

## ORGANIC PRODUCTION AND ENTREPRENEURSHIP IN AGRICULTURE FOR SUSTAINABLE DEVELOPMENT

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### **ABSTRACT**

*The implementation of the strategic sustainable development goals should start by providing encouragement to entrepreneurship in agriculture and rural areas. This will result in the development of agriculture and related activities in rural area. Sustainable agriculture, and organic production will ensure the protection of environment. This article analyses entrepreneurship in organic production and trade as the main contributor, for innovations and agriculture development in rural areas. Organic production is an effective entrepreneurial strategy for economic, social and environmental development of rural regions. Entrepreneurship in agriculture aim at increase in competitiveness in the sector by applying an ecologically adaptable technology using a new approach in the production process.*

**KEYWORDS:** *Organic Farming, Sustainable Development, Entrepreneurship, Rural Development*

### **INTRODUCTION**

In the present globalized world, there are mutually interested goals for governments and international institutions This include knowledge-based economy, transfer of technology and sustainable development. The relation between nations around the world in this century is guided by mutual transfer of knowledge. A favourable economic and institutional environment, proper use of human resources, information technology, entrepreneurship development and management are needed for attaining sustainable development in rural areas. Attainment of food safety is the important objective of agriculture's development in India. Economic efficacy, healthy environment and social justice are integrated in sustainable agriculture. Organic farming plays an important role in ensuring production of healthier and tastier food with high nutritional values in environmentally friendly methods. A large section of people especially from Kerala are interested in organic farming. The leading principle of this method of cultivation is the quality. Consumers are in search for high quality safe and hygienic agriculture products. Organic farming attracts more attention on the basis of health anxiety and ecological concerns. Sustainable agriculture is constructed on three sustain ability pillars of economic, social and ecological effectiveness that provide opportunities for the applications of innovations and involvement of key stakeholders.

### **REVIEW OF LITERATURE**

Kerala agricultural sector witnessed declining trend in public-sector investments and reduction in subsidies for agricultural inputs (Salunkhe, & Deshmush, 2012; and Singh, 2014). Organic farming strengthens international deals and export-driven agriculture (Wadhva, 2004). Horrigan, Lawrence, & Walker (2002). Were of the view that, industrial agriculture for intensive massive production is not a new trend. This direction embraced since the green revolution movement in the late 1960s. Sen, 1974; Fujita, 2012 found that, green revolution succored India to attained food self-sufficiency within a decade. But the studies of Pingali, (2012) explored its after effects. Traditionally, agriculture farming in Kerala was undergone in

limited dynamics with low technology that resulted in slow agricultural growth. Purely traditional method of agriculture farming is unable to feed the entire population of the country at a satisfactory level. Phipps & Park (2002) argued that Genetically Modified (GM) crops are the alternative to reduce the use of pesticides, Carpenter (2011) indicate that impacts of GM crops on biodiversity have not been studied yet thoroughly. Consequently, GM crops are the matter of intended to regulate for many government authorities.

In India, the report by upper house of parliament in, 2009 showed the statistics regarding growing of the genetically modified crops has limited facts and figures, moreover, the regulatory regime in India assessed thoroughly the risk assessment in Indian conditions. Ministry of Science & Technology and state governments (GOI, 2016). Again, a field trials of 20 Genetically Modified crops such as mustard, brinjal, okra, sorghum, groundnut, maize, potato, tomato, chick pea, pigeon pea, banana, castor, papaya, watermelon, sugarcane, wheat, rice, rubber tree, are also approved for generation of biosafety data. Dwivedi, (2011) stated that the current agricultural practices in India are neither environmentally nor economically sustainable. Therefore, agricultural production has to be linked with rural development as well as the region of origin aimed at niche markets. Robinson, (2004) clarified that alternative for proper agriculture development is a drastic transformation towards sustainable agriculture farming is an optimal solution. Agriculture sector's contribution to the gross domestic product (GDP) of India diminishes from 54% in 1950-51 to 15.4% in 2014-15 (Deshpande, 2016). Small and marginal farmers have a significant role in agricultural development and poverty reduction. Indeed, private sector refuses in research for better agricultural techniques that point out more public investment in agricultural research to address the problems facing the poor farmers. (Mahendra Dev, 2014).

Competitive market and absence of regulations in usage of agrochemicals encourage industrial farming methods in the country. Conventional farming methods are followed by the majority. Also, farmers tend to be limited their crop production to profitable ones). Magdoff, Foster, & Buttel, (2000), Narayanamoorthy, (2013) Furthermore, trends of profitable crops production cause several impacts on the environment, health standards, the well-being of domestic animals, biological diversity. The profit based massive production promotes high yield crops and highly impact on natural resources, primarily soil, and water by the unsustainable consumption of ground water, inorganic fertilizers, and pesticides leads to various environmental issues. (Magdoff, Foster, & Buttel, 2000; Hamuda & Patkó, 2010). The social issues are basically a reflection of various economic and environmental issues. For instance, farmers suicide crisis in India. According to National Crime Records Bureau, statistics of Ministry of Home Affairs Govt. of India, " a total of 12,602 persons involved in farming sector (consisting of 8,007 farmers/cultivators and 4,595 agricultural laborer's) have committed suicides during 2015, which was around 9.4% of total suicides victims in the country (GOI, 2015, p. 264). The GOI (2015, p. 265) reports indicate bankruptcy or indebtedness and farming related issues are the major reasons. Several studies have been conducted for the root causes for this phenomenon. The challenge is to identify the existing situation of Indian agriculture sector and adopt a sustainable agricultural system. Agriculture should focus on increase the food production while avoiding the impacts of conventional farming methods. Although, along with the consideration of A strong political will and socio- economic and environmental factors also required to meeting this challenge.

## **STATEMENT OF THE PROBLEM**

Methods of agriculture production should be economically, environmentally and socially sustainable. It is also essential for farmers and entrepreneurs to receive adequate return from their investment so that they can meet their livelihood and reinvest the surplus. In the present world scenario farming activities face a lot of challenges, in the form of global competition, governmental policy changes, changes in consumers preference, problem associated with supply chain and climatic change. Success of farming lies in the effective managing of these challenges. Success in farming sector can be effectively attained by adopting entrepreneurial and innovative agriculture practices. Organic farming along with agriculture entrepreneurship can effectively combine to attain higher and sustainable return from agriculture with limited land resource.

## **OBJECTIVES**

The objectives are:

- To extrapolate sustainable agriculture farming through organic production method
- To study sustainable agricultural entrepreneurship of a farmer

## **METHODOLOGY**

This research is done between 2014 and 2016 by using grounded theory approach. Grounded theory is a method of research in which a theory is generated, based on the data that has been systematically collected and analyzed. It was first used in United States by Glaser and Strauss during their study related to Dying. It is now accepted as a methodology for developing theory that are grounded in data. This method is usually used to uncover reality in social relationship and behavioral groups. The methodological approach of this study is based on the framework adopted by Strauss & Corbin in 1998. This study is conducted by using interviews, field research and secondary data. The information is also compiled by observing the activities of the farming community. Transect walk method is also used in the study.

## **RESEARCH DESIGN**

The first round of research began with discussion to the farmer-entrepreneur. After that interrogation and observation of the farmer entrepreneur was made by a transect walk strategy. Finally Specific data on production, climate condition and marketing techniques were collected. The study was an effective way of learning about the problem, situation, challenges and opportunities of farming sector in rural areas. The study area was Adat grama Panchay at organic farm located at Thrissur district and 'Niravu', in Kozhikode district where organic vegetable cultivation is done

## **RESULT AND DISCUSSION**

The important aim of organic farming is ensuring availability of healthy items to consumers. According to International federation of organic agriculture movements, Organic production system sustains the health of the people, soil, and ecosystem. It also maintains biodiversity. By adopting organic farming method sustainable development can also be ensured by the way environment friendly cropping methods. Agricultural activities are mainly depended on rainfall other irrigation methods. Organic farming also emphasis the importance water conservation.

### **Organic Farming for Sustainable Agriculture**

The study area is peculiar for its emphasis on organic farming and environment friendly activities. Green revolution and series of reforms in agriculture sector resulted in increased agriculture production. But there was an increase in the usage of synthetic inputs like fertilizers and pesticides. Major challenges in Indian agriculture still persist. These challenges include, low productivity, soil degradation, market distortions etc. However increased use of chemical fertilizers and exploitation of natural and renewable resources resulted in environmental degradation. There is an urgent need to ensure nutritional security and environmental sustainability. In order to meet this objective massive adoption of organic farming and ecofriendly production process in agriculture sector.

The best way to improve physical condition of soil is the usage of organic manure. Organic manure will facilitate replenishment of essential micronutrients in soil. Organic manure is important because it will result in augmented crop production and eco-friendly method of soil health management.

Vermi composting is an effective method of composting. The mixture of worm casts enriched with essential plant nutrients like Nitrogen, Potassium, Phosphorus, Iron, boron, molybdenum copper and Zinc. Growth enhancing substances such as auxins and gibberellins are also present in vermin compost. In the vermin composting process earth worms and decomposable organic wastes are used in the study area. Vermin compost is higher in quality because of the presence of higher level of plant nutrients. Being the natural method of fertility management, this method is well suited for attaining sustainable agriculture development.

In the Pest management process bio control method is adopted in the study area. In the bio control process natural agents are used for suppressing pest population. Parasites, microbial agents and predators are used in the control process. This type of pest control methods is found effective in the area.

### **Contemplation of Agricultural Entrepreneurship**

Agriculture production is an important source of food in the world. It also plays an important role in preserving biodiversity and ecological balance. So, agriculture can ensure sustainable development. Agricultural entrepreneurship and organic production can also ensure eco friendly food production. The factors of production such as land labor may be owned by different persons, but for beginning a project service of entrepreneur is needed. Success of entrepreneurship depends upon effective handling of risk and introduction of innovation in the system. Entrepreneurship is risky when innovations are introduced and their result is uncertain. Combining entrepreneurship in agriculture by way of organic production also pose serious challenges to entrepreneur because it also involves entering new market, transfer of technology and organizational innovations. The important question in this field of organic production process is what item to be produced and method of production process adopted. The answer could be based on suitable market condition. For obtaining prospects of demand of organic products, life style of society must be considered first because if the society is more conscious about healthy and safe food and environmental preservation there is always scope for introduction of organic farming and entrepreneurship in agriculture. Experience and competence in fields will act as catalyst for pushing organic sector development.

On the other hand, proper understanding of small and medium business and culture and tradition in agriculture and rural sector will enhance the entrepreneurial potential. Innovations and reforms in agriculture sector will be increased if skilled entrepreneur enter in agriculture sector. Marketing cooperatives in organic production sector and pressure groups in this sector may also help in successful entrepreneurship. Legal and financial backing to support entrepreneurship in agriculture and rural sector is also needed. The entrepreneur ethics and responsibilities related to price, quantity quality fair trade and client safety, salary, training, social activities are of paramount important. Flexible, wiser, honest and socially responsible entrepreneurs can effectively handle the challenges in organic farming sector. Raising competitiveness could be attained through substantial investment in this sector. Proper sharing of knowledge and technology, proper networking among stockholders is also needed. Active participation of end users in innovation and research will definitely enhance business environment in the sector. Entrepreneurship in agriculture through organic farming can be successful if they are well equipped to meet the challenges in ensuring sustainability, safety and quality in the business.

## CONCLUSIONS

Organic farming is a systematic process in which different methods are combined which will result in sustainable development. Organic method of production is important in preserving environment and providing high quality healthy food. Organic method of production and entrepreneurship in agriculture also ensure intensive use of scarce land and advanced technology. It also ensures rural development by providing new markets to agriculture produce. New markets and increased production will reduce the poverty level and increase the employment opportunities in rural areas. Entrepreneurship in agriculture will attract increased investment and it will eventually result increased competitiveness in rural regions. In the long run organic farming and entrepreneurship can ensure sustainable development, by ensuring social sustainability, environmental sustainability and economic sustainability. This will increase the welfare of the society.

In the era of globalisation, technology in agriculture needed a change from present production-oriented strategy to profit oriented strategy. Adoption of entrepreneurship and organic farming will strengthen the local economy that will eventually result in sustainable community development. Through this method self-employment can be encouraged. Preservation of tradition knowledge and adoption of new technology and knowledge, maintenance of soil fertility etc are essential for a sustainable agriculture development.

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