

Organic Food certification and labeling: A study of mismatch of standards with existing operations

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Abstract

Organic foods are empowered with robust certification and labeling framework since their inception and marketing. UN provides for detailed investigation into claims of products labeled 'organic'. Growers and marketers alike have to abide by stringent processes to get certified. Individual countries wishing to trade in these products have to do so under nationalized programs and policies.

This paper presents a brief analysis of Codex Alimentarius, the rulebook on organic certification and labeling propounded by the UN, the National Programme on Organic Production (NPOP), India's constitutional structure and PGS India, an IFOAM initiative. It records organic consumers' buying behavior and as such is a gap analysis of standards getting deviated with reference to certain cases.

Key words: organic food legislation, certification, labeling

Introduction

Organic farming and food product marketing has been popular in Asia for the past many years. Indian government has created a dependable structure in the form of NPOP supported by agencies like Agricultural and Processed Food Products Export Development Authority (APEDA) and Indian Competence Centre for Organic Agriculture (ICCOA). Data available on the APEDA website for the year 2013 (IFOAM 2015-16 handbook) informs that we rank fifteenth globally in terms of cultivation of land under organic certification. The total cultivable area in India is **5.71million Hectare** (2015-16). This includes 26% cultivable area with 1.49 million Hectare and rest 74% (4.22 million Hectare) forest and wild area for collection of minor forest produces.

APEDA is an agency working under the National Program on Organic Production, which in turn comes under the Ministry of Commerce. The NPOP designed by the Government of India declared the National Standard for Organic Production (NSOP). It is mandatory under the NSOP guidelines to get produce inspected and certified by a nationally accredited certification body before labeling and selling it. In India produced around **1.35 million MT** (2015-16) of certified organic products including Sugarcane, Oil Seeds, Cereals & Millets, Cotton, Pulses, Medicinal

Plants, Tea, Fruits, Spices, Dry Fruits, Vegetables, Coffee etc. **Export realization in the same year was a** export during 2015-16 was **263687 MT**. The organic food export realization was around **298 million USD**. Organic products are exported to European Union, US, Canada, Switzerland, Korea, Australia, New Zealand, South East Asian countries, Middle East, South Africa etc. Oil seeds (50%) lead among the products exported followed by Processed food products (25%), Cereals & Millets (17%), Tea (2%), Pulses (2%), Spices (1%), Dry fruits (1%), and others.

The Government of India has implemented the National Programme for Organic Production (NPOP) in the year _____. It has been accepted by the European Commission and USDA. NPOP involves accreditation programme for Certification Bodies, setting standards for organic production and promotion of organic farming.

Madhya Pradesh among all the Indian states has covered the largest area under organic certification followed by Himachal Pradesh and Rajasthan. The exports market for India includes USA, EU nations, Canada, Switzerland, Australia, New Zealand, SE Asian countries, **Middle Eastern countries, South Africa etc. (www.apeda.gov.in; Osswald, 2014)**. Data for the year 2012 shows there were 570,000 organic food farmers in India (**Netravati V S 2012**). We had registered Rs 839 crore worth of organic food exports in 2011. The domestic organic food market was around Rs 100 crore, whereas the global market was about \$ 60 billion (**www.businesstoday.in**). **A breakup of costs involved in** organic food given in the report includes 8-10% farmer training cost, 10-15% premium paid to farmers, 6% logistics and distribution cost, 3% packaging cost and 12% retailer margin. The introduction of Food Safety and Standards Act from February 2012 has established stringent norms for food quality, manufacture, distribution, safety and import. This, according to some organic food company heads will reduce the difference between conventional and organic food and boost sales of organic foods. The report highlights the government's role in organic certification but points that certification has not been made mandatory for domestic sales.

As per the available statistics, India's rank in terms of World's Organic Agricultural land was 15 as per 2013 data (Source FIBL & IFOAM Year Book 2015). The total area under organic certification is 5.71million Hectare (2015-16). This includes 26% cultivable area with 1.49 million Hectare and rest 74% (4.22 million Hectare) forest and wild area for collection of minor forest produces.

The Government of India has implemented the National Programme for Organic

Production (NPOP). The national programme involves the accreditation programme for Certification Bodies, standards for organic production, promotion of organic farming etc. The NPOP standards for production and accreditation system have been recognized by European Commission and Switzerland for unprocessed plant products 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.

PRODUCTION

India produced around **1.35 million MT (2015-16)** of certified organic products which includes all varieties of food products namely Sugarcane, Oil Seeds, Cereals & Millets, Cotton, Pulses, Medicinal Plants, Tea, Fruits, Spices, Dry Fruits, Vegetables, Coffee etc. . The production is not limited to the edible sector but also produces organic cotton fiber, functional food products etc.

Among all the states, **Madhya Pradesh** has covered largest area under organic certification followed by Himachal Pradesh and Rajasthan.

EXPORTS

The total volume of export during 2015-16 was **263687 MT**. The organic food export realization was around **298 million USD**. Organic products are exported to European Union, US, Canada, Switzerland, Korea, Australia, New Zealand, South East Asian countries, Middle East, South Africa etc.

Although there has not been any remarkable difference reported between conventional and organic food in clinical trials, and also because it has been found that organic foods do not completely lack pesticide residue because of the pollution in air and environment (**Sangkumchaliang & Huang 2012**), the fact that the nutrient quality of organic food is better because chemicals present in conventional foods make it difficult for the body to absorb the nutrition. In India, state governments are taking the initiative of declaring themselves fully organic. Sikkim has become the first fully organic state of the country in 2015 (**ET report Feb 2016**). Sikkim could achieve this feat early on as the natural dependence on fertilizers for crops taken there was 8 to 10 kg per hectare per year whereas consumption went to 200 kilos per hectare per year in other parts of India. The Sikkim Organic Mission (SOM) made 66000 farmers turn to farming organically. **Five crops; buckwheat, ginger, turmeric, large cardamom** and orchid were initially taken up, gradually increasing the number. The pilot project covered initially 8150 hectares and in 2016 it has become 77000. The government has invested Rs. 8400 per hectare for certification of land and six accreditation agencies have been involved in the

process. The state law is stringent and prohibits anyone from storing / using chemical fertilizers and / or pesticides. Violation may attract penalty of Rs.1 lakh and / or imprisonment for up to 3 months. Haryana, Rajasthan, Madhya Pradesh, Uttarakhand and other state governments have drafted vision statements in this direction. Individual growers, retailers and large sellers have been designing platforms to sell domestically as well as internationally. Market for OFP includes both, Organized and Unorganized segments and at least three different types of certification systems; Internal Control Systems (ICS) for individual farmers, **Small Holder Group Certification System and Participatory** Guarantee Scheme (PGS) effective. Government funding has a major role to play in certification of land for states trying to declare 'organic'. Farmers in Rajasthan went back to conventional farming when government funding for certification stopped. Organic food market in India according to the same report was estimated to be \$ 0.36 billion by 2014. Seventy five percent of the country's organic produce is exported, with oilseeds accounting for 70% of the export. European Union and USA are India's foremost importers. The domestic market is left under-catered with the leftovers from the exports.

Codex Alimentarius: the Father of Organic Food Legislation globally

Investigation of written legislation in organic agriculture / food processing reveals almost all rule-books of various countries abide by the same laws. These are the laws given by the Codex Alimentarius.

Codex Alimentarius or the 'rule book' is a joint intergovernmental body of the Food and Drug Administration (FAO) of the UN and WHO. It has 186 member states and one member organization in the form of EU. Codex has worked since 1963 to create food standards to protect health of consumers and ensure Fair Trade practices.

When it comes to labeling of Organic foods, Codex has created the Codex General Standards for Labeling of Prepackaged Foods. Such labeling should

1 clearly show products relate to a method of agricultural production (3.2 a)

2 Product or its ingredients have not been subjected during preparation or treatments involving use of ionizing radiation (3.2 e)

The document gives guidelines for the labeling of organic foods. It also specifies status of crops on land under conversion. Such crops which are taken on land under conversion may only be labeled as 'transition to organic' after 12 months of production using organic methods get over.

Labeling refers to the name and / or code number of official or officially approved certification body to which operator that carried out most recent preparation is subject.

Inspection and Certification System:

It is used to verify the labeling of and claims for organically produced foods. A country should establish an inspection system operated by one or more designated authorities to which operators producing preparing or importing products should be subject. The country should identify a competent authority responsible for approval of and supervision of such bodies. In

case of an exporting country lacking an identified, competent authority and a national program, an importing country may recognize a third party accrediting body for application of the inspection system. Such a competent authority should ensure that inspections are carried out on behalf of inspecting agency and that they are objective. They should also verify the effectiveness of inspection. Certification should be withdrawn if the certifying body feels it no longer fulfils criteria or it fails to satisfy requirements laid down.

Importing country: Products can be imported and marketed only where competent authority in the exporting country has issued a certification of inspection. Products lose organic status if importers do not confirm to importing guidelines and do not keep with themselves a transactional certificate. An importer may require detailed information on the measures applied in the exporting country to meet the requirements of labeling food as organic. It may arrange for site visits with the exporter to examine inspection or certification measures.

Principles of Organic Production: Plants and Plant Products

1 conversion period may last for up to 2 years for seasonal /grassland crops and up to 3 years before first harvest of products can be had in case of perennials.

2 Areas already converted and those under conversion must not be switched back and forth between organic and conventional production methods.

3 Fertility and biological activity of soil should be maintained or increased by cultivation of legumes, green manures and deep rooted plants in multi-annual rotation programmes. Manures should be used only if they come from livestock holdings according to organic requirement.

4 Pests / diseases can be controlled by using a combination of these methods; flame weeding, mulching and mowing, grazing of animals, adopting appropriate crop rotation programs etc.

Livestock / Livestock Products:

Guidelines which should be followed for the same are given as under:

1 Livestock should be an integral part of organic farm unit.

2 Livestock makes an important contribution to organic farming as it improves / maintains soil fertility, manages flora through grazing etc.

3 Herbivores must be given access to open air runs. It should aim at using natural breeding methods, minimizing stress, reducing allopathic medication and feeding animals with animal origin products (like meat / meal etc.)

4 Operations such as tail-docking, cutting of teeth, trimming of beaks, dehorning are generally not allowed in organic management systems.

5 Animals should be given sufficient free movement and opportunity to express normal pattern of behavior, company of other animals especially of the like kind.

6 Beekeeping should be done where natural nectar, honeydew and pollen from organic sources are available.

7 Foundation comb shall be made from organically produced wax.

8 Mutilations like clipping of wings of queen bees is prohibited.

Minimum Inspection Requirements and Precautionary Measures under Inspection / Certification System:

Inspection methods are necessary across the whole of the food chain to verify food products. The measures conform to internationally agreed practices.

The operator should be given access to the designated authority to inspect documentary records. Third party audits should be encouraged.

The proposals given on the Codex Alimentarius as mentioned earlier, are applied universally (that includes India). These proposals are under constant review and therefore, are dynamic and applicable on the entire range of organic products.

NPOP India: instilling trust and faith in Organic Certification

Detailed study of organic certification and labeling in India has been done by scholars. One such compilation of organic legislation explains these largely un-noticed aspects .

In India, certification programme has been developed and implemented by the Government of India through its Ministry of Commerce and Industry as the apex body.

The Ministry has structured the National Programme for Organic Production (NPOP). Members of NPOP include representatives of Ministry of Agriculture, Agricultural and Processed Food Products Export Development Authority (APEDA), Coffee Board, Spices Board and Tea Board among others government and private organizations associated with the organic movement. NPOP is responsible for setting National Standards for Organic Products, which will include standards for organic production and processes as well as the regulations for use of the National Organic Certification Mark.

The NPOP is supported and supplemented by the National Accreditation Body (NAB), which defines the overall policy objectives for the Accreditation programmes and operations. There also exists The National Accreditation Policy and Programme under the aegis of NAB which is subject to periodic internal review.

The work of the National Accreditation Body will include:

(a) Drawing up procedures for evaluation and Accreditation of certification programmes.

(a) Formulating procedures for evaluation of the agencies implementing the programmes.

(b) Accreditation of inspection and certification agencies

Every certifier will implement a certification programme and a programme cannot be accredited without accrediting the certifier.

Evaluation Committee

Eligible Inspection and Certification Agencies implementing certification programmes are evaluated by an Evaluation Committee appointed by the National Accreditation Body. The members of the Evaluation Committee will comprise of members drawn from the APEDA, Coffee Board, Spices Board, Tea Board, Ministry of Agriculture and Export Inspection Council of India (EIC) / Export Inspection Agencies (EIAs). APEDA, on behalf of the National Accreditation Body, receives and screen applications from the certification agencies, coordinates and arranges evaluation visits etc. to ascertain the credentials of certification programmes of the applicants. The Evaluation Committee submit its recommendations to the National Accreditation Body for considering accreditation.

Accredited Inspection and Certification Agencies

Based on the recommendations of the Evaluation Committee, eligible Inspection and Certification Agencies are accredited by the National Accreditation Body. These agencies should be well versed with the operating procedures, the NSOP and the international standards. Their programmes should have been in operation for at least one year and they should be able to provide the supporting documents. There are six Certification agencies under **NPOP** (National Program on Organic Production):

- ECOCERT Intl. (based in France, Germany, Branch Office in Aurangabad, India)
- IMO (Institute of Market ecology) (Swiss, based in Bangalore)
- INDOCERT (based in Kerala)
- LACON GmbH (based in Germany, Branch Office in Mumbai)
- SGS India Pvt Ltd (based in Switzerland)
- SKAL Intl. (based in The Netherlands)

Inspectors

The inspectors, appointed by the accredited Inspection and Certification Agencies carry out inspection of the operations through records maintained by the operators as per specified formats and also by periodic site inspection. Based on compliance with the standards and certification programmes, accredited Inspection

and Certification Agencies certify the organic status of products and operations, specifying their conditions and recommendations.

PGS India: Standing by the Smallholder

PGS or Participatory Guarantee Scheme is an internationally applicable organic quality assurance system constituted under the aegis of IFOAM (International Federation of Organic Agriculture Movements). PGS for India is the Indian counterpart of the body. It is a decentralized organic farming certification system. It certifies organic products which maintain required quality standards and ensures that cultivation and production process is done in compliance with standards laid down for organic products.

Products are certified as organic in the form of a documented logo or a statement. This system is implemented by the Ministry of Agriculture and is supported by the Paramparagat Kheti Vikas Yojana (PKVY) scheme, a project of the government.

PGS is a scheme for small and marginal farmers. It is cost and hassle free and moreover is a farmer- friendly scheme. Its objective is to increase domestic demand for organic produce. PGS India offers two logos; PGS India Green and PGS India Organic. While the former is for products under the process of organic certification, the latter is given to products which have completely converted to organic.

In India, these three certification regimes guide the manufacture, packaging, selling and all related activities of organic foods. Largely, the market is shared by organized sector units, both, Indian and international, and the small segment of unorganized buying and selling remains unidentified. It is this segment that also includes wild produce or 'free range' (eg: honey) sold as organic. In most cases, however, agrarians sell non-certified produce under the banner of 'organic', and the claim cannot be contested as most buying happens on virtues like 'trust'. There is also heavy reliance on word-of-mouth publicity. Sellers, who often are smallholder farmers (and are familiar to buyers) sell directly from farm.

Dedicated customers of organic foods claim they check the expiry date on packet and also confirm the product as being 100% organic, although they do not look for the certifying body, neither read any certification number provided on it. A survey conducted to find out customer buying behavior vis-à-vis standards in certification reveals customers value word-of-mouth more than certification. They maintain 'trust' is an important factor when purchasing food products which the seller vouches are organic. This largely happens in fresh fruits and vegetables.

Mr. Ambrish Kela Managing Director and CEO of Scientech, an organization manufacturing scientific instruments and chief patron of Indore based Jaivik Setu, a dedicated platform for organic foods and other organic products, disagrees that organic foods may be mass-marketed as assembly line manufacturing is likely to contaminate it (**Lockie, Halpin & Pearson 2006**). He stresses upon the need to trust growers who claim to grow crops organically. Certification is expensive compared to PGS (Participatory Guarantee Scheme) and therefore, more popular with farmers. However, farmers who cannot deal with extensive documentation and official formalities but willing nevertheless to grow organic crops, according to him do not lag because

of the lack of standardization. The stress is thus on the spirit behind organic agriculture and not on abiding by tiring paper-work. For customers' trust and own checking, there are lab instruments at Jaivik Setu that can detect any pesticide residue and nitrates in food, in addition to soil, water and manure testing kits. This testing in no way replaces formal third party organic certification requirements, and is just a source for additional trust for its visitors.

Due to the perishable nature of fruit and vegetables, non use of any preservatives, or ways to extend their shelf life, and lower carbon footprint, it is better to have several such nodal markets in each city where there is a direct connect between growers and consumers. This leads to trust, transparency and support to the organic farmers in the region. For items not grown in the region, one has to rely on outside sources and their certifications.

From an in-depth study of the various certification regimes applicable in India and the buying behavior exhibited by customers of organic foods, it becomes clear that there is a mismatch of standards with existing operations. To fill this gap further investigation into the subject is required. The gap, however must be filled as certification and labeling of organic foods is *the* differentiating factor between it and conventional foods.

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