



Climate Change : Natural Disasters

Deforestation: Sawing off the Branch We Are Sitting On

Deforestation is nothing new. Humans have been clearing forests for thousands of years. In the last few decades, however, the rate of deforestation has jumped dramatically - fueling climate change and the destruction of an invaluable resource.



Wolfgang Cramer of the Potsdam Institute of Climate Impact Research (PIK)

"About a fifth of current greenhouse gas emissions are from deforestation - this is often overlooked in the public debate" (Photo: PIK)

The United Nations Food and Agriculture Organization (FAO) reports that during 1990-2000, net forest loss was a staggering 8.9 million hectares per year. Since 2000, this annual rate has decreased only slightly - to 7.3 million hectares per year, roughly the size of entire nations of Panama or Sierra Leone. According to the FAO, much of this deforestation occurred in developing countries, such as Brazil, Indonesia, Myanmar, and Sudan.

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There are many reasons for this dramatic increase. Certainly, industrialization, urban sprawl and population growth has played an important role in widespread deforestation. So, too, have political and economic conditions. In many cases, cutting down forests promises short-term profit for farmers and landowners in developing countries who use the land for cattle grazing or to grow cash crops, such as soybeans.

Connected issues

In recent decades, researchers have established direct links between deforestation and climate change. Forests are vital for absorbing and storing the world's carbon dioxide (CO₂). When forests are cut and burnt en masse, the damage is two-fold: the world's capacity to absorb CO₂ is reduced, while large amounts of stored carbon are released into the atmosphere.

"About a fifth of current greenhouse gas emissions are from

deforestation - this is often overlooked in the public debate," says Wolfgang Cramer of the Potsdam Institute of Climate Impact Research (PIK) in Germany.

"Hence stopping deforestation is direct climate protection," adds Cramer. "Besides, there are some indications that Amazon rainforests might be threatened by substantial losses of rainfall due to climate change. Therefore, stabilizing the climate might also help stabilize these forests."

The problems of climate change and deforestation also reinforce each other through human economic and agricultural practices. Some experts project that global warming will drive more people into poverty, and encourage the unsustainable environmental and agricultural practices brought about by economic need.

Projects under way

"We have been seeing similar statistics about deforestation for twenty or thirty years now," says Steve Howard, CEO of The Climate Group, an international NGO that advises governments and businesses about climate-friendly policies. "Now is the time to make a push to do something about it."

Several like-minded NGOs and organizations agree. The Worldwide Fund for Nature (WWF) and Conservation International, for example, are two NGOs deeply involved in protecting thousands of hectares of rainforest and old-growth forest, as well as promoting consumer awareness, forest restoration projects, and sustainable forest management in many parts of the world.



Picture Gallery (click the image to start)

Extensive deforestation is blamed for massive storm and flood damages in Haiti. See how biodiversity protects against other impacts of climate change (Photo: Reuters)

At the international policymaking level, there are some efforts to incorporate forestry issues in wider initiatives to slow climate change. International policies, such as the Kyoto Protocol and the European Union Emissions Trading Scheme, allow nations and companies meet commitments to cutting greenhouse gas emissions by supporting projects that aim to cut emissions and slow global warming.

The international community is currently discussing practical ways of incorporating forestry and land-use activities - such as afforestation (the planting of trees on non-forest land), reforestation (planting of trees after the destruction of a forest), and avoided deforestation - into its policies, with the wider aim of slowing global warming.

Protection through better management

The Climate Group's Steve Howard acknowledges some movement on forestry in international politics. But the reality, he adds, is that the global scale of protected and better-managed forests needs a "massive ramp-up" to make a positive impact on the climate.

Wolfgang Cramer of the PIK agrees, emphasizing the importance better forest management in breaking the dangerous cycle of deforestation and climate change. "It is not sustainable, nor necessary, to build fences around the world's forests and thereby limit access to forest products or local and global markets," says Cramer.

"But a lot more can be done in order to manage forests so that they can continue to provide the services people derive from them, such as timber, water, recreation, biodiversity and biofuels. Much of current deforestation is the direct opposite of sustainable forest management."

Cramer, Howard and others argue that locally adapted solutions will play a key role in promoting sustainable practices and preventing illegal timber harvesting, since many factors - such as land tenure practices, poverty and governance - converge to drive deforestation, and because these factors vary from place to place.

"What is needed is a combination of local initiative and real commitment from the developed world to create a flow of resources to promote local solutions," says Howard. "If we got it right, we could do something we could be proud of."

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