

Indicator 56. Extent to Which the Institutional Framework Supports the Conservation and Sustainable Management of Forests, Including the Capacity To Develop and Maintain Efficient Physical Infrastructure To Facilitate the Supply of Forest Products and Services and To Support Forest Management

What Is the Indicator and Why Is It Important?

Capital resources that take the form of a physical infrastructure (e.g., roads, utilities, processing facilities) are essential to the management of forests and ultimately to economic development and quality of life in rural forested areas. Investments in public infrastructure, such as roads, bridges, sewerage and sanitation systems, schools, parks, and other physical facilities, are important government initiatives that complement the capital investments of private firms. Together, these investments constitute the capital basis for protecting forests and related resources and for producing the goods and services that sustain economies of forested areas. Some people have suggested that forest ecosystems per se can be considered a form of infrastructure ("green" infrastructure).

What Does the Indicator Show?

Information regarding Federal, State, and local authority and institutional capacity to develop and maintain an infrastructure is scattered among various sources and seldom has a central focus on the importance of infrastructure to sustaining certain forest conditions. Sources of information describing private infrastructure investments of relevance to sustaining forests are few and the amount of information they make available is not very extensive.

The institutional capacity to affect infrastructure important to forest and community sustainability is

distributed among and within many levels of government. In reality, nearly all forest resource agencies exercise some capacity to influence infrastructure, although very few government agencies have explicit responsibility for infrastructure conditions. The closest to concentrated responsibility for promoting infrastructure investments occurs in economic development agencies, pollution control agencies, and in some resource management agencies.

Public investments in infrastructure are significant. Examples are the more than \$430 million of infrastructure investment by the United State Department of the Interior National Park Service in 1997, and the more than \$270 million by the USDA Forest Service in 1998 (facility construction, facility maintenance, road and trail construction, and road and trail maintenance). In 1986, an estimated \$5.2 billion was invested by Michigan, Minnesota, and Wisconsin in infrastructure considered important to forests and their use (e.g., transportation, utilities, parks, schools).

Infrastructure investments by the private sector are primarily the result of access to privately raised capital. In 1999, capital expenditure in paper manufacturing was approximately \$7 billion, while investment in wood product manufacturing was about \$3 billion. In 2000, the pulp and paper industry invested more than \$1 billion in environmental resource protection infrastructure. The government often provides finances and technical advice that complements private sector investments in infrastructure.