



ORGANIC AGRICULTURE AND NATURE CONSERVATION

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INTER-DEPENDENCE

Agriculture must provide food to a growing world population, including today's 840 million hungry people. Protected areas can contribute to food security and poverty alleviation within, but especially around, their boundaries. Poor land use, careless agricultural management and wrong policy incentives damage natural habitats and accelerate the loss of plants, animals and ecological processes that serve as the foundation of agricultural productivity. Farmers, pastoralists and forest dwellers, including a large proportion of indigenous people, are the main inhabitants and users of protected areas, as well as of lands connecting these areas. They manage genes, species and ecosystems by their decisions on what to produce and how to produce food. Protected areas today occupy 11 percent of Earth cover, in a landscape dominated by the agriculture sector; in fact, more than 40 percent of the land's surface is occupied by croplands and pastures. Despite this high interdependence between nature conservation and agriculture, community approaches to protected areas management touch on the periphery of agricultural activities.

THE ORGANIC CONNECTION

Choices in agricultural management can enhance or threaten domesticated and wild biodiversity. Encouraging organic agriculture within and around protected areas can reverse the trend of negative threats to biodiversity, while allowing local residents to derive livelihoods from their lands. Organic agriculture depends on ecosystem services delivered through proper management of biodiversity. It simultaneously delivers ecosystem services to wider environments, including non-marketable public goods such as environmental health and landscape connectivity. It can meet the production-conservation challenge head-on by:

- **Promoting market-based incentives** that compensate farmers for their environmental stewardship efforts, thus maintaining their economic viability.
- **Restoring marginal and abandoned rural areas** by valorising under-utilized plants and animals (such as in pastures) appreciated by organic consumers.
- **Replacing degrading agricultural practices** with approaches that prevent wildlife poisoning and detoxify environments.
- **Reducing protected areas fragmentation** by enhancing the habitat value of agricultural landscapes.
- **Reversing deforestation by growing crops** (coffee, cacao) under tree canopy, thus retaining forest structures that harbour endemic and migrant species.
- **Enhancing land carrying-capacity** for both wildlife and agricultural production by creating temporal wetlands (rice) suitable for nesting and feeding of wetland-dependent and/or migrant species.

FACTS

OPPORTUNITIES

GAPS

RECOMMENDATIONS

Organic agriculture has been steadily growing and continues to grow

Environmental stewardship is compensated by premium prices for environmentally-friendly products

Traditional and pioneers farmers, pastoralists and forest dwellers hold agro-ecological knowledge

Collaboration between environmental and agricultural constituencies is emerging

Non-productive farm-habitat enhancement is costly to many farmers

Market demand exceeds supply and the sector is governed by detailed standards and regulations

Environmental, social and safety requirements in the food supply chain are growing worldwide

Empirical knowledge of interactions in the food chain improves farm productivity and maintains domesticated and wild diversity

The ecosystem approach and agri-environmental measures are increasingly part of policy agenda

A new area for investment of conservation funds?

Safer alternatives to some natural products are needed

Organic labels indicate the application of minimal standards and other quality labels allow synthetic input use

The application of restoration ecology and landscape ecology is in its infancy

Policies are devised by line ministries and integrated planning is hindered by sectoral resource allocations

Availability and access to land is a major constraint

Develop organic standards for biodiversity and (realistic) on-farm habitat enhancement

Promote labels that recognize (and reward) different levels of stewardship

Develop the agro-ecological research agenda based on intensive local science (formal and informal)

Establish a conducive political process based on negotiation of different needs among stakeholders

Align agricultural and environmental policies and consider measures that encourage farmers for providing public goods (ecosystem services)

The challenge for conservationists and agriculturalists is to identify collaborative routes which are economically and socio-politically feasible. The expansion of organic agriculture and its integration into landscape planning represents a cost-efficient policy option for building self-generating food systems and for connecting agro-ecosystems and natural areas.