



Eco-farming: what is it?

Feature article

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Introduction

A broadly agreed standard definition of what is referred to as eco-farming has not yet been established. Thus, several definitions of this concept continue to be used. Eco-farming is also known as ecologically appropriate agriculture, ecologically sound agriculture, biodynamic farming, organic farming, conservation agriculture and sustainable agriculture. Sustainable management and development means sustaining human well being over time, i.e. satisfying the present needs without risking the possibility that future generations may not be able to satisfy their own needs. Therefore, sustainability implies providing future generations with as much, or more and better of the natural capital (land, water, air, genetic material, ecosystems, etc) per output as the current generation is enjoying.

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Eco-farming involves a comprehensive management of natural resources in a sustained form. It is oriented toward the long term and stresses the human being as a factor in the ecosystem, thus allowing for conservation and replenishment of these resources. It uses appropriate, economically viable and socially just technology and emphasizes the use of local resources.

Ecologically appropriate agriculture comprises forestry, farming and fishery activities that require careful management of natural resources. By engaging in these livelihood activities, and with the use of appropriate technology, people obtain social, economic and spiritual benefits from natural resources, while conserving and replenishing these resources.

Since agriculture depends on nature, it has to change to keep pace with variations in natural events and to avoid conflict with the

environment. One of the most significant factors in this change is the human being. The concept of eco-farming tries to avoid such conflicts through a form of land use that is in harmony with all living creatures and compatible with the available resources. Eco-farming assumes sustainability on the basis of the existing resources, and thus describes a balance which is constantly being renewed.

R. Bunch (1998) defined eco-farming as any farming system that uses more local resources and fewer external inputs (especially avoiding inputs with actual or potential toxic outcomes) in order to develop a positive and well-balanced relationship between people and their environment. By assaulting the ecosystem less and preserving or improving life support systems, such as soil quality, water and biodiversity, eco-farming aims to maximize productivity while maintaining those factors of production that

will allow posterity to do the same.

From a different perspective, eco-farming could mean that the farmer and his farming environment act as an ecological system. The ecological system in this regard includes the natural conditions of soil and water and other variables such as the physical, social, economic and cultural factors that affect the growth and development of any organic system.

To be sustainable eco-farming should rely more on local resources to meet the needs and raise the standard of living in rural areas without causing damage or harm to the ecological system. The use of green manure, farmyard manure and other substances to enrich the soil has a tremendous positive effect on the preservation, conservation and

maintenance of soil fertility, soil structure and texture. This practice also increases the positive effect of microbial activities in the soil, allowing permeability and good water retention capacity. Other beneficial elements are control of soil and wind erosion; reducing the effect of direct sun heat on the soil through the use of mulching, planting of wind breaks, use of cropping systems such as intercropping and mixed cropping, planting of cover crops especially those with nitrogen fixing bacteria and high foliage.

Approaches to eco-farming may differ in different cultural, social, economic and ecological settings. However, the goal remains to maintain the factors of production that will sustain livelihoods in the future.

Advantages of eco-farming	Demerits of eco-farming
<ul style="list-style-type: none"> •Reduced soil erosion •Enhanced soil fertility •Greater use of natural resources •Lower capital needed; •Improved living standards; •Increased production; •Environmental conservation; •Low pollution; •Conserves biological resources, e.g. plants, animal and micro-organisms. •Enhance gender balance; •Good for rural community. •Improvement of traditional agricultural methods; •Easy for farmers to practice •Can be adapted to socio-econ and cultural situations; •Is affordable by the poor / small scale farmers; •Minimum external inputs; •More tasty products; •Suitable for tropical soils. •Uses local or traditional knowledge and experiences. 	<ul style="list-style-type: none"> • Local resources may not be available to apply on a large scale; • Usually applied in small scale production; • Hard for commercialization (Planting, harvesting, fertilizers, pesticide use etc.); • Demands an extensive extension activity, and good skills and-knowledge; • Is against packages that could produce more, using external inputs; • Lower yields per ha; • Costs time in the control of weeds and other agricultural activities; • Can be hindered by local taboos; • Can't rapidly resolve food insecurity; • May lead to food insecurity; • Can create positive gender disparity; • Less land area is cropped; • It takes time to realize the benefits; • Needs a lot of patience from the farmers; • Best practiced where land tenure does not exist.

Reference

Eco-farming- Ecologically and socially sustainable land management in Africa. Proceedings of an International Training Course Workshop. Nov 16 – Dec 11. 1998 in Ethiopia.. Sahle Tesfai and Hartmut Gast (Eds). Supported by the German Foundation for International Development (DSE) and the German Institute for Tropical and Subtropical Agriculture (DITSL).