

NATURAL DISASTERS

How 'natural' are natural disasters?

Floods, droughts, earthquakes, hurricanes, fires. These events occur all the time in nature. But how natural are they? While events of this type are certainly part of the natural world, in the last 30 years disasters have been happening more frequently, and with greater impact, than ever before. Their impact is the greatest in low income countries.

During the last decade, more than 5,000 disasters were reported and at least 2.5 billion people have been affected. Almost 500,000 people have been killed, including 295,000 in the 2004 Indian Ocean tsunami.

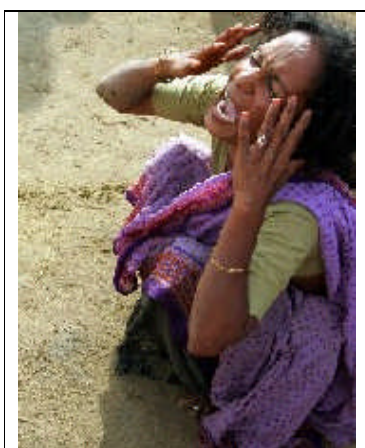
Increasingly, the role of human activity in these disasters is being recognised. One of the key reasons for the greater frequency of disasters is the effect on the environment of human activity in both developed and developing nations.

Environmental degradation

Deforestation occurs when people cut down too many trees. In some instances it happens when large areas of land are logged for commercial purposes. Deforestation can also happen when poor communities clear land to grow crops, build houses or gather firewood for heating or cooking.

Although it can have a negative effect on the environment, cutting down trees is a matter of survival for many poor communities.

Deforested land is more likely to flood severely because heavy rains on newly bare land moves much faster than on forested areas. With too few trees to hold the soil together, landslides and mudslides can occur. Not only are lives and property at stake, but essential topsoil is washed away. When farmers rebuild, they may find their crops don't grow as well as before.



An Indian woman mourns the loss of her family in the 2004 Indian Ocean tsunami.

Pollution and global warming

Pollution can have far-reaching effects too, even outside the country where the pollution is happening. A CSIRO study showed a link between aerosol pollution in Europe and changing cloud formations leading to increased drought in central Africa. Once emission controls were introduced in Europe, there was a corresponding increase in rainfall in the drought-stricken African region.

Global warming is also changing weather patterns around the world. As the earth's average surface temperature rises, due to the increase of carbon dioxide in the atmosphere created by human activity, the earth's climate is changing. The icecaps are melting, rainfall patterns are changing, and storms are becoming more frequent.

As a result of melting ice caps, rising sea levels could flood low lying areas, such as river deltas and low islands. This is already impacting poor island nations like Tuvalu and Nauru.

Who is most vulnerable?

We have lots of natural disasters in Australia – droughts, floods, fires and cyclones. Yet their effects are not as severe as disasters in poor communities. Drought does not lead to famine. Injuries and deaths from natural disasters happen, but not in their tens of thousands, as has happened in places like India or Indonesia in recent years.

Most victims of natural disasters live in poor countries where emergency services like the fire brigade or ambulances may not exist. Doctors or hospitals may not be available to treat the injured. It is extremely unlikely that the poorest people have insurance to help them rebuild their homes. Governments of poor countries cannot financially support drought-stricken farmers. Often it is the people with the least that are at risk of losing the most.

Population pressures result in large numbers of people having to live in more risk-prone areas, like earthquake zones and floodplains. Because they can't afford proper building materials, their houses are often unsafe and more likely to be destroyed. Then, when disaster strikes, more people are affected.

Rebuilding may be so difficult that the community is even more vulnerable if another disaster occurs. Many have no money or assets left to start over or resettle in safer areas.

Can we prevent natural disasters?

It may seem like we have no control over natural disasters, but in fact there's a great deal we can do to reduce their impact.

- Wealthy nations like Australia can act to reduce pollution, including carbon dioxide emissions from cars and power plants, which can contribute to environmental change here and in other countries.
- With assistance, poor communities in developing countries can become less vulnerable by combating their poverty. There are also many ways that poor communities can prepare so when disasters hit the damage is not so severe. Aid and development programs can include training in ways to farm and work that sustain and restore rather than strip the environment.

For you to do

I. Complete the chart below showing some of the consequences of deforestation:

