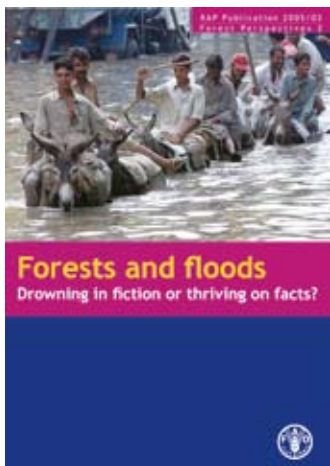




Forest clearance is not a cause of large-scale flooding, as is often claimed. Here, forests are being cleared for agriculture in Guarayos, Bolivia. (Photo by Kristen Evans)



Forests, floods and misleading headlines

Scarcely a year passes without a headline-grabbing flood wreaking havoc somewhere in the developing world. In 1998, for example, floods on the Yangtze River in China killed thousands and caused \$30 billion of damage. Six years later, 46 million people in China were affected by floods. In between, there were dramatic floods in Honduras, Bangladesh, Cambodia, Vietnam, Philippines and many other countries – all causing significant loss of life and massive damage to property and farmland.

No matter where the floods were, the headlines were nearly always the same, with the media blaming the floods partly or entirely on deforestation and logging in the upper reaches of the affected watersheds. There is only one problem with this seemingly neat argument: it is probably wrong. This was the major finding of a review published in 2005 by CIFOR and the United Nations Food and Agriculture Organisation (FAO), and endorsed by the World Agroforestry Centre (ICRAF), the International Water Management Institute (IWMI) and the International Centre for Integrated Mountain Development (ICIMOD).

‘There is no scientific evidence at all of any significant relationship between logging and deforestation, on the one hand, and large-scale floods on the other,’ explains CIFOR Director General David Kaimowitz, one of many contributors to the report, *Forests and Floods – Drowning in Fiction or Thriving on Facts?* It is, however, true that logging and deforestation can lead to small-scale floods, landslides and an increase in erosion. But that is another matter.

The widely held perception that forest loss is responsible for major floods has resulted in some activities which have undoubtedly been beneficial, most obviously the planting of trees on degraded land. So does it matter if there is confusion between fact and fiction? Patrick Durst, FAO senior forestry officer for Asia and the Pacific, believes it does. ‘Government decision-makers, international aid groups and the media often blame flooding on deforestation caused by small farmers and loggers,’ he says. ‘The conclusion is not only scientifically wrong. It has frequently prompted governments to make life harder for poor farmers by driving them off the land and away from the forests, while

doing nothing to prevent future flooding.'

Major floods tend to occur after prolonged periods of very heavy rain, when forest soils are already saturated. When this occurs, the water simply runs along the soil surface. This is why many of the worst floods happen towards the end of rainy seasons. 'In situations such as this, when there is massive and prolonged rainfall,' reflects Kaimowitz, 'there are going to be floods, regardless of whether or not the land is forested.'

There is no denying that the economic damage done by floods, and the loss of life caused by them, is much greater now than ever before. This is not because there has been an increase in floods – in fact, the frequency of major flooding has remained much the same for over a hundred years – but because the areas affected by floods are now much more densely settled and intensively used than they were in the past. Population growth and poverty have pushed more and more people into vulnerable situations. That is why the damage is so much worse.

The damage – in human terms – has been made worse still by governments and aid agencies that have formulated policies on the basis of the erroneous belief that catastrophic floods have been caused by deforestation. Nowhere is this more evident than in China, which introduced a ban on the logging of natural forests in 1998 following the flooding of the Yangtze River. The logging ban is thought to have put a million people out of work. It also led to a dramatic increase in Chinese timber imports, and Chinese demand can be directly linked to illegal logging in countries such as Papua New Guinea and the Russian Federation, and to human rights abuses in Myanmar and elsewhere.

So what's to be done? According to the report, there are no easy solutions. The authors suggest that effective watershed and floodplain management is a complex process which requires the identification and assessment of a wide range of techniques and strategies to improve land-use planning and reduce the impact of floods in flood-prone areas. The report draws on case studies to show that significant progress has been made in some parts of the world. It also stresses



that reforestation projects in the uplands are not a solution.

The report received as much media coverage as most large-scale floods. Over a hundred different outlets, including heavyweights such as the *Economist*, the *Guardian* and the *Washington Post*, ran stories related to the report. Most were at pains to point out that the report made a clear distinction between the causes of large-scale and small-scale floods. Its findings, however, caused consternation among some environmental groups. The Environmental Investigation Agency, for example, feared that the report might be misused by politicians and logging companies eager to reverse protectionist policies in upland areas.

This is precisely what happened in the Philippines. Shortly after the report was published, the San Jose Timber Corporation took out a one-page advertisement in the *Philippine Sun* which made mischievous use of the report. The company, it seemed, was eager to open up an area of primary forest in a protected area, and it tried to use the report as justification. CIFOR immediately issued a response. It suggested that industrial logging in this particular area could cause small floods and lead to loss of biodiversity. There was also the possibility that it would be economically unsustainable and fail to create local jobs. However, CIFOR made it clear that this in no way invalidated its belief that logging does not cause large-scale floods. CIFOR's response was published in the local press and used in the Filipino Senate during deliberations on the issue.

Flooding in Tonle Sap area of Cambodia inundates agricultural lands (courtesy of Mr Ty Sokhun, Forest Management Office, Department of Forestry and Wildlife, Cambodia)