

## ORGANIC FARMING IN INDIA: CONSTRAINTS AND PRINCIPALS

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### **Abstract**

Organic agriculture is developing rapidly and today at least 170 countries produce organic food commercially. The after effects of green revolution have encouraged the farmers to take up organic farming. The ill effects of different chemicals used in agriculture have changed the mindset of some consumers of different countries who are now buying organic with high premium of health. Organic farming follows the principle of circular causation and has emerged in response to question on health, environment and sustainability issues. According to the IFOAM survey 2013, 43.1 million hectares of agriculture land are organic, 2 million producers are reported in organic farming and 11 countries have more than 10 percent organic agriculture land in worldwide. The agriculture land area is 1020000 hectares in India in 2013 and then number of organic producers in India has increased considerably in the past decade. In fact, India now has by far the largest number of organic producers (650,000 in 2013) worldwide. In this paper, provide a critical assessment of the rise of the organic farming movement in India and the worldwide. There are many limitations and obstacles yet to be overcome in order to become a positive face in India. In this paper some policies also include for the growth of organic farming in India.

**Key Words:** Organic farming, agriculture.

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## Introduction

Although the term 'organic farming' is getting popularity in recent times, but it was initiated in 10000 years back when ancient farmers started cultivation depending on natural sources only. There is brief mention of several organic inputs in our ancient literatures like Rigveda, Ramayana, Mahabharata, KautilyaArthasashthra etc. In fact, organic agriculture has its roots in traditional agricultural practices that evolved in countless villages and farming communities over the millennium. Organic Farming is gaining gradual momentum across the world. Growing awareness of health and environmental issues in agriculture has demanded production of organic food which is emerging as an attractive source of rural income generation. While trends of rising consumer demand for organics are becoming discernible, sustainability in production of crops has become the prime concern in agriculture development.

The growth of organic agriculture in India has three dimensions and is being adopted by farmers for different reasons. First category of organic farmers are those which are situated in no-input or low-input use zones, for them organic is a way of life and they are doing it as a tradition (may be under compulsion in the absence of resources needed for conventional high input intensive agriculture). Second category of farmers are those which have recently adopted the organic in the wake of ill effects of conventional agriculture, may be in the form of reduced soil fertility, food toxicity or increasing cost and diminishing returns. The third category comprised of farmers and enterprises which have systematically adopted the commercial organic agriculture to capture emerging market opportunities and premium prices. While majority of farmers in first category are traditional (or by default) organic they are not certified, second category farmers comprised of both certified and un-certified but majority of third category farmers are certified. These are the third category commercial farmers which are attracting most attention these of management. The term *organic farming* describes systems that work to mimic and optimize natural processes for the production of agricultural crops. Organic growers use a wide range of cultural practices and natural inputs to manage crops in ways that are safe for both the environment and the consumer. Use of synthetic pesticides and standard commercial fertilizers is avoided or, where necessary, minimized. Organic farming encourages the adoption of practices such as crop rotation, composting, use of livestock manure, cover crops, mulches and green manures. Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It

emphasizes practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. Organic farming targets at creating environmentally and economically integrated sustainable agriculture production systems, which maximizes reliance on farm-derived renewable resources and the management of ecological and biological processes and interactions. The term 'organic' is used to refer not to type of input used, but to the concept of farm as an organism, in which all the component parts- the soil, minerals, organic matter, microorganisms, insects, plants, animals and human interact to create a coherent whole. Codex Alimentarius has provided a simple definition of organic farming stating that it involves holistic production management systems (for crops and livestock) emphasizing the use of management practices in preference to use of off-farm inputs; by using where possible, cultural, biological and mechanical methods in preference to synthetic materials.

### **Objectives of the study**

- 1 To study the situation of organic farming in India and the worldwide.
- 2 To study the problems and obstacle for the growth of organic farming in India.
- 3 To study some policies for the growth of organic farming in India.

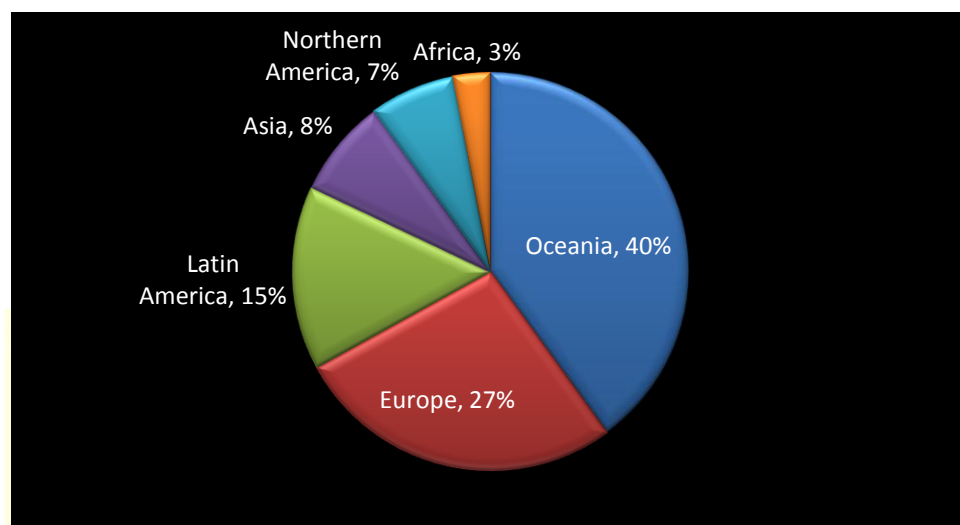
### **Research methodology**

This study is based on the only secondary data. The study period is 1999 to 2013. The data is collected through Wikipedia and various search engines through internet. And also from some authors research papers and literature also.

### **Shares of Organic Agricultural Land in World**

International Federation of Organic Agriculture Movements (IFOAM), established in 1972 is like a monitoring body for organic farming organization in all over the world. According to The IFOAM survey 2013, Australia under the Oceania is a leading country in all over the world which used 17.2 million hectare land for organic farming practices. Followed by Argentina, United States, China, Spain, Italy, France, Germany, Uruguay and Canada. According to the data reported 43.1 million hectares of agriculture land are organic, 2 million producers are reported in organic farming and 11 countries have more than 10 percent organic agriculture land in worldwide. Global sales of organic food and drink reached 72 billion US dollars in 2013. India now has by far the largest number of organic producers (650,000) worldwide.

**Graph 1 Distribution of organic agricultural land by region 2013**



Source: FiBL-IFOAM Survey 2015

According to the IFOAM survey, Oceania, this is as a region centers on the islands of the tropical Pacific Ocean, possesses highest land use under the organic farming, which is 40 %, 27% in Europe, 15% in Latin America, 8% in Asia, 7% in Northern America and lowest land use under the organic farming in Africa which is 3%. Australia under the Oceania is a leading country in all over the world which used 17.2 million hectare land for organic farming practices.

**Table 1 Growth of the organic agricultural land 1999-2013**

Year	Million hectares
1999	11
2000	14.9
2001	17.2
2002	19.8
2003	25.7
2004	29.8
2005	29
2006	30.1
2007	31.5
2008	34.4
2009	36.3
2010	36
2011	37.4
2012	37.5
2013	43.1

Source: FiBL-IFOAM-SOEL-Surveys 1999-2015

The table 1 shows that the organic agriculture land was 11 million hectares in 1999 which increased to 43.1 million hectares in 2013 in the world. There is worldwide concern and area under organic farming practices is increasing fast. India has increased 25 times area under organic farming in last 8 years from 2005 to 2012.

**Table 2 Theten countries with the largest numbers of organic producers 2013**

Country name	No of producers
India	650,000
Uganda	189,610
México	169,703
Tanzania	148,610
Ethiopia	134,626
Turkey	650,42
Peru	522,84
Italy	459,69
Spain	305,02
Poland	259,94

Source: FiBL-IFOAM survey 2015

The table 2 shows thatthe ten countries with the largest numbers of organic producers 2013. The country with the most producers is India (650'000), followed by Uganda (189'610,) and Mexico (169'703).

### Organic farming in India

India has traditionally practiced organic agriculture, but the process of modernization, particularly the green revolution technologies, has led to the increased use of chemicals. In recent years, however, limitations of agriculture based on chemical use and intensive irrigation have become apparent and there has been are urgency of interest in organic agriculture. Organic farming is very much native to this land. Presently, many states and private agencies are involved in the promotion of organic farming in India; these also include several ministries and government departments at both central and state levels.

### Status of India in Organic Farming Practices

In India, organic farming shows a growing trend, with total 1020000 hectares land used till 2012. In fact, India now has by far the largest number of organic producers (650,000 in 2013) worldwide. In India the share of organic agriculture land in the world was 0.3% in 2013. Currently India's organic trade is above than Rs. 2500 crores. There are 135 organic products are

exported to other countries in 2012-13. India produced 1.24 M.T. of certified organic products which includes all varieties of food products namely sugarcane, cotton, oilseeds etc. Among all the states, Madhya Pradesh has covered largest area under organic certification followed by Himachal Pradesh and Rajasthan. According to the survey at least 3.3million hectares of cereals were under organic management in 2013. The key cereal producers worldwide according to FAO, are India (97.1 M.H.), China (93 M.H.), the United states (60.2 M.H.) and the Russian Federation (36.9 M.H.). For enhancing organic farming practices Ministry of commerce, started National Program on Organic Production (NPOP). This national programs involves the accreditation programme for certification bodies, norms for organic production, promotion of organic farming. The NPOP standards for production and accreditation system have been recognized by European Commission and Switzerland as equivalent to their country standards. Besides this, Ministry of Agriculture also started various promotion schemes for small farmers. Fifteen Indian states have their own policy of organic farming since 2004, which is a good indication for Indian agriculture.

**Table 3 Growth of Organic Area in India**

Year	Organic area (ha.)
2005	42000
2006	76000
2007	173000
2008	538000
2009	865000
2010	1180000
2011	820000
2012	1020000

Source: FIBL- IFOAM Survey 2012

The above table shows that India has increased 25 times area under organic farming in last 8 years from 2005 to 2012. The organic land was 42000 ha.in 2005 which increased to 1020000 ha. In 2012.

### Organic Products in India

The current market for organic foods in India is pegged at Rs.2500 crore, which according to ASSOCHAM, is expected to reach Rs.6,000 crore by 2015. Thus, a huge potential is seen in the nascent Indian organic sector. Organic products, which until now were mainly being exported, are now finding consumers in the domestic market also.

**Table 4 Data for organic products in India (2012-13)**

No of products exports	135
Total quantity exported	165262 M.T
Value of total export	US\$ 374 million
Total certified area (including undercultivation, forest and wild harvest)	5.21 million hectare
Organic crops/ commodities/ products produced in India	Sugarcane, Cotton, Basmati rice, Pulses, Tea, Spices, Coffee, Oil Seeds, Fruits and their value added products, organic cotton fiber, functional food products etc.
Countries importing Indian organic products	EU, US, Switzerland, Canada, South East Asian countries and South Africa.
Share of Indian organic products in export	Oil seeds - Soybean (41%) lead among the products exported followed by Cane Sugar (26%), Processed food products (14%), Basmati Rice (5%), Other cereals & millets (4%), Tea (2%), Spices (1%), Dry fruits (1%) and others.

Source: <http://www.apeda.gov.in>

The current status (data) of organic farming in India is given in Table 4. A great diversity of climatic conditions exists in India, which may help in producing all varieties of organic products. In some parts of the country, the inherited tradition of organic farming seems to be an added advantage. Currently, India ranks 10th among the top ten countries in terms of cultivable land under organic certification. Among all the States of India, Madhya Pradesh has covered largest

area under organic certification followed by Rajasthan and Uttar Pradesh. The other important states are Uttaranchal, Kerala and many north-eastern states.

The North Eastern (NE) Region of India has tremendous potential for development of organic farming. With a growing global demand for organic food, people living in the NE states can reap rich dividends from development of commercial organic farming. To facilitate commercial organic farming in NE states, The Government of India has proposed in the budget to provide a sum of Rs.100 crore for this purpose in the current financial year i.e. 2014-15. The allocation of this fund will lead to the promotion of commercial organic farming in NE states and farmers will get the premium prices for their produce in the national and international market. It thus suggests that The Government of India is committed to promote organic farming in our country, which will have better impact to counteract the ill effects of climate change and natural vagaries.

### **Problems and Constraints in Organic farming in India**

The following are found to be the major problem areas for the growth of organic farming in the country:

**1.Lack of Awareness:**It is a fact that many farmers in the country have only vague ideas about organic farming and its advantages as against the conventional farming methods. Farmers lack knowledge of compost making using the modern techniques and also its application. Attention on the application of composts/organic manure is also lacking. The organic matter is spread during the months when the right moisture level is absent on the soil. The whole manure turns into wastes in the process. The required operation is of course labour intensive and costly, but it is necessary to obtain the desired results.

**2. Output Marketing Problems:**It is found that before the beginning of the cultivation of organic crops, their marketability and that too at a premium over the conventional produce has to be assured. Inability to obtain a premium price, at least during the period required to achieve the productivity levels of the conventional crop will be a setback. It was found that the farmers of organic wheat in Rajasthan got lower prices than those of the conventional wheat. The cost of marketing of both types of products was also same and the buyers of wheat were not prepared to pay higher prices to the organic variety (Rao, 2003).

**3.High Input Costs:**The small and marginal farmers in India have been practicing a sort of organic farming in the form of the traditional farming system. They use local or own farm



renewable resources and carry on the agricultural practices in an ecologically friendly environment. However, now the costs of the organic inputs are higher than those of industrially produced chemical fertilizers and pesticides including other inputs used in the conventional farming system. The groundnut cake, neem seed and cake, vermi-compost, silt, cow dung, other manures, etc. applied as organic manure are increasingly becoming costly making them unaffordable to the small cultivators.

**4.Lack of Financial Support:**The developing countries like India have to design a plethora of national and regional standards in attune with those of the developed countries. The adoption and maintenance of such a regulatory framework and its implementation will be costly. Lack of financial support it is not easy to growth the organic farming in India. Small and marginal farmers are not able to purchase the organic input and support for the marketing of the organic products.

**5. Low Yields:**In many cases the farmers experience some loss in yields on discarding synthetic inputs on conversion of their farming method from conventional to organic. Restoration of full biological activity in terms of growth of beneficial insect populations, nitrogen fixation from legumes, pest suppression and fertility problems will take some time and the reduction in the yield rates is the result in the interregnum. It may also be possible that it will take years to make organic production possible on the farm. Small and marginal farmers cannot take the risk of low yields for the initial 2-3 years on the conversion to organic farming. There are no schemes to compensate them during the gestation period. The price premiums on the organic products will not be much of help, as they will disappear once significant quantities of organic farm products are made available.

**6.Absence of an Appropriate Agriculture Policy:**Promotion of organic agriculture both for export and domestic consumption, the requirements of food security for millions of the poor, national self-sufficiency in food production, product and input supplies, etc. are vital issues which will have to be dealt with in an appropriate agriculture policy of India. These are serious issues the solution for which hard and consistent efforts along with a national consensus will be essential to go forward. Formulation of an appropriate agriculture policy taking care of these complexities is essential to promote organic agriculture in a big way.

7.Lack of Quality Standards for Bio manures

8. Inabilities to Meet the Export Demand

9.Shortage of Bio-mass

10. Inadequate Supporting Infrastructures

## The Principles of Organic Agriculture

To understand the motivation for organic farming, the practices being used and what we want to achieve, it is important to understand the guiding principles of organic agriculture. These principles encompass the fundamental goals and caveats that are considered important for producing high quality food, fiber and other goods in an environmentally sustainable way. The principles of organic agriculture have changed with the evolution of the movement and are now codified. The principles apply to agriculture in the broadest sense, including the way people tend soils, water, plants and animals in order to produce, prepare and distribute food and other goods. They concern the way people interact with living landscapes, relate to one another and shape the legacy of future generations. The principles of organic agriculture serve to inspire the organic movement in its full diversity. They are the roots from which organic agriculture grows and develops. They express the contribution that organic agriculture can make to the world and a vision to improve all agriculture in a global context. The Principles of Organic Agriculture serve to inspire the organic movement in its full diversity. The International Federation of Organic Agriculture Movements (IFOAM) has formulated four broad principles of organic farming, which are the basic roots for organic agriculture growth and development in a global context.

**1. Principle of Health:** Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible. Health is the wholeness and integrity of living systems. It is not simply the absence of illness, but the maintenance of physical, mental, social and ecological well-being. Immunity, resilience and regeneration are key characteristics of health. In particular, organic agriculture is intended to produce high quality, nutritious food that contributes to preventive health care and well-being.

**2. Principle of Ecology:** Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help to sustain them. Organic agriculture should attain ecological balance through the design of farming systems, establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or

consume organic products should protect and benefit the common environment including landscapes, climate, habitats, biodiversity, air and water.

**3. Principle of Fairness:** Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities. Fairness is characterized by equity, respect, justice and stewardship of the shared world, both among people and in their relations to other living beings. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs.

**4. Principles 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. It should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions should reflect the values and needs of all who might be affected, through transparent and participatory processes.

## Conclusion

The organic farming movement is rapidly expanding. Worldwide, the movement holds incredible potential as a dual strategy for climate change mitigation and adaption, rural development and livelihood improvement, food security, and food sovereignty. The trajectory of Indian agriculture and its associated environmental problems has brought about recognition that future agricultural growth and productivity will have to occur simultaneously with environmental sustainability. The environmental challenges, especially in terms of land degradation and groundwater depletion, water logging and excessive use of chemicals inputs are posing problems for the future of Indian agriculture. To address the problems, policies have laid emphasis on promoting sustainable agriculture including organic farming. Differential approaches and policy instruments, however, will be required to address these problems. The shift from input-intensive to sustainable, particularly organic farming is a difficult task as it involves a number of policy measures dealing with a variety of issues ranging from the transfers of information and technology to the development of markets. Another difficult task, and perhaps more difficult, relates to marginal and small farmers- which comprise a substantial part of Indian agriculture. Although these marginal and small farmers have been considered organic by 'default', severe resource constraints makes a shift to the modern sense of farming prohibitive. Although many organic farming NGOs have sprung up in India in recent years. More services and funds need to

be made available to raise awareness and to assist farmers in converting to organic farming and marketing their products. Specifically, further institutional support is needed to provide farmers with funding and extension services, raise consumer awareness, establish and strengthen marketing channels, and invest in organic farming research. In this way government support and investment is especially crucial for the success of the Indian organic farming movement.

## Reference

Bhattacharyya and Chakrabarty(2005), "Current status of organic farming in India and other countries", Indian journal of fertilizers, vol.1(9) dec.2005, page 111-123.

FiBL- IFOAM Survey, 2012. Organic Agriculture Worldwide: Current Statistics, 2012 Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland

FiBL- IFOAM Survey, 2015. Organic Agriculture Worldwide: Current Statistics, 2012 Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland

Pant, Kumar and Mishra (2013), "Statistical Review: Worldwide Use of Organic Farming Practices", Popular kheti, Vol.1, Issue-4 (October-December), 2013

Paull John 2011,"The Uptake of Organic Agriculture: A Decade of Worldwide Development",Journal of Social and Development Sciences 2(3): 111-120.

Pandey and singh 2012,"Opportunities and constrains in organic farming: an Indian perspectives",journal of scientific research BanarasHindu university, Varanasi, vol.56, 2012:page 47-72.

Suresh Readdy 2010,"Organic farming: status, issue and perspectives- a review", Agriculture economics research review, vol.23 July Dec. 2010 page 343-358.

[www.fibl.org](http://www.fibl.org)

[www.organic-world.net](http://www.organic-world.net)

[www.organicworld.net/yearbook-2015.html](http://www.organicworld.net/yearbook-2015.html)