

Theme III: Expanding Agriculture and Allied Sectors

Sub Theme: A policy Approach for Mission organic Arunachal Pradesh

Government of Arunachal Pradesh has Launched State Organic Mission on 15th April 2017 with a vision to transform Arunachal Pradesh into Organic state.

Excerpts from the State Organic Policy

Background:

Concept of organic farming

1.1 Why Organic Farming?

Population explosion followed by over exploitation of natural resources has led to poverty, environmental pollution and unsustainable growth.

So, to achieve sustainable development in agriculture, the need of the hour is promotion of organic farming. With the introduction of Green Revolution technologies the modern agriculture is getting more and more dependent upon steady supply of inputs. Organic farming is gaining momentum all over the world as it offers a means to address food self reliance, rural development and conservation of nature.

The common thread in this approach is the sustainable use of bio-diversity.

Organic farming is of growing importance due to some serious risk to health and environment and is adopted in several developed countries. There is an increasing awareness among the consumers on the deleterious effects of pesticide residues in food. Organic agriculture in many ways would be an eminently preferable model for the development of agriculture.

Organic farming could be a potential alternative to chemical pesticides, fertilizers and other inputs. Organic farming is the form of agriculture that relies on techniques such as crop rotation, green-manure, compost and biological pest control which ultimately promote biological diversity and maintaining soil fertility. Organic farming creates a natural self-sustaining balance that helps to get high quality food in healthy quantities year after year.

Due to above mentioned risks and adverse effects of Intensive farming, the present agriculture scenario is rapidly moving towards another green revolution through adoption of Organic Farming on large scale. But, it has been observed that rate of adoption of on agricultural and horticultural crops among the farmers is slow or farmers are not yet aware of such modern agri-systems. Among the major reasons responsible are lack of awareness, training and certification, reduction in yield due to non-use of technology inputs and the most important is lack of proper Marketing of produce.

Reduction of external inputs, as in the case in organic agriculture is the key to economic and ecological rejuvenation of Arunachal Pradesh. Organic Agriculture

can lead to a very cost-effective rejuvenation of hill agriculture and is envisioned to bring about the overall rural development of the state.

Opportunity for Organic Farming In Arunachal Pradesh.

Farming in this hilly State has been traditionally organic by default. It would be relatively easy for farmers to shift to organic farming or improve their already known organic ways of farming from intensive or jhum farming.

States has ample variety of vegetables and fruits could substantially diversify farming to meet demands of the consumers for vegetables within the State. Increasing access to Arunachal Pradesh farmer's organic produce of vegetables, fruits, grains in local markets will serve a meaningful purpose.

In many parts of the settled areas of hilly region Rabi crops are not grown due to lack of irrigation facilities. Irrigation facilities created under conversion to organic farming will provide an opportunity to the farmers to grow wheat, barley, mustard and a large variety of vegetables crops during Rabi season also. Besides other fruits, Kiwi fruit (Chinese gooseberry), Avocado and Ornamental Orchid have a potential for large scale organic commercial production for national and international markets. Organic cultivation of the spice crop, Ginger also has a potential in the Sate. Rice-fish culture practice may yield both organic rice and fish if grown under organic management. Organic mushroom cultivation is also have a commercial scope for export to other states in India.

Large scale cultivation of Organic apple may be taken up for export purpose. Conversion of substantial area from Conventional Farming to Organic Farming is likely to usher in an era of Regional Self- reliance in food production. Certification of organic produce would add value for export purpose. Wetland rice agro-ecosystem though not as extensive as jhum ecosystem, is prevalent in comparatively low altitude areas. Unlike jhum system, wet rice agro-ecosystem ensures crop yield year after year from the same piece of land and encourages the formation of permanent villages.

The major constraints are low level of productivity, capital inadequacy, lack of infrastructural support, unfavorable terrain, and high cost of production along with demand side constraints. The non availability of basic preservation, storage and processing facilities, low value addition and unfavorable price of Agricultural commodities are severely affecting as a whole which directly encourages migration from rural areas to urban centers.

The agro-climatic condition of the Northeast is favorable for organic farming and the cultivators and players of the region must be given proper and adequate training for producing organic products and organizes market which is already existent.

1.3 Objectives of Organic Farming Policy

- To maintain and encourage agricultural and natural biodiversity on the farm and surroundings through the use of sustainable production system.

- To improve the depleted soils of Jhum land areas by addition of organic manures to make them input responsive.
- To produce sufficient quantities of high quality food, fiber and other products.
- To maintain and increase long-term fertility and biological activity of soils using locally adapted cultural, biological and mechanical methods as opposed to reliance on inputs.
- To maintain and conserve genetic diversity through attention to on-farm management of genetic resources.
- To make the farmers less dependent on external supply of inputs and raise crops with available resources, thus making farming less expensive and profitable.
- To reduce dependence of farmers for most of the inputs like seeds, manures, and plant protection materials by sourcing local natural resources thereby reducing the cost of cultivation.
- To improve farmer's income through production of quality produce.
- To increase rural employment opportunities to prevent migration to urban areas.
- To facilitate Farmer's Self Help Groups (FSHG's) for most of their requirements and for easy and effective trading.
- To maintain safe and pollution-free environment and also to protect health of human beings and animals.
- To recognize the importance of Indigenous Technical Knowledge (ITKs) and traditional farming systems.
- To support the establishment of an entire production, processing and distribution chain which is both socially and ecologically responsible.
- To increase food security by encouraging traditional crops and traditional food habits.

1.4 Vision of Organic Farming Policy

- To make the State organic producer of food grains, Apple, Ginger, Kiwi, Avocado, Passion fruit etc. which are likely to fetch premium prices in international market.
- To make farming sustainable, eco-friendly, rewarding, and competitive, ensuring poison-free water, soil and food for the betterment of every citizen.
- To improve overall livelihood development through better revenue generation.
- To increase fertility of settled jhum land and developed for organic cultivation.
- To promote cultivation of Rabi crops and make the State self-reliant in food production.
- To generate employment opportunities for the unemployed rural youth.
- To develop brand value for organic products of the State.

The crop production in Arunachal Pradesh has traditionally been organic with a majority of produce being cultivated chemical free. In order to reap the benefits of already advantageous situation, it becomes inevitable to get the organic certification for these areas in the first phase and establish better market linkages /market support system to ensure better prices of the produce of the farmers.

Strategies for implementation of organic farming policy

Reforming Agriculture and Allied Sector Policies to bring these in line with Organic vision. "When the state will promote natural resource based organic agriculture, keeping soil health, sustainability and productivity as prime focus" many policies of other sectors will need to be realigned. The policies would include convergence of related schemes of different departments; encouragement of Govt. for formation of Self Help Groups (SHGs) for the purpose of production of quality compost/Vermi-compost/organic seed and planting material and plant protection products would be required. Extension of financial systems to farmer's co-operatives for value addition, packing, labeling and marketing of organic produce would also be required.

Different policies for implementation of organic farming in the state are as described below:

- 3.1 Area /land/District selection policy in a phased manner
 - 3.2 Crops selection policy
 - 3.3 Infrastructure policy
 - 3.4 Administration policy
 - 3.5 Certification policy
 - 3.6 Adoption policy
 - 3.7 Enrollment of implementing agency policy
 - 3.8 Organic exit management policy
 - 3.9 Advertisement policy
 - 3.10 Marketing policy
- 3.1 Area /Land/District Selection Policy In A Phased Manner

A. Implementation of organic farming policies would be undertaken in a phased manner:

The Focus would be on potential crops and areas in order to achieve targeted conversion within a period of 3 to 5 years to be continued further. The total cultivation area in the state is 2.00 lakhs ha in which the Jhum cultivation area is as 1.10 lakhs ha and under permanent cultivation is as 0.90 lakhs ha area.

Districts in First Year: In this year, 20% area may be taken from permanent cultivation land i.e 0.90 lakhs ha. Districts and areas may be selected from high chemical zones/ rain-fed/drought prone areas and it will further decided by the State Government.

Districts in Second Year: In this year, 10% area will be selected from permanent cultivation and another 10% will be from Jhum cultivation (among those who will be provided bio-pesticides for orientation in previous year) or it may be further decided by the State Government.

Districts in Third Year: In this year also 10% area will be selected from permanent cultivation and another 10% will be from Jhum cultivation or it may be further decided by the State Government.

B. Criteria for the selection of area

1. Least consumption of inorganic fertilizers and pesticides

2. Present level of crop diversification comprising of cropping systems and patterns
3. The potential for the organic source of inputs in the area
4. Existing farming systems comprising agriculture, horticulture, sericulture, animal husbandry, piggery, apiculture (Beekeeping) etc.,
4. Intensity of multi- purpose tree coverage
5. The current level of organic farming practices followed by farmers
6. Presence of Farmer groups/Self Help Groups/NGO's
7. Potential for export of organic produce from the region
8. Availability of infrastructure and logistics
9. Crops in the area which are of commercial/industrial/medicinal and aromatic/food and trade importance would be identified in the region for production under organic system of farming.
10. Willingness of the farmers to be stakeholders by subscribing to a Producer Group Company (PGC)

Crops Selection Policy

Area approach/commodity/crop approach

The shift from the present way of cultivating crops to that of organic cultivation should be attempted gradually so that the available resources with the State Government could be effectively utilized for promotion of organic farming. In this direction initially it is proposed to select certain areas in the State. While selecting the area/village the following criteria would be followed:

1. Least consumption of inorganic fertilizers and pesticides
2. Present level of crop diversification comprising of cropping systems and patterns
3. The potential for the organic source of inputs in the area
4. Existing farming systems comprising agriculture, horticulture, sericulture, animal husbandry, piggery, apiculture etc.,
5. Intensity of multi- purpose tree coverage
6. The current level of organic farming practices followed by farmers
7. Presence of Farmer groups/Self Help Groups/NGO's
8. Potential for export of organic produce from the region
9. Availability of infrastructure and logistics
10. Crops in the area which are of commercial/ industrial /medicinal and aromatic/food and trade importance would be identified in the region for production under organic system of farming.

Second Phase: Rice will be grown as a main crop in Jhum cultivation areas along with maize & millets. In Jhuming areas, certified biofertilizers such as Pseudomonas, PSB, Azotobacter and Trichoderma would be distributed for Crop Management and Soil conditioning for the reoccurrence of nutrients in the areas. Crops like arum, ginger, mustard, vegetables and fruits such as orange, papaya, banana and pineapple may be grown in permanent cultivation areas. Tea plantation and other cash crops like cardamom may also be encouraged during this phase.

Third Phase:

- In this phase, cash crops, tea, medicinal plants, forest produce i.e bamboo etc. will be grown.
- Other agricultural and horticultural crops may also be encouraged to cultivate.
- It is proposed to provide financial assistance to tea farmers/growers in order to convert traditional Jhum cultivation into commercially more sustainable plantation crops like tea, besides agri-horti cultivation in the state.
- It is proposed to give emphasis on Organic tea cultivation with the similar financial support either to be operated by the state department of Agriculture/ Organic Mission or through the out sourced implementing agencies through the process of EOI.

3.3 INFRASTRUCTURE POLICY

A. Self Help Groups (SHGs)

The Government would encourage formation of SHGs exclusively for the purpose of production of quality compost/vermi-compost, organic seeds/ planting materials and plant protection materials. Further, SHGs would also be encouraged to take maintain community seed banks of local/traditional cultivars. For easy and effective trading, a unique registration number will be provided to each and every SHG's by the Government.

B. Farmers Co-operatives

Government would encourage formation of Farmers Co-operatives exclusively for promotion of Organic Farming programmes in the State. Emphasis would be given for small and marginal farmers to be the members of these Co-operatives. These Co-operatives would act as business platform of the farmers, by the farmers and for the farmers. Organic Farmers Co-operatives shall be given assistance for value addition, packing, certification and marketing of Organic produce.

C. Organic produce processing industry

- Organic produce processing units would be supported for development of infrastructure facilities.
- Organic Processing Industries would be exempted from payment of electricity tax.
- Organic Processing Industry shall be declared as seasonal industry for the purpose of Labour Act.
- The power supply company officer power at concessional rate than normal tariff applicable. This would be applicable for a period of initial three years.
- All processing units using Organic produce will be eligible for additional subsidy of 5 % over and above the fixed subsidy limit as per the Industrial Policy 2001-2006.
- The incentive available under the New Industrial Policy for obtaining ISO and other International Certification will be extended for Organic Processing Industries in respect of HACCP and other safety regulations and processes and also to meet the cost of certification from accredited agencies.
- Subsidy may be provided by the Government to set-up the processing unit in the state.

D. Bio-mass production unit and input supply

This should be encouraged and facilitated, as it is also an “Income Generating Activity” for the small/ marginal farmers on commercial scale. Farmers are to be facilitated to produce compost from farm waste, leaf litter and bio-degradable waste. Government should provide subsidy to the various Farmers’ Associations/Farmers Clubs/ Farmer’s Co-operatives/ Farmers’

Companies/SHGs/NGOs to produce the compost and sell to the members at reasonable prices if the farmers themselves are not able to produce the compost and Bio dynamic formulations etc. as per the guidelines of NPOP

E. Bio-diversity

Establishing bio-diversity with plant species of the local area is a key factor for successful organic farming. In fact, a combination of tree crop species to meet fodder/ timber/fuel/and bio-mass demand apart from providing habitat for birds and beneficial insects would go a long way in ensuring the sustainability of agriculture system under consideration. In this connection appropriate plant/tree species combination would be identified and will be designed as part of the package. In other words, Agri-Horti-Silvi-Pastoral-fodder system would be encouraged on individual farms.

F. Mixed-farming

Mixed farming is an insurance against natural calamities and a pre-requisite for Organic Farming. As there is need for continuous recycling of nutrients, the best system that ensures this the live stock component would be mandatory under mixed farming. In fact livestock comprising cows, buff aloes, piggery, poultry etc., act as the agent of recycling of farm by-products/ waste produces with value addition.

This system alone can keep the farmers active and provide employment throughout the year. Above all, this is a self-sustaining system for production of organic manures on farm, needed for organic cultivation..

G. Water management in organic farms

The importance of irrigation is recognized for many crops because the yields of irrigated crops are comparatively better than dry land crops.

- Government should provide subsidy under various schemes to develop infrastructure for irrigation so that farmers themselves meet the requirement of irrigation on their farms.
- Encouraged creating in-situ water harvesting ponds, wells, tubewells, handpumps and adopting suitable irrigation method like sprinkler and drip irrigation, mulching of the soil and suitable cropping pattern.
- Water harvesting and runoff recycling serve as a contingency measure against weather aberrations in areas where rain fall is erratic and unpredictable.
- Subsidy may be provided by the Government for the promotion of effective irrigation practices as discussed in above points.
- Watershed management will be supported or funded by MGNREGA/ NABARD etc

H. Soil fertility management

Biodegradable material of microbial, plant or animal origin produced from organic practices should form the basis of the fertility programme. Loss of top soil should be minimized through minimal tillage, contour ploughing, crop selection, maintenance of soil plant cover and other management practices that conserve soil.

Necessary measures should be undertaken to prevent soil erosion, compaction, salination, and other forms of soil conservation. Nutrient losses from the farm to the natural environment should be minimized. Nutrients should be used in such a way and at appropriate time and places to optimize their effect. Accumulation of heavy metals and other pollutants must be prohibited. Manures containing human faeces and urine must not be used unless free of human pathogens.

I. Other Logistic and Infrastructural Supports

Assistance for organic produce processing industry

Organic produce processing units would be supported for development of infrastructure facilities. They would also be provided with tax rebates as applicable to the cottage industries.

Organic Processing Industry shall be declared as seasonal industry for the purpose of Labour Act. These units shall be exempted from payment of minimum demand charges to the power utility supplier during closure period of 30 days at a time. The power supply company to offer power at concessional rate than normal tariff applicable. This would be applicable for a period of initial three years. Similarly Organic Processing Industries would be exempted from payment of electricity tax.

All Organic Processing Units which purchase agricultural produce directly from the farmers on contract farming basis would be exempted from market fees/ cess under APMC act. All processing units using Organic produce will be eligible for additional subsidy of 5 % over and above the fixed subsidy limit as per the Industrial Policy 2001-2006. The incentive available under the New Industrial Policy for obtaining ISO and other International Certification will be extended for Organic

Processing Industries in respect of HACCP and other safety regulations and processes and also to meet the cost of certification from accredited agencies.

J. Installation of renewable energy sources

Assistance would be extended for installation of Bio-gas plants, solar energy units and wind energy units in the organic farms so as to reduce the dependence on external energy sources like Electricity and Petroleum products. In addition, for each Bio-gas plant it would be made compulsory to establish one Vermi-compost unit. Logistic supports required from the Central/State Govt. are as follows :

- Rural Godowns : Government may provide subsidy to Private companies/ NGO's / Marketing agencies etc to set up godowns at towns/ cities in a district to procure and facilitate the domestic marketing & export in the state.

- Cold stores: Subsidy schemes need to be availed for creation of cold stores to the private entrepreneurs for storage of produced organic crops.
- Cold chain: For the marketing purpose and supply of produces to other cities in rapid communication, cold chain vehicles may be provided on subsidy to the marketing companies.
- Soil testing labs: Five no. of Soil testing laboratory should be setup in the state which are fully funded by the Govt. and on subsidy scheme for Private Entrepreneurs.
- Bio-control laboratory: For the preparation of Bio-control agents, Five no. of Bio- control laboratory should be proposed which are fully funded by the Govt. and on subsidy scheme for private entrepreneurs.
- Plant Clinics: For detection of plant protection problems, five no. of Plant clinics should be set up which are which are fully funded by the Govt. and on subsidy scheme for private entrepreneurs.
- Organic missions Training Schools: One Central school to be developed in the Naharlagun, and Organic training schools should be run by the Govt. or SAU under fully funded subsidy schemes. The above infrastructural facilities would be made available in all the districts for various farm and marketing activities. Funding sources may include Ministry of North Eastern Hill Region, Govt. of India; Ministry of Rural Development; Horticulture Mission for North East and Himalayan States; Rashtriya Krishi Vikas Yojna (RKVY); National Bank of Agriculture and Rural Development (NABARD) etc.

ADMINISTRATION POLICY

A. State Administration

State Organic Mission for Promotion of Organic Farming may be constituted as follows:

Agriculture Production Commissioner :	Chairman
Secretary, Ministry of Finance :	Member
*A National Level Eminent Scientist :	Member
**Nodal Offi cer, Organic Mission :	Member
Director, Agriculture :	Member
Director, Horticulture :	Member
Director, Animal Husbandry :	Member
Director, Agricultural Product Marketing Committee :	Member
District Agriculture Officer (nominated from two districts in rotation) :	Member
District Horticulture Officer (nominated from one district in rotation) :	Member
Secretary, Department of Agriculture :	Member Secretary

*A National Level Eminent Scientist with wide experience on organic farming to be nominated / appointed by the Chairman

**Nodal Officer, Organic Farming will be nominated among the existing officials of Department of Agriculture with rank on or above the Dy. Director, Govt. of Arunachal Pradesh.

Functions of State Organic Mission :

1. Shall review from time to time, the state policy for promotion of organic farming with the advice of the Mini Mission in the state.
2. Ensure co-ordination among different department/ sectors and agencies involved in organic farming
3. To approve guidelines and schemes proposed for popularizing organic farming in the state.
4. To fix assistance/subsidies to different components of organic farming.
5. To formulate legislative measures if any relating to organic farming.
6. To co-ordinate with national and international organizations in all matters relating to organic farming
7. To constitute Sub - Committees/Site Specific Committees wherever necessary for focused action.
8. To provide a List of minimum five Certifying Agencies duly approved by APEDA through Expression of Interest (EOI) procedure for selection of Certifying Agency by the Implementing Agency.
9. To guide and issue directions to Site Specific Committees.
10. To review the progress in implementation of organic farming programmes by various agencies as per the state policy.
11. Any other issues related to promotion of organic farming in the state.
12. The Secretary Agriculture of State Organic Mission will Head the Mini Mission
13. The committee shall meet at least once in three months.

Others Administration Policy Allocation of funds for organic farming The financial allocations of the state shall be pooled under the head "Organic Farming" and the "State Organic Mission" shall have the powers to allocate the funds to different schemes and agencies. Different departments of the State Government/Government of India, State Government Undertakings, Government of India Undertakings/Institutions, Agricultural universities shall work for the promotion and implementation of the organic farming programmes in the State.

CERTIFICATION POLICY

- A. Types of Certification will be done in the state under NPOP/NOP/EU norms
- Big Individual growers will get special financial support from the State Organic Missions.
 - Small growers groups certifications.
- B. The following methodology is proposed for the certification of land size required for the tea plantation/ cultivation of other crops.*
- The cultivars in one geographical area should have a registered society comprising of the growers and accumulating the area above 100 ha preferably. (Decision of the State Organic mission will be binding for the area)
 - The society will enroll as an individual grower with the certification body with the farmers as partners in cultivation.
 - As per the norms of the certification body/ APEDA, the PAN number of the society to be provided to the certifying body.
 - The assistance to the implementing agency/ society will be given as per the norms fixed for the cultivation in regular agricultural and horticultural crops.
 - The additional inputs needed for the tea plantation may be covered from the input scheduled to be used for retrieval of farmers using Jhum Cultivation.

C. Criteria for Certification of organic food:

Certification is the key to National Organic programme. The main requirements are as follows:

- The methods and materials used in production must meet organic standards.
- There must be clear and ongoing documentation of these methods and materials.
- There must be a paper trail tracing the product back to its production site in order to verify the methods and materials used in its production.

D. Criteria for Certification of Non wood forest produce (NWFP) The responsible operator shall be dealt with as any other certified party. The operator shall issue instructions to the collectors, that at least:

- Defines the area of collection
 - Informs them about the standards and other requirements for certification
 - The area of production shall be properly identified on appropriate maps, which shall be large and distinct enough to reduce the risk of mixing up with non-certified production
- Criteria for selection of Certification Agency in the state:

In India, accreditation agencies approved by Ministry of Commerce (MoC) Govt. of India include the Agricultural and Processed Food Products Export Development Authority (APEDA), Coffee Board, Spices Board, Tea Board, Coconut development Board and Cocoa and Cashew nut Board and several other Indian initiatives have also applied for accreditation. Certification bodies in India accredited under the NPOP.

3.6 ADOPTION POLICY

During the adoption process, following recommendations given below in different parameters must be followed by operators for high quality organic food production.

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CEO

AP Agriculture Marketing Board
Department of Agriculture, Govt. of AP