

Development of Organic Farming in India

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Introduction

Human life originated from homosapiens almost 2 million years ago. Humans were wandering while living in the realm of human life, using forest produce as food. Kund root, tree leaves, or beasts were hunted down for food. Instead of humans eating raw food, they started eating food cooked on fire. Humans who were so far leaving an isolated life were now living in the clan. With growth in human population, more food was demanded. Due to the continuous hunting of beasts for food, wildlife began to dwindle. Accordingly there was a need for finding another alternative source of food. Hence humans began to rear animals for milk, meat and other products. But due to the continuous increase in population, the need to produce more food was created which resulted in the evolution of agriculture almost 10,000 years Ago (Pringle)(1998). Agriculture started in India 9,000 years ago (Mulage, 2017). After the beginning of farming, humans started using agricultural products as food. During the early times, migratory farming was done.

Later with animal husbandry humans started farming at one place. Today we can see that due to increasing population in the world, new methods and resources are used in agriculture. Agriculture plays a very important role in the economy of various countries. India is a fast growing country. Today most of the people in India still get employment from agriculture. Hence agriculture is important in terms of employment. Agriculture sector accounts for 17% of national income. Most of India's exports are based on agriculture. Agriculture also plays an important role in earning foreign exchange. According to Taylor (year) agricultural economics deals with principles which underlie the farmer 's problems of what to produce and how to produce it, what to sell and how to sell it, in order to secure for himself the largest net profit consistent with the best interest of the society as a whole.

Due to the increase in the demand by the population in the world increasing demand for grains has resulted in farming being accepted as a profession. With the development of agriculture, different farming methods are used, such as organic farming

and Chemical farming. A discussion regarding the concept of organic and chemical farming, inputs used, advantages and disadvantages, and the current status of both in India follows. Consecutively a discussion related to organic and conventional farming based products is done.

DEFINITION OF ORGANIC FARMING

United States Department of Agriculture(2016) defined organic farming “as 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”.

Objective

- To Know the area of total organic farming in India.
- To know the artificial information about the area of organic farming in different states of India
- To know statistical information on organic farming in different states of India.

Methodology

The research methodology is very important in any research paper. This research paper is

based on secondary data. This secondary data is derived from various organizations and sites of Government of India. And this has been done by the percentage of the threshold of this information

Importance of organic farming

In terms of economics, there are four factors of production: Land, Capital, Labour and Entrepreneur Currently, the world's total population is more than 750 crores and the total population of India is more than 130 crores. However, factors of production against rising population are limited. Demand for food grains is steadily increasing due to constantly rising population constraints. To satisfy this demand, the increase in production was brought by increased use of chemical fertilizers, hybrid seeds, pesticides but these production method is not sustainable. So organic farming is needed to achieve sustainable production. Organic farming should be done for various reasons, like:

- In the early stages, farm production increases, production at a particular point of production cannot be increased and diminished marginal production. Growing population cannot afford to decline production since this requires organic farming to maintain limited productivity.

- The quantity of nutrients in the grains produced from chemical fertilizers, hybrid seeds, is less. This requires eating more food to obtain enough nutrients, which increases the demand for grains.
- By eating chemically produced cereals, the proportion of diseases has increased, such as Cancer.
- By continuous use of land and the use of inappropriate inputs, the health of the soil spoils, which affects the productivity of the soil, hence organic farming is essential to maintain soil health.
- The use of chemical fertilizers makes the upper layer of the soil harder, so that adequate oxygen cannot reach the soil and the beneficial microorganisms are destroyed for agriculture which ultimately contributes to soil.
- The crucial objective of biological farming is based on soil management and conservation, promoting nutrient cycle.
- Organic farming is helpful to retain the impact of global climate change.
- Organic farming saves resources. Traditional inputs are used in organic farming so that less water is needed

as a result of saving water and electricity.

(Justin, 2013; Dodla, 2015; Singer & Mason, 2018)

Table 1: Current status of organic farming in India

YEAR	Total area under organic farming (Hectares)	Annual growth rate
2005	25,71,900	
2006	28,18,222	9.58
2007	28,00,000	-0.65
2008	379,9,530	35.7
2009	45,40,000	19.49
2010	44,30,000	-2.42
2011	55,61,792	25.55
2012	52,00,000	-6.5
2013	56,90,000	9.42

Source FIBL-AMI Organic data network survey 2000-2015 (2015)

Total agricultural area under organic farming has increased in India as seen in table 1. The total Organic farming area in 2005 was 2571900 hectares, which increased to 5690000 hectares in 2013. Organic farm area has grown by 221.12 percent in the period 2005 to 2013. Hence over this period the area under organic farming has more than doubled in India.

Table 2: Area under organic farming in different states in India

STATE	AREA (Hectares)	PERCENT SHARE	RANK
Andhra Pradesh	47,456.77	0.86	10
Chhattisgarh	2,99,970.60	5.4	5
Goa	1,53,684.60	2.77	8
Gujarat	41,978.94	0.76	12
Himachal Pradesh	9,33,798.20	16.82	2
Kerala	15,790.49	0.28	15
Madhya Pradesh	4,32,129.50	7.79	3
Maharashtra	2,45,339.30	4.42	6
Meghalaya	288.23	0.01	16
Orissa	43,868.18	0.79	11
Rajasthan	2,22,319.10	4.01	7
Sikkim	25,716.55	0.46	14
Tamil Nadu	38,554.33	0.69	13
Uttar Pradesh	25,93,821.00	46.73	1
Uttarakhand.	1,22,880.60	2.21	9
Others	3,32,809.03	6	8

Source -National Project on Organic Farming Annual Report 2012-2013

Table 2 describes the area under organic farming in 15 major states in India, percentage share of those states and their rank. Uttar Pradesh has the largest area under organic farming in India amongst the states ranked. Uttar Pradesh has 46.73% of the total organic area among these 15 states. However, it is noteworthy that area under organic farming in Gujarat is ranked at number 12 out of 15 states with less than one percent share and the total land area under organic farming being 41,978.94 Hectares.

Table 3:State-wise major crops grown under organic farming in India

STATE	CROPS
Arunachal Pradesh	Maize/sorghum, Pulses, oilseeds, tea/coffee, herbal/medicinal plant
Andhra Pradesh	Cotton, maize, pulses, oilseeds, fruits and vegetables
Chhattisgarh	Rice, wheat, vegetables
Delhi	Wheat, vegetables
Goa	Fruits, vegetables
Gujarat	Cotton, pulses, oilseeds, vegetables
Haryana	Basmati rice, wheat, maize, vegetables
Himachal Pradesh	Wheat, fruits, vegetables
Jammu and Kashmir	Spices, fruits and vegetables
Karnataka	Cotton, rain fed wheat, maize, sorghum, pulses, oilseeds, vegetables
Kerala	Spices, vegetables, herbals
Manipur	Spices, vegetables, herbals
Maharashtra	Cotton, rice, wheat, pulses, oilseeds, spices, vegetables
Madhya Pradesh	Soybean, wheat, vegetables
Meghalaya	Spices, vegetables
Punjab	Basmati rice, wheat, vegetables
Sikkim	Maize, sorghum, vegetables, spices, herbs
Rajasthan	Cotton, wheat, seed spices, vegetables
Tamil Nadu	Tea, herbs, spices
Uttar Pradesh	Rice, wheat, maize, vegetables
Uttarakhand	Basmati rice, vegetables, maize, sorghum, herbs, spices
West Bengal	Tea and vegetables

Source: (European Academic Research, 2015)

Conclusion

Based on the information received, the area under organic farming is comparatively better

in comparison to other countries in India. Although the area of organic farming has increased in the period from 2005 to 2013, state-wise information should be sought in every state. Which indicates that farmers still choose to make organic farming organic farming so that enough organic farming should be developed. There are many reasons for it to not be trusted inputs for organic farming in the market.

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