

CHALLENGES OF THE DECADE: NATURAL DISASTERS
AND GLOBAL CHANGE

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INCREASING DISASTER LOSSES AND GLOBAL CHANGE

The rising toll of losses from natural disasters is an important, but often neglected manifestation of global change. The Munich Re-insurance Company estimates that natural disaster losses increased 3 times from the 1960's to the 1980's and insured losses nearly 5 times, adjusted for inflation.¹ Total global losses for 1990 were estimated to be of the order of \$47 billion.² As many of you know very well, there are tricky problems involved in estimating the costs of disasters. While initial damage estimates pose serious difficulties, secondary effects, and the longer term impacts on economic development are even more elusive. Thus, while total damages may well be in considerable error, and probably understate the case, the trends, using consistent methodology, are probably more reliable, although the counting may be better now than in previous decades.

Accepting that there has been something like a 3 fold increase since the 1960's, what are the global changes that have brought this about? Are the natural hazards, that turn into disasters, more severe and frequent than in earlier decades? Or has the growing human population and its activities become increasingly exposed to the hazards, turning hazard into disaster?

The casual observer would suspect that the hazards themselves are increasing in severity and frequency. Since the beginning of the IDNDR in 1990 we have seen a sequence of major disasters. These include the tropical cyclones and floods of 1990 and 1991 in Bangladesh and the S. W. Pacific affecting 15-20 million people and resulting in hundreds of thousands of lost lives; earthquakes in Iran, California, and elsewhere; the disastrous floods of 1991 in China with losses estimated at \$12 billion; the Mt. Pinatubo eruption in the Philippines, affecting 80,000 people; and renewed drought and famine in eastern Africa.³