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Peri-Urban Agriculture – The Need of the Hour

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Abstract

In the beginning, the planners of our country were concerned much about the planning of urban rather than rural landscapes. With the century turning, planners regulated to push cultivation away from settlements in order to reduce waste management issues caused by farming and to avoid zoonotic diseases. Job creation was considered important than resource management. Then came the issues of coexistence, resource mismanagement, municipal waste management and food security. In spite of the policies in the past which pushed the farms away from residential areas, the need arose to perform farming in the urban fringes, which is called peri-urban agriculture. Waste management, food supply, nutritional security all turned to be question mark. Peri-urban agriculture was found to be a better answer for all those questions.

Introduction

Peri-urban areas are defined as rural areas that are superficial and are located in the orbits of urban hubs, surrounded by large population centers. These areas represent the transition zones between rural and urban *i.e.,* interface of landscape country and town. They are the resultant of the peri-urbanisation process. The dispersive growth of urban areas created landscapes that are hybrid characteristics of both urban and rural areas. Peri-urban areas are also known as hinterland or outskirts or urban space.

What is Peri-Urban Agriculture?

Based on the United Nations Food and Agriculture Organization, peri-urban agriculture is defined as the practices of agriculture around the cities that are competing for resources and satisfies the requirements of urban population. The leading feature which differs from peri-urban and rural agriculture is that peri-urban agriculture integrates into the ecological and economic systems of urban areas.

History of Peri-Urban Agriculture

From 1960 to 1989, the Cuban Communist Party was in power in Cuba. During that time, Cuba imported most of its food produce, except sugar. Most of its land was dedicated especially to sugarcane cultivation. Soviet Union imported sugar from Cuba and in turn paid Cuba with gold, food, petroleum, fertilizers and machinery. But 1989 marked the fall of Soviet Union which led to food scarcity in Cuba. Cuba had to quickly revamp its agricultural policy in order to strengthen its food supply. Fidel Castro, the then President of Cuba ordered that there should not be any piece of land left uncultivated. Even on the lawn of government buildings, crops were cultivated. This had led to the development of peri-urban agriculture. This has not been very popular in India.

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Need for Peri-Urban Agriculture in India

By 2050, India has been projected that it would have a total addition of 400 million (World Urbanization Prospects, 2014) to its urban population. Though techniques such as vertical farming, hydroponics contribute to additional food supply, utilization of peri-urban areas has turned to be the need of the hour. The nutritional requirements of the population are also on an increasing scale. About 50 percentage of women population are anaemic and undernourished causing deficiency in energy (MSSRF, 2010). Urban population generally has a lesser control over the quality and supply of the food products they consume. High fluctuations in prices of these food products also have a higher impact on the consumption in urban areas. All these have contributed to the development of peri-urban agriculture.

Current Scenario of Peri-Urban Agriculture in India

Mumbai, though a city with very limited open space, its citizens through their innovativeness have transformed several spaces for cultivation of vegetables. The Indian Railways also has its stand for promoting peri-urban agriculture. It has leased the land along the tracks to farmers, so as to promote agriculture as well as to prevent encroachment. In Pune during 2008, City Farming Project was launched by which people were allocated lands to cultivated vegetables which was a failure. In Kerala, increasing cultivation of plantation crops and rapid raise in urbanization had led to decrease in supply of rice and vegetables. In order to overcome such a situation the government of Kerala planned to bring the fallow lands in radius of peri-urban areas under cultivation with the help of women in the scheme named Kudumbashree.

Waste Water Treatment for Peri-Urban Agriculture

In India, peri-urban areas of Mumbai, Chennai, Delhi, Bengaluru and Kolkata have been subjected to agriculture. In these areas, an important factor of mention has been found to be the use of waste water, treated or untreated, for agriculture. Waste water usage for agriculture has been identified as a common scenario in peri-urban areas of Chennai, Hyderabad, Delhi and Ahmedabad. It has been proved that untreated domestic waste water has contributed to higher yields, as they are rich in nitrates. Recent initiatives have also been taken to sell treated waste water to farmers in the above mentioned areas. This initiative has not only reduced the dependency on fresh water but also has closed the loop of urban waste water management.

Benefits of Peri-Urban Agriculture

Peri-urban areas mostly have soils which are highly fertile because of their lesser usage for farming purpose. Livestock production worldwide on a commercial scale is larger in peri-urban areas as they contribute 34 percentage and 70 percentage of total meat and egg production, respectively (FAO, 1999). Peri-urban agriculture plays a vital role in food supply, environmental waste processing and shaping the growth of urban areas. It ensures nutritional security as well as promotion of farmers' interests, recreation facilities and energy management.

Issues in Peri-Urban Agriculture

In Mumbai, certain farm produce such as vegetables have received complaints of heavy metal contamination due to the usage of untreated waste water. In the banks of Yamuna, higher fertility has attracted several farming activities without any legal permission. Several illegal encroachments have taken place in certain areas. In Hyderabad, due to improper treatment of waste water, farmers have faced issues like skin irritation, waterborne diseases and nematode infections. In Chennai, farmers prefer selling water from their bore wells for Metro Water in benefits of higher prices, rather than utilizing it for farming.

Conclusion

It has become significantly clear that food security and nutritional balance are always concern for any country. Thus, planning of any country should eventually try to marry countryside and cities so as to maintain balance and ensure coexistence. In order to safeguard farmlands, cultural and economic valuing of the services they provide is highly essential. A clear understanding on positive aspects of inculcating agriculture in the peri-urban is essential to notify feasibility studies and planning endeavors, form goals that are measurable for programs, forecast the management growth outcomes, compare non-market and economic benefits and request public support in future.

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