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Organic Agriculture

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The growing consciousness for safe and quality food and concerns about the environmental degradation and health hazards, posed by the intensive agriculture, have in the recent years, provided new impetus to the promotion and adoption of organic agricultural practices. It is estimated that around 0.61 percent of the world's reported agriculture land is under certified organic agriculture. However, a large part of global food production systems is non-certified organic agriculture, often at subsistence level. While in Pakistan, there is no precise data, organic agriculture seems to be practiced in the rural areas with enormous potential for replication and adoption extensively in other parts of the country.

Organic agriculture efficiently reduces the environmental risks by shunning the use of potentially deleterious technologies such as pesticides, herbicides, synthetic nitrogen fertilizers and veterinary antibiotics. This form of agriculture is extremely cost-effective especially for the rural resource-poor and small scale farmers. It harnesses their traditional knowledge and varieties and help them obtain higher, more stable and profitable yields. It also emancipates them from expensive agricultural inputs through the use of participatory seed-breeding systems; natural bio-control agents; soil fertility management through recycling and use of green manure; and habitat management to control pests, diseases and weeds. Its other advantages include: protection of natural resources and biodiversity, improved quality of soil and its sustained productivity, improved market access and increased income and profitability.

The organic practices also make a substantial contribution to increasing soil stability and resilience; enhancing water use efficiency in the wake of increasing water scarcity; decreasing pollution in water effluent for the downstream users and aquatic biodiversity; encouraging protection of a diverse landscape and habitats beneficial for the living organisms. Cumulatively, this leads to a more stable food and fiber supply and environmental services.

Highlights

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Chile, Costa Rica, Denmark, Egypt, Malaysia, South Africa, Thailand and Vietnam have already made substantial headway in promoting organic agriculture.

In Iran and India, the organic farming system implemented factors in the totality of agro ecosystem related to biodiversity, nutrient biological cycles, soil microbial and biochemical activity.

In Pakistan, challenges to promote organic agriculture exist. They are:

- *ensuring compliance of the organic standards.*
- *developing domestic organic agriculture markets,*
- *building farmers' capacities in organic production techniques, and;*
- *upgrading the advisory and extension services to carry out advocacy and training of the farmers.*

Agricultural production methods specifically adapted to microclimates, production of diverse products, and cropping methods could robustly withstand the rapidity and frequency of climatic challenges such as droughts, floods, rising temperatures etc., and their concomitant adverse impacts on food security and stability. In the case of Pakistan which is one of the worst affected countries in the world and which is frequented by recurrence of droughts and floods, the propagation and adoption of organic agriculture is absolutely imperative.

There is a whole set of valuable information available in the world ranging from global and regional overview of organic agriculture to the principles and organic standards and certification and establishment of organic certification system. Chile, Costa Rica, Denmark, Egypt, Malaysia, South Africa, Thailand and Vietnam, to name a few countries, have already made substantial headway in promoting organic agriculture.¹ These practices and experiences could be benefited from to promote and popularize the organic production system in Pakistan. In our adjoining countries of Iran and India, the organic farming systems are already being implemented as a holistic production management system which factors in the totality of agro ecosystem related to biodiversity, nutrient biological cycles, soil microbial and biochemical activity. Microbial nutrient providers like bacteria, fungi, algae etc., replace the chemical fertilizer and the biological pest management using the natural predators of pests and parasites serves as a substitute for chemical pesticides.

There are however some challenges that need to be addressed through a facilitation and regulatory role of the public sector and effective integration of organic agriculture in the overall agricultural policy framework. The major challenges include, ensuring compliance of the organic standards, developing domestic organic agriculture markets, building farmers' capacities in organic production techniques, and, upgrading the advisory and extension services to carry out advocacy and training of the farmers. While an in-depth integrated analysis to anchor organic agriculture within the overall agricultural policy is essential to clearly articulate government's objectives, action programs and interventions, the following guiding principles are recommended:

- A holistic, participatory and inclusive approach involving all the stakeholders needs to be espoused in framing the organic agriculture policy and its connect with the general agriculture policy;

¹ Best Practices for Organic Policy UNEP/UNCTAD publication 2008

- A robust and reliable database and information system to integrate the organic farmers with the domestic and international markets should be established which should be easily accessible to the farmers;
- Government should promulgate national standards, regulations and certification system to ensure the authenticity of the organic produce and compliance with the standards.
- A comprehensive action plan for the organic sector including measurable targets should be formulated to guide the stakeholders and all the actors and entities involved in organic agriculture.
- Extension and advisory services should be strengthened to guide farmers on the organic agriculture.
- An effective communication and awareness strategy should be pursued to voluntarily buy in the farmers. This should be preceded by successful pilots to demonstrate the benefits of organic agriculture in terms of cost-effectiveness, access to markets, profitability and protection of the farmers from health hazards associated with chemical fertilizers and pesticides.
- To incentivize, Government may consider initially (a) subsidy for organic agriculture, (b) public procurement of organic produce, (c) development of organic markets and (e) access to foreign markets.