Centre for Research
on the Epidemiology
of Disasters

THIRTY YEARS OF NATURAL DISASTERS 1974-2003: THE NUMBERS

D. Guha-Sapir
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About CRED and our partners

The Centre for Research on the Epidemiology of Disasters (CRED) was established in Brussels in 1973 at the School of Public Health of the Université catholique de Louvain (UCL) as a non-profit institution with international status under Belgian law. In 1980, CRED became a World Health Organization (WHO) Collaborating Centre as part of WHO's Global Programme for Emergency Preparedness and Response.

Since then, CRED has increased its international network substantially and collaborates closely with numerous UN agencies, inter-government and governmental institutions, non-governmental organizations, as well as several research institutes and universities.

The goals

With a special focus on public health, epidemiology, structural and socioeconomic issues, CRED promotes research, training, information dissemination and technical services on disasters and other humanitarian emergencies. It aims to enhance the effectiveness of developing countries' disaster management and prevention capabilities as well as fostering policy oriented research.

The scope

CRED's activities focus on all emergency situations with a major human impact. This includes all types of sudden, natural or man-made catastrophes, such as hurricanes, earthquakes and industrial accidents, and longer-term disasters and complex emergencies, such as famines and armed conflicts. CRED focuses primarily on the public health and sanitary aspects of mass disasters, as well as on their socioeconomic and developmental effects. However, disaster preparedness, mitigation and prevention for vulnerable populations is gaining a higher profile.

The staff

CRED is headed by Dr. Debarati Guha-Sapir, an epidemiologist and public health expert with more than 20 years of experience in the field. The staff at the Centre is both multidisciplinary and multicultural; the working languages are French and English.

Some of CRED's partners

International Agencies

World Health Organization (WHO)
United Nations Office for the Coordination of Humanitarian Affairs (UN/OCHA)
United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UN/ISDR)
United Nations High Commission for Refugees (UNHCR)
World Bank Hazard Management Unit (WB/HMU)
United Nations Children's Fund (UNICEF)

Inter-Governmental and Government Institutions

European Union
United States Government
Belgian Government Direction Générale de la Coopération Internationale (DGCI)

Non-Governmental Organizations

International Federation of Red Cross and Red Crescent Societies (IFRC)
Save the Children - UK (SCF/UK)
Médecins Sans Frontières (MSF)
ASEAN Committee on Disaster Management (ACDM)
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Universities and Research Institutes

St. Luc Hospital Departments of Emergency Medicine and Psychiatry, Belgium
Instituto Superiore della Sanita, Italy
Harvard School of Public Health, U.S.
University of Columbia Earth Institute, U.S.

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A look behind the numbers

Today, the world is facing disasters on an unprecedented scale: more than 255 million people were affected by natural disasters globally each year, on average, between 1994 and 2003, with a range of 68 million to 618 million. During the same period, these disasters claimed an average of 58,000 lives annually, with a range of 10,000 to 123,000. In the year 2003, 1 in 25 people worldwide was affected by natural disasters.

During the last decade disasters caused damage of an estimated US$67 billion per year on average, with a maximum of US$230 billion and a minimum of US$28 billion. The economic cost associated with natural disasters has increased 14-fold since the 1950s.

Scientific predictions and evidence indicates that global climate change will increase the number of extreme events, creating more frequent and intensified natural hazards such as floods and windstorms. Population growth, urbanization and the inability of poor populations to escape from the vicious cycle of poverty makes it all the more likely that there will be an increase in the number of people who are vulnerable to natural hazards, with a resulting increase of natural disasters and environmental emergencies.

Relief tops funding

Most decision makers agree that the integration of disaster preparedness, mitigation and prevention measures into policy development is key to reducing the vulnerability of human populations to natural hazards. Yet funding patterns, an undeniable indicator of real priorities, show that it is disaster relief – not reduction or prevention – that tops the list of all disaster management funding. This holds true for both donor countries and disaster prone. Why is this?

- First, relief is media friendly, action oriented, easy to quantify – tonnes of food distributed, number of family shelters shipped – and readily accountable to donor constituencies as concrete actions in response to a disaster.

- Second, as development aid is decreasing in real and relative terms, emergency relief is easier to obtain as it is morally difficult to refuse aid to people and communities suffering abject misery and multiple deaths.

- Finally, the reality is that development programmers often neglect the importance of disaster reduction due to the absence of convincing analyses of trends and estimated losses. There is little demand by the development sector for reliable and systematic data on disasters to assess their socio-economic impact over the short term and even less so over the long term. As a result, disaster prevention activities often appear costly.

An ad hoc response

The need for systematic data for disaster mitigation and prevention has been a growing concern of both development and emergency response agencies. Until recently the needs were addressed on an ad hoc basis by collecting information at the time of the emergency. As a result, data were incomplete, outdated or unusable for a variety of reasons. Generally, the time pressure to respond quickly for fundraising or relief planning is paramount. As a result, the quality and availability of information suffers.

Public sector agencies have not seriously committed themselves to preparedness and prevention. Calculations of risks and vulnerability assessments were a lower priority than response. The general approach to disaster management has remained reactive, focusing on relief, followed by rehabilitation and reconstruction. Prevention planning or community preparedness has been rarely funded and was not a policy priority, either with national governments or with UN and other development institutions.

With the increase in magnitude of disaster impacts, mostly in poorer developing countries, concern is mounting over inadequate preparedness and prevention. Natural disasters create serious setbacks to the development process. This has been proven time and time again, particularly at the end of the last decade with the devastation caused by Hurricane Mitch in Central America, the Yangtze River floods in China and earthquakes

in Turkey, Iran and India. All of these events diverted development funds towards reconstruction.

These events resulted in an increased demand from policy makers and development planners for data on disasters, their impact and frequency. Accurate data that are comparable across countries and consistent over time are in demand and are required for priority setting between competing demands for national and international budget allocations.

The harsh reality behind the statistics

Based on the data in CRED's EM-DAT database, between 1974 and 2003 there were 6,367 natural disasters, not counting epidemics. This resulted in the reported deaths of slightly more than 2 million individuals, about 5.1 billion people being cumulatively affected, 182 million persons made homeless and estimated reported damages of US$1.38 trillion. Only in the last decade, 86% of all disaster-related deaths were caused by natural hazards, with just 14% resulting from technological disasters such as transport or industrial accidents. Asia alone suffered 75% of the deaths from natural disasters.

These figures may seem very high, but they are probably underestimates. For example, droughts reportedly killed 500,367 people in Ethiopia over the last three decades. But some estimate that the number of people who died from the great Ethiopian drought of 1984-1985 alone may have numbered between 600,000 and 1 million. Even worse is the case of economic damages, where not more than a third of reported disasters estimate economic losses.

Such large numbers may appear abstract and difficult to conceptualise, but they are a harsh reality for families who have lost loved ones, had their homes reduced to rubble, or have watched their investments destroyed by natural disasters.

The devastating impact of human behaviour

Natural disasters are often perceived as being "acts of god", with little causal relationship to human activities. This may be true for some natural hazards such as earthquakes and volcanoes, however, the definition of a disaster is based on a human impact, often in terms of lives lost or homes destroyed.

Over the last 50 years, there has been a growing body of evidence pointing to the effect of human behaviour on the global natural environment and on the possibility that certain types of natural disasters, such as floods, may be increasing as a direct consequence of human activity.

The purpose of this publication is to review and analyse the occurrence and the consequences of natural disasters over the last 30 years, a period when data quality and coverage has improved substantially. While the EM-DAT database is far from perfect, numbers at this scale provide satisfactory indicative trends to appreciate the directions and the comparative impact of different disasters.

The report begins with an analysis of disaster data and its reporting and takes the reader through how disasters have evolved over time and where they occur most frequently. It explains how people are affected by different types disasters in various regions and draws links between poverty, vulnerability and disasters. In tallying the costs, the report draws some important conclusions about how disasters affect the poor and vulnerable as compared to those populations with a higher income. It discusses epidemics and warns about the need to strengthen the global response to infectious diseases. Some interesting trends regarding inequitable distribution of resources are revealed when comparing which disasters attract the most donor attention. The report concludes with a look towards the future and a call to action - for we still have a long way to go if we are to focus on preparedness and prevention rather than quick, band-aid solutions.

Most importantly, we leave the readers to draw their own conclusions from the numbers.

Disaster data – handle with care!

Data on disaster occurrence, their effect upon people and cost to countries remain at best patchy. No single institution has taken on the role of prime provider of verified data. The data in EM-DAT (see Box What is EM-DAT) is culled from a variety of public sources, including reports by governments, insurance companies, press agencies and aid agencies. The original information is not specifically gathered for statistical purposes and inevitably, even though CRED applies strict definitions for disaster events and parameters, the original suppliers of the information may not. The figures should be regarded as indicative. As a result, relative changes and trends can be more useful to look at than absolute, isolated figures.

compilation of data. In 2003, about 27.9% of the data came from various US Government disaster agencies, 27% from insurance companies, 20% from United Nations organizations, 18.1% from press agencies and the remaining 7% from various humanitarian organizations.

Information systems have vastly improved over the last 30 years and statistical data is now more easily available. However, the lack of systematic and standardized data collection of disasters is now revealing itself as a major weakness for long-term planning. Despite efforts to verify and review data, the quality of disaster databases can only be as good as the reporting systems that feed them.

Figure 1

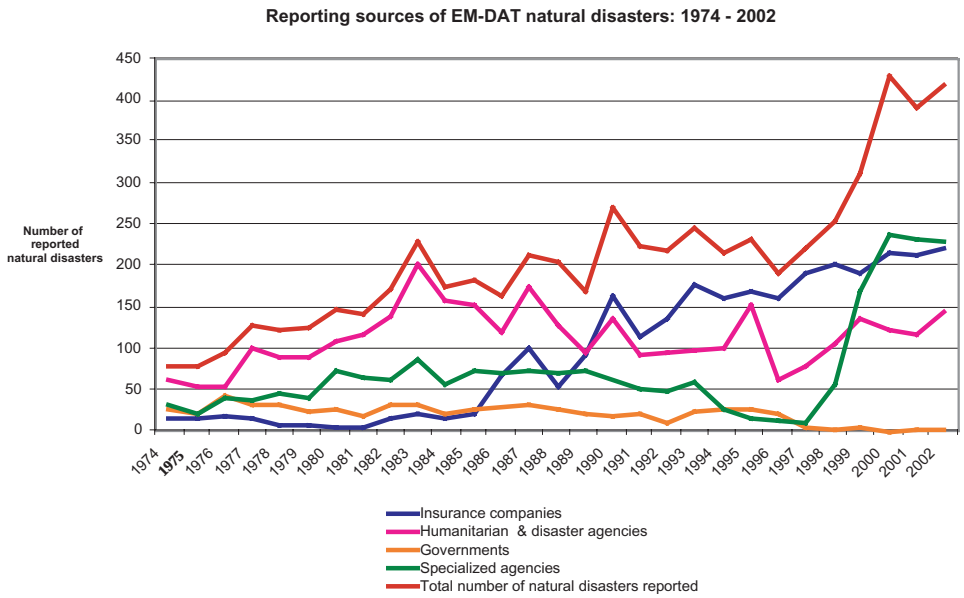


Figure 1 shows the evolution of EM-DAT's sources in reporting natural disasters. The database has gradually increased the use of insurance companies' reports, while using those of humanitarian and disaster agencies has remained relatively constant over time. Reports from specialized agencies, such as the UN World Food Programme, the World Health Organization or the US National Oceanic and Atmospheric Administration, have also increasingly been used as sources for the

Fortunately, due to increased pressures for accountability from various sources, many donor and development agencies have started placing priority on data collection and its methodologies. While this movement is in the right direction, it has yet to result in any recognized and acceptable international system for disaster - data compilation, verification and storage.

What is EM-DAT?

The EM-DAT database presents core data on the occurrence and effects of over 14,500 disasters from 1900 to present, including:
- Natural disasters
- Technological disasters

Disasters in EM-DAT are defined as:

"A situation or event which overwhelms local capacity, necessitating a request to the national or international level for external assistance, or is recognized as such by a multilateral agency or by at least two sources, such as national, regional or international assistance groups and the media."

Criteria

For a disaster to be entered into the database at least one or a combination of the following criteria must be fulfilled:

- 10 or more people reported killed
- 100 people or more reported affected
- A declaration of a state of emergency
- A call for international assistance

Content

EM-DAT includes the following fields:

DISNO: A unique disaster number for each disaster event (8 digits: 4 digits for the year and 4 digits for the disaster number – for example, 19950324).

Country: Country(ies) in which the disaster occurred.

Disaster group: Two groups of disasters are distinguished in EM-DAT – natural disasters and technological disasters.

Disaster type and subset: Description of the disaster according to a pre-defined classification. For example, type: Windstorm and subset: Cyclone or type: Transport; and subset: Rail.

Date (start and end): The date when the disaster occurred and ended. (Month/Day/Year.)

Killed: Persons confirmed dead and persons missing and presumed dead.

Injured: People suffering from physical injuries, trauma or an illness requiring immediate medical treatment as a direct result of a disaster.

Homeless: People needing immediate assistance for shelter.

Affected: People requiring immediate assistance during a period of emergency; it can also include displaced or evacuated people.

Total affected: Sum of injured, homeless and affected.

Estimated damage: Several institutions have developed methodologies to quantify these losses in their specific domain. However, there is no standard procedure to determine a global figure for economic impact. Estimated damage is given in US dollars and/or euros.

Additional fields: Other geographical information (such as location, latitude and longitude), the value and scale of the events (such as the Richter scale value for an earthquake), the international status (OFDA/EU response, request for international assistance, disaster/emergency declaration), the aid contribution (in US dollars) as well the sectors affected.

EM-DAT is validated and updated daily. It is compiled from various sources, including UN agencies, governmental institutions, insurance companies, research institutes and the media according to a priority list set up by CRED.

Key problem areas

Key problems with disaster data include a lack of standardized collection methodologies and definitions. Furthermore, ambiguities exist regarding the intent behind the reporting of the data, the loose definition of people affected, the dates reported and changing national boundaries.

Data can be biased because of the rationale behind data gathering. Reinsurance companies, for instance, systematically gather data on disaster occurrence to assess insurance risk, but principally in areas of the world where disaster insurance is widespread. As a result, their data may omit poorer disaster-affected regions where insurance is unaffordable or unavailable. Yet populations in these regions are some of the most heavily affected by disasters.

Dates can be a source of ambiguity.
The date of an earthquake is easy to determine, but that of a famine is much harder to define – famines do not occur on a single day. Similarly, a drought can occur over many years and entering it into EM-DAT as such creates several entries, while in reality it is one prolonged disaster. When confronted with this situation, the date on which the appropriate body has declared an official emergency has been used.

Data on the number of people affected by a disaster can provide some of the most potentially useful figures for planning both disaster preparedness and response, yet these are also among the most loosely reported figures. The definition of “affected” is open to interpretation, political or otherwise. Certain countries may wish to maximize sympathy or humanitarian aid and hence exaggerate the numbers of people reported to be affected. Even in the absence of political manipulation, data is often extrapolated from old census information with assumptions being made about percentages of an area’s population being affected.

Part of the solution to this data problem lies in retrospective analysis. Data is most often publicly quoted and reported during a disaster event, but it is only long after the event and once the relief operation is over that estimates of damage and death can be verified. Fortunately, some of EM-DAT's sources actively verify and validate previously reported numbers, which accounts for retrospective annual disaster figures changing one, two and sometimes three years after the event. For this reason, EM-DAT entries are constantly reviewed and updated as new information becomes available. This validation process is critical towards improving data collection methodologies and enhancing donor agency, relief organization and general public knowledge.

For example, for the 2003 earthquake in Bam, Iran, the first figures published shortly after the disaster mentioned about 30,000 people reported killed. Over the following weeks, the figure was increased to more than 43,000. In March 2004, the Iranian Government reported a "final" total of 26,796 deaths, much less than the figure originally feared. However, at the time of the writing of this publication, a figure of 30,948 deaths has just been published by a press agency, although it has not yet been validated and cross-referenced with other sources.

The importance of geo-referencing

An issue to keep in mind when analyzing EM-DAT data is the very structure in which disaster data is recorded. Each disaster is entered as a country event, thus potentially giving a misguided impression of the relative occurrence of disasters by geographic location. Large countries by their sheer surface area incur a higher probability of experiencing more disaster events than very small countries. In addition, the events are not proportionally spread out throughout the country. As a result, it is sometime difficult to assess where the relative regional risks lie.

Changes in national boundaries also cause ambiguities, most notably the break-up of the former Soviet Union and former Republic of Yugoslavia, and the reunification of Germany.

Ideally, all disaster events should be registered in EM-DAT with specific geo-referencing that would allow for essential sub-national analysis for any country and for population-specific vulnerability

assessments. It is only recently that disaster data reporting at sub-national level has started improving. However, there is still much work to be done in this field. It is still common of EM-DAT data sources to report geographically aggregated disaster impact data on deaths, people affected and economic damages, which makes analysis at sub-national level very difficult.

The reporting conundrum

As mentioned, the EM-DAT database is compiled from various sources, including UN and governmental agencies, non-governmental organizations, insurance companies, research institutes and press agencies. CRED does have a method of ranking these sources based on their reliability, however, we are dependent on such sources to provide us with trustworthy and complete data. In the majority of cases, a disaster will only be entered into EM-DAT if two or more sources report the disaster's occurrence and its consequences in terms of the number of people killed or affected.

Strict criteria must be met for a disaster to be entered into the database. The user of EM-DAT has access to this information and can find out if a particular disaster was entered because the number of

Table 1 - Proportion of essential disaster data reported by country: 1974 - 2003

		% of disaster with			Sum of 3 variables
		Deaths reported (3)	Affected reported	Damages reported	
	All countries	89.55	68.58	34.74	192.87
	Highest performances (1)				
1.	Guam	100.00	85.71	85.71	271.42
2.	Tonga	89.89	100.00	77.78	267.67
3.	Korea, Rep.	94.55	80.00	70.91	245.46
4.	Dominica	100.00	85.71	57.14	242.85
5.	Philippines	93.54	90.87	58.17	242.58
6.	Thailand	95.45	86.36	48.48	230.29
7.	Kazakhstan	100.00	85.71	42.86	228.57
8.	Vietnam	95.65	88.04	42.39	226.08
9.	Barbados	100.00	80.00	40.00	220.00
10.	China	95.57	78.12	44.04	217.73
	Lowest performances (2)				
1.	Luxembourg	16.67	0.00	0.00	16.67
2.	Ireland	50.00	16.67	8.33	75.00
3.	Gambia	61.54	30.77	0.00	92.31
4.	New Caledonia	71.43	14.29	14.29	100.01
5.	Denmark	72.73	0.00	27.27	100.00
6.	Netherlands	56.25	31.25	25.00	112.50
7.	Guadeloupe	50.00	50.00	16.67	116.67
8.	Belgium	73.08	34.62	11.54	119.24
9.	Austria	76.92	11.54	30.77	119.23
10.	Guinea Bissau	80.00	40.00	0.00	120.00

For the classification of countries, only ones with five or more natural disasters reported over the last 30 years were included
(1) Countries with proportion of reported deaths, affected people and economic damages above the proportion for all countries for these three variables.
(2) Countries with proportion of reported deaths, affected people and economic damages below the proportion for all countries for these three variables.
(3) Including disasters reporting "no deaths"

killed or affected reached the appropriate threshold, if there was a declaration of a state of emergency, or if there was a request for international aid.

It is interesting to look at the different fields that make up the EM-DAT database and the proportion of these for which information has been actually reported and included. Deaths from disasters are the factor that remains the quintessential aspect of a major crisis. As the data shows, it is the characteristic most commonly reported. In nearly 90% of all disasters, information on the number of deaths, including the absence of death, was provided. Affected populations are also reported in more than two-thirds of the records. The problems begin with economic losses. With the exception of five countries, all other countries have economic damages for disasters that are reported in less than half of the cases.

Some of the most incomplete reporting comes from the developed nations, in particular countries of Western Europe such as Austria, the Netherlands, Ireland and Belgium.

Part of the problem in Western Europe is the fragmented jurisdiction over the different types of disasters. Floods, windstorms or wildfires are managed by different authorities such as the Ministry of the Interior, the Ministry of Water and Forests or the Ministry of Public Works. Disasters are also often handled at provincial level, such as Landes authorities in Germany or Departments in France. Information is not always centralized at a national level similar to the Federal Emergency Management Authority in the US, which monitors all major disasters in the country even if the Federal authorities are not directly involved.

Another important factor that influences the reporting of natural disasters is the availability of humanitarian assistance. Developing countries and small island states are often unable to cope with disasters, both in terms of technical response capacities and available financial resources. This makes it more likely that these countries will report disasters to request aid from the international humanitarian community.

No internationally accepted method

Another reason for economic losses being less frequently reported is due to problems related to damage assessment. Insurance companies tend to provide estimates based on claims or insured value that may not reflect reality, but rather the level of insurance penetration and insurance density of that community. Although standard methods for assessing economic losses are under development by the Economic Commission for Latin America and the Caribbean (ECLAC) for example, there is not yet any internationally accepted method that can be used in any country and across all disaster types and that measures both direct and indirect costs.

Disasters have evolved over time

To better understand the evolution of disaster occurrences over the last three decades it is important to take a step back and look how disaster events have evolved over the span of the 20th century.

The last century

Since 1900, more than 9,000 natural disasters have been registered in EM-DAT. Of these, about 80% have occurred over the last 30 years. Although this sounds like a dramatic increase, it should be viewed with caution and with some understanding of the complexities between disaster occurrences and statistical reporting and registering.

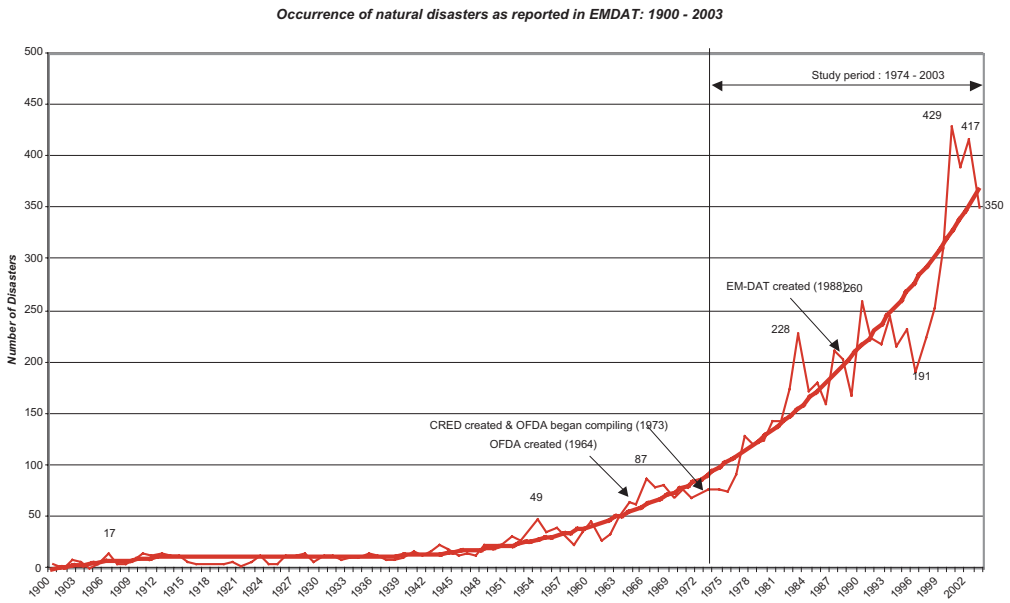
One of the main contributors to this apparent increase of natural disasters is the launch of active data collection by the Office of US Foreign Disaster Assistance (OFDA) in 1960 and CRED in 1973. The punctual increases are indicated in Figure 2.

Figure 2 might lead one to believe that disasters occur more frequently today than in the beginning of the century. However, reaching such a conclusion based only on this graph would be incorrect. In fact, what the figure is really showing is the evolution of the registration of natural disaster events over time.

Over the past 30 years, development in telecommunications, media and increased international cooperation has played a critical role in the number of disasters reported at an international level. In addition, increases in humanitarian funds have encouraged reporting of more disasters, especially smaller events that were previously managed locally.

Another factor to consider when looking at the EM-DAT data is the way disasters are registered because this influences the number of disaster occurrences. Because disasters can be registered with the country as the unit or the event as the unit it can influence the number of disasters included in the database. For example, Hurricane Mitch in 1998 affected seven countries generating seven records in EM-DAT for one single natural event. However, it is interesting to note that the proportion of multi-country disasters to single-country disasters has remained relatively stable over time. There has been about one multi-country event for five single-country events throughout the last

Figure 2



century, affecting only slightly the general trend of disaster occurrence as it appears in Figure 2.

Small disasters are increasingly reported

Another important aspect is the increase in the reporting of small disasters compared to that of large catastrophes. As the active data collection for EM-DAT started in the late 1960s, the disasters prior to that date were compiled retrospectively. This resulted in a list that included mainly events of major importance, as neither humanitarian aid nor telecommunications were particularly developed and few organizations were interested in the compilation of data on natural disasters. When active registering of disasters took on a more important role, both the larger disasters were recorded, together with increasingly more of the smaller ones.

Figure 3 shows the decrease in the relative proportion of large disasters over the last century.

Classification – a controversial and complex issue

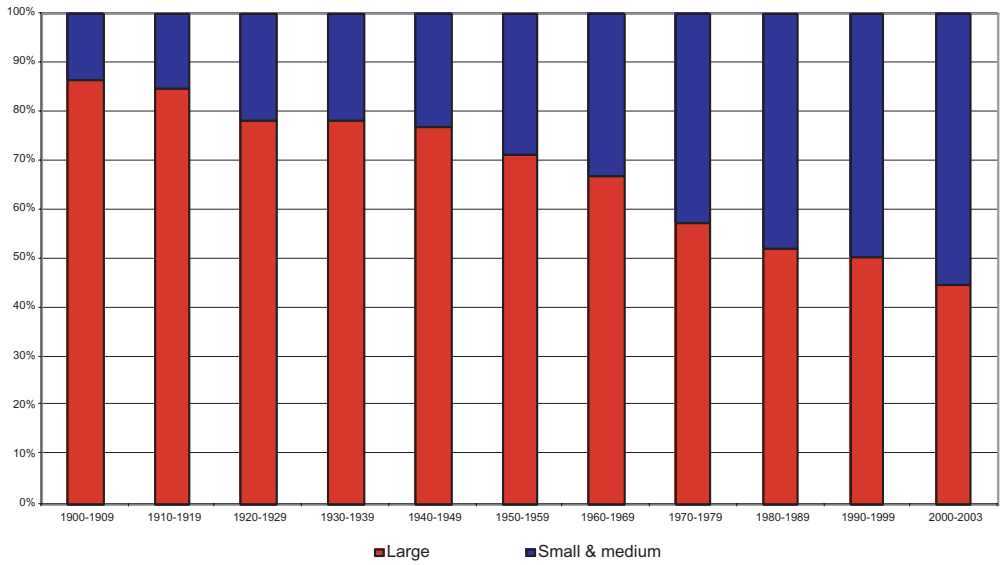
The classification of disasters is a controversial and complex issue. A specific event can be catastrophic for an individual, but not for the community or for the society at large. In addition, categorizations also depend on whether economic impact, mortality or the geographic scope is considered as the determining factor.

For the purposes of this report, CRED classified disasters into categories of large, medium and small. The thresholds were fixed according to the distribution of frequencies and percentiles in the number of deaths, people affected, and economic damages, taking into account the different types of disasters, regions of occurrence and the evolution of the impact. The human impact of landslides, for example, is usually more limited than the impact of floods or windstorms. The region where disasters occur is also important because the impact of natural disasters is lower in developed countries than in developing ones. Finally, the change in the impact of disasters over time is a factor that must also be incorporated. For example, the ratio of persons affected per person killed has increased progressively over the 20th century.

The human impact of a natural disaster is considered by CRED as "small" when the number of deaths was lower than or equal to five, the number

Figure 3

Proportion of large disasters over total reported natural disasters: 1900 - 2003 by decade



of people affected was lower than or equal to 1,500, or the amount of reported economic damages was lower than or equal to US$8 million, adjusted to 2003 dollars.

The human impact of a natural disaster was considered "large" when the number of deaths was greater than or equal to 50, the number of people affected was greater than or equal to 150,000, or the amount of reported economic damages was greater than or equal to US$200 million, adjusted to 2003 dollars.

By comparison, OFDA classifies a natural disaster as "major" if it causes more than 50 deaths and affects more than 100,000 people[1]. Sheehan and Hewitt[2] use the term "major disasters" for those that kill or injure more than 100 people and cause more than US$1 million of property damage. Michaelis[3] uses the term " accident" when the number of deaths is between one and 999. The term "disaster" applies to 1,000 to 1 million deaths, and "catastrophe" refers to more than 1 million deaths.

The International Monetary Fund[4] classifies a disasters as large if it affected at least half a percent of a country's population or caused damages of at least half a percent of the national GDP or resulted in more than one fatality per 10,000 population.

The Insurance Service Office[5], Inc. classifies a natural disaster as a "catastrophe" when the event causes US$25 million or more in insured property losses and affects a significant number of property/casualty policyholders and insurers. Alexander[6] considers a threshold of US$5 million in reimbursable losses and Dombrowky[7] classifies a disaster as "major" when it causes at least DEM1 million losses (about US$500,000) and/or kills 1,000 persons or more.

The classification of disasters is a complex issue, and one for which there is no absolute method. The growth of international cooperation in humanitarian assistance and economic development and the increase in global communication systems are just some of the many factors that have influenced the number of small disasters being reported, and hence included in EM-DAT. It is relatively safe to say that the majority of natural disasters that occur today and that meet EM-DAT criteria are being reported.

Shifts between disaster types

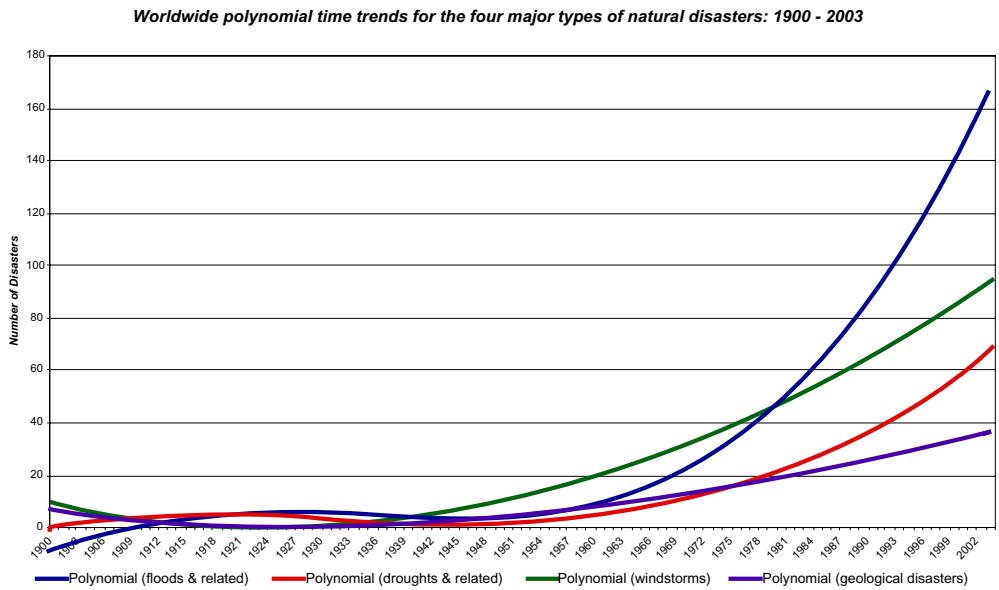
Although there has been a relative decrease in major disasters, it is interesting to consider the shifts between disaster categories. Figure 4 displays the polynomial trends over the previous century of the four main disaster types, namely floods and related disasters, droughts and related disasters, windstorms, and geological disasters.

- Floods and related disasters include floods (84%), landslides and mudflows (13%) and avalanches (3%).
- Windstorms include storms (31%), typhoons (20%), cyclones (16%), hurricanes (13%), winter storms (9%), tornadoes (7%) and tropical storms (4%).
- Geological disasters include earthquakes (83%), volcanic eruptions (16%) and tidal waves (1%).
- Droughts and related disasters include droughts (58%), extreme temperatures (21%) and wildfires (21%).

Figure 4 shows an increase in all the four categories, with floods and droughts showing the fastest rate of increase relative to geological disasters and windstorms. This underscores the importance of addressing issues such as environmental degradation, unplanned human settlements and the increasing vulnerabilities of populations.

Assuming the occurrence of earthquakes has not shown a real increase of frequency over the last century, then the difference between those reported in the most recent years and those reported earlier this century could be attributed to reporting. If this bias is removed due to better reporting and telecommunications, it would enable a better evaluation of the net increase in the number of disaster events over time.

Figure 4



The polynomial equations for time trends and R^2 are as follows:

Floods and related disasters:	$y = 0.0005\ x3 - 0.0523\ x2 + 1.621\ x - 9.9586;\ R^2 = 0.9394$
Droughts and related disasters:	$y = 0.0002\ x3 - 0.0161\ x2 + 0.4157\ x + 1.3904;\ R^2 = 0.7331$
Windstorms:	$y = 0.0154\ x2 - 0.7778\ x + 9.4657;\ R^2 = 0.9025$
Geological disasters:	$y = 0.0058\ x2 - 0.3084\ x + 6.058;\ R^2 = 0.8121$

Polynomials are a mathematical function used to make a curve that minimizes the variance of points in a graph, smoothing and summarizing the overall trend of the series. The above polynomials were chosen according to the best R^2 fit, which measures how successful the polynomial was in explaining the variation of the data (best fit: $R^2 = 1$).

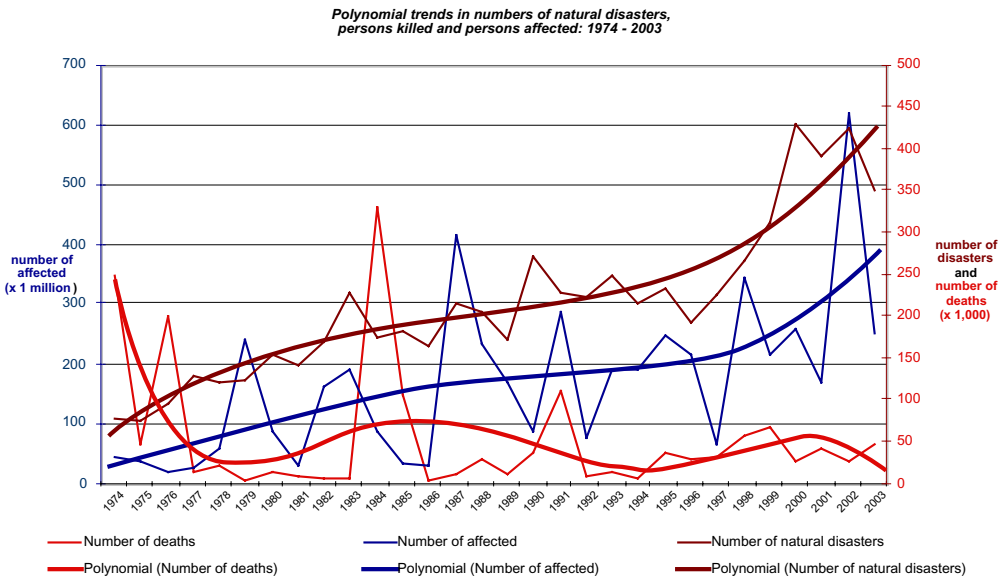
However, scientists debate the hypothesis that the occurrence of earthquakes is not linked to human activity and is purely based on geological factors. Human induced earthquakes or seismicity, due to activities such as the pumping of water and oil, deep waste disposal and the construction of reservoirs, have in fact been documented.

The issue of the evolution of disaster occurrence over time is a very complex one. Looking at disaster data covering the whole of the 20th century tends to emphasize more the evolution in telecommunications, humanitarian assistance availability and the active registering of natural disaster occurrences. Reviewing the evolution of disasters over a shorter time span is better for identifying trends, both in the occurrence of events, as well as their impact on human populations. This becomes apparent when considering EM-DAT data covering the last three decades.

The last 30 years

Over the past 30 years, the number of reported natural disasters has increased steadily, from slightly fewer than 100 in 1974 to a little more than 400 in 2003, an almost four-fold increase. However, the human impact shows very different trends over time.

Figure 5



The number of people affected has followed more or less steadily the same pattern of increase as the number of disasters. Some disasters, such as floods in particular, affect alarming proportions of the population living in the area. For example, the Yangtze River floods in China in 1991 and 1998 affected a total of 210 million and 238 million people respectively. The latter disaster forced China to request international aid for the first time.

Although the number of affected has increased over the last 30 years, the number of deaths has declined. This was particularly true from 1974 to 1979, when it reached less than half the level at the beginning of that period. It would be encouraging to attribute this decrease to an increase in preparedness and prevention. Unfortunately, this is likely not the case during this period. The early 1970s until 1975 witnessed major famines in the Sahel and in Bangladesh, where hundreds of thousands of people died. Therefore, the decrease in the latter half of that decade is most likely simply due to the absence of catastrophic famines rather than the effectiveness of preparedness and prevention.

At the same time, there remains a decreasing trend in mortality through the following decades. Hopefully, this reduction can be partially attributed to the real effects of awareness and substantial expansion of disaster preparedness, mitigation and prevention.

A glimmer of hope

In recent years, international preoccupation with disasters and their impacts has intensified and risen closer to the top of the development agenda. For many years, response to disasters was largely confined to emergency relief and short-term life-saving actions. But over the last two decades, the critical importance of disaster preparedness, mitigation, prevention, and the adequate training of relief workers has been widely recognized.

It has become increasingly apparent that a relatively small investment in disaster preparedness can save lives, reduce the number of people requiring emergency assistance and preserve vital economic assets, as well as reduce the cost of overall relief assistance to disaster-stricken countries. This fortuitous realization has largely contributed to the systematic decrease in the number of deaths due to natural disasters over the last two decades, despite the increase in the number of disaster events.

Large donor programmes have dedicated substantial budget lines to disaster preparedness and prevention and have placed this issue higher on the agenda of development assistance.

Key players

The World Bank

The Hazard Management Unit (HMU), formerly called the Disaster Management Facility, was established by the World Bank in 1998 to champion the integration of disaster prevention into development efforts and to promote a more strategic response to disaster emergencies. The unit serves as a central resource of hazard risk management knowledge for World Bank staff and its client countries. The HMU provides:

- Technical support to World Bank operations.
- Develops corporate strategy and policy analysis for hazard risk reduction.
- Generates knowledge through work with the World Bank Group and external partners.
- Provides learning and training activities.

Efforts have focused on such activities as documenting the longer-term economic impacts of disasters, developing tools and training for assessing damage and needs following a disaster, and conducting country-level analyses to identify how developing countries can better manage disaster risk.

The US Agency for International Development (USAID) - Office of Foreign Disaster Assistance (OFDA)

OFDA's Disaster Response and Mitigation division devises, coordinates and implements programme strategies for the application of science and technology to prevention, mitigation, and national and international preparedness initiatives for a variety of natural and human-caused disaster situations. Their mitigation-related programs range from investing in drought early warning systems that can possibly head off a famine to training local relief workers to manage the response to a disaster more effectively.

The ProVention Consortium

The consortium represents a global coalition of governments, international organizations, academic institutions, the private sector and civil society organizations dedicated to increasing the safety of vulnerable communities and to reducing the impact of disasters in developing countries. Consortium members share knowledge and resources on disaster risk management. It acts as a broker to forge links between members.

The United Nations International Strategy for Disaster Reduction (ISDR)

This is the focal point in the UN System to promote links and synergies between, and the coordination of, disaster reduction activities in the socio-economic, humanitarian and development fields, as well as to support policy integration. It serves as an international information clearinghouse on disaster reduction, developing awareness campaigns and producing articles, journals, and other publications and promotional materials related to disaster reduction.

The European Community Humanitarian Office (ECHO)

ECHO's Disaster Prevention, Mitigation and Preparedness Programme (DIPECHO) was launched in 1996 to help prepare populations in areas at risk from natural catastrophes and to support practical measures to reduce such risks. DIPECHO funds support training, capacity-building, awareness raising and early-warning projects, as well the organisation of relief services. The programme has shown that even simple precautions can help save lives and property when disaster strikes.

CRED served as the principal technical support to develop DIPECHO'S strategy and program guidelines

Table 2 - Proportion of change in ratio of affected to killed by disaster type: 1974-1988 versus 1989-2003					
	1974-1988		1989-2003		Proportion of change between the two periods
	Total number of disasters (1)	Mean number of pesons affected for one killed	Total number of disasters (1)	Mean number of pesons affected for one killed	
Drought	17	119,883	17	44,748	-63%
Earthquake	160	20,780	248	8,143	-61%
Extreme temperature	6	2,545	48	14,915	+486%
Flood	351	9,503	874	11,763	+24%
Slide	39	1,193	144	335	-72%
Volcano	14	5,395	17	11,960	+121%
Wave/surge	3	61	4	3,096	+4,975%
Wildfire	11	995	39	2,523	+153%
Windstorm	346	5,977	655	21,225	+255%
Total	947	11,526	2,046	13,706	+19%

(1) Only entries included with both killed and affected data

Evaluating the evolution of the impact

Analysing data in terms of ratios of affected to killed is another way of evaluating the evolution of the impact of different of types of disasters over time. Table 2 compares the ratios of the number of affected to killed between the first 15 years and the last 15 years of the study period by disaster category. It shows the number of people affected for every one person killed by a specific disaster type.

Table 2 reveals the type of impact on human populations and indicates the difference in approach for preparedness and prevention between the types. For example, the low affected to killed ratios indicate disasters that require rapid response capacities and preparedness for acute trauma. Disasters with a high ratio of affected to killed tend to influence populations with more chronic impacts over a longer timeframe.

In the first 15 years of the study period, disasters affected fewer people compared to those killed than in the second 15-year period, though the overall change was of only 19%. This increasing trend has been relatively consistent over the whole 20th century. However, certain disaster types, such as extreme temperatures waves/surges, windstorms, wildfires and volcanoes, have shown significant increases, with an increase of more than 49-fold, or 4,975% in the case of waves and surges.

There has been a sea change in the number of extreme temperatures, floods, slides and wildfires between the two 15-year periods. Certain disaster types, such as floods and droughts, often destroy livelihoods, shelters and other resources. These effects are particularly destructive because they do not kill outright, but eliminate the ability for already marginal populations to improve or even continue their lives. As a result, the effects are less spectacular than in acute disasters such as earthquakes, but they take their toll well after the media have gone home and the humanitarian aid has dried up.

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Where do disasters occur?

The risk of disaster is partially linked to the geophysical and meteorological characteristics of regions. This makes it easier to identify high-risk zones in the world based on their physical and climatic characteristics. However, as disasters are entered in the EM-DAT database by country and the criteria for inclusion is primarily based on the human impact of an event, disasters occur more frequently in countries covering a large area and having a large population.

Map 1 clearly shows the countries with the highest number of disasters. The classification of disaster occurrences into three classes represents a maximum average of one disaster per year for Class 1, one to four disasters annually for Class 2 and more than four disasters per year for Class 3.

The United States and Mexico, together with South and Southeast Asia and Australia, are particularly prone to disasters, followed by Latin America, Russia, some European countries, and very few countries in Africa. Map 1 shows natural hazard boundaries, such as the Pacific's volcanic ring of fire, the cyclone and storm paths of East Asia, the Eastern seaboard of North America and tectonic plates, as well as countries covering a very large surface and/or having a large population.

More die in the developing world

As Table 3 shows, the most important disasters in terms of numbers killed or affected over the last 30 years have occurred in all three continents of the developing world. Iran appears twice in the top 10 ranking, with two devastating earthquakes. It has suffered many more with numerous killed, which missed the top 10 ranking. Floods, cyclones and droughts also figure in this list.

The two phenomenal droughts leading to famines that spread across all Sahelian countries top the list with nearly half a million deaths registered due to drought. This is particularly notable as "deaths due to droughts" is a rare occurrence; deaths are often recorded under causes such as infectious diseases, for instance measles or diarrhea, but rarely because of malnutrition or "drought". These figures can only be underestimations of the real mortality rate due to the drought–related famines in these years. These numbers of registered drought deaths are a somber indication of the deaths that were, in fact, many, many more.

The 1976 Tangshan earthquake in China remains the deadliest earthquake of the 20th century, with a total of 242,000 deaths. The earthquake struck in the middle of the night while the city was asleep, a factor that often results in a large number of casualties. The epicenter of the magnitude 7.8 earthquake was at a depth of 11 km right under the city, which itself was built on unstable, alluvial soil.

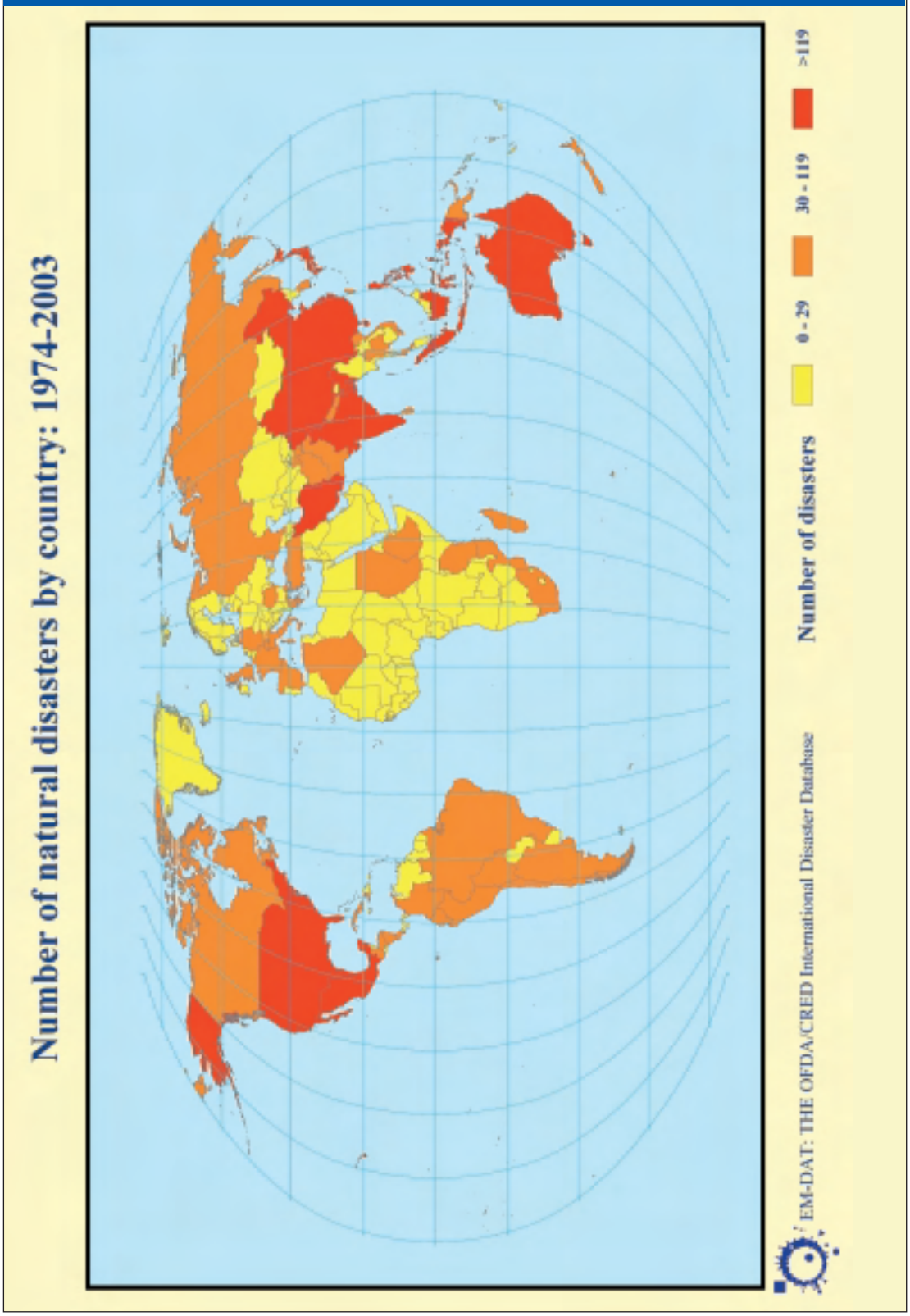
The tropical cyclone Brendan hit southeast Bangladesh in 1991 with estimated wind speeds of up to 250 kilometers per hour. As it often happens with windstorms, the heavy rainfall and associated flooding, rather than wind strength, caused most of the deaths and resulted in more than 15 million people affected.

It is important to note that the number of people reported killed by a disaster is often limited to those who died as a direct result of the disas-

Table 3 - Top 10 disasters with highest numbers killed: 1974-2003

Disaster type	Year(s)	Country(ies)	Number of deaths
1. Drought	1984	Ethiopia & Sudan	450,000
2. Drought	1974 – 1975	Sahel Region	325,000
3. Earthquake	July 27, 1976	China	242,000
4. Cyclone (Brendan)	April 30, 1991	Bangladesh	138,866
5. Drought	1985	Mozambique	100,000
6. Earthquake	June 1, 1990	Iran	40,000
7. Flood	December 1999	Venezuela	30,000
8. Heat wave	July-August 2003	Western Europe	29,264
9. Flood	July 1974	Bangladesh	28,700
10. Earthquake	December 26, 2003	Iran	26,796

Map 1


Number of natural disasters by country: 1974-2003
EM-DAT: THE OFDA/CRED International Disaster Database
Number of disasters
0 - 29
30 - 119
>119

ter's occurrence. However, many deaths indirectly result from increases in malnutrition, poverty, disease outbreaks and the deterioration of living conditions and of health, sanitation and other basic services.

More affected in the developing world

EM-DAT defines the number of people affected by as disaster as "people requiring immediate assistance during a period of emergency, that is requiring basic survival needs such as food, water, shelter, sanitation and immediate medical assistance". These figures also underestimate the real number of people affected over the longer term by a disaster's occurrence.

Table 4 shows the 10 disasters with the most number of people affected over the last three decades.

Table 4 - Top 10 disasters with highest numbers affected: 1974-2003

Disaster type	Year(s)	Country(ies)	Number of people affected
1. Drought	1987	India	300,000,000
2. Drought	2002	India	300,000,000
3. Flood	August 1988	China	223,000,000
4. Flood	May 1991	China	206,000,000
5. Drought	1979	India	190,000,000
6. Flood	1996	China	150,000,000
7. Flood	July 1993	India	128,000,000
8. Flood	May 1995	China	114,400,000
9. Flood	June 1999	China	100,000,000
10. Flood	July 1989	China	100,000,000

Among the top ten affected, India ranks first and second, again with droughts. In this instance, the large and dense population of the country contributes to the huge numbers affected by any natural event. The same holds true in China. Although the population density is not quite as high - tracts of China such as the Gobi Desert are practically uninhabitable - a flood in any inhabited area immediately affects millions.

Table 2 includes different types of disasters, such as flood, windstorm, heat wave, earthquake and drought whereas Table 3 only includes floods and droughts as these two disaster types affect many more people that any other type. However, in both instances, it is the developing world that suffers most.

Asia and Africa are particularly vulnerable

Just as there are considerable differences in the number of people affected by natural disasters, there are also great differences in which continents are more affected by the different types of disasters. Asia and Africa bear a disproportionate burden of losses due to disasters. Over the last 30 years, approximately 88% of the total people reported killed and 96% of the people reported affected lived in these two regions alone.

Of the total number of people killed by natural disasters worldwide over the last decade, more than 75% were in Asia. This figure rises above 98% for droughts and famines, 72% for earthquakes, 71% for avalanches and landslides and 56% for windstorms. Of the total of those reported killed by volcanic eruptions, Africa takes the lead with close to 62%. Only forest/scrub fire fatalities are more or less evenly spread out across the continents, with 27% in Africa, 24% in the Americas, 25% in Asia and 22% in Europe.

Looking at the data on the number of people affected worldwide by natural disasters over the same time period, Asia still leads with more than 75% of the total. For almost all disaster types, Asians are by far the most affected, with 88% for avalanches and landslides, 81% for droughts and famines, 84% for earthquakes, 89% for windstorms, 90% for forest/scrub fires and more than 97% for floods alone.

Notably, the Asian population represents about three-fifths of the world population and about one-third of total landmass. However, as we will see in the next chapter, it is possible to analyze the occurrence and impact of natural disasters taking into account the size of the population in a particular country and the size of the country itself.

How are people affected by disasters

Examining worldwide disaster data by the number of occurrences in each country provides substantial information about which countries suffer more disasters. However, looking at the total number of disasters relative to a country's area or the total number of people affected relative to a country's population can provide a different perspective on natural disaster occurrence and impact.

Considering the classification of countries according to the numbers of people affected standardised by 100,000 population, the pattern differs from the simple distribution of events. This analysis controls for variability among countries with very large and very small populations, although some countries covering large areas still come out on top.

South and East Asia, particularly India, Bangladesh and China, are still in the highest category with a high proportion of its population being affected by natural disasters. All of them have areas of high population density, especially in river basins, and are home to populations whose livelihoods are often based on agriculture. When floods occur, the number of affected communities quickly reach into the hundred thousands, and in some cases, millions.

Several countries in Africa are added to this list, although they did not figure in Map 1 based on the ranking by disaster occurrence. On Map 2, Southern Africa, Botswana, Zambia, Mozambique and Zimbabwe are in the highest category, together with Ethiopia and Mauritania. The development burden of disasters where rates of affected are more than 5,000 per 100,000 population can be crippling for many of these countries, already facing difficulties to maintain minimal growth.

Among those countries with the highest number of people affected per 100,000 inhabitants, Botswana (13,529), Djibouti (12,943), Bangladesh (12,338) and Mauritania (11,853) have populations where more than 1 in 10 are affected by natural disasters. Certain Small Island States also have populations that are heavily affected by natural disasters. Montserrat (7,648), Tonga (6,729), Western Samoa (5,555) or Fiji (5,316) are just some examples.
Countries such as the United States, Mexico or Indonesia in Map 1 were in the highest category based on disaster occurrence. In Map 2 they are in the lowest category, with the number of people affected by disasters per hundred thousand population being 59, (US) 172 (Mexico) and 195 (Indonesia).

Looking at the number of natural disasters per 1,000 km^2 can also give us some interesting insights into which countries have a high incidence of disaster occurrence. However, mapping this analysis is problematic as the countries with the highest values are all small island states that are not easily discernible on a global map.

Tuvalu (129), Bermuda (127), Tokelau (99), Anguilla (58) and Montserrat (47), small island states in the Pacific or in the Caribbean, come out on top for disasters per 1,000 km^2.

Countries such as China, which was in the top category based on the absolute total number of disasters and on the total number of victims per 100,000 inhabitants, in this analysis only shows a total of 0.05 disasters per 1,000 km^2. Similarly, India has only experienced 0.98 disasters per 1,000 km^2 in the period 1974-2003 and the United States about 0.002.

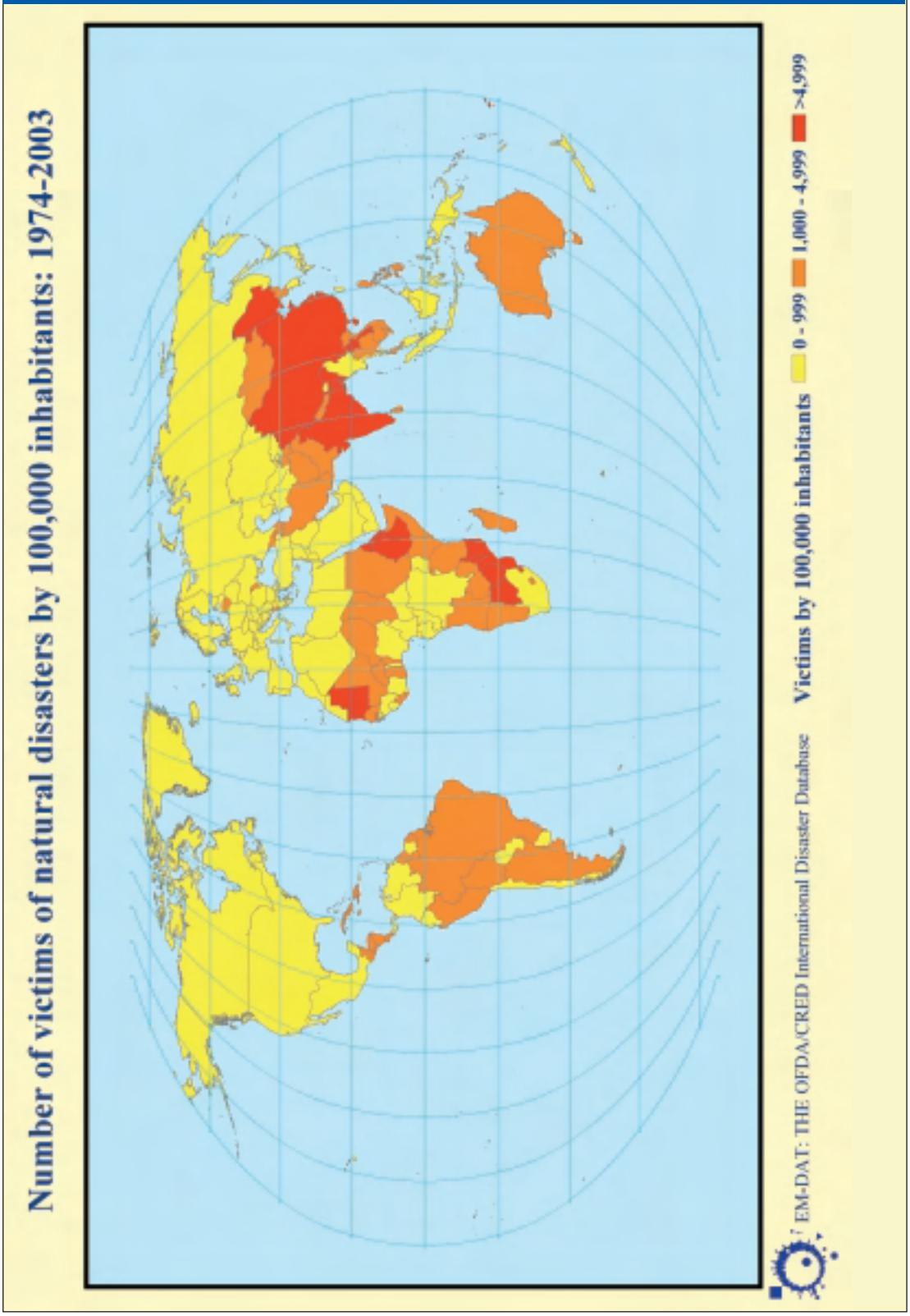
Just as the occurence and impact varies across regions, different disaster types cause varying levels of mortality, injuries, and physical damage to infrastructure and agriculture. They also strike with varying rates of frequency, intensity and predictability.

Earthquakes are least predictable

Over the last 30 years, a total of 660 earthquakes were reported in EM-DAT resulting in the death of 559,608 people and affecting more than 82 million people. The average number of people affected by an earthquake for every person killed was 147.

Earthquakes are the least predictable of all natural disasters. In addition, the interval between an earthquake threat and occurrence is the briefest among the major disasters. Partly due to this,

Map 2


Number of victims of natural disasters by 100,000 inhabitants: 1974-2003
EM-DAT: THE OFDA/CRED International Disaster Database
Victims by 100,000 inhabitants
0 - 999
1,000 - 4,999
>4,999

earthquakes top the scale of immediate mortality and structural destruction. However, except when landslides occur due to the tremors, earthquakes have little impact on standing crops.

Statistics published following the Kobe earthquake, showed that about 71% of the victims died within 14 minutes of the earthquake, with a further 10.7% percent dying within six hours of the tremors. About 54% of the deaths resulted from crush injuries and other types of physical trauma sustained in the collapse of buildings[1].

Population density, structural fragility, time of strike, and intensity of seismic activity seem to be the main risk factors. Mortality rates vary from country to country, primarily due to differences in building styles and the density of settlements. The strong tremors of the recent Bam earthquake in Iran destroyed close to 90% of the city's buildings, killing 26,796 people. Four days earlier, an earthquake of the same intensity, 6.6 on the Richter scale, struck the city of San Simeon in California. This earthquake left two dead and 40 buildings damaged.

Droughts and famines cover wide areas

A total of 640 droughts or famines were reported in EM-DAT over the last three decades. They caused the death of more than one million individuals and affected over 1.8 billion. The ratio of affected to killed over those 30 years was about 2,000 affected for each person killed.

Droughts and famines do not result in infrastructure or shelter damage but in heavy crop and livestock losses. They cover wide areas of land and often affect several neighboring regions or countries simultaneously. Droughts can be linked to meteorological and environmental factors. Famines are much more complex and can be caused by crop failures, food shortage or lack of access to food, droughts, disasters such as floods and armed conflicts or political instability. Famines can also lead to mass migration, which can create crowded conditions with poor sanitation and lead to outbreaks of diseases.

Unlike earthquakes, droughts can be predictable, usually developing over several years. This makes it possible to respond to droughts as they occur. Several regional early warning systems, such as the Famine Early Warning System that covers Africa, have been set up around the world for this purpose.

Floods have a pervasive impact

Over the last 30 years, a total of 2,156 floods were reported in EM-DAT, resulting in the deaths of 206,303 people and affecting more than 2.6 billion. The affected to dead ratio was on average 13,027 people affected for one person killed, many times more than for any other type of disaster.

Floods can cause extensive damage to infrastructure and crops. Their impact on agriculture depends in part on the timing in relation to the cycle of the crops in the region. The area affected by floods can be immense, depending to some extent on topographical features. The floods of 1998 in China submerged more than 21 million hectares of farmland, an area about seven times the size of Belgium.

Floods can develop slowly and be predictable or can occur suddenly, such as is the case with flash floods. Most of the mortality linked to floods is caused by flash floods. Floods may kill fewer people than they affect, but the damage they cause is pervasive and long term.

Volcanoes' impact can be indirect

There were 123 volcano-related disasters over the last 30 years, with a total of 25,703 people killed and more than 3 million people affected. The ratio of affected to killed was 140 affected for each person killed, about the same as that for earthquakes.

The effects of volcanoes on human populations come from a variety of sources including lava flows, blasts and projectiles, lahars (mudflows with volcanic debris), ash fallout and respiratory consequences. Mortality is low relative to other disaster types. The most lethal volcano over the last 30 years was in Colombia in 1985, when a lahar from the del Ruiz volcano traveled 48 kilometers to the city of Armero where it killed 21,800 people, more than a third of the town's population.

The most serious consequences of volcanic eruption can actually arise from secondary effects. Ash contains silica, a mineral that causes silicosis, a chronic respiratory disease. Also, when deposited over large areas, ash can destroy crops and make it very difficult for livestock to forage for food or water.

Windstorms are among the most destructive

Over the 30-year study period, a total of 1,864 windstorms caused the death of 293,758 individuals and affected more than 557 million. The ratio of affected to killed was of 1,899, significantly less than for floods but over 10 times more than for earthquakes or volcanoes.

Windstorms are among the most destructive disasters. They often cover very wide areas and can cause significant deaths, injuries, agricultural or property loss. The most lethal windstorm of the last 30 years was in Bangladesh in 1991 with 138,866 people killed. On average, each windstorm affected close to 300,000 people, although a windstorm in China in 2002 affected 100 million.

In many cases, flooding from heavy rains and wind surges has a greater impact on mortality than that of the wind itself. However, collapsing buildings and wind-strewn debris can account for many of the injuries experienced during windstorms.

Human cost should top the agenda

Regardless of the disaster type, the vast majority of disaster included in EM-DAT have a human cost in terms of people killed and/or affected. In the end, the human cost of a disaster is the one that should be on top of the agenda in terms of relief, but especially in terms of preparedness, mitigation and prevention. However, to further study the impact of disasters, it is important to first consider the factors that make populations vulnerable to natural hazards.

1 Alexander, D. 1996, The Health Effects of Earthquakes in the Mid-1990s, Disasters, 20(3), 231-247

The inextricable link between poverty and disasters

The occurrence of a natural disaster is based on the convergence of two factors. The first is the hazard factor, which is the risk of an earthquake, tornado, flood or other natural phenomenon. This factor, as noted previously, is based on the geological, meteorological or ecological characteristics of a region. The second is the vulnerability factor. This can be best described as the number of people at risk of being harmed by a hazard's occurrence, whether it be through loss of lives or property, injuries or the disruption of livelihoods and economic activity.

It might seem self-evident that disasters have a greater impact on poorer countries. This relationship has been well documented, but it is important to understand how poverty and the impact of disasters are linked. The key factor in this relationship is the vulnerability of a population to a hazard's occurrence.

figures are eclipsed by the staggering figures from Eritrea and Malawi, reporting an average of between 6,000 to almost 9,000 victims per year per 100,000 population over the last 30 years.

Factors influencing vulnerability

Several factors influence the vulnerability of a population. These can be classified into four broad groups defined by physical, social, environmental and economic factors:

- Physical aspects of vulnerability are linked to the exposure of the population to a potential hazard. This can mean living in harm's way, such as in a flood plain or in a seimically active area.

- Social vulnerability includes aspects such as population growth, the existence of conflicts and insecurity, ethnic, sexual or aged-based discrimination, access to social safety nets, or the capacity of a population to cope with disasters - a factor usually referred to as its resiliency.

- Economic vulnerability is linked to the population's or country's dependence on agriculture, the diversification of its economy, the availability of insurance or loans, its financial assets or debts, as well as its access to basic infrastructure such

Table 5 - Comparing the human impact of natural disasters between the 10 richest and 10 poorest countries

Country	GDP (US$) per capita 2002	Annual average victims/ 100,000 population 1974 - 2003	Country	GDP (US$) per capita 2002	Annual average victims/ 100,000 population 1974 - 2003
Luxembourg	44,000	0	Somalia	550	2,701
United States	37,600	59	Sierra Leone	580	155
Norway	31,800	5	Burundi	600	674
Switzerland	31,700	2	Congo, RD	610	114
Ireland	30,500	4	Tanzania	630	1,531
Canada	29,400	72	Malawi	670	8,748
Belgium	29,000	2	Afghanistan	700	1,120
Denmark	29,000	0	Eritrea	740	6,402
Japan	28,000	182	Ethiopia	750	5,259
Austria	27,700	29	Madagascar	760	2,090

Table 5, compares the top 10 richest and poorest countries highlighting a perspective on the differing impact of natural disasters on populations relative to their annual income.

Among the rich countries, Japan counts nearly 200 victims per 100,000 population per year over the last 30 years, compared to the other nine that are at much less than half this amount. But these

as water, electricity, communication networks and health care.

- Environmental vulnerability includes such factors as soil degradation and erosion, deforestation, chemical or biological pollution and the availability of water, whether for drinking, irrigation or other uses.

Poverty is closely linked to all four of these groups. Poor populations often end up living in high risk or environmentally degraded areas, have the least access to social safety nets or infrastructure and have few savings or available credit.

As with any complex situations, these factors do not act independently of each other but are intimately linked. Together they create conditions that increase a population's vulnerability to hazards, and hence to the more frequent occurrence of disasters. A certain number of these disaster conditions are typical of increased vulnerability of poor populations. These conditions are combinations that interact to disproportionately affect the poor when a hazard occurs.

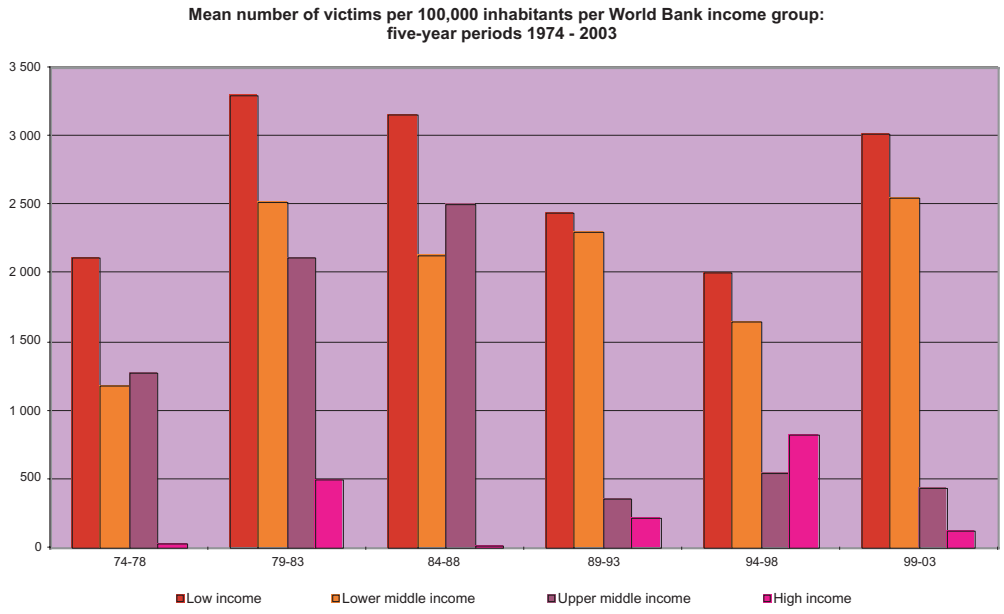
Figure 6 shows the mean number of victims by the World Bank's five income groups over five-year periods between 1974 and 2003. It should come as no surprise that low-income countries have the highest relative number of victims of natural disasters.

Low-income countries show the highest proportion of victims relative to the size of their population in all five-year periods. Rates for the lower middle-income countries, much like those of low-income countries, have remained high over the last three decades. The upper-middle-income countries had high ratios of victims, with two five-year periods even higher than the lower-middle-income countries, until the early 1990s when the victim rate plunged. High-income countries had the lowest rate in any given period.

Migration and urbanization

A primary factor linking poverty to vulnerability is the migration of poor populations into hazardous areas. A good example is the expansion of the cotton plantations in the 1960s in Nicaragua, which forced poor peasants (social and economic factors) to move from fertile plains to makeshift

Figure 6



shantytowns on the slopes of the Casitas volcano (physical factor). In 1998, the shantytowns beneath the deforested volcanic slopes (ecological factor) were completely exposed to Hurricane Mitch. When the crater lake collapsed under the pressure of the water from the hurricane, it created a deadly landslide, killing dozens of slum dwellers in its wake.

Rural to urban migration is another factor that puts more vulnerable people into high risk zones. Typically, the poorest of the rural populations move into the least desirable settlements on the periphery of cities and create large slums, such as those in Calcutta or Rio. These settlements are often established on unstable slopes, such as those on the outskirts of Guatemala City and Mexico City, both of which are highly seismic and subject to landslides at the slightest tremor. Other examples include the migrant settlements on canal embankments such as those in Manila or in the lowlands of Dhaka. These communities live in constant fear of floods, which occur with devastating regularity.

Dependency on agriculture creates vulnerability

The World Bank estimates that 70% of the world's poor live in rural areas. Nearly two-thirds of all natural disasters over the past two decades have been of hydro-meteorological origin. They have their greatest impact on the agricultural sector, sweeping away harvests, destroying plantations with high winds or rainfall, or salinating large tracts of arable land.

Communities heavily dependent on agriculture, especially poor ones or those whose economies are not diversified, are becoming increasingly vulnerable as water and wind related disasters become more widespread. This situation is further aggravated by increased farming in high-risk areas due to population pressures and lack of diverse economic opportunities.

Physical infrastructure – a measure of poverty

Another important link between poverty and vulnerability is the availability of infrastructure. Access to infrastructure, whether it is clean water, sanitation, irrigation or transportation, can be used as a measure of poverty. Infrastructure is a key component of development and economic growth. The destruction of infrastructure by natural disasters creates conditions that directly affect the poor, worsening their already precarious situation.

For example, a high proportion of losses from flooding are due to infrastructure loss. Swiss Re[1] estimates that infrastructure loss accounted for 65% percent of all flood loss over the last decade. Over the same period, the World Bank has annually loaned about US$25 billion to infrastructure related projects. In Asia alone, direct damage to infrastructure represents almost 50% of the bank's total lending activity[2].

Environmental degradation takes its deadly toll

Rapid environmental degradation, particularly deforestation, triggers disasters. Floods and landslides kill people and destroy public infrastructure, housing and harvests. The latter losses, although less spectacular than deaths, represent a critical threat to the economy of a country and its citizens, especially those whose principal source of revenue or livelihood is dependent on agriculture.

The Yangtze River floods in China in 1998 killed more than 3,000 people, a high death toll for a flood. The country incurred immediate losses of US$45 billion, and at the same time had to cope with 230 million affected. These figures have been widely reported. What is less known is that the Yangtze basin has lost over recent decades nearly 85% of its forest cover due to logging, damming, and the draining of wetlands. Recognizing these weaknesses in the development programmes of the river basin, the Chinese government has earmarked US$3 billion to reforest the watershed.

The vicious cycle of poverty

The interaction of poverty and vulnerability is a vicious cycle that can only be broken through appropriate sustainable development mechanisms. Vulnerable populations are economically fragile by definition and are less able to recover from disasters. Savings or assets are few, or for many, non-existent. When a disaster strikes, it destroys not only existing wealth, but also income opportunities and livelihoods, thereby further increasing the vulnerability of the already poor population.

Fortunately, natural disaster prevention is no longer a marginal issue. In the wake of the devastation witnessed in Mozambique, India, Central America and Kobe, it is recognized that the consequences of natural disasters are clearly not relegated to a divine hand. Development actors are taking action. Activities to reduce the impact of hydro-meteorological events are possible and have been successfully employed in many disaster prone countries. Physical preventive measures such as embankments or flood plain zoning, together with cooperative insurances and other social protection systems can help vulnerable populations recover from catastrophic events or prevent them altogether.

Addressing basic environmental measures that reduce global warming can be the most effective over the long term. But in the short term, local efforts in flood management and cyclone mitigation actions have been shown to be extremely cost-effective. Soil depletion, erosion, water logging, and deforestation are preventable risk factors for disasters. Many of these are suitably dealt with at community level. For example, the Humboldt Centre in Nicaragua has undertaken a successful community-wide exercise to identify where and how houses should be built to minimize risks against floods and landslides.

[1] Swiss Re, 1997, *Too Little Reinsurance of Natural Disasters in Many Markets*, Sigma Number 7, 1997.
[2] Freeman, P.K, The World Bank, *Infrastructure, Natural Disasters, and Poverty"; Managing Disaster Risk in Emerging Economies*, 2000.

Tallying the costs

Tallying the costs of disasters is a formidable task under the best of circumstances. But it becomes doubly difficult if authorities do not report losses. Over the past three decades, economic loss figures were reported for less than 40% of all natural disasters. In the early 1990s, the proportion improved to about half, but unfortunately has since decreased. Since 2000, fewer than 25% of the disasters that meet the EM-DAT criteria have reported economic losses.

Without evidence of the economic impact of the repeated onslaught of natural disasters, the development incentive to invest in disaster preparedness and prevention is even more difficult to justify. This even more true for small recurrent disasters for which costs are the least reported.

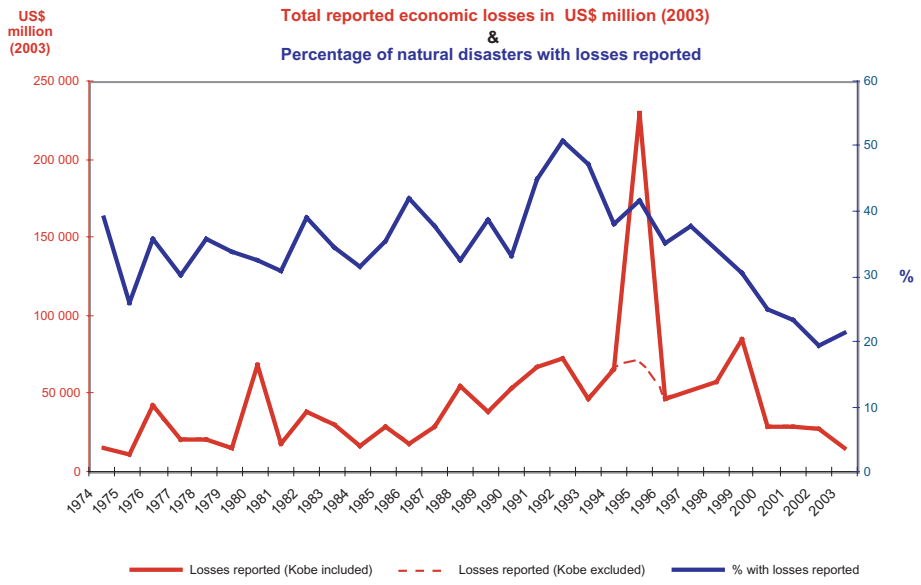
Losses are reported for a very small proportion of disasters. Since the early 1990s this proportion has been steadily declining. Of those that have reported economic costs, the Kobe earthquake of 1995 was by far the costliest disaster ever with a total cost of over US$131 billion. Putting this event aside, the trend of costly disasters appears to be reducing over the last decade.

Economic impact can be colossal

The economic impact of disasters was recently underscored by Hurricane Mitch in Central America and the floods of China in 1998, the two earthquakes in Turkey in 1999 and the one in Iran in 2003, the fires in Indonesia in 1997 and the winter storm that affected France and much of Western Europe in 1999. The floods in Mozambique in 1996, 1999 and particularly in 2000 devastated the country. In absolute terms the economic costs of these floods were not very important, but relatively they represented colossal economic losses in a country already crippled by years of civil strife.

The Caribbean island of Montserrat was devastated by Hurricane Hugo in 1989, with an estimated 98% of the houses damaged or destroyed. The subsequent eruption in 1995 of a long dormant volcano severely damaged the island's capital and destroyed much of the infrastructure that had been repaired or rebuilt

Figure 7



following the hurricane. These major disasters attracted much media attention and the setbacks they created for the development process were also noted. For example, Hurricane Mitch's impact on Honduras was said to have set back the country's development by 20 years.

Smaller but recurrent disasters often do not receive media attention, nor is their destructive economic erosion assessed. Furthermore, only the direct costs of a disaster are usually evaluated and reported.

The economic consequences of disasters can be broken down into direct and indirect costs and secondary consequences. Direct costs relate to the capital costs of assets, such as buildings, infrastructure or crops destroyed or damaged by the disaster. Indirect costs encompass damages to the flow of goods and services and losses due to decreased output. For a farmer, indirect losses can represent loss of income because of damaged equipment or inability to bring the crops to the market due to the damaged infrastructure. Indirect costs also include changes in productivity due to a higher incidence of deaths, injuries or diseases. Secondary costs of disasters represent both short and long-term changes in economic performance. These can be due to changes in external trade, government budgets, interest rates or indebtedness.

Unfortunately, the evaluation of economic damages is not systematically undertaken and methodologies differ between organizations or from one disaster type to another. Losses from major disasters do generally get reported, if only for emergency loans and grant purposes, but most of the reporting focuses only on direct losses, with little mention of indirect losses and even less of secondary costs.

As a result, it is widely acknowledged that the costs of disasters is usually considerably underestimated.

It's all in the reporting

Are economic losses better reported for some disaster categories than for others? The proportion of disasters for which economic losses are reported in the EM-DAT database averages to about a third. The bigger the disaster, the better the chances economic losses will be quantified and reported as the need for international loans for reconstruction and other similar financial considerations push local governments or lending banks to undertake this exercise. In this light, it is interesting to analyze the types of disasters for which costs are more regularly reported.

Disaster losses are reported for nearly half of all the windstorms entered in EM-DAT. This is most likely due to the infrastructure damage that is directly and clearly attributable to the natural event. The next group of disasters for which economic losses are more reported are earthquakes – nearly 40%.

Table 6 - For which disasters are costs more reported?

	Number of disasters reported	Number of disasters with reported losses	Proportion of disasters with reported losses	Total reported losses (2003 US$ million)	Losses by event (2003 US$ million)
Droughts	583	118	20.24 %	85,733	727
Earthquakes	638	258	40.44 %	451,916	1,752
Extreme temperatures	253	30	11.86 %	31,631	1,054
Floods	2,162	716	33.12 %	386,054	539
Slides	378	37	9.79 %	5,256	142
Volcanic eruptions	123	21	17.07 %	6,646	316
Waves - surges	19	3	15.79 %	5	2
Wild fires	256	64	25.00 %	34,431	538
Windstorms	1,958	968	49.44 %	377,890	390
Total	6,370	2,215	34.77	1,379,562	623

Again, physical damage as a direct consequence of the event is significant and requires heavy investment in reconstruction. Roads, bridges, and other infrastructure is destroyed in violent cyclones and earthquakes and as a result, economic losses generally tend to be quickly assessed and reported.

Floods are the next largest category, with losses reported for about one-third of the total events. Most countries at risk of floods are poor and have agricultural-based economies. Flooding typically destroys cultivated lands established on riverbanks and floodplains, as well as inflicts damage on infrastructure and undercuts foundations. Massive agricultural losses are central to many of the poor economies, and often get reported for food aid and development purposes.

For other disaster types such as droughts, extreme temperatures, slides, volcanic eruption and waves/surges, less than one disaster event out of five has losses reported. There may be several factors for this.

- First, the costs of certain disasters may be grouped into another category. Slides, for example, can occur following an earthquake or a windstorm resulting in their costs being grouped in another disaster category.

- Secondly, droughts and extreme temperatures may only draw the international attention in terms of lives lost, with little consideration for economic costs. Furthermore, most economic losses can be of an indirect or secondary nature and difficult to quantify.

- Finally, whether a disaster will have economic costs associated with it will often depend on whether insurance protection exists in the area.

Rich countries report the highest losses

As noted, the most expensive disaster in EM-DAT was the Kobe earthquake in 1995 with US$131 billion. When adjusted to 2003 US dollar values, the costs amount to US$159 billion. The next highest loss, adjusted again to 2003 US dollar values, was the earthquake of 1980 in southern Italy that totaled about US$44 billion. The next two most expensive disasters were both in the United States with hurricane Andrew in 1992 (US$39.43 billion) and the earthquake in the area of Los Angeles in 1994 (US$32.34 billion).

Richer countries tend to rank frequently in a listing of the most expensive disasters (Table 7). Japan, Italy and the United States, for example, head the list for earthquakes. With the exception of floods and wave surges, developed nations rank on top in every other category. Because of higher insured values of property linked to higher labour costs for reconstruction, the richer countries place as those with highest losses.

Table 7 - Top 10 most expensive disasters by type: 1974 – 2003

Drought		**Year**	**US$ (billion)**	**2003 US$ (billion)**
Australia		1982	6.00	11.47
Brazil		1978	2.30	6.50
Spain		1995	4.50	5.45
Zimbabwe		1982	2.50	4.78
Iran		2000	3.50	3.75
Iran		2001	3.50	3.64
Spain		1999	3.20	3.51
Canada		1979	1.25	3.17
Spain		1981	1.50	3.04
Spain		1981	1.46	2.96
Earthquake		**Year**	**US$ (billion)**	**2003 US$ (billion)**
Japan		1995	131.50	159.00

Italy		1980	20.00	44.75
United States		1994	26.00	32.34
Armenia		1988	20.50	31.95
China		1976	7.00	22.65
United States		1989	12.00	17.83
Algeria		1980	5.20	11.63
Iran		1990	8.00	11.28
Turkey		1999	10.00	11.07
Taiwan		1999	9.20	10.18
Extreme temperature		**Year**	**US$ (billion)**	**2003 US$ (billion)**
United States	Cold wave	1977	2.80	8.52
United States	Heat wave	1998	3.70	4.18
China	Cold wave	1997	3.00	3.45
United States	Heat wave	1986	1.75	2.94
Canada	Cold wave	1992	2.00	2.63
Brazil	Cold wave	1975	0.60	2.06
United States	Heat wave	1999	1.00	1.11
France	Cold wave	1991	0.77	1.05
Spain	Cold wave	1995	0.82	0.99
United States	Cold wave	1989	0.50	0.74
Flood		**Year**	**US$ (billion)**	**2003 US$ (billion)**
China		1998	20.00	22.62
United States		1993	12.00	15.32
China		1996	12.60	14.81
Italy		1994	9.30	11.59
China		1991	7.50	10.16
Germany		2002	9.13	9.33
China		1999	8.10	8.96
China		1993	6.06	7.74
China		1996	6.31	7.42
Spain		1983	3.90	7.22
Landslide		**Year**	**US$ (billion)**	**2003 US$ (billion)**
Italy		1982	0.70	1.34
Italy		1987	0.50	0.81
Tajikistan		1987	0.45	0.73
Ecuador		1993	0.50	0.64
Bolivia		1992	0.40	0.53
Korea, R		1976	0.10	0.32
Japan		1993	0.21	0.27
Brazil		2000	0.17	0.18
Peru		1974	0.02	0.08
China		2001	0.06	0.06
Volcanic eruption		**Year**	**US$ (billion)**	**2003 US$ (billion)**
United States	Mount St. Helens	1980	1.50	3.36
Colombia	Nevado del Ruiz	1985	1.00	1.71
Papua New Guinea	Rabaul Caldera	1994	0.40	0.50
Indonesia	Galunggung Volcano	1982	0.16	0.31

Philippines	Mount Pinatubo	1991	0.21	0.29
Indonesia	Mount Gamalama	1983	0.15	0.28
Japan	Mount Usus	1977	0.02	0.07
Indonesia	Mont Colo	1983	0.03	0.05
Chile	Cerro Hudson	1991	0.02	0.02
Iceland	Grimsvo	1996	0.02	0.02
Wave/surge		**Year**	**US$ (billion)**	**2003 US$ (billion)**
Philippines		1983	2.27	4.21
Thailand		1999	0.27	0.29
Philippines		1982	0.06	0.12
Wildfire		**Year**	**US$ (billion)**	**2003 US$ (billion)**
Indonesia		1997	17.00	19.53
United States		1991	1.50	2.03
Mongolia		1996	1.71	2.01
United States		1993	1.00	1.28
United States		2000	1.00	1.07
Italy		1990	0.71	0.99
Australia		1983	0.40	0.74
Yugoslavia		1983	0.20	0.37
United States		1998	0.28	0.31
Chile		1999	0.28	0.31
Windstorm		**Year**	**US$ (billion)**	**2003 US$ (billion)**
United States	Hurricane Andrew	1992	30.00	39.43
France	Winter storm	1999	11.06	12.24
United States	Tornado	1995	10.00	12.10
Japan	Typhoon Mireille	1991	5.20	7.04
Korea, DPR	Typhoon Prapiroon	2000	6.14	6.58
United States	Hurricane Iniki	1992	5.00	6.57
Western Europe		1990	4.60	6.49
United States	Hurricane Frederic	1979	2.30	5.84
Caribbean	Hurricane Hugo	1989	3.58	5.32
United States	Hurricane Isabel	2003	5.00	5.00
Western Europe	Hurricane Vivian	1990	3.20	4.51
Germany	Capella Gale	1976	1.30	4.21

As an indicator of gravity, economic losses in this form can clearly be misleading and should not be used except to compare countries in similar economic stages. Furthermore, shifts in exchange rates can make the evaluation of costs in absolute terms even more difficult. For international comparison, it is better to use a system of indexing that standardizes between rich and poor countries.

By looking at the costs of a disaster relative to a country's total market value of goods and services produced – its Gross Domestic Product (GDP) – a clear pictures emerges of the economic consequences of a disaster on a particular country. This makes comparisons between countries easier.

Economic impact as a proportion of GDP

It certainly makes a difference whether the disaster is reported in terms of total loss, or as a proportion of GDP, as evidence below demonstrates. Table 8 compares the top 10 losses due to natural disasters as proportions of the country's previous year GDP. Using the year of the disaster can be misleading due to a frequent change in the country's GDP as a consequence of the disaster.

Contrary to expectation, however, GDP actually often increases in a disaster year as a result of reconstruction and rehabilitation investments.

Table 8 - Top 10 disasters costs as a proportion of GDP					
Country	Year	Disaster Type	Cost US$ (Million)	Cost 2003 US$ (million)	% of Previous Year GDP
St. Lucia	1988	Hurricane	1,000	1,558	413%
Mongolia	1996	Forest Fire	1,713	2,013	192%
Vanuatu	1985	Cyclone	173	296	139%
Samoa	1991	Cyclone	278	376	138%
Dominica	1979	Hurricane	44	113	99%
Mongolia	2000	Winter Storm	875	937	97%
St. Kitts & Nevis	1995	Hurricane	197	238	89%
Samoa	1990	Cyclone	119	119	62%
Nicaragua	1998	Hurricane	1,000	1,131	51%
Honduras	1998	Hurricane	2,000	2,262	42%

Clearly, the most expensive disasters relative to previous year GDP have mostly been in small island states. With the exception of Mongolia and the Central American countries that were affected by Hurricane Mitch, six of the top 10 are small island states.

The Kobe disaster, the most expensive disaster in absolute terms (US$159 billion), in fact represented less that 3% of Japan's GDP compared to the earthquake that shook Guatemala in 1976, which represented almost 25% of its GDP. Similarly, Hurricane Andrew which hit Florida and Louisiana in 1992 and which is the third largest disaster in terms of costs in EM-DAT, represented only about 0.3% of the GDP. In 1990 when Cyclone Ofa struck Niue, a small island state in the South Pacific, the cost of repairing damaged government-owned buildings alone represented about 40% of the island's GDP.

Small but recurring disasters can also have a large impact on developing countries. It has been estimated that recurrent floods in Bangladesh represent an annual loss of 5% of the country's GDP. Analyzing the costs of different disaster categories relative to a country's GDP gives a very different picture than when looking at absolute amounts.

Table 9 - Most expensive disasters relative to GDP, by type: 1974-2003*				
Drought	Year	US*(billion)	2003 US$ (billion)	% of Previous Year GDP
Zimbabwe	1982	2.50	4.78	31%
Bolivia	1983	0.50	0.93	17%
Senegal	1978	0.30	0.85	15%
Bolivia	1983	0.42	0.77	14%
Nicaragua	1994	0.16	0.20	9%
Chad	1985	0.08	0.13	8%
Georgia	2000	0.20	0.21	7%
Tajikistan	2000	0.06	0.06	5%
Bosnia-Herzegovina	2003	0.25	0.25	4%
Mauritius	1999	0.18	0.19	4%

Earthquake	Year	US$(billion)	2003 US$ (billion)	% of Previous Year GDP
Guatemala	1976	1.00	3.24	27%
El Salvador	1986	1.03	1.73	27%
Algeria	1980	5.20	11.63	16%
Georgia	1991	1.70	2.30	14%
Nepal	1980	0.25	0.55	13%
El Salvador	2001	1.50	1.56	11%
El Salvador	2001	1.30	1.35	10%
Costa Rica	1991	0.50	0.68	9%
Chile	1985	1.50	2.57	8%
Iran	1990	8.00	11.28	7%
Flood	**Year**	**US$ (billion)**	**2003 US$ (billion)**	**% of Previous Year GDP**
Yemen	1996	1.20	1.41	28%
Nepal	1987	0.73	1.18	26%
Jamaica	2002	1.11	1.14	14%
Bolivia	1982	0.40	0.76	14%
Bangladesh	1988	2.80	4.36	12%
Macedonia, FYR	1995	0.35	0.42	10%
Bangladesh	1987	2.10	3.47	10%
El Salvador	1982	0.28	0.54	8%
Tajikistan	1992	0.30	0.39	8%
Afghanistan	1988	0.26	0.41	7%
Landslide	**Year**	**US$ (billion)**	**2003 US$ (billion)**	**% of Previous Year GDP**
Bolivia	1992	0.40	0.53	7%
Ecuador	1993	0.50	0.64	4%
Tajikistan	2003	0.04	0.04	3%
Kyrgyzstan	1994	0.04	0.05	2%
Volcanic eruption	**Year**	**US$ (billion)**	**2003 US$ (billion)**	**% of Previous Year GDP**
Papua New Guinea	1994	0.40	0.50	8%
wildfire	**Year**	**US$ (billion)**	**2003 US$ (billion)**	**% of Previous Year GDP**
Mongolia	1996	1.71	2.01	192%
Samoa	1983	0.03	0.58	21%
Nicaragua	1991	0.08	0.11	8%
Indonesia	1997	17.00	19.00	7%
Windstorm	**Year**	**US$ (billion)**	**2003 US$ (billion)**	**% of Previous Year GDP**
St Lucia	1988	1.00	1.60	413%
Vanuatu	1985	0.17	0.30	139%
Samoa	1991	0.28	0.38	138%
Dominica	1979	0.04	0.11	99%
St Kitts & Nevis	1995	0.20	0.24	89%
Samoa	1990	0.12	0.17	62%
Nicaragua	1998	1.00	1.13	51%
Honduras	1998	2.00	2.26	42%
Belize	2000	0.27	0.28	39%
Tonga	1982	0.02	0.04	34%

* Retained in the table: the 10 (or fewer) disasters for wich costs were over 1% of previous year's GDP.

When expressing the losses by disaster category as a proportion of the previous year's GDP, the picture is entirely different. In Table 9, the top ranking countries are all developing nations and no industrialized country figures in the top 10 of any disaster category. In addition, in Table 8 earthquakes represented the disaster category with the highest relative costs, but in Table 9 windstorms take on that role.

From these figures, one can more easily grasp the serious impediment to growth that natural disasters represent for developing countries. Without external aid, it would have taken the island of St. Lucia over four years for its GDP to equal the damage caused by Hurricane Gilbert in 1998.

Disasters – a window of opportunity?

The World Bank and the United States Geological Survey calculated that the worldwide economic losses from natural disasters in 1990s could have been reduced by US$280 billion if US$40 billion had been invested in disaster preparedness, mitigation and prevention strategies.

Having an emergency programme devote funds to disaster mitigation and prevention is not a long-term, sustainable solution. This approach should be built into community development plans, national industrial and urban plans, and international development programmes. It should be an integral part of development programming. Paradoxically, in this regard, disasters can open a window of opportunity. In fact, the optimal time to introduce disaster preparedness and planning is in the wake of a disaster.

The World Bank has established the Hazard Management Unit, formerly known as the Disaster Management Facility, to assist developing nations and other receivers of grants or loans to better integrate disaster prevention and mitigation policies. The European Community Humanitarian Office (ECHO), UN entities, regional organizations and NGOs also run successful disaster prevention programmes. Many developing countries have initiated national programs for this purpose.

Sadly, all too often disaster preparedness and prevention strategies are afterthoughts that come too late to prevent death and devastation.

Epidemics

Another disaster category included in EM-DAT and classified as a natural disaster is epidemics. EM-DAT defines an epidemic as either an unusual increase in the number of cases of an infectious disease, which already exists in the region or population concerned; or the appearance of an infection previously absent from a region. The actual disease causing the epidemic, such a cholera or meningitis, is included in EM-DAT as a disaster subset.

The compilation of data on epidemics is a very complex issue, and one that CRED has not approached with as much diligence and thoroughness as its has with other types of natural disasters. Part of the reason for this is the existence of other renowned epidemiological surveillance organizations such as the World Health Organization's Department of Communicable Disease Surveillance and Response and the Center for Disease Control and Prevention's Center for Infectious Diseases or Epidemiology Program Office of the US Government.

Another reason CRED has not used the same thorough approach to epidemics as it has with other natural disasters and technological disasters is the very complexity of tracking and registering these events. Although a generic definition of an epidemic can be found in dictionaries, no one comprehensive definition exists with thresholds that can be applied to all diseases and across all regions of the world.

Certain epidemics such as HIV/AIDS and tuberculosis are not included in the EM-DAT database. The reason for this is that the occurrence of an epidemic is perceived in EM-DAT as a sudden, unpredictable acute disaster with a definite start and end date. The spread of HIV/AIDS, for example, has not yet shown any decrease worldwide in the number of people affected. It is clear however, that HIV/AIDS is an epidemic of an unprecedented significance that must be tackled with all available resources.

According to World Health Organization estimates for 2001, infectious diseases accounted for 26% of all deaths worldwide[1]. Of these deaths, almost 40% were from respiratory infections and diarrhoeal diseases alone. Existing drugs and vaccines, along with providing access to uncontaminated food and water, could have prevented many of these deaths

The inclusion of an epidemic into EM-DAT follows the same criteria as for any other natural or technological disasters. The criteria of a minimum of 10 deaths, 100 people affected, a call for international assistance or a declaration of a state of emergency must be met before the epidemic is included in EM-DAT. However, CRED is much more dependent on specialized agencies, as opposed to press agencies for example, for this type of information than for any other type of disaster.

The top 10 epidemics

The influenza epidemic of 1918 reportedly killed more than 20 million worldwide. Fortunately, there have not been any such pandemics – HIV/AIDS aside – over the last 30 years. Table 10 shows the world's top ten epidemics over the last 30 years in terms of numbers of people killed.

Table 10 - Top 10 epidemics by numbers killed: 1974 - 2003

Rank	Date	Country	Disease*	Reported Deaths
1	1991	Peru	Diarrhoeal/Enteric	8,000
2	1988	Ethiopia	Meningitis	7,385
3	1991	Nigeria	Cholera	7,289
4	1996	Burkina Faso	Meningitis	4,071
5	1996	Nigeria	Cerebro-Spinal Meningitis	3,889
6	1984	India	Dysentery	3,290
7	1995	Niger	Meningitis	3,022
8	1988	India	Encephalitis	3,000
9	1982	Bangladesh	Cholera	2,696
10	1991	Niger	Measles	2,618

* Disease classification as reported by source

Of the epidemics entered in our database, the most lethal over the last 30 years was the 1991 cholera epidemic in Peru. This epidemic was actually started when a foreign ship dumped sewage into a bay within reach of an important coastal town. The epidemic quickly spread throughout South America and even made it to the United States when infected passengers arrived from Peru on commercial airlines.

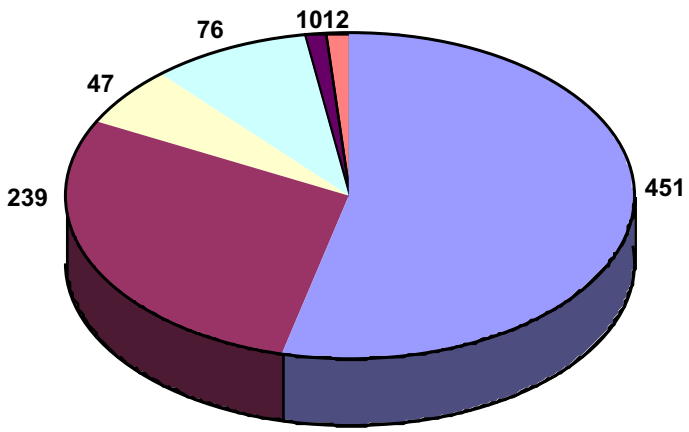
Six of the top 10 epidemics occurred on the African continent, three in Asia and one in South America. This follows the general geographic pattern of epidemic occurrences over the last 30 years, with the majority occurring in Africa followed by Asia.

The Democratic Republic of Congo (ex-Zaire), Nigeria, India, Bangladesh and Indonesia have the highest occurrences of epidemics, although undoubtedly, many remain unreported to world monitoring authorities. Epidemics in countries in civil conflict, such as Sierra Leone or Ivory Coast or sates such as Myanmar may very well go unreported.

An interesting trend observed from Map 3 is the occurrence of epidemics in countries bordering the equator. Many diseases, such as cholera, dengue fever or meningitis, occur naturally in the tropics – that is, they are endemic in those regions. It is one of the factors, but certainly not the only one, which leads to the occurrence of epidemics in Central Africa, where political instability,

Figure 8

Proportion of epidemics by continent: 1974 - 2003



Africa Asia Europe Latin America North America Oceania

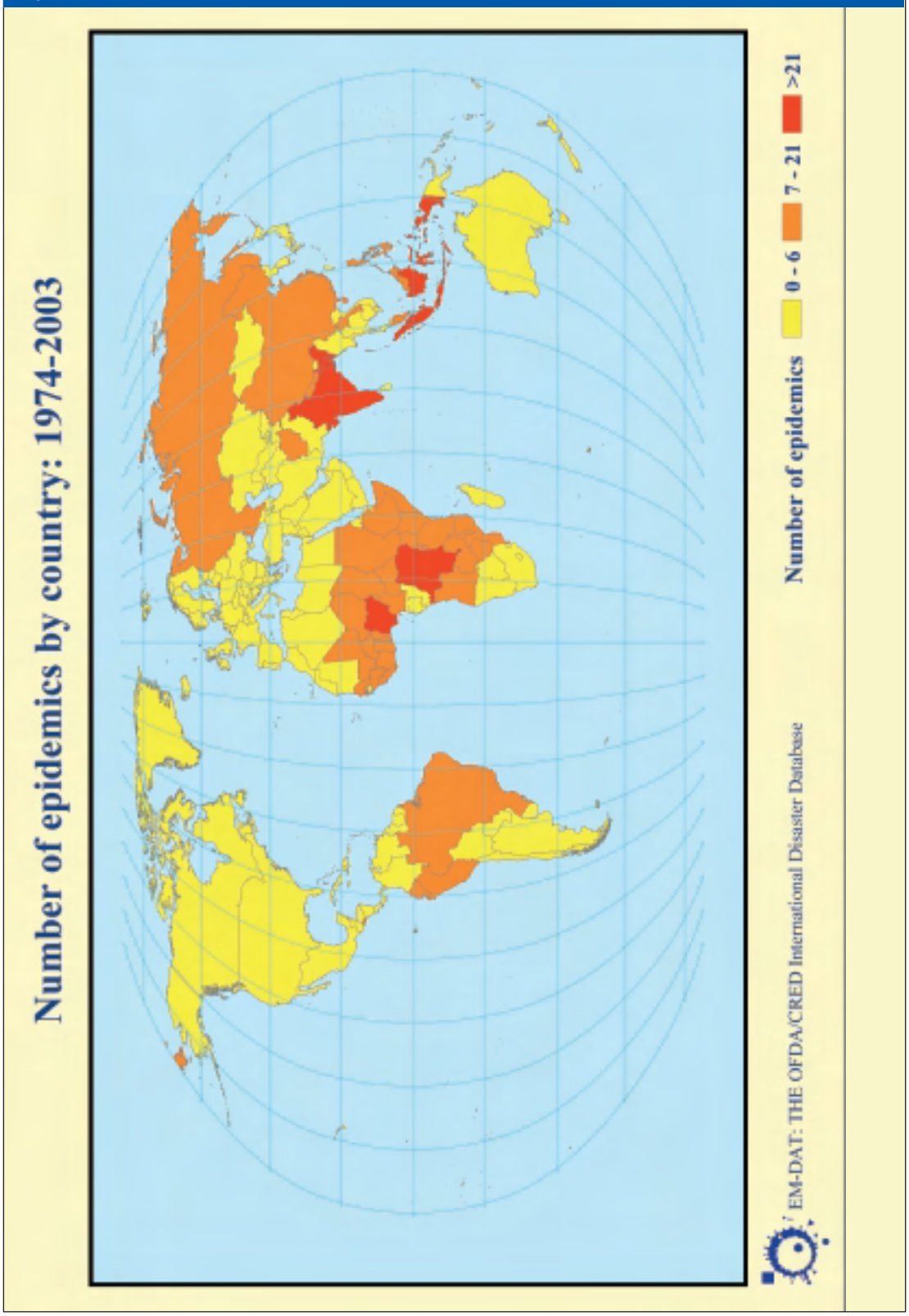
The worldwide country-based geographical distribution of epidemics worldwide between 1974 and 2003 shows some interesting patterns worth noting.

Map 3 is based on a "natural break" classification that identifies breakpoints between classes according to Jenk's optimization statistical method. This method minimizes the sum of the variance within each of the classes and finds groupings and patterns inherent in the data.

natural disasters and armed conflicts are common.

As is the case with all maps showing disaster occurrences by country, large countries such as China, Russia or Brazil stand out. For much of the period 1974-2003, data on epidemics in Russia and China were not easily available from the standard sources used by EM-DAT. It is interesting to note that there is no data on epidemics in Russia until 1995 and in China until 1987. These two countries, before they opened to the world,

Map 3


Number of epidemics by country: 1974-2003
Number of epidemics
0 - 6
7 - 21
>21
EM-DAT: THE OFDA/CRED International Disaster Database

regarded the outbreak of epidemics as a national security issue and did not share the information easily. This was highlighted as recently as 2002, during the SARS epidemic when cases were reported very late to international authorities, compromising the early recognition of the epidemic. Fortunately, implications of the outbreak soon convinced authorities of severely affected countries to cooperate fully with international health agencies, a requirement that is critical in today's globalized world where borders to not stop the spread of an infectious agent.

The global struggle continues

The optimism in the battle against infectious diseases, which fostered in the 1960s and 1970s, reached its peak in 1978 when the World Health Organization predicted that even the poorest nations would undergo a positive health transition before the millennium[2]. This optimism was based on two erroneous assumptions. The first was that the evolution of infectious agents was static and the second that diseases would not change in their geographic occurrence patterns.

Unfortunately, these assumptions soon proved to be flawed. A number of factors, including population expansion, complex humanitarian emergencies such as conflicts, international travel and trade, changing land use patterns, absent or ineffective health and surveillance systems as well as microbial adaptations have made the global struggle against infectious diseases more important today than ever in the past.

The number of emerging pathogens, that is those that are newly discovered and those that have previously existed but are increasing in incidence or appearing in areas where they previously did not exist, have increased over the last 30 years. For viral pathogens alone, six were discovered in the 1970s, including the Ebola virus. In the 1980s, that number rose to seven, including HIV and hepatitis C. In the 1990s, however, the number rose to an astonishing 20[3]. These included hepatitis E, F and G, and the West Nile encephalitis virus. During the current decade, there have already been a number of newly discovered pathogen, such as the SARS virus and the new strain of the avian influenza virus.

The increase in emerging pathogens is a significant issue that can only be resolved through global collaboration. Surveillance and response systems, applied research, prevention and control, as well as public health infrastructure must be strengthened. Furthermore, because many emerging infections have an animal reservoir, epidemiological surveillance of animal infections must run in parallel with human surveillance systems.

1 Findhauser, M.K., Global Defense Against the Infectious Disease Threat, World Health Organization, 2003.

2 Noji, E. ,The Global Resurgence of Infectious Diseases, Journal of Contingencies and Crisis Management, Blackwell Publishers, 2001.

3 Desselberger, U., Emerging and Re-emerging Viral Pathogens; Viral Infections and Treatment, Marcel Dekker, 2003

Donors prefer certain types of disasters

On average, international donations for emergency humanitarian aid totaled about US$7 million per disaster over the last decade. However, the basis on which the international community makes available humanitarian aid remains unclear. Donor reaction to disasters in different countries varied significantly during this period for reasons that are not immediately discernable. The allocation of humanitarian aid does not seem to be clearly linked to the magnitude of human needs. Furthermore, donors seem to show preferences for certain types of disasters over others, providing vastly variable aid for one compared to another.

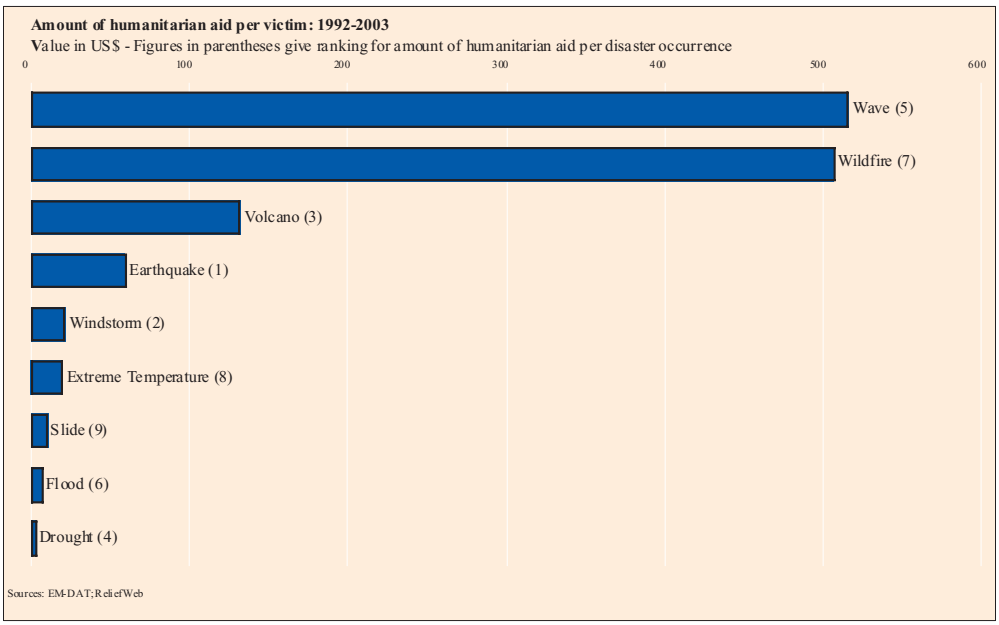
Overall, global humanitarian assistance more than doubled over the 1990s from US$2.1 billion at the beginning of the decade to US$5.9 billion in 2000. A sizeable part of this went to complex emergencies such as civil conflicts. Humanitarian aid peaked as a proportion of total overseas development aid in 1994-1995 in most countries except the UK, which doubled its humanitarian aid in 2002–2003 compared to what it gave in 1998–1999.

Examining received aid on a per victim basis, persons affected by droughts and floods – two of the most widespread, frequent and pervasive disasters – received US$2.8 and US$7.4 of aid per person, respectively. The highest per victim aid went for wildfires, tidal waves and other surges, and volcanoes, with the first two registering more than US$500 of aid per victim.

When ranking disasters by emergency aid per event, the most spectacular, acute disasters receive the largest amounts of emergency funds. This is hardly surprising as the impact of media on emergency aid is widely known and earthquakes tend to capture the headlines better than a slow growing flood or creeping drought. Earthquakes, windstorms and volcanoes receive, on an average, around US$10 million per event. The lowest recipients of aid according to disaster types are heat and cold waves, wildfires, and land and mudslides.

Recently, however, there is awareness among donors to allocate resources according to objective criteria of need. Questions have been raised by decisions to respond instigated by media

Figure 9



reports only, which have later been shown to be highly exaggerated. For example, the volcanic eruption in Goma in 1977 was reported as having killed more than 2,000 persons when in fact, the validated number was 147. Similarly, the 2003 Bam earthquake initially registered more than 40,000 deaths, which was subsequently validated at 26,796, although this figure may yet change.

Validated and accurate figures are key to targeting emergency aid and improving its effectiveness. Disasters reporting large numbers of dead will trigger a different type of aid response than those with fewer dead and more injured but living victims. CRED, having started a process to improve accuracy and quality of disaster related data, is advocating for better rapid data collection methods and their use for emergency decision making by donors.

Response to Hurricane Mitch tops the list

The largest single contribution for a natural disaster was made for Central American countries after hurricane Mitch, with about US$700 million in emergency aid. This amount represented almost the entire humanitarian budget of both the European Commission and the US government in 1998 and exceeded the total given for all natural disasters in the previous five years. The emergency aid response to this was massive, pushing this group of countries affected by one single disaster right to the top of the list of humanitarian aid recipients.

India, Bangladesh and China rank highest on the list of single nation countries receiving the maximum of humanitarian aid for natural disasters. This partly reflects the fact they are all among either the world's most densely populated or largest countries. India is both. As a result, the numbers of affected in these countries very easily tally in the millions as soon as there is a small disaster triggering an international humanitarian response.

Because some countries obviously experience more disasters than others, another way of looking at the distribution of aid is to compare it on a per-disaster basis.

Table 12 - Largest recipients of humanitarian aid per disaster: 1992-2003

Country	Number of disasters	Humanitarian Aid /disaster US$
Central America	1	682,829,892
Egypt	2	98,238,508
Montserrat	2	42,415,669
El Salvador	2	37,246,281
Mozambique	6	32,532,658
Democratic Republic of Congo	2	22,387,514
Turkey	7	21,198,463
Poland	2	20,703,096
Bangladesh	14	17,939,682
China	14	17,679,696

Table 11 - Top 10 recipients of humanitarian aid: 1992-2003

Country	Humanitarian Aid (US$)
Central America	682,829,892
India	274,372,511
Bangladesh	251,155,547
China	247,515,742
Egypt	196,477,016
Mozambique	195,195,949
Turkey	148,389,240
Afghanistan	94,580,566
Montserrat	84,831,338
El Salvador	74,492,561

Hurricane Mitch still leads the list for this index followed not by China and India, but Egypt and the small Caribbean island of Montserrat. Egypt received an average of US$100 million in international emergency funds for two disasters, the largest of which was the earthquake in 1992. Montserrat received a bit more than US$40 million for the successive eruptions of the The Soufriere Hills volcano in the period 1995-1997.

Countries suffering more frequent disasters, such as Bangladesh and China received about US$17 million per disaster event. India does not rank among the top 10 recipients in this category.

An inequitable distribution of resources

The previous section presented some analyses of allocation patterns and preferences in humanitarian aid for natural disasters. The Overseas Development Institute (ODI) in the UK published a report[1] analysing the past six years of bilateral humanitarian assistance to both civil conflicts and natural disasters. This report finds that aid has been split fairly evenly between three regions – Africa, Asia and Europe – with each receiving around a fifth of the total. For the main multilateral agencies, the picture is different. In 2000, for example, 64% of the World Food Programme's (WFP) expenditure allocable by region went to Africa. ECHO's allocation of humanitarian expenditure shows a strong European bias, with 47% being spent in Central and Eastern Europe between 1993 and 2000, almost half of it in the former Yugoslavia.

Data on the allocation of funds per affected person is also revealing. ODI notes that during the 1990s, funding per affected person in the Great Lakes and the former Yugoslavia was roughly twice the average for surrounding countries. Funding requests also far outstripped those for other regions. The average request for Africa between 1995 and 1997 was between US$50 and US$90 per affected person, however, for the Great Lakes it was never lower than US$150 and peaked at US$235. In the former Yugoslavia, requested funding per head ranged from US$150 to US$300 compared with a regional average of less than US$120.

In 2000:

- Five countries received less than US$10 per affected person – North Korea, Somalia, Tajikistan, Uganda and Guinea-Bissau.
- Five received between US$20 and US$36 per person – Sudan, Angola, Burundi, Sierra Leone and Tanzania.
- One received US$87 per person – the Democratic Republic of the Congo.
- One region received US$185 per person – South-Eastern Europe.

These substantial differences cannot be explained by the varying costs of providing humanitarian assistance in different countries. The numbers tell a different story. They imply that different standards tend to be applied and criteria for emergency aid are neither stated nor transparent.

Patterns of aid such as those presented in this chapter indicate that humanitarian assistance still has some ways to go before it can be considered impartial and evidence-based. According to ODI, the major destinations of official humanitarian aid funds tend to be high-profile emergencies and those in countries or regions that donors consider politically or strategically important.

Consider that over the past decade these countries or regions have included the Balkans, Israel, Iraq, Rwanda and Afghanistan. Countries with "unpopular" governments and/or "invisible" emergencies tend not to attract aid. ODI maintains this is why WFP was unable to secure any resources in response to the crippling drought that struck Cuba in 1998.

1 Overseas Development Institute, HPG Briefing, Number 4, November 2002.

Looking to the future

Are natural hazards increasing? Probably not significantly. But the number of people vulnerable and affected by disasters is definitely on the increase. And the two are not the same thing. Globally, a little more than 90 million were affected by natural disasters in 1990. In 2003, the comparable number was nearly 255 million, bringing the cumulative total between 1990 and 2003 to 3.4 billion. The numbers affected have increased more than 180% from 1990 to 2003 compared to just more than a 60% increase in numbers of reported disasters over the same period.

A 60% increase may not represent a significant increase in numbers of events in view of vastly improved reporting and media coverage. But a 180% increase in victims is a definite trend and one that is likely to continue into the future.

These statistics reveal many harsh realities concerning natural disasters. Mitigation of hazards, such as early warning for cyclones or better flood plain management, has much improved over the last decades due to more accessible technology and greater know-how. Furthermore, effectiveness and efficiency in both national and international relief response has made great progress during this period, bringing down the death tolls from disasters. On the other hand, environmental factors and population pressures are far more complex and difficult to control.

While excess mortality related to acute and chronic disasters has decreased, there is an increase in the number of victims who survive with physical injuries or severe social and economic devastation. As communities living in poor and vulnerable conditions increase, the proportion of families affected by natural disasters also increases. These are the less visible and long-term victims of disasters whose vulnerability can only be addressed by sustainable development programmes.

Analysing the trends in the data over the last 30 years, we observe that while we may be able to control deaths from disasters, in the absence of a risk management component in development programmes, the number of people affected will most likely continue to increase.

Indirect causes, such as indiscriminate logging, desertification and inadequate access to roads and markets force people to move and settle in risky areas in and around cities. In addition, concentration of resources in urban areas and lack of schools and health centres in rural areas push families to move into slums and other areas of little or no economic opportunity. People live in riverbeds, gorges, volcanic slopes and exposed lands to be near public facilities and economic centres. Inadequate development programming does not give them a choice.

Mega-disasters are considered mega because of the size of the population they affect, not because of the Richter scale reading or the intensity of the Beaufort wind scale. Therefore, densely populated areas tend to have more "disasters" from relatively insignificant events because large numbers of people are affected. Conversely, disasters occurring in sparsely populated areas affect fewer people and are less likely to qualify as a major humanitarian crisis.

When the earthquake hit Bhuj, India on January 26, 2001, the population of the city had tripled from what it was in 1980. In this period, the town known to be at a high seismic risk, experienced a massive migration from the rural hinterlands. In 2001, most of estimated 30,000 deaths occurred in the city, creating a mega-disaster. In 1980, it may not have been considered as such. Floods in the outskirts of Dhaka, Bangladesh, would have affected perhaps 250,000 people in 1980. Today, the numbers would more likely be in the millions.

As Figures 10 and 11 show, if current trends continue the number of large disasters will likely continue to rise in poorer countries, but at a slower rate, while they are likely to decrease in richer countries. At the same time, an increase in the frequency of small disasters in developed countries is a probable scenario – their numbers having risen substantially since 1995. For poorer countries, the number of small and medium-sized disasters also seem set to rise significantly.

Figure 10

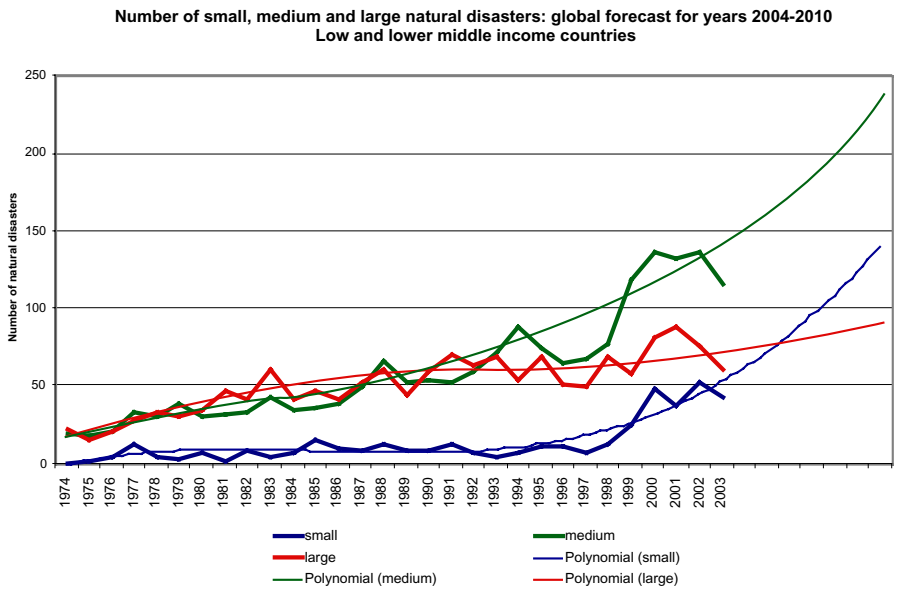
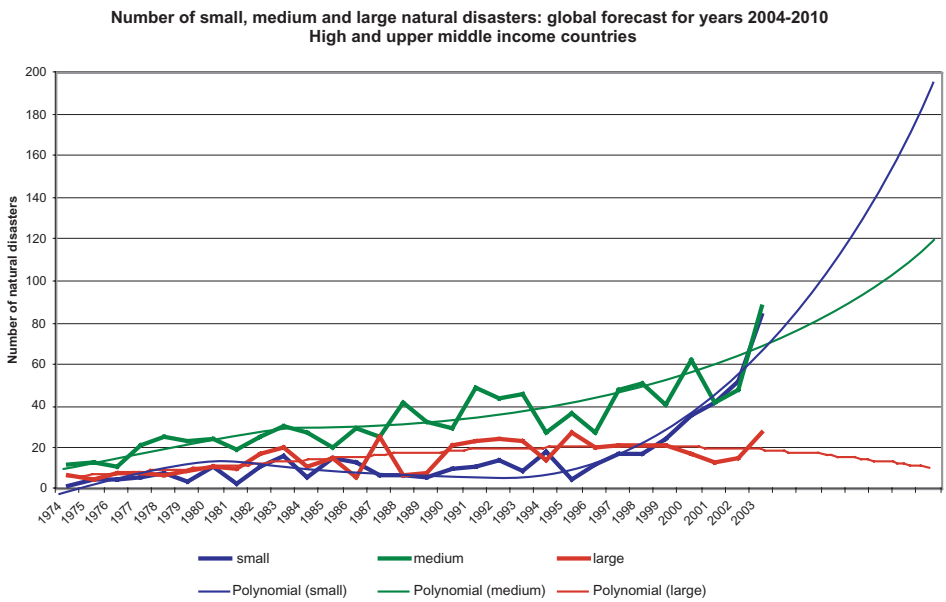


Figure 11



Official development assistance on a global level is not increasing. However, over the last decade humanitarian aid has increased substantially. This trend reflects a preoccupation with highly visible and short-term responses to disasters rather than the more difficult, but substantive sustainable development programmes.

This increase of humanitarian funding has spurred the creation of hundreds of humanitarian organizations, resulting in a greater push to declare emergencies to qualify for aid. It is incontestable that the poor and vulnerable people affected by natural disasters require aid, but it is also incontestable that not enough is done to prevent or

mitigate the occurrence of the most common forms of natural disasters.

Looking into a crystal ball is a risky business and even more so for phenomena that are so closely linked to notoriously unpredictable physical, meteorological and social parameters. At the same time, by pointing a finger at uncontrollable natural events, we draw attention away from the fact that inequitable distribution of resources are forcing increasing numbers of people to live in risky areas. Disaster preparedness, mitigation and prevention should move out of the humanitarian agenda and become an organic part of the development framework.

In the future, environmental and population pressures will particularly affect the occurrence of floods and droughts. Progressive impoverishment of people will mean that small and previously insignificant disasters will be classified as major ones due to the impact on human communities. Rising sea levels caused by climate change threaten millions of people living in low-lying areas such as Bangladesh, small island states, China or Egypt. In addition, global warming is furthermore expected to increase the occurrence of natural hazards and epidemics over the next century.

A call to action

First, disaster management and response should become more evidence-based. Data should be used more frequently to justify resource allocation and targeting of action. Data quality should improve but only to the point that it is collected for a clear, concrete and specific use. It should not become an end in itself.

Second, disaster preparedness, mitigation and prevention should be mainstreamed in development programmes. Funding these activities from humanitarian or emergency funds is inappropriate and ineffective at best. Most of the impact of disasters require long term actions, often structural in nature. Ad hoc, time bound projects implemented for small areas are clearly inadequate given the magnitude of disaster impact.

Finally, evaluation and monitoring indicators need to be developed in order to gauge progress in different countries or regions. In the absence of a systematic approach, the impact of the funds spent on preparedness, mitigation and prevention will remain unknown.

This report should be considered a call to action, for the time to take action is now.

Annex 1: disaster maps

The following maps show global disaster data by main disaster categories for the number of disaster occurrences and the number of victims per 100,000 inhabitants.

The main disaster categories are:

- Hydrological disasters include floods, landslides, mudflows, avalanches, storms, typhoons, cyclones, hurricanes, winter storms, tornadoes, tropical storms, droughts, wildfires and extreme temperatures.
- Geological disasters include earthquakes, volcanic eruptions, tsunamis, and tidal waves.
- Droughts and related disasters include droughts, extreme temperatures, and wildfires.
- Floods and related disasters include floods, landslides, mudflows and avalanches.
- Windstorms and related disasters include storms, typhoons, cyclones, hurricanes, winter storms, tornadoes and tropical storms.
- Earthquake and related disasters include earthquakes, tsunamis and tidal waves.
- Volcanic eruptions.

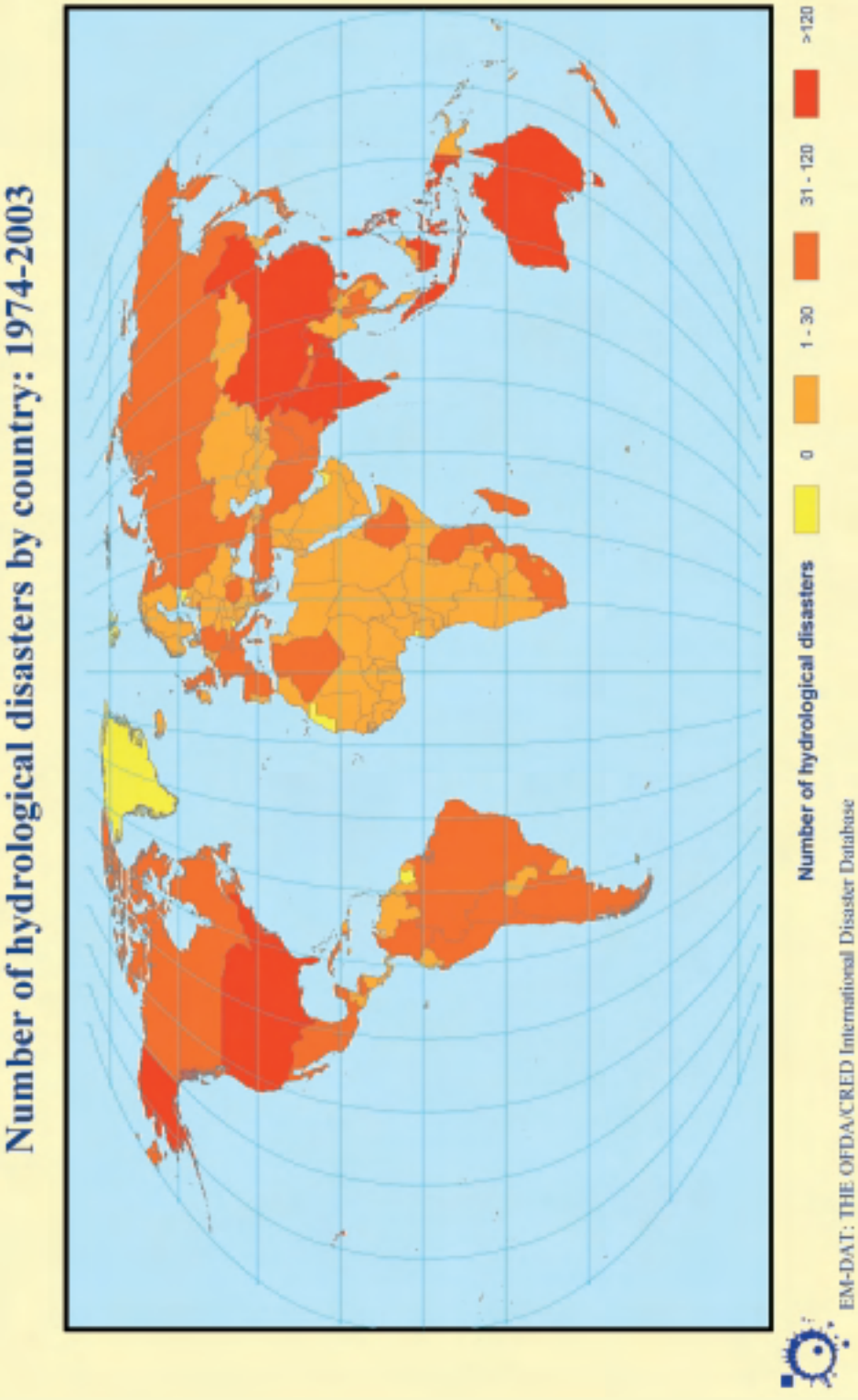
The mean annual number of victims per 100,000 inhabitants was calculated by adding the number of people killed and the number of people affected by a disaster every year, dividing this number by the total number of inhabitants in the country or territory that same year and multiplying the result by 100,000.

For countries such as the former USSR or Yugoslavia, which have experienced a break-up over the previous 30 years, data were disaggregated and associated with the countries resulting from the breakup. When it was impossible to disaggregate the data they were not included in the maps. However, data that have not been included on the maps usually represented less than 1% of the global total.

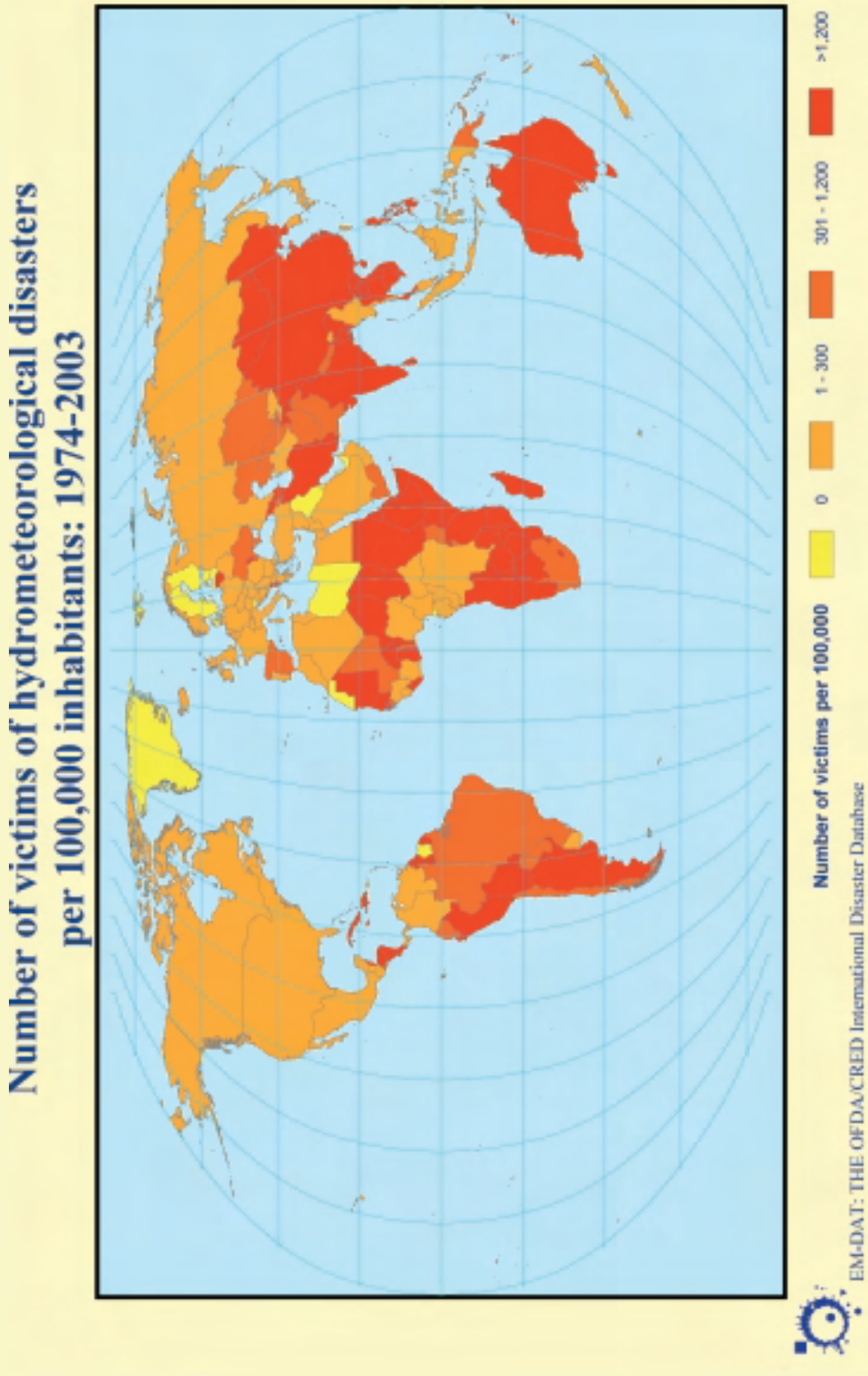
The classification of the data into the four classes shown on the maps was done manually, depending in part on the mean and range of the data. Classes were also selected so that the number of disasters or victims over the 30 years could be broken down to get annual values. To allow the comparison of the maps showing the number of disasters and the number of victims, a proportionally similar scale was used between the two.

The class representing zero disasters or victims includes situations when no disaster data was reported and when no victims or population data were available.

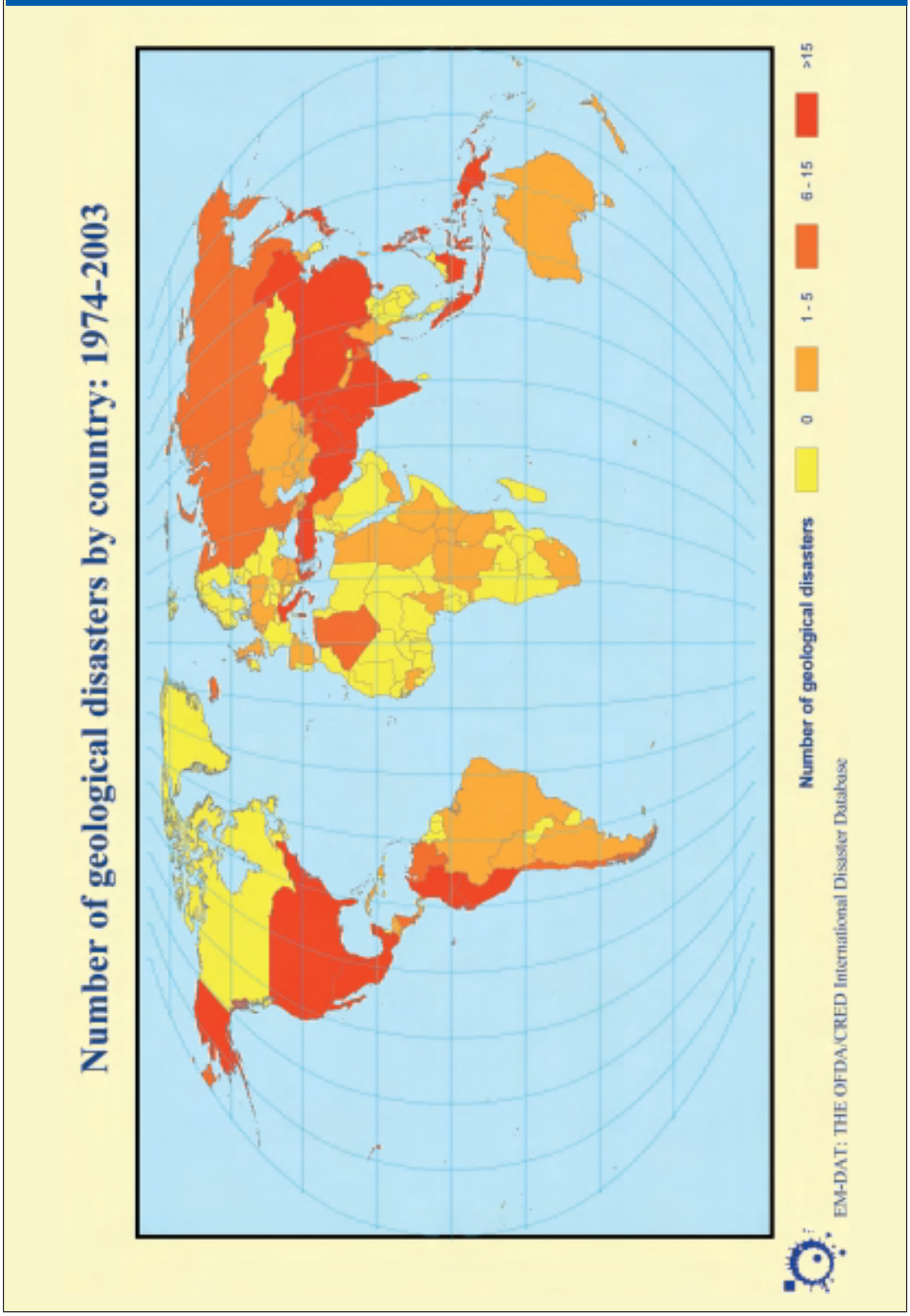
Map Annex 1


Number of hydrological disasters by country: 1974-2003
Number of hydrological disasters
0
1 - 30
31 - 120
>120
EM-DAT: THE OFDA/CRED International Disaster Database

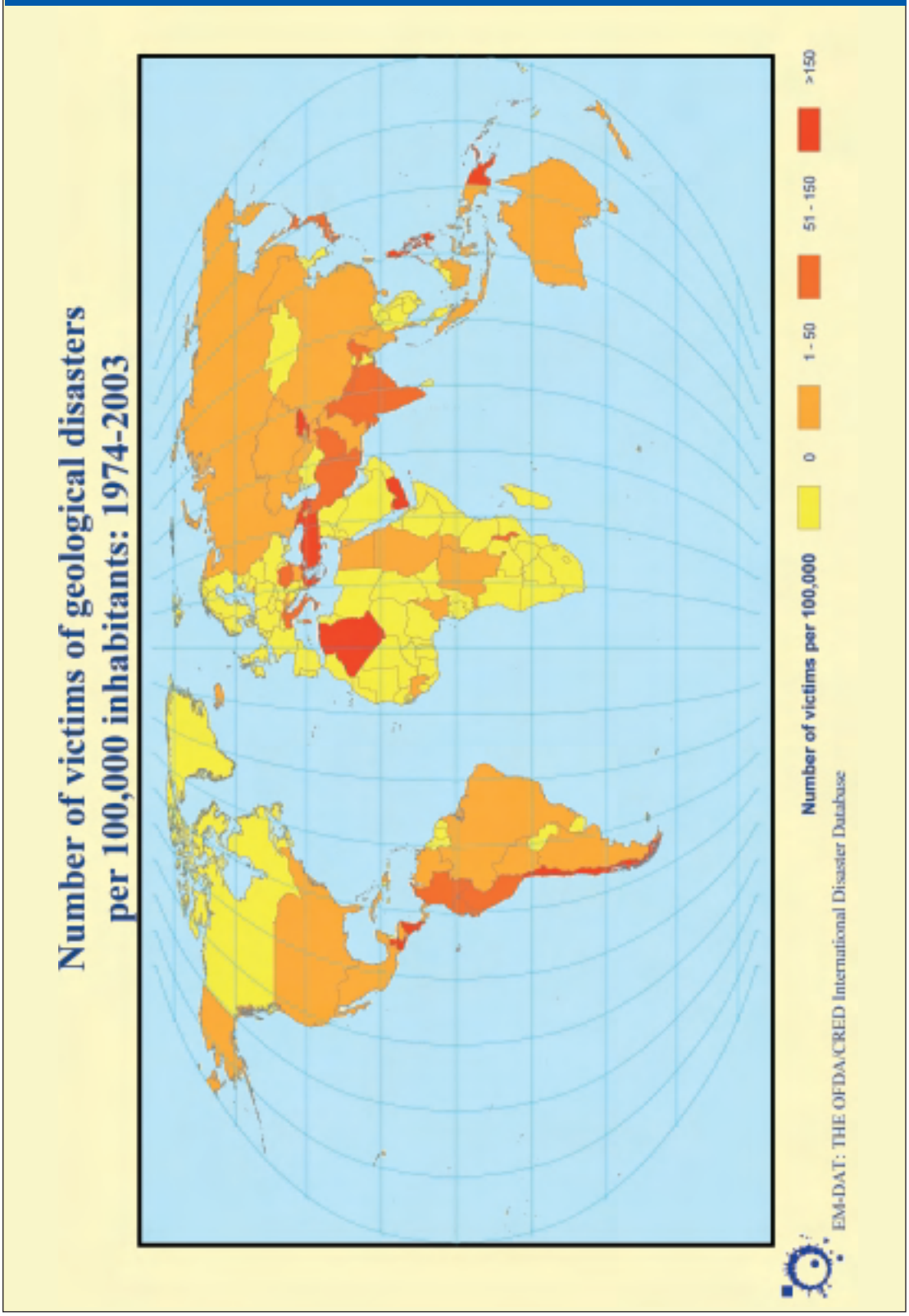
Map Annex 2


Number of victims of hydrometeorological disasters per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 300
301 - 1,200
>1,200
EM-DAT: THE OFDA/CRED International Disaster Database

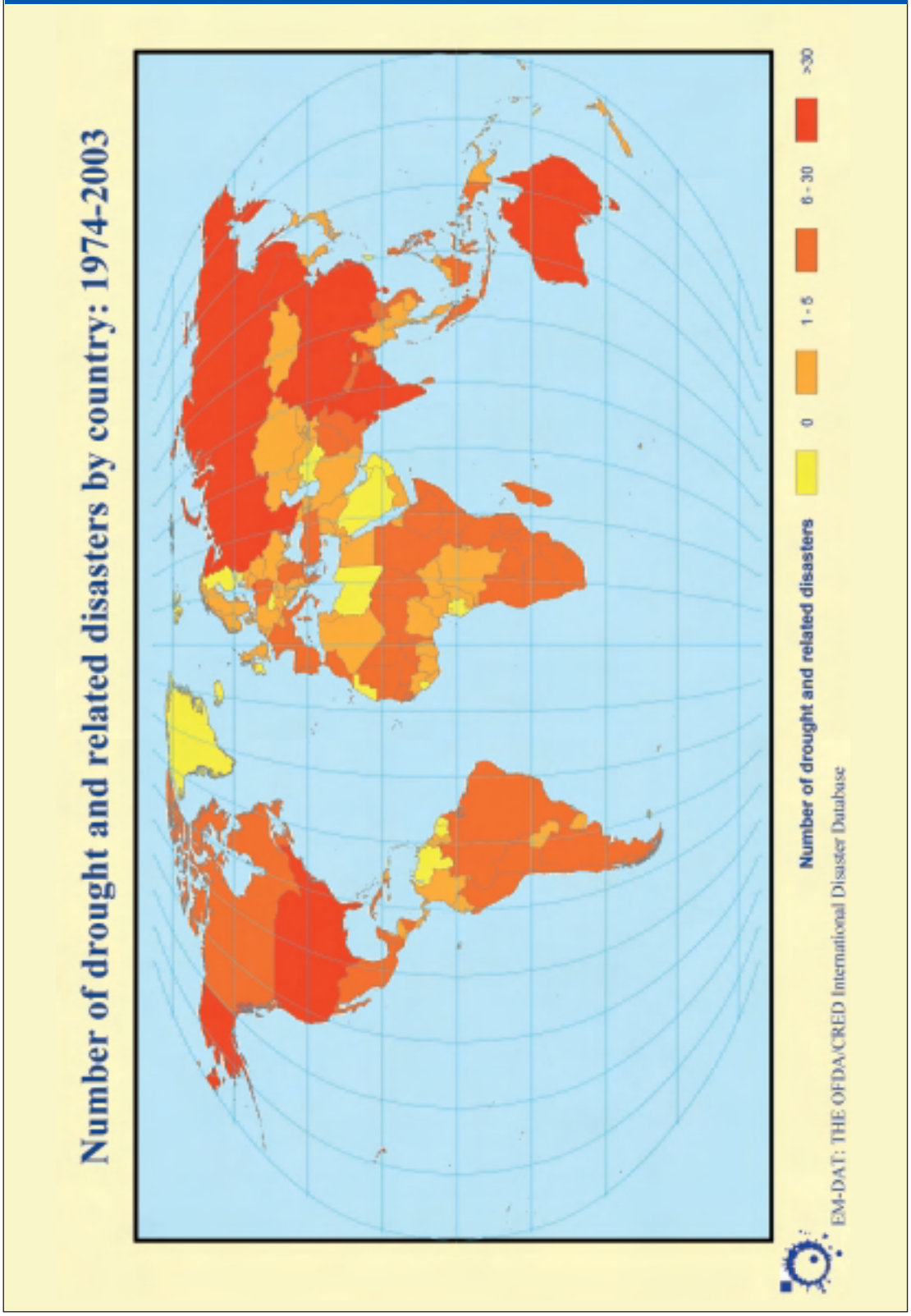
Map Annex 3


Number of geological disasters by country: 1974-2003
Number of geological disasters
0
1 - 5
6 - 15
>15
EM-DAT: THE OFDA/CRED International Disaster Database

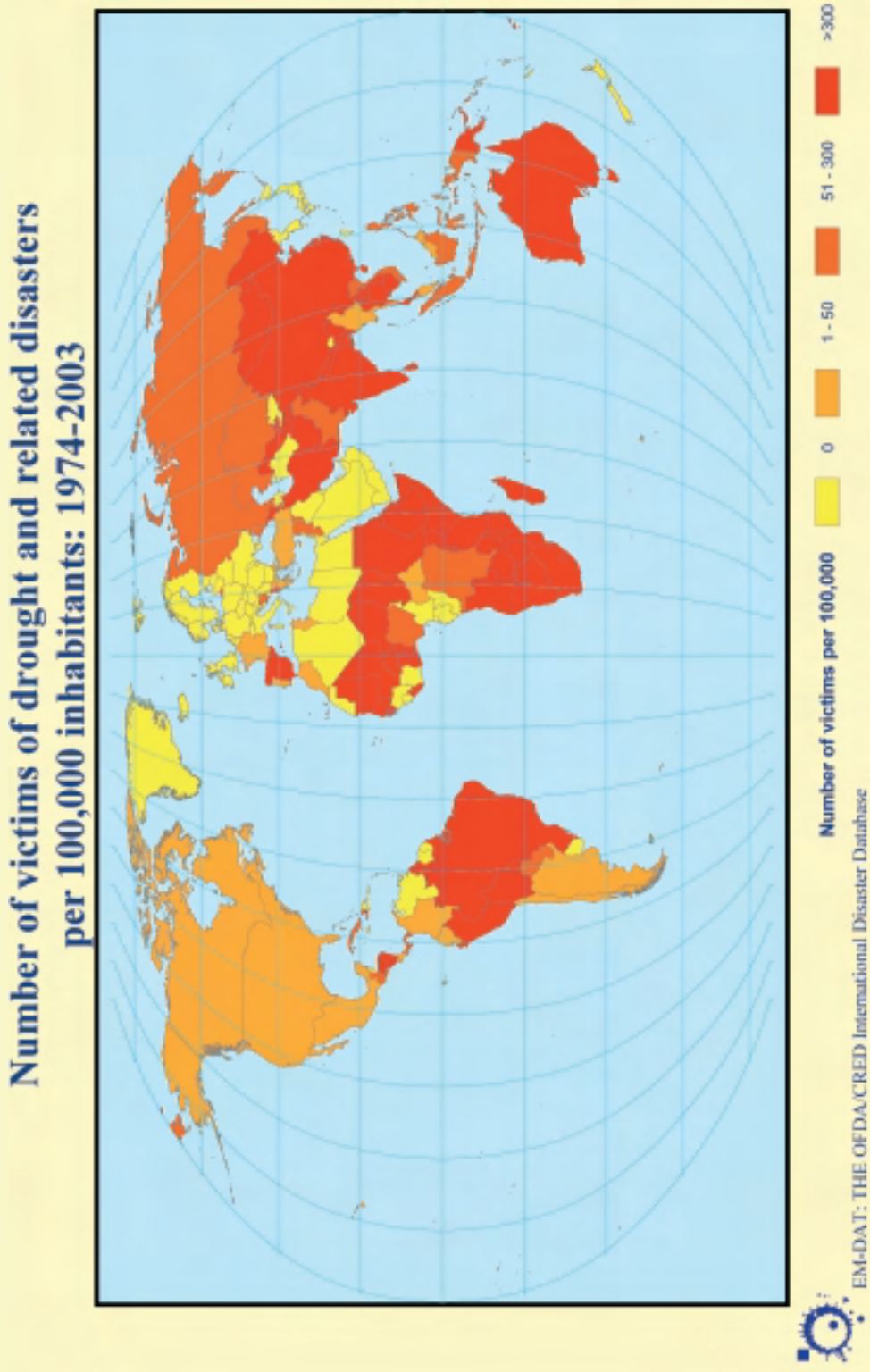
Map Annex 4


Number of victims of geological disasters
per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 50
51 - 150
>150
EM-DAT: THE OFDA/CRED International Disaster Database

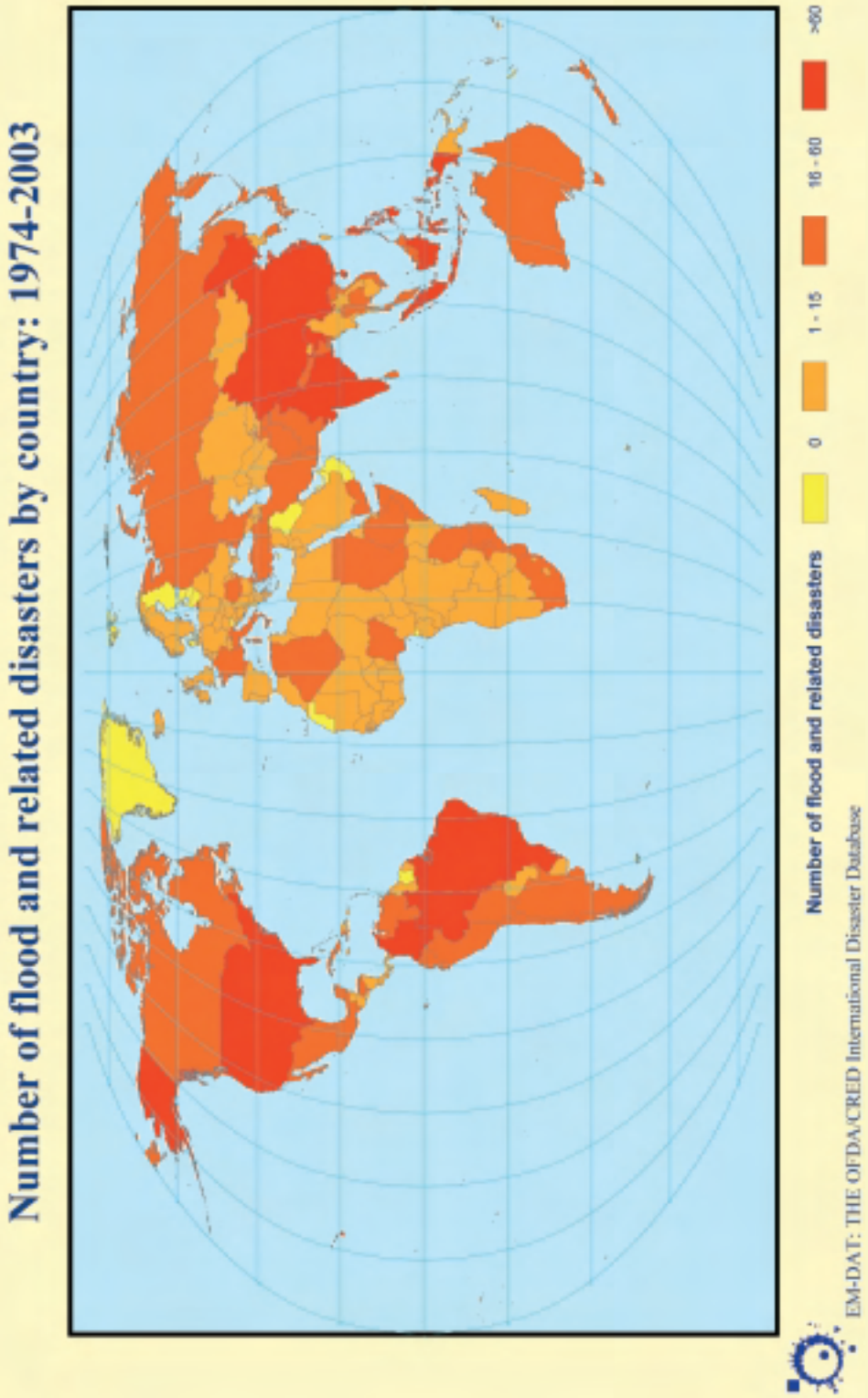
Map Annex 5


Number of drought and related disasters by country: 1974-2003
Number of drought and related disasters
0
1 - 5
6 - 30
>30
EM-DAT: THE OFDA/CRED International Disaster Database

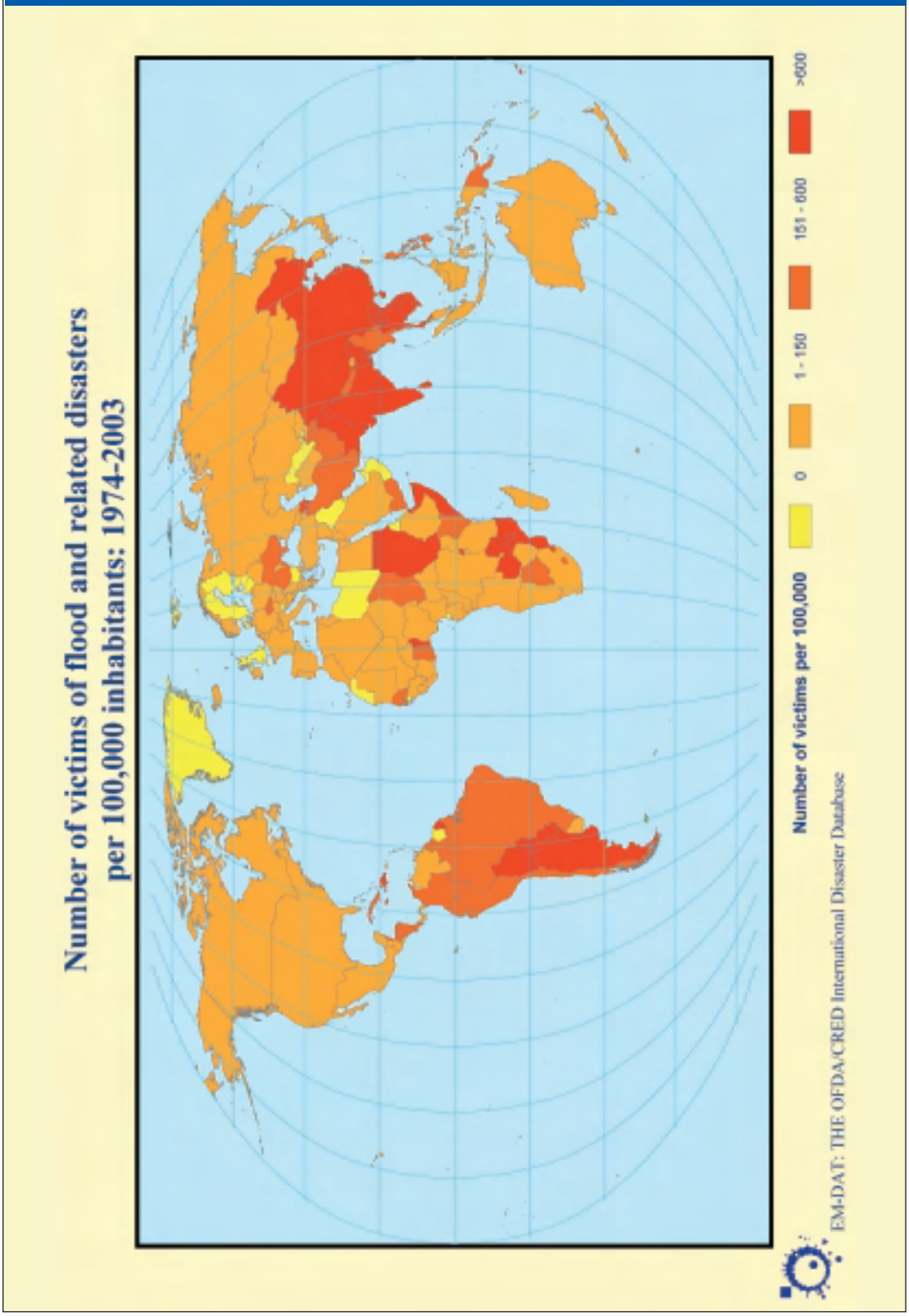
Map Annex 6

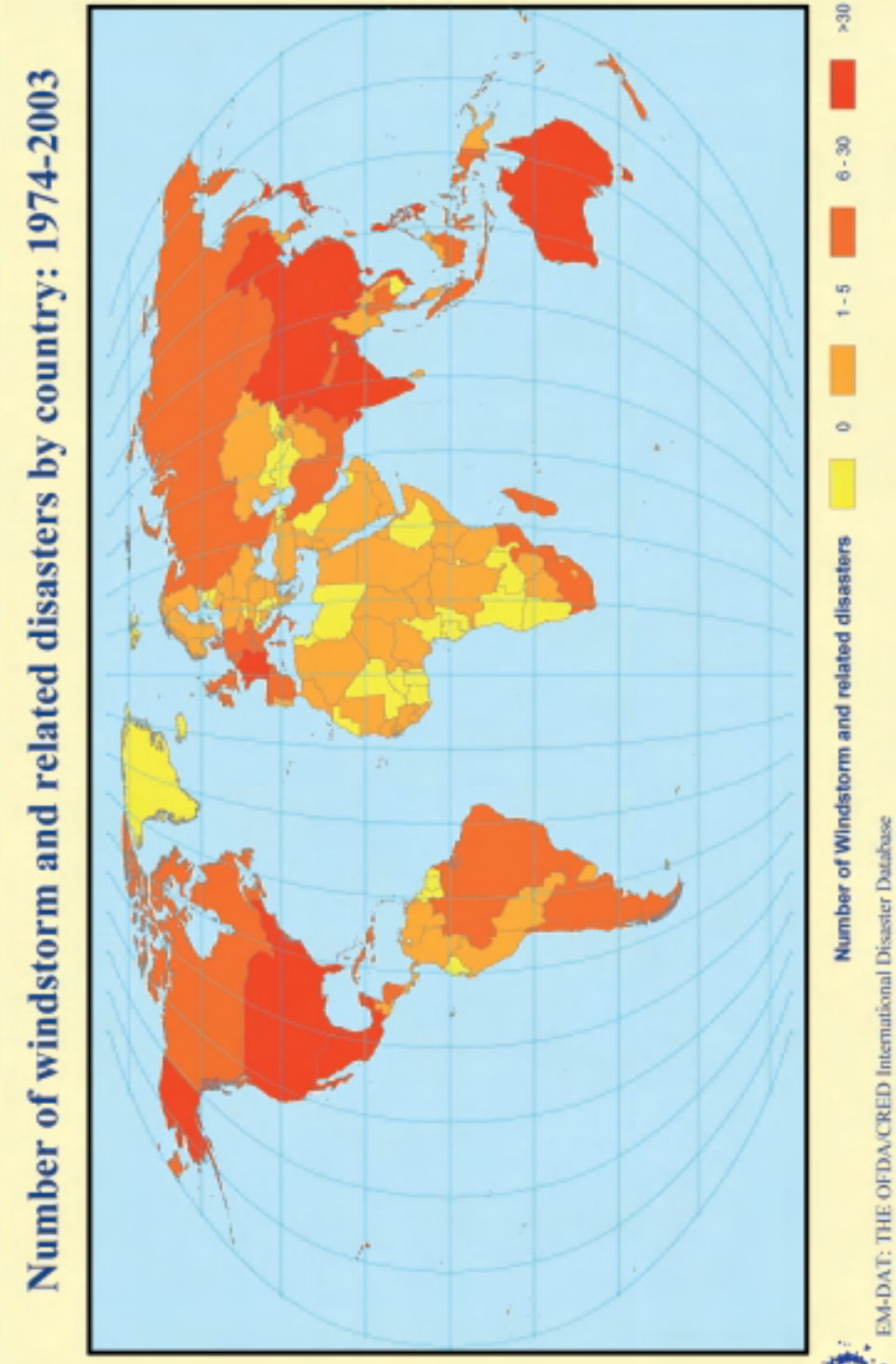

Number of victims of drought and related disasters
per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 50
51 - 300
>300
EM-DAT: THE OFDA/CRED International Disaster Database

Map Annex 7

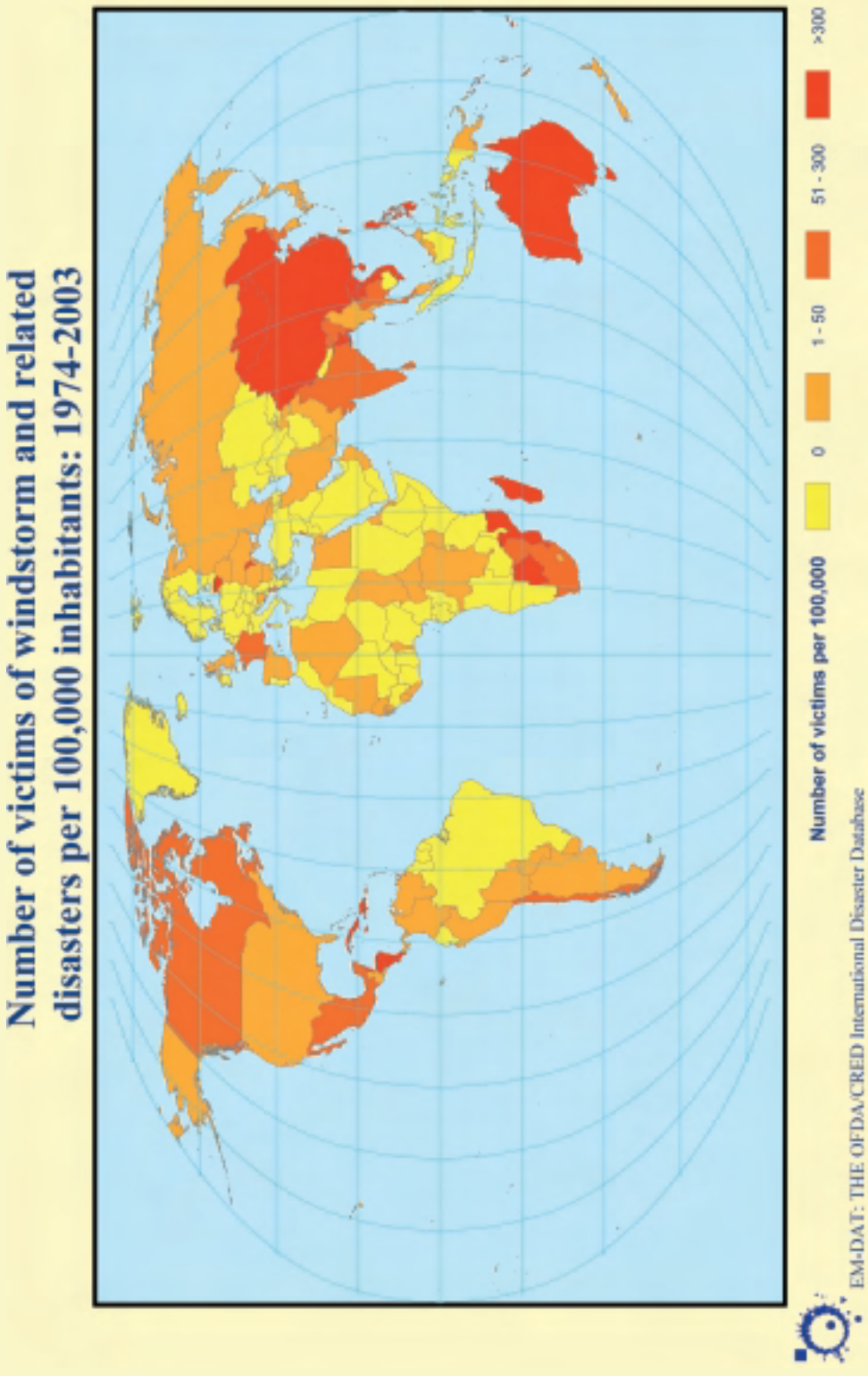

Number of flood and related disasters by country: 1974-2003
Number of flood and related disasters
0
1 - 15
16 - 60
>60
EM-DAT: THE OFDA/CRED International Disaster Database

Map Annex 8

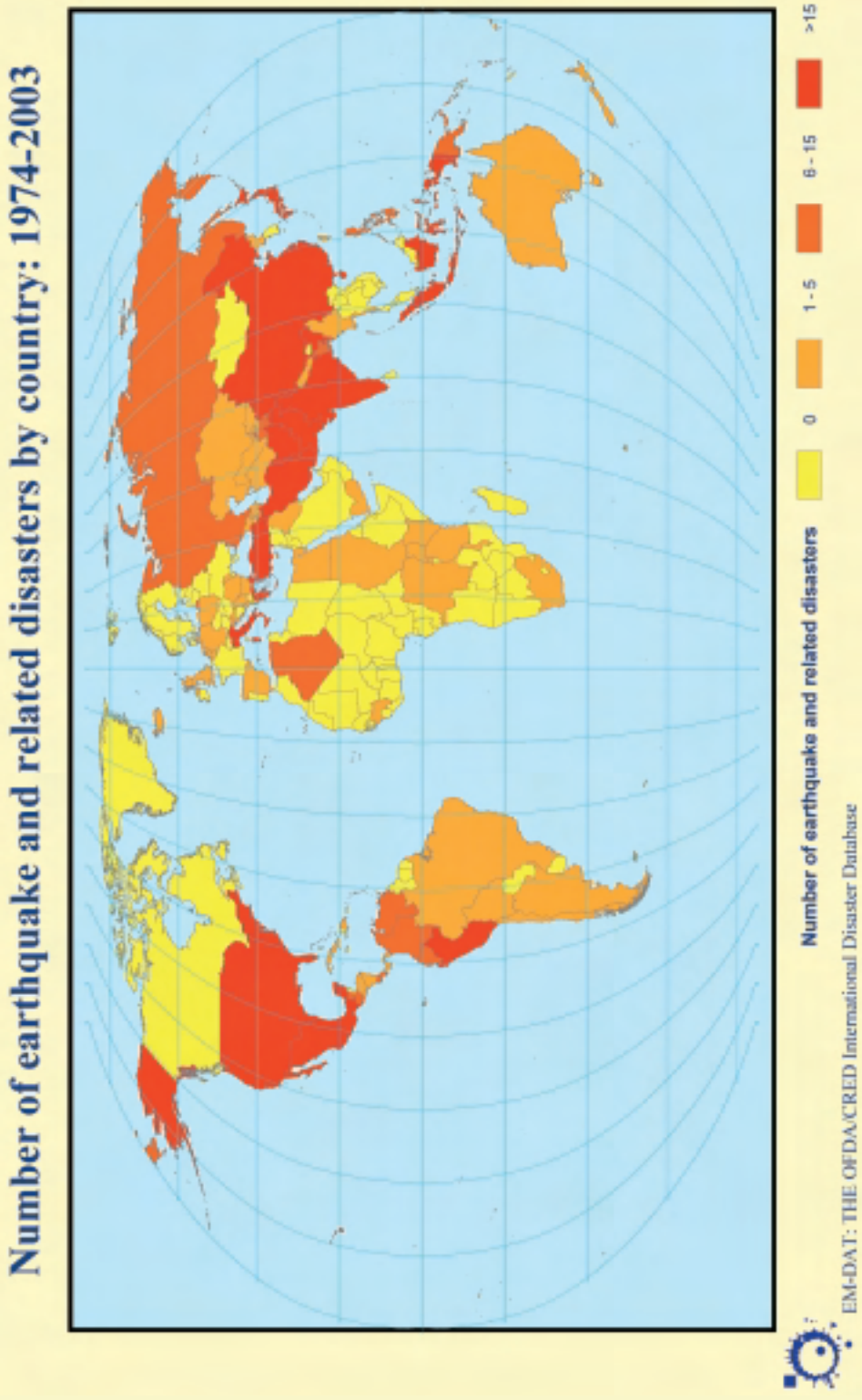

Number of victims of flood and related disasters
per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 150
151 - 600
>600
EM-DAT: THE OFDA/CRED International Disaster Database


Number of windstorm and related disasters by country: 1974-2003
Number of Windstorm and related disasters
0
1 - 5
6 - 30
>30
EM-DAT: THE OFDA/CRED International Disaster Database

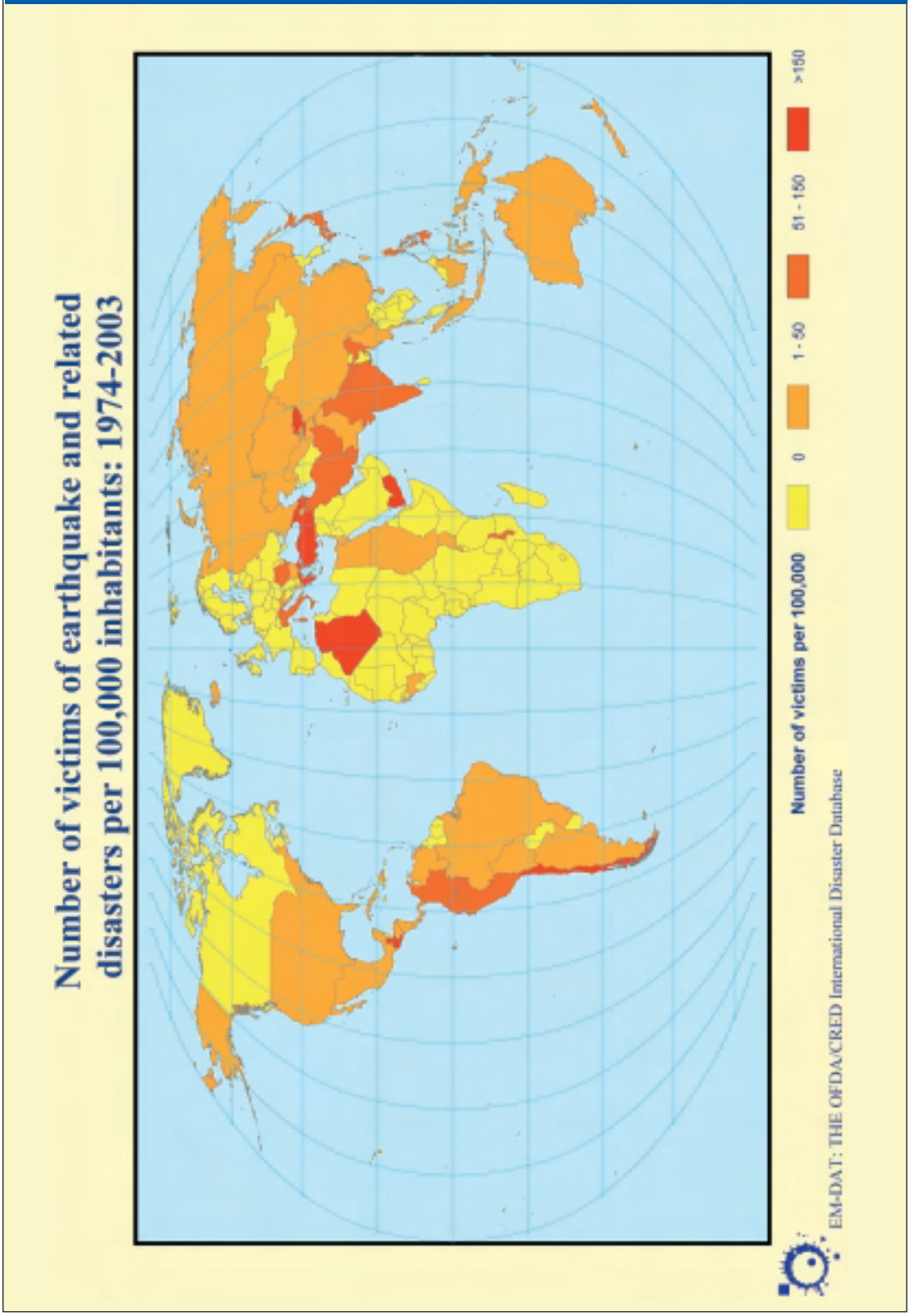
Map Annex 10


Number of victims of windstorm and related disasters per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 50
51 - 300
>300
EM-DAT: THE OFDA/CRED International Disaster Database

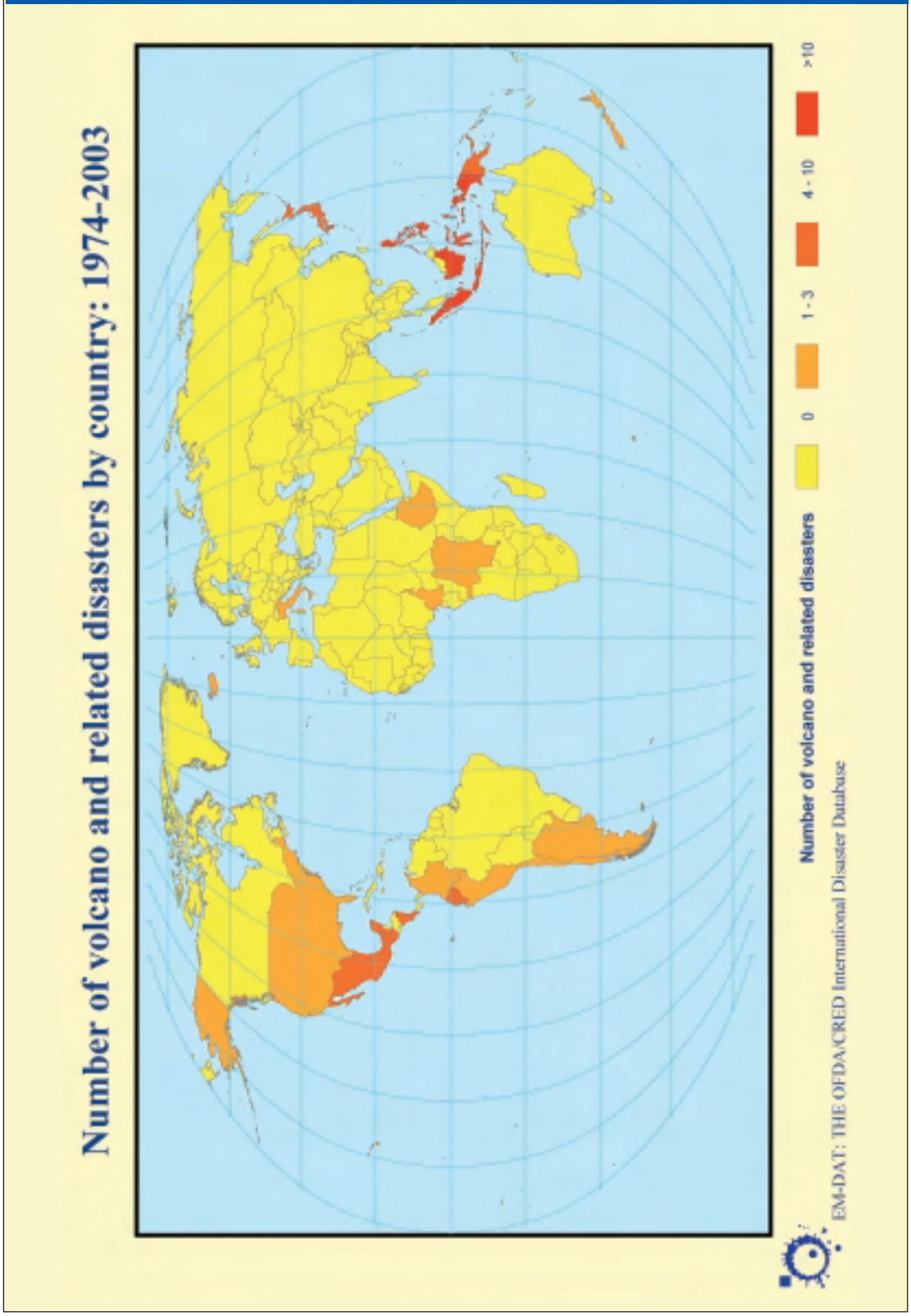
Map Annex 11


Number of earthquake and related disasters by country: 1974-2003
Number of earthquake and related disasters
0
1 - 5
6 - 15
>15
EM-DAT: THE OFDA/CRED International Disaster Database

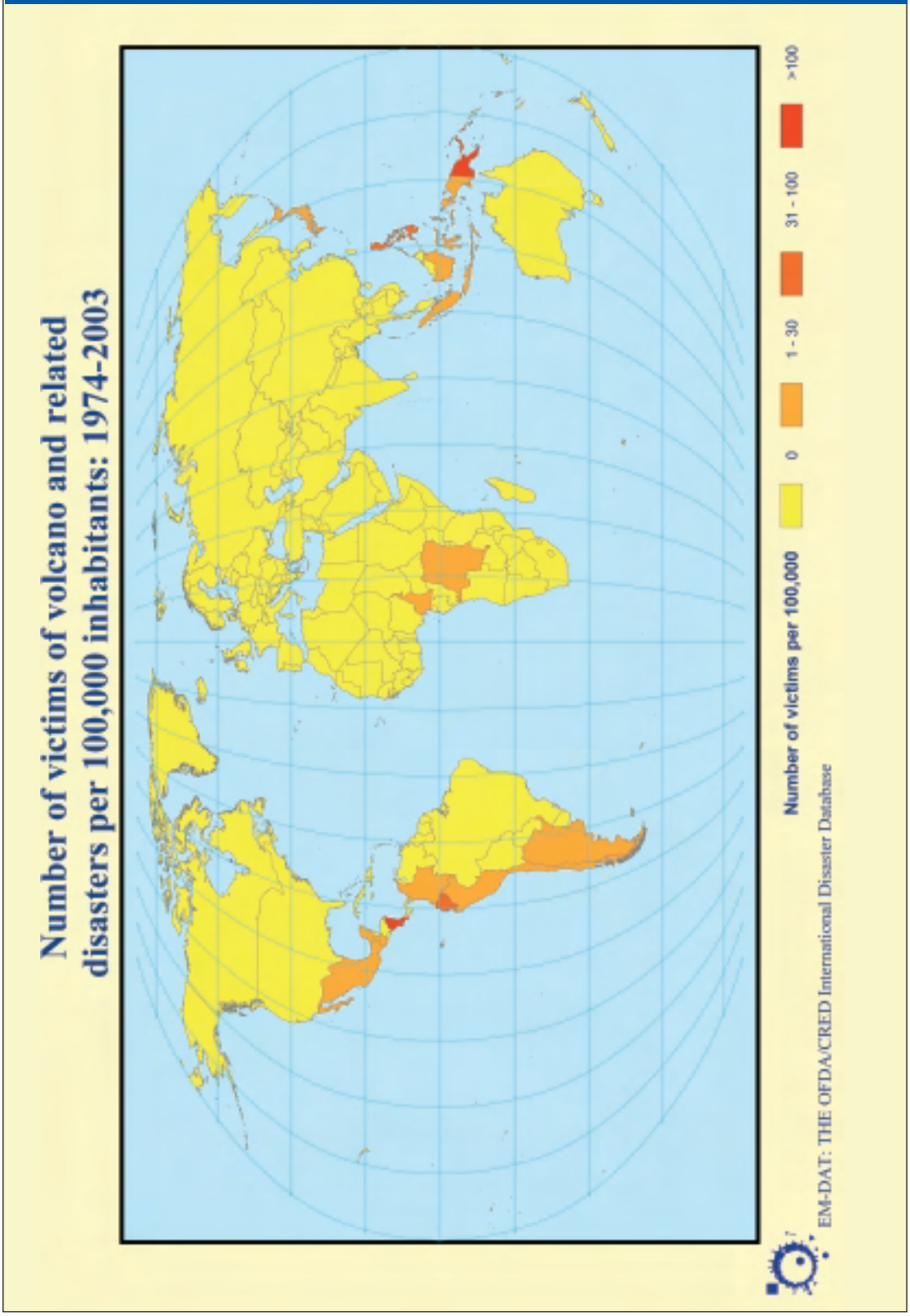
Map Annex 12


Number of victims of earthquake and related disasters per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 50
51 - 150
>150
EM-DAT: THE OFDA/CRED International Disaster Database

Map Annex 13


Number of volcano and related disasters by country: 1974-2003
Number of volcano and related disasters
0
1 - 3
4 - 10
>10
EM-DAT: THE OFDA/CRED International Disaster Database

Map Annex 14


Number of victims of volcano and related disasters per 100,000 inhabitants: 1974-2003
Number of victims per 100,000
0
1 - 30
31 - 100
>100
EM-DAT: THE OFDA/CRED International Disaster Database

Annex 2: statistical tables

Table 1 - Total number of natural disasters: 1974 - 2003
Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003
Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003
Table 4 - Total number of hydrometeorological disasters: 1974 - 2003
Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003
Table 6 - Total number of geological disasters: 1974 - 2003
Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003
Table 8 - Total number of drought and related disasters: 1974 - 2003
Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003
Table 10 - Total number of flood and related disasters: 1974 - 2003
Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003
Table 12 - Total number of windstorm disasters: 1974 - 2003
Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003
Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003
Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003
Table 16 - Total number of volcanic disasters: 1974 - 2003
Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003
Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003
Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003

Table 1 - Total number of natural disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	3	3	4	13	13	28	64
Albania	ndr	3	3	2	3	2	13
Algeria	1	8	6	5	6	18	44
American Samoa	ndr	ndr	1	3	0	1	5
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	1	1	4	1	11	18
Anguilla	ndr	3	1	ndr	ndr	1	5
Antigua and Barbuda	ndr	1	ndr	2	2	2	7
Argentina	6	6	10	8	8	24	62
Armenia	ndr	ndr	1	ndr	3	1	5
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	30	24	16	20	35	33	158
Austria	2	5	6	6	1	6	26
Azerbaijan	ndr	ndr	ndr	ndr	5	5	10
Azores	ndr	1	ndr	ndr	3	ndr	4
Bahamas, The	ndr	ndr	1	2	ndr	2	5
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	16	18	22	37	40	41	174
Barbados	ndr	1	2	ndr	1	1	5
Belarus	ndr	ndr	ndr	1	2	2	5
Belgium	3	2	6	6	3	8	28
Belize	2	1	ndr	2	2	3	10
Benin	3	2	5	1	5	2	18
Bermuda	ndr	ndr	3	1	ndr	1	5
Bhutan	ndr	ndr	ndr	ndr	2	2	4
Bolivia	5	6	5	3	7	14	40
Bosnia and Herzegovina	x	x	x	ndr	ndr	6	6
Botswana	1	2	5	1	1	1	11
Brazil	13	12	21	16	24	26	112
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	2	2	1	2	2	7	16
Burkina Faso	5	2	4	1	2	3	17
Burundi	ndr	ndr	ndr	1	ndr	8	9
Cambodia	ndr	ndr	1	1	4	7	13
Cameroon	ndr	ndr	3	1	1	6	11
Canada	6	7	13	6	12	15	59
Canary Islands	ndr	ndr	ndr	ndr	ndr	3	3
Cape Verde	2	3	3	1	1	ndr	10
Cayman Islands	ndr	ndr	ndr	ndr	ndr	1	1
Central African Republic	ndr	2	1	ndr	4	5	12
Chad	7	3	6	2	2	3	23
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	3	3	10	11	8	14	49
China	5	35	65	77	75	131	388

Table 1 - Total number of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	5	12	13	17	14	25	86
Comoros	1	2	2	2	ndr	1	8
Congo, Dem. Rep. of the	1	1	1	3	2	11	19
Congo	ndr	1	ndr	ndr	2	2	5
Cook Islands	ndr	1	1	1	1	1	5
Costa Rica	3	3	2	9	8	7	32
Côte d'Ivoire	ndr	1	ndr	1	1	ndr	3
Croatia	x	x	x	ndr	2	6	8
Cuba	3	6	7	7	10	10	43
Cyprus	ndr	1	ndr	1	2	4	8
Czech Republic	x	x	x	ndr	1	2	3
Czechoslovakia (former)	1	3	5	ndr	x	x	9
Denmark	1	3	2	3	ndr	2	11
Djibouti	2	2	2	2	3	3	14
Dominica	ndr	2	1	1	1	2	7
Dominican Republic	ndr	5	4	4	5	6	24
Ecuador	6	4	5	5	8	14	42
Egypt	1	2	1	3	6	4	17
El Salvador	ndr	3	3	3	4	9	22
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	1	ndr	5	6
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	8	2	7	8	8	21	54
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	2	6	6	6	2	4	26
Finland	ndr	ndr	ndr	1	ndr	ndr	1
France	4	17	17	19	10	31	98
French Guiana	ndr	ndr	ndr	ndr	1	ndr	1
French Polynesia	ndr	2	1	ndr	2	ndr	5
Gabon	ndr	ndr	1	ndr	ndr	ndr	1
Gambia	4	3	2	ndr	1	4	14
Georgia	ndr	1	3	4	2	4	14
Germany	4	3	9	10	6	10	42
Ghana	1	2	2	2	1	4	12
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	3	8	12	5	7	20	55
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	1	1	ndr	1	ndr	1	4
Guadeloupe	1	1	1	2	ndr	1	6
Guam	1	ndr	1	2	1	2	7
Guatemala	1	4	11	4	6	16	42
Guinea	ndr	4	ndr	1	1	2	8
Guinea-Bissau	2	2	3	1	1	2	11
Guyana	ndr	ndr	1	1	2	1	5
Haiti	2	5	11	5	4	11	38
Honduras	3	6	5	4	7	11	36
Hong Kong, China (SAR)	25	24	12	15	1	3	80
Hungary	ndr	ndr	1	1	1	10	13
Iceland	2	2	2	ndr	3	2	11
India	30	51	54	51	45	72	303

Table 1 - Total number of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	18	43	35	26	38	58	218
Iran, Islamic Rep. of	9	14	19	21	22	37	122
Iraq	ndr	ndr	ndr	1	ndr	2	3
Ireland	ndr	1	2	6	ndr	3	12
Israel	ndr	2	ndr	2	3	3	10
Italy	7	13	12	9	11	18	70
Jamaica	ndr	6	5	2	2	5	20
Japan	18	24	17	25	17	27	128
Jordan	ndr	1	1	3	ndr	5	10
Kazakhstan	ndr	ndr	ndr	3	3	4	10
Kenya	2	2	2	3	4	12	25
Kiribati	ndr	ndr	ndr	ndr	ndr	1	1
Korea, Dem. People's Rep. of	ndr	1	2	1	5	9	18
Korea, Rep. of	5	7	9	10	10	15	56
Kuwait	ndr	ndr	ndr	ndr	1	ndr	1
Kyrgyzstan	ndr	ndr	ndr	4	4	3	11
Lao People's Dem. Rep.	2	1	3	8	5	4	23
Latvia	ndr	ndr	ndr	ndr	ndr	2	2
Lebanon	ndr	2	1	1	ndr	2	6
Lesotho	ndr	1	3	4	3	3	14
Liberia	ndr	2	ndr	1	2	ndr	5
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	1	ndr	1
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	2	ndr	2	4
Luxembourg	ndr	1	ndr	5	ndr	ndr	6
Macao, China	ndr	ndr	ndr	4	ndr	ndr	4
Macedonia, TFYR	x	x	x	1	1	5	7
Madagascar	4	4	4	5	7	11	35
Malawi	ndr	2	2	6	6	9	25
Malaysia	1	1	3	2	7	12	26
Maldives	ndr	ndr	1	1	ndr	ndr	2
Mali	3	3	2	2	2	5	17
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	1	ndr	ndr	1
Martinique	ndr	2	ndr	3	ndr	1	6
Mauritania	3	4	4	2	2	9	24
Mauritius	1	5	2	2	2	3	15
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	9	17	12	19	35	42	134
Micronesia, Fed. States of	ndr	ndr	1	ndr	1	3	5
Moldova, Rep. of	ndr	ndr	1	1	3	4	9
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	1	4	3	9	17
Montserrat	ndr	ndr	ndr	2	3	ndr	5
Morocco	2	3	2	ndr	6	9	22
Mozambique	7	8	6	3	4	18	46
Myanmar	5	4	ndr	3	4	3	19
Namibia	ndr	1	ndr	2	1	6	10
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 1 - Total number of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	3	7	13	7	8	8	46
Netherlands	1	ndr	4	7	3	2	17
Netherlands Antilles	ndr	ndr	ndr	1	1	ndr	2
New Caledonia	2	3	ndr	1	ndr	2	8
New Zealand	6	5	13	6	6	6	42
Nicaragua	1	4	1	6	6	14	32
Niger	3	3	4	ndr	3	8	21
Nigeria	1	ndr	5	1	3	18	28
Niue	ndr	ndr	ndr	1	ndr	ndr	1
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	1	3	1	2	7
Oman	2	1	ndr	ndr	ndr	2	5
Pakistan	5	13	7	19	18	30	92
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	1	1	3	3	1	9	18
Papua New Guinea	ndr	6	4	7	9	9	35
Paraguay	ndr	4	1	2	4	6	17
Peru	5	16	15	15	10	22	83
Philippines	42	48	33	57	44	44	268
Poland	1	5	2	1	4	7	20
Portugal	ndr	7	3	1	3	7	21
Puerto Rico	1	2	2	3	3	4	15
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	1	1	2	2	0	2	8
Romania	2	1	3	5	9	17	37
Russian Federation	ndr	5	5	15	28	53	106
Rwanda	2	ndr	2	ndr	ndr	8	12
Saint Helena	ndr	ndr	ndr	ndr	ndr	1	1
Saint Kitts and Nevis	ndr	ndr	2	2	2	1	7
Saint Lucia	ndr	2	3	ndr	2	1	8
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	1	2	3	1	ndr	2	9
Samoa	ndr	2	ndr	3	ndr	1	6
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	1	1	ndr	ndr	ndr	2
Saudi Arabia	ndr	1	1	ndr	ndr	3	5
Senegal	4	4	4	1	2	6	21
Serbia and Montenegro	x	x	x	1	ndr	8	9
Seychelles	ndr	ndr	ndr	ndr	1	1	2
Sierra Leone	1	0	1	ndr	1	1	4
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	1	3	4
Slovenia	x	x	x	ndr	1	0	1
Solomon Islands	2	2	3	2	2	3	14
Somalia	3	3	3	2	5	11	27
South Africa	3	6	8	6	11	22	56
Soviet Union (former)	ndr	2	1	2	x	x	5
Spain	1	9	12	5	12	11	50
Sri Lanka	6	9	7	10	7	10	49
Sudan	2	5	3	6	6	10	32

Table 1 - Total number of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	1	2	4	2	1	10
Sweden	3	ndr	2	1	ndr	1	7
Switzerland	3	4	10	6	1	8	32
Syrian Arab Republic	1	1	ndr	ndr	ndr	4	6
Taiwan	3	2	6	6	7	12	36
Tajikistan	1	ndr	2	7	6	17	33
Tanzania, U. Rep. of	3	2	4	6	12	11	38
Thailand	4	4	6	16	12	28	70
Timor-Leste	x	x	x	x	x	3	3
Togo	ndr	1	ndr	1	3	1	6
Tokelau	ndr	ndr	1	1	ndr	ndr	2
Tonga	2	2	ndr	1	3	1	9
Trinidad and Tobago	1	ndr	ndr	3	3	ndr	7
Tunisia	1	2	2	1	ndr	2	8
Turkey	9	5	11	9	12	28	74
Turkmenistan	ndr	1	ndr	1	ndr	1	3
Turks and Caicos	ndr	ndr	1	1	ndr	ndr	2
Tuvalu	ndr	ndr	2	2	ndr	ndr	4
Uganda	ndr	1	4	1	5	13	24
Ukraine	ndr	ndr	2	4	2	6	14
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	3	2	6	11	10	15	47
United States	20	48	68	136	102	132	506
Uruguay	ndr	ndr	1	3	2	9	15
Uzbekistan	1	ndr	1	3	ndr	3	8
Vanuatu	2	3	6	6	2	8	27
Venezuela	ndr	3	8	2	5	8	26
Vietnam	2	7	12	24	18	33	96
Virgin Islands (U.K.)	ndr	ndr	ndr	1	3	ndr	4
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	2	1	3
Wallis and Futuna	ndr	ndr	1	1	ndr	ndr	2
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	4	4	ndr	5	3	9	25
Yougoslavia (former)	ndr	9	6	2	x	x	17
Zambia	1	2	ndr	3	2	6	14
Zimbabwe	2	1	1	2	4	7	17
World	497	812	929	1,116	1,116	1,897	6,367

Table 1 - Total number of natural disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	37	37	43	49	63	150	379
Middle	8	9	14	10	12	38	91
Northern	7	20	14	15	25	46	127
Southern	4	11	18	17	18	33	101
Western	32	36	39	16	31	66	220
Total	88	113	128	107	149	333	918
Americas							
Caribbean	10	39	44	43	44	53	233
Central	20	39	37	50	69	111	326
Northern	26	55	84	143	114	148	570
Southern	43	66	90	83	93	163	538
Total	99	199	255	319	320	475	1,667
Asia							
Eastern	56	93	112	142	118	206	727
South-Central	74	116	130	177	168	256	921
South-East	74	108	93	137	132	192	736
Western	16	19	18	26	31	72	182
Total	220	336	353	482	449	726	2,566
Europe							
Eastern	6	18	21	32	53	111	241
Northern	9	8	15	27	14	29	102
Southern	11	50	48	26	43	83	261
Western	17	32	52	59	24	65	249
Total	43	108	136	144	134	288	853
Oceania							
Australia - New Zealand	36	29	29	26	41	39	200
Melanesia	8	20	19	22	15	26	110
Micronesia	1	ndr	2	3	2	6	14
Polynesia	2	7	7	13	6	4	39
Total	47	56	57	64	64	75	363
World	497	812	929	1,116	1,116	1,897	6,367

ndr: no disaster reported

x: not applicable

Note: Disaster data reported for the former Soviet Union were disaggregated when possible and reallocated to the new countries resulting from its break-up. However, because of a lack of information on the exact localization of certain events, 5 disasters could not be reallocated and are considered separately under the heading "Soviet Union".

For former Czechoslovakia and Yugoslavia, the disaggregation was not always possible for the same reasons. Disaster data therefore appear under the names of the countries before and after their break-up.

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	441,904	103,015	173,954	236,297	341,393	6,763,031	8,059,594
Albania	ndr	5,402	7,926	3,235,011	11,504	206,890	3,466,733
Algeria	20,011	971,686	27,852	17,484	56,128	300,148	1,393,309
American Samoa	ndr	ndr	na	25	ndr	9	34
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	80,000	500,000	3,181,000	105,000	76,949	3,942,949
Anguilla	ndr	na	na	ndr	ndr	150	150
Antigua and Barbuda	ndr	75,000	ndr	8,032	70,731	5,958	159,721
Argentina	104,495	6,190,041	6,234,107	161,355	410,049	472,965	13,573,012
Armenia	x	x	1,667,000	ndr	22,148	297,000	1,986,148
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	55,845	91,264	1,218	6,542,201	9,093,152	28,716	15,812,396
Austria	15	12	80	12	2	70,361	70,482
Azerbaijan	ndr	ndr	ndr	ndr	2,433,816	50,102	2,483,918
Azores	ndr	21,969	ndr	ndr	1,254	ndr	23,223
Bahamas, The	ndr	ndr	na	1,704	ndr	1,501	3,205
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	42,657,959	39,516,302	192,046,651	43,602,014	50,966,014	6,320,987	375,109,927
Barbados	ndr	5,007	330	ndr	na	2,000	7,337
Belarus	ndr	ndr	ndr	40,000	21,395	2,002	63,397
Belgium	1	1,112	32	613	1,082	3,458	6,298
Belize	76,005	17,000	ndr	0	62,600	82,614	238,219
Benin	20,396	1,250,000	1,899,061	3	776,758	58,472	4,004,690
Bermuda	ndr	ndr	40	na	ndr	4	44
Bhutan	ndr	ndr	ndr	ndr	65,639	1,200	66,839
Bolivia	286,081	3,178,319	333,529	323,859	423,378	493,452	5,038,618
Bosnia and Herzegovina	x	x	x	ndr	ndr	73,074	73,074
Botswana	130,020	819,540	3,248,315	100,000	5,520	138,779	4,442,174
Brazil	1,286,368	30,193,676	4,871,533	1,220,004	10,174,785	2,010,910	49,757,276
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	202	na	3,063	5,001	526	1,031	9,823
Burkina Faso	1,106,094	1,516,000	235,412	2,600,000	87,222	13,686	5,558,414
Burundi	ndr	ndr	ndr	3,612	ndr	1,151,626	1,155,238
Cambodia	ndr	ndr	na	900,100	6,339,565	8,198,053	15,437,718
Cameroon	ndr	ndr	13,222	202	6	6,189	19,619
Canada	354	5,200	40,491	25,208	566,151	11,071	648,475
Canary Islands	ndr	ndr	ndr	ndr	ndr	753	753
Cape Verde	6,250	2,225	5,529	na	6,306	ndr	20,310
Cayman Islands	ndr	ndr	ndr	ndr	ndr	300	300
Central African Republic	ndr	1,850	na	ndr	30,706	49,913	82,469
Chad	1,913,307	600,000	3,085,252	300,053	81,688	492,828	6,473,128
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	62,851	9,558	2,105,388	190,414	131,413	446,002	2,945,626
China	6,426,300	4,191,617	93,610,724	437,808,640	724,497,316	657,978,115	1,924,512,712

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	1,566	166,108	791,480	112,437	437,907	2,110,606	3,620,104
Comoros	25,001	30,085	85,026	200	ndr	300	140,612
Congo, Dem. Rep. of the	8,071	500,000	300,000	27,991	35,595	247,986	1,119,643
Congo	ndr	na	ndr	ndr	36,500	47,002	83,502
Cook Islands	ndr	na	2,005	1	919	744	3,669
Costa Rica	70,002	7,088	140,035	253,931	763,838	109,334	1,344,228
Côte d'Ivoire	ndr	na	ndr	7,000	28	ndr	7,028
Croatia	x	x	x	ndr	2,000	1,441	3,441
Cuba	18,192	344,614	660,930	749,007	1,312,068	6,515,261	9,600,072
Cyprus	ndr	na	ndr	na	3,269	435	3,704
Czech Republic	x	x	x	ndr	102,136	200,018	302,154
Czechoslovakia (former)	14	600	109	ndr	x	x	723
Denmark	na	11	16	6	ndr	8	41
Djibouti	197,000	247,025	110,000	170,310	220,920	345,000	1,290,255
Dominica	ndr	72,140	10,002	710	3,002	893	86,747
Dominican Republic	ndr	1,706,459	1,194,072	21,540	1,004,809	61,520	3,988,400
Ecuador	45,081	900,453	167,808	310,637	116,395	294,623	1,834,997
Egypt	15	81,053	41	36,033	164,478	1,446	283,066
El Salvador	ndr	101,714	810,215	8,034	87,999	2,011,909	3,019,871
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	15,678	ndr	2,873,000	2,888,678
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1,987,080	7,020,000	15,455,661	17,344,815	1,278,559	41,972,037	85,058,152
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	23,000	318,076	343,422	168,035	266,980	31,806	1,151,319
Finland	ndr	ndr	ndr	5	ndr	ndr	5
France	26,030	4,169	2,290	3,876	133,819	3,768,642	3,938,826
French Guiana	ndr	ndr	ndr	ndr	70,000	ndr	70,000
French Polynesia	ndr	5,057	10	ndr	524	ndr	5,591
Gabon	ndr	ndr	10,000	ndr	ndr	ndr	10,000
Gambia	13,194	500,000	na	ndr	4,000	40,326	557,520
Georgia	ndr	na	20,628	269,535	501	1,237,957	1,528,621
Germany	319	12	3,796	101,567	45,037	436,477	587,208
Ghana	na	12,500,000	1,504	7,312	700,145	470,895	13,679,856
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	601,794	81,465	46,864	1,584	34,014	182,070	947,791
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	na	na	ndr	1,000	ndr	210	1,210
Guadeloupe	75,003	na	na	12,089	ndr	903	87,995
Guam	10	ndr	502	5,614	6,420	15,145	27,691
Guatemala	5,016,000	26,436	108,139	28,937	115,562	233,262	5,528,336
Guinea	ndr	26,711	ndr	6,066	12	220,013	252,802
Guinea-Bissau	13,194	na	3,704	1,722	1,503	100,000	120,123
Guyana	ndr	ndr	na	na	645,200	10	645,210
Haiti	957,000	434,418	1,026,933	31,003	1,600,496	182,723	4,232,573
Honduras	630,520	60,733	46,156	130,875	2,242,312	1,469,711	4,580,307
Hong Kong, China (SAR)	13,882	29,400	2,150	7,527	4,018	4,032	61,009
Hungary	ndr	ndr	4	na	200	147,062	147,266
Iceland	19	4	280	ndr	117	199	619
India	82,176,949	518,420,953	400,688,541	150,288,296	120,534,687	559,989,291	1,832,098,717

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	1,096,362	1,426,182	723,045	1,102,837	5,358,257	1,338,661	11,045,344
Iran, Islamic Rep. of	481,891	1,024,367	221,662	1,493,552	390,098	63,962,240	67,573,810
Iraq	ndr	ndr	ndr	520	ndr	na	520
Ireland	ndr	10	11	3,523	ndr	300	3,844
Israel	ndr	23	ndr	245	1,251	413	1,932
Italy	221,104	466,856	13,254	11,250	190,395	71,408	974,267
Jamaica	ndr	280,059	876,419	555,721	804	2,710	1,715,713
Japan	369,853	2,886,572	295,472	321,719	2,003,544	775,036	6,652,196
Jordan	ndr	23	38	18,025	ndr	330,251	348,337
Kazakhstan	ndr	ndr	ndr	51,527	608,112	42,812	702,451
Kenya	36,100	43,075	600,050	2,700,044	3,700,326	9,923,192	17,002,787
Kiribati	ndr	ndr	ndr	ndr	ndr	84,000	84,000
Korea, Dem. People's Rep. of	ndr	na	20,386	2,506	9,509,406	922,958	10,455,256
Korea, Rep. of	82,367	74,773	572,896	548,304	369,841	545,564	2,193,745
Kuwait	ndr	ndr	ndr	ndr	202	ndr	202
Kyrgyzstan	ndr	ndr	ndr	200,001	67,621	1,262	268,884
Lao People's Dem. Rep.	3,959,031	na	732,014	639,502	2,201,456	997,517	8,529,520
Latvia	ndr	ndr	ndr	ndr	ndr	36	36
Lebanon	ndr	43	1,500	104,100	ndr	500	106,143
Lesotho	ndr	na	680,018	170,022	331,750	272,002	1,453,792
Liberia	ndr	246	ndr	1,000,000	7,010	ndr	1,007,256
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	na	ndr	na
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	780,006	ndr	52	780,058
Luxembourg	ndr	na	ndr	23	ndr	ndr	23
Macao, China	ndr	ndr	ndr	3,986	ndr	ndr	3,986
Macedonia, TFYR	x	x	x	10,000	1,500	6,417	17,917
Madagascar	567,029	1,248,809	329,414	1,505,628	1,260,446	2,651,979	7,563,305
Malawi	ndr	26,000	2,307,267	16,130,885	3,416,305	3,776,604	25,657,061
Malaysia	3,000	15,010	87,617	25,102	15,693	48,280	194,702
Maldives	ndr	ndr	300	23,849	ndr	ndr	24,149
Mali	13,194	1,766,000	10,017	316,636	6,437	45,721	2,158,005
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	6,000	ndr	ndr	6,000
Martinique	ndr	20,003	ndr	6,020	ndr	600	26,623
Mauritania	1,433,194	1,993,000	1,609,900	446,811	22,000	582,372	6,087,277
Mauritius	826,267	138,114	na	12,008	2,305	2,053	980,747
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	638,060	553,127	297,595	435,265	1,090,842	1,367,644	4,382,533
Micronesia, Fed. States of	ndr	ndr	208	ndr	28,800	2,695	31,703
Moldova, Rep. of	ndr	ndr	225,559	4	52,883	2,602,214	2,880,660
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	100,049	5,115	2,366,707	2,471,871
Montserrat	ndr	ndr	ndr	12,051	13,032	ndr	25,083
Morocco	50,010	18,525	31	ndr	98,840	292,326	459,732
Mozambique	950,419	15,250,000	3,428,267	3,800,002	3,104,862	4,039,258	30,572,808
Myanmar	1,735,203	124,607	ndr	382,359	334,616	103,844	2,680,629
Namibia	ndr	na	ndr	250,000	163,200	1,029,541	1,442,741
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	103,153	3,986,799	715,952	607,883	236,388	419,785	6,069,960
Netherlands	na	ndr	26	12,635	252,102	1,204	265,967
Netherlands Antilles	ndr	ndr	ndr	1,500	40,002	ndr	41,502
New Caledonia	na	2,004	ndr	2	ndr	1,102	3,108
New Zealand	2,975	5,890	18,731	402	2,771	652	31,421
Nicaragua	8,016	122,171	360,408	580,697	1,279,449	371,180	2,721,921
Niger	29,194	266,000	4,580,020	ndr	90,552	3,664,396	8,630,162
Nigeria	100	ndr	3,307,630	18	687,043	483,153	4,477,944
Niue	ndr	ndr	ndr	200	ndr	ndr	200
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	13	5	4,001	2,100	6,119
Oman	6,703	26	ndr	ndr	ndr	120	6,849
Pakistan	8,890,493	168,474	1,003,348	19,128,477	4,348,640	5,699,362	39,238,794
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	2,019	81,000	15,765	38,225	7,500	31,594	176,103
Papua New Guinea	ndr	78,079	14,077	209,508	887,555	62,523	1,251,742
Paraguay	ndr	375,076	45,000	80,575	350,110	155,130	1,005,891
Peru	80,525	1,466,477	248,536	3,704,691	801,925	2,806,872	9,109,026
Philippines	6,348,351	5,501,231	13,968,635	27,920,392	13,458,284	7,619,301	74,816,194
Poland	1,000	23,274	13	35	225,676	15,725	265,723
Portugal	ndr	48,203	92	na	1,271	3,904	53,470
Puerto Rico	26	4,529	600	4,052	105,888	13,189	128,284
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	1,000	7,025	4,010	6,285	ndr	3,702	22,022
Romania	1,388,001	na	2,015	20,025	147,837	97,400	1,655,278
Russian Federation	ndr	11,586	400	65,286	1,008,699	2,575,757	3,661,728
Rwanda	3,600,000	ndr	441,726	ndr	ndr	1,257,258	5,298,984
Saint Helena	ndr	ndr	ndr	ndr	ndr	300	300
Saint Kitts and Nevis	ndr	ndr	na	1,331	11,805	1,180	14,316
Saint Lucia	ndr	83,009	45	ndr	929	200	84,183
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	40,502	1,360	203	ndr	100	42,165
Samoa	ndr	2,000	ndr	283,021	ndr	na	285,021
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	93,000	na	ndr	ndr	ndr	93,000
Saudi Arabia	ndr	na	5,032	ndr	ndr	13,081	18,113
Senegal	3,728,194	2,155,000	13,000	5,000	317,500	282,845	6,501,539
Serbia and Montenegro	x	x	x	6,001	ndr	79,605	85,606
Seychelles	ndr	ndr	ndr	ndr	1,242	6,800	8,042
Sierra Leone	10,001	ndr	60	ndr	200,012	16	210,089
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	11,721	36,156	47,877
Slovenia	x	x	x	ndr	700	ndr	700
Solomon Islands	1,281	36,002	151,268	88,504	380	1,525	278,960
Somalia	289,000	296,005	584,100	50,034	1,242,961	3,005,322	5,467,422
South Africa	1,056	266,516	3,236,700	15,024	331,477	174,744	4,025,517
Soviet Union (former)	ndr	2,087	81	72	x	x	2,240
Spain	2	734,403	62,450	53	6,022,252	1,087	6,820,247
Sri Lanka	1,257,804	5,200,064	2,847,579	3,030,704	1,093,154	4,196,896	17,626,201
Sudan	245,034	1,438,000	14,500,096	9,762,070	1,378,383	5,217,891	32,541,474

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	500	632,553	435,000	90,000	272,000	1,430,053
Sweden	63	ndr	24	5	ndr	1	93
Switzerland	13	140	2,039	12	na	1,835	4,039
Syrian Arab Republic	205,000	23	ndr	ndr	ndr	658,302	863,325
Taiwan	37,634	108	2,579	20,106	783	766,628	827,838
Tajikistan	13	ndr	8,667	149,798	231,049	3,112,888	3,502,415
Tanzania, U. Rep. of	97,025	130,000	2,022,500	1,306,000	6,646,259	3,207,524	13,409,308
Thailand	5,028,878	1,674,955	1,937,196	6,100,119	9,863,750	19,038,477	43,643,375
Timor-Leste	x	x	x	x	x	3,512	3,512
Togo	ndr	na	ndr	400,000	166,908	65,000	631,908
Tokelau	ndr	ndr	1,730	102	ndr	ndr	1,832
Tonga	15,511	146,521	ndr	3,104	6,571	16,450	188,157
Trinidad and Tobago	50,002	ndr	ndr	1,015	417	ndr	51,434
Tunisia	31,400	30,867	2,523	96,037	ndr	27,012	187,839
Turkey	275,762	95,422	806,379	328,670	135,294	1,633,660	3,275,187
Turkmenistan	ndr	14,000	ndr	420	ndr	11	14,431
Turks and Caicos	ndr	ndr	770	na	ndr	ndr	770
Tuvalu	ndr	ndr	na	850	ndr	ndr	850
Uganda	ndr	500,000	947,628	na	344,827	907,500	2,699,955
Ukraine	ndr	ndr	10,000	409,045	1,724,588	348,729	2,492,362
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	7	29	95	200,695	265,750	24,658	491,234
United States	4,138	195,517	1,065,813	557,679	1,867,567	920,537	4,611,251
Uruguay	ndr	ndr	18,500	8,200	9,801	15,710	52,211
Uzbekistan	na	ndr	20,100	50,460	ndr	1,100,024	1,170,584
Vanuatu	na	na	175,258	13,173	2,400	23,450	214,281
Venezuela	ndr	4,221	38,763	7,997	88,828	656,559	796,368
Vietnam	4,080,074	18,763,248	8,701,528	7,952,525	13,378,679	16,998,553	69,874,607
Virgin Islands (U.K.)	ndr	ndr	ndr	10,000	3	ndr	10,003
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	10,008	3	10,011
Wallis and Futuna	ndr	ndr	4,501	25	ndr	ndr	4,526
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	50,052	768,489	ndr	908,645	241,615	20,579	1,989,380
Yougoslavia (former)	ndr	418,503	2,936	128	x	x	421,567
Zambia	30,911	na	ndr	2,500,000	2,573,204	2,771,551	7,875,666
Zimbabwe	130,031	700,000	na	9,600,000	10,055,036	7,014,093	27,499,160
World	194,986,920	705,722,978	807,706,822	800,479,019	1,055,367,711	1,507,232,168	5,071,495,618

Table 2 - Total number of victims (people killed and affected) of natural disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	8,736,863	25,636,138	26,315,649	55,145,501	33,847,252	84,908,799	234,590,202
Middle	1,921,378	1,274,850	3,908,474	3,509,246	289,495	920,867	11,824,310
Northern	346,470	2,540,131	14,530,543	9,911,624	1,697,829	5,839,576	34,866,173
Southern	131,076	1,086,556	7,797,586	970,046	921,947	1,887,066	12,794,277
Western	6,373,005	21,975,182	11,665,837	4,790,568	3,073,436	6,027,195	53,905,223
Total	17,508,792	52,512,857	64,218,089	74,326,985	39,829,959	99,583,503	347,980,185
Americas							
Caribbean	1,100,223	3,065,740	3,771,461	1,416,978	4,173,994	6,789,401	20,317,797
Central	6,440,622	969,269	1,778,313	1,475,964	5,650,102	5,677,248	21,991,518
Northern	4,492	200,717	1,106,344	582,887	2,433,718	931,612	5,259,770
Southern	1,866,967	42,483,929	14,854,644	6,120,169	13,659,791	9,462,839	88,448,339
Total	9,412,304	46,719,655	21,510,762	9,595,998	25,917,605	22,861,100	136,017,424
Asia							
Eastern	6,930,036	7,182,470	94,504,207	438,812,837	736,390,023	663,359,040	1,947,178,613
South-Central	136,010,166	568,433,974	597,726,754	218,863,278	178,882,795	651,609,789	2,351,526,756
South-East	22,250,899	27,505,233	26,150,035	45,022,936	50,950,300	54,346,198	226,225,601
Western	537,517	864,049	2,500,577	1,629,740	2,838,096	4,242,400	12,612,379
Total	165,728,618	603,985,726	720,881,573	704,328,791	969,061,214	1,373,557,427	4,537,543,349
Europe							
Eastern	1,389,217	37,547	241,244	539,468	3,295,661	6,026,094	11,529,231
Northern	89	54	439	984,245	269,868	27,354	1,282,049
Southern	822,900	1,776,801	133,522	3,264,027	6,264,890	625,896	12,888,036
Western	26,378	5,445	8,263	118,738	432,042	4,281,977	4,872,843
Total	2,238,584	1,819,847	383,468	4,906,478	10,262,461	10,961,321	30,572,159
Oceania							
Australia - New Zealand	58,820	97,154	19,949	6,542,603	9,095,923	29,368	15,843,817
Melanesia	24,281	434,161	684,025	479,222	1,157,315	120,406	2,899,410
Micronesia	10	ndr	710	11,614	35,220	101,840	149,394
Polynesia	15,511	153,578	8,246	287,328	8,014	17,203	489,880
Total	98,622	684,893	712,930	7,320,767	10,296,472	268,817	19,382,501
World	194,986,920	705,722,978	807,706,822	800,479,019	1,055,367,711	1,507,232,168	5,071,495,618

ndr: no disaster reported

na: number of victims not available

x: not applicable

Note : for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	590.6	146.8	243.4	316.0	303.9	5,118.7	1,119.9
Albania	ndr	39.0	53.3	19,638.4	67.3	1,179.4	3,496.2
Algeria	25.6	1,030.8	24.4	13.8	40.3	185.5	220.1
American Samoa	ndr	ndr	na	10.4	ndr	3.1	2.3
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	232.7	1,351.6	7,998.0	215.7	150.2	1,658.0
Anguilla	ndr	na	na	ndr	ndr	262.0	43.7
Antigua and Barbuda	ndr	22,923.9	ndr	2,545.1	22,215.0	1,807.4	8,248.6
Argentina	81.3	4,156.9	3,927.1	95.5	224.6	247.8	1,455.5
Armenia	ndr	ndr	na	ndr	131.1	1,776.1	762.9
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	81.8	120.0	1.5	7,420.9	10,108.8	29.9	2,960.5
Austria	0.0	0.0	0.2	0.0	0.0	172.9	28.9
Azerbaijan	ndr	ndr	ndr	ndr	6,357.8	128.6	2,594.5
Azores	ndr	na	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	na	129.0	ndr	104.5	38.9
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	11,364.6	8,483.6	37,104.7	7,743.0	8,380.6	954.2	12,338.5
Barbados	ndr	397.4	25.5	ndr	na	144.8	94.6
Belarus	ndr	ndr	ndr	154.4	41.1	3.9	48.9
Belgium	0.0	2.3	0.1	1.2	2.1	6.7	2.1
Belize	11,364.4	2,341.5	ndr	na	5,358.7	6,647.8	4,285.4
Benin	133.4	6,760.8	9,608.2	0.0	2,667.9	187.6	3,226.3
Bermuda	ndr	ndr	14.1	na	ndr	1.2	2.6
Bhutan	ndr	ndr	ndr	ndr	749.1	12.0	126.9
Bolivia	1,113.7	11,083.8	1,103.3	979.5	1,136.6	1,186.5	2,767.3
Bosnia and Herzegovina	x	x	x	ndr	ndr	367.7	159.9
Botswana	3,293.9	16,319.3	58,279.8	1,444.9	74.5	1,759.2	13,528.6
Brazil	236.8	4,679.3	678.2	163.3	1,190.7	227.3	1,195.9
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	0.5	0.0	6.8	11.8	1.3	2.6	3.8
Burkina Faso	3,499.6	4,111.2	553.3	5,720.6	164.9	21.0	2,345.1
Burundi	ndr	ndr	ndr	13.2	ndr	4,028.3	673.6
Cambodia	ndr	ndr	na	1,871.0	11,122.7	13,029.5	4,337.2
Cameroon	ndr	ndr	25.2	0.3	0.0	8.4	5.7
Canada	0.3	4.2	31.4	18.4	370.4	7.1	72.0
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	448.6	146.1	351.9	na	333.2	ndr	213.3
Cayman Islands	ndr	ndr	ndr	ndr	ndr	147.2	24.5
Central African Republic	ndr	16.2	na	ndr	186.7	289.1	82.0
Chad	8,723.0	2,365.2	11,957.8	899.0	228.6	1,160.7	4,222.4
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	122.3	16.6	3,484.2	284.2	180.5	581.1	778.1
China	134.3	83.8	1,702.6	7,657.3	11,885.1	10,321.6	5,297.5

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	1.3	124.8	522.6	65.2	237.2	1,072.3	337.2
Comoros	1,640.8	1,685.4	4,398.4	9.1	ndr	9.5	1,290.5
Congo, Dem. Rep. of the	6.3	364.7	191.8	14.7	15.0	92.7	114.2
Congo	ndr	na	ndr	ndr	281.4	339.0	103.4
Cook Islands	ndr	na	2,282.8	1.1	929.4	721.9	655.9
Costa Rica	683.4	57.8	974.1	1,628.8	4,423.7	572.8	1,390.1
Côte d'Ivoire	ndr	na	ndr	12.3	0.0	ndr	2.1
Croatia	x	x	x	ndr	9.1	6.7	6.3
Cuba	38.1	700.8	1,304.0	1,389.2	2,389.8	11,654.3	2,912.7
Cyprus	ndr	na	ndr	na	89.1	11.5	16.8
Czech Republic	x	x	x	ndr	198.3	390.0	267.4
Czechoslovakia (former)	0.0	0.8	0.1	ndr	x	x	0.2
Denmark	na	0.0	0.1	0.0	ndr	0.0	0.0
Djibouti	16,510.7	17,337.3	7,365.3	9,608.1	10,842.4	15,992.8	12,942.7
Dominica	ndr	19,046.4	2,672.5	193.8	823.1	248.2	3,830.7
Dominican Republic	ndr	6,110.9	3,514.6	58.0	2,481.8	141.2	2,051.1
Ecuador	127.5	2,140.0	351.7	575.2	193.1	440.5	638.0
Egypt	0.0	39.3	0.0	12.1	53.0	0.4	17.5
El Salvador	ndr	454.6	3,404.7	30.5	299.0	6,451.5	1,773.4
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	427.9	ndr	13,359.4	6,111.4
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1,057.6	3,378.3	6,993.1	6,747.0	440.0	12,940.4	5,259.4
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	798.6	9,620.4	9,701.2	4,440.1	6,599.1	734.8	5,315.7
Finland	ndr	ndr	ndr	0.0	ndr	ndr	0.0
France	9.8	1.5	0.8	1.3	46.0	1,274.7	222.4
French Guiana	ndr	ndr	ndr	ndr	9,275.6	ndr	1,545.9
French Polynesia	ndr	611.8	1.1	ndr	43.6	ndr	109.4
Gabon	ndr	ndr	222.2	ndr	ndr	ndr	37.0
Gambia	470.2	14,913.7	0.0	0.0	66.8	594.8	2,674.3
Georgia	ndr	ndr	na	3,899.2	1.9	4,946.1	2,759.0
Germany	0.1	0.0	1.0	25.0	11.0	106.1	23.9
Ghana	0.0	21,927.9	2.3	9.4	792.5	486.3	3,869.7
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	1,276.4	167.5	94.2	3.1	65.0	345.5	325.3
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	na	na	ndr	216.5	ndr	46.9	43.9
Guadeloupe	4,485.1	na	na	649.2	ndr	42.8	862.8
Guam	2.0	ndr	79.9	788.8	874.7	1,880.7	604.3
Guatemala	15,729.7	68.9	243.7	58.0	192.0	350.6	2,773.8
Guinea	ndr	111.9	ndr	16.9	0.0	504.8	105.6
Guinea-Bissau	399.3	na	79.8	31.8	24.6	1,499.9	339.2
Guyana	ndr	ndr	na	na	18,384.5	0.3	3,064.1
Haiti	3,941.8	1,715.7	3,543.6	103.0	4,922.0	486.7	2,452.1
Honduras	4,102.8	334.2	211.2	523.8	7,625.2	4,698.6	2,916.0
Hong Kong, China (SAR)	62.1	114.9	7.8	26.1	13.2	11.0	39.2
Hungary	ndr	ndr	0.0	na	0.4	289.3	48.3
Iceland	1.8	0.3	22.4	ndr	8.7	14.4	7.9
India	2,566.1	14,876.1	10,122.3	3,404.0	2,555.9	10,956.9	7,413.5

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	153.4	178.4	83.9	114.0	520.2	117.6	194.6
Iran, Islamic Rep. of	270.6	517.1	84.1	508.8	123.8	19,281.5	3,464.3
Iraq	ndr	ndr	ndr	0.6	ndr	na	0.1
Ireland	ndr	0.1	0.1	19.7	ndr	1.5	3.6
Israel	ndr	0.1	ndr	1.0	4.5	1.4	1.2
Italy	79.2	165.4	4.7	4.0	66.3	24.7	57.4
Jamaica	ndr	2,535.0	7,225.4	4,472.0	6.2	20.2	2,376.5
Japan	65.5	484.6	48.6	51.9	319.6	122.3	182.1
Jordan	ndr	0.2	0.3	99.3	ndr	1,344.5	240.7
Kazakhstan	ndr	ndr	ndr	70.5	722.9	51.1	323.7
Kenya	50.7	51.3	615.5	2,115.7	2,617.5	6,470.0	1,986.8
Kiribati	ndr	ndr	ndr	ndr	ndr	18,699.3	3,116.5
Korea, Dem. People's Rep. of	ndr	na	21.4	2.4	8,808.4	849.2	1,613.6
Korea, Rep. of	45.2	39.3	280.5	255.9	159.5	228.5	168.1
Kuwait	ndr	ndr	ndr	ndr	2.3	ndr	0.4
Kyrgyzstan	ndr	ndr	ndr	1,738.5	297.4	5.2	468.7
Lao People's Dem. Rep.	24,644.9	na	3,679.7	2,918.9	9,064.2	3,577.0	7,314.1
Latvia	ndr	ndr	ndr	ndr	ndr	0.3	0.1
Lebanon	ndr	0.3	9.7	646.6	ndr	2.7	109.9
Lesotho	ndr	na	9,044.1	1,954.4	3,699.0	2,921.8	2,936.5
Liberia	ndr	2.4	ndr	9,134.7	57.9	ndr	1,532.5
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	na	ndr	0.0
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	8,446.7	ndr	0.3	1,689.5
Luxembourg	ndr	na	ndr	1.2	ndr	ndr	0.2
Macao, China	ndr	ndr	ndr	207.3	ndr	ndr	34.6
Macedonia, TFYR	x	x	x	203.9	15.1	62.3	71.7
Madagascar	1,449.4	2,791.2	640.3	2,510.9	1,854.7	3,292.5	2,089.8
Malawi	ndr	85.6	5,765.5	33,016.1	6,966.8	6,651.6	8,747.6
Malaysia	4.6	20.3	106.3	26.8	15.4	43.0	36.1
Maldives	ndr	ndr	30.8	2,128.4	ndr	ndr	359.9
Mali	43.1	5,091.3	25.4	754.4	12.8	81.0	1,001.3
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	2,561.0	ndr	ndr	426.8
Martinique	ndr	1,183.8	ndr	318.1	ndr	29.2	255.2
Mauritania	19,685.8	24,251.8	18,902.9	4,052.5	180.2	4,047.6	11,853.5
Mauritius	18,663.0	2,886.1	0.0	223.1	41.2	34.7	3,641.4
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	204.5	155.4	75.7	97.8	229.2	272.3	172.5
Micronesia, Fed. States of	ndr	ndr	42.6	ndr	5,369.9	498.6	985.2
Moldova, Rep. of	ndr	ndr	na	na	237.0	11,746.4	4,793.4
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	851.8	41.6	18,039.8	3,155.5
Montserrat	ndr	ndr	ndr	22,215.9	23,674.9	ndr	7,648.5
Morocco	54.9	18.7	0.0	ndr	71.2	197.0	57.0
Mozambique	1,701.0	24,631.1	5,254.3	5,793.9	4,131.0	4,481.7	7,665.5
Myanmar	1,153.4	74.1	ndr	196.8	165.8	49.6	273.3
Namibia	ndr	na	ndr	3,354.1	2,017.6	10,763.9	2,689.3
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	152.4	5,290.1	794.4	584.7	207.9	326.9	1,226.1
Netherlands	na	ndr	0.0	16.5	326.1	1.5	57.4
Netherlands Antilles	ndr	ndr	ndr	159.9	4,022.0	ndr	697.0
New Caledonia	na	281.3	ndr	0.2	ndr	104.6	64.3
New Zealand	18.8	37.1	113.4	2.4	15.3	3.4	31.7
Nicaragua	64.8	858.8	2,110.5	2,970.7	5,640.9	1,529.0	2,195.8
Niger	123.5	945.1	13,941.3	ndr	204.8	7,002.8	3,702.9
Nigeria	0.0	ndr	821.8	0.0	129.5	75.4	171.1
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	0.1	0.0	18.4	9.3	4.6
Oman	133.5	0.4	ndr	ndr	ndr	0.9	22.5
Pakistan	2,294.1	38.0	186.1	3,217.1	677.5	790.9	1,200.6
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	21.6	779.8	140.1	314.0	54.6	216.7	254.5
Papua New Guinea	ndr	497.8	79.3	1,027.6	3,934.4	253.9	965.5
Paraguay	ndr	2,301.2	225.0	363.3	1,419.0	557.8	811.0
Peru	106.0	1,574.8	246.8	3,309.7	633.8	2,009.0	1,313.4
Philippines	2,770.6	2,120.6	4,777.0	8,513.6	3,674.5	1,895.4	3,958.6
Poland	0.6	12.9	0.0	0.0	116.8	8.1	23.1
Portugal	ndr	99.0	0.2	na	2.5	7.7	18.3
Puerto Rico	0.2	28.6	3.5	23.0	574.5	68.6	116.4
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	40.6	277.1	142.7	214.8	ndr	100.0	129.2
Romania	1,299.7	na	1.8	17.5	131.0	86.8	256.1
Russian Federation	ndr	na	na	26.2	136.3	354.4	201.5
Rwanda	16,291.9	ndr	1,497.5	ndr	ndr	3,424.2	3,535.6
Saint Helena	ndr	ndr	ndr	ndr	ndr	825.8	137.6
Saint Kitts and Nevis	ndr	ndr	na	637.3	6,023.0	606.2	1,211.1
Saint Lucia	ndr	13,534.5	6.6	ndr	127.1	25.9	2,282.4
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	8,301.4	259.5	37.6	ndr	17.4	1,436.0
Samoa	ndr	249.8	ndr	33,079.2	ndr	na	5,554.8
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	18,444.7	na	ndr	ndr	ndr	3,074.1
Saudi Arabia	ndr	na	7.6	ndr	ndr	10.8	3.1
Senegal	13,901.7	7,331.5	38.3	12.4	689.3	563.6	3,756.1
Serbia and Montenegro	x	x	x	183.5	ndr	148.9	86.6
Seychelles	ndr	ndr	ndr	ndr	318.4	1,697.9	336.1
Sierra Leone	66.1	ndr	0.3	ndr	863.4	0.1	155.0
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	43.5	134.0	80.7
Slovenia	x	x	x	ndr	7.3	ndr	2.9
Solomon Islands	125.2	2,931.4	10,429.3	4,767.8	17.3	61.2	3,055.4
Somalia	1,420.3	1,021.7	1,688.2	148.3	3,748.9	8,178.2	2,700.9
South Africa	0.8	182.2	1,844.0	7.7	164.7	82.1	380.2
Soviet Union (former)	ndr	0.2	0.0	0.0	x	x	0.0
Spain	0.0	385.3	32.5	0.0	3,030.1	0.5	574.7
Sri Lanka	1,756.8	6,696.6	3,484.3	3,510.7	1,199.8	4,322.2	3,495.1
Sudan	293.6	1,356.7	12,357.2	7,116.2	844.3	2,957.1	4,154.2

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003 (continued) - By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	14.9	18,154.0	9,009.1	1,797.8	4,856.3	5,638.7
Sweden	0.2	ndr	0.1	0.0	ndr	0.0	0.0
Switzerland	0.0	0.4	6.1	0.0	na	5.0	1.9
Syrian Arab Republic	571.9	0.0	ndr	ndr	ndr	818.0	231.7
Taiwan	44.8	0.1	2.6	19.8	0.7	688.9	126.2
Tajikistan	na	ndr	na	1,039.4	770.1	9,660.0	4,379.9
Tanzania, U. Rep. of	119.5	137.9	1,879.8	974.0	4,243.1	1,832.1	1,531.1
Thailand	2,320.0	689.1	740.0	2,169.4	3,328.3	6,068.5	2,552.5
Timor-Leste	x	x	x	x	x	75.9	12.7
Togo	ndr	na	ndr	2,238.3	776.4	265.5	546.7
Tokelau	ndr	ndr	na	na	ndr	ndr	na
Tonga	3,424.3	31,783.0	ndr	674.2	1,338.6	3,156.6	6,729.5
Trinidad and Tobago	1,004.7	ndr	ndr	16.9	7.3	ndr	171.5
Tunisia	104.6	91.8	6.7	234.0	ndr	54.4	81.9
Turkey	133.6	41.2	324.5	113.0	43.5	503.7	6.4
Turkmenistan	ndr	na	ndr	4.3	ndr	0.0	0.9
Turks and Caicos	ndr	ndr	1,653.1	na	ndr	ndr	275.5
Tuvalu	ndr	ndr	na	1,835.9	ndr	ndr	306.0
Uganda	ndr	813.2	1,202.5	0.0	319.6	788.9	520.7
Ukraine	ndr	ndr	na	314.8	672.4	142.9	389.1
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	0.0	0.0	0.0	69.8	90.1	8.3	28.0
United States	0.4	17.1	89.4	43.3	138.7	64.7	58.9
Uruguay	ndr	ndr	122.2	52.1	59.7	93.7	54.6
Uzbekistan	na	ndr	na	93.5	ndr	881.0	371.1
Vanuatu	na	na	25,536.5	1,598.8	262.5	2,477.3	4,979.2
Venezuela	ndr	5.6	44.1	7.9	80.1	564.3	117.0
Vietnam	1,579.5	6,945.9	2,861.0	2,421.2	3,559.4	4,327.5	3,615.8
Virgin Islands (U.K.)	ndr	ndr	ndr	13,207.4	3.2	ndr	2,201.8
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	1,856.5	0.6	309.5
Wallis and Futuna	ndr	ndr	6,781.7	35.3	ndr	ndr	1,136.2
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	126.2	1,592.4	ndr	1,465.1	315.0	24.3	587.2
Yougoslavia (former)	ndr	389.5	2.6	0.2	x	x	107.5
Zambia	115.1	na	ndr	6,197.9	5,651.6	5,508.9	2,912.3
Zimbabwe	391.5	1,833.3	na	17,667.6	17,982.6	11,277.6	8,192.1
World	937.3	3,116.7	3,229.2	2,988.0	3,657.0	4,882.2	3,135.1

Table 3 - Mean annual number of victims (people killed and affected) of natural disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	1,354.0	3,409.4	3,138.3	5,550.2	3,077.6	6,755.1	3,880.8
Middle	787.1	464.0	1,301.8	1,011.7	67.6	195.2	637.9
Northern	70.5	443.5	2,242.7	1,325.8	199.3	638.7	820.1
Southern	85.5	624.8	4,035.0	438.0	399.8	768.5	1,058.6
Western	1,036.8	3,120.5	1,526.3	535.8	293.2	497.3	1,168.3
Total	814.7	2,112.8	2,330.9	2,294.6	1,099.4	2,406.2	1,843.1
Americas							
Caribbean	804.5	2,116.1	2,356.4	837.2	2,366.1	3,667.1	2,024.6
Central	1,570.3	205.5	335.3	249.8	864.6	822.0	674.6
Northern	0.4	15.8	83.7	40.8	161.8	58.9	60.2
Southern	171.9	3,340.1	1,063.6	407.9	809.1	535.2	1,054.6
Total	330.8	1,468.8	626.6	261.3	643.9	540.8	645.4
Asia							
Eastern	120.8	118.7	1,442.1	6,457.5	10,208.3	8,818.4	4,527.6
South-Central	3,153.6	11,802.4	10,851.4	3,440.2	2,596.5	8,700.5	6,757.4
South-East	1,311.8	1,484.2	1,262.3	1,985.5	2,047.9	2,031.7	1,687.2
Western	123.3	161.0	404.3	227.1	331.0	457.2	284.0
Total	1,376.1	4,585.2	4,890.4	4,412.9	5,555.2	7,348.9	4,694.8
Europe							
Eastern	80.4	2.1	12.8	34.2	213.0	396.4	123.2
Northern	0.0	0.0	0.1	215.5	57.1	5.7	46.4
Southern	121.1	256.4	19.0	456.8	871.9	86.1	301.9
Western	3.1	0.6	1.0	13.2	47.7	467.4	88.8
Total	61.0	48.3	9.9	130.9	281.8	300.9	138.8
Oceania							
Australia - New Zealand	70.2	105.7	20.7	6,202.5	8,449.7	25.5	2,479.0
Melanesia	133.9	2,008.7	2,891.2	1,721.5	3,769.8	357.8	1,813.8
Micronesia	0.7	ndr	37.4	518.3	1,440.8	4,040.0	1,006.2
Polynesia	694.3	6,360.5	315.2	10,350.2	259.4	536.5	3,086.0
Total	93.0	582.3	572.8	5,292.8	7,224.4	174.3	2,323.3
World	937.3	3,116.7	3,229.2	2,988.0	3,657.0	4,882.2	3,135.1

ndr: no disaster reported
na: number of victims or population data not available
x: not applicable
Note: Population data for some territories (Azores, Tokelau…) and for CIS countries before the break-up of the USSR were not available. Therefore, computation of the mean annual number of victims could not be performed.
ndr: no disaster reported
na: number of victims not available
x: not applicable
Note : for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	2	1	2	10	9	20	44
Albania	ndr	1	2	2	3	2	10
Algeria	1	6	3	3	5	15	33
American Samoa	ndr	ndr	ndr	3	ndr	1	4
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	1	1	4	1	11	18
Anguilla	ndr	3	1	ndr	ndr	1	5
Antigua and Barbuda	ndr	1	ndr	2	2	2	7
Argentina	5	6	9	7	8	23	58
Armenia	ndr	ndr	ndr	ndr	2	1	3
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	30	22	16	19	34	33	154
Austria	2	5	6	6	1	6	26
Azerbaijan	ndr	ndr	ndr	ndr	4	3	7
Azores	ndr	ndr	ndr	ndr	2	ndr	2
Bahamas, The	ndr	ndr	1	2	ndr	2	5
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	16	18	21	36	39	38	168
Barbados	ndr	1	2	ndr	1	1	5
Belarus	ndr	ndr	ndr	1	2	2	5
Belgium	3	1	6	5	3	8	26
Belize	2	1	ndr	2	2	3	10
Benin	3	2	5	1	5	2	18
Bermuda	ndr	ndr	3	1	ndr	1	5
Bhutan	ndr	ndr	ndr	ndr	2	2	4
Bolivia	5	5	5	3	5	14	37
Bosnia and Herzegovina	x	x	x	ndr	ndr	6	6
Botswana	1	2	5	1	1	1	11
Brazil	13	12	20	16	24	26	111
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	2	ndr	1	2	7	12
Burkina Faso	5	2	4	1	2	3	17
Burundi	ndr	ndr	ndr	1	ndr	8	9
Cambodia	ndr	ndr	1	1	4	7	13
Cameroon	ndr	ndr	1	1	1	5	8
Canada	6	7	13	6	12	15	59
Canary Islands	ndr	ndr	ndr	ndr	ndr	3	3
Cape Verde	2	3	3	1	ndr	ndr	9
Cayman Islands	ndr	ndr	ndr	ndr	ndr	1	1
Central African Republic	ndr	2	1	ndr	4	5	12
Chad	7	3	6	2	2	3	23
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	3	2	7	9	6	14	41
China	1	30	56	66	61	105	319

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	5	8	11	13	10	23	70
Comoros	ndr	2	2	1	ndr	1	6
Congo, Dem. Rep. of the	ndr	1	1	2	2	9	15
Congo	ndr	1	ndr	ndr	2	2	5
Cook Islands	ndr	1	1	1	1	1	5
Costa Rica	1	1	2	3	7	6	20
Côte d'Ivoire	ndr	1	ndr	1	1	ndr	3
Croatia	x	x	x	ndr	1	6	7
Cuba	2	6	7	6	10	10	41
Cyprus	ndr	1	ndr	1	1	4	7
Czech Republic	x	x	x	ndr	1	2	3
Czechoslovakia (former)	1	3	5	ndr	x	x	9
Denmark	1	3	2	3	ndr	2	11
Djibouti	2	2	2	2	3	3	14
Dominica	ndr	2	1	1	1	2	7
Dominican Republic	ndr	5	4	4	5	5	23
Ecuador	1	3	3	4	4	9	24
Egypt	1	2	1	2	5	3	14
El Salvador	ndr	2	2	3	4	7	18
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	1	ndr	5	6
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	7	2	7	8	8	21	53
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	2	6	6	4	2	4	24
Finland	ndr	ndr	ndr	1	ndr	ndr	1
France	4	17	17	19	10	31	98
French Guiana	ndr	ndr	ndr	ndr	1	ndr	1
French Polynesia	ndr	2	1	ndr	2	ndr	5
Gabon	ndr	ndr	1	ndr	ndr	ndr	1
Gambia	4	3	2	ndr	1	4	14
Georgia	ndr	1	2	1	2	3	9
Germany	3	3	9	9	6	10	40
Ghana	1	2	2	2	1	4	12
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	1	3	9	2	4	15	34
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	1	1	ndr	1	ndr	1	4
Guadeloupe	ndr	1	1	2	ndr	1	5
Guam	1	ndr	1	1	1	2	6
Guatemala	ndr	1	5	2	4	12	24
Guinea	ndr	3	ndr	1	1	2	7
Guinea-Bissau	2	2	3	1	1	2	11
Guyana	ndr	ndr	1	1	2	1	5
Haiti	2	5	11	5	4	11	38
Honduras	3	4	5	4	7	10	33
Hong Kong, China (SAR)	25	24	12	15	1	3	80
Hungary	ndr	ndr	1	1	1	10	13
Iceland	1	1	1	ndr	2	ndr	5
India	29	46	50	49	44	69	287

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	12	23	23	12	21	42	133
Iran, Islamic Rep. of	1	4	10	14	13	21	63
Iraq	ndr	ndr	ndr	ndr	ndr	2	2
Ireland	ndr	1	2	6	ndr	3	12
Israel	ndr	2	ndr	2	3	3	10
Italy	4	4	9	6	9	14	46
Jamaica	ndr	6	5	2	2	5	20
Japan	14	17	11	19	13	19	93
Jordan	ndr	1	1	3	ndr	5	10
Kazakhstan	ndr	ndr	ndr	1	3	3	7
Kenya	2	2	2	2	4	12	24
Kiribati	ndr	ndr	ndr	ndr	ndr	1	1
Korea, Dem. People's Rep. of	ndr	ndr	2	1	5	9	17
Korea, Rep. of	5	7	9	10	10	15	56
Kuwait	ndr	ndr	ndr	ndr	1	ndr	1
Kyrgyzstan	ndr	ndr	ndr	1	3	3	7
Lao People's Dem. Rep.	2	1	3	8	5	4	23
Latvia	ndr	ndr	ndr	ndr	ndr	2	2
Lebanon	ndr	2	1	1	ndr	2	6
Lesotho	ndr	1	3	4	3	3	14
Liberia	ndr	2	ndr	1	2	ndr	5
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	1	ndr	1
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	2	ndr	2	4
Luxembourg	ndr	1	ndr	5	ndr	ndr	6
Macao, China	ndr	ndr	ndr	4	ndr	ndr	4
Macedonia, TFYR	x	x	x	1	1	5	7
Madagascar	4	4	4	5	7	11	35
Malawi	ndr	2	2	5	6	9	24
Malaysia	1	1	3	2	7	12	26
Maldives	ndr	ndr	1	1	ndr	ndr	2
Mali	3	3	2	2	2	5	17
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	1	ndr	ndr	1
Martinique	ndr	2	ndr	3	ndr	1	6
Mauritania	3	4	4	2	2	9	24
Mauritius	1	5	2	2	2	3	15
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	8	11	10	17	26	34	106
Micronesia, Fed. States of	ndr	ndr	1	ndr	1	3	5
Moldova, Rep. of	ndr	ndr	ndr	ndr	3	4	7
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	1	4	3	9	17
Montserrat	ndr	ndr	ndr	2	ndr	ndr	2
Morocco	2	3	2	ndr	6	9	22
Mozambique	7	8	6	3	4	18	46
Myanmar	5	4	ndr	2	3	3	17
Namibia	ndr	1	ndr	2	1	6	10
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	3	6	12	7	8	8	44
Netherlands	1	ndr	4	6	3	2	16
Netherlands Antilles	ndr	ndr	ndr	1	1	0	2
New Caledonia	2	3	ndr	1	ndr	2	8
New Zealand	5	5	12	6	5	6	39
Nicaragua	1	4	1	3	5	11	25
Niger	3	3	4	ndr	3	8	21
Nigeria	1	ndr	5	1	3	18	28
Niue	ndr	ndr	ndr	1	ndr	ndr	1
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	1	3	1	2	7
Oman	2	1	0	ndr	ndr	2	5
Pakistan	4	10	5	13	17	27	76
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	1	1	3	2	1	7	15
Papua New Guinea	ndr	4	1	4	5	4	18
Paraguay	ndr	4	1	2	4	6	17
Peru	4	10	12	10	8	17	61
Philippines	37	45	31	49	41	39	242
Poland	1	4	2	1	4	7	19
Portugal	ndr	7	3	1	3	7	21
Puerto Rico	1	2	2	3	3	4	15
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	1	2	2	ndr	2	7
Romania	1	1	2	3	9	17	33
Russian Federation	ndr	5	5	14	26	49	99
Rwanda	2	ndr	2	ndr	ndr	7	11
Saint Helena	ndr	ndr	ndr	ndr	ndr	1	1
Saint Kitts and Nevis	ndr	ndr	2	2	2	1	7
Saint Lucia	ndr	2	3	ndr	2	1	8
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	1	1	3	1	ndr	2	8
Samoa	ndr	2	ndr	3	ndr	1	6
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	1	1	ndr	ndr	ndr	2
Saudi Arabia	ndr	1	1	ndr	ndr	3	5
Senegal	4	4	4	1	2	6	21
Serbia and Montenegro	x	x	x	1	0	7	8
Seychelles	ndr	ndr	ndr	ndr	1	1	2
Sierra Leone	1	ndr	1	ndr	1	1	4
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	1	3	4
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	2	2	2	2	3	11
Somalia	3	3	3	2	5	11	27
South Africa	3	5	6	6	11	22	53
Soviet Union (former)	ndr	1	1	2	x	x	4
Spain	1	9	12	5	12	10	49
Sri Lanka	6	9	7	10	7	10	49
Sudan	2	5	3	4	6	10	30

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	1	2	4	2	1	10
Sweden	3	ndr	2	1	ndr	1	7
Switzerland	3	4	10	6	1	8	32
Syrian Arab Republic	1	1	ndr	ndr	ndr	4	6
Taiwan	3	2	5	6	7	9	32
Tajikistan	1	ndr	1	4	6	14	26
Tanzania, U. Rep. of	3	2	4	6	12	8	35
Thailand	4	4	6	16	12	28	70
Timor-Leste	x	x	x	x	x	3	3
Togo	ndr	1	ndr	1	3	1	6
Tokelau	ndr	ndr	1	1	ndr	ndr	2
Tonga	1	2	ndr	1	3	1	8
Trinidad and Tobago	1	ndr	ndr	3	1	ndr	5
Tunisia	1	2	2	1	ndr	2	8
Turkey	3	4	5	8	9	13	42
Turkmenistan	ndr	ndr	ndr	1	ndr	ndr	1
Turks and Caicos	ndr	ndr	1	1	ndr	ndr	2
Tuvalu	ndr	ndr	2	2	ndr	ndr	4
Uganda	ndr	1	3	ndr	4	13	21
Ukraine	ndr	ndr	2	4	2	6	14
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	3	2	6	10	10	15	46
United States	19	41	65	130	100	128	483
Uruguay	ndr	ndr	1	3	2	9	15
Uzbekistan	ndr	ndr	ndr	2	ndr	3	5
Vanuatu	2	3	5	3	1	4	18
Venezuela	ndr	1	6	1	4	8	20
Vietnam	2	7	12	24	18	33	96
Virgin Islands (U.K.)	ndr	ndr	ndr	1	3	ndr	4
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	2	1	3
Wallis and Futuna	ndr	ndr	1	ndr	ndr	ndr	1
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	4	3	ndr	4	3	9	23
Yougoslavia (former)	ndr	4	5	1	x	x	10
Zambia	1	2	ndr	3	2	6	14
Zimbabwe	2	1	1	2	4	7	17
World	428	681	817	970	997	1,707	5,600

Table 4 - Total number of hydrometeorological disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	34	37	42	45	62	146	366
Middle	7	9	12	9	12	35	84
Northern	7	18	11	10	23	42	111
Southern	4	10	16	17	18	33	98
Western	32	35	39	16	30	66	218
Total	84	109	120	97	145	322	877
Americas							
Caribbean	8	38	44	42	39	52	223
Central	16	25	28	36	56	90	251
Northern	25	48	81	137	112	144	547
Southern	36	51	76	69	78	150	460
Total	85	162	229	284	285	436	1,481
Asia							
Eastern	48	80	96	125	100	169	618
South-Central	62	94	109	149	151	218	783
South-East	63	85	79	114	111	171	623
Western	10	17	10	20	25	54	136
Total	183	276	294	408	387	612	2,160
Europe							
Eastern	3	16	18	27	51	107	222
Northern	8	7	14	26	13	27	95
Southern	6	28	40	19	35	72	200
Western	16	31	52	56	24	65	244
Total	33	82	124	128	123	271	761
Oceania							
Australia - New Zealand	35	27	28	25	39	39	193
Melanesia	6	18	14	14	10	17	79
Micronesia	1	ndr	2	2	2	6	13
Polynesia	1	7	6	12	6	4	36
Total	43	52	50	53	57	66	321
World	428	681	817	970	997	1,707	5,600

ndr : no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	466.4	40.0	226.0	188.0	71.8	4,984.5	996.1
Albania	ndr	na	48.9	19,638.4	67.3	1,179.4	3,489.0
Algeria	25.6	41.4	23.4	2.3	23.8	34.5	25.1
American Samoa	ndr	ndr	ndr	10.4	ndr	3.1	2.3
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	232.7	1,351.6	7,998.0	215.7	150.2	1,658.0
Anguilla	ndr	na	na	ndr	ndr	262.0	43.7
Antigua and Barbuda	ndr	22,923.9	ndr	2,545.1	22,215.0	1,807.4	8,248.6
Argentina	81.2	4,156.9	3,897.6	57.8	224.6	247.7	1,444.3
Armenia	ndr	ndr	ndr	ndr	42.3	1,776.1	727.4
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	81.8	119.8	1.5	7,418.3	10,103.2	29.9	2,959.1
Austria	0.0	0.0	0.2	0.0	na	172.9	28.9
Azerbaijan	ndr	ndr	ndr	ndr	4,542.9	80.5	1,849.4
Azores	ndr	ndr	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	na	129.0	ndr	104.5	38.9
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	11,364.6	8,483.6	37,104.7	7,743.0	8,380.6	951.3	12,338.0
Barbados	ndr	397.4	25.5	ndr	na	144.8	94.6
Belarus	ndr	ndr	ndr	154.4	41.1	3.9	48.9
Belgium	na	na	0.1	1.2	2.1	6.7	1.7
Belize	11,364.4	2,341.5	ndr	na	5,358.7	6,647.8	4,285.4
Benin	133.4	6,760.8	9,608.2	0.0	2,667.9	187.6	3,226.3
Bermuda	ndr	ndr	14.1	na	ndr	1.2	2.6
Bhutan	ndr	ndr	ndr	ndr	749.1	12.0	126.9
Bolivia	1,113.7	11,083.8	1,103.3	979.5	1,090.1	1,186.5	2,759.5
Bosnia and Herzegovina	x	x	x	ndr	ndr	367.7	159.9
Botswana	3,293.9	16,319.3	58,279.8	1,444.9	74.5	1,759.2	13,528.6
Brazil	236.8	4,679.3	674.9	163.3	1,190.7	227.3	1,195.4
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	na	ndr	11.8	1.3	2.6	2.6
Burkina Faso	3,499.6	4,111.2	553.3	5,720.6	164.9	21.0	2,345.1
Burundi	ndr	ndr	ndr	13.2	ndr	4,028.3	673.6
Cambodia	ndr	ndr	na	1,871.0	11,122.7	13,029.5	4,337.2
Cameroon	ndr	ndr	1.8	0.3	0.0	4.3	1.1
Canada	0.3	4.2	31.4	18.4	370.4	7.1	72.0
Canary Islands	ndr	ndr	ndr	ndr	ndr	na	na
Cape Verde	448.6	146.1	351.9	na	ndr	ndr	157.8
Cayman Islands	ndr	ndr	ndr	ndr	ndr	147.2	24.5
Central African Republic	ndr	16.2	na	ndr	186.7	289.1	82.0
Chad	8,723.0	2,365.2	11,957.8	899.0	228.6	1,160.7	4,222.4
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	122.3	14.0	999.9	189.0	122.9	581.1	338.2
China	125.2	82.9	1,674.9	7,647.0	11,826.9	10,228.7	5,264.2

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	1.3	89.5	468.6	60.9	207.3	453.3	213.5
Comoros	ndr	1,685.4	4,398.4	na	ndr	9.5	1,015.6
Congo, Dem. Rep. of the	ndr	364.7	191.8	14.6	15.0	45.4	105.2
Congo	ndr	0.0	ndr	ndr	281.4	339.0	103.4
Cook Islands	ndr	0.0	2,282.8	1.1	929.4	721.9	655.9
Costa Rica	na	11.8	974.1	1,438.0	4,421.2	572.1	1,236.2
Côte d'Ivoire	ndr	na	ndr	12.3	0.0	na	2.1
Croatia	x	x	x	ndr	na	6.7	2.7
Cuba	38.1	700.8	1,304.0	1,376.1	2,389.8	11,654.3	2,910.5
Cyprus	ndr	na	ndr	na	4.1	11.5	2.6
Czech Republic	x	x	x	ndr	198.3	390.0	267.4
Czechoslovakia (former)	0.0	0.8	0.1	ndr	x	x	0.2
Denmark	na	0.0	0.1	0.0	ndr	0.0	0.0
Djibouti	16,510.7	17,337.3	7,365.3	9,608.1	10,842.4	15,992.8	12,942.7
Dominica	ndr	19,046.4	2,672.5	193.8	823.1	248.2	3,830.7
Dominican Republic	ndr	6,110.9	3,514.6	58.0	2,481.8	136.6	2,050.3
Ecuador	0.2	2,139.9	35.5	575.2	137.3	108.7	499.5
Egypt	0.0	39.3	0.0	0.2	53.0	0.3	15.5
El Salvador	ndr	306.2	158.7	30.5	299.0	1,348.0	357.0
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	427.9	na	13,359.4	6,111.4
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1,057.6	3,378.3	6,993.1	6,747.0	440.0	12,940.4	5,259.4
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	798.6	9,620.4	9,701.2	4,440.1	6,599.1	734.8	5,315.7
Finland	ndr	ndr	ndr	0.0	ndr	ndr	0.0
France	9.8	1.5	0.8	1.3	46.0	1,274.7	222.4
French Guiana	ndr	ndr	ndr	ndr	9,275.6	ndr	1,545.9
French Polynesia	ndr	611.8	1.1	ndr	43.6	ndr	109.4
Gabon	ndr	ndr	222.2	ndr	ndr	ndr	37.0
Gambia	470.2	14,913.7	na	ndr	66.8	594.8	2,674.3
Georgia	ndr	na	na	na	1.9	4,873.3	1,950.1
Germany	0.0	na	1.0	24.7	11.0	106.1	23.8
Ghana	na	21,927.9	2.3	9.4	792.5	486.3	3,869.7
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	3.5	0.1	2.7	0.0	6.8	16.7	4.9
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	na	na	ndr	216.5	ndr	46.9	43.9
Guadeloupe	ndr	na	na	649.2	ndr	42.8	115.3
Guam	2.0	ndr	79.9	778.9	874.7	1,880.7	602.7
Guatemala	ndr	54.1	190.6	0.1	189.7	348.6	130.5
Guinea	ndr	21.7	ndr	16.9	0.0	504.8	90.6
Guinea-Bissau	399.3	na	79.8	31.8	24.6	1,499.9	339.2
Guyana	ndr	ndr	na	na	18,384.5	0.3	3,064.1
Haiti	3,941.8	1,715.7	3,543.6	103.0	4,922.0	486.7	2,452.1
Honduras	4,102.8	331.6	211.2	523.8	7,625.2	4,693.4	2,914.6
Hong Kong, China (SAR)	62.1	114.9	7.8	26.1	13.2	11.0	39.2
Hungary	ndr	ndr	0.0	na	0.4	289.3	48.3
Iceland	1.1	0.3	22.4	ndr	8.7	na	5.4
India	2,566.1	14,876.1	9,627.8	3,398.1	2,553.2	10,631.3	7,275.4

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	84.6	107.0	73.8	93.3	470.2	94.5	153.9
Iran, Islamic Rep. of	0.0	480.8	72.5	273.5	53.0	19,128.4	3,334.7
Iraq	ndr	ndr	ndr	ndr	ndr	na	na
Ireland	ndr	0.1	0.1	19.7	ndr	1.5	3.6
Israel	ndr	0.1	ndr	1.0	4.5	1.4	1.2
Italy	0.4	2.5	1.3	0.4	7.5	21.3	5.6
Jamaica	ndr	2,535.0	7,225.4	4,472.0	6.2	20.2	2,376.5
Japan	63.2	55.9	42.7	40.6	25.2	113.4	56.9
Jordan	ndr	0.2	0.3	99.3	ndr	1,344.5	240.7
Kazakhstan	ndr	ndr	ndr	70.5	722.9	7.4	306.2
Kenya	50.7	51.3	615.5	2,115.7	2,617.5	6,470.0	1,986.8
Kiribati	ndr	ndr	ndr	ndr	ndr	18,699.3	3,116.5
Korea, Dem. People's Rep. of	ndr	ndr	21.4	2.4	8,808.4	849.2	1,613.6
Korea, Rep. of	45.2	39.3	280.5	255.9	159.5	228.5	168.1
Kuwait	ndr	ndr	ndr	ndr	2.3	ndr	0.4
Kyrgyzstan	ndr	ndr	ndr	na	292.0	5.2	118.9
Lao People's Dem. Rep.	24,644.9	ndr	3,679.7	2,918.9	9,064.2	3,577.0	7,314.1
Latvia	ndr	ndr	ndr	ndr	ndr	0.3	0.1
Lebanon	ndr	0.3	9.7	646.6	ndr	2.7	109.9
Lesotho	ndr	na	9,044.1	1,954.4	3,699.0	2,921.8	2,936.5
Liberia	ndr	2.4	ndr	9,134.7	57.9	ndr	1,532.5
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	na	ndr	0.0
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	8,446.7	ndr	0.3	1,689.5
Luxembourg	ndr	na	ndr	1.2	ndr	ndr	0.2
Macao, China	ndr	ndr	ndr	207.3	ndr	ndr	34.6
Macedonia, TFYR	x	x	x	203.9	15.1	62.3	71.7
Madagascar	1,449.4	2,791.2	640.3	2,510.9	1,854.7	3,292.5	2,089.8
Malawi	ndr	85.6	5,765.5	32,685.6	6,966.8	6,651.6	8,692.5
Malaysia	4.6	20.3	106.3	26.8	15.4	43.0	36.1
Maldives	ndr	ndr	30.8	2,128.4	ndr	ndr	359.9
Mali	43.1	5,091.3	25.4	754.4	12.8	81.0	1,001.3
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	2,561.0	ndr	ndr	426.8
Martinique	ndr	1,183.8	ndr	318.1	ndr	29.2	255.2
Mauritania	19,685.8	24,251.8	18,902.9	4,052.5	180.2	4,047.6	11,853.5
Mauritius	18,663.0	2,886.1	0.0	223.1	41.2	34.7	3,641.4
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	203.4	139.9	38.7	97.7	194.4	221.2	149.2
Micronesia, Fed. States of	ndr	ndr	42.6	ndr	5,369.9	498.6	985.2
Moldova, Rep. of	ndr	ndr	ndr	ndr	237.0	11,746.4	4,793.4
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	851.8	41.6	18,039.8	3,155.5
Montserrat	ndr	ndr	ndr	22,215.9	ndr	ndr	3,702.6
Morocco	54.9	18.7	0.0	ndr	71.2	197.0	57.0
Mozambique	1,701.0	24,631.1	5,254.3	5,793.9	4,131.0	4,481.7	7,665.5
Myanmar	1,153.4	74.1	ndr	196.7	115.9	49.6	265.0
Namibia	ndr	na	ndr	3,354.1	2,017.6	10,763.9	2,689.3
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	152.4	4,922.9	466.0	584.7	207.9	326.9	1,110.1
Netherlands	na	ndr	0.0	15.7	326.1	1.5	57.2
Netherlands Antilles	ndr	ndr	ndr	159.9	4,022.0	na	697.0
New Caledonia	na	281.3	ndr	0.2	ndr	104.6	64.3
New Zealand	18.8	37.1	71.0	2.4	14.9	3.4	24.6
Nicaragua	64.8	858.8	2,110.5	1,191.1	5,584.8	1,471.6	1,880.3
Niger	123.5	945.1	13,941.3	ndr	204.8	7,002.8	3,702.9
Nigeria	0.0	ndr	821.8	na	129.5	75.4	171.1
Niue	ndr	ndr	ndr	na	ndr	ndr	na
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	0.1	0.0	18.4	9.3	4.6
Oman	133.5	0.4	na	ndr	ndr	0.9	22.5
Pakistan	2,279.1	37.2	185.9	3,180.8	675.9	643.4	1,167.1
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	21.6	779.8	140.1	165.4	54.6	207.1	228.1
Papua New Guinea	ndr	342.3	5.9	929.5	3,156.9	161.3	766.0
Paraguay	ndr	2,301.2	225.0	363.3	1,419.0	557.8	811.0
Peru	46.7	1,556.1	238.2	3,172.1	565.5	1,835.9	1,235.8
Philippines	2,646.9	2,119.9	4,752.0	7,598.0	3,616.7	1,850.0	3,763.9
Poland	0.6	12.3	0.0	0.0	116.8	8.1	23.0
Portugal	ndr	99.0	0.2	na	2.5	7.7	18.3
Puerto Rico	0.2	28.6	3.5	23.0	574.5	68.6	116.4
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	277.1	142.7	214.8	ndr	100.0	122.4
Romania	941.4	na	1.8	13.4	131.0	86.8	195.7
Russian Federation	ndr	na	na	26.2	135.6	350.0	199.5
Rwanda	16,291.9	ndr	1,497.5	ndr	ndr	3,404.4	3,532.3
Saint Helena	ndr	ndr	ndr	ndr	ndr	825.8	137.6
Saint Kitts and Nevis	ndr	ndr	na	637.3	6,023.0	606.2	1,211.1
Saint Lucia	ndr	13,534.5	6.6	ndr	127.1	25.9	2,282.4
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	4,177.7	259.5	37.6	ndr	17.4	748.7
Samoa	ndr	249.8	ndr	33,079.2	ndr	na	5,554.8
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	18,444.7	na	ndr	ndr	ndr	3,074.1
Saudi Arabia	ndr	na	7.6	ndr	ndr	10.8	3.1
Senegal	13,901.7	7,331.5	38.3	12.4	689.3	563.6	3,756.1
Serbia and Montenegro	x	x	x	183.5	ndr	148.7	86.5
Seychelles	ndr	ndr	ndr	ndr	318.4	1,697.9	336.1
Sierra Leone	66.1	ndr	0.3	ndr	863.4	0.1	155.0
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	43.5	134.0	80.7
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	2,931.4	10,396.1	4,767.8	17.3	61.2	3,029.0
Somalia	1,420.3	1,021.7	1,688.2	148.3	3,748.9	8,178.2	2,700.9
South Africa	0.8	182.2	1,843.8	7.7	164.7	82.1	380.2
Soviet Union (former)	ndr	0.1	0.0	0.0	x	x	0.0
Spain	na	385.3	32.5	0.0	3,030.1	0.5	574.7
Sri Lanka	1,756.8	6,696.6	3,484.3	3,510.7	1,199.8	4,322.2	3,495.1
Sudan	293.6	1,356.7	12,357.2	7,108.7	844.3	2,957.1	4,152.9

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	14.9	18,154.0	9,009.1	1,797.8	4,856.3	5,638.7
Sweden	0.2	ndr	0.1	0.0	ndr	na	0.0
Switzerland	0.0	0.4	6.1	0.0	na	5.0	1.9
Syrian Arab Republic	571.9	0.0	ndr	ndr	ndr	818.0	231.7
Taiwan	44.8	0.1	2.6	19.8	0.7	587.2	109.2
Tajikistan	na	ndr	na	995.4	770.1	9,601.1	4,347.6
Tanzania, U. Rep. of	119.5	137.9	1,879.8	974.0	4,243.1	1,830.1	1,530.7
Thailand	2,320.0	689.1	740.0	2,169.4	3,328.3	6,068.5	2,552.5
Timor-Leste	x	x	x	x	x	75.9	12.7
Togo	ndr	na	ndr	2,238.3	776.4	265.5	546.7
Tokelau	ndr	ndr	na	na	ndr	ndr	na
Tonga	2,208.8	31,783.0	ndr	674.2	1,338.6	3,156.6	6,526.9
Trinidad and Tobago	1,004.7	ndr	ndr	16.9	3.5	ndr	170.9
Tunisia	104.6	91.8	6.7	234.0	ndr	54.4	81.9
Turkey	0.0	26.7	0.9	2.2	10.2	1.3	6.9
Turkmenistan	ndr	ndr	ndr	4.3	ndr	ndr	0.9
Turks and Caicos	ndr	ndr	1,653.1	na	ndr	ndr	275.5
Tuvalu	ndr	ndr	na	1,835.9	ndr	ndr	306.0
Uganda	ndr	813.2	1,200.0	ndr	269.3	788.9	511.9
Ukraine	ndr	ndr	x	314.8	672.4	142.9	389.1
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	0.0	0.0	69.8	90.1	8.3	28.0
United States	0.4	16.7	89.2	42.5	136.2	64.6	58.3
Uruguay	ndr	ndr	122.2	52.1	59.7	93.7	54.6
Uzbekistan	ndr	ndr	ndr	0.9	ndr	881.0	352.6
Vanuatu	na	na	25,536.5	1,598.5	262.5	392.5	4,631.7
Venezuela	ndr	5.3	42.9	5.8	54.4	564.3	112.1
Vietnam	1,579.5	6,945.9	2,861.0	2,421.2	3,559.4	4,327.5	3,615.8
Virgin Islands (U.K.)	ndr	ndr	ndr	13,207.4	3.2	ndr	2,201.8
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	1,856.5	0.6	309.5
Wallis and Futuna	ndr	ndr	6,781.7	ndr	ndr	ndr	1,130.3
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	126.2	757.8	ndr	895.3	315.0	24.3	353.1
Yougoslavia (former)	ndr	11.3	1.3	na	x	x	3.4
Zambia	115.1	na	ndr	6,197.9	5,651.6	5,508.9	2,912.3
Zimbabwe	391.5	1,833.3	na	17,667.6	17,982.6	11,277.6	8,192.1
World	896.0	3,089.6	3,120.0	2,960.7	3,627.1	4,782.0	3,079.2

Table 5 - Mean annual number of victims (people killed and affected) of hydrometeorological disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	1,350.1	3,409.4	3,138.1	5,534.5	3,072.8	6,754.2	3,876.5
Middle	783.8	464.0	1,297.9	1,011.6	67.6	168.1	632.2
Northern	70.5	273.4	2,242.5	1,317.7	196.4	613.0	785.6
Southern	85.5	624.8	4,034.8	438.0	399.8	768.5	1,058.6
Western	1,036.8	3,117.5	1,526.3	535.8	292.5	497.3	1,167.7
Total	813.1	2,072.5	2,330.3	2,288.0	1,097.1	2,396.9	1,833.0
Americas							
Caribbean	750.2	2,102.2	2,356.4	833.1	2,358.5	3,666.1	2,011.1
Central	335.9	184.4	155.5	177.2	836.7	552.9	373.8
Northern	0.4	15.5	83.5	40.1	159.5	58.9	59.6
Southern	163.6	3,334.7	929.8	388.7	793.2	439.4	1,008.2
Total	147.2	1,462.7	544.8	241.4	631.6	456.6	580.7
Asia							
Eastern	113.0	76.3	1,418.2	6,447.8	10,133.3	8,737.5	4,487.7
South-Central	3,139.3	11,793.3	10,489.8	3,415.1	2,587.6	8,454.2	6,646.5
South-East	1,266.1	1,454.0	1,254.5	1,845.0	2,014.4	2,015.1	1,641.5
Western	61.4	79.8	4.1	98.2	238.8	275.5	126.3
Total	1,358.7	4,555.3	4,726.2	4,373.0	5,511.2	7,206.1	4,621.8
Europe							
Eastern	58.2	2.0	0.7	33.9	212.7	394.3	117.0
Northern	0.0	0.0	0.1	215.5	57.1	5.7	46.4
Southern	0.4	115.0	10.9	455.2	843.7	60.8	247.7
Western	3.1	0.5	1.0	13.0	47.7	467.4	88.8
Total	28.3	22.2	2.5	130.4	276.1	295.0	125.7
Oceania							
Australia - New Zealand	70.2	105.5	13.5	6,200.4	8,444.9	25.5	2,476.7
Melanesia	127.4	1,895.6	2,835.7	1,649.2	3,195.6	228.9	1,655.4
Micronesia	0.7	0.0	37.4	515.3	1,440.8	4,040.0	1,005.7
Polynesia	447.9	6,360.5	315.2	10,349.3	259.4	536.5	3,044.8
Total	86.8	561.2	556.6	5,276.6	7,103.7	146.4	2,288.5
World	896.0	3,089.6	3,120.0	2,960.7	3,627.1	4,782.0	3,079.2

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 6 - Total number of geological disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	1	2	2	3	4	8	20
Albania	ndr	2	1	ndr	ndr	ndr	3
Algeria	ndr	2	3	2	1	3	11
American Samoa	ndr	ndr	1	ndr	ndr	ndr	1
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	1	ndr	1	1	ndr	1	4
Armenia	ndr	ndr	1	ndr	1	ndr	2
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	2	ndr	1	1	ndr	4
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	1	2	3
Azores	ndr	1	ndr	ndr	1	ndr	2
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	1	1	1	3	6
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	1	ndr	1	ndr	ndr	2
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	1	ndr	ndr	2	ndr	3
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	1	ndr	ndr	ndr	1
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	2	ndr	1	1	ndr	ndr	4
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	2	ndr	ndr	1	3
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	1	ndr	1
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	1	3	2	2	ndr	8
China	4	5	9	11	14	26	69

Table 6 - Total number of geological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	4	2	4	4	2	16
Comoros	1	ndr	ndr	1	ndr	ndr	2
Congo, Dem. Rep. of the	1	ndr	ndr	1	ndr	2	4
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	2	2	ndr	6	1	1	12
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	1	ndr	1
Cuba	1	ndr	ndr	1	ndr	ndr	2
Cyprus	ndr	ndr	ndr	ndr	1	ndr	1
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	1	1
Ecuador	5	1	2	1	4	5	18
Egypt	ndr	ndr	ndr	1	1	1	3
El Salvador	ndr	1	1	ndr	ndr	2	4
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1	ndr	ndr	ndr	ndr	ndr	1
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	2	ndr	ndr	2
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	1	3	ndr	1	5
Germany	1	ndr	ndr	1	ndr	ndr	2
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	2	5	3	3	3	5	21
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	1	ndr	ndr	ndr	ndr	ndr	1
Guam	ndr	ndr	ndr	1	ndr	ndr	1
Guatemala	1	3	6	2	2	4	18
Guinea	ndr	1	ndr	ndr	ndr	ndr	1
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	2	ndr	ndr	ndr	1	3
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	1	1	1	ndr	1	2	6
India	1	5	4	2	1	3	16

Table 6 - Total number of geological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	6	20	12	14	17	16	85
Iran, Islamic Rep. of	8	10	9	7	9	16	59
Iraq	ndr	ndr	ndr	1	ndr	ndr	1
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	3	9	3	3	2	4	24
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	4	7	6	6	4	8	35
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	2	ndr	1	3
Kenya	ndr	ndr	ndr	1	ndr	ndr	1
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	1	ndr	ndr	ndr	ndr	1
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	3	1	ndr	4
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	1	ndr	ndr	1
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1	6	2	2	9	8	28
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	1	1	ndr	ndr	2
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	3	ndr	3
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	1	1	ndr	2
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 6 - Total number of geological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	1	1	ndr	ndr	ndr	2
Netherlands	ndr	ndr	ndr	1	ndr	ndr	1
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	1	ndr	1	ndr	1	ndr	3
Nicaragua	ndr	ndr	ndr	3	1	3	7
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	1	3	2	6	1	3	16
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	1	ndr	2	3
Papua New Guinea	ndr	2	3	3	4	5	17
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	1	6	3	5	2	5	22
Philippines	5	3	2	8	3	5	26
Poland	ndr	1	ndr	ndr	ndr	ndr	1
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	1	ndr	ndr	ndr	ndr	ndr	1
Romania	1	ndr	1	2	ndr	ndr	4
Russian Federation	ndr	ndr	ndr	1	2	4	7
Rwanda	ndr	ndr	ndr	ndr	ndr	1	1
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	1	ndr	ndr	ndr	ndr	1
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	1	1
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	1	ndr	1
Solomon Islands	2	ndr	1	ndr	ndr	ndr	3
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	1	2	ndr	ndr	ndr	3
Soviet Union (former)	ndr	1	ndr	ndr	x	x	1
Spain	ndr	ndr	ndr	ndr	ndr	1	1
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	2	ndr	ndr	2

Table 6 - Total number of geological disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	1	ndr	ndr	3	4
Tajikistan	ndr	ndr	1	3	ndr	3	7
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	3	3
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	1
Tonga	1	ndr	ndr	ndr	ndr	ndr	1
Trinidad and Tobago	ndr	ndr	ndr	ndr	2	ndr	2
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	6	1	6	1	3	15	32
Turkmenistan	ndr	1	ndr	ndr	ndr	1	2
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	1	1	1	ndr	3
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	1	ndr	ndr	1
United States	1	7	3	6	2	4	23
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	1	ndr	1	1	ndr	ndr	3
Vanuatu	ndr	ndr	1	3	1	4	9
Venezuela	ndr	2	2	1	1	ndr	6
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	1	ndr	ndr	1
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	1	ndr	1	ndr	ndr	2
Yougoslavia (former)	ndr	5	1	1	x	x	7
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	69	131	112	146	119	190	767

Table 6 - Total number of geological disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	3	ndr	1	4	1	4	13
Middle	1	ndr	2	1	ndr	3	7
Northern	ndr	2	3	5	2	4	16
Southern	ndr	1	2	ndr	ndr	ndr	3
Western	ndr	1	ndr	ndr	1	ndr	2
Total	4	4	8	10	4	11	41
Americas							
Caribbean	2	1	ndr	1	5	1	10
Central	4	14	9	14	13	21	75
Northern	1	7	3	6	2	4	23
Southern	7	15	14	14	15	13	78
Total	14	37	26	35	35	39	186
Asia							
Eastern	8	13	16	17	18	37	109
South-Central	12	22	21	28	17	38	138
South-East	11	23	14	23	21	21	113
Western	6	2	8	6	6	18	46
Total	37	60	59	74	62	114	406
Europe							
Eastern	3	2	3	5	2	4	19
Northern	1	1	1	1	1	2	7
Southern	5	22	8	7	8	11	61
Western	1	1	ndr	3	ndr	ndr	5
Total	10	26	12	16	11	17	92
Oceania							
Australia - New Zealand	1	2	1	1	2	ndr	7
Melanesia	2	2	5	8	5	9	31
Micronesia	ndr	ndr	ndr	1	ndr	ndr	1
Polynesia	1	ndr	1	1	ndr	ndr	3
Total	4	4	7	11	7	9	42
World	69	131	112	146	119	190	767

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	124.2	106.8	17.4	128.0	232.1	134.2	123.8
Albania	ndr	39.0	4.4	ndr	ndr	ndr	7.2
Algeria	ndr	989.4	1.0	11.6	16.5	151.0	194.9
American Samoa	ndr	ndr	na	ndr	ndr	ndr	na
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	0.1	ndr	29.5	37.7	ndr	0.1	11.2
Armenia	ndr	ndr	x	ndr	88.8	ndr	35.5
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	0.2	ndr	2.5	5.6	ndr	1.4
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	1,814.9	48.1	745.2
Azores	ndr	na	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	0.0	0.0	0.0	2.9	0.5
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	2.3	ndr	na	ndr	ndr	0.4
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	0.1	ndr	ndr	46.5	ndr	7.8
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	3.3	ndr	ndr	ndr	0.5
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	0.5	na	6.8	0.0	na	na	1.2
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	23.4	ndr	ndr	4.2	4.6
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	333.2	ndr	55.5
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	2.6	2,484.2	95.2	57.6	ndr	439.9
China	9.2	1.0	27.8	10.3	58.3	92.8	33.2

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	35.3	53.9	4.4	29.8	619.0	123.7
Comoros	1,640.8	ndr	ndr	9.1	ndr	ndr	275.0
Congo, Dem. Rep. of the	6.3	ndr	ndr	0.2	ndr	47.3	9.0
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	683.4	46.0	ndr	190.9	2.5	0.7	153.9
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	9.1	ndr	3.7
Cuba	0.0	ndr	ndr	13.1	ndr	ndr	2.2
Cyprus	ndr	ndr	ndr	ndr	85.0	ndr	14.2
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	4.6	0.8
Ecuador	127.3	0.1	316.2	0.0	55.8	331.8	138.5
Egypt	ndr	ndr	ndr	11.9	0.0	0.1	2.0
El Salvador	ndr	148.4	3,246.0	ndr	ndr	5,103.5	1,416.3
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	0.0	ndr	ndr	ndr	ndr	ndr	0.0
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	na	ndr	ndr	na
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	0.0	3,899.2	ndr	72.8	809.0
Germany	0.1	ndr	ndr	0.4	ndr	ndr	0.1
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	1,272.9	167.4	91.5	3.0	58.3	328.9	320.3
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	4,485.1	ndr	ndr	ndr	ndr	ndr	747.5
Guam	ndr	ndr	ndr	9.9	ndr	ndr	1.6
Guatemala	15,729.7	14.7	53.2	57.9	2.3	1.9	2,643.3
Guinea	ndr	90.2	ndr	ndr	ndr	ndr	15.0
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	2.6	ndr	ndr	ndr	5.3	1.3
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	0.6	na	na	ndr	na	14.4	2.5
India	0.0	0.0	494.5	5.9	2.7	325.6	138.1

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	68.8	71.4	10.0	20.7	50.1	23.1	40.7
Iran, Islamic Rep. of	270.6	36.3	11.6	235.3	70.8	153.0	129.6
Iraq	ndr	ndr	ndr	0.6	ndr	ndr	0.1
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	78.8	162.9	3.4	3.6	58.8	3.4	51.8
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	2.2	428.8	5.9	11.3	294.3	8.8	125.2
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	na	ndr	43.7	17.5
Kenya	ndr	ndr	ndr	na	ndr	ndr	0.0
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	0.0	ndr	ndr	ndr	ndr	0.0
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	1,738.5	5.4	ndr	349.9
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	330.4	ndr	ndr	55.1
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1.2	15.5	37.0	0.1	34.8	51.1	23.3
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	na	na	ndr	ndr	na
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	23,674.9	ndr	3,945.8
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	0.1	49.9	ndr	8.3
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	367.2	328.4	ndr	ndr	ndr	115.9
Netherlands	ndr	ndr	ndr	0.8	ndr	ndr	0.1
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	na	ndr	42.4	ndr	0.4	ndr	7.1
Nicaragua	ndr	ndr	ndr	1,779.6	56.1	57.4	315.5
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	15.1	0.8	0.2	36.3	1.5	147.6	33.6
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	148.6	ndr	9.6	26.4
Papua New Guinea	ndr	155.5	73.4	98.1	777.5	92.5	199.5
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	59.3	18.7	8.6	137.7	68.4	173.1	77.6
Philippines	123.7	0.7	25.1	915.7	57.8	45.4	194.7
Poland	ndr	0.6	ndr	ndr	ndr	ndr	0.1
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	40.6	ndr	ndr	ndr	ndr	ndr	6.8
Romania	358.2	ndr	0.0	4.1	ndr	ndr	60.4
Russian Federation	ndr	ndr	ndr	na	0.7	4.4	2.0
Rwanda	ndr	ndr	ndr	ndr	ndr	19.9	3.3
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	4,123.6	ndr	ndr	ndr	ndr	687.3
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	0.2	0.1
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	7.3	ndr	2.9
Solomon Islands	125.2	ndr	33.2	ndr	ndr	ndr	26.4
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	0.0	0.2	ndr	ndr	ndr	0.0
Soviet Union (former)	ndr	0.0	ndr	ndr	x	x	0.0
Spain	ndr	ndr	ndr	ndr	ndr	0.0	0.0
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	7.5	ndr	ndr	1.3

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	0.1	ndr	ndr	101.6	16.9
Tajikistan	ndr	ndr	na	43.9	ndr	58.9	32.4
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	2.0	0.3
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	1,215.5	ndr	ndr	ndr	ndr	ndr	202.6
Trinidad and Tobago	ndr	ndr	ndr	ndr	3.8	ndr	0.6
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	133.5	14.6	323.5	110.9	33.2	502.4	186.4
Turkmenistan	ndr	na	ndr	ndr	ndr	0.0	0.0
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	2.5	na	50.3	ndr	8.8
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	na	ndr	ndr	na
United States	0.0	0.4	0.2	0.8	2.6	0.0	0.7
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	na	ndr	na	92.5	ndr	ndr	18.5
Vanuatu	ndr	ndr	na	0.3	na	2,084.8	347.5
Venezuela	na	0.3	1.1	2.1	25.7	ndr	4.9
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	35.3	ndr	ndr	5.9
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	834.6	ndr	569.8	ndr	ndr	234.1
Yougoslavia (former)	ndr	378.2	1.4	0.2	x	x	104.0
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	41.2	27.1	109.2	27.3	29.9	100.2	55.8

Table 7 - Mean annual number of victims (people killed and affected) of geological disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	3.9	0.0	0.2	15.7	4.7	0.9	4.2
Middle	3.3	0.0	3.9	0.1	0.0	27.1	5.7
Northern	0.0	170.1	0.2	8.0	2.9	25.7	34.5
Southern	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Western	0.0	3.0	0.0	0.0	0.6	0.0	0.6
Total	1.6	40.3	0.6	6.6	2.3	9.2	10.1
Americas							
Caribbean	54.3	13.9	0.0	4.2	7.5	1.1	13.5
Central	1,234.4	21.1	179.8	72.6	27.9	269.1	300.8
Northern	0.0	0.3	0.2	0.7	2.3	0.0	0.6
Southern	8.2	5.4	133.8	19.2	15.9	95.9	46.4
Total	183.6	6.1	81.8	19.9	12.3	84.2	64.6
Asia							
Eastern	7.8	42.4	23.9	9.7	75.1	80.9	40.0
South-Central	14.3	9.2	361.6	25.1	9.0	246.3	110.9
South-East	45.6	30.2	7.8	140.5	33.5	16.6	45.7
Western	61.8	81.2	400.3	128.9	92.2	181.7	157.7
Total	17.4	29.9	164.2	39.8	44.0	142.8	73.0
Europe							
Eastern	22.2	0.1	12.2	0.3	0.3	2.1	6.2
Northern	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Southern	120.7	141.4	8.1	1.7	28.2	25.3	54.2
Western	0.0	0.1	0.0	0.2	0.0	0.0	0.1
Total	32.8	26.1	7.4	0.5	5.7	5.9	13.1
Oceania							
Australia - New Zealand	0.0	0.1	7.2	2.1	4.8	0.0	2.4
Melanesia	6.5	113.1	55.5	72.3	574.2	128.9	158.4
Micronesia	0.0	0.0	0.0	3.1	0.0	0.0	0.5
Polynesia	246.5	0.0	0.0	0.9	0.0	0.0	41.2
Total	6.2	21.0	16.2	16.3	120.7	27.9	34.7
World	41.2	27.1	109.2	27.3	29.9	100.2	55.8

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 8 - Total number of drought and related disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	ndr	ndr	2	ndr	6	8
Albania	ndr	1	1	1	ndr	ndr	3
Algeria	ndr	3	ndr	ndr	1	1	5
American Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	1	1	3	1	1	7
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	1	ndr	ndr	ndr	ndr	1
Argentina	ndr	ndr	1	ndr	2	6	9
Armenia	ndr	ndr	ndr	ndr	ndr	1	1
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	8	5	2	5	9	7	36
Austria	ndr	ndr	1	ndr	ndr	ndr	1
Azerbaijan	ndr	ndr	ndr	ndr	ndr	1	1
Azores	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	1	2	ndr	5	5	5	18
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	1	1
Belgium	1	ndr	1	ndr	ndr	1	3
Belize	ndr	ndr	ndr	1	ndr	ndr	1
Benin	3	1	3	ndr	ndr	ndr	7
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	1	1
Bolivia	1	2	1	1	1	5	11
Bosnia and Herzegovina	x	x	x	ndr	ndr	3	3
Botswana	ndr	2	4	1	ndr	0	7
Brazil	4	2	5	ndr	5	6	22
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	1	ndr	ndr	1	4	6
Burkina Faso	4	2	1	1	1	1	10
Burundi	ndr	ndr	ndr	ndr	ndr	4	4
Cambodia	ndr	ndr	1	ndr	2	2	5
Cameroon	ndr	ndr	ndr	ndr	ndr	1	1
Canada	ndr	4	6	3	5	4	22
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	2	2	2	1	ndr	ndr	7
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	1	1	ndr	1	1	4
Chad	6	3	3	1	ndr	1	14
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	ndr	ndr	3	2	5	10
China	1	6	5	4	9	18	43

Table 8 - Total number of drought and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	0	ndr	1	1	1	3
Comoros	ndr	1	ndr	ndr	ndr	ndr	1
Congo, Dem. Rep. of the	ndr	1	1	ndr	ndr	ndr	2
Congo	ndr	1	ndr	ndr	ndr	ndr	1
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	1	ndr	ndr	1	1	ndr	3
Côte d'Ivoire	ndr	1	ndr	ndr	ndr	ndr	1
Croatia	x	x	x	ndr	1	4	5
Cuba	ndr	3	1	ndr	1	3	8
Cyprus	ndr	ndr	ndr	1	1	3	5
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	2	1	ndr	x	x	3
Denmark	ndr	ndr	1	1	ndr	ndr	2
Djibouti	ndr	1	2	ndr	1	3	7
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	1	ndr	ndr	ndr	ndr	1
Ecuador	ndr	ndr	1	ndr	2	ndr	3
Egypt	ndr	ndr	ndr	ndr	2	1	3
El Salvador	ndr	1	ndr	ndr	ndr	1	2
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	4	4
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	4	1	3	4	2	7	21
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	1	ndr	ndr	1	ndr	2
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	3	6	4	2	3	18
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	4	3	2	ndr	ndr	1	10
Georgia	ndr	ndr	ndr	ndr	ndr	2	2
Germany	ndr	2	1	ndr	1	1	5
Ghana	1	2	2	ndr	ndr	ndr	5
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	2	7	2	2	3	16
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	ndr	3	ndr	ndr	4	7
Guinea	ndr	2	ndr	ndr	1	ndr	3
Guinea-Bissau	2	2	2	ndr	1	1	8
Guyana	ndr	ndr	1	ndr	1	ndr	2
Haiti	2	3	ndr	ndr	ndr	1	6
Honduras	ndr	ndr	ndr	ndr	1	4	5
Hong Kong, China (SAR)	7	12	4	1	ndr	ndr	24
Hungary	ndr	ndr	ndr	1	ndr	2	3
Iceland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
India	1	10	9	6	5	14	45

Table 8 - Total number of drought and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	1	1	3	1	6	4	16
Iran, Islamic Rep. of	ndr	ndr	ndr	ndr	ndr	4	4
Iraq	ndr	ndr	ndr	ndr	ndr	2	2
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	1	ndr	1	1	2	5
Italy	ndr	2	2	2	2	3	11
Jamaica	ndr	3	ndr	ndr	ndr	1	4
Japan	1	ndr	ndr	ndr	ndr	1	2
Jordan	ndr	ndr	ndr	1	ndr	3	4
Kazakhstan	ndr	ndr	ndr	ndr	2	1	3
Kenya	ndr	1	1	1	2	4	9
Kiribati	ndr	ndr	ndr	ndr	ndr	1	1
Korea, Dem. People's Rep. of	ndr	ndr	ndr	ndr	ndr	3	3
Korea, Rep. of	ndr	ndr	ndr	2	ndr	2	4
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	1	1
Lao People's Dem. Rep.	1	ndr	2	3	ndr	1	7
Latvia	ndr	ndr	ndr	ndr	ndr	2	2
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	1	1	2	1	1	6
Liberia	ndr	1	ndr	1	ndr	ndr	2
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	1	ndr	2	3
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	1	ndr	2	3
Madagascar	ndr	ndr	1	3	ndr	2	7
Malawi	ndr	ndr	2	3	2	1	8
Malaysia	ndr	ndr	ndr	ndr	2	ndr	2
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	3	3	1	1	ndr	ndr	8
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	3	4	2	1	1	3	14
Mauritius	ndr	ndr	ndr	ndr	ndr	1	1
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1	ndr	2	4	8	8	23
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	1	ndr	1
Moldova, Rep. of	ndr	ndr	ndr	ndr	ndr	1	1
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	1	1	1	2	5
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	ndr	1	1	ndr	ndr	4	6
Mozambique	ndr	7	2	2	ndr	5	16
Myanmar	ndr	2	ndr	ndr	ndr	ndr	2
Namibia	ndr	1	ndr	2	1	4	8
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 8 - Total number of drought and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	1	1	1	ndr	3	6
Netherlands	ndr	ndr	ndr	ndr	ndr	1	1
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	ndr	ndr	1	ndr	ndr	1	2
Nicaragua	ndr	ndr	ndr	1	2	4	7
Niger	2	3	3	0	1	2	11
Nigeria	ndr	ndr	2	1	ndr	1	4
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	1	ndr	ndr	ndr	1
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	1	1	ndr	2	2	10	16
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	1	ndr	ndr	ndr	ndr	1
Papua New Guinea	ndr	1	ndr	ndr	3	ndr	4
Paraguay	ndr	1	ndr	ndr	ndr	4	5
Peru	ndr	2	ndr	3	1	2	8
Philippines	1	1	1	2	2	1	8
Poland	ndr	1	1	1	2	4	9
Portugal	ndr	3	3	ndr	1	3	10
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	ndr	1	1	1	4	4	11
Russian Federation	ndr	ndr	1	3	10	23	37
Rwanda	1	ndr	1	ndr	ndr	3	5
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Samoa	ndr	1	ndr	ndr	ndr	ndr	1
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	1	1	ndr	ndr	ndr	2
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	3	3	2	ndr	ndr	1	9
Serbia and Montenegro	x	x	x	ndr	ndr	2	2
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	1	1
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	2	ndr	2
Somalia	2	2	2	ndr	ndr	4	10
South Africa	ndr	3	2	3	3	5	16
Soviet Union (former)	ndr	ndr	1	ndr	x	x	1
Spain	ndr	4	7	1	6	4	22
Sri Lanka	1	5	1	1	ndr	2	10
Sudan	ndr	3	2	3	2	2	12

Table 8 - Total number of drought and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	1	1	4	2	ndr	8
Sweden	ndr	ndr	1	ndr	ndr	ndr	1
Switzerland	ndr	ndr	1	ndr	ndr	1	2
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	2	2
Taiwan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tajikistan	ndr	ndr	ndr	ndr	ndr	2	2
Tanzania, U. Rep. of	1	ndr	2	1	4	3	11
Thailand	ndr	ndr	ndr	2	ndr	2	4
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	1	ndr	1	ndr	ndr	2
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tunisia	1	ndr	1	ndr	ndr	ndr	2
Turkey	ndr	ndr	2	ndr	2	4	8
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	1	2	ndr	1	3	7
Ukraine	ndr	ndr	ndr	ndr	ndr	1	1
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	1	1	1	1	4
United States	1	4	2	11	15	34	67
Uruguay	ndr	ndr	ndr	ndr	ndr	2	2
Uzbekistan	ndr	ndr	ndr	ndr	ndr	2	2
Vanuatu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Venezuela	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vietnam	ndr	ndr	1	ndr	2	3	6
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	3	ndr	ndr	ndr	ndr	ndr	3
Yougoslavia (former)	ndr	2	3	ndr	x	x	5
Zambia	ndr	2	ndr	2	1	2	7
Zimbabwe	ndr	1	1	2	3	3	10
World	80	173	159	134	174	372	1,092

Table 8 - Total number of drought and related disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	8	18	19	18	16	49	128
Middle	6	8	7	4	2	4	31
Northern	1	7	4	3	5	8	28
Southern	ndr	8	8	12	7	10	45
Western	27	30	22	7	5	10	101
Total	42	71	60	44	35	81	333
Americas							
Caribbean	2	11	1	ndr	1	5	20
Central	2	2	5	7	12	21	49
Northern	1	8	8	14	20	38	89
Southern	5	7	9	8	15	31	75
Total	10	28	23	29	48	95	233
Asia							
Eastern	9	18	10	8	10	26	81
South-Central	4	19	11	17	14	51	116
South-East	3	4	8	8	14	13	50
Western	3	1	2	3	4	20	33
Total	19	42	31	36	42	110	280
Europe							
Eastern	ndr	5	5	6	17	41	74
Northern	ndr	ndr	4	3	1	5	13
Southern	ndr	14	23	7	12	24	80
Western	1	5	10	4	3	7	30
Total	1	24	42	20	33	77	197
Oceania							
Australia - New Zealand	8	5	3	5	9	8	38
Melanesia	ndr	2	ndr	ndr	6	ndr	8
Micronesia	ndr	ndr	ndr	ndr	1	1	2
Polynesia	ndr	1	ndr	ndr	ndr	ndr	1
Total	8	8	3	5	16	9	49
World	80	173	159	134	174	372	1,092

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	na	na	0.6	ndr	4,977.0	829.6
Albania	ndr	0.1	48.4	19,427.9	ndr	ndr	3,246.1
Algeria	ndr	na	ndr	ndr	0.0	0.0	0.0
American Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	232.7	1,351.6	7,745.4	215.7	0.1	1,590.9
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	22,923.9	ndr	ndr	ndr	ndr	3,820.6
Argentina	ndr	ndr	96.6	ndr	14.2	1.9	18.8
Armenia	ndr	ndr	ndr	ndr	ndr	1,776.1	710.5
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	0.0	119.8	0.1	7,373.3	5,721.6	9.8	2,204.1
Austria	ndr	ndr	0.0	ndr	ndr	ndr	0.0
Azerbaijan	ndr	ndr	ndr	ndr	ndr	na	na
Azores	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	na	4,194.0	ndr	927.7	5.5	7.8	855.8
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	na	na
Belgium	na	ndr	0.0	ndr	ndr	0.3	0.1
Belize	ndr	ndr	ndr	na	ndr	ndr	0.0
Benin	133.4	3,575.0	6,836.8	ndr	ndr	ndr	1,757.5
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	na	na
Bolivia	na	10,747.1	na	861.5	138.6	126.9	1,979.0
Bosnia and Herzegovina	x	x	x	ndr	ndr	313.7	136.4
Botswana	ndr	16,319.3	58,084.8	1,444.9	ndr	0.0	12,641.5
Brazil	0.1	3,865.8	102.9	ndr	1,171.3	170.5	885.1
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	na	ndr	ndr	0.8	0.5	0.2
Burkina Faso	3,496.8	4,111.2	469.6	5,720.6	35.8	na	2,305.7
Burundi	ndr	ndr	ndr	ndr	ndr	3,889.7	648.3
Cambodia	ndr	ndr	na	ndr	8,792.4	1,482.5	1,712.5
Cameroon	ndr	ndr	ndr	ndr	ndr	na	na
Canada	ndr	4.2	24.9	18.3	12.7	2.1	10.4
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	448.6	na	na	na	ndr	ndr	74.8
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	na	na	ndr	0.5	4.1	0.8
Chad	8,722.5	2,365.2	11,784.2	898.9	na	330.1	4,016.8
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	ndr	ndr	na	14.5	34.0	8.1
China	125.2	na	887.7	292.2	295.6	2,022.3	603.8

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	na	ndr	na	52.2	0.0	8.7
Comoros	ndr	na	ndr	ndr	ndr	ndr	na
Congo, Dem. Rep. of the	ndr	364.7	191.8	ndr	ndr	ndr	92.8
Congo	ndr	na	ndr	ndr	ndr	ndr	na
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	na	ndr	ndr	7.6	na	ndr	1.3
Côte d'Ivoire	ndr	na	ndr	ndr	ndr	ndr	na
Croatia	x	x	x	ndr	na	1.1	0.5
Cuba	ndr	na	na	ndr	1,088.0	na	181.3
Cyprus	ndr	ndr	ndr	na	4.1	10.7	2.5
Czech Republic	x	x	x	ndr	ndr	ndr	na
Czechoslovakia (former)	ndr	na	0.1	ndr	x	x	0.0
Denmark	ndr	ndr	0.1	na	ndr	ndr	0.0
Djibouti	ndr	10,388.7	7,365.3	ndr	4,835.3	15,992.8	6,430.3
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	na	ndr	ndr	ndr	ndr	na
Ecuador	ndr	ndr	1.8	ndr	56.1	ndr	9.6
Egypt	ndr	ndr	ndr	ndr	0.0	0.0	0.0
El Salvador	ndr	na	ndr	ndr	ndr	1,323.1	220.5
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	13,359.4	6,072.4
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1,010.3	3,368.2	6,960.3	6,596.3	336.7	12,835.8	5,184.6
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	922.7	ndr	ndr	6,510.8	ndr	1,238.9
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	0.0	0.8	0.0	3.8	6.0	1.8
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	470.2	14,913.7	na	ndr	ndr	na	2,564.0
Georgia	ndr	ndr	ndr	ndr	ndr	4,869.7	1,947.9
Germany	ndr	na	0.0	ndr	0.0	1.3	0.2
Ghana	na	21,927.9	2.3	ndr	ndr	ndr	3,655.0
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	0.0	2.6	0.0	5.0	0.6	1.4
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	ndr	162.5	ndr	ndr	175.3	56.3
Guinea	ndr	na	ndr	ndr	0.0	ndr	0.0
Guinea-Bissau	399.3	na	na	ndr	24.6	1,499.9	320.6
Guyana	ndr	ndr	na	ndr	17,313.2	ndr	2,885.5
Haiti	3,941.8	404.6	ndr	ndr	ndr	na	724.4
Honduras	ndr	ndr	ndr	ndr	na	2,744.8	457.5
Hong Kong, China (SAR)	na	34.2	0.1	na	ndr	ndr	5.7
Hungary	ndr	ndr	ndr	na	ndr	0.2	0.0
Iceland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
India	0.0	11,469.8	7,559.7	26.4	0.1	7,597.0	4,442.2

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	2.3	0.0	0.4	0.0	421.0	1.3	70.8
Iran, Islamic Rep. of	ndr	ndr	ndr	ndr	ndr	18,697.2	3,116.2
Iraq	ndr	ndr	ndr	ndr	ndr	na	na
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	na	ndr	1.0	0.9	na	0.3
Italy	ndr	0.0	0.1	na	0.1	1.4	0.3
Jamaica	ndr	0.0	ndr	ndr	ndr	na	na
Japan	na	ndr	ndr	ndr	ndr	0.0	0.0
Jordan	ndr	ndr	ndr	0.1	ndr	1,343.6	223.9
Kazakhstan	ndr	ndr	ndr	ndr	722.8	0.0	289.1
Kenya	ndr	47.9	615.4	2,115.6	1,989.6	5,736.4	1,750.8
Kiribati	ndr	ndr	ndr	ndr	ndr	18,699.3	3,116.5
Korea, Dem. People's Rep. of	ndr	ndr	ndr	ndr	ndr	na	na
Korea, Rep. of	ndr	ndr	ndr	0.0	ndr	0.4	0.1
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	0.0	0.0
Lao People's Dem. Rep.	21,818.1	ndr	3,668.4	na	ndr	74.6	4,260.2
Latvia	ndr	ndr	ndr	ndr	ndr	0.3	0.1
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	na	6,739.1	1,954.1	3,696.2	2,900.2	2,548.3
Liberia	ndr	na	ndr	9,134.7	ndr	ndr	1,522.4
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	na	ndr	0.3	0.1
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	203.9	ndr	0.1	40.8
Madagascar	ndr	2,242.2	214.2	1,990.3	ndr	1,005.0	908.6
Malawi	ndr	ndr	5,765.5	31,630.2	6,143.3	4,967.8	8,084.5
Malaysia	ndr	ndr	ndr	ndr	7.8	ndr	1.3
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	43.1	5,091.3	na	718.0	na	na	975.4
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	19,685.8	24,251.8	18,788.7	4,049.5	175.1	3,434.6	11,730.9
Mauritius	ndr	ndr	ndr	ndr	ndr	na	na
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	na	ndr	0.0	3.7	0.4	13.2	2.9
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	5,369.9	ndr	895.0
Moldova, Rep. of	ndr	ndr	ndr	ndr	ndr	na	na
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	na	41.4	3,460.4	583.6
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	ndr	na	na	ndr	ndr	185.8	31.0
Mozambique	ndr	23,822.3	3,940.6	5,793.9	ndr	1,283.5	5,806.7
Myanmar	ndr	47.1	ndr	ndr	ndr	ndr	7.8
Namibia	ndr	0.0	ndr	3,354.1	2,017.6	10,584.6	2,659.4
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	4,661.5	0.0	49.3	ndr	3.6	785.7
Netherlands	ndr	ndr	ndr	ndr	ndr	1.5	0.2
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	ndr	ndr	0.8	ndr	ndr	na	0.1
Nicaragua	ndr	ndr	ndr	na	1,675.3	826.7	417.0
Niger	55.3	945.1	13,720.1	na	18.2	6,850.4	3,598.2
Nigeria	ndr	ndr	751.1	0.0	ndr	0.0	125.2
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	0.1	ndr	ndr	ndr	0.0
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	0.0	0.0	ndr	0.1	0.0	320.2	53.4
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	779.8	ndr	ndr	ndr	ndr	130.0
Papua New Guinea	ndr	261.1	ndr	ndr	3,123.8	ndr	564.1
Paraguay	ndr	na	ndr	ndr	ndr	505.9	84.3
Peru	ndr	665.8	ndr	2,956.9	0.8	1,310.9	822.4
Philippines	1.5	73.1	na	412.8	679.1	na	194.4
Poland	ndr	na	0.0	0.0	0.1	0.4	0.1
Portugal	ndr	0.0	0.2	ndr	na	7.0	1.2
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	ndr	na	0.0	0.0	1.8	0.1	0.3
Russian Federation	ndr	ndr	na	0.1	13.8	241.9	102.3
Rwanda	7,300.7	ndr	1,431.5	ndr	ndr	3,272.9	2,000.8
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Samoa	ndr	124.9	ndr	ndr	ndr	ndr	20.8
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sao Tome and Principe	ndr	18,444.7	na	ndr	ndr	ndr	3,074.1
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	13,901.7	7,315.1	na	ndr	ndr	na	3,536.1
Serbia and Montenegro	x	x	x	ndr	ndr	0.2	0.1
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	0.0	0.0
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	17.3	ndr	2.9
Somalia	1,236.5	918.7	1,601.5	na	na	7,130.2	1,814.5
South Africa	ndr	181.9	1,498.3	0.0	149.1	2.7	305.3
Soviet Union (former)	ndr	ndr	0.0	ndr	x	x	0.0
Spain	ndr	0.0	0.2	na	3,027.6	0.2	504.7
Sri Lanka	354.2	4,900.7	2,667.4	949.9	na	1,599.5	1,745.3
Sudan	ndr	1,235.3	10,376.2	7,107.3	102.2	1,507.7	3,388.1

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	14.9	0.0	9,009.1	1,797.8	ndr	1,803.6
Sweden	ndr	ndr	0.0	ndr	ndr	ndr	0.0
Switzerland	ndr	ndr	0.0	ndr	ndr	na	0.0
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	817.7	136.3
Taiwan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tajikistan	ndr	ndr	ndr	ndr	ndr	9,520.9	3,808.4
Tanzania, U. Rep. of	23.2	ndr	1,869.2	589.7	4,212.5	1,827.8	1,420.4
Thailand	ndr	ndr	ndr	893.1	ndr	3,516.6	735.0
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	na	ndr	2,238.3	ndr	ndr	373.0
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tunisia	104.6	ndr	na	ndr	ndr	ndr	17.4
Turkey	ndr	ndr	0.0	ndr	2.8	0.2	0.5
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	813.2	1,181.7	ndr	113.4	774.4	480.4
Ukraine	ndr	ndr	ndr	ndr	ndr	na	na
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	0.0	na	0.0	0.7	0.1
United States	na	0.0	0.0	0.7	3.2	3.2	1.2
Uruguay	ndr	ndr	ndr	ndr	ndr	2.4	0.4
Uzbekistan	ndr	ndr	ndr	ndr	ndr	881.0	352.4
Vanuatu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Venezuela	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vietnam	ndr	ndr	na	ndr	1,135.2	609.5	290.8
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	na	ndr	ndr	ndr	ndr	ndr	na
Yougoslavia (former)	ndr	0.0	0.4	ndr	x	x	0.1
Zambia	ndr	na	ndr	4,115.3	2,884.9	4,225.5	1,871.0
Zimbabwe	ndr	1,833.3	na	17,667.6	17,982.6	10,763.6	8,041.2
World	107.7	2,233.2	1,641.4	417.6	296.0	2,281.8	1,163.0

Table 9 - Mean annual number of victims (people killed and affected) of droughts and related disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	584.3	3,241.4	2,979.9	5,247.0	2,276.1	6,066.9	3,399.3
Middle	783.7	463.3	1,279.7	974.3	23.8	30.1	592.5
Northern	6.3	220.6	1,878.1	1,303.8	19.2	323.5	625.2
Southern	0.0	624.5	3,288.0	431.3	383.7	523.2	875.1
Western	1,032.0	3,033.5	1,398.3	531.1	4.7	343.3	1,057.2
Total	557.5	1,985.4	2,107.2	2,191.3	725.2	2,046.9	1,602.3
Americas							
Caribbean	699.9	120.2	0.0	0.0	333.2	0.0	192.2
Central	0.0	16.6	13.5	3.0	57.8	240.9	55.3
Northern	0.0	0.5	2.4	2.4	4.2	3.1	2.1
Southern	0.1	2,257.0	63.4	238.8	638.6	200.4	566.4
Total	33.8	907.9	29.0	99.7	291.8	124.6	247.8
Asia							
Eastern	104.3	0.1	744.9	246.2	249.5	1,719.7	510.8
South-Central	5.7	8,864.9	5,472.2	119.7	9.2	6,209.5	3,446.9
South-East	205.5	14.5	34.0	169.4	649.2	537.9	268.4
Western	0.0	0.0	0.0	0.0	1.1	268.1	44.9
Total	78.7	3,243.8	2,379.8	173.8	200.6	3,277.3	1,559.0
Europe							
Eastern	0.0	0.0	0.0	0.0	6.8	116.0	20.5
Northern	0.0	0.0	0.0	0.0	0.0	0.4	0.1
Southern	0.0	0.0	1.4	449.1	837.9	9.8	216.4
Western	0.0	0.0	0.3	0.0	1.2	2.7	0.7
Total	0.0	0.0	0.3	84.8	168.5	51.0	50.8
Oceania							
Australia - New Zealand	0.0	98.9	0.2	6,162.4	4,781.2	8.2	1,841.8
Melanesia	0.0	330.0	0.0	0.0	3,152.0	0.0	580.3
Micronesia	0.0	0.0	0.0	0.0	1,174.1	3,362.7	756.1
Polynesia	0.0	40.7	0.0	0.0	0.0	0.0	6.8
Total	0.0	138.7	0.2	4,692.7	4,305.9	61.5	1,533.2
World	107.7	2,233.2	1,641.4	417.6	296.0	2,281.8	1,163.0

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 10 - Total number of flood and related disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	2	1	2	7	9	14	35
Albania	ndr	ndr	1	1	3	1	6
Algeria	1	3	2	3	4	12	25
American Samoa	ndr	ndr	ndr	ndr	ndr	1	1
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	1	ndr	10	11
Anguilla	ndr	1	ndr	ndr	ndr	ndr	1
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	2	6	6	6	4	11	35
Armenia	ndr	ndr	ndr	ndr	2	ndr	2
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	6	3	6	4	11	9	39
Austria	1	4	2	1	1	3	12
Azerbaijan	ndr	ndr	ndr	ndr	4	2	6
Azores	ndr	ndr	ndr	ndr	1	ndr	1
Bahamas, The	ndr	ndr	1	ndr	ndr	ndr	1
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	5	6	9	13	11	10	54
Barbados	ndr	ndr	1	ndr	ndr	ndr	1
Belarus	ndr	ndr	ndr	1	1	1	3
Belgium	ndr	ndr	2	1	3	5	11
Belize	ndr	1	ndr	1	1	ndr	3
Benin	ndr	1	2	1	5	1	10
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	0	ndr	1	1	2
Bolivia	4	3	4	2	4	8	25
Bosnia and Herzegovina	x	x	x	ndr	ndr	2	2
Botswana	ndr	ndr	1	ndr	1	1	3
Brazil	8	8	13	15	16	19	79
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	0	ndr	ndr	ndr	1	1	2
Burkina Faso	1	ndr	3	ndr	1	2	7
Burundi	ndr	ndr	ndr	1	ndr	3	4
Cambodia	ndr	ndr	ndr	1	2	5	8
Cameroon	ndr	ndr	1	1	1	4	7
Canada	3	2	4	2	4	5	20
Canary Islands	ndr	ndr	ndr	ndr	ndr	2	2
Cape Verde	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	3	3	6
Chad	ndr	ndr	2	1	2	2	7
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	2	2	4	4	2	8	22
China	ndr	17	28	23	25	50	143

Table 10 - Total number of flood and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	5	7	9	12	9	21	63
Comoros	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Congo, Dem. Rep. of the	ndr	ndr	ndr	2	2	7	11
Congo	ndr	ndr	ndr	ndr	2	2	4
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	ndr	1	1	2	3	6	13
Côte d'Ivoire	ndr	ndr	ndr	1	1	0	2
Croatia	x	x	x	ndr	ndr	2	2
Cuba	1	1	3	5	5	3	18
Cyprus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Czech Republic	x	x	x	ndr	1	1	2
Czechoslovakia (former)	1	ndr	2	ndr	x	x	3
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	2	1	ndr	2	1	ndr	6
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	2	2	3	1	3	11
Ecuador	1	3	2	4	2	9	21
Egypt	1	1	ndr	2	2	2	8
El Salvador	ndr	1	2	3	1	4	11
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	1	1
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	3	1	4	4	6	14	32
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	1	1	ndr	1	3
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	2	10	2	2	7	20	43
French Guiana	ndr	ndr	ndr	ndr	1	ndr	1
French Polynesia	ndr	ndr	1	ndr	2	ndr	3
Gabon	ndr	ndr	1	ndr	ndr	ndr	1
Gambia	ndr	ndr	ndr	ndr	1	2	3
Georgia	ndr	ndr	2	1	2	ndr	5
Germany	1	1	1	2	3	3	11
Ghana	ndr	ndr	ndr	2	1	4	7
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	1	1	ndr	ndr	2	11	15
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	1	ndr	ndr	ndr	ndr	ndr	1
Guadeloupe	ndr	ndr	1	ndr	ndr	ndr	1
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	1	2	2	3	6	14
Guinea	ndr	1	ndr	1	ndr	1	3
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	1	1
Guyana	ndr	ndr	ndr	1	1	1	3
Haiti	ndr	ndr	10	4	1	8	23
Honduras	1	3	4	4	4	5	21
Hong Kong, China (SAR)	6	4	4	3	1	ndr	18
Hungary	ndr	ndr	ndr	ndr	1	6	7
Iceland	1	1	1	ndr	2	ndr	5
India	8	20	26	31	27	36	148

Table 10 - Total number of flood and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	8	20	19	11	15	38	111
Iran, Islamic Rep. of	ndr	3	10	11	12	16	52
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	ndr	1	1	ndr	1	3
Israel	ndr	ndr	ndr	ndr	2	ndr	2
Italy	3	2	3	2	5	11	26
Jamaica	ndr	2	3	2	ndr	1	8
Japan	5	6	5	6	5	5	32
Jordan	ndr	ndr	1	1	ndr	ndr	2
Kazakhstan	ndr	ndr	ndr	1	ndr	2	3
Kenya	2	1	ndr	1	2	8	14
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	2	ndr	5	4	11
Korea, Rep. of	4	1	4	4	5	6	24
Kuwait	ndr	ndr	ndr	ndr	1	ndr	1
Kyrgyzstan	ndr	ndr	ndr	1	3	2	6
Lao People's Dem. Rep.	1	1	1	2	4	3	12
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	1	1	ndr	ndr	1	3
Lesotho	ndr	ndr	2	1	ndr	ndr	3
Liberia	ndr	1	ndr	ndr	1	ndr	2
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	1	ndr	1
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	1	ndr	ndr	ndr	ndr	1
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	1	3	4
Madagascar	ndr	ndr	1	ndr	1	1	3
Malawi	ndr	2	ndr	2	4	8	16
Malaysia	1	1	3	2	4	10	21
Maldives	ndr	ndr	1	ndr	ndr	ndr	1
Mali	ndr	ndr	1	1	2	5	9
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	2	ndr	1	5	8
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1	6	4	6	4	14	35
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	ndr	ndr	2	2	4
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	2	2	4
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	2	2	1	ndr	5	5	15
Mozambique	4	1	1	1	3	8	18
Myanmar	3	1	ndr	2	2	3	11
Namibia	ndr	ndr	ndr	ndr	ndr	2	2
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 10 - Total number of flood and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	3	5	7	5	7	5	32
Netherlands	ndr	ndr	ndr	1	2	ndr	3
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	5	5	10	4	3	3	30
Nicaragua	1	3	ndr	1	1	3	9
Niger	1	ndr	1	ndr	2	5	9
Nigeria	ndr	ndr	3	ndr	3	16	22
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	1	2	3
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	3	7	3	9	10	12	44
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	1	ndr	2	1	ndr	7	11
Papua New Guinea	ndr	3	1	3	1	4	12
Paraguay	ndr	3	1	2	3	1	10
Peru	4	8	12	7	7	14	52
Philippines	11	12	6	18	13	20	80
Poland	1	2	1	ndr	2	1	7
Portugal	ndr	4	ndr	ndr	2	3	9
Puerto Rico	ndr	1	2	1	ndr	2	6
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	1	ndr	1	1	3	12	18
Russian Federation	ndr	4	3	11	10	20	48
Rwanda	1	ndr	1	ndr	ndr	4	6
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	1	ndr	ndr	ndr	1
Saint Lucia	ndr	ndr	ndr	ndr	1	ndr	1
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	1	ndr	2	1	ndr	ndr	4
Samoa	ndr	ndr	ndr	ndr	ndr	1	1
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	1	ndr	ndr	3	4
Senegal	1	1	2	1	2	3	10
Serbia and Montenegro	x	x	x	1	ndr	5	6
Seychelles	ndr	ndr	ndr	ndr	1	ndr	1
Sierra Leone	ndr	ndr	ndr	ndr	1	ndr	1
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	1	2	3
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Somalia	1	1	1	2	4	7	16
South Africa	3	1	2	1	6	9	22
Soviet Union (former)	ndr	1	ndr	2	x	x	3
Spain	1	5	1	1	4	2	14
Sri Lanka	4	4	5	9	7	7	36
Sudan	2	2	1	1	4	7	17

Table 10 - Total number of flood and related disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	1	1
Sweden	2	ndr	1	ndr	ndr	ndr	3
Switzerland	2	1	2	ndr	1	4	10
Syrian Arab Republic	1	ndr	ndr	ndr	ndr	1	2
Taiwan	2	ndr	2	ndr	1	ndr	5
Tajikistan	1	ndr	1	4	6	10	22
Tanzania, U. Rep. of	2	2	2	5	7	5	23
Thailand	3	2	6	5	9	21	46
Timor-Leste	x	x	x	x	x	3	3
Togo	ndr	ndr	ndr	ndr	3	1	4
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	1	1	ndr	2
Tunisia	ndr	2	1	1	ndr	2	6
Turkey	3	3	3	7	6	7	29
Turkmenistan	ndr	ndr	ndr	1	ndr	ndr	1
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	1	ndr	3	7	11
Ukraine	ndr	ndr	2	3	2	2	9
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	1	ndr	ndr	1	4	9	15
United States	5	9	14	28	22	22	100
Uruguay	ndr	ndr	1	2	1	4	8
Uzbekistan	ndr	ndr	ndr	2	ndr	1	3
Vanuatu	ndr	ndr	1	ndr	ndr	1	2
Venezuela	ndr	1	5	ndr	4	8	18
Vietnam	1	1	3	9	6	17	37
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	1	3	ndr	4	3	7	18
Yougoslavia (former)	ndr	2	1	1	x	x	4
Zambia	1	ndr	ndr	1	1	4	7
Zimbabwe	ndr	ndr	ndr	ndr	1	3	4
World	174	268	357	400	492	862	2,553

Table 10 - Total number of flood and related disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	16	9	11	19	34	73	162
Middle	ndr	ndr	4	5	10	28	47
Northern	6	10	5	7	16	30	74
Southern	3	1	5	2	7	13	31
Western	3	4	14	7	24	46	98
Total	28	24	39	40	91	190	412
Americas							
Caribbean	3	7	26	17	9	17	79
Central	4	16	15	20	17	45	117
Northern	8	11	18	30	26	27	120
Southern	26	41	57	55	54	104	337
Total	41	75	116	122	106	193	653
Asia							
Eastern	17	28	45	36	44	67	237
South-Central	26	46	64	94	93	116	439
South-East	28	38	38	50	55	120	329
Western	5	7	8	13	20	21	74
Total	76	119	155	193	212	324	1,079
Europe							
Eastern	3	7	9	18	24	48	109
Northern	4	1	3	2	7	12	29
Southern	5	14	6	6	18	40	89
Western	6	17	9	7	17	35	91
Total	18	39	27	33	66	135	318
Oceania							
Australia - New Zealand	11	8	16	8	14	12	69
Melanesia	ndr	3	3	4	1	6	17
Micronesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Polynesia	ndr	ndr	1	ndr	2	2	5
Total	11	11	20	12	17	20	91
World	174	268	357	400	492	862	2,553

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	466.4	40.0	226.0	187.4	71.8	7.5	166.5
Albania	ndr	ndr	0.6	210.5	67.3	381.3	109.9
Algeria	25.6	41.4	15.0	2.3	23.7	34.4	23.7
American Samoa	ndr	ndr	ndr	ndr	ndr	3.1	0.5
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	252.6	ndr	150.1	67.1
Anguilla	ndr	na	ndr	ndr	ndr	ndr	na
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	3.0	4,156.9	3,799.8	53.1	204.8	241.1	1,409.8
Armenia	ndr	ndr	ndr	ndr	42.3	ndr	16.9
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	14.4	na	0.1	30.3	28.7	4.9	13.1
Austria	0.0	0.0	0.1	0.0	na	172.1	28.7
Azerbaijan	ndr	ndr	ndr	ndr	4,542.9	80.5	1,849.4
Azores	ndr	ndr	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	na	ndr	ndr	ndr	na
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	11,360.7	3,838.4	34,200.7	3,858.3	7,190.5	885.8	10,222.4
Barbados	ndr	ndr	7.8	ndr	ndr	ndr	1.3
Belarus	ndr	ndr	ndr	154.4	na	3.9	32.4
Belgium	ndr	ndr	na	1.2	2.1	4.7	1.3
Belize	ndr	2,341.5	ndr	na	239.9	ndr	430.2
Benin	ndr	3,185.8	2,771.4	0.0	2,667.9	184.5	1,468.3
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	na	ndr	7.1	12.0	3.2
Bolivia	1,113.7	336.6	1,103.3	118.1	951.5	1,031.0	775.7
Bosnia and Herzegovina	x	x	x	ndr	ndr	48.0	20.9
Botswana	ndr	ndr	195.0	ndr	74.5	1,759.2	338.1
Brazil	236.6	812.7	571.5	163.3	19.1	56.5	310.0
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	na	ndr	ndr	ndr	0.5	na	0.1
Burkina Faso	2.8	ndr	83.7	ndr	129.1	21.0	39.4
Burundi	ndr	ndr	ndr	13.2	ndr	28.6	7.0
Cambodia	ndr	ndr	ndr	1,871.0	2,330.3	11,547.0	2,624.7
Cameroon	ndr	ndr	1.8	0.3	0.0	4.3	1.1
Canada	na	na	3.4	0.1	30.3	1.5	5.9
Canary Islands	ndr	ndr	ndr	ndr	ndr	na	na
Cape Verde	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	186.2	268.1	75.7
Chad	ndr	ndr	169.4	0.2	228.6	830.7	204.8
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	90.6	14.0	405.3	133.0	105.3	544.0	215.4
China	ndr	82.4	667.2	6,210.1	10,451.2	5,894.1	3,884.2

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	1.3	89.2	386.9	60.9	155.2	449.5	190.5
Comoros	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Congo, Dem. Rep. of the	ndr	ndr	ndr	14.6	15.0	37.4	11.2
Congo	ndr	ndr	ndr	ndr	281.4	339.0	103.4
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	ndr	11.8	87.0	1,430.4	179.0	572.1	380.0
Côte d'Ivoire	ndr	ndr	ndr	12.3	0.0	na	2.1
Croatia	x	x	x	ndr	ndr	5.5	2.2
Cuba	37.8	333.0	195.0	1,098.4	215.7	64.6	324.1
Cyprus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Czech Republic	x	x	x	ndr	198.3	390.0	267.4
Czechoslovakia (former)	0.0	na	0.0	ndr	x	x	0.0
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	16,510.7	6,948.5	ndr	9,608.1	5,969.2	ndr	6,506.1
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	518.2	3,508.4	53.6	2.6	113.6	699.4
Ecuador	0.2	2,139.9	33.7	575.2	81.2	108.7	489.8
Egypt	0.0	32.0	ndr	0.2	53.0	0.3	14.2
El Salvador	ndr	306.2	158.7	30.5	5.4	23.0	87.3
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	na	na
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	47.3	10.1	32.8	150.7	103.4	104.7	74.8
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	6,031.5	0.3	ndr	0.1	1,005.3
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	9.8	1.5	0.0	0.0	41.9	84.3	22.9
French Guiana	ndr	ndr	ndr	ndr	9,275.6	ndr	1,545.9
French Polynesia	ndr	ndr	1.1	ndr	43.6	ndr	7.5
Gabon	ndr	ndr	222.2	ndr	ndr	ndr	37.0
Gambia	ndr	ndr	ndr	ndr	66.8	487.9	92.5
Georgia	ndr	ndr	na	na	1.9	ndr	0.8
Germany	0.0	0.0	0.9	24.7	11.0	104.8	23.6
Ghana	ndr	ndr	ndr	9.4	792.5	486.3	214.7
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	3.5	0.0	ndr	ndr	1.8	16.1	3.6
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	na	ndr	ndr	ndr	ndr	ndr	na
Guadeloupe	ndr	ndr	na	ndr	ndr	ndr	na
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	54.1	28.1	0.1	14.6	161.4	43.0
Guinea	ndr	21.7	ndr	16.9	ndr	504.8	90.6
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	na	na
Guyana	ndr	ndr	ndr	na	1,071.3	0.3	178.6
Haiti	ndr	ndr	560.2	103.0	na	485.5	191.4
Honduras	92.7	227.3	211.2	523.8	419.2	1,676.9	525.2
Hong Kong, China (SAR)	17.4	15.0	4.9	12.4	13.2	ndr	10.5
Hungary	ndr	ndr	ndr	ndr	0.4	289.0	48.2
Iceland	1.1	0.3	22.4	ndr	8.7	ndr	5.4
India	2,098.1	3,164.1	1,895.8	3,090.2	2,251.9	2,741.5	2,540.3

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	81.5	106.9	72.3	93.3	49.2	93.2	82.7
Iran, Islamic Rep. of	ndr	480.7	72.5	272.3	52.9	429.6	218.0
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	ndr	na	19.6	ndr	1.5	3.5
Israel	ndr	ndr	ndr	ndr	3.6	ndr	0.6
Italy	0.4	2.5	1.1	na	7.3	19.9	5.2
Jamaica	ndr	2,265.7	550.1	4,472.0	ndr	7.5	1,215.9
Japan	2.6	13.8	26.7	0.9	5.8	60.8	18.4
Jordan	ndr	ndr	0.3	99.2	ndr	ndr	16.6
Kazakhstan	ndr	ndr	ndr	70.5	ndr	7.4	17.1
Kenya	50.7	3.4	ndr	0.0	627.8	733.6	235.9
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	21.4	ndr	8,808.4	263.1	1,515.5
Korea, Rep. of	43.0	0.0	249.9	206.6	156.9	156.1	135.4
Kuwait	ndr	ndr	ndr	ndr	2.3	ndr	0.4
Kyrgyzstan	ndr	ndr	ndr	na	292.0	5.2	118.9
Lao People's Dem. Rep.	2,826.8	na	11.3	1,534.0	4,937.1	3,502.4	2,135.3
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	0.1	9.7	ndr	ndr	na	1.6
Lesotho	ndr	ndr	2,305.1	0.3	ndr	ndr	384.2
Liberia	ndr	2.4	ndr	ndr	37.7	ndr	6.7
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	na	ndr	na
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	na	ndr	ndr	ndr	ndr	na
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	15.1	62.1	30.9
Madagascar	ndr	ndr	55.0	ndr	27.4	27.5	18.3
Malawi	ndr	85.6	ndr	1,055.5	823.5	1,683.8	608.1
Malaysia	4.6	20.3	106.3	26.8	3.2	42.4	33.9
Maldives	ndr	ndr	30.8	ndr	ndr	ndr	5.1
Mali	ndr	ndr	25.4	36.4	12.8	81.0	25.9
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	114.2	ndr	5.1	611.6	121.8
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	2.1	48.7	5.4	72.7	6.3	137.8	45.5
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	ndr	ndr	122.4	10.0	52.9
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	0.2	42.6	7.1
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	54.9	18.7	0.0	ndr	71.2	11.1	26.0
Mozambique	1,284.0	808.8	765.4	na	733.2	3,167.4	1,126.5
Myanmar	1,070.9	6.1	ndr	196.7	83.2	49.6	234.4
Namibia	ndr	ndr	ndr	ndr	ndr	179.3	29.9
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	152.4	261.3	465.9	535.3	207.9	323.3	324.4
Netherlands	ndr	ndr	ndr	15.7	326.0	ndr	56.9
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	18.8	37.1	70.2	2.4	3.1	3.4	22.5
Nicaragua	64.8	509.1	ndr	584.2	70.8	532.0	293.5
Niger	68.2	ndr	221.1	ndr	186.6	150.0	104.3
Nigeria	ndr	ndr	70.8	ndr	129.5	75.4	45.9
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	18.4	9.3	4.6
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	2,279.1	37.0	185.9	3,180.6	675.9	226.5	1,097.5
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	21.6	ndr	63.8	164.9	ndr	207.1	76.2
Papua New Guinea	ndr	81.3	5.9	735.4	0.2	161.3	164.0
Paraguay	ndr	2,301.2	225.0	363.3	1,418.6	9.4	719.6
Peru	46.7	890.4	238.2	215.2	564.7	463.0	403.0
Philippines	568.2	210.7	2.3	712.4	305.0	690.8	414.9
Poland	0.6	11.8	na	ndr	116.7	7.8	22.8
Portugal	na	99.0	ndr	ndr	2.5	0.6	17.0
Puerto Rico	ndr	0.2	3.5	3.1	ndr	61.8	11.4
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	941.4	ndr	1.8	13.2	124.4	86.4	194.5
Russian Federation	ndr	na	na	26.1	121.4	106.4	96.3
Rwanda	8,991.1	ndr	66.0	ndr	ndr	131.5	1,531.4
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	na	ndr	ndr	ndr	na
Saint Lucia	ndr	ndr	ndr	ndr	23.5	ndr	3.9
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	ndr	219.8	37.6	ndr	ndr	42.9
Samoa	ndr	ndr	ndr	ndr	ndr	na	na
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	7.6	ndr	ndr	10.8	3.1
Senegal	na	16.4	38.3	12.4	689.3	361.9	186.4
Serbia and Montenegro	x	x	x	183.5	ndr	148.5	86.4
Seychelles	ndr	ndr	ndr	ndr	318.4	ndr	53.1
Sierra Leone	ndr	ndr	ndr	ndr	863.4	ndr	143.9
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	43.5	134.0	80.7
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Somalia	183.8	103.0	86.7	148.3	3,748.8	1,048.0	886.4
South Africa	0.8	0.2	38.0	7.6	14.5	22.4	13.9
Soviet Union (former)	ndr	0.1	ndr	0.0	x	x	0.0
Spain	na	385.3	1.0	0.0	2.3	0.3	64.8
Sri Lanka	2.9	1,795.9	806.8	2,560.9	1,199.8	2,332.8	1,449.9
Sudan	293.6	121.4	1,981.0	1.4	742.1	1,449.3	764.8

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	4,856.3	809.4
Sweden	0.2	ndr	0.0	ndr	ndr	ndr	0.0
Switzerland	0.0	na	6.0	ndr	na	5.0	1.8
Syrian Arab Republic	571.9	ndr	ndr	ndr	ndr	0.1	95.3
Taiwan	31.0	ndr	0.2	ndr	0.0	ndr	5.2
Tajikistan	na	ndr	na	995.4	770.1	72.9	536.3
Tanzania, U. Rep. of	96.3	137.9	10.6	384.3	28.8	2.3	110.0
Thailand	2,320.0	671.1	740.0	315.6	3,211.4	2,528.4	1,631.1
Timor-Leste	x	x	x	x	x	75.9	12.7
Togo	ndr	ndr	ndr	ndr	776.4	265.5	173.7
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	0.3	3.5	ndr	0.6
Tunisia	ndr	91.8	6.7	234.0	ndr	54.4	64.5
Turkey	0.0	26.7	0.9	2.2	7.4	1.1	6.4
Turkmenistan	ndr	ndr	ndr	4.3	ndr	ndr	0.9
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	18.3	ndr	155.9	5.9	30.0
Ukraine	ndr	ndr	na	314.0	672.4	123.3	381.1
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	na	ndr	ndr	0.2	0.2	0.8	0.2
United States	0.3	11.3	1.9	6.1	47.6	12.6	13.3
Uruguay	ndr	ndr	122.2	39.4	56.6	75.7	49.0
Uzbekistan	ndr	ndr	ndr	0.9	ndr	0.0	0.2
Vanuatu	ndr	ndr	411.0	ndr	ndr	305.9	119.5
Venezuela	ndr	5.3	42.9	ndr	54.4	564.3	111.2
Vietnam	1,579.1	234.1	950.7	127.4	1,233.4	3,657.3	1,297.0
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	126.2	757.8	ndr	895.3	315.0	24.2	353.1
Yougoslavia (former)	ndr	11.3	0.9	na	x	x	3.3
Zambia	115.1	ndr	ndr	2,082.6	2,766.7	1,283.4	1,041.3
Zimbabwe	ndr	ndr	ndr	ndr	0.1	514.0	85.7
World	669.8	689.3	1,257.3	2,057.3	2,911.2	1,889.5	1,579.1

Table 11 - Mean annual number of victims (people killed and affected) of flood and related disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	491.1	110.6	81.4	252.7	447.8	536.0	319.9
Middle	ndr	ndr	17.8	37.3	43.9	132.9	38.6
Northern	64.3	50.0	362.9	13.9	177.2	289.5	159.6
Southern	0.7	na	132.0	6.7	15.1	195.0	58.3
Western	3.0	83.7	126.8	4.5	287.6	144.8	108.4
Total	165.4	68.8	156.4	86.0	265.5	297.8	173.3
Americas							
Caribbean	12.8	386.6	944.9	708.8	67.8	149.5	378.4
Central	7.7	84.1	25.9	138.0	32.1	231.3	86.5
Northern	na	10.2	2.1	5.5	45.9	11.5	12.6
Southern	152.5	1,077.3	830.2	146.4	153.7	231.3	431.9
Total	60.4	464.3	386.6	116.5	89.5	145.3	210.4
Asia							
Eastern	2.2	70.1	570.4	5,231.8	8,969.7	5,008.6	3,308.8
South-Central	2,769.1	2,710.7	4,620.8	2,823.8	2,266.7	2,025.1	2,869.4
South-East	768.9	195.8	267.5	271.1	743.7	1,290.9	589.7
Western	60.0	79.8	4.1	84.9	237.8	7.1	78.9
Total	1,104.8	1,053.3	2,016.1	3,399.4	4,719.6	3,008.9	2,550.4
Europe							
Eastern	58.2	1.4	0.6	33.5	202.3	103.6	66.6
Northern	na	na	na	0.9	1.0	1.0	0.5
Southern	na	115.0	0.9	5.9	5.7	31.7	26.6
Western	3.1	na	0.6	12.5	46.4	82.1	24.2
Total	28.3	21.9	0.6	18.8	98.8	70.3	39.8
Oceania							
Australia - New Zealand	15.2	6.6	12.2	25.7	24.5	4.6	14.8
Melanesia	ndr	59.1	919.9	541.4	0.2	128.7	274.9
Micronesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Polynesia	ndr	ndr	na	ndr	16.9	na	2.9
Total	12.0	16.1	184.8	127.9	18.8	30.9	65.1
World	669.8	689.3	1,257.3	2,057.3	2,911.2	1,889.5	1,579.1

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 12 - Total number of windstorm disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	ndr	ndr	1	ndr	ndr	1
Albania	ndr	ndr	ndr	ndr	ndr	1	1
Algeria	ndr	ndr	1	ndr	ndr	2	3
American Samoa	ndr	ndr	ndr	3	ndr	ndr	3
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	2	1	ndr	ndr	1	4
Antigua and Barbuda	ndr	ndr	ndr	2	2	2	6
Argentina	3	ndr	2	1	2	6	14
Armenia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	16	14	8	10	14	17	79
Austria	1	1	3	5	ndr	3	13
Azerbaijan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azores	ndr	ndr	ndr	ndr	1	ndr	1
Bahamas, The	ndr	ndr	ndr	2	ndr	2	4
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	10	10	12	18	23	23	96
Barbados	ndr	1	1	ndr	1	1	4
Belarus	ndr	ndr	ndr	ndr	1	ndr	1
Belgium	2	1	3	4	ndr	2	12
Belize	2	ndr	ndr	ndr	1	3	6
Benin	ndr	ndr	ndr	ndr	ndr	1	1
Bermuda	ndr	ndr	3	1	ndr	1	5
Bhutan	ndr	ndr	ndr	ndr	1	ndr	1
Bolivia	ndr	ndr	ndr	ndr	ndr	1	1
Bosnia and Herzegovina	x	x	x	ndr	ndr	1	1
Botswana	1	ndr	ndr	ndr	ndr	ndr	1
Brazil	1	2	2	1	3	1	10
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	1	ndr	1	ndr	2	4
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	1	1
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canada	3	1	3	1	3	6	17
Canary Islands	ndr	ndr	ndr	ndr	ndr	1	1
Cape Verde	ndr	1	1	ndr	ndr	ndr	2
Cayman Islands	ndr	ndr	ndr	ndr	ndr	1	1
Central African Republic	ndr	1	ndr	ndr	ndr	1	2
Chad	1	ndr	1	ndr	ndr	ndr	2
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	1	ndr	3	2	2	1	9
China	ndr	7	23	39	27	37	133

Table 12 - Total number of windstorm disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	1	2	ndr	ndr	1	4
Comoros	ndr	1	2	1	ndr	1	5
Congo, Dem. Rep. of the	ndr	ndr	ndr	ndr	ndr	2	2
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	1	1	1	1	1	5
Costa Rica	ndr	ndr	1	ndr	3	ndr	4
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	ndr	ndr	ndr
Cuba	1	2	3	1	4	4	15
Cyprus	ndr	1	ndr	ndr	ndr	1	2
Czech Republic	x	x	x	ndr	ndr	1	1
Czechoslovakia (former)	ndr	1	2	ndr	x	x	3
Denmark	1	3	1	2	ndr	2	9
Djibouti	ndr	ndr	ndr	ndr	1	ndr	1
Dominica	ndr	2	1	1	1	2	7
Dominican Republic	ndr	2	2	1	4	2	11
Ecuador	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Egypt	ndr	1	1	ndr	1	ndr	3
El Salvador	ndr	ndr	ndr	ndr	3	2	5
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	1	ndr	ndr	1
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	2	5	5	3	1	3	19
Finland	ndr	ndr	ndr	1	ndr	ndr	1
France	2	4	9	13	1	8	37
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	2	ndr	ndr	ndr	ndr	2
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	1	1
Georgia	ndr	1	ndr	ndr	ndr	1	2
Germany	2	ndr	7	7	2	6	24
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	ndr	2	ndr	ndr	1	3
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	1	ndr	1	ndr	1	3
Guadeloupe	ndr	1	ndr	2	ndr	1	4
Guam	1	ndr	1	1	1	2	6
Guatemala	ndr	ndr	ndr	ndr	1	2	3
Guinea	ndr	ndr	ndr	ndr	ndr	1	1
Guinea-Bissau	ndr	ndr	1	1	ndr	ndr	2
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	2	1	1	3	2	9
Honduras	2	1	1	ndr	2	1	7
Hong Kong, China (SAR)	12	8	4	11	ndr	3	38
Hungary	ndr	ndr	1	ndr	ndr	2	3
Iceland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
India	20	16	15	12	12	19	94

Table 12 - Total number of windstorm disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	3	2	1	ndr	ndr	ndr	6
Iran, Islamic Rep. of	1	1	ndr	3	1	1	7
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	1	1	5	ndr	2	9
Israel	ndr	1	ndr	1	ndr	1	3
Italy	1	ndr	4	2	2	ndr	9
Jamaica	ndr	1	2	ndr	2	3	8
Japan	8	11	6	13	8	13	59
Jordan	ndr	1	ndr	1	ndr	2	4
Kazakhstan	ndr	ndr	ndr	ndr	1	ndr	1
Kenya	ndr	ndr	1	ndr	ndr	ndr	1
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	ndr	1	ndr	2	3
Korea, Rep. of	1	6	5	4	5	7	28
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lao People's Dem. Rep.	ndr	ndr	ndr	3	1	ndr	4
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	1	ndr	1	ndr	1	3
Lesotho	ndr	ndr	ndr	1	2	2	5
Liberia	ndr	ndr	ndr	ndr	1	ndr	1
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	1	ndr	ndr	1
Luxembourg	ndr	ndr	ndr	5	ndr	ndr	5
Macao, China	ndr	ndr	ndr	4	ndr	ndr	4
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	4	3	2	2	6	8	25
Malawi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malaysia	ndr	ndr	ndr	ndr	1	2	3
Maldives	ndr	ndr	ndr	1	ndr	ndr	1
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	1	ndr	ndr	1
Martinique	ndr	2	ndr	3	ndr	1	6
Mauritania	ndr	ndr	ndr	1	ndr	1	2
Mauritius	1	5	2	2	2	2	14
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	6	5	4	7	14	12	48
Micronesia, Fed. States of	ndr	ndr	1	ndr	ndr	3	4
Moldova, Rep. of	ndr	ndr	ndr	ndr	1	1	2
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	3	ndr	5	8
Montserrat	ndr	ndr	ndr	2	ndr	ndr	2
Morocco	ndr	ndr	ndr	ndr	1	ndr	1
Mozambique	3	ndr	3	ndr	1	5	12
Myanmar	2	1	ndr	ndr	1	ndr	4
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 12 - Total number of windstorm disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	ndr	4	1	1	ndr	6
Netherlands	1	ndr	4	5	1	1	12
Netherlands Antilles	ndr	ndr	ndr	1	1	ndr	2
New Caledonia	2	3	ndr	1	ndr	2	8
New Zealand	ndr	ndr	1	2	2	2	7
Nicaragua	ndr	1	1	1	2	4	9
Niger	ndr	ndr	ndr	ndr	ndr	1	1
Nigeria	1	ndr	ndr	ndr	ndr	1	2
Niue	ndr	ndr	ndr	1	ndr	ndr	1
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	3	ndr	ndr	3
Oman	2	1	ndr	ndr	ndr	2	5
Pakistan	ndr	2	2	2	5	5	16
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	1	1	1	ndr	3
Papua New Guinea	ndr	ndr	ndr	1	1	ndr	2
Paraguay	ndr	ndr	ndr	ndr	1	1	2
Peru	ndr	ndr	ndr	ndr	ndr	1	1
Philippines	25	32	24	29	26	18	154
Poland	ndr	1	ndr	ndr	ndr	2	3
Portugal	ndr	ndr	ndr	1	ndr	1	2
Puerto Rico	1	1	ndr	2	3	2	9
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	1	2	2	ndr	2	7
Romania	ndr	ndr	ndr	1	2	1	4
Russian Federation	ndr	1	1	ndr	6	6	14
Rwanda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Helena	ndr	ndr	ndr	ndr	ndr	1	1
Saint Kitts and Nevis	ndr	ndr	1	2	2	1	6
Saint Lucia	ndr	2	3	ndr	1	1	7
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	1	1	ndr	ndr	2	4
Samoa	ndr	1	ndr	3	ndr	ndr	4
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	1	ndr	ndr	ndr	ndr	1
Senegal	ndr	ndr	ndr	ndr	ndr	2	2
Serbia and Montenegro	x	x	ndr	ndr	ndr	ndr	ndr
Seychelles	ndr	ndr	ndr	ndr	ndr	1	1
Sierra Leone	1	ndr	1	ndr	ndr	1	3
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	2	2	2	ndr	3	9
Somalia	ndr	ndr	ndr	ndr	1	ndr	1
South Africa	ndr	1	2	2	2	8	15
Soviet Union (former)	ndr	ndr	ndr	ndr	x	x	ndr
Spain	ndr	ndr	4	3	2	4	13
Sri Lanka	1	ndr	1	ndr	ndr	1	3
Sudan	ndr	ndr	ndr	ndr	ndr	1	1

Table 12 - Total number of windstorm disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	1	ndr	ndr	ndr	1
Sweden	1	ndr	ndr	1	ndr	1	3
Switzerland	1	3	7	6	ndr	3	20
Syrian Arab Republic	ndr	1	ndr	ndr	ndr	1	2
Taiwan	1	2	3	6	6	9	27
Tajikistan	ndr	ndr	ndr	ndr	ndr	2	2
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	1	ndr	1
Thailand	1	2	ndr	9	3	5	20
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	1	1	ndr	ndr	2
Tonga	1	2	ndr	1	3	1	8
Trinidad and Tobago	1	ndr	ndr	2	ndr	ndr	3
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	ndr	1	ndr	1	1	2	5
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	1	1	ndr	ndr	2
Tuvalu	ndr	ndr	2	2	ndr	ndr	4
Uganda	ndr	ndr	ndr	ndr	ndr	3	3
Ukraine	ndr	ndr	ndr	1	ndr	3	4
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	2	2	5	8	5	5	27
United States	13	28	49	91	63	72	316
Uruguay	ndr	ndr	ndr	1	1	3	5
Uzbekistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vanuatu	2	3	4	3	1	3	16
Venezuela	ndr	ndr	1	1	ndr	ndr	2
Vietnam	1	6	8	15	10	13	53
Virgin Islands (U.K.)	ndr	ndr	ndr	1	3	ndr	4
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	2	1	3
Wallis and Futuna	ndr	ndr	1	ndr	ndr	ndr	1
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	ndr	ndr	ndr	ndr	2	2
Yougoslavia (former)	ndr	ndr	1	ndr	x	x	1
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	2	ndr	ndr	ndr	ndr	1	3
World	174	240	301	436	331	473	1,955

Table 12 - Total number of windstorm disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	10	10	12	8	12	24	76
Middle	1	1	1	ndr	ndr	3	6
Northern	ndr	1	2	ndr	2	4	9
Southern	1	1	3	3	4	10	22
Western	2	1	3	2	1	10	19
Total	14	14	21	13	19	51	132
Americas							
Caribbean	3	20	17	25	29	30	124
Central	10	7	8	9	27	24	85
Northern	16	29	55	93	66	79	338
Southern	5	3	10	6	9	15	48
Total	34	59	90	133	131	148	595
Asia							
Eastern	22	34	41	81	46	76	300
South-Central	32	29	34	38	44	51	228
South-East	32	43	33	56	42	38	244
Western	2	9	ndr	4	1	13	29
Total	88	115	108	179	133	178	801
Europe							
Eastern	ndr	4	4	3	10	18	39
Northern	4	6	7	21	5	10	53
Southern	1	ndr	11	6	5	8	31
Western	9	9	33	45	4	23	123
Total	14	19	55	75	24	59	246
Oceania							
Australia - New Zealand	16	14	9	12	16	19	86
Melanesia	6	13	11	10	3	11	54
Micronesia	1	ndr	2	2	1	5	11
Polynesia	1	6	5	12	4	2	30
Total	24	33	27	36	24	37	181
World	174	240	301	436	331	473	1,955

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	ndr	ndr	0.0	ndr	ndr	0.0
Albania	ndr	ndr	ndr	ndr	ndr	798.1	133.0
Algeria	ndr	ndr	8.4	ndr	ndr	0.0	1.4
American Samoa	ndr	ndr	ndr	10.4	ndr	ndr	1.7
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	na	na	ndr	ndr	262.0	43.7
Antigua and Barbuda	ndr	ndr	ndr	2,545.1	22,215.0	1,807.4	4,427.9
Argentina	78.2	ndr	1.3	4.7	5.6	4.7	15.7
Armenia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	67.4	0.0	1.3	14.7	4,352.9	15.2	741.9
Austria	na	na	0.1	0.0	ndr	0.7	0.1
Azerbaijan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azores	ndr	ndr	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	ndr	129.0	ndr	104.5	38.9
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	3.9	451.1	2,904.0	2,957.0	1,184.5	57.6	1,259.7
Barbados	ndr	397.4	17.7	ndr	na	144.8	93.3
Belarus	ndr	ndr	ndr	ndr	41.1	ndr	16.5
Belgium	na	na	0.0	0.0	ndr	1.8	0.3
Belize	11,364.4	ndr	ndr	ndr	5,118.8	6,647.8	3,855.2
Benin	ndr	ndr	ndr	ndr	ndr	3.1	0.5
Bermuda	ndr	ndr	14.1	na	ndr	1.2	2.6
Bhutan	ndr	ndr	ndr	ndr	742.0	ndr	123.7
Bolivia	ndr	ndr	ndr	ndr	ndr	28.6	4.8
Bosnia and Herzegovina	x	x	x	ndr	ndr	5.9	2.6
Botswana	3,293.9	ndr	ndr	ndr	ndr	ndr	549.0
Brazil	0.0	0.7	0.5	na	0.3	0.4	0.3
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	na	ndr	11.8	ndr	2.2	2.3
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	110.0	18.3
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canada	0.3	na	3.1	na	327.4	3.4	55.7
Canary Islands	ndr	ndr	ndr	ndr	ndr	na	na
Cape Verde	ndr	146.1	351.9	ndr	ndr	ndr	83.0
Cayman Islands	ndr	ndr	ndr	ndr	ndr	147.2	24.5
Central African Republic	ndr	16.2	ndr	ndr	ndr	16.9	5.5
Chad	0.5	ndr	4.3	ndr	ndr	ndr	0.8
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	31.7	ndr	594.6	56.0	3.1	3.1	114.8
China	ndr	0.4	119.9	1,144.6	1,080.1	2,312.3	776.2

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	0.4	81.8	ndr	ndr	3.8	14.3
Comoros	ndr	1,685.4	4,398.4	na	ndr	9.5	1,015.6
Congo, Dem. Rep. of the	ndr	ndr	ndr	ndr	ndr	8.0	1.3
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	na	2,282.8	1.1	929.4	721.9	655.9
Costa Rica	ndr	ndr	887.1	ndr	4,242.2	ndr	854.9
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	ndr	ndr	ndr
Cuba	0.4	367.8	1,109.0	277.7	1,086.1	11,589.7	2,405.1
Cyprus	ndr	na	ndr	ndr	ndr	0.8	0.1
Czech Republic	x	x	x	ndr	ndr	na	na
Czechoslovakia (former)	ndr	0.8	0.0	ndr	x	x	0.2
Denmark	na	0.0	0.0	0.0	ndr	0.0	0.0
Djibouti	ndr	ndr	ndr	ndr	37.9	ndr	6.3
Dominica	ndr	19,046.4	2,672.5	193.8	823.1	248.2	3,830.7
Dominican Republic	ndr	5,592.7	6.2	4.3	2,479.3	23.0	1,350.9
Ecuador	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Egypt	ndr	7.3	0.0	ndr	0.0	ndr	1.2
El Salvador	ndr	ndr	ndr	ndr	293.6	1.9	49.2
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	427.9	ndr	ndr	38.9
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	798.6	8,697.6	3,669.8	4,439.8	88.4	734.7	3,071.5
Finland	ndr	ndr	ndr	0.0	ndr	ndr	0.0
France	na	0.0	0.0	1.3	0.2	1,184.4	197.7
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	611.8	ndr	ndr	ndr	ndr	102.0
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	106.9	17.8
Georgia	ndr	x	ndr	ndr	ndr	3.6	1.4
Germany	0.0	ndr	0.1	0.0	na	0.0	0.0
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	ndr	0.1	ndr	ndr	0.0	0.0
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	na	ndr	216.5	ndr	46.9	43.9
Guadeloupe	ndr	na	ndr	649.2	ndr	42.8	115.3
Guam	2.0	ndr	79.9	778.9	874.7	1,880.7	602.7
Guatemala	ndr	ndr	ndr	ndr	175.0	12.0	31.2
Guinea	ndr	ndr	ndr	ndr	ndr	0.0	0.0
Guinea-Bissau	ndr	ndr	79.8	31.8	ndr	ndr	18.6
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	1,311.1	2,983.4	na	4,922.0	1.2	1,536.3
Honduras	4,010.1	104.3	0.1	ndr	7,205.9	271.6	1,932.0
Hong Kong, China (SAR)	44.7	65.7	2.8	13.7	ndr	11.0	23.0
Hungary	ndr	ndr	0.0	ndr	ndr	0.1	0.0
Iceland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
India	468.0	242.2	172.3	281.4	301.2	292.9	293.0

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	0.7	0.1	1.2	ndr	ndr	ndr	0.3
Iran, Islamic Rep. of	0.0	0.1	ndr	1.2	0.0	1.7	0.5
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	0.1	0.1	0.1	ndr	na	0.0
Israel	ndr	0.1	ndr	0.0	ndr	1.4	0.3
Italy	0.0	ndr	0.0	0.4	0.0	ndr	0.1
Jamaica	ndr	269.3	6,675.3	ndr	6.2	12.7	1,160.6
Japan	60.6	42.1	16.1	39.7	19.5	52.6	38.4
Jordan	ndr	0.2	ndr	0.0	ndr	0.9	0.2
Kazakhstan	ndr	ndr	ndr	ndr	0.1	ndr	0.1
Kenya	ndr	ndr	0.0	ndr	ndr	ndr	0.0
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	ndr	2.4	ndr	586.2	98.1
Korea, Rep. of	2.2	39.3	30.5	49.2	2.6	72.0	32.6
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lao People's Dem. Rep.	ndr	ndr	ndr	1,384.9	4,127.1	ndr	918.7
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	0.1	ndr	646.6	ndr	2.7	108.2
Lesotho	ndr	ndr	ndr	na	2.8	21.6	4.1
Liberia	ndr	ndr	ndr	ndr	20.2	ndr	3.4
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	8,446.7	ndr	ndr	1,689.3
Luxembourg	ndr	ndr	ndr	1.2	ndr	ndr	0.2
Macao, China	ndr	ndr	ndr	207.3	ndr	ndr	34.6
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	1,449.4	549.0	371.1	520.6	1,827.3	2,259.9	1,162.9
Malawi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malaysia	ndr	ndr	ndr	ndr	4.4	0.6	0.8
Maldives	ndr	ndr	ndr	2,128.4	ndr	ndr	354.7
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	2,561.0	ndr	ndr	426.8
Martinique	ndr	1,183.8	ndr	318.1	ndr	29.2	255.2
Mauritania	ndr	ndr	ndr	3.0	ndr	1.4	0.7
Mauritius	18,663.0	2,886.1	na	223.1	41.2	34.7	3,641.4
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	201.2	91.1	33.3	21.3	187.7	70.3	100.8
Micronesia, Fed. States of	ndr	ndr	42.6	ndr	ndr	498.6	90.2
Moldova, Rep. of	ndr	ndr	ndr	ndr	114.6	11,736.4	4,740.4
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	851.8	ndr	14,536.8	2,564.8
Montserrat	ndr	ndr	ndr	22,215.9	ndr	ndr	3,702.6
Morocco	ndr	ndr	ndr	ndr	0.0	ndr	0.0
Mozambique	416.9	ndr	548.3	ndr	3,397.8	30.8	732.3
Myanmar	82.6	20.9	ndr	ndr	32.7	ndr	22.7
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	ndr	0.1	0.2	0.0	ndr	0.0
Netherlands	na	ndr	0.0	0.0	0.1	na	0.0
Netherlands Antilles	ndr	ndr	ndr	159.9	4,022.0	ndr	697.0
New Caledonia	na	281.3	ndr	0.2	ndr	104.6	64.3
New Zealand	ndr	ndr	0.0	na	11.8	0.0	2.0
Nicaragua	ndr	349.7	2,110.5	606.9	3,838.8	112.8	1,169.8
Niger	ndr	ndr	ndr	ndr	ndr	2.3	0.4
Nigeria	0.0	ndr	ndr	ndr	ndr	0.0	0.0
Niue	ndr	ndr	ndr	na	ndr	ndr	na
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	0.0	ndr	ndr	0.0
Oman	133.5	0.4	ndr	ndr	ndr	0.9	22.5
Pakistan	ndr	0.2	0.1	0.1	0.0	96.8	16.2
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	76.3	0.5	54.6	ndr	21.9
Papua New Guinea	ndr	ndr	ndr	194.1	33.0	ndr	37.8
Paraguay	ndr	ndr	ndr	ndr	0.4	42.5	7.2
Peru	ndr	ndr	ndr	ndr	ndr	62.1	10.3
Philippines	2,077.2	1,836.1	4,749.7	6,472.7	2,632.6	1,159.2	3,154.6
Poland	ndr	0.5	ndr	ndr	ndr	na	0.1
Portugal	ndr	ndr	ndr	na	ndr	0.1	0.0
Puerto Rico	0.2	28.4	ndr	20.0	574.5	6.8	105.0
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	277.1	142.7	214.8	ndr	100.0	122.4
Romania	ndr	ndr	ndr	0.2	4.8	0.3	0.9
Russian Federation	ndr	na	na	ndr	0.4	1.7	0.8
Rwanda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Helena	ndr	ndr	ndr	ndr	ndr	825.8	137.6
Saint Kitts and Nevis	ndr	ndr	na	637.3	6,023.0	606.2	1,211.1
Saint Lucia	ndr	13,534.5	6.6	ndr	103.6	25.9	2,278.4
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	4,177.7	39.7	ndr	ndr	17.4	705.8
Samoa	ndr	124.9	ndr	33,079.2	ndr	ndr	5,534.0
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	na	ndr	ndr	ndr	ndr	0.0
Senegal	ndr	ndr	ndr	ndr	ndr	201.6	33.6
Serbia and Montenegro	x	x	x	ndr	ndr	ndr	ndr
Seychelles	ndr	ndr	ndr	ndr	ndr	1,697.9	283.0
Sierra Leone	66.1	ndr	0.3	ndr	ndr	0.1	11.1
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	2,931.4	10,396.1	4,767.8	ndr	61.2	3,026.1
Somalia	ndr	ndr	ndr	ndr	0.1	0.0	0.0
South Africa	ndr	0.1	307.5	na	1.1	56.9	60.9
Soviet Union (former)	ndr	ndr	ndr	ndr	x	x	ndr
Spain	ndr	ndr	31.3	0.0	0.2	0.0	5.3
Sri Lanka	1,399.7	ndr	10.0	ndr	ndr	389.8	299.9
Sudan	ndr	ndr	ndr	ndr	ndr	0.0	0.0

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	18,154.0	ndr	ndr	ndr	3,025.7
Sweden	ndr	ndr	ndr	0.0	ndr	ndr	0.0
Switzerland	na	0.4	0.1	0.0	ndr	0.1	0.1
Syrian Arab Republic	ndr	0.0	ndr	ndr	ndr	0.2	0.0
Taiwan	13.8	0.1	2.4	19.8	0.7	587.2	104.0
Tajikistan	ndr	ndr	ndr	ndr	ndr	7.3	2.9
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	1.7	ndr	0.3
Thailand	0.0	18.0	ndr	960.7	116.9	23.5	186.5
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	na	na	ndr	ndr	na
Tonga	2,208.8	31,783.0	ndr	674.2	1,338.6	3,156.6	6,526.9
Trinidad and Tobago	1,004.7	ndr	ndr	16.7	ndr	ndr	170.2
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	ndr	na	ndr	na	0.0	na	0.0
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	1,653.1	na	ndr	ndr	275.5
Tuvalu	ndr	ndr	na	1,835.9	ndr	ndr	306.0
Uganda	ndr	ndr	ndr	ndr	ndr	8.6	1.4
Ukraine	ndr	ndr	ndr	0.8	ndr	19.6	8.0
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	na	0.0	0.0	69.6	89.8	6.8	27.7
United States	0.1	5.3	87.2	35.7	85.3	48.8	43.7
Uruguay	ndr	ndr	ndr	12.6	3.1	15.5	5.2
Uzbekistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vanuatu	na	na	25,125.5	1,598.5	262.5	86.6	4,512.2
Venezuela	ndr	ndr	0.0	5.8	ndr	ndr	1.0
Vietnam	0.4	6,711.9	1,910.3	2,293.8	1,190.8	60.7	2,028.0
Virgin Islands (U.K.)	ndr	ndr	ndr	13,207.4	3.2	ndr	2,201.8
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	1,856.5	0.6	309.5
Wallis and Futuna	ndr	ndr	6,781.7	ndr	ndr	ndr	1,130.3
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	ndr	ndr	ndr	ndr	0.0	0.0
Yougoslavia (former)	ndr	ndr	0.0	ndr	x	x	0.0
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	391.5	ndr	ndr	ndr	ndr	ndr	65.3
World	118.5	167.1	221.4	485.7	419.9	610.7	337.2

Table 13 - Mean annual number of victims (people killed and affected) of windstorm disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	274.6	57.4	76.8	34.8	348.9	151.4	157.3
Middle	0.0	0.7	0.4	ndr	ndr	5.1	1.0
Northern	ndr	2.8	1.5	ndr	0.0	0.0	0.7
Southern	84.9	0.1	614.8	0.0	1.1	50.2	125.2
Western	1.8	0.3	1.2	0.2	0.2	9.2	2.2
Total	90.2	18.3	66.7	10.7	106.4	52.2	57.4
Americas							
Caribbean	37.5	1,595.3	1,411.5	124.3	1,957.5	3,516.5	1,440.4
Central	328.2	83.7	116.0	36.2	746.7	80.8	232.0
Northern	0.1	4.8	78.9	32.1	109.4	44.3	44.9
Southern	11.0	0.4	36.2	3.5	0.9	7.6	9.9
Total	52.9	90.4	129.2	25.2	250.4	186.7	122.5
Asia							
Eastern	6.6	6.0	102.9	969.8	914.0	2,009.2	668.1
South-Central	364.6	217.6	396.8	471.6	311.6	219.5	330.3
South-East	291.7	1,243.6	953.0	1,404.5	621.5	186.3	783.4
Western	1.4	0.0	ndr	13.3	0.0	0.3	2.5
Total	175.2	258.2	330.2	799.8	591.0	919.8	512.4
Europe							
Eastern	ndr	0.6	0.0	0.4	3.6	174.7	29.9
Northern	0.0	0.0	0.0	214.6	56.0	4.3	45.8
Southern	0.0	ndr	8.6	0.1	0.1	19.4	4.7
Western	0.0	0.0	0.0	0.4	0.1	382.7	63.9
Total	0.0	0.3	1.6	26.8	8.8	173.7	35.2
Oceania							
Australia - New Zealand	55.0	0.0	1.1	12.3	3,639.3	12.7	620.1
Melanesia	127.4	1,506.5	1,915.8	1,107.8	43.5	100.2	800.2
Micronesia	0.7	ndr	37.4	515.3	266.7	677.3	249.6
Polynesia	447.9	6,319.9	314.8	10,349.3	242.6	536.2	3,035.1
Total	74.7	406.4	371.6	456.0	2,778.9	54.0	690.3
World	118.5	167.1	221.4	485.7	419.9	610.7	337.2

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	1	2	2	3	4	8	20
Albania	ndr	2	1	ndr	ndr	ndr	3
Algeria	ndr	2	3	2	1	3	11
American Samoa	ndr	ndr	1	ndr	ndr	ndr	1
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	1	ndr	1	ndr	ndr	1	3
Armenia	ndr	ndr	1	ndr	1	ndr	2
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	2	ndr	1	1	ndr	4
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	1	2	3
Azores	ndr	1	ndr	ndr	1	ndr	2
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	1	1	1	3	6
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	1	ndr	1	ndr	ndr	2
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	1	ndr	ndr	2	ndr	3
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	1	ndr	ndr	ndr	1
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	2	ndr	1	1	ndr	ndr	4
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	1	2	ndr	2	ndr	5
China	4	5	9	11	14	26	69

Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	4	ndr	3	4	2	13
Comoros	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Congo, Dem. Rep. of the	ndr	ndr	ndr	1	ndr	ndr	1
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	ndr	2	ndr	5	ndr	1	8
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	1	ndr	1
Cuba	1	ndr	ndr	1	ndr	ndr	2
Cyprus	ndr	ndr	ndr	ndr	1	ndr	1
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	1	1
Ecuador	2	1	2	1	4	ndr	10
Egypt	ndr	ndr	ndr	1	1	1	3
El Salvador	ndr	1	1	ndr	ndr	2	4
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	2	ndr	ndr	2
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	1	3	ndr	1	5
Germany	1	ndr	ndr	1	ndr	ndr	2
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	2	5	3	3	3	5	21
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guam	ndr	ndr	ndr	1	ndr	ndr	1
Guatemala	1	2	4	1	ndr	2	10
Guinea	ndr	1	ndr	ndr	ndr	ndr	1
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	2	ndr	ndr	ndr	1	3
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	1	ndr	ndr	ndr	ndr	2	3
India	1	5	4	2	1	3	16

Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	5	11	5	9	12	15	57
Iran, Islamic Rep. of	8	10	9	7	9	16	59
Iraq	ndr	ndr	ndr	1	ndr	ndr	1
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	3	8	3	2	2	3	21
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	3	6	4	3	4	6	26
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	2	ndr	1	3
Kenya	ndr	ndr	ndr	1	ndr	ndr	1
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	1	ndr	ndr	ndr	ndr	1
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	3	1	ndr	4
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	1	ndr	ndr	1
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1	5	2	2	5	5	20
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	1	1	ndr	ndr	2
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	1	1	0	2
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	1	1	ndr	ndr	ndr	2
Netherlands	ndr	ndr	ndr	1	ndr	ndr	1
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	1	ndr	1	0	ndr	ndr	2
Nicaragua	ndr	ndr	ndr	2	ndr	1	3
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	1	3	2	6	1	3	16
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	1	ndr	2	3
Papua New Guinea	ndr	1	3	2	1	4	11
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	1	6	3	4	2	5	21
Philippines	2	3	1	3	2	2	13
Poland	ndr	1	ndr	ndr	ndr	ndr	1
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	1	ndr	1	2	ndr	ndr	4
Russian Federation	ndr	ndr	ndr	1	2	4	7
Rwanda	ndr	ndr	ndr	ndr	ndr	1	1
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	1	1
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	1	ndr	1
Solomon Islands	2	ndr	1	ndr	ndr	ndr	3
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	1	2	ndr	ndr	ndr	3
Soviet Union (former)	ndr	1	ndr	ndr	ndr	ndr	1
Spain	ndr	ndr	ndr	ndr	ndr	1	1
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	2	ndr	ndr	2

Table 14 - Total number of earthquake and tsunami disasters: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	1	ndr	ndr	3	4
Tajikistan	ndr	ndr	1	3	ndr	3	7
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	3	3
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	1	ndr	ndr	ndr	ndr	ndr	1
Trinidad and Tobago	ndr	ndr	ndr	ndr	1	ndr	1
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	6	1	6	1	3	15	32
Turkmenistan	ndr	ndr	ndr	ndr	ndr	1	2
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	1	1	1	ndr	3
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	1	ndr	ndr	1
United States	1	6	3	6	2	3	21
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	1	ndr	1	1	ndr	ndr	3
Vanuatu	ndr	ndr	1	3	1	3	8
Venezuela	ndr	2	2	1	1	ndr	6
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	1	ndr	ndr	1
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	1	ndr	1	ndr	ndr	2
Yougoslavia (former)	ndr	5	1	1	x	x	7
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	54	114	94	122	95	165	644

Table 14 - Total number of earthquake and tsunami disasters reported: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	ndr	ndr	1	3	1	4	9
Middle	ndr	ndr	ndr	1	ndr	ndr	1
Northern	ndr	2	3	5	2	4	16
Southern	ndr	1	2	ndr	ndr	ndr	3
Western	ndr	1	0	ndr	ndr	ndr	1
Total	ndr	4	6	9	3	8	30
Americas							
Caribbean	1	ndr	ndr	1	1	1	4
Central	2	12	7	11	5	14	51
Northern	1	6	3	6	2	3	21
Southern	4	15	11	9	15	8	62
Total	8	33	21	27	23	26	138
Asia							
Eastern	7	12	14	14	18	35	100
South-Central	12	22	21	28	17	38	138
South-East	7	14	6	13	15	17	72
Western	6	2	8	6	6	18	46
Total	32	50	49	61	56	108	356
Europe							
Eastern	3	2	3	5	2	4	19
Northern	1	ndr	ndr	1	ndr	2	4
Southern	5	21	8	6	8	10	58
Western	1	1	ndr	3	ndr	ndr	5
Total	10	24	11	15	10	16	86
Oceania							
Australia - New Zealand	1	2	1	1	1	ndr	6
Melanesia	2	1	5	7	2	7	24
Micronesia	ndr	ndr	ndr	1	ndr	ndr	1
Polynesia	1	ndr	1	1	ndr	ndr	3
Total	4	3	7	10	3	7	34
World	54	114	94	122	95	165	644

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	124.2	106.8	17.4	128.0	232.1	134.2	123.8
Albania	ndr	39.0	4.4	ndr	ndr	ndr	7.2
Algeria	ndr	989.4	1.0	11.6	16.5	151.0	194.9
American Samoa	ndr	ndr	na	ndr	ndr	ndr	na
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	0.1	ndr	29.5	ndr	ndr	0.1	5.0
Armenia	ndr	ndr	na	ndr	88.8	ndr	35.5
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	0.2	ndr	2.5	5.6	ndr	1.4
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	1,814.9	48.1	745.2
Azores	ndr	ndr	ndr	ndr	na	ndr	na
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	0.0	0.0	0.0	2.9	0.5
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	2.3	ndr	na	ndr	ndr	0.4
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	0.1	ndr	ndr	46.5	ndr	7.8
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	3.3	ndr	ndr	ndr	0.5
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	0.5	ndr	6.8	0.0	ndr	ndr	1.2
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	2.6	2,465.3	ndr	57.6	ndr	420.9
China	9.2	1.0	27.8	10.3	58.3	92.8	33.2

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	35.3	ndr	4.4	29.8	619.0	114.7
Comoros	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Congo, Dem. Rep. of the	ndr	ndr	ndr	0.2	ndr	ndr	0.0
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	ndr	46.0	ndr	190.9	ndr	0.7	39.6
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	9.1	ndr	3.7
Cuba	0.0	ndr	ndr	13.1	ndr	ndr	2.2
Cyprus	ndr	ndr	ndr	ndr	85.0	ndr	14.2
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	0.0
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	4.6	0.8
Ecuador	56.6	0.1	316.2	0.0	55.8	ndr	71.5
Egypt	ndr	ndr	ndr	11.9	0.0	0.1	2.0
El Salvador	ndr	148.4	3,246.0	ndr	ndr	5,103.5	1,416.3
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	na	ndr	ndr	na
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	x	3,899.2	ndr	72.8	809.0
Germany	0.1	ndr	ndr	0.4	ndr	ndr	0.1
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	1,272.9	167.4	91.5	3.0	58.3	328.9	320.3
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guam	ndr	ndr	ndr	9.9	ndr	ndr	1.6
Guatemala	15,729.7	5.9	38.9	48.1	ndr	0.7	2,637.2
Guinea	ndr	90.2	ndr	ndr	ndr	ndr	15.0
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	2.6	ndr	ndr	ndr	5.3	1.3
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	0.6	ndr	ndr	ndr	ndr	14.4	2.5
India	0.0	0.0	494.5	5.9	2.7	325.6	138.1

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	68.8	17.4	3.9	14.6	48.4	22.7	29.3
Iran, Islamic Rep. of	270.6	36.3	11.6	235.3	70.8	153.0	129.6
Iraq	ndr	ndr	ndr	0.6	ndr	ndr	0.1
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	78.8	162.9	3.4	1.1	58.8	3.4	51.4
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	0.5	427.8	3.7	2.4	294.3	6.3	122.5
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	na	ndr	43.7	17.5
Kenya	ndr	ndr	ndr	na	ndr	ndr	na
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	na	ndr	ndr	ndr	ndr	na
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	1,738.5	5.4	ndr	349.9
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	330.4	ndr	ndr	55.1
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	1.2	4.2	37.0	0.1	18.1	42.7	17.2
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	na	na	ndr	ndr	na
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	0.1	49.9	ndr	8.3
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	367.2	328.4	ndr	ndr	ndr	115.9
Netherlands	ndr	ndr	ndr	0.8	ndr	ndr	0.1
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	na	ndr	42.4	ndr	ndr	ndr	7.1
Nicaragua	ndr	ndr	ndr	208.6	ndr	31.1	39.9
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	15.1	0.8	0.2	36.3	1.5	147.6	33.6
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	148.6	ndr	9.6	26.4
Papua New Guinea	ndr	0.1	73.4	98.1	51.4	42.3	44.2
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	59.3	18.7	8.6	134.0	68.4	173.1	77.0
Philippines	107.8	0.7	0.1	550.2	57.1	17.7	122.3
Poland	ndr	0.6	ndr	ndr	ndr	ndr	0.1
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Romania	358.2	ndr	0.0	4.1	ndr	ndr	60.4
Russian Federation	ndr	ndr	ndr	na	0.7	4.4	2.0
Rwanda	ndr	ndr	ndr	ndr	ndr	19.9	3.3
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	0.2	0.1
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	7.3	ndr	2.9
Solomon Islands	120.5	ndr	32.2	ndr	ndr	ndr	25.4
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	0.0	0.2	ndr	ndr	ndr	0.0
Soviet Union (former)	ndr	0.0	ndr	ndr	x	x	0.0
Spain	ndr	ndr	ndr	ndr	ndr	0.0	0.0
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	7.5	ndr	ndr	1.3

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	0.1	ndr	ndr	101.6	16.9
Tajikistan	ndr	ndr	na	43.9	ndr	58.9	32.4
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	2.0	0.3
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	1,215.5	ndr	ndr	ndr	ndr	ndr	202.6
Trinidad and Tobago	ndr	ndr	ndr	ndr	0.3	ndr	0.0
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	133.5	14.6	323.5	110.9	33.2	502.4	186.4
Turkmenistan	ndr	na	ndr	ndr	ndr	0.0	0.0
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	2.5	na	50.3	ndr	8.8
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	na	ndr	ndr	na
United States	0.0	0.1	0.2	0.8	2.6	0.0	0.6
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	na	ndr	na	92.5	ndr	ndr	18.5
Vanuatu	ndr	ndr	na	0.3	na	1,566.4	261.1
Venezuela	ndr	0.3	1.1	2.1	25.7	ndr	4.9
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	35.3	ndr	ndr	5.9
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	834.6	ndr	569.8	ndr	ndr	234.1
Yougoslavia (former)	ndr	378.2	1.4	0.2	x	x	104.0
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	40.0	24.8	108.2	20.8	28.9	98.4	53.5

Table 15 - Mean annual number of victims (people killed and affected) of earthquake and tsunami disasters per 100,000 inhabitants: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	ndr	ndr	0.2	15.7	4.7	0.9	3.6
Middle	ndr	ndr	ndr	0.1	ndr	ndr	0.0
Northern	ndr	170.1	0.2	8.0	2.9	25.7	34.5
Southern	ndr	0.0	0.2	ndr	ndr	ndr	0.0
Western	ndr	3.0	ndr	ndr	ndr	ndr	0.5
Total	ndr	40.3	0.1	6.6	2.1	6.1	9.2
Americas							
Caribbean	0.0	ndr	ndr	4.2	0.0	1.1	0.9
Central	1,217.4	11.8	178.6	19.3	13.3	261.9	283.8
Northern	0.0	0.1	0.2	0.7	2.3	0.0	0.6
Southern	6.0	5.4	127.0	10.6	15.9	83.5	41.4
Total	177.6	3.9	78.9	7.9	9.6	77.9	59.3
Asia							
Eastern	7.7	42.3	23.7	8.9	75.1	80.7	39.7
South-Central	14.3	9.2	361.6	25.1	9.0	246.3	110.9
South-East	43.5	7.4	1.6	85.2	32.7	12.2	30.4
Western	61.8	81.2	400.3	128.9	92.2	181.7	157.7
Total	17.0	26.6	163.2	31.6	43.9	142.1	70.7
Europe							
Eastern	22.2	0.1	12.2	0.3	0.3	2.1	6.2
Northern	0.0	ndr	ndr	na	ndr	0.0	0.0
Southern	120.7	141.4	8.1	0.7	28.2	25.3	54.1
Western	0.0	0.1	ndr	0.2	ndr	ndr	0.1
Total	32.8	26.1	7.4	0.3	5.7	5.9	13.0
Oceania							
Australia - New Zealand	na	0.1	7.2	2.1	4.7	na	2.4
Melanesia	6.5	0.0	55.5	72.3	38.2	ndr	41.5
Micronesia	ndr	ndr	ndr	3.1	ndr	ndr	0.5
Polynesia	246.5	ndr	na	0.9	ndr	ndr	41.2
Total	6.2	0.1	16.2	16.3	11.6	16.5	11.1
World	40.0	24.8	108.2	20.8	28.9	98.4	53.5

ndr: no disaster reported

na: number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 16 - Total number of volcanic disasters: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Albania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Algeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
American Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	ndr	ndr	ndr	1	ndr	ndr	1
Armenia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azores	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	2	ndr	ndr	1	3
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	1	ndr	1
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	ndr	1	2	ndr	ndr	3
China	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 16 - Total number of volcanic disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	ndr	2	1	ndr	ndr	3
Comoros	1	ndr	ndr	1	ndr	ndr	2
Congo, Dem. Rep. of the	1	ndr	ndr	ndr	ndr	2	3
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	2	ndr	ndr	1	1	ndr	4
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	ndr	ndr	ndr
Cuba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cyprus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ecuador	3	ndr	ndr	ndr	ndr	5	8
Egypt	ndr	ndr	ndr	ndr	ndr	ndr	ndr
El Salvador	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1	ndr	ndr	ndr	ndr	ndr	1
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Germany	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	1	ndr	ndr	ndr	ndr	ndr	1
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	1	2	1	2	2	8
Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	ndr	1	1	ndr	1	ndr	3
India	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 16 - Total number of volcanic disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	1	9	7	5	5	1	28
Iran, Islamic Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	ndr	1	ndr	1	ndr	1	3
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	1	1	2	3	ndr	2	9
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kenya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	ndr	1	ndr	ndr	4	3	8
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	3	ndr	3
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 16 - Total number of volcanic disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Netherlands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	ndr	ndr	ndr	ndr	1	ndr	1
Nicaragua	ndr	ndr	ndr	1	1	2	4
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Papua New Guinea	ndr	1	ndr	1	3	1	6
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	ndr	ndr	ndr	1	ndr	ndr	1
Philippines	3	ndr	1	5	1	3	13
Poland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	1	ndr	ndr	ndr	ndr	ndr	1
Romania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Russian Federation	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Rwanda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	1	ndr	ndr	ndr	ndr	1
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	ndr	ndr
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Soviet Union (former)	ndr	ndr	ndr	ndr	x	x	ndr
Spain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 16 - Total number of volcanic disasters: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tajikistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	ndr	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	ndr	1	ndr	1
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United States	ndr	1	ndr	ndr	ndr	1	2
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vanuatu	ndr	ndr	ndr	ndr	ndr	1	1
Venezuela	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yougoslavia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	15	17	18	24	24	25	123

Table 16 - Total number of volcanic disasters: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	3	ndr	ndr	1	ndr	ndr	4
Middle	1	ndr	2	ndr	ndr	3	6
Northern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Southern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western	ndr	ndr	ndr	ndr	1	ndr	1
Total	4	ndr	2	1	1	3	11
Americas							
Caribbean	1	1	ndr	ndr	4	ndr	6
Central	2	2	2	3	8	7	24
Northern	ndr	1	ndr	ndr	ndr	1	2
Southern	3	ndr	3	5	ndr	5	16
Total	6	4	5	8	12	13	48
Asia							
Eastern	1	1	2	3	ndr	2	9
South-Central	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South-East	4	9	8	10	6	4	41
Western	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	5	10	10	13	6	6	50
Europe							
Eastern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern	ndr	1	1	ndr	1	ndr	3
Southern	ndr	1	ndr	1	ndr	1	3
Western	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	ndr	2	1	1	1	1	6
Oceania							
Australia - New Zealand	ndr	ndr	ndr	ndr	1	ndr	1
Melanesia	ndr	1	ndr	1	3	2	7
Micronesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	ndr	1	ndr	1	4	2	8
World	15	17	18	24	24	25	123

ndr: no disaster reported

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Albania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Algeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
American Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Anguilla	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Antigua and Barbuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Argentina	ndr	ndr	ndr	37.74	ndr	ndr	6.29
Armenia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Austria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azerbaijan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Azores	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahamas, The	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Barbados	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belarus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belgium	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Belize	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Benin	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bermuda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bhutan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bolivia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bosnia and Herzegovina	x	x	x	ndr	ndr	ndr	ndr
Botswana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brazil	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burkina Faso	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Burundi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cambodia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cameroon	ndr	ndr	23.38	ndr	ndr	4.16	4.59
Canada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Canary Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cape Verde	ndr	ndr	ndr	ndr	333.19	ndr	55.53
Cayman Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Central African Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chad	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	ndr	ndr	18.93	95.18	ndr	ndr	19.02
China	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	ndr	ndr	53.93	0.01	ndr	ndr	8.99
Comoros	1,640.81	ndr	ndr	9.06	ndr	ndr	274.98
Congo, Dem. Rep. of the	6.26	ndr	ndr	ndr	ndr	47.33	8.93
Congo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cook Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Costa Rica	683.43	ndr	ndr	na	2.51	ndr	114.32
Côte d'Ivoire	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Croatia	x	x	x	ndr	ndr	ndr	ndr
Cuba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Cyprus	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Czech Republic	x	x	x	ndr	ndr	ndr	ndr
Czechoslovakia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Denmark	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Djibouti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Dominican Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ecuador	70.70	ndr	ndr	ndr	ndr	331.82	67.09
Egypt	ndr	ndr	ndr	ndr	ndr	ndr	ndr
El Salvador	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	ndr	ndr	ndr	ndr
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	0.03	ndr	ndr	ndr	ndr	ndr	0.01
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Finland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
France	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Guiana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
French Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gabon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Georgia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Germany	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ghana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guadeloupe	4,485.10	ndr	ndr	ndr	ndr	ndr	747.52
Guam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guatemala	ndr	8.86	14.24	9.79	2.29	1.25	6.07
Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guinea-Bissau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Guyana	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Haiti	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Honduras	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hong Kong, China (SAR)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Hungary	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iceland	ndr	na	0.00	na	0.00	na	na
India	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	0.01	54.01	6.19	6.04	1.64	0.43	11.39
Iran, Islamic Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Iraq	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ireland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Israel	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Italy	ndr	0.01	ndr	2.47	ndr	na	0.41
Jamaica	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Japan	1.76	0.94	2.14	8.85	ndr	2.59	2.71
Jordan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kazakhstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kenya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kiribati	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Dem. People's Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Korea, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kuwait	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Kyrgyzstan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lao People's Dem. Rep.	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Latvia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lebanon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lesotho	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liberia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Luxembourg	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macao, China	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Macedonia, TFYR	x	x	x	ndr	ndr	ndr	ndr
Madagascar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malawi	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malaysia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Maldives	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mali	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Martinique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mauritius	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	ndr	11.33	ndr	ndr	16.74	8.34	6.07
Micronesia, Fed. States of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Moldova, Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Montserrat	ndr	ndr	ndr	ndr	23,674.94	ndr	3,945.82
Morocco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mozambique	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Myanmar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Namibia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Netherlands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Netherlands Antilles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Caledonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
New Zealand	ndr	ndr	ndr	ndr	0.39	ndr	0.07
Nicaragua	ndr	ndr	ndr	1,571.05	56.15	26.33	275.59
Niger	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Nigeria	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Niue	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Oman	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Pakistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Papua New Guinea	ndr	155.43	ndr	na	726.06	50.27	155.29
Paraguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Peru	ndr	ndr	ndr	3.64	ndr	ndr	0.61
Philippines	15.85	ndr	25.02	365.52	0.70	27.68	72.46
Poland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Portugal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Puerto Rico	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	40.64	ndr	ndr	ndr	ndr	ndr	6.77
Romania	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Russian Federation	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Rwanda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Helena	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Kitts and Nevis	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Lucia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	ndr	4,123.61	ndr	ndr	ndr	ndr	687.27
Samoa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saudi Arabia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Senegal	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Serbia and Montenegro	x	x	x	ndr	ndr	ndr	ndr
Seychelles	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sierra Leone	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	ndr	ndr	ndr
Slovenia	x	x	x	ndr	ndr	ndr	ndr
Solomon Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Somalia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South Africa	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Soviet Union (former)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Spain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sri Lanka	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sudan	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003 (continued) By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Sweden	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Switzerland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Syrian Arab Republic	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Taiwan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tajikistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tanzania, U. Rep. of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Thailand	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Timor-Leste	x	x	x	x	x	ndr	ndr
Togo	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tokelau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tonga	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Trinidad and Tobago	ndr	ndr	ndr	ndr	3.50	ndr	0.58
Tunisia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkey	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turkmenistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Turks and Caicos	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Tuvalu	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uganda	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ukraine	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United States	ndr	0.23	ndr	ndr	ndr	na	0.04
Uruguay	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Uzbekistan	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vanuatu	ndr	ndr	ndr	ndr	ndr	518.38	86.40
Venezuela	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Vietnam	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.K.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Wallis and Futuna	ndr	ndr	ndr	ndr	ndr	ndr	ndr
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yougoslavia (former)	ndr	ndr	ndr	ndr	x	x	ndr
Zambia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Zimbabwe	ndr	ndr	ndr	ndr	ndr	ndr	ndr
World	1.20	2.31	1.02	6.58	1.01	1.80	2.32

Table 17 - Mean annual number of victims (people killed and affected) of volcanic disasters per 100,000 inhabitants: 1974 - 2003

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	3.94	ndr	ndr	0.02	ndr	ndr	0.66
Middle	3.30	ndr	3.91	ndr	ndr	27.11	5.72
Northern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Southern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western	ndr	ndr	ndr	ndr	0.61	ndr	0.10
Total	1.57	ndr	0.44	0.01	0.18	3.18	0.90
Americas							
Caribbean	54.28	13.92	ndr	ndr	7.50	ndr	12.61
Central	16.98	9.24	1.17	53.22	14.60	7.13	17.06
Northern	ndr	0.21	ndr	ndr	ndr	na	0.03
Southern	2.26	ndr	6.78	8.66	ndr	12.39	5.02
Total	5.94	2.13	2.92	12.02	2.67	6.36	5.34
Asia							
Eastern	0.18	0.09	0.20	0.79	ndr	0.22	0.25
South-Central	ndr	ndr	ndr	ndr	ndr	ndr	ndr
South-East	2.17	22.78	6.12	55.31	0.79	4.34	15.25
Western	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	0.39	3.27	0.96	8.22	0.11	0.72	2.28
Europe							
Eastern	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Northern	ndr	na	na	ndr	na	ndr	na
Southern	ndr	na	ndr	0.98	ndr	na	0.16
Western	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	ndr	na	na	0.18	na	na	0.03
Oceania							
Australia - New Zealand	ndr	ndr	ndr	ndr	0.06	ndr	ndr
Melanesia	ndr	113.05	ndr	na	536.02	52.30	116.90
Micronesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Polynesia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Total	ndr	20.93	ndr	na	109.12	11.45	23.58
World	1.20	2.31	1.02	6.58	1.01	1.80	2.32

ndr: no disaster reported

na : number of victims or population data not available

x: not applicable

Note: for certain territories and CIS countries, see the note in table 3.

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	1	2	3	3	na	na	9
Albania	ndr	1	na	1	1	1	4
Algeria	1	1	2	1	na	3	8
American Samoa	ndr	ndr	na	3	ndr	1	4
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	na	na	na	na	1	1
Anguilla	ndr	1	1	ndr	ndr	1	3
Antigua and Barbuda	ndr	ndr	ndr	1	1	ndr	2
Argentina	1	2	7	6	1	4	21
Armenia	ndr	ndr	1	ndr	3	1	5
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	23	23	14	15	20	15	110
Austria	na	na	2	6	1	2	11
Azerbaijan	ndr	ndr	ndr	ndr	4	2	6
Azores	ndr	1	ndr	ndr	2	ndr	3
Bahamas, The	ndr	ndr	na	1	ndr	1	2
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	3	1	3	3	7	1	18
Barbados	ndr	1	1	ndr	na	na	2
Belarus	ndr	ndr	ndr	1	1	2	4
Belgium	na	1	1	4	1	1	8
Belize	2	na	ndr	2	1	2	7
Benin	2	1	3	na	1	1	8
Bermuda	ndr	ndr	3	na	ndr	1	4
Bhutan	ndr	ndr	ndr	ndr	na	1	1
Bolivia	2	4	2	2	na	3	13
Bosnia and Herzegovina	x	x	x	ndr	ndr	2	2
Botswana	1	na	na	na	na	na	1
Brazil	4	2	8	1	6	4	25
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	na	na	1	na	na	2	3
Burkina Faso	2	na	na	na	na	na	2
Burundi	ndr	ndr	ndr	na	ndr	na	na
Cambodia	ndr	ndr	na	na	1	3	na
Cameroon	na	na	na	na	na	na	na
Canada	4	5	9	5	5	5	na
Canary Islands	ndr	ndr	ndr	ndr	ndr	2	2
Cape Verde	1	1	na	na	na	ndr	2
Cayman Islands	ndr	ndr	ndr	ndr	ndr	na	na
Central African Republic	ndr	1	na	ndr	na	na	na
Chad	2	na	2	na	na	na	4
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	2	1	4	5	4	6	22
China	1	5	22	47	40	57	172

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	na	4	4	1	1	1	11
Comoros	ndr	1	2	1	na	ndr	4
Congo, Dem. Rep. of the	na	na	na	na	na	1	1
Congo	ndr	na	ndr	ndr	1	na	1
Cook Islands	ndr	na	1	na	na	na	1
Costa Rica	na	2	2	2	2	1	9
Côte d'Ivoire	ndr	na	ndr	na	na	ndr	na
Croatia	x	x	x	ndr	na	3	na
Cuba	na	2	na	2	3	1	8
Cyprus	ndr	na	ndr	na	1	na	1
Czech Republic	x	x	x	ndr	1	1	2
Czechoslovakia (former)	na	na	3	ndr	x	x	3
Denmark	na	1	na	3	na	1	5
Djibouti	1	na	na	1	1	na	3
Dominica	ndr	1	1	1	1	na	4
Dominican Republic	ndr	2	1	1	1	1	6
Ecuador	1	2	1	3	2	2	11
Egypt	ndr	1	na	1	2	na	4
El Salvador	ndr	2	1	na	na	4	7
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	1	na	na	1
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	1	na	na	na	2	na	3
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	1	4	5	3	1	2	16
Finland	ndr	ndr	ndr	1	ndr	ndr	1
France	na	3	4	11	2	5	25
French Guiana	ndr	ndr	ndr	ndr	na	ndr	na
French Polynesia	ndr	2	na	ndr	na	ndr	na
Gabon	ndr	ndr	na	ndr	ndr	ndr	na
Gambia	2	na	na	ndr	na	na	na
Georgia	ndr	na	1	1	na	2	4
Germany	4	1	2	8	4	3	22
Ghana	na	na	na	na	1	1	2
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	2	2	3	1	3	2	13
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	1	1	ndr	na	ndr	1	3
Guadeloupe	na	1	na	1	ndr	na	2
Guam	1	ndr	1	2	1	1	6
Guatemala	1	2	na	na	na	1	4
Guinea	ndr	1	ndr	na	na	na	1
Guinea-Bissau	2	na	na	na	na	na	2
Guyana	ndr	ndr	na	na	1	na	1
Haiti	na	1	1	na	1	na	3
Honduras	2	2	na	2	2	2	10
Hong Kong, China (SAR)	1	4	1	9	1	na	16
Hungary	ndr	ndr	na	1	na	4	5
Iceland	na	na	na	ndr	3	1	4
India	8	13	16	15	12	19	83

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	3	13	10	12	11	8	57
Iran, Islamic Rep. of	1	6	4	11	9	12	43
Iraq	ndr	ndr	ndr	na	ndr	na	na
Ireland	ndr	na	na	4	ndr	na	na
Israel	ndr	na	ndr	1	1	2	4
Italy	4	4	9	7	4	10	38
Jamaica	na	1	5	2	1	3	12
Japan	7	8	5	12	4	10	46
Jordan	ndr	na	na	1	na	na	1
Kazakhstan	ndr	ndr	ndr	1	1	1	3
Kenya	1	na	na	na	1	na	2
Kiribati	ndr	ndr	ndr	ndr	ndr	na	na
Korea, Dem. People's Rep. of	na	na	na	na	2	2	na
Korea, Rep. of	5	4	8	7	7	10	41
Kuwait	ndr	ndr	ndr	ndr	na	ndr	na
Kyrgyzstan	ndr	ndr	ndr	2	2	1	na
Lao People's Dem. Rep.	na	na	na	5	na	na	5
Latvia	ndr	ndr	ndr	ndr	ndr	na	na
Lebanon	ndr	na	1	1	ndr	na	na
Lesotho	ndr	na	na	na	na	na	na
Liberia	ndr	na	ndr	1	na	ndr	na
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	1	ndr	1
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	2	ndr	na	2
Luxembourg	ndr	na	ndr	5	ndr	ndr	5
Macao, China	ndr	ndr	ndr	na	ndr	ndr	na
Macedonia, TFYR	x	x	x	na	1	1	na
Madagascar	3	3	2	na	1	2	11
Malawi	na	na	na	1	1	na	2
Malaysia	na	na	1	na	1	1	3
Maldives	ndr	ndr	1	na	ndr	ndr	1
Mali	2	na	na	na	na	na	2
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	na	ndr	ndr	na
Martinique	ndr	2	ndr	1	ndr	na	na
Mauritania	2	1	na	na	na	na	3
Mauritius	1	3	na	1	1	1	7
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	2	5	3	3	7	8	28
Micronesia, Fed. States of	ndr	ndr	1	ndr	1	na	2
Moldova, Rep. of	ndr	ndr	1	na	2	3	6
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	2	1	2	5
Montserrat	ndr	ndr	ndr	1	1	ndr	2
Morocco	na	na	na	ndr	2	3	5
Mozambique	3	na	2	na	1	2	8
Myanmar	na	1	ndr	2	2	na	5
Namibia	ndr	na	ndr	na	na	1	1
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	1	2	3	2	2	2	12
Netherlands	na	ndr	1	6	2	1	10
Netherlands Antilles	ndr	ndr	ndr	1	1	ndr	2
New Caledonia	na	1	ndr	na	ndr	1	2
New Zealand	na	1	3	1	1	4	10
Nicaragua	na	1	1	2	5	2	11
Niger	3	na	1	ndr	na	na	4
Nigeria	na	ndr	2	na	1	4	7
Niue	ndr	ndr	ndr	na	ndr	ndr	na
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	na
Norway	ndr	ndr	na	3	1	na	4
Oman	na	na	ndr	ndr	ndr	na	na
Pakistan	2	1	1	4	1	2	na
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	na	na	2	2	na	1	5
Papua New Guinea	ndr	2	3	3	1	na	9
Paraguay	ndr	1	na	na	1	na	2
Peru	4	7	3	3	2	1	20
Philippines	27	31	24	29	24	21	156
Poland	na	2	1	na	1	1	5
Portugal	ndr	4	1	na	1	1	7
Puerto Rico	na	na	na	2	na	2	4
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	na	1	1	1	ndr	na	3
Romania	2	na	1	2	4	4	13
Russian Federation	ndr	na	1	8	7	14	30
Rwanda	na	ndr	na	ndr	ndr	na	na
Saint Helena	ndr	ndr	ndr	ndr	ndr	na	na
Saint Kitts and Nevis	ndr	ndr	1	1	1	1	4
Saint Lucia	ndr	2	1	ndr	na	na	3
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	1	2	na	ndr	na	3
Samoa	ndr	2	ndr	3	ndr	1	6
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	na	na	ndr	ndr	ndr	na
Saudi Arabia	ndr	na	1	ndr	ndr	na	na
Senegal	4	1	na	na	na	1	6
Serbia and Montenegro	x	x	x	na	ndr	na	na
Seychelles	ndr	ndr	ndr	ndr	1	na	na
Sierra Leone	1	ndr	na	ndr	na	na	1
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	1	2	3
Slovenia	x	x	x	ndr	na	ndr	na
Solomon Islands	na	na	1	na	na	na	na
Somalia	na	na	na	na	na	na	na
South Africa	na	1	4	1	1	5	na
Soviet Union (former)	ndr	1	na	na	x	x	1
Spain	1	5	5	1	3	2	17
Sri Lanka	1	1	2	5	1	1	11
Sudan	1	na	na	1	1	1	4

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	na	1	na	1	na	2
Sweden	2	ndr	1	1	ndr	na	4
Switzerland	na	2	4	5	1	3	15
Syrian Arab Republic	1	na	ndr	ndr	ndr	na	1
Taiwan	2	na	2	1	6	7	18
Tajikistan	na	ndr	2	4	1	8	15
Tanzania, U. Rep. of	1	na	na	1	na	na	2
Thailand	2	2	6	10	6	8	34
Timor-Leste	x	x	x	x	x	na	na
Togo	ndr	na	ndr	na	na	na	na
Tokelau	ndr	ndr	1	1	ndr	ndr	na
Tonga	2	2	ndr	1	1	1	7
Trinidad and Tobago	1	ndr	ndr	2	1	ndr	4
Tunisia	na	1	na	1	ndr	na	2
Turkey	2	2	1	1	4	5	15
Turkmenistan	ndr	1	ndr	1	ndr	na	2
Turks and Caicos	ndr	ndr	1	na	ndr	ndr	1
Tuvalu	ndr	ndr	na	na	ndr	ndr	na
Uganda	ndr	na	na	na	2	na	na
Ukraine	ndr	ndr	na	3	1	2	6
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	1	na	4	7	8	5	25
United States	7	29	57	125	8ndr	55	353
Uruguay	ndr	ndr	na	na	1	2	3
Uzbekistan	1	ndr	1	ndr	na	1	3
Vanuatu	ndr	1	2	1	na	na	4
Venezuela	ndr	1	2	1	2	1	7
Vietnam	na	na	na	10	15	17	42
Virgin Islands (U.K.)	ndr	ndr	ndr	1	2	ndr	3
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	1	1	2
Wallis and Futuna	ndr	ndr	na	na	ndr	ndr	na
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	na
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	1	4	ndr	2	1	na	8
Yougoslavia (former)	ndr	5	na	1	x	x	6
Zambia	1	na	ndr	na	1	na	2
Zimbabwe	1	1	1	ndr	1	3	7
World	186	279	344	525	416	462	2,212

Table 18 - Total number of natural disasters with economic damages reported: 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	13	9	8	7	13	8	58
Middle	2	1	2	0	1	2	8
Northern	2	3	2	4	6	9	26
Southern	1	1	5	1	2	6	16
Western	21	5	6	1	3	7	43
Total	39	19	23	13	25	32	151
Americas							
Caribbean	2	16	15	18	15	12	78
Central	7	14	9	13	17	21	81
Northern	11	34	69	130	85	61	390
Southern	14	24	31	22	21	24	136
Total	34	88	124	183	138	118	685
Asia							
Eastern	16	21	38	78	61	88	302
South-Central	18	27	36	51	36	49	217
South-East	32	47	41	68	60	58	306
Western	4	6	5	7	14	12	48
Total	70	101	120	204	171	207	873
Europe							
Eastern	2	3	8	15	18	35	81
Northern	3	1	5	21	12	7	49
Southern	7	22	18	11	15	22	95
Western	4	7	14	45	11	15	96
Total	16	33	45	92	56	79	321
Oceania							
Australia - New Zealand	23	24	17	16	21	19	120
Melanesia	1	8	11	7	2	3	32
Micronesia	1	0	2	2	2	1	8
Polynesia	2	6	2	8	1	3	22
Total	27	38	32	33	26	26	182
World	186	279	344	525	416	462	2,212

ndr: no disaster reported

na : no economic damage data available

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003

By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Afghanistan	147	7	418	117	na	na	689
Albania	ndr	10	na	9	2	18	38
Algeria	112	11,635	3	7	na	5,380	17,137
American Samoa	ndr	ndr	na	517	ndr	50	567
Andorra	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Angola	ndr	na	na	na	na	10	10
Anguilla	ndr	0	4	ndr	ndr	0	4
Antigua and Barbuda	ndr	ndr	ndr	119	1	ndr	119
Argentina	243	3,334	4,412	2,128	2,828	1,337	14,282
Armenia	ndr	ndr	31,953	ndr	48	107	32,108
Aruba	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Australia	8,232	15,044	878	6,720	4,475	2,251	37,601
Austria	na	na	361	743	0	2,130	3,234
Azerbaijan	ndr	ndr	ndr	ndr	48	113	161
Azores	ndr	11	ndr	ndr	96	ndr	107
Bahamas, The	ndr	ndr	na	329	ndr	260	589
Bahrain	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bangladesh	2,322	336	7,980	2,638	4,040	535	17,851
Barbados	ndr	3	162	ndr	na	na	166
Belarus	ndr	ndr	ndr	128	172	37	337
Belgium	na	93	28	1,278	35	1	1,435
Belize	32	na	ndr	6	1	336	375
Benin	89	0	9	na	4	0	102
Bermuda	ndr	ndr	87	na	ndr	300	387
Bhutan	ndr	ndr	ndr	ndr	na	4	4
Bolivia	70	2,553	160	657	na	188	3,628
Bosnia and Herzegovina	x	x	x	ndr	ndr	419	419
Botswana	34	na	na	na	na	na	34
Brazil	9,883	648	6,722	34	886	269	18,443
Brunei	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Bulgaria	na	na	8	na	na	22	31
Burkina Faso	89	na	na	na	na	na	89
Burundi	ndr	ndr	ndr	na	ndr	na	na
Cambodia	ndr	ndr	na	na	4	162	166
Cameroon	na	na	na	na	na	na	na
Canada	409	6,284	4,233	3,375	1,915	665	16,881
Canary Islands	ndr	ndr	ndr	ndr	ndr	541	541
Cape Verde	44	6	na	na	na	ndr	50
Cayman Islands	ndr	ndr	ndr	ndr	ndr	na	na
Central African Republic	ndr	0	na	ndr	na	na	0
Chad	89	na	129	na	na	na	218
Channel Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Chile	58	2	2,887	485	279	607	4,318
China	22,650	5,044	11,461	33,622	76,417	31,085	180,279

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Colombia	na	842	2,505	1	3	3,209	6,560
Comoros	ndr	43	24	8	na	ndr	75
Congo, Dem. Rep. of the	na	na	na	na	na	9	9
Congo	ndr	na	ndr	ndr	0	na	0
Cook Islands	ndr	na	41	na	na	na	41
Costa Rica	na	11	108	705	298	1	1,122
Côte d'Ivoire	ndr	na	ndr	na	na	ndr	na
Croatia	x	x	x	ndr	na	369	369
Cuba	na	274	na	1,455	245	91	2,064
Cyprus	ndr	na	ndr	na	5	na	5
Czech Republic	x	x	x	ndr	173	2,045	2,218
Czechoslovakia (former)	na	na	54	ndr	x	x	54
Denmark	na	507	na	2,180	na	305	2,993
Djibouti	8	na	na	2	3	na	12
Dominica	ndr	113	4	30	4	na	151
Dominican Republic	ndr	486	38	149	2,481	2	3,156
Ecuador	13	455	1,136	687	320	14	2,625
Egypt	ndr	36	na	199	175	na	410
El Salvador	ndr	545	1,732	ndr	ndr	2,940	5,217
Equatorial Guinea	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Eritrea	x	x	x	7	na	na	7
Estonia	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Ethiopia	261	na	na	na	22	na	283
Faroe Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Fiji	3	155	230	485	31	30	935
Finland	ndr	ndr	ndr	346	ndr	ndr	346
France	na	1,798	3,148	3,330	808	15,088	24,172
French Guiana	ndr	ndr	ndr	ndr	na	ndr	na
French Polynesia	ndr	69	na	ndr	na	ndr	69
Gabon	ndr	ndr	na	ndr	ndr	ndr	na
Gambia	89	na	na	ndr	na	na	89
Georgia	ndr	na	730	2,302	na	337	3,369
Germany	5,645	203	1,803	2,389	1,896	11,116	23,053
Ghana	na	na	na	na	15	23	38
Gibraltar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Greece	2,910	1,659	582	1,410	1,387	1,376	9,323
Greenland	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Grenada	16	12	ndr	na	ndr	6	34
Guadeloupe	na	254	na	149	ndr	na	402
Guam	388	ndr	0	713	230	72	1,403
Guatemala	3,236	201	na	na	na	15	3,451
Guinea	ndr	15	ndr	na	na	na	15
Guinea-Bissau	89	na	na	na	na	na	89
Guyana	ndr	ndr	na	na	33	na	33
Haiti	na	89	142	na	90	na	322
Honduras	2,025	226	na	146	2,299	122	4,818
Hong Kong, China (SAR)	130	634	0	543	5	na	1,312
Hungary	ndr	ndr	na	505	na	493	998
Iceland	na	na	na	ndr	26	13	39
India	5,986	5,885	5,450	9,626	6,205	10,226	43,378

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Indonesia	638	736	130	232	20,302	82	22,121
Iran, Islamic Rep. of	31	2,071	2,910	13,526	634	11,708	30,879
Iraq	ndr	ndr	ndr	na	ndr	na	na
Ireland	ndr	na	na	1,276	ndr	na	1,276
Israel	ndr	na	ndr	723	54	86	863
Italy	605	46,154	2,971	3,817	16,855	3,875	74,276
Jamaica	na	143	1,746	55	4	1,165	3,113
Japan	8,312	1,303	694	11,311	159,438	6,869	187,928
Jordan	ndr	na	na	526	na	na	526
Kazakhstan	ndr	ndr	ndr	41	4	2	46
Kenya	30	na	na	na	14	na	44
Kiribati	ndr	ndr	ndr	ndr	ndr	na	na
Korea, Dem. People's Rep. of	na	na	na	na	20,149	6,588	26,737
Korea, Rep. of	479	447	1,397	1,565	1,830	6,616	12,334
Kuwait	ndr	ndr	ndr	ndr	na	ndr	na
Kyrgyzstan	ndr	ndr	ndr	212	47	2	260
Lao People's Dem. Rep.	na	na	na	421	na	na	421
Latvia	ndr	ndr	ndr	ndr	ndr	na	na
Lebanon	ndr	na	16	204	ndr	na	220
Lesotho	ndr	na	na	na	na	na	na
Liberia	ndr	na	ndr	66	na	ndr	66
Libyan Arab Jamahiriya	ndr	ndr	ndr	ndr	51	ndr	51
Liechtenstein	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Lithuania	ndr	ndr	ndr	75	ndr	na	75
Luxembourg	ndr	na	ndr	1,673	ndr	ndr	1,673
Macao, China	ndr	ndr	ndr	na	ndr	ndr	na
Macedonia, TFYR	x	x	x	na	424	15	438
Madagascar	1,202	1,031	696	na	12	150	3,092
Malawi	na	na	na	42	0	na	42
Malaysia	na	na	19	na	2	4	25
Maldives	ndr	ndr	10	na	ndr	ndr	10
Mali	89	na	na	na	na	na	89
Malta	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Man, Isle of	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Marshall Islands	ndr	ndr	ndr	na	ndr	ndr	na
Martinique	ndr	279	ndr	149	ndr	na	428
Mauritania	89	65	na	na	na	na	154
Mauritius	686	446	na	89	168	194	1,583
Mayotte	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mexico	392	232	9,345	2,197	3,002	2,131	17,298
Micronesia, Fed. States of	ndr	ndr	10	ndr	3	na	13
Moldova, Rep. of	ndr	ndr	1,228	na	169	39	1,436
Monaco	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Mongolia	ndr	ndr	na	168	2,013	937	3,118
Montserrat	ndr	ndr	ndr	357	9	ndr	366
Morocco	na	na	na	ndr	76	10	85
Mozambique	381	na	134	ndr	16	30	562
Myanmar	na	28	ndr	748	56	na	832
Namibia	ndr	na	ndr	na	na	1	1
Nauru	ndr	ndr	ndr	ndr	ndr	ndr	ndr

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Nepal	1	567	1,280	263	50	9	2,171
Netherlands	na	ndr	28	1,501	2,152	102	3,783
Netherlands Antilles	ndr	ndr	ndr	149	18	ndr	167
New Caledonia	na	0	ndr	na	ndr	40	40
New Zealand	na	6	410	68	85	213	781
Nicaragua	na	680	623	141	1,345	11	2,801
Niger	93	na	16	ndr	na	na	109
Nigeria	na	ndr	135	na	83	13	231
Niue	ndr	ndr	ndr	na	ndr	ndr	na
Northern Mariana Islands	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Norway	ndr	ndr	na	526	363	na	889
Oman	na	na	ndr	ndr	ndr	na	na
Pakistan	1,646	6	9	1,330	410	513	3,914
Palau	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Panama	na	na	94	27	na	1	122
Papua New Guinea	ndr	68	7	11	498	na	584
Paraguay	ndr	152	na	na	2	na	154
Peru	127	2,148	44	381	1,441	30	4,171
Philippines	1,856	831	1,828	3,428	1,858	193	9,994
Poland	na	105	812	na	4,940	260	6,117
Portugal	ndr	433	163	na	15	1,730	2,341
Puerto Rico	na	na	na	411	na	152	563
Qatar	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Reunion	na	150	3	74	ndr	na	227
Romania	6,258	na	8	711	305	670	7,953
Russian Federation	ndr	na	17	26,122	942	970	28,051
Rwanda	na	ndr	na	ndr	ndr	na	na
Saint Helena	ndr	ndr	ndr	ndr	ndr	na	na
Saint Kitts and Nevis	ndr	ndr	1	68	238	46	353
Saint Lucia	ndr	199	1,559	ndr	na	na	1,758
Saint Pierre and Miquelon	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Saint Vincent and The Grenadines	na	36	17	na	ndr	na	53
Samoa	ndr	117	ndr	568	ndr	2	687
San Marino	ndr	ndr	ndr	ndr	ndr	ndr	ndr
São Tomé and Principe	ndr	na	na	ndr	ndr	ndr	na
Saudi Arabia	ndr	na	771	ndr	ndr	na	771
Senegal	942	3	na	na	na	42	987
Serbia and Montenegro	x	x	x	na	ndr	na	na
Seychelles	ndr	ndr	ndr	ndr	2	na	2
Sierra Leone	12	ndr	na	ndr	na	na	12
Singapore	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Slovak Republic	x	x	x	ndr	28	128	156
Slovenia	x	x	x	ndr	na	ndr	na
Solomon Islands	na	na	34	na	na	na	34
Somalia	na	na	na	na	na	na	na
South Africa	na	2	1,577	554	187	88	2,408
Soviet Union (former)	ndr	11	na	na	ndr	x	11
Spain	71	15,007	3,878	557	6,490	3,590	29,593
Sri Lanka	282	2	5	425	0	29	744
Sudan	71	na	na	0	10	184	265

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003 (continued)
By country and territory

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Suriname	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Swaziland	ndr	na	96	na	2	na	98
Sweden	551	ndr	10	346	ndr	na	907
Switzerland	na	4	1,555	789	79	432	2,859
Syrian Arab Republic	146	na	ndr	ndr	ndr	na	146
Taiwan	764	na	816	46	749	11,419	13,794
Tajikistan	na	ndr	1,073	653	75	133	1,934
Tanzania, U. Rep. of	11	na	na	4	na	na	16
Thailand	1,284	160	1,000	3,455	1,138	207	7,245
Timor-Leste	x	x	x	x	x	na	na
Togo	ndr	na	ndr	na	na	na	na
Tokelau	ndr	ndr	1	3	ndr	ndr	4
Tonga	7	43	ndr	4	16	53	122
Trinidad and Tobago	19	ndr	ndr	0	29	ndr	48
Tunisia	na	172	na	315	ndr	na	487
Turkey	252	80	8	18	1,665	20,566	22,590
Turkmenistan	ndr	9	ndr	127	ndr	na	137
Turks and Caicos	ndr	ndr	0	na	ndr	ndr	0
Tuvalu	ndr	ndr	na	na	ndr	ndr	na
Uganda	ndr	na	na	na	89	na	89
Ukraine	ndr	ndr	na	137	1	217	355
United Arab Emirates	ndr	ndr	ndr	ndr	ndr	ndr	ndr
United Kingdom	3	na	3,187	1,089	4,668	6,696	15,643
United States	15,211	28,060	18,168	109,389	86,095	29,000	285,923
Uruguay	ndr	ndr	na	na	34	293	327
Uzbekistan	275	ndr	9	ndr	na	54	337
Vanuatu	ndr	2	337	8	na	na	347
Venezuela	ndr	10	3	6	96	2,213	2,328
Vietnam	na	na	na	252	1,967	845	3,064
Virgin Islands (U.K.)	ndr	ndr	ndr	201	14	ndr	215
Virgin Islands (U.S.)	ndr	ndr	ndr	ndr	1,815	35	1,850
Wallis and Futuna	ndr	ndr	na	na	ndr	ndr	na
West Bank & Gaza	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Western Sahara	ndr	ndr	ndr	ndr	ndr	ndr	ndr
Yemen	44	5,751	ndr	51	1,410	na	7,256
Yougoslavia (former)	ndr	1,534	na	1,080	x	x	2,615
Zambia	1	na	0	na	23	na	24
Zimbabwe	34	4,778	2	ndr	117	282	5,213
World	108,200	173,581	150,514	275,037	454,882	216,692	1,378,906

Table 19 - Total economic damages reported (2003 US$ million): 1974 - 2003 (continued)

By United Nations region and sub-region

	1974-1978	1979-1983	1984-1988	1989-1993	1994-1998	1999-2003	1974-2003
Africa							
Eastern	2,615	6,448	859	226	467	655	11,270
Middle	89	0	129	0	0	19	237
Northern	183	11,842	3	521	312	6,115	18,976
Southern	34	2	1,673	554	189	89	2,542
Western	1,625	88	160	66	102	78	2,120
Total	4,546	18,380	2,825	1,367	1,070	6,956	35,144
Americas							
Caribbean	35	1,889	3,673	3,619	4,949	1,756	15,921
Central	5,685	1,895	11,902	3,221	6,944	5,558	35,205
Northern	15,620	34,344	22,489	112,764	88,010	29,964	303,191
Southern	10,395	10,144	17,869	4,378	5,921	8,161	56,868
Total	31,734	48,273	55,933	123,982	105,823	45,439	411,185
Asia							
Eastern	32,335	7,427	14,368	47,256	260,601	63,515	425,502
South-Central	10,691	8,883	19,144	28,957	11,465	23,213	102,353
South-East	3,778	1,755	2,978	8,536	25,327	1,493	43,867
Western	442	5,831	33,479	3,823	3,231	21,209	68,015
Total	47,247	23,895	69,968	88,572	300,624	109,429	639,736
Europe							
Eastern	6,258	116	2,136	27,602	6,731	4,883	47,725
Northern	554	507	3,197	5,838	5,057	7,014	22,168
Southern	3,585	64,808	7,602	6,874	25,269	11,390	119,529
Western	5,645	2,097	6,941	11,704	4,971	28,869	60,226
Total	16,042	67,528	19,876	52,018	42,028	52,156	249,648
Oceania							
Australia - New Zealand	8,232	15,050	1,288	6,788	4,560	2,464	38,382
Melanesia	3	226	608	504	529	70	1,940
Micronesia	388	0	10	713	233	72	1,416
Polynesia	7	228	41	1,091	16	105	1,489
Total	8,631	15,504	1,947	9,097	5,337	2,711	43,227
World	108,200	173,581	150,548	275,037	454,882	216,692	1,378,941

ndr: no disaster reported

na: no economic damage data available

x: not applicable

Note: for former Soviet Union, Czechoslovakia, Yougoslavia, and new countries from their break-up, see the note in Table 1.

The publication

Over the last 30 years, 6,367 natural disasters killed more than 2 million people. A cumulative total of 5.1 billion individuals were affected, of which 182 million were left homeless. These same disasters caused US$1.4 trillion worth of damages.

Data on natural disasters and their impact on populations and economies play an essential role in understanding the factors that increase human vulnerability and the importance of disaster preparedness, mitigation and prevention.

The public

Policy analysts, aid and development specialists, researchers and journalists are invited to read this book to familiarize themselves with the occurrence and impact of natural disasters. Engineers, environmental and insurance specialists and other technical professionals will also find this publication valuable.

The authors

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About CRED

The Centre for Research on the Epidemiology of Disasters is based at the School of Public Health of the Université catholique de Louvain in Brussels, Belgium. For over 30 years, the centre has been involved in multidisciplinary research, training and information dissemination on disasters and conflicts, with a special focus on public health and socio-economic impacts.

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