

Environmental challenges in developing countries



Background Briefs
Development issues and efforts

The health of the environment plays a prominent role in everyday life. Globally, we have not always made wise decisions about ways to protect the environment. On-going changes in the world's climate are further increasing the environmental challenges we face.

Land degradation—the loss of productive capacity of the land—is a significant problem in many developing countries. It can result from natural causes such as climate change, but is mainly related to human activities such as unsustainable farming and forest management practices. Land degradation can lead to scarcity of food and water, loss of income, resource conflicts and environmental deterioration.

An example of land degradation caused by agricultural use has taken place in Africa. African soil is among the least productive in the world, and it has been further damaged by the use of pesticides. Over the past 40 years, African nations have

believed that the only way to combat destructive pests effectively was to use pesticides. Large amounts were purchased by governments and donated by other countries. Many of the metal containers in which they were stored have rusted and leaked toxic chemicals into the soil. The contaminated soil poses serious threats to health and contributes to land and water degradation.

Desertification is another type of land degradation in which a relatively dry land region becomes more and more desert-like, eventually losing its bodies of water, vegetation and wildlife. It is caused by a variety of factors including climate change and human activities. Desertification, particularly in sub-Saharan Africa, contributes directly to freshwater scarcity, food insecurity, famine, migration and conflict.

Land degradation and poverty are closely linked. The majority of the

people affected by land degradation are the rural poor, who depend on the land for their survival. Often, they must compete among themselves for dwindling natural resources. Consequently, the land becomes further depleted and the cycle of poverty is perpetuated.

Some countries in the developing world have made decisions that have had serious impacts on other aspects of the environment. For instance, farmers in an area of China, desperate for irrigation water, dug wells into a shallow renewable aquifer. But decades of over-pumping have largely depleted the shallow aquifer and water is now being taken from the region's deep non-renewable aquifer. The water table under the North China Plain is now falling at an alarming rate. It takes a thousand tons of water to produce one ton of grain. When the aquifer is depleted, the grain harvest will drop by 40 million tons—enough to feed 120 million Chinese.

The increasing concentration of greenhouse gases in the atmosphere is associated with climate change. Droughts, floods, and higher temperatures threaten food crops, destroy habitat, put pressure on plant

and animal species and increase the incidence of disease. All countries feel the effects of climate change; however, people living in poverty are the most vulnerable. As they lose their sources of food, fuel, shelter and income, their poverty deepens. It is challenging for poor nations to manage their resources and protect themselves from the effects of climate change. The global community has responded to the growing threat of climate change with commitments to reduce greenhouse gases.

As well, the Canadian International Development Agency (CIDA), along with numerous non-governmental groups, is working to help developing nations overcome environmental challenges while improving their economies. For example, In Ghana, CIDA supports a project to protect stored grain by releasing a predatory beetle that will eat the eggs, larvae and pupae of grain borers. In the wild, the beetles will multiply, thereby reducing the need to use pesticides.



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