices, unlike grains that can be held on to for a longer time. If storage facilities are increased then there will be a match between demand and supply of fruits and

vegetables which will help in reducing the price volatility.

Horticulture crops cannot be stored as savings

Generally farmers treat grains like saving they store grains and sell them off as and when the need for cash arises. That simply is not possible with fruits and vegetables. Cold storage would extend the life of fresh produce for very less period of time.

Seemliness of transaction

Vegetables are harvested and sold in smaller quantities while wheat and rice are sold in larger quantities if farmer arrives with a small vehicle of veggies, he will be treated just like small and marginal farmers without much respect.

Increase initiative of crop insurance for horticulture

Typical solutions to risk management are insurance products, but typical crop insurance products cover only a limited subset of these risks. And in any case, insurance subscriptions in India have been much lower than hoped for by policy makers and non-profits alike.

Almost all of the reasons listed are related to risk either production risk, logistics risk or market risk.

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