## Fact sheet




Scientific evidence indicates that global warming will increase the number of more intensified natural hazards such as floods and windstorms. Disasters strike rich and poor countries alike but have a greater negative impact on developing countries because of a lack of financial and material resources to protect livelihoods and homes. Of the world's 49 least developed countries, 24 face high levels of disaster risk. Of these, six are hit by between two to eight large disasters every year.

During the last decade, disasters caused damage of an estimated average of $\$ 67$ billion per year. Since the 1950s the economic cost associated with disasters triggered by natural hazards has increased from 3.9 billion a year to 63 billion a year in the 1990s

Source: Natural Disasters Counting the Cost, World Bank Website

In 2005, alone, losses were at $\$ 220$ billion. The World Bank has stated that losses caused by disasters in developing countries, in terms of percentages of the gross national product, are 20 times higher than those in developed countries.

Source: Educational Facilities and Risk Management Natural Disasters OECD, 2004

There is growing evidence that investing in disaster risk reduction yields economic and development benefits. For example:

- Potential losses of $\$ 12$ billion have been averted in China from an investment of $\$ 3$ billion in flood control measures over 40 years.
- Economic losses worldwide from disasters during the 1990s could have been reduced by $\$ 280$ billion worldwide if $\$ 40$ billion had been invested in mitigation and preparedness according to the World Bank and US Geological Survey.
- It is estimated that for every dollar invested in disaster risk reduction, between two and four dollars are returned in terms of avoided or reduced disaster impacts.

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## Disaster risk education and school safety

Children who are taught about natural hazard risks play an important role in saving lives and protecting members of the community at a time of disaster. Making disaster risk education part of the national primary and secondary school curricula fosters awareness and better understanding about the immediate environment in which children and their families live and work.


Base map: UNEP/DEWA/GRID-Europe, April 2006

Teaching disaster-related subjects in schools is mandated by law in Mexico, Romania and New Zealand. Other countries such as Brazil and Venezuela report significant primary and secondary teaching at municipal or state level.

Turkey provides yet another example: after the devastating series of earthquakes in 1999, intensive training of disaster awareness instructors took place in Istanbul. By the end of 2002 over 3000 teachers were trained and certified as instructors in 32 districts of the city. These in turn taught more than 34,000 teachers, 6,000 personnel and more than 350,000 parents. In this way, 826,000 school children were instructed. The training was extended to three other Turkish provinces reaching another 1.5 million students. ${ }^{1}$

If formal education is to take place in schools, then schools need to be a safe place for learning. In countries that face high levels of disasters, schools buildings are often destroyed, claiming precious lives of children and teachers. If UNESCO's "Education for All" initiatives were successful in the 20 countries that have registered the most deadly earthquakes during the 20th century, but no special attention is paid to the seismic safety of school buildings, at least another 34 million children will be placed at risk to earthquakes while they are attending school?

[^1]- Most recently in March 2005, earthquakes in Western Iran destroyed 130 schools directly affecting 36,000 children
- The 2001 earthquake in Gujarat, India directly affected an estimated three million school children. In the hardest hit districts, 55 per cent of all schools were destroyed leaving 317,000 without access to education ${ }^{3}$
- Nepal has a long history of destructive earthquakes; in the 20th century alone over 11,000 people lost their lives in four major earthquakes. In the Kathmandu Valley, school children are especially vulnerable to earthquake hazards in the Kathmandu Valley. A recent study revealed that the majority of the 644 public school buildings require retrofitting to meet safety standards ${ }^{4}$

Building or retrofitting schools to withstand the forces of nature will protect several generations of children if we consider that the loss of each child represents 40-70 years of lost life and productivity. Each injury represents 40-70 years of potentially expensive medical care. ${ }^{5}$

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[^0]:    Source: DFID website: http://www.dfid.gov.uk

[^1]:    ${ }^{1}$ Source: Let Our Children Teach Us - A review of the Role of Education and Knowledge in Disaster Risk Reduction, Wisner B./ ISDR 2006
    ${ }^{2}$ Source: School Seismic Safety: Falling Between the Cracks? Wisner B., 2004

[^2]:    ${ }^{3}$ Source: www.seedsindia.org
    ${ }^{4}$ Source: Educational Facilities and Risk Management Natural Disasters, OECD, 2004
    ${ }^{5}$ Source: School Seismic Safety: Falling Between the Cracks? Wisner, B. 2004

