INTER-DEPENDENCE

Agriculture must provide food to a growing world population, including today’s 8.62 billion 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’s cover, in a landscape dominated by the agriculture sector; in fact, more than 60 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

Decisions in agricultural management can enhance or threaten demoralized 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-utilised plants and animals (such as in medicinal) appreciated by organic consumers.
- Replacing degrading agricultural practices with approaches that prevent wildlife poisoning and alien environments.
- Reducing protected areas fragmentation by enhancing the habitat value of agricultural landscapes.
- Reversing deforestation by growing crops (coffee, cacao) under tree canopies, 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.

A new area for conserving biodiversity is to be found in farmland: Non-productive forms of organic farms: habitat enhancement is costly to many farmers.

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.