GEORGE LEDEC • ROBERT GOODLAND

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PREFACE

Wildlands--natural areas that are relatively untouched by human activities--include forests and prairies, deserts and shrublands, marshes and coral reefs. The wildlands that remain, after millennia of advancing civilization, are usually remote and inhospitable to human beings (except where traditional cultures have evolved ways of coexisting with the natural environment rather than taming it). But today the physical and practical barriers that have protected the wildlands are breaking down as technology makes large-scale alterations of the environment feasible and as demographic and economic pressures lead people to use less attractive areas and resources. Swamps can be drained, roads can be cut into forbidding mountain areas, and livestock can be raised where once forests grew. But what is possible may not always be wise.

An all too frequent assumption in debates about whether to put wildlands to immediate human use is that wildlands in their natural state are only marginally useful to people and that the choice is between meeting human needs and preserving wildlands. But accumulated experience and a deeper understanding of the interactions between human beings and their environment point to a relation that is complex and often complementary. Treat water carelessly--destroy the forests and wetlands that control and purify the natural flow of water, pollute the sources, recklessly draw down the supply of water faster than it can be replenished -- and the result is a ceaseless, ever more expensive, and perhaps contentious search for new supplies of a resource that was once abundant and taken for granted. It may be tempting today to clear a tropical forest for crops, but what if in a few years the thin layer of topsoil is depleted and the rich community of forest trees and animal life has been destroyed to purchase only an ephemeral gain?

People have to eat--but they have to eat tomorrow too, and one of the goals of development is to help people move from hand-to-mouth satisfaction of the barest necessities to a fuller and more secure way of life. As Barber Conable, president of the World Bank, told the World Resources Institute in 1987, "Sustained development depends on managing resources, not exhausting them . . . What is wasted or poisoned today leaves that much less to nourish the world tomorrow" (Conable 1987).

But there is no painless way of deciding between short-term and long-term benefits. Increasing populations have to be assured of a livelihood; development will go on and will impinge on wildlands; and agencies involved with development will have to weigh priorities and settle for compromises instead of ideal solutions. To complicate matters, no institution or government can completely control the process. President Conable also noted that "individual practices driven by poverty and ignorance and unexamined economic policies have cumulative effects that are just as environmentally destructive as any badly planned wilderness road or hydroelectric project." Wildlands therefore need to be protected indirectly as well as directly -- through activities that offer employment, promote the stabilization of populations, and encourage the more efficient use of land and resources. It may be that, for now, the best way to balance pressing immediate needs and the long-term interests of people and the systems that sustain them is to work for what Bryan Norton has called a "patchwork environment" of "intensely productive lands" interspersed with "comparatively undisturbed ecosystems" (Norton 1985).

The World Bank, over the years, has become increasingly concerned about the wider long-term effects of development projects. Experience with projects that had unforeseen detrimental effects on the environment and on local people underscored the need to include environmental safeguards in project planning and led to a series of environment-related guidelines and policy statements. These include a forestry policy (World Bank 1978b), a policy designed to protect

the livelihoods and basic rights of tribal peoples, many of whom live in wildlands (Goodland 1982), a broad policy on environmental protection in all sectors (World Bank 1984a), a series of guidelines for controlling pollution from industrial wastes (World Bank 1983), and a policy on the preservation of archaeological sites, historical artifacts, and other cultural resources (Goodland and Webb 1987).

The World Bank has also responded to growing concern about wildland management and other conservation issues by substantially increasing its own staff of environmental advisers. As part of a major internal reorganization in 1987, the Bank replaced its Office of Environmental and Scientific Affairs (OESA) with a new and much larger Environment Department. In addition, an environmental advisory division was created within each of the Bank's four geographic operational regions.

In a comprehensive policy statement specifically on wildlands (World Bank 1986), the Bank formally recognized that provision for some kind of wildland management should be part of any development project that affects wildlands and that wildland management should be considered in economic and sectoral planning. This book discusses and seeks to clarify the issues and tradeoffs that arise in carrying out this policy in widely differing circumstances around the world. It is hoped that governments and development agencies will find this material derived from the World Bank's experience useful for addressing wildland management issues in their own development work. The book is intended for development professionals worldwide, including the staffs of international development organizations and government agencies that deal with natural resources. It will also be of interest to nongovernmental organizations and to scientists and other persons concerned with conservation and development issues.

This study was prepared by the Office of Environmental and Scientific Affairs, World Bank, James A. Lee, director; that office has been succeeded by the Environment Department. Many specialists outside the Bank provided helpful comments and suggestions. They

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