



Indonesian Government's Regulation on Organic Agriculture System

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INTRODUCTION

The Ministry of Agriculture's regulation on Indonesian organic agriculture is still regulated under the Minister of Law and Human Rights. The main goal is to develop Indonesian agriculture, especially organic agriculture, which in the era of globalization must support the growth of the business world so that it is able to produce organic products that have guarantees for the organic integrity produced. With guarantees for organic integrity, it can provide protection to consumers and at the same time increase public trust.

This regulation is intended as a legal basis for implementing organic farming systems. The objectives of this regulation are as follows: regulate Indonesia's organic supervision, provide guarantees and protection to the public from the circulation of illegal organic products, provide business certainty for producers of organic products, build a system of organic agricultural production in Indonesia that is credible and traceable, maintain ecosystems that play an important role in environmental conservation, and increase added value and competitiveness of agricultural products.

This paper thoroughly discusses legal regulations regarding organic farming systems in Indonesia. The law that applies to organic farming systems and organic products in Indonesia is the Ministry of Agriculture Regulation Number 64 The Year of 2013 concerning organic agriculture system, Ministry of Agriculture Regulation Number 1 The Year of 2019 concerning organic fertilizer, and The Provisions of Indonesian National Standard SNI 6729: 2016 concerning standardization of products and organic farming systems. This paper will summarize the main core of all regulations on organic agriculture, which discusses the basic terms, conditions, requirements, and procedures regarding organic agriculture, including a legal way to plant organic plants and distribute organic products in Indonesia.

ORGANIC PLANT CULTIVATION PROVISION

Land use and preparation

The main requirement of land for planting organic crops is to have a history of land use records. If the land has been used for conventional farming or industrial agriculture land, it is required to experience a conversion period of minimum two years before the seed spreading. Exceptional for annual crops, it is a necessary conversion period at least three years before the first harvest of organic products. In the event that all land cannot be converted simultaneously, it should be done in stages. Areas that are in the process of conversion, and areas that have been converted to organic food production should not be changed between organic and conventional food production methods. Legally, land preparation is not permitted by means of combustion, including the burning of waste. In addition, grassland is a land that

is overgrown with weeds (not cultivated) without the intake of synthetic chemicals so that it does not require a conversion period.

Seed requirement

Seeds must come from plants that are grown organically. If organic seeds are not available, then the seeds that can be used are seeds which at the initial stage are seeds without synthetic pesticide treatment. It is advisable to use seeds which have not have been genetically engineered. If the seeds have received synthetic pesticide treatment, a washing process needs to be carried out to minimize synthetic pesticide residues, and the seeds are free from use of ingredients as follows: a) Urea; b) Single/double/ triple superphosphate; c) Ammonium sulfate; d) Potassium chloride; e) Potassium nitrate; f) Calcium nitrate; g) Synthetic chemical fertilizers; h) EDTA chelates; i) Synthetic growth regulator substances; j) Microbial cultures that use synthetic chemical media; k) All products containing GMOs.

Fertilizer

The fertilizer that is permitted for organic agriculture in Indonesia is organic fertilizer which is regulated by The Ministry of Agriculture Provisions No. 1 The Year of 2019 concerning Registration of Organic Fertilizer, Livestock Fertilizer, and Land filler. According to the regulation, organic fertilizers are fertilizers originating from dead plants, animal manure and/or animal parts and/or other organic wastes which have been through engineering processes, in the form of solid or liquid, enriched with mineral and / or microbial materials, and useful for increasing nutrient content and soil organic matter and improving physical, chemical and biological properties of the soil. The formula is the composition of organic materials and minerals. Under this regulation, organic fertilizers can be produced both inside and outside Indonesia as long as they are legally registered. The scope of this regulation includes procurement, requirements, registration procedures, registration fees, testing, circulation, use, supervision, liability, guidance, and sanction institutions.

Water sources

The source of water based on the Indonesian organic farming system is water originating from springs that are directly from other sources that are not contaminated by synthetic chemicals and other harmful contaminants. Clean and pollution-free water and irrigation use must be in accordance with conservation principles.

Soil fertility management

Maintenance and management of soil fertility are regulated as follows:

- a) Maintain and improve soil fertility and biological activity by planting legumes (*Leguminosae* family), green manure or deep-rooted plants through the appropriate annual rotation program;
- b) Mix organic matter into soil both in compost and fresh form from the cultivation business unit livestock by-products, such as livestock manure, may be used if they originate from organically cultivated farms;
- c) Activate compost through the use of microorganisms or other suitable plant-based materials;
- d) Use biodynamic material from stone meal (high mineral dust or coral powder), animal manure or plants for the purpose of enrichment, revamping and biological activity of the soil;
- e) Make a compost using plant remnants and other materials to properly make a compost;
- f) Use materials which are limited to soil fertility if efforts to provide adequate plant nutrition are not possible. Samples are as follows: livestock manure, cattle urine (slurry), compost of residual plants, compost media of mushroom, compost of organic vegetable waste, dolomite, gypsum, chloride, phosphate rock, guano, steel slag (basic slag), magnesium rock, magnesium calcareous, potassium stone, mine potassium salt, potassium sulfate, Epsom salt / magnesium sulfate, sodium chloride, micro elements (boron, copper, iron, manganese, molybdenum, zinc), stone meal, clay (bentonite, perlite, zeolite), vermiculite, pumice, peat, seaweed, sugar by-products (*vinasse*), by-products of palm oil, coconut, cocoa, coffee processing industries (including empty palm bunches, palm mud, brown skin and coffee), and growth-regulating substances;
- g) Maintain soil fertility and biological activity, it is prohibited to use synthetic chemical fertilizers, direct animal feces, human feces and pig manure;
- h) Use additional ingredients like soil fertilizers which are mineral fertilizers such as: green manure, livestock manure, cattle urine (slurry), plant residue compost, mushroom compost media, compost organic vegetable waste, green algae, *azollaceae*, blue green algae (blue green algae), molasses, bio-fertilizers, rhizobium, and decomposers.

Control of pest organisms and plant management

Provisions to maintain organic plants are following:

- a) Use synthetic chemicals-free and organisms or genetically engineered products-free;
- b) Be reminded of the legal prohibition of using the combustion process in weed control;
- c) implement a system of integrated pest and disease control in order to reduce losses due to plant pest organisms;
- d) Control pest organisms by one or a combination of the following methods: selection of suitable varieties; appropriate crop rotation program; mechanical tillage; use of trap plants; use of green manure and crop residues; mechanical control such as the use of traps, barriers, light and sound; preservation and utilization of natural enemies (parasites, predators and insect pathogens) through the release of natural enemies and provision of suitable habitats (such as: making living fences and shelter for natural enemies, ecological buffer zones that maintain native vegetation to develop natural enemy populations of ecological support); diverse ecosystems (e.g.: buffer zones to control erosion, agroforestry, rotate plants, etc.); weed control with flame weeding; grazing livestock (according to commodities); Biodynamic preparation of stone meal, livestock or plant manure; and the use of steam sterilization if suitable rotation to renew the soil is not possible.
- e) Use legal materials if there are dangerous cases or serious threats to plants where the above precautions are not effective. Samples are as follows: Vegetable pesticides (except nicotine isolated from tobacco); leaf tea extracted with water and immediately used ; *Propolis*; plant and animal oils; seaweed, seaweed flour / gelatin, seaweed extract, sea salt and sea water; gelatin; lecithin; casein; natural acid (e.g. vinegar); fermented products from aspergillus; mushroom extract; chlorella extract; inorganic compounds (mixture of Bordeaux, copper hydroxide, copper oxychloride); burgundy mixture; copper salt; sulfur; mineral powder (stone meal, silicate); soils rich in diatoms (diatomaceous earth); silicate, clay (bentonite); sodium silicate; sodium bicarbonate; potassium permanganate; paraffin oil; microorganisms (bacteria, viruses, fungi) such as *bacillus thuringiensis*; carbon dioxide and nitrogen gas; potassium soap; ethyl alcohol; sterilized male insects; vegetable pheromone and attractant preparations; medicines of *Metaldehyde* type which contain antidotes for large animal species and which can be used as traps.

Post-harvest, storage and distribution handling

The provisions for handling post-harvest agricultural products according to the applicable law are:

- a) Wash fresh organic products using standardized water that is permitted for organic farming systems;
- b) Do not mix organic products with non-organic products in post-harvest handling including in processing, storage, and transportation;
- c) Post-harvest handling, equipment, storage, and transportation must be free of synthetic chemicals;
- d) Be reminded that food packaging materials should be free of hazardous chemicals;
- e) Use materials that can be recycled or reused or use materials that are easily decomposed to maintain the integrity of organic products;
- f) Store organic products and make sure that these are separated from conventional products and must be clearly labeled;
- g) Clean storage containers for the transport of fresh organic products (Regulation of The Minister of Agriculture, 2013)

INDONESIAN ORGANIC NATIONAL STANDARDS

Indonesian National Standards for organic products (SNI) are the national standards for products distributed in Indonesia. Standardization activities that include integrated standards and conformity assessments need to be developed in a sustainable manner, especially in strengthening and increasing the competitiveness of national products, streamlining trade flows and protecting the public importance.

The standard for organic products in Indonesia is fully regulated in SNI 6729:2016. This SNI is prepared with the intention of providing a provision regarding requirements for organic farming systems and labeling of organic food products that aim to protect consumers from manipulations and fraud that occur in the market and claims from counterfeit products or conventional agricultural products that claim to be organic products; providing assurance that all stages of production, preparation, storage, transportation, and marketing can be checked and in accordance with one standard; harmonization in the regulation of production systems, certification, identification and labeling of organic agricultural products circulating in Indonesia; providing organic agricultural standards that apply nationally and are also recognized by the international world for export and import purposes; and

develop and maintain organic farming systems in Indonesia so that it can play a role in environmental preservation both locally and globally. This SNI also applies to international products that have to be registered and imported into Indonesia. Imported products that meet the requirements of organic products relating to production and marketing standards, inspection and labeling requirements for organic food in Indonesia will get the right to be traded in the territory of Indonesia (Indonesia National Standard, 2016).

SNI Provision contains five attachments that explain the complete criteria about what is permitted and what is prohibited, and the form needed to register the product into Organic SNI. It is called attachment A: material that is permitted, restricted and prohibited for soil fertilization; Appendix B: Material that is permitted and prohibited for the control of Plant Disturbing Organisms; Appendix C: Material that is permissible for animal health; Appendix D: Food additives and other ingredients that are permitted to be used in the production of organic processed food as well as cleaning and disinfecting materials that are permitted; Appendix E: Procedure for labeling organic product logos; Appendix F: Examples of implementation of inspection of organic farming systems

Certification and labelling

Every business unit that has implemented the Organic Agriculture System can submit a certification to an Organic Certification Institution that has been accredited by the National Accreditation Committee (KAN) which provides accreditation for Organic Certification Agency. Organic certification is a means to provide assurance that organic products meet the requirements specified in the standards and other normative documents through special inspection activities by the Organic Certification Agency. The overall objective of organic certification is to give confidence to all interested parties that organic products meet the requirements specified in accordance with Ministry of Agriculture Regulation No. 64 The Year of 2013 and Indonesia National Standard Provision (SNI 6729: 2016) on Organic Agriculture System. The value of certification is the level of confidence and trust provided by the Organic Certification Agency by showing impartiality and competency towards meeting certain requirements.

This certification will be shown in the form of a label for each verified organic product. All Organic Products circulating in Indonesia, both domestic and imported, must include the Indonesian organic logo. However, organic products that undergo a repackaging process are not permitted to include the Indonesian Organic logo before being recertified.

Indonesia organic logo

Labeling of organic product logos applicable in Indonesia is shown in graphic 1. Organic logos are listed after the name of the type of product and brand. Organic logos from other countries or internationally can be listed adjacent to the Indonesian Organic logo. Information about organics can be stated on products or commodities directly or on product packaging.



Graphic 1. Official logo of legal organic product in Indonesia

ORGANIC PRODUCT CERTIFICATION GUIDELINES

The requirement

Management requirements are absolutely necessary to ensure that the system is able to run sustainably, effectively and efficiently. Management requirements are universal; it is commonly referred to as a Universal Program. Following are some management requirements in the application of organic product certification based on the above normative references:

- 1) Scope: activities include cultivation, production facilities, processing, marketing and other types of commodities that must be stated;
- 2) Organization: The business unit must explain the personnel responsible for its activities including its duties and functions;
- 3) Personnel: company must specify members who are responsible for developing, implementing, updating, revising, and distributing document activities according to their fields;
- 4) Document maintenance: business owner shall keep all documents that are part of the system, such as regulations, standards, or other normative documents, production / process methods and supervision, as well as images, software, specifications, instructions and guidelines;
- 5) Purchase of production facilities: business units must have a policy and procedure for the selection and evaluation of suppliers of production facilities the use of quality organic products, receipt, and storage of production facilities, maintenance of records related to the purchase of production facilities and actions taken to check conformity;
- 6) Complaints: Business units must have policies and procedures to resolve complaints from customers or all parties involved. Records of all complaints and investigations and corrective actions taken by the business unit must be maintained;
- 7) Product control: Business units must have policies and procedures. It must be applied if there are any aspects of the organic products that do not comply with procedures, standards or technical regulations and even specific request by the customers. Policies and procedures must ensure that: a) authority to manage the unspecified product or inappropriate methods by holding or stopping the production process; b) evaluation is carried out on the incompatibility of procedure or products that arise; c) curative action is immediately carried out together with the process decision or reject the product d) if needed, the customer is notified of the cancellation and responsibility and prospecting resumption must be determined;
- 8) Corrective action: The business unit must establish policies and procedures as well as provide the appropriate authority to do corrective action if there is an inappropriate job or irregularities in policies and procedures in the system set. Procedures for corrective action must begin with an investigation to determine the root problem;
- 9) Preventive Measures: The causes of potential nonconformities, both technical and management, must be identified and a preventive action plan must be made, applied and monitored to reduce the possibility re-occurrence of similar and for non-conformities to take advantage of making improvements. Procedure precautions include the initial stages of action and application of controls to ensure their effectiveness;
- 10) Documentation and Records: the business unit must maintain and update the detailed records related to the cultivation process. Records must include activity evaluation reports including records of implementation, process activities, reports of corrective actions and actions prevention. All records must be read, stored and maintained such that it is easily obtained when needed. Unit business must save for a certain period of recording original observations, data obtained and information enough to facilitate the search of all the activity process carried out. Records must be kept at least for two production cycles except for perennial plants for two years and annual crops for three years.

The procedure

Business unit applications for certification must submit a letter of request to a certification body that has been accredited by National Accreditation Committee (KAN). In submitting an application, the business unit must attach the registration form, document and design activities, audit the adequacy of the certification body to determine whether the business unit meets the qualifications for certification, annual field inspections of production units, facilities, and other places that produce or handle organic products. Inspection aims to verify the suitability and capability of the business unit in the requirements of the technical standards and regulations of the organic agriculture system

PROVISIONS FOR IMPORTED ORGANIC PRODUCTS

The provisions of imported products for organic products must meet the applicable provisions in the exporting country. These provisions are also monitored by the Food and Agriculture Organization of the United Nations (FAO). International certification for export share and certain domestic circles, such

as certification issued by SKAL (certification of Netherland's organic products) or Organic International IFOAM. Some requirements that must be met include the land conversion period, where organic products are stored, seeds, fertilizers and pesticides and processing the results must meet certain requirements as organic agricultural products.

The import products requirements must be based on the principle of equality and transparency as stipulated in the Principles for Food Import and Export Inspection and Certification (CAC GL 20-1995) and the Guidelines for the Food Import and Export Control System (CAC / GL47-2003). In the receipt of imported organic products, Indonesia needs to assess inspection and certification procedures and the standards applied in the exporting country. Currently, there are seven international certification bodies operating in Indonesia: IMO, Control Union, NAASA Australia, Naturland, Ecocert, Goca, and Australian Certified Organic (Ariesusanty, n.a.)

In general, the provisions that apply in almost all exporting countries and recipient countries are provisions on food safety regulations and Phytosanitary regulations. Food safety provisions are imposed on producers who need to ensure the quality and safety of their products and to avoid potential hazards such as risks from water pollution or from microbes or chemical contamination. (Food and Agriculture Organization, 2007). Manufacturers must comply with Phytosanitary regulations to prevent the spread of plant and insect diseases to Indonesia. Various importing countries in the world carry out pest risk analysis to determine the level of risk of an imported product and check the product on arrival to ensure that the level of risk is not exceeded (International Plant Protection Convention, 2019).

CONCLUSION

Indonesia as an agrarian country has enormous potential to produce organic food products, so that people begin to realize the importance of consuming healthy and nutritious food products by buying organic food. To guarantee consumers that the food products consumed are produced through processes that are in accordance with the organic standards of SNI 6729: 2016 concerning the Organic Farming System, guarantees are required by the Organic Certification Institution that has been accredited by the National Accreditation Committee.

The regulations governing the Indonesian organic system are simply regulated in the regulations of the minister of agriculture and the Indonesian National Standard (SNI). These two regulations specifically regulate the provisions of land preparation, breeding, planting, maintenance, and post-harvest management for organic products. In Indonesia, the main objective of this regulation is to stabilize organic agriculture in Indonesia, maintain the quality and integrity of organic agriculture, and protect consumers from counterfeit organic products on the market.

This paper briefly provides a summary of how the regulation of the organic farming system in Indonesia and the standardization that is legally applicable for the distribution of organic products in Indonesia. The elaboration of the regulation greatly determines the condition and quality of organic agriculture in Indonesia.

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