

Comparative study of India's organic agriculture with the Leading Countries: Europe and U.S.A

Kritika Gurung, Purna Sharma and Mandeep Dhalor
Panjab University department of environmental science Chandigarh 160014

Abstract: India is one of the fastest growing among the developing countries with its high GDP and is also emerging as a good competitor in the field of organic market due to some of its exclusive product (cotton & spice). India is ranked number one in the highest producer worldwide and has some added advantage in organic agriculture, as the concept was already in practice many years ago until green revolution and still few parts of country has been following the traditional method now termed as "organic by default". Despite of these pluses the organic agriculture is still growing at very slow pace. My paper deals with the comparative analysis of the India and the other leading countries Europe and USA, the study of their strategies, policies and their way of conduct in the field of organic agriculture enabling us to understand the present Indian agriculture system its potential, opportunity and challenges and its possible solution.

Key words: organic agriculture, global scenario, Europe, U.S.A, policies.

I. Introduction

What exactly is organic agriculture? Is it the use of traditional farming practices instead conventional farming, using sustainable methods, jai vikkrishi etc.? Most of us think that the use of organic manures like green manure or natural plant protection by not using chemical fertilizers or pesticides is organic agriculture but this is not true the real meaning of the organic agriculture is just not confined to the word "agriculture" it has got much broader characteristics and impression capturing most of the biological and ecological aspects

The target of the organic agriculture is the soil and not the plant specifically. It believes at creating a strong foundation for the overlying spread so that the nourishment is provided through the natural biological process (crop rotation, crop residues, animal manure, planting with legumes, green manure, off farming organic) and not through the man-made supplements

The whole organic agriculture is based on a very meticulous system where every organism involved inside is interdependent on each other for their own existence, creates balance in ecological cycle and lays down the substance for the sustainable growth. The most recognised definition of the organic agriculture is given below

"The term "organic" is best thought of as referring not to the type of inputs used, but to the concept of the farm as an organism, in which all the components -the soil minerals, organic matter, microorganisms, insects, plants, animal and humans - interact to create coherent, self-regulating and stable whole. Reliance on external inputs, whether chemical or organic, is reduced as far as possible. Organic farming is holistic production system" (p. Bhattacharyya and g. chakraborty)

Organic agriculture proposes a huge commerce and trade opportunities in both developed and developing countries due to high demand of the organic product in market, its sustainable agriculture approach and also due to their salient support provided by the government and organization like the European Union and international federation of organic Agriculture Movements (IFOAM). Developed countries are already at power to developing countries in organic sector due to their strong policy and strategies have established a stable market for them. Organisation like NGO's and government bodies plays a very significant role in the development of organic agriculture in developing countries.

India is one of the developing countries young in this organic market this paper deals with the comparative study of the India and other developed countries and there methodology used in the improvement and proper regulation in their organic agriculture practices with a prospective to wider the vision of Indian organic agriculture leading to better understanding of current situation requirements and help in building appropriate strategies.

II. Methodology

Global scenario

World's total agriculture land account for 37.2 million hectare land. Australia leads the chart with 12 million hectare land followed by Argentina 4.40 million hectare and then USA 1.95 million hectare (Fig-1).

Global sales of organic product food and beverages had touched 59 billion dollar by 2010 (Amarjit Sahota, page 122) a remarkable increase was seen throughout the years. The market has extended three times from 17.9 billion US dollar (2000) in last 10 years. (Fig- 2) Though in 2008 global market was hit by financial crisis all over but organic sales market did not stop, it did go slow but kept increasing at a fair rate. Organic product is concentrated specifically in North America and Europe which comprises 96 percent of global revenue. Countries holding the top position in organic market are USA, Germany and France. Australia, Argentina being the largest land holders under organicis behind in the race of the organic market compared to other leading countries, due to the difference in the production and consumption patterns governed by consumer behaviour hence consumerism plays an eminent role in the growth of the market.

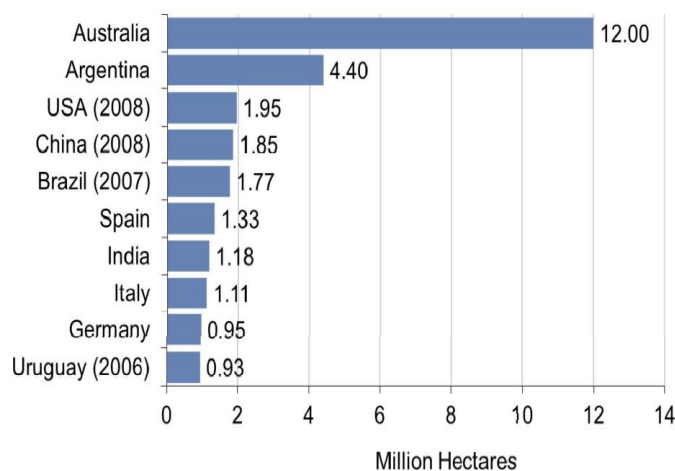
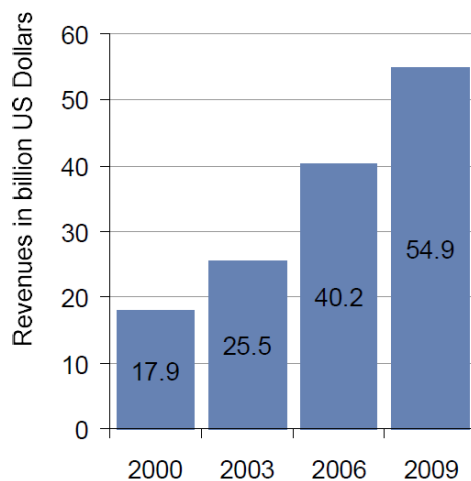


Fig 1: Top ten countries with most agriculture land on global scale

Among the total organic land two third is the grassland or grazing land of about 23.7 million hectare of land and arable land constitute about 6.1 million hectare of land which is approx. 17 percent of the total organic agriculture land. There were 1.6 million total producers in 2010, Africa shared 34 percent, Asia 29 percent and Europe 18 percent and India lead the league with (400'551) figure followed by Uganda (188'625) then Mexico (128'862) (Helga willer 2012). World's largest producers are present in developing countries



Source: Organic Monitor (Sahota 2011)

Fig 2: global food and beverages market
Source: FiBle survey 2009

EUROPE

Europe take up the 28 percent of the total organic agriculture of land, according to the statistics of 2010 Europe comprise of 2.1 percent of agriculture area and the European union has 5.1 percent of the land, there was an increase of 0.8 million hectare land from 2009..About 10 million hectare of organic land is managed by the 280'000 farms. Countries with largest land area are Spain (1.5 million hectare), Italy (1.1 million hectare),

Germany(0.99million hectare) and there are about 10 country's with more than 10percent share of the land.Sales in organicproduct in the Europe touched 19.6 billion euros in 2010, Germany topes the market chart with 6 billion euros followed by France 3.4 billion euros and then UK with 2billion euros.(Fig-3)

There is 45percent of the arable land crops,45percent of permanent grassland, permanent crops takes up the 10percent of the land, 3% are taken up by other agriculture land and the key permanent crops are olives,grapes,nuts, etc. Arable crop grown are cereal, green fodders, protein crops etc.

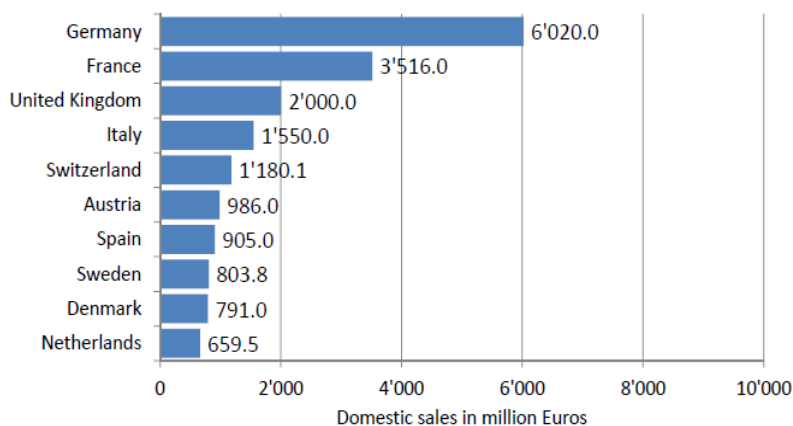


Fig 3: The European market for the food and DrinkSource: FiBLE survey 2012

Organic regulatory system

There are three mainpillars when it comes to the regulation of the organic environment it act as an key instrument in the processing and monitoring of the organic agriculture they are legal instrument, financial instrument and communicative instrument (Michelson, 2002).

Legal instrument

Legal instrument is based on the authority and power of the statesever since 1993 organic production, labelling and certifications are legally formulated under (EEC)NO2092/9. This regulation has worked as base for many non EU states like Switzerland, Norway and has inspired many countries too like America, Canada and has stimulated the existence of guidelines for organic farmingunder FAO and WHOCodex.Another Council regulation (EC) no.1804/1999ofjuly99 supplementingregulation (EEC) no 2092/91 on Organic production of agricultural products was formed included live stocks too

Every certified organic product should have label on it as described by the European government .Original guidelines are always put through revision so that the core meaning of organic farming principles are not lost ,disciplines are maintained and statistic of various field are analysed timely and newimprovised rules are passed under commission regulation (EEC)NO889/2008.



European Union

The financial instrument

It deals with the price mechanism positive in terms of support and negative in forms of taxes or duties. Many states provide financial support during the conversion period of three years ,states like Bulgaria and Romania has introduce the financial support as a part of guideline (2007-2013)and in 2005 EU had already made the financial support as the major part under rural and development accounted EU25 . All the EU member state support schemes for organicConversion and maintenance pinned under the same EU regulations (1698/2005 for 2007–2013, 1257/1999 for 2000–2006, 2078/92 for 1994–1999),there is always variation in the funding system country to country depending upon the payment rates, eligibility conditions and requirements.(Matthias Stolze a,*, Nicolas Lampkin b)

Communicative instrument

This instrument is based on the programs involved to bring about interaction between the regulator and the regulated citizens to bind all and create awareness in both the parties; it specially targets the zone of information, communication and research, and training and advice to both the sides. In 2004, 15 states funded training and education program for organic farming which was related to create cognizance in relation to organic farming this effort lead to the formation of National Funded Organics Extension and advice in all the European Union in 2006. During that year only a promotional campaign for organic food was launched ,65 organic research projects were funded under 1st and 6th framework project and now almost all states provides national financial support in organic farming(Matthias Stolze a,*, Nicolas Lampkin b)

European Commission launched the European Action Plan for Organic Food and Farming in 2004 which was the result of the three year developing process started in 2001 focused primarily on giving consumer information and promotion, improved research and marketing intelligence and collection of statistical data and utilise the rural and Improving the transparency, scope and implementation of the regulation defining organic farming (figure 4).

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
Austria	Action plan organic agriculture 2008-2010 ¹ Aktionsprogramm Biologische Landwirtschaft 2008-2010	2008-2010 Previous action plan: 2005-2008	20 % organic land area by 2010
Belgium – Flemish part	Flemish Action plan for organic farming 2008-2012 Strategisch Plan Biologische Landbouw 2008-2012 ²	2008-2012	No quantitative targets
Bulgaria	National Plan for Development of Organic Farming in Bulgaria 2007-2013 ³	2007-2013	8 % organic land area by 2013
Czech Republic	Action Plan of the Czech Republic for the development of organic farming until 2010 ⁴	until 2010	10% organic land area by 2010

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
Denmark	Action plan II Development in organic farming ⁵	1999-2003	12 % organic land area by 2003
Estonia	Estonian Organic Farming Action Plan 2007-2013	2007-2013	
France	Organic agriculture until 2012: New measures to triple the organic surface ⁶ Agriculture biologique : Horizon 2012": De nouvelles mesures pour tripler les surfaces	2008-2012	6 % organic land by 2012 20 % organic products in government canteens by 2012
Germany	Federal Organic Farming Scheme ⁷	Phase 1 2001-2008 Phase 2: 2008 - 2015	20 % organic land area , but no target year
Ireland	The Organic Farming Action Plan 2008-2012 ⁸	2008-2012	5 % organic land area by 2012
Italy	Italian National Action Plan for organic agriculture and organic products (Piano d'Azione nazionale per l'Agricoltura Biologica e i Prodotti Biologici) ⁹ April 2005	2005 with follow-up measures in the subsequent years 5 million Euros 2005	No quantitative target
Latvia	An Organic action plan development programme 2007-2013 has been elaborated by the Latvian Association of Organic Agriculture, not yet officially approved by the government		

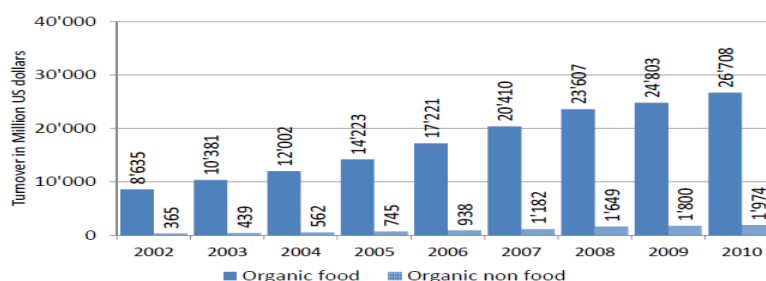
Fig 4: Organic action plan compilation of result of EU

(Source: ORGAP Project newsletter No. 6 at <http://www.orgap.org/documents/newsletter/orgap-newsletter-6-july2008.pdf> with updates.)

UNITED STATES OF AMERICA

The North America consist of two main countries firstly United States of America and Canada US has around 1'94'946 million hectare land under organic agriculture which is approximately 73percent and Canada share is 27percent i.e. 703'678(SOEL Survey 2010).USA leads the organic market .Organic food sales in US in 2006 was about 17'221 an then 8percent growth was seen in the U.Smarket in 2010 and reached to 28-29 billion us dollars (food and non-food)(figure 5) (Matthias Stolze a,*, Nicolas Lampkin b).

Development of the US Organic market



source:FiBLE survey 2012

Figure 5: Development of the US organic market

Year 2005 is marked as a national achievement as in this year all the 50 states of US had some certified organic farmland. The distribution of the pattern in USA is divided into three broad category “natural food stores” holds 44% of the total sale of the organic products then “conventional retailer” with 38% and “other market” (farmers direct market, mass merchandise and club, stores, restaurant, exports and other marketing channels).

Regulation

In 1990 two main bodies were formed by OFPA which geared the progress in organic faming

1. Agricultural Marketing Service (AMS) under United States department of agriculture (USDA)
2. National Organic Standard Board (NOSB)

AMS-keeps the track of the trading going on in agriculture does inspection of the certifying bodies in every 5 years and has the authority to cancel the producer certification or the certifying agent if found guilty.

NOSB- it consisted of 15 members, all expertise in their fields were to focus on the expansion of standards for the substance to be used in organic production (referred as national list) and also to provide recommendations regarding enactment main objectives of NOSB are listed below

1. Standards for the production and handling including a national list of the substances that can be used and cannot be used
 2. National level accreditation certifying agents for the state and private organizations strictly under USDA national standards for organic certifiers
 3. Organic label and organic ingredient to be mentioned on the product
 4. civil penalties in case of violation of regulation
- (U.S. Organic Farming in 2000-2001by Catherine)

Under NOSB any producers or handler who wants to market their product as organic had to strictly abide by the guidelines given in the regulation an annual inspection is done by USDA accredits (private or state certification agents) and after the satisfactory tenure of conversion period (3 years) certification is given.

USDA is very particular about labelling “organic”, it’s illegal to use word “organic” if the product is not according the standards. Product with label “organic” signifies that the product is 95% or more organic and with label “made with organic” means 75%to 95%organic and will not carry seal on it. US only imports products from the countries which have got accreditation from the USDA-accredited certification agents. If a state wants to add to the standards then it has to first get verified and approve by USDA, private organisations are also allowed to put their own label in addition to the USDA label which would only mean that the standards formed by the private organisation is only in addition to USDA but not at power to the national standards.

US organic policy

1. USDA implemented a national organic program in 2002, which set uniform standards and provided a "USDA-organic" label to facilitate market transactions and allay consumer concerns about product identity.



United States of America

2. USDA's Agricultural Marketing Service currently administers two organic certification cost-share programs. The first offers assistance to producers in 15 States and operates with \$1.0 million annually as part of the Agricultural Management Assistance (AMA) program under the Federal Crop Insurance Act. The second program expanded assistance to all U.S. farmers and handlers under the 2002 Farm Act, with one-time funding of \$5.0 million that has already been obligated to participating States.

3. In 2003, the National Association of State Departments of Agriculture (NASDA) released a policy statement on organic agriculture expressing support for a wide range of activities that would expand public-sector organic research and education and provide technical assistance to organic and transitional farmers

5. In 2006 National Organic Action plan (NAOP) came into existence initiated by the Rural Advancement Foundation International and leads the NAOP. The blueprint of it was based on three factors support family farmers, protect human health and benefit the environment

(Source: united States agriculture department)

INDIA

India the land of 21 agro-ecological zones already has an added advantage in agriculture due to its different geography in climate and soil pattern facilitating the production of different variety of crops which is definitely a plus point from the point of view of diversity in organic product and market. Other additional advantages for going into organic in India are:

1. Certain area referred as "organic by default" like mountains, north east areas as they already used traditional agriculture practises for years and have proved to be very good in production of crops as compared to the conventional farming

2. India already holds a very strong position in the market for the quality of certain production like tea, spices, rice specialities and herbs so it does act as an additional credit in international market.

3. Cost of labour is relatively cheap than the cost of input, in organic farming farmer is independent of the input cost but is of more labour intensive system

Total producer statistic of Asia is 0.5, India share is 0.4million producer and china with 0.1million (Helga willer2012). This makes India world number one in the largest producer, stands at 33rd position in area under organic farming and 88th in the ratio of agricultural land under organic crop to total farming area.

The National Program for Organic Production (NPOP) was implemented by agricultural and processed food products export development authority (APEDA), the job of NPOP is to deal with documentation like National standards, accreditation criteria for accrediting inspection and certification agencies, Accreditation procedure, inspection and certification procedures and was only formulated after approval from National Steering Committee (NSC).

(p. bhattacharyvaand g. chakraborty)

The standards made by NPOP have been developed under guidelines of international organic production standards such as CODEX and IFOAM. The NPOP standards for production and accreditation system have been recognized by European Commission and Switzerland as equivalent to their country standards. Similarly, USDA has recognized NPOP conformity assessment procedures of accreditation as equivalent to that of US. With these recognitions, Indian organic products duly certified by the accredited certification bodies of India are accepted by the importing countries.

Growing sector outlook

India had 42,000ha under certified organic farming in 2003-04 then in 2006-07 it grew to 5, 38,000 further in 2007-08 it increased to 8,65,000 and in march 2010 India pulled more than 4.48 million ha area under the organic certification process out of which 1.08million ha was cultivated area and rest 3.4million ha was under harvest collection area(Dr AK yadav certification and inspection rule) The state Madhya Pradesh ranks 1st in area under organic farming with (1.1mhaor) constituting about 52% then Maharashtra with 0.96 mhaor 33.6% followed by Orissa (0.67 mhaor 9.75%) and Utrakhand and Sikkimare declared as organic states . India due to its diversity in agro climate can grow almost all the crop throughout the year in different parts of the country (table-1)

Market section

In 2004India produced 3, 96,997MTcertified organic product and in 2009-10 produced 1,624,339 MT certified organic product in which 10,887 MT cotton was produce alone making India the largest producer of organic cotton there are many other various type of organic product from in India in market namelyTea, coffee, cardamom, Spices(ginger, turmeric, chillies and cumin), Cereals (wheat, rice, jowar, and bajra),Pulses(pigeon pea, chickpea, green gram, red gram, and black gram), Oilseeds (groundnut, castor, mustard and sesame,) Fruits (banana, sapota, custard apple and papaya) Vegetables(tomato, brinjal, and other leafy vegetables), honey ,cotton and sugarcane especially for jaggery (GOI, 2001).

Domesticmarket

Organic farming in India is done basically with export intension very less products are circulated in the domestic market; such a high price of organic product makes it unstable in the domestic market to stand by the conventional products which are availablerelatively at cheaper rate(table-2). Although domestic market has been suffering from some major disadvantages but its growth had never stopped it kept increasing in a slow pace

Product	Organic (Price Rs./kg)	Conventional (Price Rs./kg)
Rice	32-110	15-60
Wheat	35-40	15-25
Coffee	475-1000	350-500
Tea	450-1300	250-500
Spices	400-1500	250-800
Pulses	50-75	25-40
Fruits	80-100	20-100

Table 2: price comparison between conventional and organic productSource:Org-Marg,2002, market and opportunity for Indian organic product by Salvador V.garibay and katkejyoti

Indian consumer

Indian consumer are divided into 3 major classes depending upon their interest in the organic product 1st upper class consumer 2nd upper-middle class and 3rd lower-middle class, a survey was conducted to know the view of the exporters and the traders about these classes 90percent of the respondent believed upper class consumers to be interested and only 10percent for upper-middle class and 0percent for lower class. The various demand of organic product in Indian consumer are given below (Fig-6)

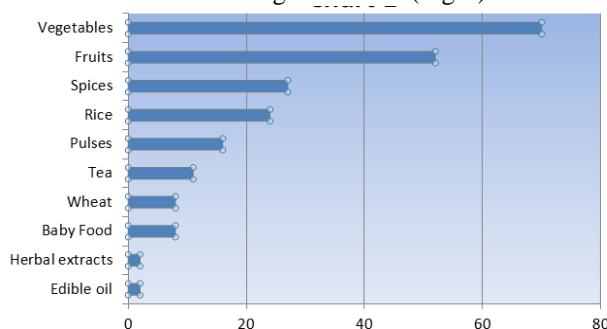


FIG 6: The demand of product in domestic marketSource: market and opportunity for Indian organic product by Salvador V.garibay and katkejyoti

Distribution pattern

total outlet is 2,500 concentrated mainly within metropolitan cities like Delhi, Bangalore, Chennai, Hyderabad and are sold through either wholesaler/trader, supermarkets, own organic food stall etc (Fig-7). The reason for the purchasing is purely due to the health consciousness, the purchase ratio of organic to conventional is 1:10 and the sale of organic product in the domestic market is less than 7percent(salvadorv.garibay and katkejyoti)

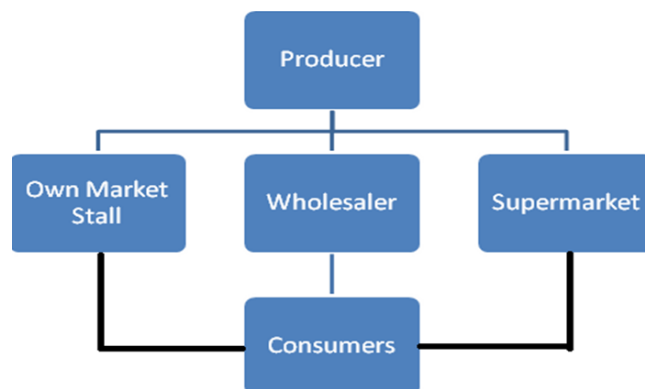


Fig7: chain of the market Source: market and opportunity for Indian organic product by Salvador V.garibay and katkejyoti

Non-Government Organizations (NGO's)

NGO's play a very vital role in the organic farming and market as they are the one directly linked with the farmers, exporters and traders, they act as the active promoter of the organic agriculture by helping farmers to understand the difference between the conventional and organic farming ,there impacts and help them in taking initiative in marketing . The promotion of organic production involves various steps

- Organizing the farmers;
- Educating them on the benefits of organic farming vs. conventional farming;
- Providing training to farmers in terms of:
 - o Maintaining proper documentation for certification
 - o Training in production practices as per certification requirements;
- Providing technical assistance;
- Providing organic seeds and inputs;
- Funding in rare cases;
- Organizing the export of the products through exporters.

Source: (salvadorv.garibay and katkejyoti)

Organic Certification

Organic certification is a process in which the producer / traders are certified to sell their products especially on the export level. There are certifying agencies which certify a product by regular inspection and make sure that the product getting label is produced under the given standardsfor at least 3 years (conversion period)(table 3), detail record of the production and sale should be maintained by producer/trader and should be submitted at time of inspection.

Certification makes clear distinction between organic and no organic product prevents any kind of fraud. The accreditation agencies in India approved by central government's ministry of commerce (MoC) are Agricultural and processed food and export development authority (APEDA), Coffee Board, Spice Board, Tea Board, Coconut Development Board And Cocoa &Cashew nut Board.

The individual certifying body have their logo which work as brand among the customer and the producers, various certified bodies in India are

INDOCERT (based in India, office in Aluva, Kerala),
IMO India Pvt. Ltd. - Institute for Market ecology (based in Switzerland, office in Bangalore),
LACON GmbH (based in Germany, office in Aluva, Kerala),
SGS India Pvt. Ltd. (based in Switzerland, offices in Delhi and other cities)
ECOCERT International (based in France and Germany, branch office in Aurangabad
SKAL International (based in the Netherlands, branch office in Mumbai).

Category	Details	Fees (Rs)
Small farmers and cooperatives	Travel and inspection	12000/day
	Report preparation	5000 flat fee
	Certification	5000/certificate
Estate manufacturers and exporters	Travel and inspection	19200/day
	Report preparation	5000 flat fee
	Certification	5000/certificate
Large and medium-sized processors	Travel and inspection	16800/day
	Report preparation	5000 flat fee
	Certification	5000/certificate

Table 3: The cost of certification depending upon the holding of lands

Source: market and opportunity for Indian organic product by Salvador V.garibay and katkejyoti

There are many types of companies involved in producing organic product these companies are still young, low experienced and highly fragmented, trying to establish themselves in the market. In these successive years Fab India, Pristine Organics Pvt. Ltd., Organic Packaged Food India and Organic India Pvt have been able to earn good name in market. Ltd.Fab India is an Indian chain store since 2004, dealing with the retailing of garments, furnishings, fabrics, ethnic products etc. It works with it farmers towards the certification of their product and green seal, sign of organic is easily identified by consumers.

Export market

India's is very active in the export field of organic products producers and exporters know that there is a huge demand for the organic product in developed countries products available in export are mainly tea, spices ,rice, wheat ,coffee ,pulses ,fruits &vegetables(table-4). During the year 2009-10, India exported 175 products under 21 categories for a volume of 58,500 Metric Tons (MT) for a value of \$112 million. The channels through which these products are exported are by the companies except for the Tea they are directly dealt by the state. The countries to which they are exported are as follows

- Europe: Netherlands, United Kingdom, Germany, Belgium, Sweden, Switzerland, France, Italy, Spain;
- Americas: USA, Canada;
- Middle East: Saudi Arabia, UAE;
- Asia: Japan, Singapore;
- Australia;
- Africa: South Africa.

organic product	Production
Basmati Rice	5250 MT
Honey	2692 MT
Teas	2,727 MT
Dry fruits	1,922 MT
processed food	1,834 MT
Sesame	1,396 MT

Table 4: Major organic product produced during 2009-10

Source: market and opportunity for Indian organic product by Salvador V.garibay and katkejyoti

Major hindrance in export and possible solution

1. **High price expectation** ———Realistic price should be tagged
2. **Low consistency of product** ——— higher quality standard and improved post-harvest technique
3. **Slow shipment** ——— Duty port must reduce time and better infrastructure guaranteed at the arrival of goods
4. **Complicate paper work** ——— develop fast track system for export
5. **Mode of payment too slow**——— banks should raise their standards
6. **Lack of awareness** ——— promotional activities and internet portal access to information related to organic sector
7. **Poor customer service** ——— must take client follow ups & traders must accomplish what they promise.

The achievement of India in the area of Organic Food Production

1. Development of NPOP (National Production for Organic Production) document by APEDA under Ministry of Commerce. It includes all the internationally accepted Norms and Standards for organic agriculture and organic animal husbandry.

Indian brand -**India Organic Logo**



20 Accredited Certification Agencies (ISO-17011)

- 2. Introduction of the group certification for the small and marginal land holder’s farmers
- 3. “National project on organic farming” launched by the department of agriculture and Cooperation in (2005). Technology mission on horticulture” by MOA
- 4. FAO-DAC project on development of technical capacity base on the promotion of organic agriculture. The NPOP standards have been recognised by European Union and USDA.

III. Discussion And Recommendation

If we compare our whole organic system with the other leading countries (EU or USA) we will find that there system is more integrated with a strategic vision, they are more stable, government is more involved, new initiatives are taken and farmers are encouraged to go organic due to reliable and feasible policies. In India we lack such comprehensive strategies which could serve as an instrument to achieve multiple policy goals (agriculture, environment and trade). List comparison between India and other countries are listed below(table-6)

Table 6: comparison between India and other countries

Category	INDIA	EUROPEAN UNION	UNITED STATES
Organic action plan	Absent	Present	Present
Government aids	NO subsidies or incentives are provided to organic farmers	Area payment in form of conversion area payment or maintenance payment or both are given	subsidies during conversion period is given provided by govt and state support is also there in some through EQIP
Inspection cost support	ABSENT	PRESENT	PRESENT
Vocational/ training program	Less active	Highly Active / Frequent	Highly Active/ Frequent
global awareness among farmers	LOW	HIGH	HIGH
Initial marketing assistance /support	ABSENT (though few NGO's have taken an effort to do so in few states)	PRESENT (the support is provided through GO'S &NGO'S)	PRESENT (the support is provided through GO'S & NGO's)

Awareness among domestic Consumers	LOW	HIGH (Germany stands at second largest country in world's organic market)	HIGH (U.S.A is the leading country in global organic market)
domestic market	Least Focused	HIGH & ACTIVE	HIGH & ACTIVE
Export market	FAIR RATE	HIGH RATE	HIGH RATE
Government involvement	LOW	HIGH	HIGH

According to the data one thing is clear that Indian organic agriculture is suffering from poor linkage between farmers and markets and absence of financial support from the governments. We can see that almost every successful country in organic is providing subsidies or maintenance fund and in some both are being provided which is a major drawback in India as there is no financial support from government, poor farmers have to bear the whole expense from conversion till certification on their own private and big land holders still coop up with it but India consist of largely small holder farmers creating major problem for them. Supplies do not match the demand which is another problem caused by lack of direct linkage between producer and customer either caused by the manipulation of the traders or confusion in consumer demand. An important role of the government in this direction is giving various supports to the producer and consumer associations to market the products. Supply chain of the organic product can't be avoided and processing industry in India is badly fragmented, not organised. Proper plan should be initiated by introducing new improved refined technologies better the processing more sustainable the product will be thus increasing the market value of Indian organic product both in domestic and export market (table-7).

Category	Strategies	Targeted Areas
GOVERNMENT	<ol style="list-style-type: none"> 1.improve organic national rules and regulation 2.provide financial help and subsidies to farmers 3.measures to improve domestic and export market 4.support domestic market initiatives 	<ol style="list-style-type: none"> 1.increase govt. involvement 2.financial support to the farmers 3.encourage farmers 4.unstable market 5.extensive documentation
Small farmers	<ol style="list-style-type: none"> 1.organise small farmers and make them act as an organisation which produce and market there product 2.training program for farmers teaching them production, harvest, post-harvest techniques and basic standard 3.include farmers in the operative organisation of whole chain 	<ol style="list-style-type: none"> 1.lack of proper organization 2.lack of funds during conversion period and certification 3.lack of marketing initiatives
NGO's	<ol style="list-style-type: none"> 1.training on organic production, basic standards, documentation and certification procedures 2.access to continuous organic market information 	<ol style="list-style-type: none"> 1.lack of funds 2.lack of proper infrastructure 3.not properly organised
Traders	<ol style="list-style-type: none"> 1.Training programs for traders in how to promote and sell product in domestic and export organic market 2.Continuous information of the market and direct contact with the possible buyers 	<ol style="list-style-type: none"> 1.lack of marketing strategies and there implementation 2.lack of domestic and export market knowledge
Certification	<ol style="list-style-type: none"> 1.Reduction in cost of certification 2.International standardization and simplified certification procedure and less documentation 	<ol style="list-style-type: none"> 1. high certification price 2.lack of national accreditation and certification

processing industry	<ol style="list-style-type: none"> 1.Raw materials to be easily available 2.Training on basic standard, documentation, processing methods, inspection and certification 	<ol style="list-style-type: none"> 1.raw materials not easily found 2.lack of knowledge in processing field 3. need of upgrade technologies
Domestic consumer	<ol style="list-style-type: none"> 1.Increase awareness through promotion of organic product by traders, NGO'S,&GO'S 2.Communication of the benefits of organic to health, environment &biodiversity 3.Formation of moderate price so that organic product is accessible to larger area 	<ol style="list-style-type: none"> 1.lack of awareness about the benefits of organic product 2. high price of the product

Table 7: strategies suggested in regard of the problem concerned areas

An appropriate strong National Organic policy is the main need of the current position which will give an important place to organic farming addressing the current issues and obstacle, financial support from government will lower down the financial burden from farmers and will indeed inspire other farmers to go organic. Establishing linkage between the farmers, traders and consumers, inspection and certification bodies will lead to the proper flow of the practical information fostering better understanding of the whole organic sector and its loopholes and will lead to the development of organic market both domestic and export.

India is a developing country, it has limited supply of resources and so has to balance its need according to the resource available ,therefore priorities are called for, list of requirements will always be there both urgent and non-urgent so the requirements are needed to be listed according to the priorities, area demanding major focus should be call first hence policies should be made in accordance to the current priorities of the country's organic agriculture so that it works in a mutually supportive way eradicating or mitigating the obstacle(Fig- 9). And the main area is funding for conversion period and certification should be provided to the farmers and moreover it will encourage more farmers to go organic



Fig 9: working of strong policy

A starting point for government is to give recognition and encouragement to the organic sector. This also includes the recognition of the relevance of organic sector organizations and the close cooperation between them and Governments (Fig-10). Governments should take an enabling and facilitating role rather than a controlling one setting the clear objectives Action plan, programmes and projects improving the overall policy covering a wide range of area from production, marketing, supply chain, training and research and training of the both civil servant and private sector should be the main area of concern. A fair, quick and efficient delivery system for such assistance should be made, perhaps by keeping the government bureaucracy at a distance



Fig 10: strong policy is based on 4 parameters

RECOMMENDATION ON HOW A POLICY SHOULD BE FORMED

General policy

1. The government needs to do a thorough and in-depth evaluation of the general picture of the organic sector policies, programs and plans, to understand how they affect the current organic sector
2. The objective should be clear before the action is taken and all the stakeholders should be involved in the policy development and development of the plans and programmes
3. General and organic agriculture should support each other to the greatest extent so that they promote the effective policy coherence, especially if organic as to be promoted as mainstreams
4. An action plan for the organic sector should be developed based on the analysis of the state of the sector, participatory consultations, a needs assessment and proper sequencing of the actions. The action plan should state measurable targets for the organic sector to help agencies and stakeholders focus their effort
5. One government ministry or agency should be assigned a leading role and organic desks should be established in other relevant ministries and agencies.
6. Recognize the diverse interests represented in the organic sector and ensure that all of them are considered properly as well as direct special attention to disadvantaged groups
7. A permanent body should be established for the consultations between the government and the private sector
8. Government should actively contribute to awareness rising for the organic agriculture on all levels
9. Data about the organic production and markets need to be collected over years, analysed and made available to the sector and policymakers

Standards and regulation

1. A national or regional standard for the organic production should be developed, through close cooperation between the private sector and government. It should be well adapted to the conditions in the country and mainly focus the domestic market
2. Producers, especially smallholders, should be supported to comply with standards, certification procedures and regulations. Special considerations should be taken for certification of smallholders. Training programmes for farmer groups to set up internal control systems should be supported.
3. Compulsory requirements for mandatory third-party certification should be avoided as they will not enable other alternatives to emerge. Other conformity assessment procedures, such as participatory guarantee systems, should be explored.
4. Before establishing regulations, Government should clarify the objectives. Governments regulating the sector should develop the regulations in close consultation with the sector and ensure that the regulation is enabling rather than controlling in nature.

Markets

1. Public procurement of organic products should be encouraged, including featuring organic food in important public events.
2. Consumer education and awareness should be actively promoted.
3. A common (national, regional or international) mark for organic products should be established and promoted.

4. Domestic market development strategies should include measures for both the supply and demand side, including the role of imports.
5. The organization of farmers in regards to marketing, joint distribution and storage should be supported.
6. Market information systems should be established.
7. Export promotion activities should be supported, recognising the special nature of organic markets. Organic exporters should be encouraged to join forces to promote and market their products.
8. Organic products should be excluded from any mandatory sanitary treatments that are not permitted for organic products. Alternatives for fumigation should be supported.

Production

1. Direct support measures to producers need to be adapted to small farmers as well as to commercial operations.
2. Organic extension services need to be established and the staff trained. Organic extension should be developed and implemented in a participatory manner and have the farm and the farmer as the centre of attention.
3. Traditional knowledge about pest control treatments should be surveyed and brought into the extension service and disseminated in other ways.
4. A recycling of agriculture and food waste into organic farming systems should be promoted. Government (or others) should establish basic controls of biological inputs such as pest control agents and organic fertilizers.
5. Seed breeding and seed testing should be oriented to organic production. Compulsory seed treatments should be waived for organic farmers and untreated seeds should be made available. Alternative seed treatments should be developed and promoted.

Others

1. Organic agriculture should be integrated into the curriculum for primary and secondary schools. Specialized institutions involved in training for organic agriculture should be supported. Higher education in organic agriculture should be developed.
2. Special research programmes should be established for organic research, and the sector should be involved in priority setting. Research and development (R&D) in organic agriculture should be participatory, build on and integrate traditional knowledge (where relevant) and be based on the needs of the producers.
3. Governments and the private sector should participate in relevant international forums such as the Codex Alimentarius, IFOAM and the ITF.
4. Regional cooperation in marketing, standards, conformity assessment and R&D should be promoted.

(Source: UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development)

Reference

- [1] Salvador V. GARIBAY and KATKE jyoti (feb 2003) Market opportunities and challenges for Indian organic product
- [2] Willer, Helga and Kilcher, Lukas (Eds) (2011) The World of Organic Agriculture Statistics and Emerging Trends (2011)
- [3] P. BHATTACHARYA and G. CHAKRABORTY (Dec 2005) National Centre of Organic Farming Ghaziabad
- [4] Current Status of Organic Farming in India countries
- [5] A.K Yadav (2002) certification and inspection systems in organic farming in India
- [6] Renee Johnson (2008) CRS Report for the congress, organic agriculture in US: program and policy issues
- [7] Matthias Stolze, Nicolas Lampkin (2009) Policy for organic farming: rationale and concepts
- [8] Heidrum Moschitz, Matthias Stolze (2009) organic farming policy networks in Europe: content, actors and variation
- [9] Seemapurushothamam, Sheetalpatil and Irene Francis (2012) Impact of policies favouring organic inputs on small farms in Karnataka, India a multicriteria approach Matthias Lehner (2010) policies to promote organic agriculture
- [10] Gunnar Rundgren (2008) united nation conference on trade and development united nation environment program, UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development.