

TROPICAL CYCLONES, STORMS AND FLOODS BECOMING MAJOR DISASTERS

The frequency of almost every type of disaster has increased from 1965 to 1992. Especially, damages caused by tropical cyclones, storms, and floods have shown a sharp increase in recent years. While a decrease of the damages by drought in the 1980s have been witnessed human and economic losses due to tropical cyclones, storms and floods have shown constant increase. Particularly, the number of sufferers of floods and the number of victims of tropical cyclones and storms increased markedly during the period 1980-1992. Tropical cyclones, storms and floods caused 80 % of sufferers, 88 % of victims, and 85 % of the direct economic losses caused by all types of natural disasters from 1990 to 1992.

In addition, the scale of tropical cyclones, storms and floods has become larger, with growing number of sufferers per disaster. The average number of sufferers per disaster in 1990-1992 increased by 2.2 times and 5.4 times for tropical cyclones and floods respectively, compared with the figures from 1965-1969.

Harmful Effects on Economic Growth

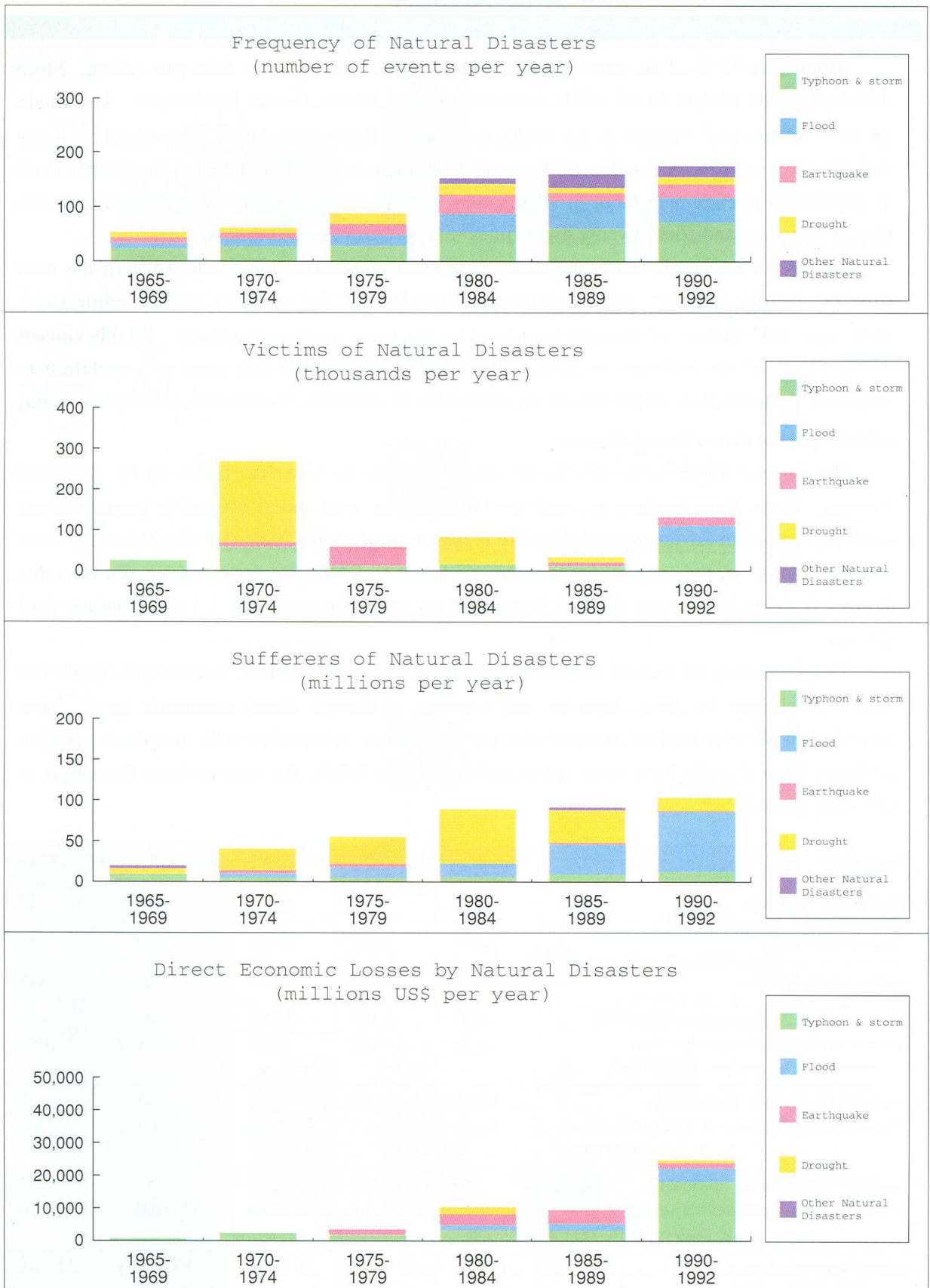
Economic losses and effects caused by natural disasters can be classified into direct and indirect economic losses and secondary effects. Direct economic losses include damages to property and social infrastructure. Indirect losses include losses of employment, services, income caused by lost production capacity. Secondary effects are negative impacts on national economic growth and development due to increased national budget deficits, inflation, worsening balance of payments, postponement or cancellation of development projects, degradation of investment environment, and exacerbation of poverty. Since the damages and effects vary in scope and duration, estimation of indirect damages and secondary effects is difficult, resulting in making only direct economic losses available in world wide statistics. The following case study, nevertheless, shows how these indirect damages and secondary effects bring about a negative impact on national economic growth.

In 1974, Hurricane Fifi swept through the mainland of Central America. Her high winds and ensuing floods caused severe damages to houses in urban areas, transportation and other social infrastructure, and plantations and other crop production. In Honduras alone, 7,000 people were killed, and nearly 15,000 rendered homeless. Some small villages were entirely wiped out. The number of injuries and unemployment were uncountable.

Direct losses due to destruction and damage to housing, medical and education facilities; bridges, ports and roads; and the loss of plantations and arable land amounted to US\$ 388 million. Indirect losses such as losses of banana and crop production and higher costs of public utilities were estimated at US\$ 200 million. The total losses amounted to US\$ 588 million in Honduras alone.

As secondary effects we could point out the worsened balance of payment for US\$362 million resulting from a decrease in agricultural exports and increase in imports of equipment and materials for reconstruction. The Government budget suffered a negative impact of US\$ 244 million due to the costs in rehabilitation and reconstruction and to a drop in export tax revenues. A further secondary effect was the drop in GNP growth in the following years, which contrast notably with the vigorous rate (5%) of growth in preceding years.

(Source: *Natural Disasters and Their Economic and Social Impact in Latin America and the Caribbean*, R. Jovel, CEPAL REVIEW No.38, August 1989)



Note: A high peak of victims in 1970-1974 is due to drought in Africa which caused some 1.2 million deaths.