## Biodiversity and the ecosystem approach to agriculture, forestry and fisheries

AO's Priority Area for Interdisciplinary Action (PAIA) on Biological Diversity for Food and Agriculture and the FAO/ Netherlands Partnership Programme (FNPP) Agro-Biodiversity Theme provided financial support for a Satellite Event on Biodiversity and the Ecosystem Approach in Agriculture, Forestry and Fisheries, which was organized by FAO's Inter-Departmental Working Group on Biological Diversity for Food and Agriculture. "Biodiversity and the Ecosystem Aproach in Agriculture, Forestry and Fisheries" reports the proceedings of the Satellite Event held during the weekend of 12-13 October 2002, which examined the linkages between biodiversity and the ecosystem approach in agriculture, fisheries and forestry.

FAO's Biodiversity Programme turns a common argument on its head. It is often claimed that agriculture is the world's greatest threat to biodiversity. But at the same time, over 40 percent of the world's land surface is covered by agriculture (including pastures, rangelands, fisheries and managed forests). Ecological studies of agro-ecosystems reveal the same functional groups of species and essential ecosystem processes found in natural ecosystems. Agriculture depends on ecosystem services delivered through agrobiodiversity and simultaneously delivers ecosystem services (mostly through nonmarket channels) to wider environments. Careless management or bad policy incentives can threaten biodiversity and those services, but agriculture nonetheless represents the world's largest opportunity for ecological learning by the practical managers of ecosystems.

There are well over 500 million farm management units in the world, overwhelmingly found in developing countries. FAO's ongoing field work in over 100 000 rural communities has found that all those farm managers can understand their farms, fields, forests, rangelands and fisheries as ecosystems



and thus be able to manage them better. Farmers, even in the poorest and most food-insecure regions of the world, manage genes by their decisions on crop varieties, manage species by their decisions on farm animals, and manage ecosystems by their decisions on soils or pollinators. FAO's Biodiversity Programme includes many applications of the Malawi Principles on the Ecosystem Approach of the Convention on Biodiversity (CBD), some of which are highlighted in the volume "Biodiversity and the Ecosystem Aproach in Agriculture, Forestry and Fisheries".

Farmers, fisherfolk and forest dwellers not only understand and can apply ecosystem approaches in their decision making, but also understand the potential impact of large-scale environmental threats to their livelihoods. Illiterate farmers are still aware of the harmful effects of insecticides on domestic animals, fish and the health of people in their communities and downstream. These rural people are eager to do their part to reduce and mitigate these threats. By valuing and understanding their own experiences using ecological concepts, they can connect and help solve environmental problems at the same time that they solve production problems.

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