

## **Issues and Challenges in Health Care of Sikkim : An Organic Approach**

**Ms. Vandana Rani**

Assistant Professor, Department of Political Science

Kalindi College (University of Delhi)

### **Abstract**

Good health and well-being are some of the sustainable goals of the United Nations Organization. In the era of globalization, many steps have been taken to promote health care. Organic farming is one of the initiatives taken by many states to positively impact public health because it does not cause environmental pollution, i.e., water, air, and soil. Because pesticides free farming organic farming is close to the environment, it protects and promotes environmental ecology and public health. The UN has taken many steps towards the sensitization of the environment and health. The concept of ecological sustainability has become one of the most important principles of the global ecology movement. The UN conference "Earth Summit" held in Rio de Janeiro in 1992, millions of people have participated in the summit. The idea of sustainability in environmental health had been increased in the summit. Keywords: Good Health, Sustainability, Ecology, Organic farming,

### **Introduction**

Sustainability is about ecosystem integrity, social well-being, economic stability, and good governance. Sustainability has first been equated with environmental soundness in order to ensure the continued provision of goods and services to present and future generations. In 1996, world leaders gathered at the World Food Summit and committed to reduce by half the number of hungry people by the year 2015. After a series of international meetings during the 1990s, other major goals were identified within the same time horizon. These commitments were brought together in the Declaration adopted by the UN Millennium meeting in September 2000 and were later restated in the form of eight Millennium Development Goals (MDGs). The Declaration was endorsed by 189 countries. The health and wellbeing of the people is the core concerned area in the Eight Millennium Development Goals (MDGs). In Dr. Paul Farmer words "The essence of global health equity is the idea that something so precious as health might be viewed as right"<sup>1</sup> Organic farming is close to nature and provides

---

<sup>1</sup> Dr. Paul Farmer, health & well-being

better living opportunities to the living being. Organic farming is a method of crop and livestock production that involves much more than choosing not to use pesticides, fertilizers, genetically modified organisms, antibiotics and growth hormones. Organic production is a holistic system designed to optimize the productivity and fitness of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people. The principal goal of organic production is to develop enterprises that are sustainable and harmonious with the environment and to provide better health opportunities for the people.

The Earth Summit Agreements In Rio, represented by 108 heads of State or Government, adopted three major agreements aimed at changing the traditional approach to development<sup>2</sup>. Agenda 21, a comprehensive programme of action for global action in all areas of sustainable development. The Rio Declaration on Environment and Development, a series of principles defining the rights and responsibilities of States. The Statement of Forest Principles, a set of principles to underlie the sustainable management of forests worldwide.

### **Concept of Organic Farming**

The most widely accepted definition of organic farming is "Organic culture is a production system that sustains the health of soils, ecosystem and people. It relies on ecological processes, biodiversity and cycle adapted to local conditions rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationship and a good quality of life for all involved",<sup>3</sup> International Federation of Organic Agriculture Movements.

Thus, in organic farming, agriculture practices are in complete with nature. The whole purpose is to remain in synchronization with the ecosystem. There are four principles of organic farming which explain the philosophy.

Health: Organic farming should sustain and enhance the health of soil, crop, animal, human and the earth where we live in.

Ecology: Organic farming should maintain the ecological aspects of the environment so that we all can live and survive in it.

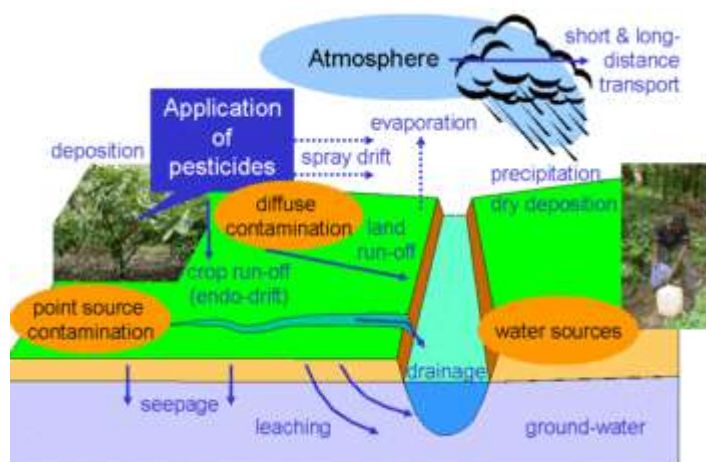
---

<sup>2</sup>Rio de Janeiro, June 1992.

<sup>3</sup>IFOAM, the General Assembly September 2005, Adelaide, Australia

Fairness: Organic practices should be based on fair relationship between the common environment and life opportunities.

Care: Organic agriculture should be managed in all manners so we can protect and care of our mother earth not for us for to our generations also.



Source: Environmental impact of pesticides

### **Case study of Sikkim being an Organic State**

Agriculture in hill states had always been a challenge the world over. The technological intervention added during the last five decades which have been changed the face of agriculture in many developed and developing countries tremendously, failed to change the scenario in the hill. Due to physiographic and geographic reason they were either inaccessible or unaffordable to the people or they were not suitable to the complex hill ecosystem. This led to the thinking of an alternative system best suited to these hilly terrains.



**India Coordinates: - 20.5937° N, 78.9629° E<sup>4</sup>**

Transformation of Sikkim Agriculture to fully organic is not going to help the state to improve its soil quality and prevent water pollution, but will also be the key to point to improve the inflow of tourist also.<sup>5</sup>

Organic farming is a mean of farming which is usually adopted by the farmers of Sikkim for ages. But in mean time when chemicals and pesticides came into supply for farming community to provide nutrients for crops and control diseases. When the time passes the noble practice of organic farming slowly faded down due to availability of chemicals and various pesticides took over the certain crops over a period of more than decade. The state Sikkim, with a vision of sustainable agriculture took serious notice on the impact of chemicals used in agriculture that pollute the natural resources of pristine Sikkim.

To care of ecology and the healthy living of the people of Sikkim with due care of ecology and environment, the State Government resolved that it will convert the entire Sikkim state

---

<sup>4</sup> [https://www.google.co.in/search?tbm=isch&q=world+map&backchip=g\\_1:high+quality&chips=q:world+map,g\\_6:outline&sa=X&ved=0ahUKEwjhtmc2KvUAhVEr48KHYwdbXUQ3VYIJigA&biw=1517&bih=735&dpr=0.9#imgrc=Lfs4Bund4XwcXM](https://www.google.co.in/search?tbm=isch&q=world+map&backchip=g_1:high+quality&chips=q:world+map,g_6:outline&sa=X&ved=0ahUKEwjhtmc2KvUAhVEr48KHYwdbXUQ3VYIJigA&biw=1517&bih=735&dpr=0.9#imgrc=Lfs4Bund4XwcXM):

<sup>5</sup> [www.sikkim.gov.in](http://www.sikkim.gov.in)

into organic state. To make the vision possible the Sikkim legislative assembly has taken a step and passed a resolution in 2003 to convert the entire state of Sikkim into organic state by banning the pesticides and chemicals in the market.

With the conceptualization of organic agriculture, sustained efforts were made by the state to generate awareness amongst the farming communities and consumers about the advantages of organic farming organic produce. The subsidies on inorganic fertilizers and pesticides were slowly tapered and ultimately their usage has been phased out. A strong road map has been worked out for the organic conversion of the entire state by 2015. Since the inception of Sikkim's organic mission, three livelihood schools are fully engaged in human resource development. Other prominent activities are support of organic inputs to farmers through training and channeling of the policy to the market for the organic produce of the farmers. The Prime Minister said he is in Sikkim as the guest of the farmers of the State. He said the deliberations during the Conference had set the tone for a new holistic vision for the country's agriculture. He said all States could pick up the relevant parts from the presentations, which he said, should be remembered as "Sikkim Declaration.", PM Narendra Modi at Sikkim organic festival 2016.<sup>6</sup>

Organic agriculture is an economically viable and sustainable business for generations. Owing to diverse climate conditions, different crops with high demand in domestic and international market like large cardamom, ginger and orange. Sikkim mandarin, pulses, turmeric, buckwheat, baby corn, medicinal herbs etc. are grown in the state. The government is aiming to provide to the rural youth through organic farming, a sustainable source of the people of the Sikkim.

---

<sup>6</sup><http://www.pmindia.gov.in/>



**Sikkim Coordinates = 27.5330° N, 88.5122° E<sup>7</sup>**

### **General Policy**

- Sikkim is doing an in-depth integrated assessment of its general agriculture policies, programmes and plans to understand how they affect the competitiveness and conditions of the organic sector.
- The objectives for development of organic sector is clarified before all stakeholders like farmers, government machineries and all concerned who are involved in the development of plans and programmes.
- An action plan for organic sector is developed based on analysis of the state of the sector, participatory consultations, need assessment and proper sequencing of actions.

---

<sup>7</sup> [https://www.google.co.in/search?q=Map+Of+india+with+sikkim&rlz=1C1GIWA\\_enIN740IN740&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjshLTC2avUAhWLuo8KHVOKAo8Q\\_AUICigB&biw=1517&bih=735#imgsrc=d7u10Z3dUjwMiM:](https://www.google.co.in/search?q=Map+Of+india+with+sikkim&rlz=1C1GIWA_enIN740IN740&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjshLTC2avUAhWLuo8KHVOKAo8Q_AUICigB&biw=1517&bih=735#imgsrc=d7u10Z3dUjwMiM:)



The action plan makes measurable targets for the organic sector to help agencies and stakeholders focus their efforts.

- Government is actively creating awareness for organic agriculture at all levels.
- Data about organic productions and markets will be collected over the years, analyzed and made available to the organic sector and all stakeholders.
- Direct support measures to farmers will be extended by giving them various inputs incentives programmes such as rural compost pits, vermicompost, biofertilizers etc.
- Organic extension service will be established with a view to train the staff. Farm and the farmer would be the focal point in the newly developed organic extension through participatory approach.
- Traditional knowledge about pest control treatments etc. will be surveyed and disseminated through extension service.
- Recycling of agriculture and food waste into organic farming system will be promoted.
- Government has already established a biofertilizers unit at East Sikkim with an installed capacity of 150 ton per year. More units will be set up in Government sector and local educated unemployment will be encouraged to set up such unit in the private sectors.
- The Sikkim Government has already set up three livelihood schools to create trained local manpower for the organic sector.
- Seed production and testing will be oriented towards organic production. Local seeds will be produced in an organic environment.
- Animal feed production units will be set up so that all animals feed is organic and all manure so prepared from cattle dung will also be organic.
- Policies for genetically modified organisms (GMOs) need to ensure that GMO seeds are not distributed or used in any way that causes contamination of seeds.

### **Standards and Regulations**

- Certification services will be assisted by the government of Sikkim. .

- Producers will be supported to comply with standards, certification procedures and regulations. Special consideration will be provided for certification of small holders.
- Fully supported training programmes to be set up for farmers group.
- Government while regulating this sector will develop the regulation in close consultation with all concerned and ensure that the regulation is enabling.

### **Policy Initiatives**

1. Immediately after the declaration of Sikkim as Organic State, the following policies were adopted:
2. Subsidies on chemicals fertilizers and pesticides reduce at the rate to 10% every year to discourage the use of chemicals by making them costlier.
3. Stopped lifting the Government of India quota of fertilizers
4. Closure of sale point and other outlets.
5. Branded organic manures made available immediately as a temporary arrangement.
6. Subsidies on infrastructure like vermin – composting and rural composting pits released to farmers.
7. Training and orientation programmes for local farmers and departmental field functionaries on Organic Farming.

### **Effects of Pesticides on Plants and Animals**

- Most of the pesticides uses in farming contain chlorine which persist in the environment and accumulate within living bodies.
- They cause death of large pollinating agents which reduce crop production.
- Many of the toxic used in farming causes cancer, reproductive and developmental impairment, effect on kidneys, lungs and other kind of health disease.
- During spray of chemicals they fall on earth and decrease the fertility of soil and also contaminate nearby water body.
- Pesticides contaminate ground water.
- Their high concentration inhibits the tissues of fishes and other water lives.
- Toxic fog, rain or wind threatens forest and other ecosystem.



- They affect fetus and cause still birth, spontaneous abortion, premature births etc.
- They cause cancers of breast, reproductive system.
- They suppress immune system making people more prone infection disease.
- Weight loss, dermal disorder etc. are the other causes use of the pesticides.

### **Benefits of Organic Farming**

- Organic farming has several advantages as compared to conventional way of farming wherein several chemicals and other inputs are used to increase the productivity of land.
- Organic farming by using organic means proves to be more profitable than conventional farming.
- Organic farming is cost effective it reduces the cost production because of non use of synthetic fertilizers and pesticides which are costlier in amount so it doesn't affect the farmer community.
- Organic farming preserves the nutrients of soil. Soil is a most important component for the farming and by the way of using organic we can preserve the soil fertility for the years.
- Organic farming also enables farmers to use soil for a longer period of time to grow crops as soil fertility is maintained for a long time.
- Organic farming is an eco friendly way of agriculture which preserves the life of animals by providing them safe organic grazing.
- Organic farming is not only beneficial for farmers but it has also proved useful for the dairy industry. Cattle feed from organic farmlands have been found to be less prone to disease and they yield more milk. These are definitely good signs for a consumer of these dairy products from health perspective and for a dairy organization form the profit perspective.
- The organic products of dairy industry are very healthy and tasty to consume.
- The original nutritional content of food is preserved due to the absence of synthetic fertilizer and pesticides.
- Organic products are tastier then the products yielded form traditional farming.

- Consumption of products obtained from organic farming minimize the risk of physical ailments such as heart attacks. Scientific studies have proven that organic foods are healthier than the inorganic ones.

### **Organic Movement in Policy Planning**

Developing organic values can be inculcate at various levels from individual through small groups to large groups and finally at national level and international level. Association and NGO's can play a very important role in effective implementation of organic farming policy in Sikkim.

Workshops on the organic farming are part of environmental education through which people are made to understand the special aspects of cultivation. Their importance and the result of agriculture up gradation. It help people to take part in development processes without adversely affecting the ecological balance. It makes people conscious and responsible towards environment. Using lots of chemicals, pesticides and fertilizers are harmful to crops as well as the animals and other living beings also. Only using and promoting organic farming can protect the environment integrated approach and cooperation of people of the Sikkim.

Organic farms and resorts set up across the State provided an imputes for further growth of the Tourism industry in the form of 'Organic Tourism'.

The ban of synthetic fertilizer and pesticides at local level has led to reduction in he use of fossil fuels and emission of green gases in addition to sequestering native soil and ecology of the State thereby playing an important albeit small role in mitigating the effects of climate changes which is very significant in the fragile Himalaya ecosystem.

### **Set up of Vermi composting pits for better environment**

In present day condition of energy crises and environmental degradation, it has become essential to develop appropriate technologies for the recovery of energy from non conventional sources like organic waste. The concept of resources cycling in particularly relevant to production because the natural soil, plant, animal, soil recycling system is quite effective in bio processing and bioconversion. Vermin technology has bright future to developing the concerns in waste management and environmental conservation. Government

of Sikkim doing its best to set up of vermin compost pit in the agriculture area. They are assisting them to set up a vermin compost pit.

A biodiversity hotspot, conservation of the flora and fauna especially the rare and endangered species endemic to this part of the country has been noteworthy, a consequence of organic farming in the state.

Such historic declaration led to major policy changes at the national level and also in various states. According, ministry of Agriculture, Government of India and many more other State government took major steps for promotion of Organic Agriculture.

#### Progress in organic Movement

- Uttarakhand embraced the idea and declared its intention to convert the hill districts to organic established "Uttarakhand Organic Commodity Board" in 2004 and initiated steps for creating Organic Certification Agency.
- First international trade fair entitled "India Organic – 2005" launched in November 2005 at Lal Bagh, Bangalore.
- State Government of Kerala, Andhra Pradesh and Karnataka drafted Organic Agricultural Policies.
- Promotion of organic agriculture was included in many centrally sponsored schemes of Government of India such as National Horticulture mission.
- State Government of Nagaland and Mizoram have declared that with due course of time they will go with 100% organic way of farming.
- State Government of Maharashtra and Madhya Pradesh drafted and declared policies for adoption of organic agriculture.
- Rapid increase in area under organic certification process.
- Growing among consumers and emergence of organic food market in India..

#### **Institutional framework setup for Sikkim Organic Mission 2015 policy implementation**

Executive Body of Sikkim Organic Mission:

The Government of Sikkim vide Gazette Notification Dated 26<sup>th</sup> October 2010 issues order for constitution of State Apex Committee (SLAC), State Level Steering Committee (SLSC) and Executive Body of the Sikkim Organic Mission.

Setting up of three Livelihood Schools on Organic Agriculture, first of its kind in the country: The first livelihood school on organic farming was inaugurated by Shri D. N. Tharkarpa, Minister, on August, 2010. The Tadong livelihood school was opened with 130 participants from the 15 constituencies of East and North districts of Sikkim for three month long training on organic farming.

### **Technological Achievements –An Organic way to preserve the environment**

Some of the technologies standardized for different crops in the State through research by ICAR, Sikkim are:

1. Organic management for rejuvenating the decline orchard
2. Organic mushroom cultivation
3. Organic ginger cultivation
4. Organic production technologies for Kiwi fruits
5. System of Rice Intensification

### **PERSONAL EXPERIENCES OF THE PEOPLE of SIKKIM**

**‘Sikkim as a total Organic State’** Effect of Policy and the Changes it has brought about in people's lives.

**NAME: RIZING BHATIA**

**PLACE: NORTH SIKKIM**

“I've two cows, poultry farm and my personal farm house where I grow vegetables fruits etc. I feed my cow with organic food thereby I get quality organic milk in return. I am very happy with the government initiative by making Sikkim as a total organic state.”

**NAME: SANGAY TENZING**

**PLACE: NORTH SIKKIM**

“I am a middle class person with mediocre income before the policies of Sikkim government I hardly used to save money. But after various policies by Sikkim government in the same plot I grow many varieties now I've domestic animals like cows, hens, goats. Government provided and equipped us with inputs green house facilities. Now I am self-reliant”

**NAME: JAMYANG GENSAPA**

**PLACE: MARTAM VILLAGE**

“I am a farmer I’ve 3hectares of land. Government policies toward people are really appreciative and I am proud that I am producing food without poison-chemical free & thanks to organic farming & organic policies. I am successful & leading a comfortable life.

**NAME: PEMA SEDEN**

PLACE: RUMTEK, SIKKIM

“I had limited income and now I feel that organic farming blessed me with sustainable livelihood my farm fertility and production have increased.”

**NAME: NAREN PRADHAN**

PLACE: NORTH SIKKIM

“I used to be very poor. Government helped me a lot. They provided us money for shelter and an area so that I can grow product for myself consumption. I use organic fertilizer now I am a middle class farmer I also attend workshop on organic farming.

**NAME: Gyantshering**

PLACE: Martam Village, North Sikkim

OCCUPATION: Shopkeeper

“By application of this policy told by you and initiation by government has a great impact on market. Production cost by farmers is low & market for organic produced goods is more as everyone prefer healthy food over poisonous food. Products are very effective when applied at regular intervals.”

### **The Holistic Vision of Organic Agriculture**

Organic agriculture not only provides benefits at the individual farm scale, but also at higher scales. For example, at the community level it promotes erosion control, reduces surface runoff, increases soil fertility and biodiversity, and reduces the use of toxic chemicals. It provides downstream communities with a cleaner, healthier and more-abundant water supply and neighbouring communities with all the advantages of a healthier, less-polluted environment (including positive externalities and ecosystem services). This is not only an improvement for human health, but also for the fauna and flora associated with the on-farm and off-farm environment.

### **Summary**

The organic movement has a range of strengths in various areas including agriculture and food production, international relations, direct marketing and process auditing. Fuelled by strong global consumer demand for ethically produced goods, the organic movement is expected to continue growing and diversifying. However, important issues need to be addressed such as balancing organic principles with commercial pressures and maintaining flexible (locally appropriate) standards and certification while also pursuing international harmonisation. As government and agribusiness groups are increasingly collaborating with the organic movement, it is anticipated that the beneficial impacts of organic farming systems will be further improved, and that the negative impacts will be minimised or avoided. Organic agriculture will continue to challenge its critics as increasing numbers of successful enterprises are established in various countries. Organic proponents will also be challenged as new ethical questions emerge and the task of reviewing and improving organic farming methods is tackled. The organic movement has grown beyond its roots of farmers, growers groups and loyal consumers to a global niche industry. With new stakeholders and different stakes, the organic movement now has the opportunity to form more beneficial relationships and interact more directly with all key players in agricultural development. Organic agriculture integrates well a number of important issues through its holistic vision and systemic approach, addressing simultaneously a range of economic, social, political and environmental issues. As such, organic agriculture offers solutions, both direct and indirect, to achieving the often intertwined MDGs of United Nations Organizations.

#### **REFERENCES:**

- Towards Fully Organic State by 2015, Food Security & Agriculture Department and Horticulture & Cash Crops Development Department Government of Sikkim
- Sikkim Organic Mission, FS&AD and H&CCD Department, Government of Sikkim, Krishi Bhawan, Tandong 737102, East Sikkim, India.
- Organic Food Market In India Case In Point: Organic Fruits & Dairy Products, technopak

- Organic Agriculture's Contribution to Sustainability Nadia El-HageScialabba, Senior Officer, Organic Agriculture Programme, Food and Agriculture Organization of the United Nations, Rome, Italy
- ["Sikkim 'livelihood schools' to promote organic farming"](#). Hindu Business Line. 6 August 2010. Retrieved 29 November 2012.
- Aditya Kalra (27 March 2015). ["Exclusive: Modi govt. puts brakes on India's universal health plan"](#). Reuters India.
- ["NUHM"](#). Retrieved 6 May 2015
- Organic agriculture: opportunities and challenges Paul Kristiansen\*, University of New England, Australia, AcramTaji, University of New England, Australia and John Reganold, Washington State University, USA
- Singh, Sukhpal, 2003, Chairman's Report - Marketing of Organic Produce and Minor Forest Produce, Indian Journal of Agriculture Marketing, Conference Number Special.
- Somany and Others (ed.), 1992, Proceedings of National Seminar on Natural Farming, Rajasthan College of Agriculture, Udaipur.
- Thakur. DS, Sharma. KD, Thakur, DR and Saini, AS, 2003, Economics of Production and Marketing of Organic Produce and the Burgeoning Niche Market for Organic Food Products, Indian Journal of Agriculture Marketing, Conference Number Special.
- Purohit B C, Private initiative and policy options: recent health system experience in India, Health Policy and Planning 16(1): 87-97