National Programme for Organic Production

A Training Manual

Agricultural and Processed Food Products Export Development Authority (APEDA)

Ministry of Commerce and Industry,
Government of India,
3 Siri Institutional Area, NCUI Complex, August Kranti Marg, New Delhi – 110 016

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एपीडा
APEDA

कृषि और प्रसंस्कृत खाद्य उत्पाद
निर्यात विकास प्राधिकरण
(वाणिज्य एवं उद्योग मंत्रालय, भारत सरकार)

Agricultural and Processed Food Products Export Development Authority
(Ministry of Commerce & Industry, Govt. of India)

MESSAGE

Since its launch in 2001, the National Programme for Organic Production (NPOP) had been at the core of organic farming movement in the country and is now the largest certification programme in the world with more than 1 million farmers.

National Programme for Organic Production (NPOP) not only provided an institutional framework for Accreditation of certification bodies and certification of organic products, but also facilitated growth of Indian organic industry to international level with proven integrity. International equivalence with European Union, Switzerland and recognition agreement on conformity assessment with USDA provided strong foot hold for Indian organic products in the international markets. Indian organic products are now being exported to more than 50 countries, and this list is growing. Domestic market is also catching up and India Organic logo has emerged as a symbol of trust among consumers.

To ensure the reach of certification system and to facilitate certification for consumers, producers, processors and traders. APEDA is presenting this compendium in the form of training manual. The publication not only elaborates the National Standards, accreditation system and the process of certification in easy to understand language, but is also giving the details of procedures, needed to ensure integrity for NPOP certified products.

I hope the Manual will be an effective training tool for Government Departments, officers, organic producers, processors, traders, certifiers and other stakeholder.

26/Jun/19

P. K. Borthakur
Chairman (APEDA)

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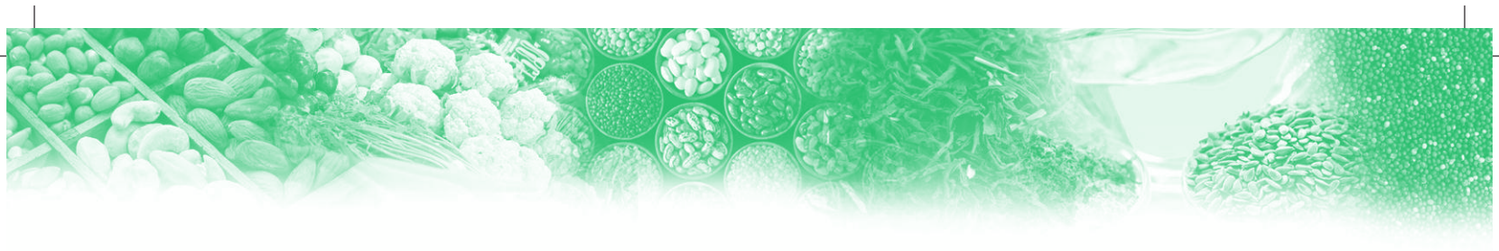

India Organic

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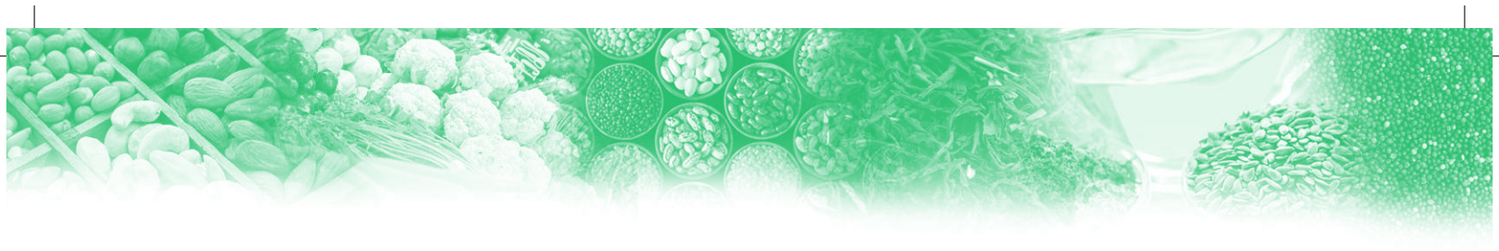
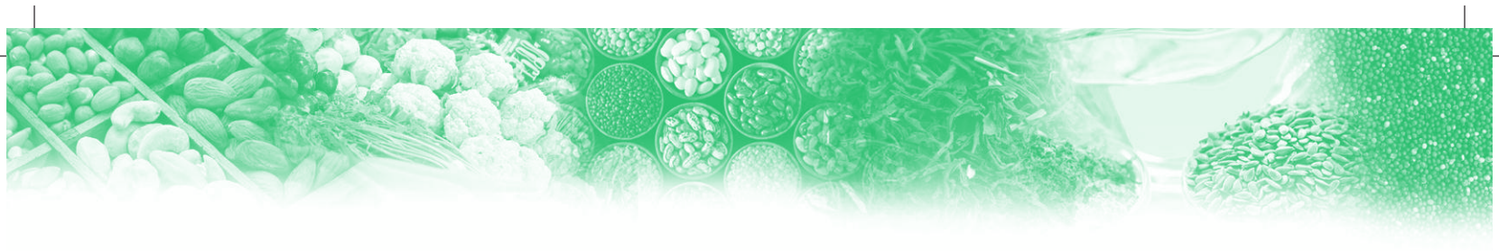


India Organic

Organic Agriculture
A Sunrise Industry in India

A country known for its wisdom in traditional agriculture, which was essentially organic, is picking up fast, the modern tenets of standard based organic agriculture and emerging as the hub for organic food products and its raw materials. Robust mechanism for accreditation and certification has earned international recognition. In terms of the total farm area and number of producers, India is the home for largest arable cultivated land under organic certification process and about half of the total growers in the world. In terms of policy support and Government interventions also India stand apart and is poised to have a well organized organic agriculture sector, supported with series of institutions and supportive policies of central and state governments.



India Organic

1
Organic Agriculture

Preamble

Converting agriculture in to an organized business with the farmer, as an entrepreneur is the key to second green revolution and the essence of the much desired evergreen revolution for 21st century India. Therefore, there is a need for paradigm shift in the way we perceive the agriculture. As agriculture is not just a food production system, it is also a way of life for more than 67% of our rural population; we must aim to ensure that it is productive, sustainable and profitable and is able to bring happiness among farm families. This can be achieved through the conversion of our vast natural resources into meaningful wealth. With huge crop diversity, variations in agro-climatic conditions, varied soil type, it has been realized that conservation of natural resources such as soil, water, energy and bio-inhabitants (human, animal and plant) and their efficient management are vital to sustainable agriculture. The concept of *Ever Green Revolution* (EGR) relies on the need for improving productivity in perpetuity without associated ecological harm. The concept also emphasizes on basic policy shift from commodity-centric approach to a farming system centric approach in terms of technology development and dissemination. It is the pathway that involves the attention to Integrated Natural Resources Management through ***Organic Agriculture*** which in one hand precludes the use of synthetic chemical fertilizers, chemical pesticides, hormones and genetically modified crops and on the other hand adheres to the principals of integrated nutrient management (INM), integrated pest management (IPM), integrated weed management (IWM), improved water management through water use efficiency (WUE), use of appropriate local landraces of different crops, and also improved post-harvest technology.

Organic Agriculture

Organic Agriculture is a system of crop and livestock production designed to optimize the productivity and health of diverse communities within the agro-ecosystem, including soil organisms, plants, livestock and people while prohibiting the use of pesticides, fertilizers, genetically modified organisms, antibiotics and growth hormones. The principal goal of organic production is to develop enterprises that are sustainable and harmonious with the environment. As per the definition of IFOAM "*Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles 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 relationships and a good quality of life for all involved*"

In a broad sense, organic agriculture means "farming in spirits of organic relationship" and in this system everything is connected with everything else. Since organic farming means placing farming on integral relationship, one should be well aware about the relationship between the soil, water and plants, between soil-soil microbes and waste products, between the vegetable kingdom and the animal kingdom of which the apex animal is the human being, between agriculture and forestry, between soil, water and atmosphere etc. It is the totality of these relationships that is the bedrock of organic farming. It is based on a system-oriented approach and can be a promising option for sustainable agricultural intensification in the tropics, as it may offer several potential benefits such as: (i) Greater yield stability, especially in risk-prone tropical ecosystems, (ii) higher yields and incomes in traditional farming systems, once they are improved and the adapted technologies are introduced, (iii) improved soil fertility and long-term sustainability of farming systems, (iv) reduced dependence of farmers on external inputs, (v) restoration of degraded or abandoned land, (vi) the access to attractive markets through certified products, (vii) new partnerships within the whole value chain, as well as a strengthened self-confidence and autonomy of farmers and (viii) chemical residue free safe and healthy food for consumers.

Principles of Organic Agriculture

Organic agricultural practices are largely based on IFOAM's four principles of organic agriculture

a. The principle of health

b. The principle of ecology

c. The principle of fairness

d. The principle of care

a. Principle of Health

Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

b. Principle of Ecology

Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them

c. Principle of Fairness

Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

d. Principle of Care

Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well being of current and future generations and the environment

Emergence of Organic Agriculture in India

Although, India had been traditionally organic and its farmers are 40 century farmers with large pool of traditional wisdom on best practices in organic agriculture, the modern standards based organic agriculture started only recently with the growing demand for organic food and fiber in the western world. National Programme for Organic Production (NPOP) launched during 2001 laid the foundation for systematic development of organic agriculture sector in the country. NPOP, which provides for an institutional framework for accreditation and certification of various facets of organic agriculture processes has earned international recognition and enjoys recognition agreements with European Union, Switzerland and USDA - NOP. NPOP is being managed and operated by the APEDA under Ministry of Commerce and Industry, Government of India.

Started with just 42,000 ha during 2003-04, it has grown almost 42 fold, touching a figure of 1.78 million ha during 2017-18. Almost all types of agricultural, horticultural and non-food crops are being grown under organic certification process. Livestock, aquaculture, animal feed processing and handling, mushroom production, sea weeds, aquatic plants and green house crop production have also been brought under the ambit of organic certification.

Realizing the benefits of organic food, consumers are also demanding organically grown food and fiber and are willing to pay premium prices. But to tap the market, to win the trust of consumers and to prevent consumers from fraud and cheating there is an inevitable need for effective regulatory systems backed by credible certification system, ensuring that the entire production and processing process has been done in compliance of the National Standards for Organic Production (NSOP).

2
Organic Agriculture and Regulatory Systems

Emergence of certification systems

With the growing demand for organic food in national and international markets, it became necessary to ensure that the agricultural products labeled as "organic" comply the basic standards of organic production and entire production process is verified by independent certification agencies. The National Programme for Organic Production (NPOP) launched during 2001 was the first such quality assurance initiative by the Government of India under Ministry of Commerce and Industry. The NPOP not only provided the institutional framework for accreditation of certification agencies and operationalization of certification programme through its accredited certification bodies but also ensures that the system effectively works and is monitored on regular basis. During 2004 the NPOP was brought under the ambit of Foreign Trade Development and Regulation (FTDR) Act wherein it was mandated that no organic products can be exported unless they are certified under NPOP.

To make the certification system affordable and accessible without the need for third party certification agencies a farmer group centric certification system was also launched by the Ministry of Agriculture and Farmers Welfare under PGS-India programme for local and domestic market.

Both the programmes (NPOP and PGS-India) are independent of each other and products certified under one system cannot be processed or labeled under another system. While NPOP certified products can be traded in export and in domestic market including imports, PGS-India certified products can be traded only in domestic market.

Food Safety and Standards (Organic Food) Regulation 2017

Recently Food Safety and Standard Authority of India (FSSAI) have notified Food Safety and Standards (Organic Food) Regulation 2017 under FSS Act 2006. According to these rules:

Chapter II

(a) **Mandatory Requirement** - No person shall manufacture, pack, sell, offer for sale, market or otherwise distribute or import any organic food unless they comply with the requirements laid down under these regulations.

(b) **Applicability of the systems**

(1) The organic food offered or promoted for sale shall also comply with all the applicable provisions of one of the following systems, namely:—

i. National Programme for Organic Production (NPOP);

ii. Participatory Guarantee System for India (PGS-India).

iii. Any other system or standards as may be notified by the Food Authority from time to time.

(2) The Organic food which is marketed through direct sales by the small original producer or producer organisation, as determined by the Food Authority from time to time, to the end consumer shall be exempted from the provisions of the systems referred above.

(c) **Labelling**

(1) Labelling on the package of organic food shall convey full and accurate information on the organic status of the product. Such product may carry a certification or quality assurance mark of one of the systems mentioned at (b) above in addition to the Food Safety and Standard Authority of India's organic logo.

(2) All organic foods shall comply with the packaging and labelling requirements specified under the Food Safety and Standards (Packaging and Labelling) Regulations, 2011 in addition to the labelling requirements under one of the applicable systems mentioned at (b) above.

(d) Traceability.— shall be established up to the producer level as applicable under the systems mentioned at (b) above and it shall include any other requirements prescribed by the Food Authority to maintain the organic integrity of the food product.

(e) **Requirement to comply with the provision of the other regulations made under the Act.**— Without prejudice to the provisions of these regulations, all organic food shall comply with the relevant provisions, as applicable, under the Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011. The organic food shall also comply with relevant provisions, as applicable under the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011

except for residues of insecticides for which the maximum limits shall be 5% of the maximum limits prescribed or Level of Quantification (LoQ) whichever is higher.

(f) **Display.**— The seller of organic food either exclusively or as part of his retail merchandise shall display such food in a manner distinguishable from the display of non-organic food.

Chapter III

Imports and Reciprocity

Import of organic food.

(1) Organic food imports under bilateral or multilateral agreements on the basis of equivalence of standards between National Programme for Organic Production and the organic standards of the respective exporting countries shall not be required to be re-certified on import to India subject to their compliance with the provisions of the Act, the rules and regulation made there under.

(2) The organic food consignments referred to in sub-regulation (1) shall be accompanied by a transaction certificate issued by an Accredited Certification Body covered under the terms of the equivalence agreement.

Labelling requirements for domestic Trade

All products labelled as organic shall be required to be certified either under NPOP or PGS-India and shall bear logo of Jaivik Bharat (FSSAI organic food logo) along with the concerned certification programme logo as follows:

(a) **Products certified under NPOP**

(b) **Products certified under PGS India**

3
Organic Certification

Organic certification is a process certification intended for producers of organic food and other organic agricultural products. In general, any business directly involved in food production can be certified, including seed suppliers, farmers (crop, livestock), food processors, retailers and restaurants. Requirements vary from country to country and generally involve a set of production standards for growing, storage, processing, packaging and shipping that include:

- Prohibition of synthetic chemical inputs (e.g. fertilizer, pesticides, hormones, antibiotics, food additives, etc) and genetically modified organisms;
- Use of farmland that has been free from chemicals for a number of years (often, two or more);
- Keeping detailed written production and sales records (audit trail);
- Maintaining strict physical separation of organic products from non-certified products;
- Undergoing periodic on-site inspections.

Purpose of certification

Organic certification addresses a growing worldwide demand for organic food. It is intended to assure quality and prevent fraud. For organic producers, certification identifies suppliers of products approved for use in certified operations. For consumers, "certified organic" serves as a product assurance, similar to "low fat", "100% whole wheat", or "no artificial preservatives". Certification is essentially aimed at regulating and facilitating the sale of organic products to consumers.

Third Party Organic certification systems in India

India is among the first few developing countries to have developed and launched a credible third party certification system. National Programme on Organic Production (NPOP) launched during 2000 for farm and livestock certification for organic commodities was the first milestone for organic quality assurance system in the country. 29 Accredited certification agencies authorized under the programme are certifying organic producers.

NPOP Certification System (A third party certification)

NPOP certification is a system of process certification wherein an independent organization reviews entire production, processing, handling, storage and transport etc to ensure the compliance of organic standards. The process typically includes comprehensive review of cultivation practices including land management, usage of inputs, use of machinery, pest management and post harvest in crops, rearing practices compatible to their natural behaviour, welfare of animals, avoidance of synthetic feed additives and hormones and limited usage of allopathic drugs and antibiotics in animal products and processing and handling through document review and on-site physical inspection. All such certified products bear the certification mark on their packaging to help consumers and other buyers make educated purchasing decisions.

4
National Programme for Organic Production (NPOP)

Introduction

The National Programme for Organic Production (NPOP) provides Standards for organic production, systems, criteria and procedure for accreditation of Certification Bodies, the National (India Organic) Logo and the regulations governing its use. The standards and procedures have been formulated in harmony with other International Standards regulating import and export of organic products. The National Programme for Organic Production (NPOP) also provides an institutional mechanism for the implementation of National Standards for Organic Production (NSOP).

Objectives

a) To provide the means of evaluation of certification programme for organic agriculture and products (including wild harvest, aquaculture, livestock products) as per the approved criteria.

b) To accredit certification programmes of Certification Bodies seeking accreditation under NPOP.

c) To facilitate certification of organic products in conformity with the NSOP.

d) To facilitate certification of organic products in conformity with the importing countries organic standards as per equivalence agreement between the two countries or as per importing country requirements.

e) To encourage the development of organic farming and organic processing.

Scope

The NPOP shall, inter alia, include the following:

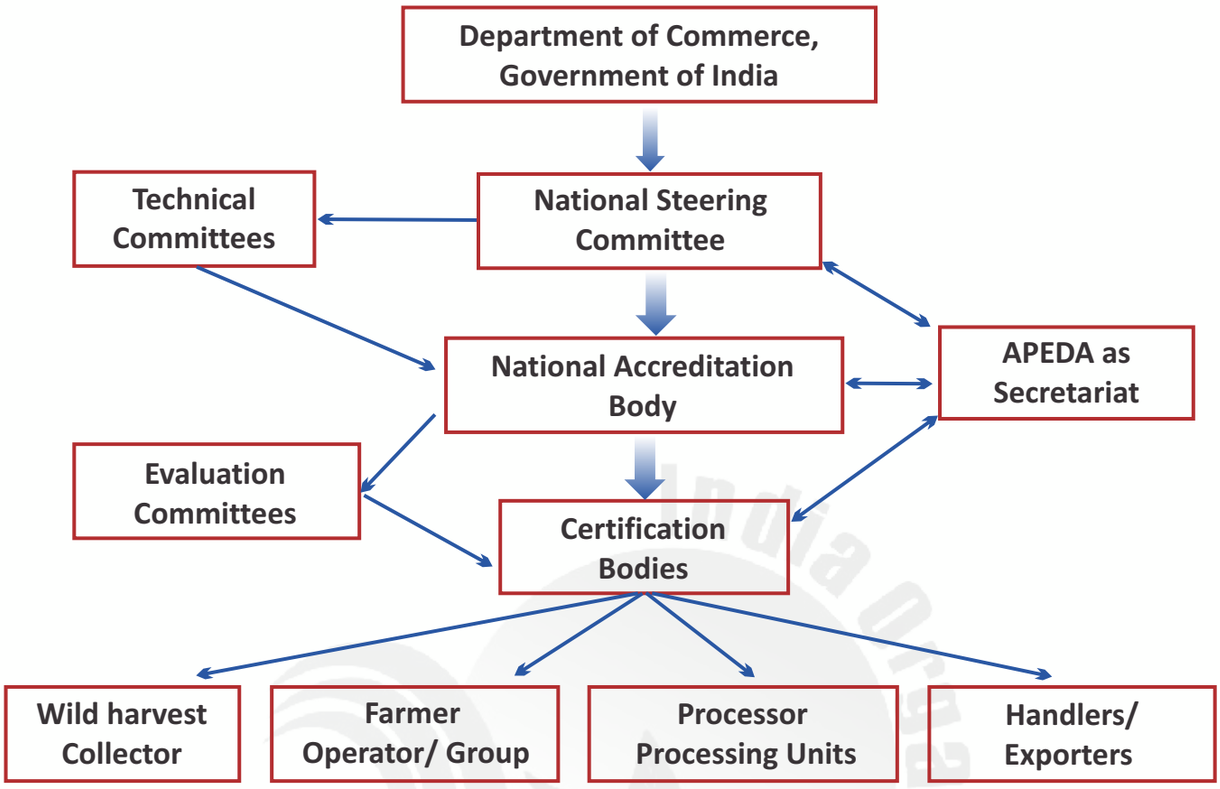
(a) Policies for development and certification of organic products as notified by the Department of Commerce, Ministry of Commerce and Industry, Government of India from time to time

(b) National standards for organic products and processes.

(c) Accreditation of certification programmes to be operated by Certification Bodies.

(d) Certification of organic products.

Organizational Structure of National Programme for Organic Production



The Department of Commerce under Ministry of Commerce and Industry, Government of India is the Apex body of the NPOP. The National Steering Committee (NSC) under Department of Commerce is responsible for the implementation and administration of NPOP including framing of standards, Accreditation policy, procedures and regulations for use of the Certification Trade Mark "India Organic Logo".

NAB - National Accreditation Body (NAB) is responsible for accreditation, evaluation and implementation of accreditation programme for certification bodies.

APEDA - Agricultural and Processed Food Products Export Development Authority (APEDA) act as the Secretariat for both the NSC and NAB. APEDA also coordinates the functioning of Technical Committees and Evaluation Committees and ensures implementation of decisions of NSC and NAB. Besides these APEDA is also the controller of TRACENET, the traceability platform of NPOP.

Tracenet – Tracenet is an on-line traceability platform to maintain entire data base and chain of custody of NPOP and ensures implementation of entire certification programme in a time bound manner with back traceability linkages for all the consignments released for trading.

5
Certification process

Third party certification process starts with the adoption of National Standard of Organic Production (NSOP) on farm followed by the registration of production unit with one of the accredited certification body. There are 29 accredited certification bodies for granting organic certification. Producers can choose any one of them for their farm certification.

Scope categories for certification

NPOP Certification is available for following scope categories:

a. Crop production and wild harvest,

b. Livestock, Sericulture

c. Apiculture

d. Aquaculture

e. Organic Food processing and Handling

f. Organic Animal Feed Processing and Handling

g. Organic Mushroom

h. Seaweeds, Aquatic Plants and Green House Crop Production

In order to certify a farm operation, the producer is typically required to engage in a number of new activities, in addition to normal farming operations which includes:

- **Study** the organic standards, which cover in specific detail what is and what is not allowed for every aspect of farming including storage, transport and sale.

- **Compliance** - Farm facilities and production methods must comply with the standards which may involve modifying facilities, sourcing and changing suppliers, etc.

- **Documentation –** Adequate documentation detailing farm history, current set-up, operational activities including details on inputs used, farming operations, facilities in use, source of contamination and methodologies implemented to prevent contamination, test reports on soil, water, plant, products etc.

- **Planning** - A written annual production plan must be submitted, detailing everything from seed/breed to sale: seed/breed sources, field and crop locations, fertilization and pest control activities, harvest methods, storage locations, livestock breeds, housing management, grazing, feed supplements, ensuring welfare and natural rearing practices and ensuring comfort at all stages for animals etc.

- **Inspection** - Annual on-farm inspections are required with a physical inspection, examination of records and an oral interview.

- **Fee** – A fee is to be paid by the operator to the certification body for annual surveillance and for facilitating a mark, which is acceptable in the market as symbol of quality.

- **Record keeping** - Written, day-to-day farming and marketing records, covering all activities must be available for inspection at any time.

In addition, short-notice or surprise inspections can be made and specific tests (e.g. soil, water, plant/animal product) may be requested. For first-time certification, the soil/livestock/animals must meet basic requirements of being free from use of prohibited substances (synthetic chemicals, etc) for a number of years. A conventional farm must adhere to organic standards for this period, often, two-three years. This is known as being in **transition or conversion**. Transitional crops/livestock products are not considered fully organic.

Certification for processing and handling operations other than farms is similar. The focus is on ingredients and other inputs, and processing and handling conditions. A slaughterhouse and milk handling facilities are required to follow the standard requirements for facilities and operations including equipments. A transport company would be required to detail the use and maintenance of its vehicles, storage facilities, containers, and so forth. A processing unit would have its premises inspected and its suppliers verified as certified organic.

Certification Procedure in brief

- Application is made to the certification agency in the prescribed format with necessary farm and process details

- Screening of application by certification agency and if necessary further details/clarification sought

- Cost estimate comprising of certification charge, inspection charge, travel cost, reporting cost, laboratory charges etc is sent for acceptance

- Acceptance of cost by the grower/producer
- Signing of agreement between grower/producer and certification agency
- Certification agency seeks cropping/production/cultivation/processing plan and supply a copy of the standards to the grower/producer to follow
- Certification agency raises an invoice and asks the producer payment of initial fee
- Grower/producer pays the fee
- Inspection schedule is worked out
- Inspection is carried out at one or more than one occasion
- If required unannounced inspection can also be done. In case of doubt, the inspection team can also draw plant/soil/raw material/input/product sample for laboratory analysis.
- Inspection report/(s) submitted to the certification committee
- Certification agency asks for final payment
- Final payment is made
- Certification is granted
- On grant of scope certificate Producer/operator applies for license for use of India Organic Logo
- Certification body grants the license for use of India Organic Logo
- Grower/producer releases the stock for sale with Certification Mark

India Organic Logo

6
Inspection Procedure

Certification Bodies employ standard inspection procedures as per ISO19011 comprising of following:

i. A qualified and trained inspector is assigned to inspect the operations of the operator having adequate competence and no conflict of interest.

ii. The same inspector shall not visit the same operator more than two years in a row.

iii. Operators have neither the right to choose nor to recommend inspectors.

iv. The operators have the right to be informed about the identity of the inspector before the inspection visit and to raise objections related to any potential conflict of interest.

v. Sufficient information is made available to the inspectors about the operator to allow proper preparation by the inspector which includes earlier inspection findings, a description of activities/processes, maps/plans, product specifications, inputs used, earlier irregularities, infringements, conditions and disciplinary measures.

vi. The checklists used during the inspection and the reports emanating from the inspection shall be comprehensive covering all relevant aspects of the production standards and shall adequately validate the information provided.

vii. The inspector shall have access to all relevant facilities including accounts and other documentation of the operator. Certification Bodies shall have access to any non-organic production unit or units associated by ownership or management.

viii. The inspector shall take precautionary measures by assessing the risk of non-compliance during the inspection. When an irregularity is committed by the operator relating to organic production as non-compliance to chapter 3 of NPOP, the entire lot or production affected by irregularity shall be made to be removed from the production site /chain and sanctions shall be imposed on the operator. APEDA shall be informed within 30 days about the action taken on the operator.

ix. Inspection checklist, reports and inspection shall follow specified methods to facilitate a non-discriminatory and objective inspection procedure.

x. Reports shall be designed to allow for elaboration and analysis by the inspector on areas where compliance might be partial; standards might not be clear etc.

xi. Inspection reports shall give adequate information on what was actually checked including but not restricted to

- Date and time of inspection
- Persons interviewed
- Crops/products requested for certification
- Fields and facilities visited
- Documents reviewed
- Buffer zones
- Risk of drift
- Risk of contamination
- Inspector's observations
- Calculation of input/output norms, production estimates etc.
- Assessment of production system of operator
- Assessment of the use of logos/ approvals (India organic logo, product logo as well as the Certification Body's logo)
- Product reconciliation and verification of stock
- Interview with responsible persons
- Evaluation of compliance to standards and Certification requirements.

The standard procedures for inspection and certification of production at the production farms (individual and grower groups), wild collection, processing units (including sub contracted units) and at all stages in handling (storage units, packaging, shipments etc) includes:

a) Inspection of parallel production of farms,

b) Inspection of Processing Units

c) Inspection of grower groups

d) Inspection of wild production collection

e) Inspection of all stages in handling

f) Inspection of Packed Products

g) Inspection of Storage Facilities

h) Inspection of Transport Facilities

i) Inspection of Chain of Custody

j) Inspection for detection of use of Genetically Engineered/ modified Products

a) Inspection of parallel production of farms,

i) Buffer zones are maintained for demarcation

ii) Crops are visually distinguishable

iii) Inspections are carried out at critical times

iv) Inspection is done in a timely manner.

v) Accurate production estimates are available

vi) The Crops are harvested in such a way that there are reliable methods to verify the actual harvest of the respective crops.

vii) Appropriate storage capacity exists to ensure separate handling

viii) The documentation regarding the production is well managed and makes a clear distinction between certified and non certified production.

b) **Inspection of Processing Units:** During the inspection of the processing units, the following shall be taken care:

i) The Inspector shall verify that sufficient quantities of organic ingredients are used and that organic integrity is maintained through all stages of processing.

ii) The inspector shall review all ingredients and their sources to ensure that ingredients meet organic standards.

iii) The inspector shall also review product formulation to determine if they meet labeling standards

iv) The inspector shall verify the existing record keeping system and evaluate whether it is adequate for tracking organic products.

v) The inspector shall conduct an audit trail to track the product from the receipt of raw material/ingredients, ingredient storage through all stages of processing, packaging, labeling, warehousing, shipping and sales of the finished product.

vi) The inspector shall conduct a sample audit review which consists of randomly choosing a finished product(s) either a sales invoice, a product purchased or product seen in the warehouse. The inspector shall record the Lot number on the finished product and follow the product back to the receipt of incoming ingredients on the record keeping system. The inspector shall inspect all the subcontracted units annually.

c) **Inspection of grower groups**

i) The external inspection by the Certification Body shall be planned after internal inspections of all the farmers are carried out by the Internal Control System (ICS) twice annually.

ii) The Certification Body shall have a standardized format for sourcing the information from the grower groups which shall include list of farmers, location on an area map, year of joining in the grower group, date of internal inspections, area of cultivation, crops and yield estimates.

iii) The inspector shall verify that new farmers are included in the group only after the internal inspections are completed.

iv) The inspector shall carry out the risk assessment of the ICS and the inspector shall draw a sample of farms for visiting the farmers in the ICS.

v) The inspector shall prepare a list of farms having 4 Hectare or more and all such farms having 4 Hectare or more shall be inspected separately. The 4 Hectare and above farms shall not be included in the sample of farmers drawn for re-inspection.

vi) The inspection shall include a witness audit of the internal inspector for assessing his knowledge on inspection procedures.

vii) The inspector shall verify the documentation of the ICS that adequate records of inspections are maintained Instances of non-compliance and the active measures taken by the ICS with special reference to sanctions shall be assessed from the documentation.

viii) Internal control records are in compliance with the findings of the Certification Body's sample inspection results.

ix) The inspector shall interview the farmers, lCS manager to assess the knowledge of operator on NPOP standards.

x) The inspector shall verify the collected information from the ICS with the submitted information by the grower group during registration/renewal.

d) Inspection of wild production and collection

i) To verify that the area of collection is properly identified on appropriate maps issued by the concerned Government Authorities. The map shall be large and distinct enough to reduce the risk of mixing up with non-certified production. However, wherever community rights are recognized under Forest Rights Act, 2006, Gram Sabha letter can be considered for verification of collection area by the community.

ii) Verification of operator records of all collectors and the quantities bought from each collector.

iii) Visit to an appropriate portion of the certified area.

iv) Visits and interviews of the concerned in the supply chain such as collectors, local agents, landowners and other parties (environment agencies, NGOs etc.)

e) Inspection of all stages in handling

Each step in the handling of a product shall be inspected at least once annually (storage units, packaging, shipment etc). Any person who sells a product (raises invoice) shall be registered and certified which applies until the product is in its final package/has its final label.

f) Inspection of Packed Products

The accredited Certification Bodies are not obliged to have a system for inspection of products that are further handled after being packed in the final consumer package, and/or after issuing of a transaction certificate. The accredited Certification Bodies however, are obliged to take action where there is reason to believe that the standards have been or may be violated at such later stages.

g) Inspection of Storage Facilities

Depending on the kind of storage, the product, packing, prevailing storage practices (i.e. fumigation) and the time of storage, inspections shall be required. Accredited Certification Bodies shall conduct a risk assessment to determine future need for inspection of all storage facilities including port facilities.

h) Inspection of Transport Facilities

Transport is not certified as such, but remains under the responsibility of the operator owning the product during the transport.

i) Inspection of Chain of Custody

Accredited Certification Body shall not issue any license to use its certification mark or issue any certificate for any products unless it is assured of the chain of custody of the product where steps in the production chain have been certified by other accredited Certification Bodies under NPOP as per the National Standards of Production.

j) Inspection for detection of use of Genetically Engineered Products

Accredited Certification Bodies shall implement a system of inspection for potential use of genetically engineered products. When use of such products is detected at any stage, certification shall not be granted. When there is a risk of contamination of genetically engineered products, the following samples shall be tested in identified APEDA approved laboratories.

- seeds and planting stock
- production inputs
- livestock feed

- processing aids
- ingredients

Inspection methods and frequency

Inspection methods and frequency of inspection shall be determined by the certification body, based upon following factors:

- Intensity of production
- Type of production
- Size of operation
- Outcome of previous inspections and the operator's record of compliance
- Any complaints received by the programme
- Whether the unit or operator is engaged only in certified production
- Contamination and drift risk
- Complexity of production

Announced annual Inspections

(i) Inspection of certified operators shall take place at least once annually.

(ii) Inspection of sub-contracted operators or units shall take place at least once annually.

(iii) Timing of inspections shall not be so regular as to become predictable.

(iv) There shall be provisions for more inspections with respect to the factors stated below.

Unannounced Inspections

(i) The selection of operators for unannounced inspection shall be based on risk analysis carried out by the Certification Body annually.

(ii) A minimum of 10% of unannounced inspections to be carried out annually by the Certification Bodies.

Risk Assessment

(i) Risk assessment is done covering all scope of activities

(ii) The risk assessment procedure cover the criteria for determining the risk category as high, medium or low

(iii) Based on the procedure of risk assessment, 10% inspections are required to be carried out by the Certification Body annually in addition to the unannounced inspections

7
Grower Group Certification:

1. Growers Groups are organized group of farmers/producers who intend to produce organic products/engage in organic processes in accordance with the National Standards of Organic Production (NSOP).

   The grower group shall be based on the Internal Control System (ICS) and shall apply to grower groups, farmers' cooperatives, contract production and small scale processing units. The producers in the group must apply similar production systems and the farms should be in geographical proximity. Individual farms with land holding of 4 ha (10 acres) and above can also be a part of the group but will have to be inspected separately every year by the accredited Certification Body. The total area of such farms shall be less than 50% of the total area of the group. The grower group shall consist of minimum 25 and maximum 500 farmers. Processors and exporters/traders can own/manage the Internal Control System (ICS) but will have to be inspected annually by the external Certification Body. Separate certificates (Scope and Transaction Certificates) are required to be issued for the ICS, processors and traders to maintain the traceability of the product flow.

   The Certification Body shall not certify if there is no ICS as per NPOP and 100% internal inspections are not conducted. In case the farmer group does not maintain an Internal Quality System as described, the Certification Body shall inspect all the Individual farms.

2. **Constitution of ICS** - The ICS will have a registered legal identity and have a constitution of the organization and shall be presented by an organizational chart. For implementation of the procedures to maintain the internal control system, responsibilities shall be delegated to individual members/committees for carrying out specific activities

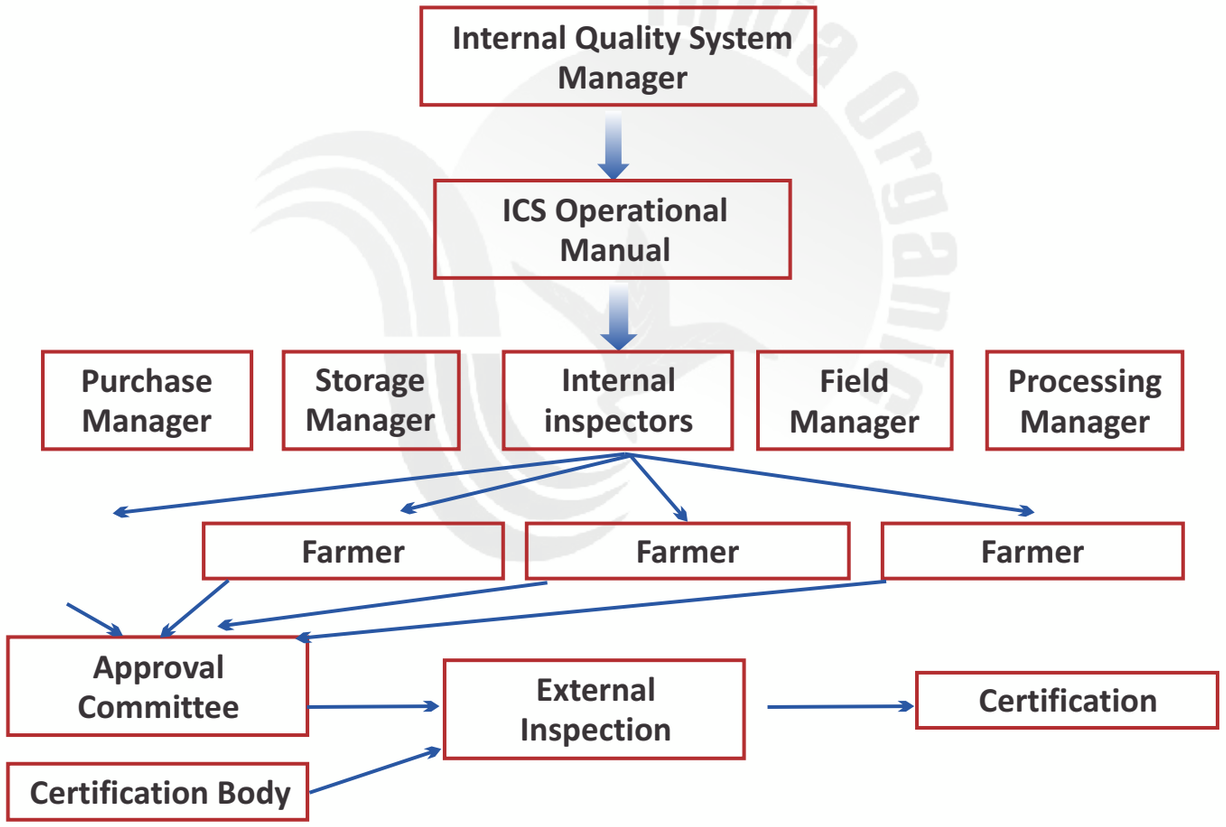
3. **Internal Control System:** Group Certification is based on the concept of Internal Quality Management System which comprise of following:

   - Implementation of the Internal Quality System
   - Internal standard
   - Risk assessment

4. **How to Develop an ICS** - The following are minimum requirements for setting up an ICS for grower groups: -

- Development of Internal Control System (ICS) manual containing policies and procedures
- Identification of farmers in the group
- Creation of awareness about Grower Group Certification
- Identification of qualified/experienced personnel for maintaining the Internal Control System
- Give necessary training in production and ICS development
- Implementation of the policies and procedures
- Review and improvement of the ICS document for maintaining a harmonized quality management system.

Typical Operational Structure of ICS



5. **Internal Standards:** Internal Standards shall be prepared in local language by the IQS Manager for the region of operations under the framework of NPOP standards. If the farmers are illiterate, the Internal Standards shall contain illustrations in the text for better understanding. The internal standards would contain:-

   - Definition of production unit

- How to deal with part conversion
- Conversion period
- Farm production norms for the entire production unit.
- Harvest and post harvest procedures.

6. **Conflict of Interest** - The ICS personnel shall not have any conflict of interest that might hinder the work. All possible conflicts shall be declared in a written statement.

7. **Scope of certification** - The certification shall be granted by the accredited Certification Body to the group as per NPOP.

8. **Trade** - The group will market the products under a single entity. For trading the products from the group of producers, the ICS shall draw up relevant procedures

9. **Procedures for Implementation of Internal Control System**

   (i) Registration of members: All members of the group will be legally registered under a single entity (name) with address of its operations (location, taluka, village)

   (ii) Provision of documents to the members of the grower group

   - Copy of ICS Manual
   - Internal standards document in local language
   - NPOP document
   - Definition of the production unit
   - Field records may be included in internal farm checklist
   - Farm Entrance Form including last use of prohibited substances
   - Prevailing farming system and package of practices available for the area
   - Details and description of the various steps required for the process flow, right from cultivation to harvest and sales of the products.
   - Written contract of the grower with the group.
   - Annual farm inspection checklist
   - Information on training programmes and provision of advisory services by the field officers.

10. **Operating Document:** The ICS manager shall prepare the operating document which will contain the following: -

- An overview map (village or community map) showing location of each member's production unit. The map should indicate the crops cultivated in rotation and also mark any farm in an area, which could be identified as high risk due to drift from non-conventional farms.

- Farmer's list with code and name of the farmer, total area, area under crop, date of registration with the group, date of last use of forbidden products, date of internal inspection, name of internal inspector, result of internal inspection (separate lists for in-conversion farmers)

- List of sanctioned farmers with the reason and the duration of this sanction (if relevant).

- The risk shall be assessed by IQS manager for the grower group every year. The risk assessment should be made at the farm level, processing, transporting and during trade. The ICS will take all measures to minimize the identified relevant risks.

Critical control points for risk assessment

- Measures taken by the farmers to deal with part conversion (if farmers still grow some non-organic crops).

- Conversion period

- Production rules for the whole production unit e.g seeds, fertilization and soil management, pest management, approved inputs, preventions of drifts, animal husbandry.

- Harvest and post harvest procedures.

- Processing and handling procedures

11. **Internal Inspections**

- At least two inspections of the group (one in growing season of each crop) shall be carried out by the internal inspector and will be documented. The inspection will be carried out in presence of the member or his representative and must include a visit of the whole farm, storage of inputs, harvested products, post harvest handling and animal husbandry.

- The internal inspector will also verify if the internal standards have been

followed and whether the conditions of the previous internal inspection have been fulfilled.

- The visit of the internal inspector will be documented in the farm inspection checklist duly signed by the inspector and countersigned by the member or his representative.
- In case of severe non-compliance, the results will be reported immediately to the ICS manager and all measures will be taken according to the internal sanction procedures.

12. **Internal Approval** - The ICS manager will have a defined procedure to approve or impose sanction on the farmers in the group. All internal farm checklists are screened by internal approval staff with special focus on the critical control points of risk/difficult cases.

13. **External Inspections**

a) The accredited Certification Bodies shall undertake inspections of the ICS after ensuring that 100% internal inspections by the ICS have been undertaken at least twice for all the registered members of the grower group. The accredited Certification Body will inspect some of the farms for the evaluation of the grower group for efficient internal control system for compliance with the NPOP Standards. The accredited Certification Body shall inspect farms of 4 Hectare and above separately in addition to the sample of farms having the area of less than 4 Hectare. The sampling plan for inspection shall be based on the inspector's perception of risk based on the following factors:

- Size of holding
- Number of the members in the group
- Degree of similarity between the production system and crop system
- Inter-mingling/contamination
- Parallel production
- Split production
- Local hazards
- Change in the production plan
- Joining of new members in the group

b) **Risk Assessment:** A minimum sample size of the members in the grower group shall be inspected by the accredited Certification Body. The sample size shall be determined as square root of the number of members registered in the grower group. Based on the risk assessment made by the accredited Certification Body prior to the inspection visit, the number of sample inspections shall be planned. The risk assessed by the accredited Certification Body shall be documented. The accredited Certification Body shall establish criteria for assessment risk under high, medium and low categories. The accredited Certification Body shall follow the given pattern below for minimum number of farmers for inspections:

- High risk : 2 X square root of number of farmers
- Medium risk : 1.5 X square root of number of farmers
- Low risk: square root of number of farmers

14. **Yield Estimates** - Yields will be estimated for each crop for individual farmer in the group by the ICS and counter-checked with the estimates during external inspection by the accredited Certification Body

15. **Non-Compliances and Sanctions:** In case of non-compliances, the ICS shall take corrective or mitigating measures.

- Procedures for implementation of sanctions will be defined in case of noncompliance.
- Sanctions have to be documented (list of farmers issued sanctions, documentation of identified non-conformities in the files).
- Farmers who have used prohibited inputs on their farms must undergo again the full conversion period (if they remain in the group). In such cases, it has to be checked whether the farmers have already delivered produce and whether this (now no longer certified) produce has been mingling with other produce, if this has been the case, the accredited Certification Body needs to be notified immediately and the mingled produce kept separate until further instructions.

16. **Training of ICS Personnel:** A competent person will train each internal inspector annually. The date of the training, list of participants and content of the training of all ICS staff needs to be documented.

17. **Training of Farmers:** The ICS manager will organize regular training to the Farmers in the group. Each farmer needs to receive at least one initial advisory visit by the extension service or in an organized training and the list of participants & content of the training needs to be documented.

18. **Buying Procedures:** To ensure genuineness of the products from the group. the following minimum requirements should be followed during buying: -

- The status of the farmer in the group should be checked.
- The supplied amount should be compared with the harvested amount and estimated yield. In case of doubt, the produce is kept apart until clarified by the ICS manager.
- The delivered quantity of the product will be registered in the purchase record.
- Farmer will be issued a receipt duly signed by the purchase officer stating the quantities of the product delivered with date.
- All documents have to indicate the status of the certified product (organic or in conversion).
- Bags should be labeled as 'organic' or as 'in-conversion'.

19. **Storage and Handling Procedures:** The purchase or the warehouse manager during the handling of produce shall check the document to ensure the compliance with the NPOP standards. The following are the minimum requirement that will be followed during storage and handling:

- Identification of the product at all stages of product flow during transition.
- Segregation of organic products from in conversion products.
- Fumigation of containers, irradiation/ionization etc. are prohibited.
- The location in the warehouse during storage must be labeled as `organic' or 'in-conversion'.

20. **Processing:** During the handling of the produce, the documentation must be checked for compliance with the NPOP standards.

- The accredited Certification Body will inspect Central Processing Units.
- Ingredients and processing aids must be used as defined in Annex-1 and 2 of Appendix 5 of Chapter 3 of NPOP standards.
- During the product flow (transition), the products should be separated from non-organic products.
- The processing steps will be documented.

8
India Organic Trade Mark Logo

India Organic Logo

A trademark – "India Organic" is granted on the basis of compliance with the National Standards for Organic Production (NSOP). Only such exporters, manufacturers and processors whose products are duly certified by the accredited Certification Bodies, are eligible for grant of licence to use the logo

As per the provisions of FTDR Act the products will be allowed to be exported as "Organic Product" only if it is produced, processed and packed under the Certification Trade Mark issued by Accredited Certification Bodies authorized by the NAB, constituted under the provisions of the NPOP. NAB is the sole, absolute, and exclusive owner of the Certification Trade Mark. The Accredited Certification Body, while granting certification to an Applicant is merely acting as an agent of the NAB

Grant of Licence

If, after having regard to requisite skill, resources, production, processing previous performance and antecedents relevant to the issuance of the licence, the Accredited Certification Body is satisfied that the applicant is fit to use the Certification Trade Mark, the Accredited Certification Body issues a licence authorizing the use of the Certification Trade Mark in respect of the product or class of products manufactured by the applicant in respect of the process employed in any production, manufacture or work, subject to such terms and conditions as specified in these regulations for a period not exceeding one year.

The Applicant on receipt of the license shall be entitled to use the Certification Trade Mark and restrict its use to such products or services, which will meet the norms and standard specifications of the products, set out in the NPOP. The Certification Trade Mark may be affixed to the products and/or used on packaging or promotional material or in the context of advertising activities.

In the event of a withdrawal of the right to use the aforesaid Certification Trade Mark, the certificate or the Licence shall be returned to the Accredited Certification Body.

Withdrawal of license

Any licence granted by the Accredited Certification Body may be suspended or cancelled by it, if it is satisfied that:-

i. The products marked with the Certification Trade Mark do not comply with the related norms and procedures under NPOP; or

ii. The licensee had used the Certification Trade Mark in respect of a process which does not comply with the NPOP; or

iii. The licensee failed to provide reasonable facilities to the Accredited Certification Body to enable them to discharge the duties imposed on them; or

iv. The licensee has failed to comply with any of the terms and conditions of the licence.

Surveillance and regular review –

The grant of a licence shall be followed by surveillance visits determined by the Accredited Certification Body. The surveillance visits may be without notice to the applicant to ensure that the systems and procedures already assessed are being maintained. The special reassessment visit shall be necessary where an applicant fails to observe the conditions of the licence or where there have been significant changes in the organization of the applicant. The licensee shall be liable for the costs of such special visits.

Responsibility of licensee

Licensee on grant of a licence to use of Certification Trade Mark shall:

i. At all times comply with the requirements of the licence as set out therein and comply with these Regulations or any amendments thereto;

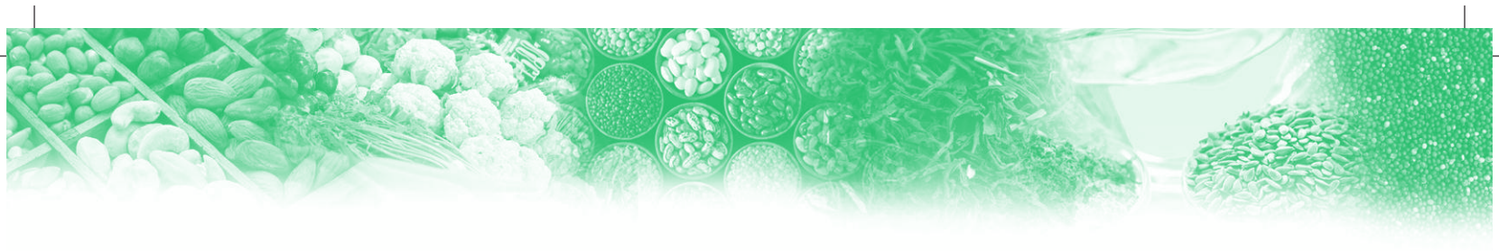
ii. Only claim that it is holding a licence in respect of the capability which is the subject of the licence and which relates to the products or processes in accordance with the licence requirements;

iii. Not use the licence in any manner to which the Accredited Certification Body may object and shall not make any statement concerning the authority of the applicant's use of the licence which in the opinion of the Accredited Certification Body may be misleading;

iv. Submit to the Accredited Certification Body for approval the form in which it proposes to use its licence or proposes to make references to the licence;

v. Upon suspension or termination of the licence, however determined, discontinue its use forthwith and withdraw all promotional & advertising matter which contains any reference thereto;

National Standards for Organic Production (NSOP)



India Organic

Appendix 1
Organic Crop Production Standards

1. **Crop production plan**

The producer is required to develop an organic crop production plan including:

i. Details of crops to be grown, field wise.

ii. Description of practices and procedures.

iii. List of inputs used.

iv. Source of organic planting material (seeds and seedlings).

v. Descriptions of monitoring practices and procedures.

vi. Description of management practices.

vii. Description of record keeping system.

2. **Conversion requirements and duration -**

For a farm and its crop production products to be certified organic under these rules it is mandatory that the farm and entire farming operations of organic production unit has under gone a period of conversion, complying with all the standard requirements under these rules for following period:

i. 36 months for perennial plants

ii. 24 months for plants/crops other then perennials

A reduction in conversion period up to 12 months can be granted if de-facto requirements under these standards are being met from last several years and this can be verified from various sources and necessary documentary evidences are available.

3. **Landscape**

Organic farming shall contribute beneficially to the ecosystem. The certification programme shall set standards/procedures for a minimum percentage of the farm area to facilitate biodiversity and nature conservation.

4. **Choice of crops and varieties ¬**

All seeds and plant material shall be certified organic. Species and varieties cultivated shall be adapted to the soil and climatic conditions and be resistant to pests and diseases. When

certified organic seed and plant materials are not available, chemically untreated conventional seed and plant material shall be used.

The use of genetically engineered seeds, transgenic plants or plant material is prohibited.

5. **Diversity in Crop Production & Management Plan**

The basis for crop production in organic farming shall take into consideration the structure and fertility of the soil and the surrounding ecosystem, with a view to minimizing nutrient losses. Where appropriate, the organic farms shall be required to maintain sufficient diversity in a manner that takes into account pressure from insects, weeds, diseases and other pests, while maintaining or increasing soil organic matter, fertility, microbial activity and general soil health.

6. **Nutrient Management -**

Sufficient quantities of biodegradable material of microbial, plant or animal origin produced on organic farms shall form the basis of the nutrient management. Non synthetic mineral fertilisers and brought-in bio fertilisers (biological origin) shall be regarded as supplementary. Mineral fertilizers shall only be used in a supplementary role to carbon based materials. Mineral fertilisers shall be applied in their natural composition and shall not be rendered more soluble by chemical treatment.

Fertilization management should minimize nutrient losses and the desired pH levels shall be maintained in the soil by the producer. Manures containing human excreta (faeces and urine) are prohibited. List of permitted, restricted and prohibited inputs are given in Annex 1 of Appendix 1 of NPOP. Products not listed in Annex 1 shall be evaluated as per the procedure given in Annex 3 of Appendix 1 and on being found complaint may be approved for use by certification body.

7. **Pest, Disease and Weed Management**

Organic farming systems shall be carried out in a way which ensures that losses from pests, diseases and weeds are minimized. Emphasis is placed on the use of a balanced fertilizing programme, use of crops and varieties well-adapted to the environment, fertile soils of high biological activity, adapted rotations, intercropping, green manures, etc. Growth and development shall take place in a natural manner. Products used for pest, disease and weed management, prepared at the farm from local plants, animals and microorganisms, shall be allowed. The use of synthetic herbicides, fungicides, growth regulators, synthetic dyes insecticides and other pesticides are prohibited. Permitted products for plant pest and disease control are listed in Annex 2 of Appendix I of NPOP. Products not listed in Annex 2 shall be evaluated as per the procedure given in Annex 3 of Appendix 1 and on being found complaint may be approved for use by certification body.

All the equipment from conventional farming systems shall be properly cleaned and free from residues before being used on organically managed areas.

8. **Contamination Control**

All relevant measures shall be taken to minimize contamination from outside and within the farm. Buffer zones shall be maintained to prevent contamination from conventional farms. The buffer Zone should be sufficient in size to prevent the possibility of unintended contact of prohibited substances applied to adjacent conventional land areas/farms.

Polyethylene and Polypropylene or other polycarbonate coverings such as plastic mulches, fleeces, insect net and silage wrapping are allowed. These shall be removed from the soil after use and shall not be burnt on the farmland. Use of polychloride based products is prohibited.

9. **Soil and Water Conservation**

Soil and water resources shall be handled in a sustainable manner. Relevant measures shall be taken to prevent erosion, salination of soil, excessive and improper use of water and the pollution of ground and surface water. Clearing of land through the means of burning organic matter e.g. slash-and-burn, straw burning shall be restricted to the minimum. The clearing of primary forest is prohibited.

10. **Collection of non cultivated material of plant origin/ forest produces**

The collection of wild plants and parts thereof, grown naturally and in forest shall be certified as organic provided the collection areas have not received any treatment with products other than those authorised for use in organic production. The act of collection should positively contribute to the maintenance of natural areas. In harvesting or gathering the products, attention shall be paid to maintenance and sustainability of the ecosystem. Organic operators should collect products only from within the boundaries of the clearly defined wild collection area and the collection area shall be at appropriate distance from the conventional farming, pollution and contamination.

Appendix 2
Organic Livestock Standards

1. Scope

Livestock standards prescribed under these rules refer to any domestic and domesticated animal including bovine (including buffalo, Mithun and Yak), ovine, porcine, caprine, rabbits, poultry, insects and bees and/ or any other animal notified by the FSSAI from time to time, raised for food/fibre or in the production of food and fibre, their derivatives and by-products. The products of hunting or fishing or wild animals shall not be considered part of livestock standards.

2. General principles

Organic livestock production in general is a land based activity and shall be an integral part of organic farm unit and management of livestock shall be in consistent with the principles of organic farming and shall be based on :

a. Natural breeding;

b. Protection of animal health and welfare;

c. Fed with organic feed and fodder;

d. Access to grazing in organic fields;

e. Freedom to express natural behaviour;

f. Reduction of stress and

g. Prohibition of use of chemically synthesized allopathic veterinary drugs, antibiotics, hormones, growth boosters, feed additives etc

Landless livestock production where the operator does not have organically managed land and/ or has not established a written cooperation agreement with another certified organic operator in compliance of the rules specified in Appendix 1 of these rules is prohibited.

In cases where traditional rearing system of the farm and/ or adverse climatic conditions does not allow easy access to pastures, livestock may be produced through providing organic feed certified under these rules, provided the indoor and outdoor space requirements, specified under these rules are fully met (Clause 6).

3. Organic Management Plan

Any organic certification system starts with the registration of the operator with accredited certification body followed by submission of annual "Organic System plan" which provides details on all aspects of management system. Organic system plans are updated annually and all activities are carried forward throughout the year based on such organic system plan.

4. **Choice of breeds, sources/origin**

Breeds adapted to the local conditions and resistant to diseases shall be used.

Livestock those are used for Organic production must be brought from a source under continuous Organic management.

In case if livestock has been sourced from non-organic source then they must qualify a minimum conversion period.

Certification body may allow induction of non-organic animals under certain conditions such as:

a. Establishment of new livestock farm

b. Replacement of livestock breed/strain

c. Renewal of herd necessitated by catastrophic circumstances

d. Introducing breeding males

5. **Animal identification and record keeping**

a. Each animal/ herd/ batch shall bear unique identification number. Large animals including bovine, ovine, carpine, porcine etc shall bear individual number in the form of tag, while poultry birds and small mammals shall be identified with herd/ flock/ batch;

b. Following data for each animal/ herd or batch shall be maintained and made available to the accredited certification body for verification during inspection:

i. Parent details;

ii. Source and purchase details;

iii. Animal details;

iv. Breeding details;

v. Feeding details;

vi. Health care details including details of vaccination, medication, veterinarian prescription and withdrawal period etc;

vii. Production details;

viii. Sale details and

ix. Any other relevant details

6. Housing and management

Livestock and poultry shall be maintained under natural conditions, as far as possible and shall have access to open air, grazing, runs, free range, organic feed and fodder and water.

The housing and management of the animal including sanitation, hygiene and environment shall be planned to suit the specific behavioral needs of the livestock and poultry and shall provide for:

a. Sufficient space to ensure free movement and opportunity to express normal behaviour;

b. Minimum indoor and outdoor surface area requirement are given in Annex 1 of Appendix 2.

c. The animals should not be tied unless required for specific reasons

d. Appropriate facilities to cover emergencies such as the fire, the breakdown of essential mechanical services and the disruption of supplies.

e. Housing for Livestock and Poultry shall not be mandatory in areas where appropriate climatic conditions exist to enable animals to live outdoors without compromising their comfort, health and welfare.

f. Housing conditions shall meet the biological and behavioural needs of the livestock and poultry by providing easy access to feeding and watering;

g. Insulation, heating, cooling and ventilation of the building to ensure that air circulation, dust level, temperature, relative air humidity and gas concentrations are kept within limits which are not harmful to the livestock and poultry;

h. Plentiful natural ventilation and light to enter;

i. Appropriate fencing not harmful to the animals

j. Confinement allowed only under inclement weather, to ensure health safety or welfare or to protect plant, soil and water quality;

k. The stocking density shall provide comfort and well-being of the livestock and poultry with regard to the species, the breed and the age; behavioural needs with respect to the size of the group and the sex of the livestock and poultry; sufficient space to stand naturally, lie down

7. Conversion Period

i. Simultaneous conversion of livestock and poultry and land should be a preferred approach. Land to be certified organic as per the provisions of crop production;

ii. When a livestock production unit, with entire herd, or flock is in transition to organic, pasture and feed produced on the land undergone a minimum period of 12 months of conversion period may be considered organic for feeding to organic livestock;

iii. In case of silkworm rearing, no requirement for conversion period, provided the larva are fed with organic feed grown in compliance of these rules for a minimum period of 12 months for their entire lifespan period;

iv. The conversion period shall be accounted from the date of first inspection;

v. In cases, where the land and livestock and poultry conversion to organic status is not simultaneous following conversion period shall apply:

a. Bovine including buffalo

i. Meat products: 12 months and at least 3/4th of their life span;

ii. Calves for meat production: 6 months;

iii. Milk products: Six (6) months.

b. Sheep, Goat and pigs; 6 months

c. Small mammals (such as Rabbits)

i. Meat products: From the second week after their birth to the entire life span as determined by the accredited Certification Body.

d. Poultry

i. Meat products: from the second day of hatching to the entire life span;

ii. Eggs : Six (6) weeks.

8. **Feed**

Livestock and poultry diet shall be from feedstuffs produced as organic. Agricultural processed residues of organic origin, shall be permitted for feeding, provided overall feeding practices satisfy the daily energy and nutrient requirements.

The agriculture land for feed / fodder crops shall be organic.

During the operations, the products shall maintain their organic status provided that livestock and poultry are fed with at least 85% for ruminants and 80% for non-ruminants calculated on a dry matter basis, feed obtained from organic sources that have been produced in compliance with these guidelines. Accredited Certification Body can grant such permission, provided that it does not contain genetically engineered/modified organisms or products thereof.

Specific livestock and poultry rations shall take into account:

i. The need of young animals for natural feed, such as, feeding of maternal milk, milk from other mammal or milk replacer of organic origin;

ii. That in herbivores, substantial proportion of the dry matter and energy in the daily rations should consist of roughage, fresh or dried fodder, or silage; need for inclusion of cereals in the fattening phase of poultry and livestock and poultry must have ample, free access to water appropriate to maintain full health and productivity;

iii. Due to reasons of animal welfare, health and productivity, if supplements are to be added, it shall be permitted on advice of a qualified veterinarian and as listed in Annex 2.

8.1 **Feedstuff and Nutritional Criteria** - Substances shall be permitted as per Annex 2 and should significantly satisfy feeding requirements and such substances should not contain genetically engineered/modified organisms and products thereof; and are non-synthetic and are primarily of plant, mineral or animal origin. Accredited Certification Body may allow the use of feedstuff not included in Annex II and have been recommended by the veterinarian, provided that all such substances are non-synthetic and are primarily of plant, mineral or animal origin

8.2 **Specific criteria for feedstuffs and nutrition**

i. The feedstuffs should not be prepared by using chemical solvents and chemical treatment and should be from organic sources. In case of shortage, well-defined analogic substances may also be used (Annex 3 of Appendix 2 of NPOP).

ii. Feedstuffs of animal origin, with the exception of milk and milk products, fish, other marine animals and products derived thereof shall not be used. The feeding of mammalian material to ruminants is not permitted with the exception of milk and milk products;

iii. Synthetic nitrogen or non-protein nitrogen compounds shall not be used.

8.3 **Specific criteria for additives and processing aids**

i. The supplements should be from natural sources

ii. Feed processing aiding supplements like binders, anti-caking agents, emulsifiers, stabilizers, thickeners, surfactants, coagulants if used should be from natural sources.

iii. Antioxidants: Only from natural sources shall be permitted

iv. Preservatives: Only natural acids are allowed;

v. Colouring agents (including pigments), flavors, odor masking agents and appetite stimulants: only natural sources are allowed.

vi. Probiotics, enzymes and microorganisms are allowed; but should not be from genetically modified sources.

vii. Any synthetic chemicals such as antibiotics, coccidiostat, medicine, growth promoters or any other substance supplemented for purpose to stimulate growth or production shall not be fed to the organic livestock & poultry.

viii. Silage additives, additives for enriching crop residues and processing aids may not be derived from genetically engineered/modified organisms or products thereof, and may be comprised of only: Sea salt; Coarse rock salt; Yeasts; Enzymes; Whey; Sugar; or sugar products such as molasses, jaggery, grain bran; Honey; Lactic, acetic, formic and propionic bacteria, or their natural acid product when the weather conditions or the fodder harvesting conditions could be perceived as a constraint to adequate fermentation provided that it is approved by the competent authority.

9. **Health Care**

The organic livestock & poultry, in general, should follow the basic principles of preventive health and productivity management wherein the focus would be on preventing diseases, detecting underlying fertility and production problems and its correction primarily on correcting management, nutrition and sanitation.

Draw a program of health management of animals and carry out testing of the herd as per the common diseases of herd/flock (Annex 4 of Appendix 2 of NPOP). The health care shall be based on the following broad principles:

a. The choice of appropriate breeds or strains of animals that can acclimatize, adapt to environment;

b. Setting up of animal husbandry practices appropriate to the requirements of each species and should focus on encouraging strong resistance to disease and prevention of infections;

c. Use of good quality organic feed, together with regular exercise and access to fodder/roughages, and/or open-air runs, so as to have positive effects on natural immunological defense of the animal;

d. Appropriate stocking density of livestock & poultry so as to avoid overcrowding and spread of infections or competition to feeding.

e. The farm should have an established system of detection of sub-clinical, sick or injured animals and if, so detected, must be treated immediately. In cases where isolation is necessary it will be so carried out in suitable housing areas. The

paramount interest in case of sickness would be animal welfare and mitigating pain and suffering, and hence the producer shall not withhold medication even if the use of such medication will cause the animal to lose its organic status.

f. The use of veterinary medicinal products in organic farming shall comply with the following principles:

- All vaccinations required by law of the land shall be permitted. In case there is no alternative permitted treatment or management practice exist, use of parasiticides, or therapeutic use of veterinary drugs are permitted under prescription and supervision of a registered veterinarian, provided that the mandatory withdrawal periods as provided under these guidelines are observed. In drugs where withdrawal period is not prescribed in these guidelines, a minimum of 48 hours of withdrawal period shall be observed;
- For purpose of treatment and prevention of diseases and under-performances, herbal/phyto-therapeutic (excluding antibiotics), homeopathic or ayurvedic products shall be preferred to allopathic veterinary drugs or antibiotics, provided that their therapeutic effect is effective for the species of animal and the condition for which the treatment is intended;
- In case alternative therapeutic or preventive measures are unlikely to be effective in combating illness or injury, allopathic veterinary drugs or antibiotics may be used under the responsibility and supervision of a veterinarian

g. The use of allopathic veterinary drugs or antibiotics or drugs derived from genetically modified source for preventative treatments and for enhancing productivity or fertility is prohibited.

h. Hormonal treatment may only be used for therapeutic reasons and under veterinary supervision.

i. Growth stimulants agents or substances used for the purpose of stimulating growth or production shall not be permitted.

10. **Breeding methods**

Livestock and poultry breeding methods shall be in accordance with and in compliance with the principles of organic farming and shall take into account:

a. Breeds suited to local conditions

b. Reproduction through natural methods. Artificial insemination allowed.

c. Embryo transfer techniques and use of hormones not allowed

d. Breeding techniques employing genetic engineering not allowed

Mutilations not allowed. Certification bodies may grant some exceptions keeping in view of the health and welfare of the livestock and poultry. Physical castration is allowed to maintain the quality of products and traditional practices.

11. **Manure and Excreta management**

The livestock farm shall have proper facilities for management of urine and excreta in a manner that:

- Minimizes soil and water degradation;
- Does not significantly contribute to contamination of water
- Optimizes recycling of nutrients; and
- Does not include burning or any practice inconsistent with organic practices.

All manure storage and handling facilities including composting facilities shall be designed, constructed and operated to prevent contamination of ground and/or surface water and shall be in accordance with the national standards established for the purpose.

Manure application rates shall be at levels that do not contribute to ground and/or surface water contamination. The accredited Certification Body shall establish maximum application rates for manure or stocking densities as per local conditions. The timing of application and application methods shall not increase the potential for run-off into ponds, rivers and streams.

12. **Transport**

During transport, the producer shall prevent stress, injury, hunger, thirst, malnutrition, fear, distress, physical & thermal discomfort, pain, disease during the transport:

- minimize length of the journey and meet the animal's need during the journey;
- Animals must be fit for the intended journey
- Means of transport as well as the loading and unloading facilities must be designed, constructed, maintained and operated so as to avoid injury and suffering and ensure the safety of the animals;
- Personnel that handle animals must be trained and competent and ensures not to cause unnecessary fear, injury or suffering;
- Transport must carry out without delay to the place of destination and the welfare conditions of the animals must be regularly checked and appropriately maintained;
- Sufficient floor area, height and other spacing requirements must be provided for the animals, appropriate to their size and intended journey; and

- Water, feed and rest must be offered to the animals at suitable intervals and should be appropriate in quality and quantity to their species, size and age
- Efforts must be made to avoid or reduce all types of stress
- Use of electric stimulation or allopathic tranquilizers is not permitted

15. **Slaughter of animal**

i. The slaughter of livestock and poultry shall be undertaken in a manner, which minimizes stress and suffering;

ii. Approved products for cleaning and disinfection of the buildings and installations are given at Annex 6;

iii. The slaughter, evisceration and packing of poultry should be conducted in such a manner as will result in hygienic processing, proper inspection and preservation for the production of clean and wholesome poultry and poultry products.

iv. Separate rooms should be provided for:

- Live poultry receiving and holding
- Washing and disinfection of coops.
- Slaughter and bleeding
- Feather removal
- Evisceration, chilling and packing
- Inedible products room

v. Water Supply: The quality of water should satisfy the requirements of potable water;

vi. Ventilation: Particular attention should be given to ventilation. Illumination should be sufficiently strong, properly situated and should not cause glare;

vii. Personnel hygiene: Personnel should wear special working clothes of washable material. Proper training shall be given regarding hygiene, frequent hand washing, disinfection etc and

viii. Activities such as stunning, bleeding, scalding, plucking, feet removal, evisceration and chilling, draining, grading etc. shall be done in accordance with the applicable rules framed for the purpose.

Appendix 3
Organic Apiculture Standards

1. **Breeds/strains** - Preferably indigenous bee species, adapted to the local climatic conditions be used.

   Sources/Origin – Preferably bee nurseries to be developed. Hive material such as boxes, wood, frames, wax etc are made of natural materials/sources and/or sourced from organic operations. Only natural products such as Propolis, wax and plant oils are used. Colony infested with any known disease will not be certified

2. **Conversion Period** - The conversion period shall not apply when bees are grown in wild and in natural conditions. One-year conversion period shall apply to those bee colonies/apiaries which are reared. During conversion, the bee colonies shall be placed in isolation and the foundation comb shall be made from organic wax

3. **Hiving the Honey Bees –**

i. Where wall hives are in use, these shall accommodate movable standard frames depending upon honey bee species

ii. The foundation comb shall be made from organic wax.

iii. For renovation of apiaries, 10% per year of the queen bees & the swarms may be replaced by the non-organic queen bees & swarms in the organic production unit, provided that the queen bees & swarms are placed in hives with combs or comb foundations coming from organic production unit.

iv. Each bee hive shall primarily consist of natural materials. Use of construction materials with potentially toxic effects is prohibited.

v. Persistent materials may not be used in bee hives where there is a possibility of permeation of the honey and where residues may be distributed in the area through dead bees.

vi. The apiaries shall be placed within a radius of 3 kms from the organic farms. These conditions shall not apply when the farms are not in flowering stage or when the hives are in the dormant condition.

vii. Natural products such as propolis, wax & plant oils can be used in the hives. The use of the chemical repellants is prohibited during the honey extraction operations.

4. **Apiary Management**

i. An apiary site shall be as close to a natural source of clean hygienic water and bee flora and well protected from weather vagaries and biotic factors.

ii. In case of wild collection, the collection area shall be organic or wild, and shall be varied as possible to fulfil the nutritional needs of the colony and contribute to good health.

iii. The number of honey bee colonies kept in such an apiary shall be limited to optimum in relation to forage resources within the same flight, range, so as to avoid over stocking.

iv. All brood or full-depth frames shall be wired to withstand breakage of combs during inspection, migration and extraction etc.

5. **Feed**

i. If needed (under unfavorable conditions), the bees can be fed with feed from organic sources

ii. Feeding shall only take place after the last harvest before the season when no foraging feed is available.

iii. At the end of the production season, hives shall be left with sufficient reserves of honey & pollen to survive the winter. The feeding of colonies shall be seen as an exception to overcome temporary feed shortages due to climatic conditions.

iv. The feeding of the colonies shall only be permitted where the survival of the hives is endangered due to climatic conditions & only between the last honey harvest & 15 days before the start of the next nectar or honey dew flow period.

6. **Health Care**

i. Veterinary medicine shall not be used in bee keeping.

ii. For pest and disease control and for hive disinfection the products mentioned in Annex 2 of Appendix 3 of NPOP are allowed.

iii. For protecting frames, hives & combs, in particular from pests, products listed in Annex 2 of Appendix 3 of NPOP are permitted.

iv. Physical treatments for disinfections of apiaries such as steam or direct flame are permitted.

v. The practice of destroying the male brood is permitted only if the colony is infested by Varroa destructor.

vi. If despite all the preventive measures, the colonies become sick or infested, they shall be treated immediately and, if necessary, the colonies can be placed in isolation apiaries

7. **Breeding and Management**

i. Clipping of wings of queen bees are prohibited.

ii. For the renovation of apiaries, 10% per year of the queen bees and swarms may be replaced by non-organic queen bees and swarms provided that the queen bees and swarms are placed in hives with combs or comb foundations coming from organic sources.

8. Periodic Cleaning - Beehives shall be cleaned periodically. Old combs shall be melted and comb renewal induced. Cleaning shall be dispensed with during the packed period.

9. Record Keeping - Records shall be maintained for each of the colonies during periodic inspections. In case of suspicion of incidence of any disease, immediate remedial measures shall be taken. The operator should maintain detailed and up-to-date records of:

- Breeding and/or origins of bees;
- Registration of any purchases;
- The health plan to be used in the prevention and management of diseases, injury and reproductive problems;
- All treatments and medicines administered for any purpose, including quarantine periods and identification of treated hives;
- Feed provided and source of feedstuffs;
- Stock movements within the unit and hive movements within designated forage areas as identified on maps;
- Extraction, processing and storing of all bee products

10. **Transport/Migration**

i. If the local dearth period or unfavourable periods are prolonged beyond 6 to 8 weeks continuously, the colonies can be migrated to the nearest sources of organic forage from farm(s) or forest(s) as per the requirement of NSOP.

ii. Before migration, the colonies shall be packed so as to :

- secure in position various hive components, frames in particular;
- avoid shaking during transit;
- provide adequate ventilation to the bees;

- prevent congestion inside;
- provide feeding or water in transit, if necessary; and
- prevent honey bees escaping through gaps in entrance gates, and other components.

iii. The migration shall be done preferably at night or in cool weather

iv. Proper arrangement like cleaning the apiary site, arranging hive stands, providing clean water shall be done prior to the arrival of the colonies at the migratory site(s).

v. On arrival at the migratory site, the colonies shall be promptly arranged on the hive stands and the entrance gates opened at the earliest at appropriate hour.

vi. The first post–migration inspection shall be done within 7 days after the colonies settle down to work.

11. **Product Extraction**

i. Honey shall be extracted only when the combs are sealed by the honey bees. Extraction of unripe honey will lead to fermentation and spoilage.

ii. Honey shall never be extracted from brood combs.

iii. After honey is extracted, the empty combs shall be got cleared of honey bees and preserved carefully in supers in a cool, dry, rat-proof enclosures with suitable preservatives against wax moth and other inspect pests. Such drawn out combs shall be reused during the next honey season.

12. **Extraction of Honey**

i. Honey shall be extracted only from sealed combs.

ii. The use of brood combs is prohibited for honey extraction.

iii. At time of harvest, repellent consisting of prohibited substances (chemical synthetic repellents) shall not be used except smoke.

iv. Excessive smoke shall not be used.

v. Extraction shall be done only in a clean, fly-proof enclosure.

vi. All equipments used for extraction shall be cleaned in boiling water, before use.

vii. During extraction, the honey shall run through a strainer of 1.40mm.

viii. The containers used for collecting the extracted honey shall be of stainless steel,

aluminium or if of other metal, it shall be thickly tinned or galvanized.

ix. The container shall have covers and each shall carry a label specifying the name of the producer, date and place of extraction.

x. Persons engaged in extraction of honey shall be free from any contagious disease, shall wear clean clothes and shall clean their hands with a disinfectant soap.

xi. Honey extracted from the colonies with infectious bee diseases shall be kept separate and not mixed with general lot. This honey shall be pasteurized before marketing. It shall never be fed either in processed or unprocessed form to the bees.

xii. The extracted honey in air-tight containers shall be taken to the pooling and processing centres as early as possible. Even during the short interval the honey remains with the producer, it shall be stored in cool, dry and hygienic place and shall be protected from smoke, heat and insects

13. **Extraction of Beeswax**

i. Collect every bit of beeswax. Wax from different honey bee species shall be kept separately.

ii. Beeswax from cappings is the purest form of wax and shall be stored separately without mixing it with general recovery of beeswax in apiary.

iii. The old and discarded combs shall be stored in containers with tight-lids and shall be melted at the earliest to avoid further deterioration and infestation with wax moth. These melting can be cast in slabs of desired size, shape & mass.

14. **Crop pollination** - A producer shall realize that besides harvesting honey and wax, he shall also mobilize his honeybees for pollination of agricultural/horticultural crops to increase the agricultural productivity.

15. **Conservation of bee flora** - Viability of the beekeeping industry depends on the density and composition of local flora. Forest vegetation shall not, therefore, be destroyed. Trees, shrubs and herbs providing bee forage shall be particularly conserved.

Appendix 4
Organic Aquaculture Production

1. **Organic Management Plan** - Any organic certification system starts with the development of annual "Organic System Plan" which provides details on all aspects of management system in a prescribed format.

2. **Conversion Period –** The length of conversion period would vary depending upon the species, method of production, location and local conditions. Duration of the conversion period vary depending upon the species, method of production, location and local conditions and varies from minimum of six months to maximum of 24 months based upon following criteria:

   a. For drainable systems where cleaning and disinfection is carried out, the conversion period shall be 6 months/one crop whichever is longer

   b. In case of drainable and fallowed, the conversion period shall be 12 months.

   c. In case of non-drainable systems which cannot be disinfected, the conversion period shall be 24 months (freshwater prawn, carps).

   d. In case of open water farming, the conversion period shall be considered as 3 months (bivalves).

3. **Ecosystem Management** - Site selection and ecosystem management is done in such a way that it does not create environmentally adverse situations. Conversion of mangroves to production site and creating facilities in or through the mangroves is prohibited. The production facilities must not create the water logging in the adjacent areas and must not contribute to salination, nutrient discharge or pollution of water bodies and must not undermine the diversity.

   A buffer zone of at least 10 m should be left between farms following organic farming principles and conventional farming. The size of the buffer zone could be increased based on the natural situation, water distribution system, tidal flow and the upstream & downstream locations of organic production unit.

4. **Selection of site**

   i. In selecting the site, ensure that the surrounding aquatic and terrestrial

ecosystems are not adversely affected through modifications brought about by construction of the farm.

ii. Areas with known record of contamination with heavy metals or industrial pollution may be avoided.

iii. Soil quality should be conducive for culture and extreme conditions like high saline or acid soil may be avoided.

iv. Use of ground water for the culture purpose of tiger shrimps is prohibited. For other species the groundwater should be avoided.

v. In case of the bivalve farm, the location of the farm should be as close as possible to the sea to ensure maximum circulation of sea water.

5. **Choice of Breeds** - Endemic species be preferred over exotic species. Use of genetically engineered stock is prohibited.

6. **Source of Seed and Breeding** - Breeds and the breeding techniques appropriate for the species, environment, production systems and local conditions should be followed for minimizing stress to the brood stock. As far as possible, only organic source breed stock should be used. When organic seed is not available, the certifying body may prescribe a time limit for use of non-organic seed depending upon the species. For carps and fresh water prawns, the maximum percentage of non-organically produced juveniles allowed to be introduced to the farm shall be 80%, 50% and 0% by second, third and fifth year from the year of notification

   Uses of synthetic chemicals/hormones/antibiotics are not allowed in breeding. Since exogenous hormone supply is an essential requisite for induced spawning of carps, use of pituitary gland may be accepted.

   In case of bivalves, collection of natural brood stock is permitted but use of chemicals as a means of triggering spawning is not allowed

7. **Culture Practices** - Husbandry practices, including feeding, design of installations, stocking densities and water quality shall ensure that the developmental, physiological and behavioral needs of animals are fully met

8. **Pond Preparation** - Ponds are disinfected with physical or organically acceptable

materials and fertilization to be done by organic sources comprising mainly of biodegradable nature from plant/animal origin.

Integrated farming system can be adopted for recycling of nutrients. Cow dung/poultry manure/farm yard manure/vermi-compost may be used as nutrient source for carp farming. Intermittent application of cow dung/poultry manure during culture operation should be in the fermented form. The manure to be used should be from organic sources.

9. **Stocking** - Stocking density is maintained in such a way so as not to compromise with the animal well being, ecological capacity of the site and species specific physiological need and animal behavior. Limits of maximum stocking density are as follows:

   a. For shrimp farming 6 nos/sq mt and biomass in the pond shall not exceed 1400 kg/ha/crop

   b. For freshwater prawns up to 2.5 nos/sq mt and biomass in the pond shall not exceed 800 kg/ha/crop.

   c. For nursery rearing of freshwater prawns 20 nos/sq mt is permitted.

   d. For carp fry and fingerlings production in nursery 2 million spawn/ha (200 nos/sq mt) and 0.1 million fry/ha (10 nos/sq mt), respectively.

   e. For grow-out production of carps 4000 fingerlings/ha (0.4 nos/sq mt) may be followed and the maximum biomass should not exceed 3 tonnes/ha at any point of time.

   f. In case of carp farming, polyculture of compatible carp species is preferred over monoculture in order to utilize the ecological niche effectively.

10. **Pond Management** - Ponds are required to be designed to maintain suitable environment, most befitting with the natural behavior of the stock. The water quality must be conducive for the species to live in. The energy requirement for mechanical operations be kept minimum.

    For cleaning and disinfections, only substances from approved list shall be used. Measures of aeration must not be used in the pond to raise the stocking density above the permitted level.

As far as possible avoid use of plastics except for most essential items such as nets, crates, floats etc.

11. **Bivalve Farming** - In the case of bivalves like mussels and oysters, the grow-out methods permitted are off bottom racks, rafts, long-lines and stakes using ropes and nets. Production shall take place within areas delimited by posts, floats or other clear demarcations and shall as appropriate be restrained by net bags, cages or other man made means. In case of mussels, the stocking density should not exceed 2 kg/m rope and the production should not exceed 15 kg/m rope

12. **Supplementary Feeding** - Natural productivity of the pond should be the main source of feeding and external feeding to be resorted as supplementary in the form of farm made feeds from organic sources. All feed ingredients must be from organic and mineral sources. Ingredients from GMO sources are prohibited.

    In case of tiger shrimp and freshwater prawn, the fish meal content in the feed should not exceed 20% and the total protein content of animal origin should not exceed 25%.

    In case of carp farming, use of animal protein including fish meal in supplementary feed should be avoided.

    Feed prepared from certified organic ingredients is to be used for supplementary feeding. Use of antibiotics/pesticides/heavy metals/ antioxidants/preservatives/ growth hormones etc is prohibited.

    Minerals, trace elements, vitamins or pro-vitamins to be used in the feed shall be of natural origin. Growth promoters and synthetic amino acids are not permitted

    Culture of live fish food organisms like algae, rotifers, artemia etc for shrimp hatchery may be carried out in accordance with principles of organic agriculture

13. **Health Management** - Prevention is better than cure should be the principal for health management. Use of human excrement, sewage, sludge and chemotherapeutics with allopathic veterinary drugs are prohibited. Yeast based preparations and probiotics of certified organic origin are allowed. GMO based preparations are not allowed.

14. **Harvest and Transport** - Harvesting method shall be human and aquatic animals shall be subject to minimum stress during harvest. Animals sold live should be

transported with minimum stress. Others should be chill killed at farm site itself. Use of chemicals like sodium metabisulphate is prohibited; however ascorbic acid is allowed to stop discoloration (Refer Annex 2 and 3 of Appendix 4 of NPOP).

15. **Processing** - Processing and packaging of the organic produce shall be carried out in the Organic certified processing units. Defined measures shall be taken to maintain the organic integrity of the processed product. The limit of permitted and prohibited substances for use in aquaculture processing shall be as per Annex 5 of Appendix 4 of NPOP.

Appendix 5
Organic Food processing and Handling

1. Organic Food processing and Handling Plan

Any handling and processing of organic products should be optimized to maintain the quality and integrity of the product. The operator must develop an organic production and handling plan. This plan shall include:

i. Description of practices and procedures to be performed

ii. List of each substances/inputs used during production, storage and handling. Description of the monitoring practices and procedures followed

iii. Description of the monitoring practices & procedures followed and maintained.

iv. Description of record keeping system.

v. Description of management practices and separation measures established to prevent mixing and co-mingling.

vi. Pollution sources shall be identified and contamination avoided.

vii. Processing and handling of organic products should be done separately.

viii. All products shall be adequately identified through the whole process.

ix. Certification programme shall regulate the means and measures to be allowed.

x. Recommended for decontamination, cleaning or disinfections of all facilities.

2. **Pest Control**

i. Pest should be avoided by good manufacturing practices such as general cleanliness and hygiene.

ii. Treatments with pest regulating agents must thus be regarded as the last resort

iii. Recommended treatments are physical barriers, sound, ultra-sound, light and

UV-light, traps (incl. pheromone traps and static bait traps), temperature control, controlled atmosphere and diatomaceous earth

iv. A plan for pest prevention and pest control should be developed

v. For pest management and control the following measures shall be used in order of priority:

- Preventive methods such as disruption, elimination of habitat and access to facilities
- Mechanical, physical and biological methods
- Pesticidal substances contained in the Appendices of the national standards
- Other substances used in traps

vi. Irradiation is prohibited.

vii. There shall never be direct or indirect contact between organic and prohibited substances.

viii. Persistent or carcinogenic pesticides and disinfectants are not permitted.

3. **Ingredients**

100% of the ingredients used in processing shall be organic except where an organic ingredient is not available in sufficient quality or quantity and non organic ingredients may be used to a minimum extent only in case of essential technological need or for particular nutritional purpose which shall not be genetically engineered. The accredited Certification Body may authorize the use of non-organic raw materials subject to periodic re-evaluation.

Water and salt may be used & Minerals (including trace elements), vitamins and similar isolated ingredients shall not be used. The certification programme may grant exceptions where use is legally required or where severe dietary or nutritional deficiency can be demonstrated. Ethylene gas is permitted for ripening

4. **Processing methods**

The vital quality of an organic ingredient shall be maintained throughout each step of its processing methods and shall be chosen to limit the number and quantity of additives and processing aids. The approved kinds of processes include mechanical and physical, biological, smoking, extraction, precipitation & filtration.

Extraction shall be either with water, ethanol, plant and animal oils, vinegar, carbon dioxide, nitrogen or carboxylic acids. Filtration substances shall not be made of asbestos and Irradiation is not allowed.

5. **Packaging**

Biodegradable, recyclable, reusable systems and eco-friendly packaging materials shall be used wherever possible. Certain additives for use in manufacturing of packaging films for packaging of organic food stuffs are allowed for restricted use are listed in Annex II of Appendix 5 of NPOP. The accredited Certification Body shall approve the packaging material for use.

6. **Labeling**

i. Labeling shall convey clear and accurate information on the organic status of the product.

ii. When full standards requirements are fulfilled, products shall be sold as "produce of organic agriculture" or a similar description.

iii. The label for conversion products shall be clearly distinguishable from the label for organic products by mentioning the year of conversion.

iv. The name and address of the person or company legally responsible for the production or processing of the product shall be mentioned on the label.

v. Product labels should list processing procedures which influence the product properties in a way not immediately obvious. All components of additives and processing aids shall be declared.

vi. Additional product information shall be made available on request.

vii. Ingredients or products derived from wild production shall be declared as such.

Processed products

i. Single ingredient products may be labelled as "Organic" when all standard requirements have been met.

ii. Multi ingredient products where not all ingredients including additives are of organic origin may be labelled in the following way (raw material weight):

- Where a minimum of 95% of the ingredients are of certified organic origin, products may be labelled "certified organic" or similar and should carry the logo of the certification programme.

- Where less than 95% but not less than 70% of the ingredients are of certified organic origin, products may not be called "organic". The word "organic" may be used on the principal display in statements like "made with organic ingredients" provided there is a clear statement of the proportion of the organic ingredients. An indication that the product is covered by the certification programme should be used, close to the indication of proportion of organic ingredients.

- Where less than 70% of the ingredients are of certified organic origin, the indication that an ingredient is organic may appear in the ingredients list. Such product may not be called "organic".

iii. Added water and salt shall not be included in the percentage calculations of organic ingredients. For aquaculture products, the use of iodized salt shall be referred on the labels.

iv. All raw materials of a multi-ingredient product shall be listed on the product label in order of their weight percentage. It shall be apparent which raw materials are of organic certified origin and which are not. All additives shall be listed with their full name.

v. If herbs and/or spices constitute less than 2% of the total weight of the product, they may be listed as "spices" or "herbs" without stating the percentage.

vi. Organic products shall not be labelled as GE (genetic engineering) or GM (genetic modification) free in order to avoid potentially misleading claims about the end product. Any reference to genetic engineering on product labels shall be limited to the production method.

vii. The label of a certified organic product must depict the name and logo of the accredited Certification Body, accreditation number and India Organic Logo

viii. The accredited Certification Body shall verify the labelling requirement and approve the labels of their certified operators before the labels are used

7. **Storage & Transport**

i. Organic products shall be stored at ambient temperature. The special conditions of storage permitted are: Controlled atmosphere, Cooling, Freezing, Drying, Humidity regulation.

ii. Product integrity should be maintained during storage and transportation of organic products. Organic Products must be protected at all times from co-mingling with non-organic products and from contact with materials & substances not permitted for use in organic farming and handling.

iii. In units processing organic and non-organic, the organic products should be handled and stored separately.

iv. In bulk stores organic products should be separate from conventional

v. Storage areas and transport containers for organic product should be cleaned using methods and materials permitted in organic production. Measures should be taken to prevent possible contamination from any pesticide or other treatment not listed in Annex-2 of Appendix I of NPOP.

Appendix 6
Organic Animal Feed processing and Handling standards

Organic animal feed processing and handling includes processing of organic feed and food for all types of domesticated animals including livestock, poultry, aquaculture and pet animals for production of commercial animal feed/food products

1. **General requirements**

(i) The handling and processing operator of organic animal feed/food products must set up a written organic handling plan.

(ii) Necessary measures shall be put in place to minimize air, water and soil contamination.

(iii) Description of the monitoring practices and procedures

(iv) Description of the record keeping system

(v) Description of the management practices and separation measures

2. **Cleaning, disinfection and pest control**

(i) Preventive measures need to be put in place to protect organic feed from substances prohibited for use in production, processing, manufacture or handling from pests, pathogens and other alien substances.

(ii) The cleaning & disinfection of facilities and sterilization of equipments and tools substances are listed in Annex 9 of Appendix 2 of NPOP and Organic feed must not come in their contact.

(iii) The measures for pest management and control are mentioned hereunder:

- Preventive methods such as disruption, elimination of habitat and access to facilities
- Mechanical, physical and biological methods
- Physical barriers, sound, ultra-sound, light and UV-light, traps (incl. pheromone traps and static bait traps), temperature control and controlled atmosphere.

- Pesticidal substances contained in the Appendices of the national standards.

- Irradiation is prohibited and Persistent or carcinogenic pesticides & disinfectants are not permitted

3. **Ingredients**

(i) The ingredients and supplementary feed used for production of organic feed shall be derived from following sources

- Organic crop products

- Organic livestock product

- Organic processed products

- Ingredient or supplementary feed referred to in Annex 5 and Annex 6 of Appendix 2 and in Annex 2 and 5 of Appendix 4 of NPOP.

(ii) In case of non-availability of an organic ingredient, non- organic ingredients may be used to a minimum extent only in case of essential technological need. Accredited certification bodies may allow the use of nature identical synthetic amino acids and vitamins in cases where their requirement cannot be met by other permitted sources.

(iii) Preparations of micro-organisms and enzymes commonly used in food processing may be used with the exception of genetically engineered micro-organisms and their products. Water and salt may be used in organic feed processing.

(iv) Use of Genetically modified organisms, Synthetic chemicals used for boosting metabolism, Synthetic nitrogen or non-protein nitrogen compounds, Antibiotics, Synthetic antimicrobials, Growth enhancing substances, Parasiticides, Hormones, Feed or raw material of mammalian origin including slaughter house waste for making feed for ruminant livestock etc. are prohibited.

4. **Processing**

Processing methods should be based on mechanical, biological, smoking, extraction, precipitation and filtration. Water, ethanol, plant and animal oils, vinegar, carbon dioxide, nitrogen or carboxylic acids may be used for extraction. Filtration substances shall not be made of asbestos nor may they be permeated with substances which may negatively affect the product. Irradiation is not allowed.

5. **Processing facilities**

Processing facilities to be managed in such a way that organic integrity is maintained throughout the process without any chance for mixing or co-mingling with non-organic products or ingredients. Organic feed production lines must be separated from non-organic feed production line & Separate storage facilities must be in place and managed separately so that ingredients used for producing organic feed do not get mixed with non-organic ones.

6. **Processed products**

A raw or processed animal feed sold, labeled or represented as "100 percent organic" and "Organic" it must contain 100 percent organically produced ingredients and not less than 95 percent organically produced raw or processed agricultural ingredients (by weight or fluid volume, excluding water and salt), respectively. Multi-ingredient animal feed sold, labeled or represented as "made with organic (specified ingredients or food group)" must contain (by weight or fluid volume, excluding water and salt) at least 70 percent organically produced ingredients. If less than 70% of the ingredients are of certified organic origin, then the product may not be called "organic".

7. **Packaging**

Packaging methods and materials must protect the integrity of organic feed and have no adverse effects on the environment. Biodegradable, recyclable, reusable systems and eco-friendly packaging materials shall be used. Packaging materials, containers and storage containing or treated with synthetic chemicals or prohibited substances must not be used. Recycled packaging materials or containers that had come in contact with substances that may compromise the organic integrity of organic feed must not he used and the packages shall be closed in such a manner that substitution of the content cannot be achieved without manipulation or damaging the seal.

8. **Labeling:** All organic processed animal feed shall be labeled as per the requirements specified in Clause 6 (6.1 and 6.2) of Appendix 5 of NPOP.

9. **Storage and transport:** Storage, shipping and transportation requirements must be in compliance of Clause 7 of Appendix 5 of NPOP.

Appendix 7
Organic Mushroom Production

1. **General**

Mushroom production is although similar to crop production but with a difference that it is an indoor activity under controlled environment and without the involvement of soil as growing medium. Mushroom production standards cover all edible mushrooms intended for human consumption, whether grown on compost, raw biomass or wood.

2. **Organic Management Plan**

During the registration of the farm or organic mushroom production unit with the Accredited Certification Body (ACB), the operator has to submit an organic management plan, which will be verified by the ACB during inspection. The organic management plan shall be updated annually.

3. **Management of production site**

The operator shall maintain the entire production site including housing facilities in a way that prevents contact with prohibited substances with production site, tools and boxes/ trays, organically produced mushrooms and each and every step throughout the entire growing cycle including harvesting and post-harvesting process. Any wood or plant material used for construction of mushroom house, racks, substrate holding containers, boxes, trays etc shall be free from prohibited substance treatment.

Organic and nonorganic production units must be in separate facilities separated by space and time and have separate ventilation systems, boxes, trays, tools, substrate holding racks etc including facilities for compost production.

4. **Substrate and Growing media**

All substrate and growing media shall be prepared on the farm in compliance of these standards or sourced from certified organic sources certified in accordance with the standards prescribed in Appendix 1 of these rules.

In case of unavailability of certified organic raw material needed for making the substrate accredited certification bodies may allow the use of chemically untreated conventionally grown raw material up to a maximum limit of 25% for making the compost. The composting process shall ensure that the substrate has reached a temperature of at least 65°C for about 6-7 days prior to use. All composts and

growing media used (from the commencement of the composting process) shall be audited and verified for compliance with this Standard by the accredited certification body. Steam is allowed for final sterilisation of compost.

In cases where raw crop residue/ biomass is used without composting as substrate, such as straw, hey or grains, they shall be sourced from organic operations certified as per crop production standards prescribed under Appendix 1 of these rules.

Logs, sawdust or other wood based material when used as substrate shall come from wood, trees or logs that have not been treated with prohibited substances

5. **Fungus spawn**

Organic spawn (seed) shall be used. Accredited certification bodies shall evaluate the conformance of spawn production as per the evaluation process given in Annex 3 of Appendix 1 under these rules. In case of non-availability of organic spawn accredited certification bodies may allow the use of conventionally grown spawn for limited period of time.

Use of GMO products or its derivatives or genetically modified organisms (spawn) at any stage of the production process is prohibited.

6. **Conversion**

Existing Mushroom production systems on being converted to organic management shall have to undergo a minimum period of 12 months as conversion period from the date of registration with the certification body. During the conversion period all management practices must be in compliance of these standards.

In case of new installations where the entire production system is being implemented in compliance of these standards, two or more production cycles must have been produced under organic conditions compliant with this standard prior to products being sold as organic.

7. **Pest control and sanitation**

Preventive pest and disease management shall be the preferred approach. Methodologies and measures listed at Clause 8 of Appendix 1 and at Clause 2 of Appendix 5 can be used in cases where preventive measures are not sufficient to tackle the problem.

For sanitation and disinfection of installation, equipments and facilities products listed in Annex 9 of Appendix 2 of these rules can be used.

Appendix 8
Organic Seaweed, Aquatic Plants and Green House Crop Production

1. **General**

Organic seaweed, aquatic plants (including algae) and green house crop production being crop production activity, needs to comply the overall requirements, unless otherwise described under these rules as exception, of crop production rules prescribed under Appendix 1 of these rules.

Organic seaweed

Organic seaweed production includes collection of wild seaweeds and parts thereof growing naturally in the sea and cultivated in the coastal areas for use as food for human or livestock consumption or for use as raw material for processing of food or feed.

Organic aquatic plants

Organic aquatic plants includes macro and micro green plants including algae grown under aquatic environment in open natural habitat or under artificial conditions in ponds or tanks in open or under green house conditions.

Green House crops

Green house crops includes general agricultural and horticultural crops cultivated under green house conditions in permanent in-ground soil systems or in containers filled with plant and soil based growing substrate connected with soil, except nursery plants which can be grown in containers in plant based growing medium.

2. **Organic Management Plan**

During the registration of the farm or production site/ unit with the Accredited Certification Body (ACB), the operator has to submit an organic management plan, which will be verified by the ACB during inspection. The organic management plan shall be updated annually.

3. Specific requirements for Seaweeds

3.1 Collection from wild – The collection of wild seaweeds and parts thereof shall comply with the overall requirements specified under Clause 11 of Appendix 1 as applicable under sea ecosystem. In addition the wild sea weed collection shall also be subject to following:

i. The collection area shall be far away from human habitation and human activity and free from any external contamination source.

ii. The collection area shall be of sound ecological quality and not declared unsuitable from human health point of view.

iii. The collection shall not affect the long term sustainability of the natural habitat or the maintenance of the species growing in the area.

3.2 **Cultivation in sea and inland tanks** – The cultivation of sea weeds can be taken up in coastal areas under natural conditions or under inland tanks with specific purpose. Following specific rule shall be followed in sea weed cultivation:

i. Coastal area where sea weed cultivation is done must be free from any external contamination source and at a distance from human habitat.

ii. The cultivation area shall be of sound ecological quality and not declared unsuitable from human health point of view.

iii. Sustainable practices leading to natural conditions be used in all stages of production starting from collection of juvenile sea weed to harvest.

iv. Seeding of seaweeds can be done by indoor culture stocks grown under conditions specified in these rules.

v. In case of non-availability of organic seed material and/ or to maintain the wide gene pool with natural vigour, juvenile sea weed from the wild can be supplemented in the growing area.

vi. No fertilizers or any growth enhancing input shall be used in natural cultivation area on the coasts.

vii. In case if seaweed is cultivated in tanks or juvenile seaweeds are raised in tanks then the coastal marine water without any treatment be used and the tanks shall have bottom surface as natural soil. Cultivation of seaweed in complete cemented tanks or made of artificial material without any contact with soil is prohibited.

viii. Under inland tank conditions inputs authorised for use in crop production under Annex 1 and Annex 2 in Appendix 1 can be allowed by the certification body.

ix. Use of synthetic inputs such as fertilizers, pesticides, hormones etc and genetically modified organisms or their products are prohibited.

x. For sanitation and hygiene maintenance of tanks inputs allowed under Annex 9 of Appendix 2 can be authorised by the Certification body, but in all such cases it must be ensured that the washings of such operations are not drained to the sea.

xi. In areas where cultivation is done in sea coast the product shall be allowed to be sold as organic after a minimum period of six months after the date of first inspection by the certification body. In case of inland tanks the product shall be allowed for sale as organic only after 24 months of starting the production after the date of registration with the accredited certification body. In cases where operator can demonstrate to the satisfaction of ACB that the land where cultivation tanks have been made has not been used for any cultivation activity then the conversion period can be reduced to 12 months after the date of first inspection.

xii. Organic and nonorganic production units must be in separate facilities separated by space and time and have separate equipments, storage, processing facilities and drying beds. Tanks used for cultivation of seaweeds with prohibited inputs shall not be used for cultivation of organic seaweeds unless have gone through the conversion period as mentioned above.

4. **Aquatic plants including algae**

Cultivation of aquatic plants is a crop production activity and all requirements under Appendix 1, crop production, of these rules as applicable under aquatic environment shall apply including conversion requirements.

i. Cultivation of aquatic plants in artificial tanks without any soil base or organic substrate/ media complying to the standards does not qualify for organic production under these rules.

ii. Organic and nonorganic production units must be in separate facilities separated by space and time and have separate equipments, storage, processing facilities and drying beds. Tanks used for cultivation of aquatic plants with prohibited inputs shall not be used for cultivation of organic aquatic plants unless have gone through the conversion period as mentioned above.

iii. The water used for cultivation shall be of potable quality and the soil shall be free from any contamination including heavy metals.

iv. Use of synthetic chemicals/ prohibited substances for sterilization/ sanitation of production sites is prohibited, except the ones allowed under these rules.

v. Mother culture or seeding material shall also be organic in compliance of these rules. In case of non-availability, non-organic seeding material can also be used without any chemical treatment or contamination.

vi. Use of genetically modified seeding material is prohibited

vii. Weeds shall be controlled by physical or biological prevention methods

viii. Use of chemical fertilizers (including trace elements), pesticides, hormones etc is prohibited

ix. Mineral fertilizers in their natural composition can be used. Fertilization practices shall be in conformity of practices allowed under Appendix 1 of these rules.

x. Physical and biological practices can be used for pest management. Use of synthetic chemical substances and plants extracts harmful to human health shall not be used.

xi. Inputs or substances approved under these rules in Appendix 1 can be used with the prior permission of certification body.

xii. Processing of aquatic plants and their parts thereof shall be done in accordance with the requirements specified under Appendix 5 of these rules.

5. Green House Crop Production

Green house crop production is a crop production activity with difference that it is done under partially controlled conditions. All the requirements specified under Appendix 1 shall also apply under greenhouse (Glass house, poly house or net house) conditions, including conversion requirements of land. In addition following requirement shall also be met:

i. Green house design and its surroundings shall be orientated towards environmentally positive outcomes and resource efficiency, including water reuse where applicable.

ii. Hydroponic and aeroponic systems where plants are fed principally through soluble fertilisers through water cannot be certified under these rules as they are not grown in healthy and complex soil ecology.

iii. Under green house conditions parallel production or split production under same green house is prohibited. In case if an operator cultivate both organic and conventional crops under green house then the two systems must be separate with adequate buffer zone and implements/ equipments used must be properly cleaned before using under organic operations.

iv. During non-crop-production periods, a cover crop or green manure phase, or similar methods, shall be practised to ensure ongoing soil life protection and enhancement.

v. Media used to produce plants may include coconut fibre and other sources permitted under Annex 1 of Appendix 1 of these rule or have been evaluated for their suitability as per the procedure prescribed under Annex 3 of Appendix 1 of these rules.

vi. Media shall have contact with soil or mixed with soil and shall be incorporated or recycled during or at the end of the cropping cycle.

vii. Where containers are used, containers shall consist of non-contaminating products of plant origin. Optimally such containers shall be reusable after phytosanitary considerations are satisfied.

viii. Sterilisation of growing containers for purposes of disease management shall either utilise steam, heat or other physical means or other practices or products listed in Annex 9 of Appendix 2 of these rules.

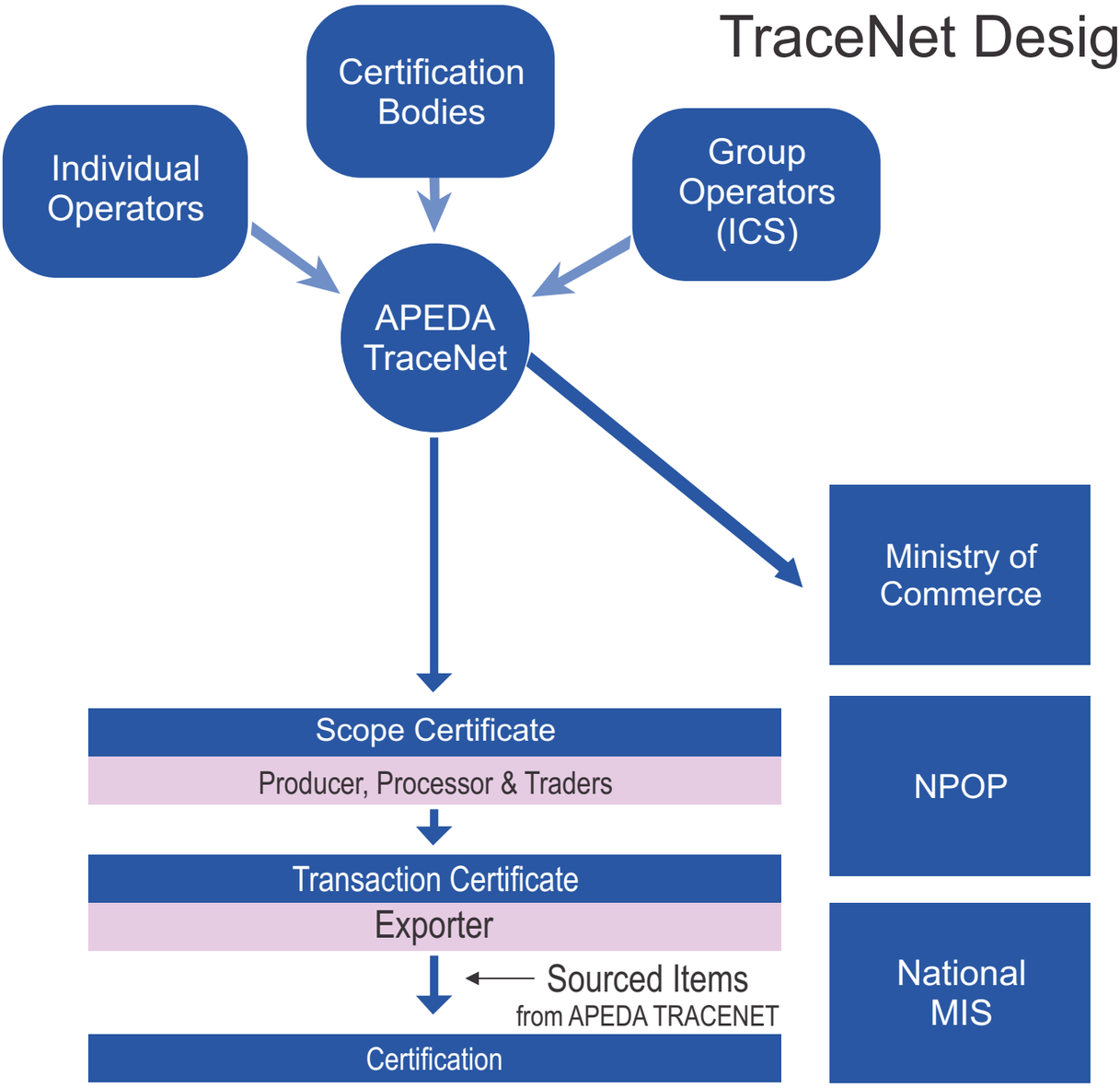
ix. The fertility management shall be in accordance with the fertilizatrion policy for crop production under these rules.

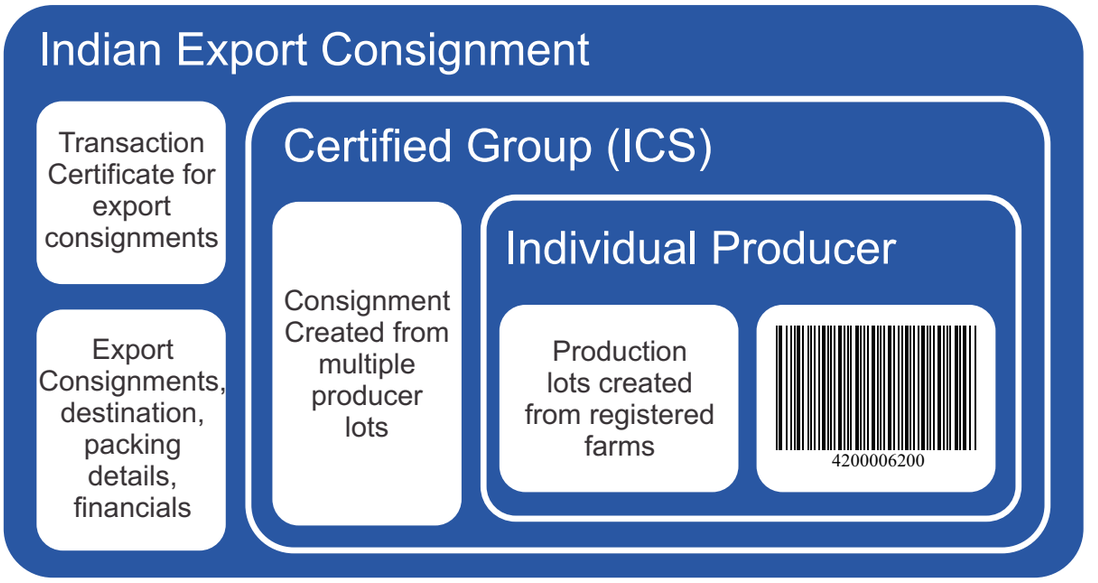
x. A diversity of crop species shall be chosen in any one season to ensure good rotations and general diversity.

xi. Intercrops and harbouring floral species shall be encouraged for biocontrol agents.

xii. Heating and lighting, where used, shall achieve best management practice in terms of efficiency and environmental impact, and wherever practicable shall rely upon renewable resources.

TraceNet Design





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