



Deforestation May Not Be the Major Cause of Flooding

Recent international report demonstrates that, contrary to general belief, there is no scientific evidence linking deforestation and logging to widespread flooding.

Although the conventional “sponge theory” claims that forests prevent floods by acting as a giant sponge that soaks up rainfalls, scientific data point out that major floods almost always occur after prolonged rains, which saturate the soil, including forest soil, so that it can no longer absorb more water. Rain has then nowhere to go but into rivers where it fills them to overflowing.

The report released by the FAO and a forestry research centre (CIFOR¹) acknowledges that forests have many environmental benefits and can play a role in minimizing flooding at the local level. But even then the main factors influencing flooding are not the mere presence or not of the trees, but the geomorphology of the area, rainfall regime, land degradation and soil erosion, the latter caused by poor land practices in both mountainous watersheds and the river basins.

The scientists highlight that floods have numerous beneficial effects on ecosystems and that human activities, other than deforestation and logging, are to blame for the reduced water retention and storage capacity of the floodplains. Such activities comprise draining and filling up the wetlands and damming and altering stream flows that are crucial for natural reduction of adverse flood impacts.

Since a complex interaction of natural and anthropogenic conditions affect major floods and their impacts, the scientists stress that policy-makers should reject the 100 years old myth of deforestation as the main cause of the severe flooding.

As alternative to conventional flood-prevention measures focused primarily on forest management controls and logging bans, they propose the development of an integrated approach that combines land-use management in the uplands with land-use planning, flood and emergency preparedness in the lowlands. While considering the social and economic needs of the communities living in both mountainous watersheds and river basins, such approach should be based not on the control but on the conservation of and adaptation to the beneficial ecological functions of floods and floodplains.

1 Center for International Forestry Research

For more information:

http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/008/ae929e/ae929e00.htm

Theme(s): Forests