

Organic Farming in North East India: Problems and prospects

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Abstract

Sustainable development has caught the imagination and action all over the world for more than a decade. Sustainable agriculture is a step towards attaining the goal of sustainable development. Organic farming is one of the most important aspects which found to meet the objectives of sustainable agriculture. It is considered as the holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. In North East India, agriculture is considered as the backbone of its economy. Therefore, it is necessary to promote sustainable agricultural activities like organic farming. Organic Farming can act as a production system that sustains the health of soils, ecosystem and people. It can help in combining tradition, innovation, science to benefit the shared environment and promote fair relationships and a good quality of life for all. This paper tries to summarize the possibilities of organic farming in North East India and also highlights the challenges that might create hurdles in achieving the stated goals.

Keywords

Sustainable development, Organic farming, Economy

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Introduction

Agriculture is considered as the backbone of Indian economy and about 70% of the population are engaged in agricultural activities. Now a day, as the urbanization is spreading fast, the shape and functioning of agriculture has changed a lot. From traditional cultivation, we have shifted to modern era cultivation with advanced equipment and better knowledge. The use of modern technique leads to increase the agricultural production and productivity but at the same time has led to loss of soil fertility, dwindling underground water reserves, loss of friendly insects, loss of organic matter and so on. All these factors act as a major threat for future sustainability of crop production in a global and regional level. To have a better, efficient and holistic approach towards global food security, the concept of bio safety comes. Organic farming has become

increasingly important in agricultural sector, exhibiting potential to take care many problems in an efficient manner. Organic agriculture is productive and sustainable (Mader et al., 2002) and can improve food security by diversifying on-farm crop and livestock operations, which diversifies income sources and improves variety in diets (Parrott et al., 2006 and Wani et al., 2013). Organic farming is blessed with dual advantage as it has positive impact on environment and make farmers self-sufficient. Codex Alimentarius Commission defines "organic agriculture as holistic food production management system, which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity (FAO/WHO, 2013). Ethical issues such as fair labor practices and animal ethics have also been included in organic agriculture definitions (IFOAM, 2002). With the growing adverse effects of modern agricultural practices, organic farming act as best alternative to deal with ill effects of chemical farming. Organic Farming is sustainable agricultural method which promotes and enhances agro-ecosystem health including biodiversity, productivity of soil etc. It also helps in maintaining the fertility of soil.

1. Objectives

In this paper, we have following objectives:

1. To give an outline about the concept of organic farming.
2. To examine its link with sustainable development,

3. To explain its possibilities in North-East India,
4. To highlight the challenges, it might face.

2. Data source and Methodology

The present study is of explanatory in nature which tries to give a comprehensive analysis to the prospects and problems of organic farming in North-East India. It is based on the secondary data. The secondary data is collected from the published sources like journals, books, publications etc.

3. Concept of Organic Farming

Organic farming is one of the sustainable modes of production which aims in conducting agricultural activities without harming the balance of environment. It was originated in 20th century by Lord Northbourne. It promotes environmentally friendly agriculture production activities and maintains the health of nature. As per the definition of FAO on organic farming "Organic agriculture is a unique production management system which promotes and enhances agro-system health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off farm inputs." In another definition of USDA study team on organic farming "Organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection." Organic farming is an efficient mode of agricultural production which reduces the cost of production to over 25% in comparison to traditional farming. It also reduces the soil erosion to 50%. Apart from this, organic farming removes the health hazard of human being by providing organic food to them.

4. Organic farming and sustainable development

Now a day's world is surrounded by various environmental problems like global warming, ozone depletion, loss of biodiversity etc. In order to tackle with these problems there is greater need for establishing an environmentally viable growth model. The environmentally viable growth model depends on the use of such technologies which pollute less, waste less water and less energy by changing the consumption pattern of human being, which is known as sustainable development. The concept of sustainable development links with all human activities. Sustainable Agriculture is one of the most important aspects which helps in attaining the goal of sustainable development. The major shift towards sustainable agriculture is not only helps in rural development but also maintaining the environmental stability. Sustainable agriculture refers to the application of the concept of agriculture with

sustainable development. This shift towards the sustainable agriculture helps in reducing the ill effects of conventional agriculture. Thus, sustainable agriculture helps in maintaining the ecological balance. Organic farming is one of the important methods of sustainable agricultural practices by the consumer. It is a holistic approach which helps in producing healthy food, recovers soil fertility and helps in maintaining ecological balance.

5. Possibilities of organic farming in North East India

North-East India is a land of undulating hills and plains with luxuriant green cover and exotic flora and fauna. It comprises of eight States namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim with total geographical area of 2.62 lakh sq kilometer, accounted 8 percent of total area and 3.4 percent of the total cultivable land of country. The location of this region is strategically important as it has international borders with Bangladesh, Bhutan, China and Myanmar. It is the treasure house of various economic and natural resources. It is blessed with rich culture and ethnic heritage. The majority of the population of North East India has earn their livelihood from agriculture. Therefore it is necessary to promote agricultural activities in a sustainable manner without harming the environment and the concept of organic farming has come. Organic farming aims at promoting the environment friendly agricultural activities and works for recovering the fertility of soil. The certified organic area in India is 0.33 million ha (2006-07) with organic produce of about 585 thousand tone and its export value of 3012 million rupees (Mahapatra et.al.2009). India ranks 10th in terms of organic cultivable land of the world under organic certification.

In India, North Eastern region is identified for promoting organic farming because N-E Region is endowed with such land which is almost virgin and the crops are grown virtually organic. There is a lot of scope for organic farming in N-E Region of India as explained below.

1. The use of chemical fertilizers and pesticides is comparatively low in N-E Region as compared to other regions of India. The farmers of this region is apathy towards the use of agro chemicals.
2. The households of N-E Region has the habit of maintaining live stocks which produces the manure for farming activities. Apart from this, N-E Region is one of the major biological hotspots with highest rainfall leads to production of biomass which can be used in organic production.
3. This region is the home to niche crops like Assam lemon, Joha rice and passion fruits which has highest market demand.
4. It is considered that 18 lakh ha land of NER as 'Organic by Default'.

5. Assam tea is known for quality in world wide.

6. Conclusion

Organic farming is a sustainable method of agricultural production which aims at promoting environment friendly agriculture. The ill effects of conventional farming technique is noted all over India as degrades the quality of environment, loss of fertility of soil, reduces quantity of underground water and many more. Organic farming act as best alternative to the conventional agriculture. Although organic farming promotes sustainable agriculture, the productivity of agriculture in organic farming is low as compared to conventional method in India. Therefore it is necessary to use suitable agro techniques for increasing the productivity of agriculture under organic farming.

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