

# Odisha

# Organic Farming

## Policy Draft

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## I. The changing trends of Agriculture

Organic farming is gaining momentum recognizing the problems associated with chemical agriculture, increasing costs of cultivation and its impact on environment and health. It is now accepted that Organic/Ecological/natural farming methods can bring in ecological and economic sustainability in farming. In India, the traditional knowledge of agriculture which was essentially organic, was nurtured and groomed by millions of farmers over several hundreds years and continued to grow systematically without any adverse impact on soil and environment. The traditional system allowed perfect harmony between man, animals, plants and nature. The farming till the green revolution period was mostly without the use of petroleum-based products (Fertilizers & Pesticides).

The modern industrial input based agriculture introduced during sixties, to feed the ever growing population of the country changed the entire scenario. The green revolution gave tremendous boost to the agriculture production in India. The gains of modern agriculture were impressive and practically transformed Indian agriculture from subsistence to surplus generating enterprise. During the era of green revolution, introduction of HYV, extension of irrigated areas, use of high analysis NPK fertilizers and increase in cropping intensity propelled our food production.

The modern agriculture farming practices and irrational use of chemical inputs over the last four decades resulted in loss of natural habitat balance, loss of soil health and caused many hazards like soil erosion, decreased ground water level, soil salinisation, pollution due to fertilizers & pesticides, genetic erosion, ill effects on environment, reduced food quality and increased the cost of cultivation.

The consumers' fears triggered by food scares and technological developments such as genetic modification and food irradiation have been translated into serious concern about food safety and quality. In addition, public awareness of the irreversible damage done to the environmental by practices that lead to soil and water pollution, the depletion of natural resources and destruction of delicate ecosystems has led to calls for more responsible attitude towards our natural heritage. Nature provides us with very essence of life. However, the world is increasingly taking recourse to synthetic and toxic materials, which is polluting the soil, subsoil, water and the atmosphere and curtailing human longevity.

Against this background, organic farming once seen merely a fringe interaction, has come to the force, as an integrated approach to agriculture. Organic farming is gaining movement all over the world as it offers viable alternative to the ill effects of modern agriculture. In the world 30.4 million hectares of area is covered under organic production. India has shown rapid progress in organic sector since 2003. From just 73,000 ha of organically certified land in 2003, the figure has reached to 528000 ha under organic management by 2007 (311,000 ha land is fully certified another 217000 ha is under conversion). In 2007 the global trade of organic touched USD 38.6 bn. India's Organic exports is around Rs.300 Crores (USD 62.5 millions), which is only 0.2% of the organic trade. The area currently farmed by organic methods is about 1.2 million hectares, plus several hundred thousand hectares in the conversion phase. The organic farming area has to increase to five million hectares in the coming years according to the ambitious plans, for which both the national government and many federal states will provide funds. The state Sikkim is expected to provide USD 20 million and

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Karnataka as much as USD 50 million. Sikkim has also declared itself an organic state and passed a legislation to this effect. In India, the total acreage under certified organic cultivation was 1.18 million hectares for 2009-10. At the same time, the total number of farmers registered with certification agencies has also increased to cross the half-million mark. The total value of organic products at farm level now stands at USD 889 million. Currently, India ranks 33 in terms of total land under organic cultivation and 88 for agricultural land devoted to organic crops compared to total farming area.

**Practical Experience of Odisha Farmers:** so far, in the hilly and inland districts, has demonstrated the usefulness of organic farming to reduce/ replace use of chemical fertilisers and pesticides and reduce the cost of cultivation and improved productive capacity of soils. There are many areas which are default organic and scientific approach to built organic farming in these areas can be a win win situation for farmers and environment.

The National Missions on sustainable agriculture and horticulture development emphasize promotion of good agriculture practices as necessary components of the agricultural developmental approaches for which organic farming is the best known tool. Therefore, to put in place an enabling policy framework for promoting organic farming in the state, is the need of the times. Government of Odisha has taken several steps towards environmental conservation and sustainable development, such as maintaining green cover, producing clean renewable energy, reducing carbon footprints etc.; and these efforts will get further strengthened by adopting Organic Farming Policy.

This Policy aims to strengthen the production systems, supply chain and marketing systems by creating an enabling environment, required infrastructure, regulations and providing necessary incentives and support.

Organic farming aims at sustainable development of food production alongside conservation of finite resources and protection of natural environment so that the needs of people living today can be met without compromising the ability of future generation to meet their own needs.

#### **1.a. The concepts in Organic Agriculture\***

The main concept of this policy is shifting high external input based agriculture to internalising the inputs and is based on principles of the ecological farming viz., a) locally adopted cropping systems, b) based on crop and genetic diversity, c) locally adopted seed, d) improving soil and crop ecology to have ecological balance of insects and microbes, e) conserving and effective use of local natural resources like soil, water, biomass. These set of practices and behind have evolved from reinterpreting, refining the traditional farming practices with modern scientific learnings. As many believe this is not continuation of the old traditional practices which are not relevant today but contemporary innovations with newer understanding of agro-ecology evolved at different nodes by farmers, civil society organisations and few agriculture scientists. These new practices and new products have shown very promising results.

Some of the successful approaches practiced by farmers are

- Organic farming
- Natural farming
- Zero budget Natural farming
- Biodynamic farming
- Non Pesticidal Management
- Sustainable Agriculture
- ❖ Avoiding usage of chemical inputs viz., fertilizers and pesticides there by not polluting the soil, environment and ground water with chemical residues
- ❖ Increase/maintain biological diversity and heterogeneity among plants and animals.
- ❖ Utilization of available farm resources duly recycling them.
- ❖ Depends largely on environment and the local farming system for controlling pests & diseases
- ❖ Organic farming requires less financial and external inputs and places more reliance on natural and on farm resources as inputs.

The Government at Central and State levels recognized the need of change in farming system approach, and initiated programs to promote Organic farming in a big way. GOI started National Project on Organic Farming (NPOF) for promotion of organic farming in the country. GOI also launched the National Programme for Organic Production (NPOP) to provide an institutional mechanism for the implementation of National standards for organic cultivation, accreditation of certification agencies, inspecting agencies etc. Another scheme Paramparagat Krishi Vikas Yojana (PKVY) also provides support for organic farming and PGS certification.

**II. Principles of Organic Farming:**

Organic agriculture is defined as “holistic food production management systems, which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system.” (FAO/WHO Codex Alimentarius Commission).

Organic Farming is the farming with twin objectives of being sustainable in production and eco-friendly. The important principles in organic farming are -

1. To reduce and avoid use of synthetic poisonous chemicals in agriculture
2. To work with natural systems rather than seeking to dominate them.
3. Conservation and judicious use of natural resources like soil, biomass, animal husbandry and water.
4. Treating soil as living entity and maintain the soil health i.e., structure, fertility, productivity etc.

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5. To encourage and enhance the biological cycles within farming system involving microorganisms, soil flora, fauna, plants and animals.
  6. Resources should be used in an organized way by recycling them to mobilize organic matter and nutrient elements within a closed system
  7. To maintain genetic diversity of agricultural system and its surroundings including the protection of plants and wild life habitats and avoid Genetically Modified Organisms.
  8. To conserve and protect biodiversity in the state
  9. Integration of animal husbandry with the farm for co-ordination between the two systems such as provision of proper living conditions to the livestock and utilization of its dung and urine as raw material for production of organic manures and bio-pesticides.
  10. To allow agricultural procedures those are less expensive to yield adequate return.
  11. To preserve and enhance the traditional and indigenous knowledge in farming besides seeds and crop varieties.

The philosophy of organic agriculture is to feed the soil rather than the crops to maintain soil health and is a means of giving back to the nature what have been taken from it. Organic farming is not a technology but a system close to nature where in problems of farming are managed using local resources alone.

### **III. OBJECTIVES OF THE POLICY ON ORGANIC FARMING**

Govt. of Odisha is giving emphasis for promoting organic farming in the State with the following objectives.

- ❖ To bring in a agroecological frame work for farming in the state
- ❖ To improve the soil fertility & productivity.
- ❖ To make the farmers less dependent of supply of inputs and take up crop cultivation with available local resources and thus making the farming less expensive and profitable.
- ❖ For judicious use of water which is very precious.
- ❖ To improve the depleted soils of rain fed areas by addition of organic manures to make them input responsive and better performing even in drought conditions.
- ❖ To reduce the debt need of farmers and enable them to attain sustainable status.
- ❖ To prepare the farmers to face the challenges posed by WTO through production of quality produce and also to improve the farmers income.
- ❖ To increase rural employment opportunities and prevent migration to urban areas.
- ❖ To facilitate 'Self Help Groups' among farmers to meet their requirements.
- ❖ To make the environment safe and pollution free and also to protect health of human beings and animals.
- ❖ To bring about suitable institutional changes in teaching and research on organic farming.

#### **IV. STATUS & OPPORTUNITIES FOR ORGANIC FARMING IN THE STATE**

Odisha is a state with very diverse agricultural production systems exposure to long coastal line, varied agro-climatic zones, existence of different types of soils, natural vegetation and blessed with farmers who are hard working and innovative mind and thus possess unlimited possibilities for adoption of organic farming practices without affecting the present food grain production. The state is having full potential to adopt organic agriculture and Govt. is planning carefully to exploit the existing opportunities.

##### **❖ Commercial crops and export markets**

- Odisha has large areas under spice crops like Turmeric, Ginger which as high export value. The higher levels of pesticide residues have led to rejections of export consignments earlier. There is a very good demand for the organically grown chillies and turmeric which can be exploited.
- The area under fruit crops is growing and mango has a bigger export potential. The pesticide residues and the ripening using 'carbide' are limiting the exports. By promoting organic production in mango the state can capture greater International Markets.

##### **❖ Default organic, Low or no external input use areas**

- Odisha being one of the major Centre of Origin and Diversity for Rice, farmers still grow several traditional varieties which can be promoted and marketed.
- In several districts **Paddy, Millets, Mango, Turmeric** are being grown organically in some areas.
- In Odisha, the tribal and forest areas have huge potential for collection and marketing of naturally grown Non Timber Forest Produce (NTFP) and crops under cultivation without application of chemicals. Government will declare all such areas as default organic and implement necessary regulatory and incentive systems.
- Organic farming can be promoted in a big way in rainfed areas where the yield potential is still to be expressed and soil fertility is to be improved.
- Organic farming also helps in adapting to changing climate.

##### **❖ The Govt. is aiming to promote organic farming to ensure that quality and safe food is available to the agri - rural communities, urban areas and explore export markets for the marketable surplus in**

- Fruits - mangoes, bananas, citrus etc
- Spices like chillies etc.
- Food grains - Rice, millets, Oilseeds, Pulses
- Plantation crops - Cashew, Coconut
- Medicinal & Aromatic plants
- Cash crops like cotton

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- ❖ The production of vegetables in organic way has good potential as it has good local market and demand from people.

## **V. STRATEGIES FOR PROMOTION OF ORGANIC FARMING**

Agriculture in Odisha is the mainstay of livelihood of over 60% of population. Around 15 % of the state GDP is from Agriculture. The Govt. took the commitment to formulate comprehensive package and policy changes vital for increasing the farm income and for making the sector nationally and globally competitive. In this connection, Govt. of Odisha plans to promote low cost input agriculture in the state gradually in a stage wise manner, especially in rainfed areas.

In Odisha, 60% of cultivated area is under rainfed farming but contribution of production from this area is less than 40%. This is because of natural vagaries and the soils are also poor in fertility. Most of the farmers are small and marginal. Organic agriculture would be promoted preferentially in rainfed areas to bridge the big gap between actual and potential yield. Further organic agriculture would be strengthened in identified patches where the agriculture is by default organic since years, to take advantage of production of organic produce which is having demand in domestic as well as export market.

In addition, organic practices will also be promoted in selected zones of high input-intensive agriculture where agriculture has become unsustainable and expensive.

The strategies for promoting organic farming will cover the following aspects

- (A) Focused approach
- (B) Institutional Mechanisms
- (C) Programmatic approach and incentives to farmers
- (D) Support Systems

### **(A) Institutional Mechanism of Odisha State Government**

#### **A.1. Odisha Organic Mission**

Organic Farming will be promoted on a mission mode with the main objective of promoting organic farming system in the state. A specific outlay in the agriculture budget would be earmarked for organic farming in the initial years and would be gradually increased based on the learnings. A separate Board for Organic Farming would be setup which will function with adequate human resources and would coordinate and bring under one roof the dispersed organic activities. It will spearhead the organic agriculture movement in Odisha. The board will coordinate the activities of Dept of Agriculture, Horticulture, Animal Husbandry, Sericulture, Marketing, Forestry and Agriculture University (OUAT), Horticulture University, Veterinary University etc. The Organic Development Programme shall link up with all the stakeholders for overall promotion of organic farming.

Further, Organic Mission will take initiatives to establish separate channel for supervising the Organic Agriculture by keeping officers at different levels viz., State & district level. The officers will look after the issues related to organic farming.



**The objectives of Odisha Organic Mission are**

- To promote organic farming in the state.
- To bring under one umbrella all organic initiatives of the state.
- To work as bridge between farmers and Government.
- To create awareness and building access for consumers to safe and healthy organic food
- To provide single window services for organic farmers
- To converge various programs and schemes to support organic farming
- To provide coordination among market, industry and other stake holders.
- To co-ordinate with national and international organization in all matters relating to organic farming.
- To access funds, grants and other finances for the different organic activities.
- To take up required infrastructure viz., Input production units, Processing centres, marketing centres etc.

**A.2. State Organic Farming Board:**

A State Organic Farming Board will be set up with the primary responsibility of promoting organic farming and facilitating an effective, smooth and time-bound transition of the State's agriculture from the conventional chemical intensive farming to the sustainable organic farming. The Board would act as a nodal agency for organic farming and related programmes of the various departments. It would also be an agency to liaison with national and international bodies in this matter, and would also access / generate funds/ grants and support for implementation of the strategies. The board can identify lead support agency(ies) for supporting the implementation of the program.

**Composition of the Board:**

The Board consists of a General Council and Executive Committees.

General Council:

(1) Chairperson: Principal Secretary (Agriculture)

(2) General Secretary:

(3) Members:

- a. Commissioner of Agriculture
- b. Commissioner of Horticulture
- c. Commissioner of Animal Husbandry
- d. Commissioner of Fisheries department

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- e. Principal Secretary, Forests and Environment
  - f. Vice Chancellor of Odisha University of Agriculture and Technology (OUAT)
  - g. POs from ITDAs
  - h. Organic Farmers (3)
  - i. Representatives of NGOs involved in promotion of Organic Farming (3)
  - j. Chief Executive Officer (full time person of the rank of Additional Director of Agriculture) as member secretary

### **A.3. Committees for Promotion of Organic farming;**

District and Block level committees will be formed to take decisions on promotion of organic farming. The committee will meet monthly/quarterly based on the need and decide the things to take up for promotion of organic farming. The committee members are as below.

#### **District Level Committee for Promotion of Organic farming:**

1. Deputy Director of Agriculture
2. Deputy Director of Animal Husbandry
3. Asst. Director of Horticulture
4. Farmers following organic farming (3)
5. Representative of NGO working on organic farming promotion

#### **Block Level Committee for Promotion of Organic Farming:**

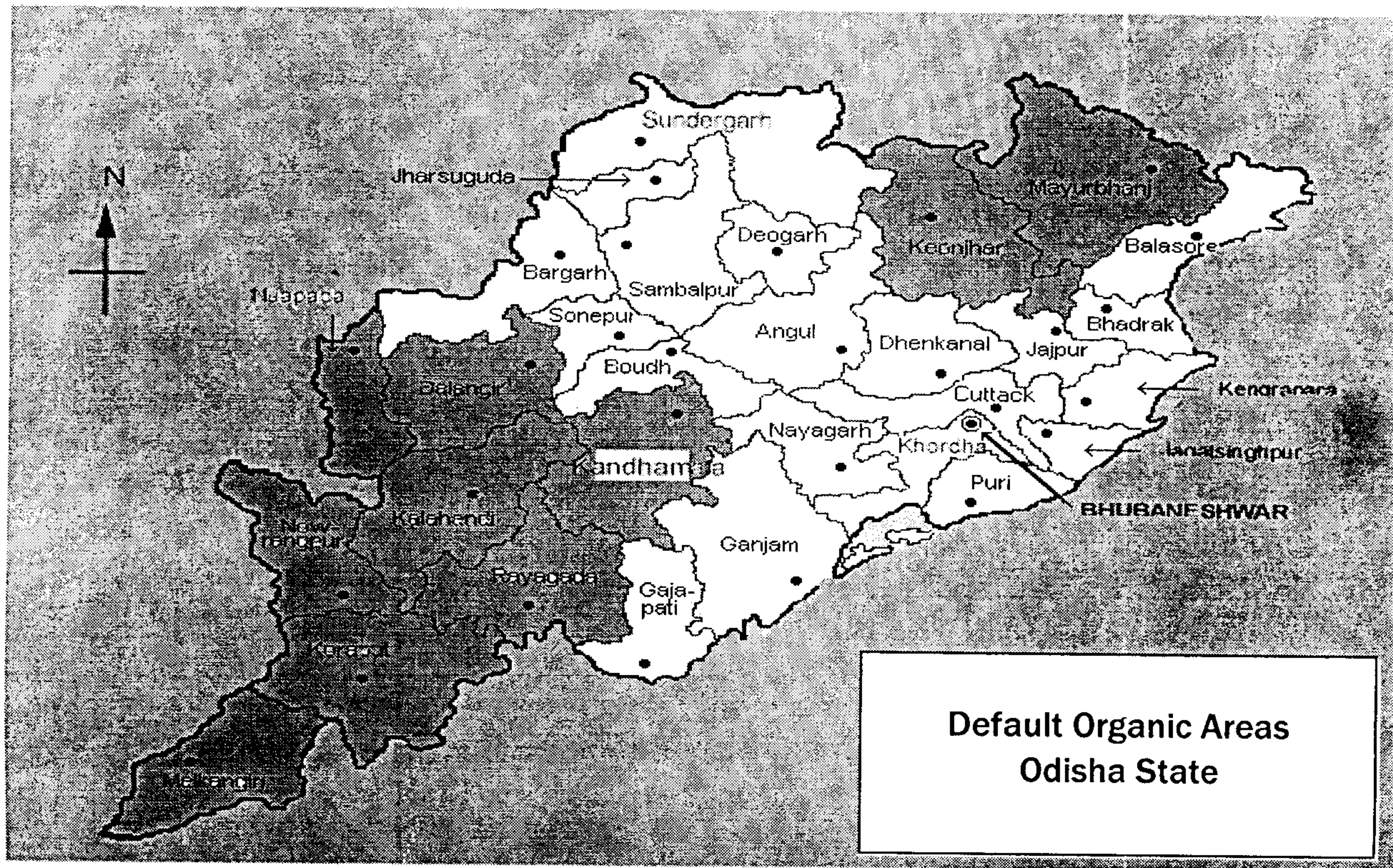
1. Assistant Agricultural Officer
2. Veterinary Asst. Surgeon
3. Block Horticultural Officer
4. Farmers (members of cooperatives/organic farming groups) following organic farming (2)
5. Representative of NGO working on organic farming promotion

### **Functions of the Organic Farming Board**

- Providing technical support to the farmers and cooperatives
- Quality management
  - Input regulation
  - PGS/ICS for farm produce
- Financial linkages
- Marketing linkages

## B Programmatic scaling up organic farming

**B.1. Focused approach:** in implementation the government will take a focused approach. In the in initial year the govt will take off based on the existing opportunities



- a. **Default organic growing areas:** in the districts of Kandhamal, Boudh, Koraput, Mayurbhanja, Keonjhar, Nuapada, Kalahandi, Balangir, Rayagada, Gajapati. there are several lakhs of acres which are default organic. These would be declared as organic and efforts would be made to get them a recognition and marketing.
- b. **Existing organic farming groups:** Department of Agriculture and NGOs are already promoting organic farming and the existing organic groups under PGS/ICS certification, farmers cooperatives which are into organic production and marketing will be brought under the program. The farmer groups from OTELP (Odisha Tribal Empowerment and Livelihoods Program) , OLM (Odisha Livelihoods Mission) who have already shifted to organic/NPM/natural farming will also be brought under the program.
- c. **Scaling up:** A programmatic approach is required to progressively scale up organic farming which addresses the challenges of transition, provides village-level support systems and builds capacities on technical front. A pilot program will be taken up in 100 clusters of 5 villages each spread over several districts, wherein a mix of subsistence and market-based agriculture scenarios exist. The focus will be on small and marginal farmers, in the rainfed and ecologically fragile areas/biodiverse areas in addition to crisis-ridden farming belts.

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The pilots will primarily focus on production related changes but also be able to pilot innovative approaches around collective enterprises around inputs, collective marketing including with processing and value addition, systems for running community level seed banks etc. It has been found that working with women's SHGs for management of the programme and through FFS (Farmer Field Schools, with participation of both women and men farmers) for capacity building, knowledge enhancement, horizontal sharing and learning etc., works out well.

In the next phase, the program should be scaled up in Mission Mode with extensive publicity and sustainable institutions.

Annexure-II provides more details of the action plan for scaling up.

## **B.2 Criteria for selection of areas/ villages/farmers for conversion to organic farming:**

- In rainfed areas, organic agriculture (with low external input) has shown the potentials to increase yields. Under drought conditions, crops in organic agriculture system produce significantly and sustainably higher yields than comparable conventional agriculture crops. Hence rainfed and drought prone areas are the priority areas for conversion to organic agriculture.
- Hill and Tribal areas rich in biodiversity are the other priority areas for undertaking organic farming. Tribal areas are to be given special status and declaring them as organic zones to protect and conserve biodiversity.
- Villages under Organic farming/sustainable agriculture under various programs by government and non governmental organisations.
- Areas of high-external input use agriculture cultivating commercial crops.
- Inclination of the farmers towards organic agriculture.
- Low level of chemical fertilizers/pesticides use.
- Availability or source of organic inputs.
- Existing farming system comprising Agriculture, Horticulture, Sericulture, Animal Husbandry, Piggery, apiculture etc.
- The current level or organic farming systems adopted by farmers.
- Food security, quality and safety for the local rural and urban population.
- Export potentiality.

## **B.3. Farmer Producer Organizations**

1. The State Government would encourage formation of farmer producer organizations (FPOs) - including Co-operatives and Producer companies - exclusively for promotion of organic farming in all the districts and these FPOs will be empowered to handle all activities related to organic farming viz., production of organic inputs, processing, Certification, marketing etc.
2. The group should be preferably homogeneous, compact, manageable and based on area approach/crop approach.

