## Horticulture and Its Role in the National Economies

Horticulture forms an integral and important component in the economy of a nation. Horticultural crops constitute a significant segment of the total agricultural production of a country. The importance of horticulture can be substantiated by its benefits like high export value, high per unit area yield, high returns per unit area, best utilization of wasteland, provision of raw materials for industries, whole engagement by a grower/laborer, production of more food energy per unit area than that of field crops, better use of undulating lands, and stabilization of women's empowerment by providing employment opportunities through processing, floriculture, seed production, mushroom cultivation, nursery preparation, etc. In addition, fruits and vegetables constitute the important energy-giving material to the human body. It also improves the economic condition of many farmers, and it has become a means of improving livelihood for many unprivileged classes too. Flower harvesting, nursery maintenance, hybrid seed production and tissue culture, propagation of fruits and flowers, and food processing are highly remunerative employment options for women in rural areas.

Horticulture is one of the main agricultural practices in a nation. It is basically the science of cultivating gardens or orchards, that is, it refers to the process of cultivation of fruits, vegetables, flowers, and ornamental plants. It involves increasing the area and productivity of farming lands, bringing technological aspect in agriculture, raising the farmers' incomes and their standard of living, being a source of employment

opportunities, etc. Horticultural crops play a unique role in a country's economy by improving the income of the rural people. They are the important exportable commodities in many countries. Cultivation of these crops is labor intensive, and as such they generate a lot of employment opportunities for the rural population. The horticulture sector has emerged as an economically rewarding and most viable option in diversification of agriculture. It refers to a wide variety of crops suitable for cultivation under different agroclimatic conditions and terrain with the possibility of multi-tier cropping, thus enhancing the returns per unit of land, generating employment, and providing food and nutritional security. The shift in the dietary patterns with preference to horticulture products has resulted in increasing demand.

Various horticultural products contribute to national wealth. They are the important exportable commodities in many countries. Horticulture is the mother of many auxiliary industries like canning industries and processing industries. Several agro-industries, based on horticultural products, are being established, thereby solving the unemployment problem to some extent, for example, rubber, coir (coconut), and sago (tapioca) industries. Horticultural crops provide gainful employment for small farmers and agricultural labor throughout the year. One hectare of fruit production generates 860 man-days per annum as against 143 man-days for cereal crops. Some industrial attribute crops and cultural intensive crops, like grape, banana, and pineapple, generate

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much large employment ranging from 1,000 to 2,500 man-days per hectare.

Horticulture actually is the high-value crop alternative. Horticultural crops for which most developing nations' topography and agroclimates are well suited are an ideal method of achieving sustainability of small holdings, increasing employment, improving environment, providing an enormous export potential, and above all achieving nutritional security. These crops form a significant part of the total agricultural produce in the country comprising of fruits, vegetables, root and tuber crops, flowers, ornamental plants, medicinal and aromatic plants, spices, condiments, plantation crops, and mushrooms. Fruits and vegetables are recognized as protective foods as they are necessary for the maintenance of human health, which are a rich source of vitamins, minerals, proteins, carbohydrates, etc., which are essential in human nutrition. Hence, these are referred to as protective foods and assumed great importance as nutritional security of the people. Thus, cultivation of horticultural crops plays a vital role in the prosperity of a nation and is directly linked with the health and happiness of the people. Horticulture also deals with raising of trees for shade, ornamental, and avenue purposes, planning and raising of ornamental gardens and parks, and raising of seed and planting material apart from the utilization of horticulture produce and improvement of horticulture crops.

Over the years, horticulture has emerged as one of the potential agricultural enterprise in accelerating the growth of economy. Its role in the country's nutritional security, poverty alleviation, and employment generation programs is becoming increasingly important. It not only offers a wide range of options to the farmers for crop diversification but also provides ample scope for sustaining a large number of agroindustries which generate huge employment opportunities. Fruits and vegetables are not only used for domestic consumption and processing into various products (pickles; preserves such as sauces, jam, jelly squares; etc.), but also substantial quantities are exported in fresh and processed form, bringing much needed foreign exchange for the country. These groups of crops also provide ample scope for achieving biodiversity and diversification to maintain ecological balance and to create sustainable agriculture and can make an impact on the national economy in the years to come.

Horticulture today is not merely a means of diversification but forms an integral part of food and nutritional security and also an essential ingredient of economic security. Adoption of horticulture, both by small and marginal farmers, has brought prosperity in many regions of the country. Recent areas of visions in horticulture include new developments in postharvest management, hi-tech plant protection, protected cultivation, hitech production of horticultural crops, and opportunities for new biology for germplasm and crop improvement. It is high time that policy-makers recognize that horticulture is often the most appropriate use of small landholdings in many parts of the world. Horticulture enterprise can provide work for whole families. Horticultural industry spawns value-added opportunities that can provide employment for entire communities. Horticulture makes more efficient use of scarce or costly inputs like water and fertilizer, and fruits and vegetables are needed to avoid nutrient deficiencies prevalent in many parts of the world. All of this adds up to wealth-creation potential far exceeding that of traditional staple crop agriculture.

The importance of horticulture in improving the productivity of land, generating employment, improving economic conditions of the farmers and entrepreneurs, enhancing exports, and, above all, providing nutritional security to the people is widely acknowledged. Initiating and supporting high-value horticultural crops is an excellent long-term approach to addressing the multiple challenges of ending poverty, improving nutrition, and sustaining rural communities in the developing world. Several decades of targeting staple crops with internationally supported research and development has not succeeded in reducing rural poverty. It is time for some fresh thinking. When smallhold farmers are properly prepared to engage in horticulture, they quickly change their mindset from one of subsistence or survival to one of entrepreneurship, entrepreneurship because the production of perishable plant products must be time linked to a market, whether it is local, regional, or even international, and because horticultural products of good quality command a higher price, a reality that motivates producers to maximize the proportion of the crop that meets basic quality standards, reduce postharvest losses, and embrace new knowledge about producing safe food. Horticulture has and will always exist as a matrix of interrelating areas with overlapping and complex relationships. Describing its impact on the physiological, psychological, and social activities of people is the key to expanding an understanding of horticulture.