Managing environmental degradation and natural disasters: an overview

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A disaster is said to occur when an extreme event coincides with a vulnerable situation — surpassing a society's ability to control or survive the consequences. Not every crisis is a disaster Natural crises — fires, floods, earthquakes, and drought — have always been part of the natural cycle; virtually all parts of the world have been at risk from them. But accelerated changes in demographic and economic trends have disturbed the balance between ecosystems, increasing the risk of human suffering, death, and destruction. Rapid population growth increases pressures on natural resources and the natural environment, and raises the consequent risks associated with human activities.

Disasters can be sudden or slow in onset. Sudden-onset disasters such as floods, fires, and earthquakes can destroy a country's infrastructure and commercial, industrial, and housing stock, leaving populations homeless and disrupting the country's productive base. Major disasters not only damage capital assets but are bound to have long-term effects on the economy. In a slow-onset disaster such as drought, the problems created by a scarcity of water are compounded by such long-standing problems as deforestation, rural poverty, soil erosion, and inefficient land-use and tenure patterns. Civil wars may be similar to slow-onset disasters in their impact on population movements. Refugees fleeing war in their own countries can put extraordinary pressures on the countries receiving them, threatening the sustainability of their hosts' natural resource base and severely disrupting the economy and social order

There is some evidence of causal links between environmental degradation and vulnerability to disaster. Natural disasters are often caused at least partly by the same kind of tampering with the natural environment that concerns ecologists — and their impact on that environment is no less devastating. For example, the worldwide incidence per decade of extreme weather events — defined as events such as typhoons, hurricanes, floods, and drought, that cause more than, say, 20 deaths — has increased about 50 percent on average each decade between 1900 and 1990, accelerating significantly since 1950 (OFDA 1990).

The damage caused by extreme weather events has also escalated — increasing faster than population growth. Beginning with the 1950s (when comprehensive records began to be kept), deaths associated with these events have increased 50 percent each decade, whereas the corresponding population growth rate was only 20 percent Economic costs per decade have also increased dramatically: from about US$400 billion in 1950-59 to 90 times that value in 1980-89.

This may to some extent reflect improved observation and reporting of weather as well as increasing economic and population growth. But it is hard to ignore the apparent correlation between the frequency and severity of such natural disasters and growing local and global environmental degradation, especially in the