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ORGANIC FARMING: A CASE STUDY OF UTTARAKHAND ORGANIC COMMODITY BOARD

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ABSTRACT

There has been a rise in consumer's demand for safe and healthy food due to increasing concerns over the quality of food, contamination due to chemicals, serious health hazards and environmental issues. This increasing demand has given way to a new stream of agriculture, popularly known as Organic Agriculture. This paper attempts to bring together different issues in the light of recent developments in organic Farming in the state of Uttarakhand with special emphasis on the working and issues of Uttarakhand Organic Commodity Board. This paper has reviewed scenario of Uttarakhand Organic Commodity Board with reference to organic farming through critical analysis of available secondary data. The key issues emerging in organic farming include yield reduction in conversion to organic farm, soil fertility enhancement, and integration of livestock, certification constraints, ecology, marketing and policy support. This paper discusses the potential for organic farming and argues that organic farming is productive and sustainable, but there is a need for strong support to it in the form of subsidies and research carried out by Public-private partnership.

INTRODUCTION

Increasing population of India has started creating demographic pressure on agriculture sector to maintain food security. Hence maximizing crop yield to meet the growing demand for food grains is an important issue. However increase in crop yield through excessive use of pesticide and fertilizers, introduced during green revolution pose great threat to sustainability of agriculture productivity in the long run. Removal of crop residues and indiscriminate use of chemical fertilizers have severely affected soil health which is continuously deteriorating. To address the issue of maintaining crop yield through sustainable agricultural practices, the Government proposes to promote organic farming methods, combining modern technology with traditional farming practices like green manuring, biological pest control and weed management. A large number of terms are used as an alternative to organic farming viz. biological agriculture, ecological agriculture, bio-dynamic, organic-biological agriculture and natural agriculture. Accord-

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ing to the National Organic Standards Board of the US Department of Agriculture (USDA) the word 'Organic' has the following official definition (Lieberhardt, 2003): "An ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on the minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony."

Organic farming in India received attention after launching of National Project on Organic Farming (NPOF) in 2004-05. Area under organic farming was 42,000 hectares during 2004-05 which had increased to 1.08 hectares by March 2010. Area under wild forest harvest collection was 3.40 million hectares. Thus total area under organic certification process by March, 2010 was 4.48 million hectares which was 25 fold increase in last 6 years. Organic farming is being promoted under National Project on Organic Farming (NPOF), National Horticulture Mission (NHM) and Rashtriya Krishi Vikas Yojana (RKVY). India produced around 3.88 million MT of certified organic products which includes edible products along with organic cotton fiber, garments, cosmetics, functional food products, body care products, etc. India exported 86 items in the year 2010-11 with the total volume of 69837 MT. the export realization indicated a growth of 33% (157.22 million US $) over the previous year. Chief importers of Indian organic products are EU, US, Australia, Canada, Japan, Switzerland, South Africa and Middle East.

Nine States have drafted organic farming policies out of which Uttarakhand, Nagaland, Sikkim and Mizoram have declared their intention to go 100 percent organic. However Uttarakhand and Sikkim has declared themselves as 'Organic States'. This paper tries to focus on the development of organic farming in the state of Uttarakhand.

Review of Literature

Organic agriculture is developing rapidly; its share in agricultural land and farms continues to grow in many countries. According to the FIBL survey, 2008; conducted BY Research Institute of Organic Agriculture, Switzerland, almost 30.4 million ha are managed organically by more than 7, 00,000 farms (based on 2006 consolidated data). Oceania holds 42 per cent of the world's organic land, followed by Europe (24 per cent) and Latin America (16 per cent). The global organic land area increased by almost 1.8 million ha compared to the previous year, 2005. Global demand for organic products remains robust, with sales increasing by over five billion US dollar per year. Currently, India ranks 33rd in terms of total land under organic cultivation and 88th position for agriculture land under organic crops to total farming area in the World. The cultivated land under certification is around 2.8 million ha. This includes one million ha under cultivation and the rest is under forest area (wild collection) (APEDA, 2010). India exported 86 items during 2007-08 with the total volume of 37533 MT. The export realization was around 100.4 million US $ registering a 30 per cent growth over the previous year (APEDA, 2010).

IFAD's thematic evaluation on Organic Agriculture and Poverty Reduction in Asia with a China and India focus published in 2005 elucidated the initial steps taken by Uttarakhand as an organic state. After attaining statehood in 2000, the possibility of expanding quality organic farming as an improvement of the existing agriculture traditions was attempted in Uttarakhand. The experiences gained by the state over last six years through the Uttaranchal Organic Commodity Board, Uttaranchal State Organic Certification Agency and other commodity boards, NGOs, and the line departments have brought vital learning to the state on many fronts. The results were encouraging with 4,000 ha of area brought into organic farming with approximately 35,000 farmers using Internal Control Systems and linked directly with the market. Forty-two commodities have been identified, tested, and up scaled for market and consumption. The maximum benefit came to the organic basmati rice producers as the area under organic basmati rice rose from 16 ha in 2002-03 to 2,200 ha involving 2,100 farmers. Neglected crops, such as finger millet, were developed for the markets and mainstreamed as cash crops. From 2003 to 2006, commodities worth Rs. 19.83 million have been marketed under Organic Uttaranchal Brand. The agriculture department has mainstreamed the organic agenda through research, policy, funding, and capacity building of state functionaries at a cross-cutting level.

Profile of Uttrakhand

The total reporting area of Uttarakhand is 53,483 sq. km. which accounts for 1.63% of total geographical area of India. 65% percent of Uttrakhand is covered with forest and 23.6% percent is under agriculture and allied activities. Agricultural land of Uttarakhand can be broadly divided into plains (43.2%) and hills (56.8). only 9.43 percent land is irrigated and agricul-

ture is mostly rain-fed. Due to micro climate differences, the agro climatic zones in the region can be divided broadly as follows:

1. Plains and tarai, bhabhar zon (up to 1000 ft.)
2. Middle Himalayan zone (1000 to 3000 ft.)
3. Higher Himalayan zone (above 3000 ft.)

Table 1. Uttrakhand at a glance

Total reported area	53483 Sq. Km.
Area under forest	34651 Sq. Km. (65%)
Area under Agriculture and Allied activities	13.37 lakh ha. (23.6%)
Area under Other Uses (infrastructure and Urban Development)	2.17 Lakh Ha. (3.8%)
Area Under Irrigation	1.26 lakh ha. (9.43%)
Other revenue land/fallow /waste land	6.33 Lakh Ha. (11.1%)
Districts	13
Population (Census 2011)	101.17 Lakh
Sex Ratio, 2011	963
Population Density	189 per Sq. Km.

Source: Uttarakhand Annual Plan 2011-12

The largely rain-fed agriculture and very low use of chemical fertilizers and pesticides, provides an opportunity to develop environment and farmer friendly organic farming that provide better value in the market. Marginal land holdings, rearing of indigenous cattle, unavailability of harmful chemicals to most of the farmers and prevalence of traditional farm practices can help in development of organic agriculture in this area. Organic agriculture was declared as a thrust area by the State as early as 2001-02 wherein a number of policy decisions were taken, one of them being establishment of Uttarakhand Organic Commodity Board (UOCB).

Statement of the Problem

Organic farming is the manifestation of the traditional environment stewardship of the people of Uttarakhand (Chipko Movement), providing a meaningful expression in the form of economic growth. Eighty percent of farmers in Uttarakhand practice organic farming by default in rain fed conditions. This practice has been the source of food security for small and marginal farmers in terms of safe, multiple and nutritious food. The state, because of its diverse topography has an immense potential to develop cultivation of herbs and medicinal plants through organic farming. However this remains untapped because of lack of serious efforts. However, UOCB has been established to work in the direction of promoting and enhancing the potential of organic farming in Uttarakhand. This paper tries to review the status of UOCB in development of organic farming and various issues and limitations they face in successful implementation of policies.

Objectives

1. To examine the status of UOCB.
2. To assess the problems faced by UOCB in implementation of Organic farming.

Research Methodology

The paper tries to study the role of UOCB in promotion of Organic farming in the state of Uttarakhand through a descriptive analysis based on secondary data collected through various sources. Charts and comparative tabulations are used for easier and simpler understanding and presentation of data.

RESULTS AND DISCUSION

Status of UOCB

Uttarakhand Organic Commodity Board came in to existence on 19 May 2003 after being registered under the societies registration act, 1860. It acts as the nodal agencies to enhance organic activities in agriculture and allied sectors like Horticulture, Medicinal Aromatic Plants & Herbs, Milk Production and animal husbandry throughout the state. The professional, managerial, technical Support to UOCB for management of farmers' organization and to lead farmers is provided by Centre for Organic Farming (COF) which is a project grant sanctioned by Sir Ratan Tata Trust, Mumbai under Uttarakhand Organic Commodity Board. The main aim of UOCB is to make Uttarakhand 'The Organic Capital of India'. The main objective of UOCB is to provide training to farmers, extension workers from government line departments, NGO's in the field of production, certification as well as marketing. UOCB organizes exposure visits for farmers, middle and senior level officers for seminars, exhibitions and other gatherings in Organic sector. UOCB has converted few districts into bio-villages (Table 2).

Functions of UOCB

1. The 'Fill in the Blank' Service UOCB assists organic farmers to become Organic Producer Groups and links

them to market by developing production plans based on market response.

2. Prime mediator for the Internal Control System UOCB compiles the data generated by the investigators and workers for commodity production projection of the coming season to facilitate forward linkage processes. The availability of updated data at a single window helps the marketing cell to plan for the supply chain.

3. The resource center UOCB provides updated technical inputs for the organic production which can be used as per standards. The technologies compiled by the board are passed on to the different stake holders in the state.

4. Resource Generator UOCB generates resources in the form of finances, human resources and building patronage for the Organic development.

Table 2. List of bio-villages of Uttarakhand

S.No.	Name of Village
1.	Almora
2.	Bageshwar
3.	Chamoli
4.	Champawat
5.	Dehradun
6.	Haridwar
7.	Nainital
8.	Pauri
9.	Pithoragarh
10.	Rudraprayag
11.	Tehri
12.	Udhamsingh Nagar
13.	Uttrakashi

Source: Uttarakhand Organic Commodity Board (UOCB)-annual plan 2011-12

UOCB has been playing a key role in spreading awareness among farmers about the prospects and benefits of organic farming in Uttarakhand. Table 3 shows that UOCB enjoyed maximum response (68.47%) from the farmers.

UOCB has been promoting sale of organic products. The available data show a constant increase in the sale of organic farming products since 2003-04. The data given in the Table 4 show that there has been a sharp increase in the sale of organic products facilitated through UOCB in 2007-08 which can be attributed to increase in the number of bio-villages during

Table 3. Awareness About Bio-fertilizers And Bio-pesticides

Aware Since	%response	Who Motivated	% response
2002	18.81	Central Himalayan Environmental Association (CHEA)	5.76
2003	45.54	Agriculture Department	1.02
2004	33.17	Already Knew	0.68
2005	21.78	Fellow Farmers	7.12
2006	14.85	Through training	1.69
2007	15.35	UOCB	68.47

Source: Impact assessment study of Center of Organic Farming I and II, Uttarakhand State, Dec. 2009

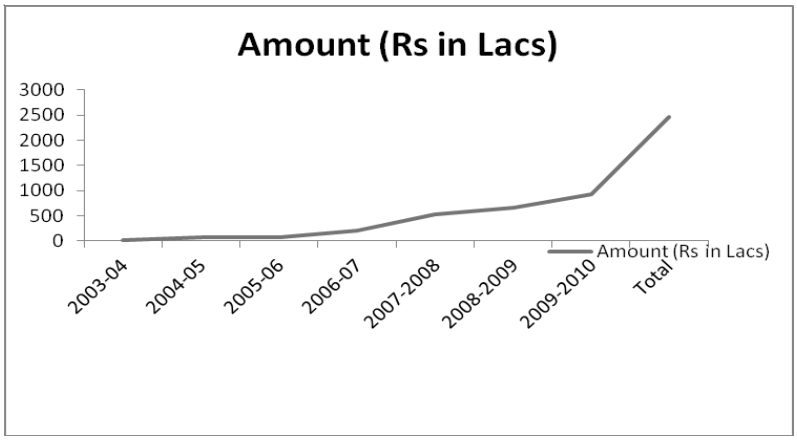

Fig. 1

this year.

Table 4. Sale of organic products facilitated through UOCB

Sr. No.	Year	Amount (Rs in Lacs)
1.	2003-04	16.7
2.	2004-05	62.8
3.	2005-06	79.5
4.	2006-07	201.3
5.	2007-2008	518
6.	2008-2009	657.88
7.	2009-2010	933
	Total	2469.18

Source: Uttarakhand Organic Commodity Board (UOCB)

Problems Faced by Organic Farmers

According to a report by UOCB, following problems were faced by organic farmers:

1. Market related problems: 68 per cent of farmers felt that market uncertainty was a major problem.
2. Lack of a local market: Total dependence on a small number of buyers.
3. 64 per cent felt that the price obtained for organic basmati rice was too low. Price declined in recent years. Premium not enough to compensate for loss of income from wheat. Delays in procurement and payment. Small farmers consider this to be very important.
4. Incidence of pest and disease attack more common in organic farming. 55 per cent of the farmers reported pests and diseases to be an important problem.

As farmers face these problems, it is difficult for organization to convince farmers to adopt organic farm practices. Some of the major constraints faced by UOCB are as follows:

1. Convincing the farmers in new areas where they are already using extensive chemical fertilizers and pesticides is quite difficult because various government and private agencies distribute to the farmers free seeds, fertilizers and pesticides along with monitoring help.
2. Another hampering factor is the shift of government policies to corporate farming, which is further marginalizing small farmers.
3. Time required to conversion to organic is a major issue, since it is observed that in the first two years of transition phase, productivity goes down between 15-20 %. In the worst conditions the loss may go up to 40 % in terms of yield, but in most cases the loss in yield is compensated by the money saved on inputs.
4. The legislative framework is still promoting conventional farming and discriminating against organic farmers. By subsidizing conventional farming to keep artificial level of profit.
5. Farmers adopting organic production methods in India have difficulties to get certification due to high cost and inability to match the standards of certified organic production.
6. Traders and producers of agrochemicals see their markets endangered and therefore put a lot of effort into discrediting organic farming by carrying out anti-organic campaigns.
7. Lack of detailed understanding of various aspects of agriculture and the organic production cycle among farmers does not allow them to extract maximum benefit out of organic farming.
8. Many consumers in India are not aware of the benefits of organic food in terms of quality and taste, health aspects and environmental benefits.

Recommendations/Suggestions

1. There is an urgent need to develop market for organic wheat to increase the overall profitability of organic farming as wheat is one of the important food crops of the state.
2. Inform farmers about the profitability of Organic farming vis-à-vis conventional or modern farming through awareness programs organized by government and non-government organizations.
3. Provide better technical support to control pests and diseases. Presently, their ability to control some of the pests such as stem borer is very limited.
4. Credit facility to farmers to have access to bio-control agents through board.
5. Providing funds to board to promote organic farming practices.
6. The farmers' awareness of the certification process should be increased along with enhancement of their capability to fill documents etc. necessary for the ICS Programme.
7. Communication between the Board, federations and farmers should be improved. Farmers are most interested in market and price related matters.
8. Increasing the efficiency of transportation and procurement system to reduce loss of product due to these inefficiencies.

CONCLUSION

Organic Farming has strong potential in India espe-

cially in state of Uttarakhand where conventional farming is still not widespread. Since most of the agriculture is rain-fed, the agriculture of Uttarakhand can be called 'Unintentionally Organic'. UOCB is playing a crucial role in the promotion of organic farm practices and motivates farmers through awareness programs. However, being a long term investment project and a higher density of small and marginal farmers in Uttarakhand; organic farming faces a lot of constraint and limitations. There is a need to construct infrastructure both technical and financial to motivate farmers to switch to organic farm practices.

Limitations

Due to lack of time and resources, secondary data have been used. The results may variate, if study is done based on primary data.

Scope For Further Research

Organic farming is a new concept and most of the studies have focused on the environmental aspect of Organic farm practices. Very few research as been done to study the economics of Organic farming. Organic farming can be studied as a strong link that associates environment with economy.

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