Farmers First: the Socio-Economic Consideration of Organic Agriculture

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Abstract: Borrowing Chambers' term, the central idea posed by this paper is that farmers should be the first consideration in any agriculture system. The conventional farming (green revolution and industrial agricultural) system has marginalized farmers and results in destruction of bio-physics impacts (soil degradation, loss of genetic diversity of plants and animals, pollution of the soil and water by chemicals) and deterioration of farmers' socio-economics livelihoods (poverty and landlessness, food safety, health hazard, decreasing self-reliance due to dependence on external inputs). The alternative system of sustainable agriculture which encompass a range of philosophies such as conservation-based agriculture, ecological agriculture, low-external-input agriculture, diversified farming, organic farming – has the potentiality to promote self-reliance dan solidarity among farmers. However, it is an ecological construct, deals mainly with bio-physical aspects whereas socio-economic aspects, economic viability and cultural appropriateness, should be properly contextualized so not to draw away from the poor peasant and farm workers who are supposed to be the object of development efforts in the first place. As OA gets into the mainstream of agcriculture system, we should pay attention to (1) concept of OA is sometimes reduced to a question of techniques or proper management of resources, and (2) tendency of OA agrobusiness to monopolize chain of production to marketing (3) over-regulating of government or certification agencies. This will be a continuance of farmers' lack of self-reliance and welfare.

Introduction

1. Conventional (or industrial or intensive) agricultural uses chemosynthetic fertilizers, pesticides, and pharmaceuticals to maximize production. International Federation of Organic Agriculture Movements (IFOAM) (2002) claimed that conventional agriculture today is causing a number of problems, including falling biodiversity, soil degradation, low income to farmers, pollution, and human health problems. In addition, conventional agriculture has marginalized the existence and role of small farmers. For all these problems, conversion to organic agriculture (OA) can be a major step towards a solution.

2. OA offers environmental improvements over conventional agriculture across a wide range of environmental indicators. OA is defined as agriculture that is ecologically sustainable, economically feasible, and socially just (IFOAM, 2001). OA includes all agricultural systems that promotes the environmentally, socially, and economically sound production of food and fibre. More specifically, USDA National Organic Standards Boards (NOSB) (1997) defined OA as "an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain, or enhance ecological harmony". The primary goal of OA is to optimize the health and productivity of interdependent communities of soil life, plants, animals, and people.
3. Which of these two above agricultural systems is the most appropriate for Indonesia? Will conversion to OA empower the farmers and improve their livelihod? Objectives of the paper are to chracterize the development of OA in Indonesia, to identify the opportunity and challenge in the development of OA, and to evaluate the social and economic prospect of OA in empowering the farmers and improving their livelihood.

Development of Organic Agriculture in Indonesia

1. Consumers' demands for environmental quality and healthy agricultural products have resulted in growing demands of organic products. As Scialabba (2000a) asserts, in both developed and developing countries, organic agriculture has grown outside public support, and in some cases despite government antagonism. The willingness of farmers to experiment and of consumers to pay premiums on organic food represents a major private investment in this sector. For many years, and with great success, the private sector alone has developed the concepts and the markets for organic products. Development of OA in Indonesia also shows the importance of farmers, as opposed to government or large-scale business.

2. Organic agriculture was introduced in 1970s in Bogor, West Java, to supply horticultural products to some supermarkets and hotels in Jakarta. For rice, development of organic rice farms was initiated by Food and Agricultural Organization (FAO) and Bogor Agricultural University (IPB) through field-school of integrated pest management programs in Karawang District, West Java province. Organic rice has been sold in some supermarkets in Jakarta, though its potential demand is unknown.

3. Three phases can be distinguished (Fatoni, cited by Syariefa 2004) in the development of OA in Indonesia. First, the 1970s pioneer phase i.e., people who believe in the concept of organic farming as a natural balance philosophy,

with the likes of Elsener Adolf Agatho, owner of Bina Sarana Bhakti. Second, the 1980s phase, characterized by the rise of non government organization (NGO) which developed OA with foreign aid, particularly from FAO. The most popular program in this phase is Integrated Pest Management (IPM). Third, the 2000s hobbyist farmers who turn into OA because they see business opportunities.

4. In 2000, the Indonesian Ministry of Agriculture has declared "Indonesia Organic 2010". The mission of this policy is to realize the eco-agribusiness development, while its objective is to increase food security and social welfare (Budianta 2004).

Organic Agriculture as a Solution to Green Revolution?

1. Development of genetically engineered (GE) seeds render crops sterile and/or control their growth and development via chemicals. Sterile seeds are unable to germinate thereby disabling farmers the right to save seeds for replanting- crucial for the food security of communities. According to Rengam, approximately 1.4 billion farmers, producing almost 20 per cent of the world's food, rely on saved seeds. Furthermore, sterile, chemically dependent crops trap farmers into an expensive seed and pesticide package

2. According to the World Health Statistic Quarterly, a World Health Organisation (WHO) publication, about 25 million workers in developing countries are poisoned every year by pesticides. Of particular concern from pesticide exposure is the potential for long-term disruption to the human endocrine (hormone) system causing development and reproductive abnormalities and diseases.

3. OA maintains highly diversified farming system. This system enables small farmers to meet their food needs all year round with minimized risk of crop failure. Monoculture systems that are promoted under conventional agriculture carry high risk of crop failures from failed rains.

4. As Rosset (1997) stated, the prevalence of input substitution, which emphasizes 'safe' alternatives to agrochemical inputs without challenging the monoculture structure and land concentration of agricultural systems, greatly diminishes the potential of sustainable agriculture. By only addressing environmental concerns, this dominant approach offers little hope of either reversing the rapid degradation of the resource base for future production or of resolving the current profit squeeze and debt trap in which the world's farmers are caught. By the same token, approaches which address only socioeconomic dimensions without altering the technology or scale of production, have not completely solve the problem either

5. Consumer demand for organically produced food and fiber products provides new market opportunities for farmer and business around the world. Demand for organic products has increased steadily over the last two decades in the developed and less developed countries, including Indonesia, though the data on it is not yet known. Though as yet only a small industry, OA is becoming of growing importance in Indonesia

6. OA supports farmers to be independent producers. In this case, the farmers do not depend on large producers who supply chemical fertilizers, pesticides, and seeds. In this sense, farmers have larger control over their agricultural resources and production processes. Thus, they can protect their livelihood from external factors, such as increase in input prices.

7. OA usually requires significantly greater labor input than conventional farms (FAO, 1999). Therefore, when labor is not a constraint, OA can benefit underemployed labor in rural communities. In addition, the diversification of crops typically found on organic farms, with their various planting and harvesting schedules, may distribute labor demand more evenly. This could help stabilize employment over the year.

8. Provision of employment for household heads as well as other household members, as well as family producing agricultural products and services that meet their food and cultural needs, may also improves social equity.

9. OA as entry point to strengthen farmers' right movement i.e., rights to production, consumption, distribution, reproduction, and protection from uncontrolled free-trade and destruction of bio-diversities (Wahono 2003). Farmers' right movement claims that the organic movement is considered to be the most appropriate way to achieve those objectives. An OA wich could be able to strengthen farmers' right is the one that seeks solution to land redistribution, conserve natural resources and biodiversities in a local way.

Some challenges

1. The surge in consumer interest has created new interest from public sector. To gain the benefits from the increased volume of traded organic products, in both domestic and international markets, the Ministry of Agriculture has declared a "Indonesia Organic 2010" policy. The mission of this policy is to realize the eco-agribusiness development, while its objective is to increase food security and social welfare. To achieve this objective, the Government of Indonesia should know the potential of OA to contribute to sustainability in order to direct research and extension efforts, empower the farmers, and improve production and post harvest infrastructure.

2. Unfavorable national policy environments for OA as most politicians, policy makers, and government agricultural researchers and extensionists are still strong believers in the monolithic industrial/commercial agriculture. This translates into hostility from some government policy makers, workers, and researches against OA promoters and no funding for research, raining, extension in OA (Walaga, undated).
3. Research on integrated pest management/IPM indicated that the macro- and meso-system are not conducive to IPM (Abdulkadir-Sunito and Soetarto 1999). The agricultural supporting system is still green-revolution oriented, such that the green revolution and IPM are, "... two models of agricultural development, a structural contrast (technology) contents and extension approach" (van de Fliert 1993). One example, in credit loan it is given in the form of seeds, chemical fertilizer and pesticides, a practice that disruptive to IPM. Like IPM, in OA credit is important to cover the capital needs in the transition period to organic, in which land productivity decreases due to non-application of fertilizer.
4. Steady growth of organic products has led to its place in a segment market. Organic marketing can be divided into direct and indirect markets. Many supermarkets in Indonesia buy direct from the farmers or from wholesallers of organic products.
5. Role of government should be on policy (regulation) and established supported institution. China, for example, has CGFA (China Green Food Association) whose objectives are to increase production of non-polluted food, to accelerate development of organic food at local level, to give attention to training and marketing of organic product, improve organic food management capacity, and to guarantee quality of organic food (Kompas, 20 November 2004). In relation to the target of "Go Organic 2010", Indonesia should also establish similar institution which will be important to the farmers.
6. As it is generally understood, the concept of sustainable agriculture is an ecological construct. The concepts of economic viability, cultural appropriateness and holistic science are also part of the concept. Nevertheless, the overarching framework is the preservation of the environment and the others are sometimes taken as a grocery list of conditions that must be satisfied in the process of making agriculture ecologically sustainable. If not properly contextualized this concept of agricultural development which makes the preservation of the environment as its focus to the point of being detached from the larger political, social and economic realities can act as ideological blinder to the fundamental causes of and the solutions to the problem of underdevelopment.

7. Sustainable agriculture is sometimes reduced to a question of techniques or proper management of resources. An effect of this narrow concept of sustainable agriculture is it may draw itself away from the poor peasant and farm workers who are supposed to be the object of development efforts in the first place. Some techniques, because they are labor or capital intensive are not within the reach of the poor peasant. It is the rich peasant who has enough capital and sufficient land who benefits more from these.

8. Sustainable agriculture is viewed within the context of exploitative relations in production on account of monopoly of productive resources. To do this, the struggle for environmentally sound technologies must be placed within the framework of the struggle for land and against the forces of capitalist-led globalization. It must be a people-centered approach. We must combine our efforts to propagate ecological technologies with our efforts to stop environmental degradation from its point source which, in the third world, is the extractive activities of international capital and the local elite. Environmental soundness should be a mandatory criterion in our efforts to raise productivity of agricultural systems as part of the genuine agrarian reform program. The challenge is to link, even integrate our efforts at making agriculture sustainable with the overall effort to change the exploitative and oppressive system. We must link ourselves with the people's movement and identify with the genuine aspirations of the people (Pascual 1998).

9. Promoting OA technologies and practices as an approach to reviving the productivity of degraded farming systems and sustain farm productivity. Walaga (undated) argued that among small farmers in Africa, organic farming practices have increased yields and productivity.

10. Promoting trade in organic products as a vehicle to improving income of small farmers through accessing of the organic premium price. Many developing countries have begun to export organic products successfully. These products are sold at impressive premiums, often 20% higher than identical products produced on non-organic farms (FAO, 1999). However, to enter this lucrative market is not easy. Whether the intent is to sell organic products domestically or abroad, reliable market information is difficult to obtain.

Further Consideration

1. Organic agriculture might have been prompted by an agrarian vision, but along the way it also became a growth business, because that was the most realistic way to meet burgeoning consumer demand. Now farmers are talking about organic grains and produce coming out of China, where farms have sought certification to sell in the American market (Fromartz 2002).

2. In Indonesia, an organic fertilizer factory cooperates with farmer groups to cultivate organic rice, provide fertilizer and guarantee its market (Surono 2002). Although it is profitable and environmentally healthy, the farmers are reduced to be a technical operator in the factory, labor in his own land, dependent on inputs and market. Their welfare might be better-off, but the dependency condition to the external forces does not change – in the green revolution era they depend on chemical inputs industries, now on organic input ones.

3. When a company monopolizes the whole chain of production and distribution (manages inputs, coordinates production activities, and markets their own products), it has a dominant power in the market. Hence, it constraints the development of economic democracy (Surono 2002, Wahono 2003). There is fear that in the future OA may provide a solution to ecological problem, but unable to liberate farmers.

4. International capital is also in constant search for technologies that can be used to control agricultural production while pretending to be sensitive to environmental concerns. Some multinational chemical companies for instance, in a clear case of tokenism, have initiated research on organic agriculture. But, the clear direction of research is in the field of biotechnology and genetic engineering. At present there is a mad scramble for control of the world's genetic resource through physical possession of these and through legal instruments such as patents. The prospects of international capital gaining full control of agricultural production through its control and manipulation of genetic materials is far more horrifying than their present control of inputs in chemical-based monocrop agriculture (Pascual 1998).

5. Over-regulating of government or certification agencies. Fromartz (2002) stated that as consumers snapped up organic products, less idealistic farmers sold conventional produce (that is, grown with chemical pesticides and herbicides) under organic labels, causing a furor among producers and consumers and prompting to define organic practices. By 1990, this regulatory approach was codified in the Organic Foods Production Act and USDA makes clear, that organic is a method of production.

6. The highly local nature of organic production means that community-based expertise and oganizational capacity is needed. Where market opportunities exist and OA is profitable, farmer field school (as implemented in the IPM program) is required. This program could be strengthen by collaboration with research, development, and extension institutions.

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