

Organic Farming: An Approach towards Sustainability

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Introduction

Modern agriculture can support the lavish lifestyle of present population, by escalating pollution level at every spare of life and compromising sustainability. Organic farming engrossed attention as an alternative to all kinds of fraudulent farming practices called 'modern agriculture' which includes wholesale use of synthetic pesticides, chemical fertilizers or genetically modified organisms. It contributes the millennium development goal of improving soil health, increasing crop diversity, assuring good health of consumers, maintaining ecological balance and reducing all harms rooted in today's production system.

The concept of Organic arming

FAO officially introduced Organic Farming as an approach towards sustainable progress in March 1999. According to FAO, "Organic farming is environmental friendly ecosystem management in which use of all kinds of synthetic input is eliminated". Funtilana has described organic agriculture as: "Organic Agriculture is giving back to the environment what was taken from it" (Singh *et al.* 2012). Mannion (1995) refers to it as a holistic view of agriculture that aims to reflect the profound interrelationship that exists between farm biota, its production and the overall environment. Scofield (1986) stresses that organic farming does not simply refer to the use of living materials, but emphasizes the concept of 'wholeness', implying the "systematic connexion or co-ordination of parts in one whole." MacCormack (1995) notes, "unlike 'sustainable' farming practices, organic farming practices are well-defined - in fact, organic farming practices are unique, for they are the only ones codified as law. A complete set of certification procedures governs organic farming, from the soil to the dining table" (MacCormack, 1995).

Principles of Organic Farming

According to IFOAM organic agriculture comprises of four main principles namely Health, Ecology, Fairness and Care. Principle of Health says “Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.”

Principle of Ecology states “Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them”.

Principle of Fairness says “Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities”.

Principle of Care remarks “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”.

The concept of development

Development is defined as ‘an evolutionary process in which the human capacity increases in terms of initiating new structures, coping with problems, adapting to continuous change, and striving purposefully and creatively to attain new goals (Peet, 1999 cited in Du Pisani, 2006). According to Reyes (2001) development is understood as a social condition within a nation, in which the needs of its population are satisfied by the rational and sustainable use of natural resources and systems. Todaro and Smith (2006) also define development as a multi-dimensional process that involves major changes in social structures, attitudes, and institutions, as well as economic growth, reduction of inequality, and eradication of absolute poverty.

The concept of Sustainable Development

Literally, sustainability means a capacity to maintain some entity, outcome or process over time (Basiago, 1999). Sustainable development has become the buzzword in development discourse, having been associated with different definitions, meanings and interpretations. Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Mensah, 2019). It contains within it two key concepts:

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given.

– The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. (Chapter 2, Our Common Future: Report of the World Commission on Environment and Development, 1987)

For sustainable development to be achieved, it is essential to unify three core elements: economic growth, social inclusion and environmental protection. The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity (Fig. 1).



Fig 1: Sustainable Development Goals

The connection between sustainable development and organic farming:

Sustainable development is defined as an “economic development conducted without depletion of natural resources.” The role of organic farming is to maintain the ecological balance and to enhance and sustain the health of organism from the smallest one in soil to plant, livestock and human. So, fundamentally, organic farming is closely related to sustainable development. There is no real dispute that sustainable agriculture and organic farming are closely related terms, as explained by various researchers. Lampkin's definition of organic farming goes on to state: “...sustainability lies at the heart of organic farming and is one of the major factors determining the acceptability or otherwise of specific production practices” (Lampkin, 1994). Rodale even suggested that “sustainable was just a polite word for organic farming” (York, 1991).

Conclusion

Organic farming can be considered as a feasible option of cultivation compared to conventional farming practices as organically produces foodstuffs has a huge demand now a days. Beyond the financial aspect, organic farming provides service towards natural resources, soil and overall environmental health, flexibility to adverse weather as so on. When it comes to sustainable development goal, organic agriculture has excellent credential in terms of health.

References:

- Basiago, A. D. (1999). Economic, social, and environmental sustainability in development theory and urban planning practice: The environmentalist. Boston: *Kluwer Academic Publishers*.
- Lampkin, N. (1994). Organic farming: sustainable agriculture in practice. In: Lampkin, N., Padel, S. (Eds.), *The Economics of Organic Farming. An International Perspective*. CABI, Oxford.
- MacCormack, H. (1995). Sustainable agriculture versus organic farming. In: Bird, Bultena, Gardner (Eds.), 'What is Sustainable Agriculture?' *Planting the Future: Developing an Agriculture that Sustains Land and Community*. Iowa State University Press, (Chapter 3), pp. 60-61.
- Mannion, A.M. (1995). *Agriculture and environmental change. Temporal and spatial dimensions*. Wiley, Sussex.
- Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences*, 5(1). <https://doi.org/10.1080/23311886.2019.1653531>.
- Our Common Future, Chapter 2: Towards Sustainable Development; Report of the World Commission on Environment and Development, 1987.
- Peet, R. (1999). *Theories of development*. New York: Guilford Press.
- Pisani, Du. and J. A. (2006). Sustainable development – historical roots of the concept. *Environmental Sciences*, 3(2), 83–96. doi:10.1080/15693430600688831.
- Reyes, G. E. (2001). Four main theories of development: modernization, dependency, world-system, and globalization. *Nómadas. Revista Crítica de Ciencias Sociales y Jurídicas*, 4(2), 109–124.
- Scofield, A. (1986). Organic farming, the origin of the name. *Biological Agriculture and Horticulture* 4, 1-5.

Singh, S. George, R. and Prafull, B. (2012) Organic farming practices of plains and hills farmers and their extent of compliance with National Program for Organic Production (NPOP) guidelines. *J Agric Sci* 3:55–62.

Todaro, M. P. and Smith, S. C. (2006). Economic development (8th ed.). Reading: Addison-Wesley.

York Jr. and E.T. (1991). Agricultural sustainability and its implications to the horticulture profession and the ability to meet global food needs. *HortScience* 26 (10), 1252-1256.

