

SUSTAINABLE LAND MANAGEMENT: GLOBAL CHALLENGES AND LOCAL REALITIES

The Millennium Ecosystem Assessment—the comprehensive study of the state of the world's ecosystems, which was funded by the GEF—concludes that humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fiber, and energy. These changes have helped to improve the lives of billions of people, but at the same time they have weakened nature's ability to deliver other key services, such as purification of air and water, protection from disasters, and the provision of habitats for plants and animals.

Among the most critical problems is the high vulnerability of the 2 billion people living in drylands to the loss of ecosystem services, including water supplies; the continuing threats to forest resources; and the growing threat to all ecosystems from climate change and nutrient pollution.

In terms of drylands, at least 90 percent of people living in the world's dry areas rely heavily on natural resources for their livelihoods. Most dryland economies are based on agriculture (crop production and livestock rearing). Dryland populations incessantly cope with a harsh natural environment—the onset of desertification would take them to the brink of survival. Globally, it is estimated that \$42 billion in income is lost each year in areas immediately affected by desertification. The indirect economic and social costs suffered outside the affected areas, including the influx of “environmental refugees” and loss of national food production, may be much greater.

In terms of forest resources, the world's natural forests are shrinking as agricultural lands expand,

and climate change is expected to have adverse impacts on both forests and agricultural systems. At the same time, demands on forests and trees are increasing, with about 1.6 billion people relying heavily on forest resources for their livelihoods. In developing countries, hundreds of millions of people living in, or next to, dense forests rely on them for energy, subsistence, or income; another one billion use trees on farms to generate food and cash.

THE GEF'S WORK TO COMBAT LAND DEGRADATION

Since its inception, the GEF has worked to prevent and control land degradation because of the severe impact on people's livelihoods and the health of ecosystems. In October 2002, the Second GEF Assembly approved land degradation, primarily desertification and deforestation, as a key GEF focal area. A year later, the GEF was designated as a financial mechanism for the Convention to Combat Desertification.

The GEF believes that the sustainable management of land and other natural resources affords the most effective approach to prevent and control land degradation. Sustainable land management is the allocation of land resources for uses that provide the greatest sustainable benefits to people and includes integrated management of natural resources. Sustainable land management takes into account environmental, social, and economic issues that improve policy, planning, and management. For example, good agricultural practices, such as the adoption of improved and appropriate farming practices, can contribute to the regen-

eration of ecosystems and have a positive impact well beyond national boundaries.

Sustainable forest management implies the provision of a range of goods and services. All forests, by their nature, are multipurpose, but most managed forests have a primary management objective: production (of wood or nonwood products), protection (mainly for soil and water conservation), or conservation (of biological diversity and cultural heritage sites). Managing a forest in a sustainable way contributes to all three objectives.

Direct global environmental benefits of sustainable land management include:

- Land restoration
- Increased carbon sequestration and sinks
- Biodiversity conservation
- Dust reduction
- Protection of transboundary water bodies
- Methane reduction (arising from well-managed land under rice cultivation and well-managed land that is able to support better feeds for livestock)

There are also significant socioeconomic benefits including:

- Livelihood resilience (including food security and poverty reduction)
- Reduced human migration (both regional and international)

THE LUCID PROJECT

Ecosystems in Kenya, Tanzania, and Uganda are being severely affected by population growth, land use intensification, and unclear land tenure arrangements, leading to loss of biodiversity and land degradation. The ecological and economic importance of the sites places them at the core of national eco-

nomie policy. A GEF project, Land Use Change Analysis as an Approach for Investigating Biodiversity Loss and Land Degradation—LUCID, is building upon long-term, detailed studies of landscape-scale environmental change and resource management. The project, which the United Nations Environment Programme is implementing, provides scientists and policymakers with methodological and analytical tools for understanding the linkages between land and ecosystem degradation (including biodiversity loss and carbon stocks) and gives the communities and the countries vital information necessary for effective land use management.

The project is providing useful information for:

- Understanding land-use and land-cover dynamics in East Africa over the last five decades
- Identifying the forces driving changes in land use and land cover and developing models linking these driving forces to the observed changes
- Understanding the consequences of land-use and land-cover change for affected people and ecosystems
- Helping scientists and policymakers to better understand land-use change and implement policies to improve land management

The global challenge for the GEF and its partners is to re-energize the pursuit of sustainable development and protection of the global commons, a complex undertaking that will require unprecedented levels of effort, knowledge, and international cooperation. The local reality is to find ways and means to forge a better way of life for the world's poorest, which will depend on the leadership of many people and nations as well as the balancing of millions of actions and interactions throughout the world.

FOR MORE INFORMATION

Shirley Geer
*Acting Team Leader,
External Relations*

Global Environment Facility
1818 H Street NW
Washington DC 20433 USA
Tel: 202-473-0508
Fax: 202-522-3240