
ORGANIC FARMING IN INDIA

Anil Yadav

Assistant Professor of Geography, Govt. College, Siwani (Bhiwani)

Dr. Chander Mohan Asstt. Professor, Dept. of Geography, Govt. college Narnaul Haryana

Abstract

Agriculture was never inorganic in ancient India. Traditionally our farmers have been cultivating our land from Jammu-Kashmir to Kanyakumari in the organic way only. The term “organic farming” has been hijacked by the western world. It makes one sad that the country where the food quality was one of the best in the world has been transformed into near-fatal today. The “green revolution” that kicked off in the 1960s increased the crop production manifolds, but the ‘food-basket’ of India-Punjab is rapidly changing into the ‘cancer state’ of India. The time has come that we retrospect our agricultural system and evolve organic farming in India. Organic farming is ‘a system which aims highly for sustainability of soil fertility and biological diversity by shunning the use of artificial pesticides, weedicides and inorganic fertilizers without genetically altering the animal and plant genes’. It is an eco-friendly and sustainable agricultural system. By March 2010 India has brought more than 4.43 million hectare area under organic certification process.

Key Words: *Organic farming, green revolution, sustainable agriculture, genetic alteration.*

Introduction

Traditionally our farmers have been cultivating this vast fertile land spread from Himalayas to Kanyakumari and from Rann of Kutchh to the Purvanchal hills in the organic way only. The term “organic farming” has been hijacked by the western

world. Until 1960s Indian agriculture used to be named as traditional, oriental and rudimentary. It was only after the ushering in of “green revolution” that India swayed away from the time tested life-style of our forefathers.

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1. What is Organic Farming?

Organic agriculture can be defined as a farming system which aims highly for sustainability of soil fertility and biological diversity by shunning the use of artificial pesticides, weedicides and inorganic fertilizers without genetically altering the animal and plant genes. Crop rotation, animal manures, farm waste, and plant products are used to control diseases and pests in this type of agriculture.

As per the definition of the 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”.

In another definition FAO suggested that “Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem 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”.

2. Relevance and need of Organic Farming in India.

Traditionally India has been following and practicing the best agricultural practices from times immemorial. Since the Harappa Civilization the farmers here have been using crop rotation, farm and animal manure, microbes and plant-fertilizers etc. for cultivating the vast agricultural lands. When we faced acute shortage of food grains due to ever-increasing population and natural disasters in the early 1960s, the then government had to resort to the advent of Dr. Norman Borlaug’s miracle. To avoid a possible food starvation epidemic due to acute food shortage, Mr. Swaminathan ushered in the era of “green revolution.” It included a regimen of High Yielding Variety of seeds coupled with input of chemical fertilizers and improved irrigation facilities. Intense rural electrification and canal construction was launched in selected parts of India which had the potential of food grain production. But, in the process of green revolution we could not maintain sustainability and the shortcomings of the heavy and unscientific use of chemicals

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spilled the beans within four decades. Proponents of organic farming have claimed that organic agriculture emphasizes closed nutrient cycles, biodiversity, and effective soil management providing the capacity to mitigate and even reverse the effects of climate change (Meleca 2008). So, India needs organic farming again along with the modern scientific agriculture.

3. Methods and principles of Organic Farming.

Organic farming depends upon eco-friendly and natural ways like biocides, crop rotation, farm waste and animal manure to control pests, weeds, maintain soil fertility by negating the use of artificial fertilizers, chemicals etc. For it, use of leguminous plants for biological nitrate fixing is preferred. Micro-organisms and night soils are preferred over synthetic fertilizers to maintain nutrients. The agriculture is not expected to cause any adverse effect upon the natural surroundings including habitats of other organisms.

The basic principles of organic farming can be derived from the definition given by The International Federation for Organic Agriculture Movement (IFOAM) as follows:

3.1 Principle of health

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible. (IFOAM).

3.2 Principle of ecology

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them. (IFOAM)

3.3 Principle of fairness

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities. (IFOAM)

3.4 Principle of care

Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment. (IFOAM)

Each principle is articulated through a statement followed by an explanation. The utility of these principles is a huge one as these are to be followed in an ethical way by the farmers to pay way for the humanity in a sustainable manner.

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4. Present Scenario in India.

The BioFach 2010 held at Nuremberg in 2010 reported that organic farming was reported to be in about 154 countries of the world. Where 35 million hectares of agricultural land is being managed organically by almost 1.4 million producers, the regions with the largest areas of organically managed agricultural land are Oceania (12.1 million hectares), Europe (8.2 million hectares) and Latin America (8.1 million hectares). The countries with the most organic agricultural land are Australia, Argentina and China. The countries with the highest numbers of producers according to BioFach report are India (340000 producers), Uganda (180000) and Mexico (130000). More than one-third of organic producers are in Africa.

Organic farming in the new concept as adopted from the west is relatively a new development in India. Throughout the world people have come to know the side-effects of chemical farming in the form of health hazards. In India some people came to know about organic food in the west and local organizations and some progressive farmers initiated it here in the late 1990s. To support the export prospects, Ministry of Commerce launched the “National Programme on

Organic Production” (NPOP) defining the National Standards for Organic Production (NSOP) and the procedure for accreditation and certification in 2000. Presently Indian organic farming is not in a big level and organized manner. It is adopted by very few progressive farmers who know where to sell the products in the local market or abroad. Apart from it, organic farming is also being done unknowingly by the poor farmers or in some areas where chemicals have decreased the soil fertility.

Emerging from 42,000 hectare land under certified organic farming during 2003-04, the organic agriculture has grown almost 29 fold during the last 5 years in India. Since then, many states have started supporting organic farming. Accordingly about 11 states, mainly the Himalayan states like Uttaranchal, , Himachal Pradesh, Sikkim, Nagaland and Mizoram and other states like, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu have promoting organic agriculture in their respective areas. It is to be noted that Sikkim has decided to convert the entire state into organic by 2015. By March 2010 India has brought more than 4.43 million hectare area under organic certification process (Table 1).

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**Table 1- State wise Area under Organic Farming
(Registered under Accredited Certification Bodies, 2010-11)**

State Name	Certified Cultivated Organic Area (in Hac)	In-conversion cultivated Area (in Hac)	Total area Cultivated under Certification process (in Ha)	Wild Area (in Hac)	Total Cultivated +Wild (In Ha)
Andhra Pradesh	6070.90	6279.72	12350.62	2000	14350.62
Arunachal Pradesh	243.09	0	243.09	0	243.09
Assam	2001.75	45.33	2047.08	0	2047.08
Andaman	0	334.68	334.68	0	334.68
Bihar	0	1303.62	1303.62	0	1303.62
Chhattisgarh	321.99	126.93	448.92	8000	8448.92
Daman & Diu	0	0	0	0	0
Delhi	127.5	138.82	266.32	0	266.32
Goa	13044.65	259.05	13303.7	0	13303.70
Gujarat	42267.48	6251.43	48518.91	0	48518.91
Haryana	2343.05	12420.54	14763.60	0	14763.60
Himachal Pradesh	2265.46	1781.41	4046.87	627855.12	631901.99
J&K	640.50	135.97	776.47	0	776.47
Karnataka	9128.01	10400.63	19528.64	69200	88728.64
Kerala	3870.27	2727.37	6597.65	0	6597.65
Lakshadweep	0	12.127	12.127	0	12.127
Madhya Pradesh	270955.69	27407.17	298362.87	2568209	2866571.87
Jharkhand	0	0	0	24300.00	24300
Maharashtra	124547.03	50298.44	174845.47	2500	177345.47
Manipur	2336.718	455.30	2792.02	0	2792.02
Meghalaya	1564.05	855.616	2419.66	0.0001	2419.6661
Mizoram	4471.6	8072.53	12544.13	0	12544.13
Nagaland	654.00	949.54	1603.54	0	1603.54
Orissa	16883.73	6218.55889	23102.29	1315.255	24417.54
Punjab	2118.21	3907.56	6025.78	0	6025.78
Rajasthan	57566.93	9145.26	66712.19	151000	217712.19
Sikkim	1391.03	27.30	1418.34	308	1726.34
Tamil Nadu	3244.61	829.982	4074.59	30803.5	34878.092
Tripura	203.56	144.825	348.385	0	348.385
Uttar Pradesh	17212.42917	23800.3974	41012.82	70632	111644.82
UTTARAKHAND	9513.756619	2073.026	11586.78	93879.2	105465.98
West Bengal	5014.94	1110.78	6125.72	0	6125.721
			0	0	0
			0	0	0
TOTAL	600003	177513.9811	777516.882	3650002.07	4427519.05

Source: National Project on Organic farming.

In 2007 the United Nations Food and Agriculture Organization (FAO) said that organic agriculture often leads to higher

prices and hence a better income for farmers, so it should be promoted. However, FAO stressed that by organic farming one

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could not feed the current mankind, even less the bigger future population. Both data and models showed then that organic farming was far from sufficient. Therefore, chemical fertilizers were needed to avoid hunger. Practically speaking organic farming is gaining importance in India at a very slow rate compared to many parts of the world.

5. Conclusion.

Today India is facing the problem of soil degradation, groundwater pollution, genetic mutation of seeds and plants leading to alteration in animal and human genes, weakening nerve system, spread of cancer etc. All this resulted due to one-sided thinking of our scientists who ignored the wisdom of our forefathers. India had a strong tradition of agriculture which was the normal 'way of life' of the farmers. It was the outcome of intense research and experimentation that the 'organic farmers' of India had been able to cultivate this land for over 5000 years. It is amazing that the west today has become the 'pioneer' in 'organic farming'. Keeping aside this irony, our farmers will have to go back to our roots once again to provide healthy food for the people by ensuring that organic produce gives health. But we will have to mix the

organic farming along with chemical farming. Very controlled use of chemical fertilizers, pesticides, weedicides, and high yielding variety seeds will have to be incorporated with green manure, wormy-compost, biocides etc.

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