

CONCENTRATION OF DAMAGES IN DEVELOPING COUNTRIES

Damages by natural disasters concentrates on developing countries.

Human damages are extremely serious in developing countries. For example, low income countries*² which have 58% of the world population account for 88 % of the victims and 92 % of the sufferers in the world from 1965 to 1992. The number of sufferers per population in low income countries is 5.8 times as many as in middle income countries and 45.2 times that of high income countries, and the number of deaths per population in low income countries is 3.5 times as many as in middle income countries and 25.8 times that of high income countries. Sufferers have been increasing only in developing countries. In low income countries, rapid increase in sufferers from floods in the second half of the 1980s and the early 1990s took the place of the increase in sufferers from drought in the first half of the 1980s.

As for economic losses, developing countries have been affected by natural disasters more seriously than developed countries, despite the relatively limited amount of direct economic losses. As shown in the following table, while absolute and per capita amount of direct economic losses are highest in high income countries, the ratio of direct economic losses to GNP is highest in low income countries, amounting to 2.9 times as much as in middle income countries and 7.3 times that of high income countries.

In low income countries in 1990-1992, one in nineteen people suffered and one in twenty thousand people were killed annually. If this level of damage occurred in Japan, there would be 6.6 million sufferers and 6,200 victims annually which is some 40 times as many as actual figures.

Note*² Countries were classified according to GNP in 1991, following the criteria used in "World Development Report 1993", the World Bank; GNP not more than US\$ 635 as low income countries, GNP more than US\$ 635 but not more than US\$ 7,910 as middle income countries; GNP more than US\$ 7,910 as high income countries.

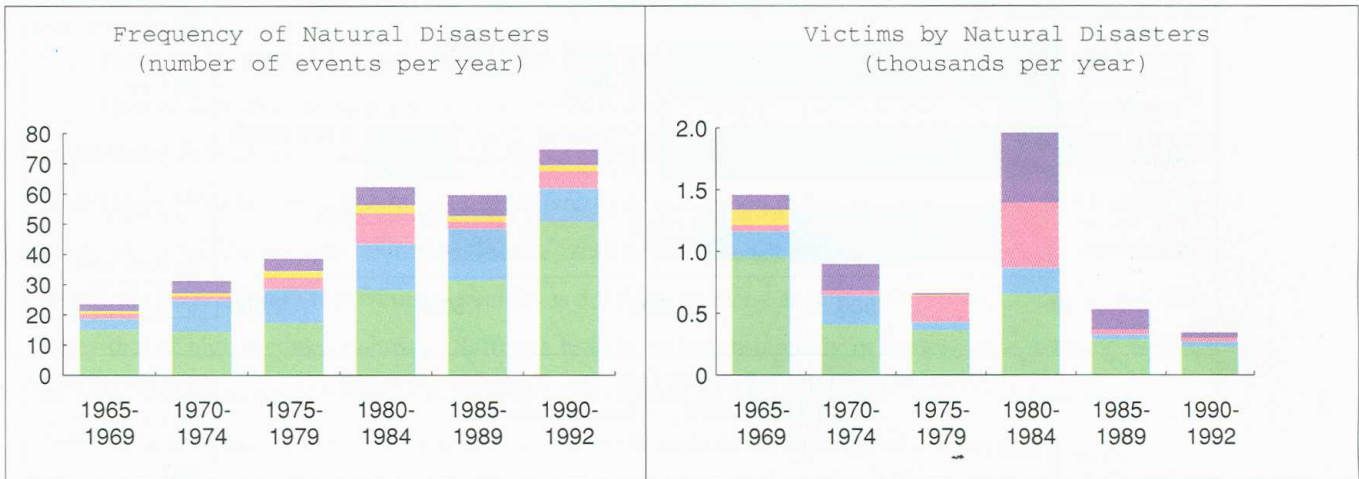
Income Groups		Low Income Countries	Middle Income Countries	High Income Countries
Population (million)	a	3,127	1,401	817
Area (10,000 km ²)	b	3,883	4,080	3,168
GNP (billion US\$)	c	1,097	3,474	16,920
Number of Natural Disasters (1965-1992)	d	1,524	1,714	1,341
Number of Natural Disasters per Area (number of events per 10,000 km ²)	d/b	0.39	0.42	0.42
Victims (1965-1992, thousands)	e	3,166	408	33
Victims per Population (victims per 1,000,000 people)	(e x 1000 / 28) / a	36.1	10.3	1.4
Sufferers (1965-1992, millions)		2,775	216	16
Sufferers per Population (sufferers per 1,000 people)	(f x 1000 / 28) / a	31.7	5.5	0.7
Direct Economic Losses (1965-1992, millions US\$)	g	67,906	98,841	171,253
Ratio to GNP (in per cent)	(g / 28) / c / 10	0.22	0.10	0.04
Direct Economic losses per capita (US\$)	(g / 28) / a	0.77	2.50	7.46

a,b,c: figures in 1991, by the World Bank

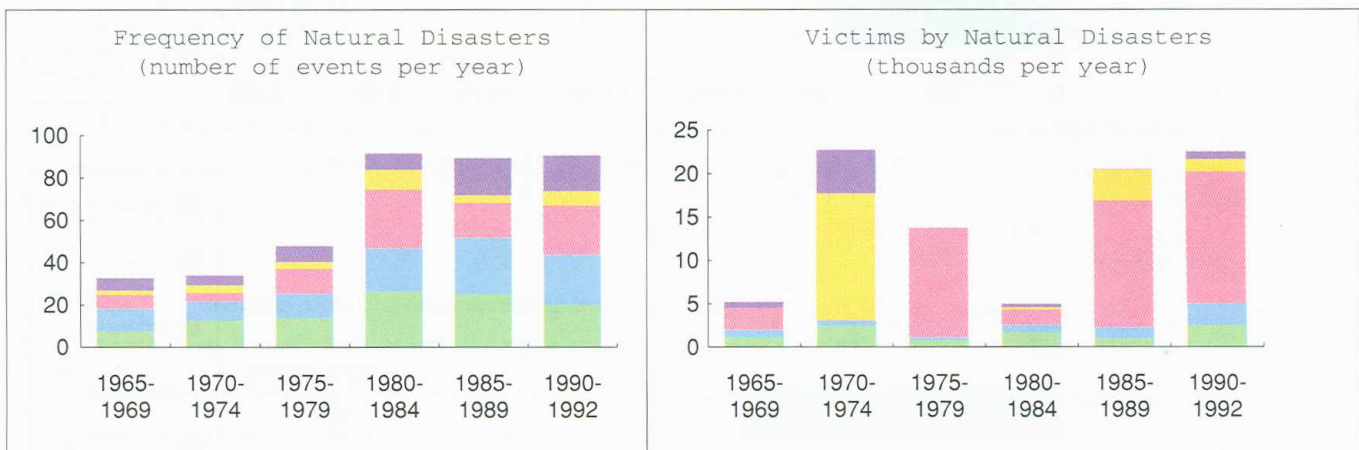
d,e,f,g: figures from 1965 to 1992, by CRED (partially modified)



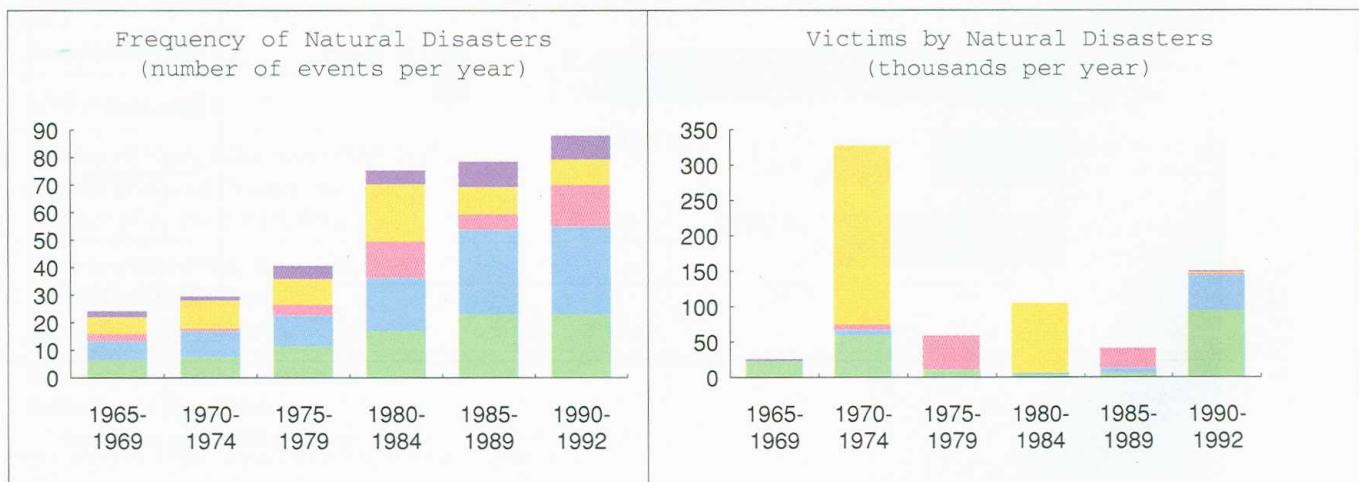
High Income Countries



Middle Income Countries



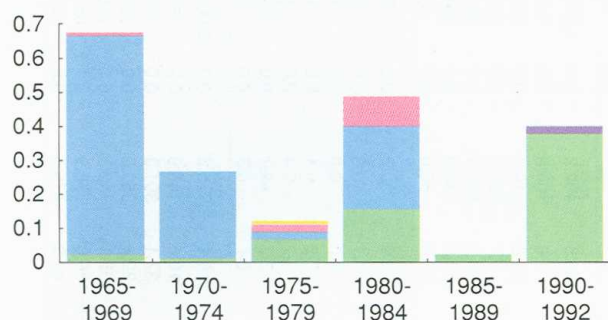
Low Income Countries



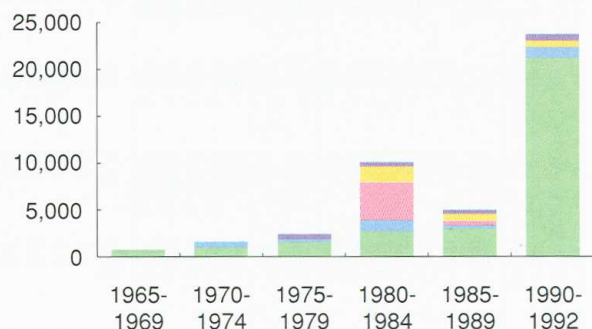
Types of Disaster



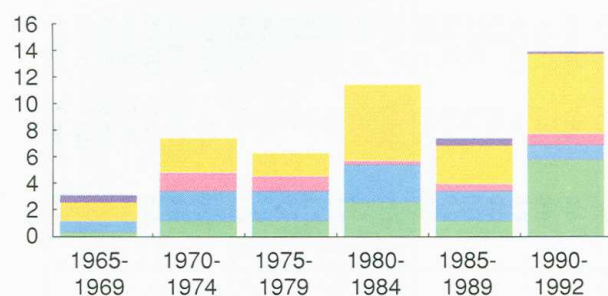
Sufferers from Natural Disasters
(millions per year)



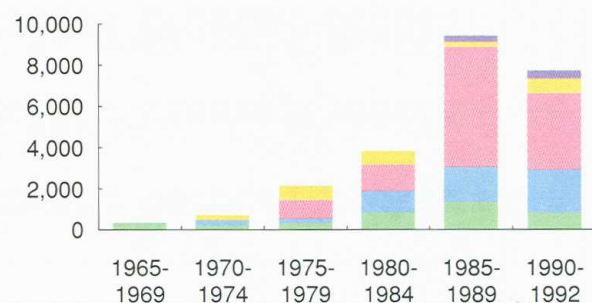
Direct Economic Losses by Natural Disasters (million US\$ per year)



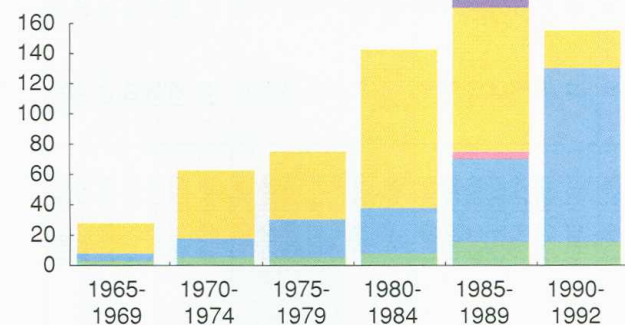
Sufferers from Natural Disasters
(millions per year)



Direct Economic Losses by Natural Disasters (million US\$ per year)



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Direct Economic Losses by Natural Disasters (million US\$ per year)

