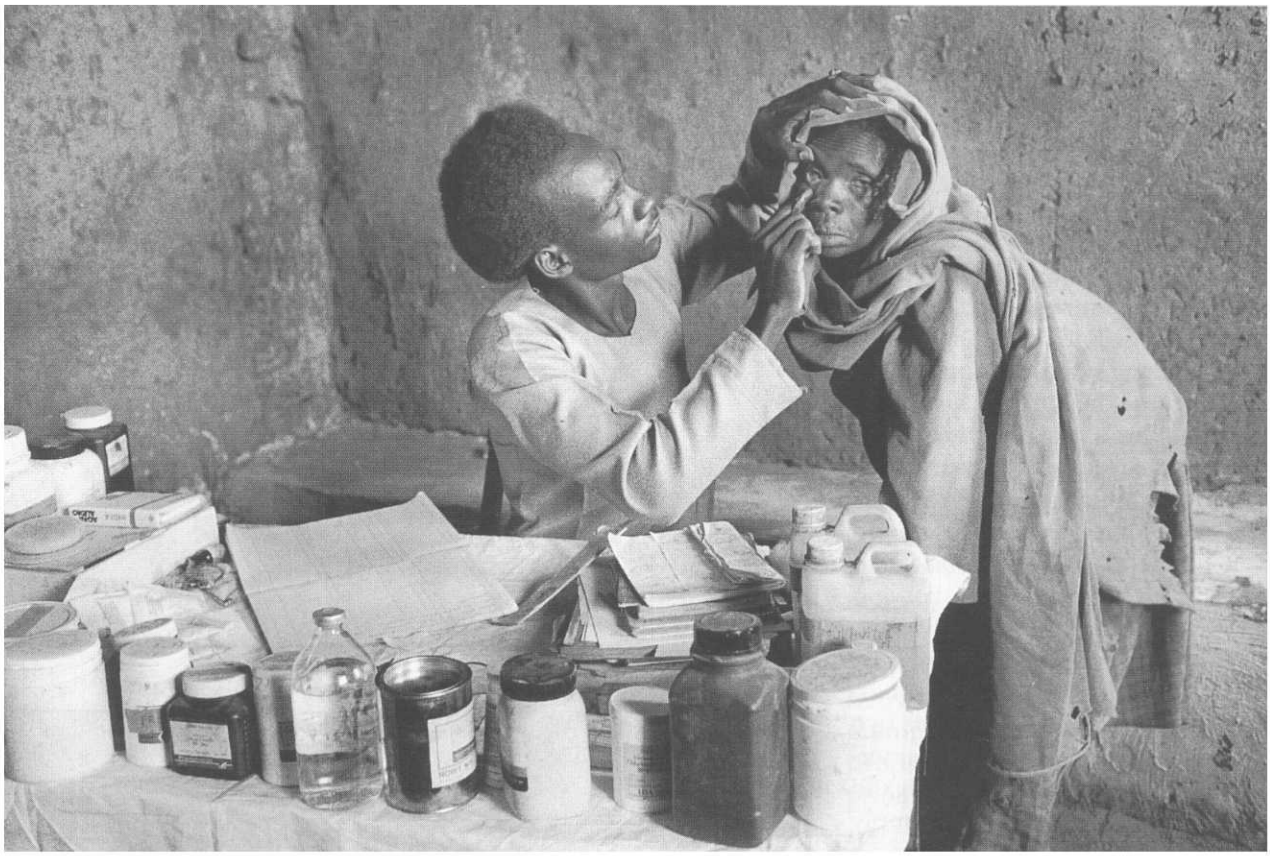


Foreign medical teams: In every disaster it is local health workers who act first and are best equipped to deal with local conditions using their knowledge and experience. Foreign medical teams may play a supportive role. Sudan, 1985. SebastiaoSalgado/Magnum

The limitations of urban planning in many cities, such as Manila or Sao Paulo, has placed large areas and their inhabitants at high risk of floods. Growing migration from countryside to towns throughout the world has forced people to live in ravines and on slopes in earthquake-prone cities such as Guatemala City, rendering them highly vulnerable to landslides and mudslides.

Finally, global warming and other environmental phenomena may be aggravating weather conditions, resulting in more frequent storms and sea surges. The serious setbacks to sustainable development these disasters represent to many developing countries have belatedly been recognised. They need long-term solutions, not just temporary relief.

Relief costs

Along with the increasing number of disasters and their growing human and economic effects in developing countries, the cost of effective relief and rehabilitation is also increasing. The resources used each year by the international and national communities responding to these crises are growing fast. In the current economic climate, providers of funds are increasingly concerned about financial efficiency and long-term sustainability of relief and rehabilitation measures.

The impact of relief, its efficiency and suitability have also been questioned. Research has noted that two of the major problems with emergency assistance are time lags in delivery and aid which is simply inappropriate.

A study in Hebei province in China in the early 1980s, for instance, showed that nearly 90% of the trapped earthquake victims who were extricated alive were brought

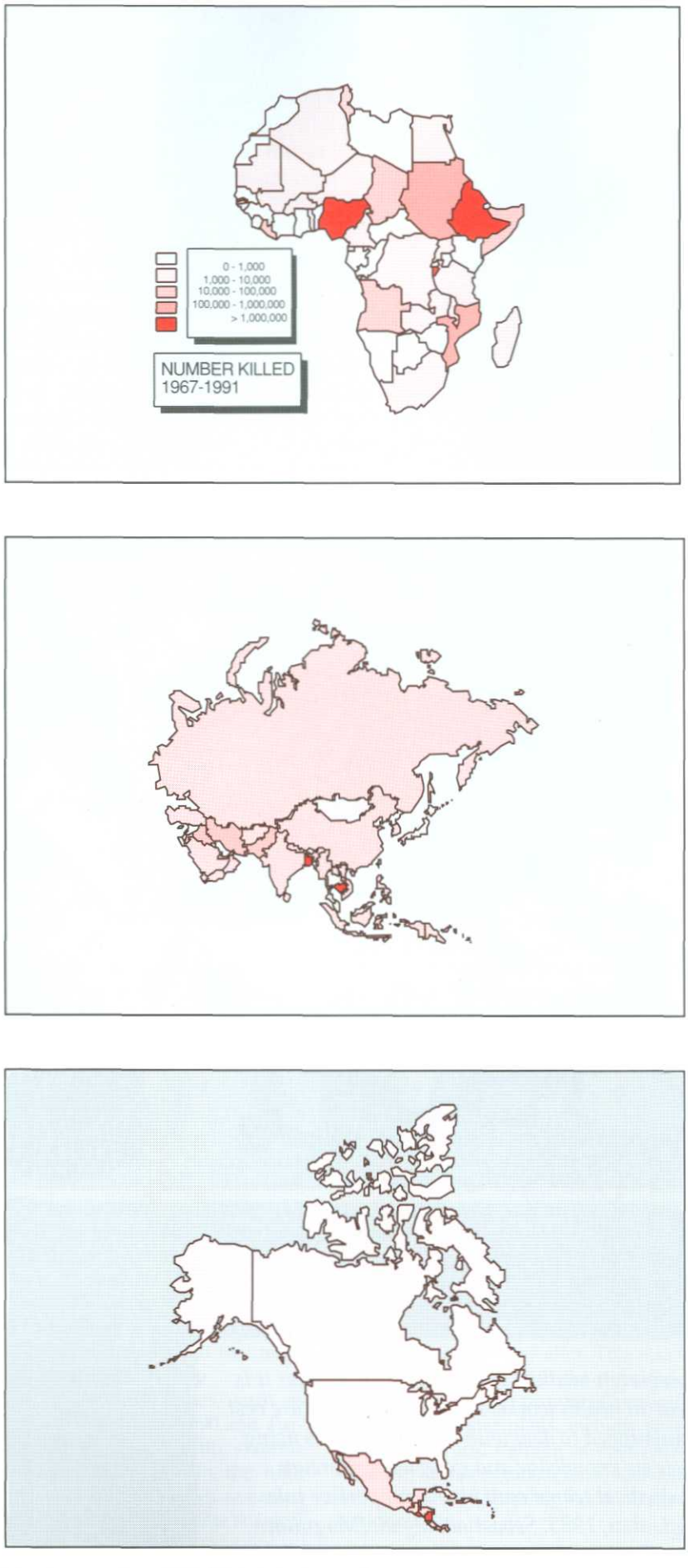
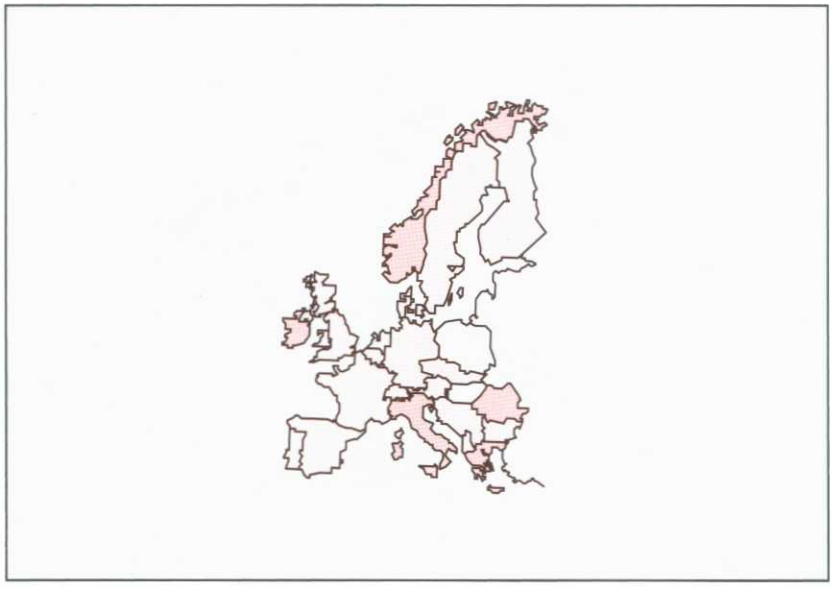
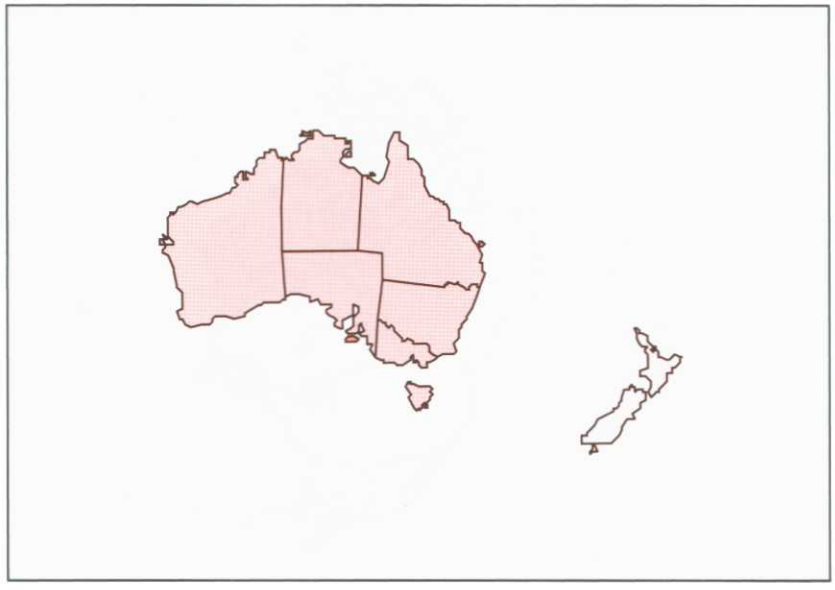


Figure 6: Numbers killed in disasters 1967-1991 inclusive. As these six maps show, it is the poorest countries and those with the largest populations which have sustained the most deaths from disasters in the past 25 years.





out within the first 24 hours. In that first day, of every 100 people found, more than 80 were alive. By the second day only one in three was still alive. Similar patterns of survival rates overtime have been noted in earthquakes in Italy in 1980 and Mexico in 1985.

These examples underscore the importance of local help in immediate emergency action. To hope for international assistance to reach an afflicted area within a few hours of a disaster is not realistic. Adequate local technical and administrative preparation is clearly the best approach.

Inappropriate relief assistance is also a critical issue. A study in Armenia following the 1988 earthquake revealed that more than 20% of the drugs donated were out-of-date before arrival or within a few days. Only 30% were both useful and sufficiently well labelled that they could have been used immediately in full confidence. Screening huge shipments of such medicines creates additional burdens for already overstretched aid workers.

Most countries and international organisations have been slow to help people become less vulnerable to disasters. Administrative and policy boundaries between emergency relief and development programmes often prevent shifting resources from one sector to the other. Despite wide recognition of the need for longer-term disaster preparedness programmes to protect vulnerable people, they continue to have a low priority in most at-risk countries.

Comparative trends

Over the past 25 years, more than 20 countries have suffered natural disasters in which the official statistics record that more than 10,000 people were killed. Seven of these countries have had more than 100,000 people killed at one event: 300,000 in Ethiopia in the 1984-85 famine, for example, and 600,000 in Bangladesh in the 1971 cyclone.

A natural disaster inevitably varies in its characteristics and

impact on human populations according to its type and the state of vulnerability of the people in the area.

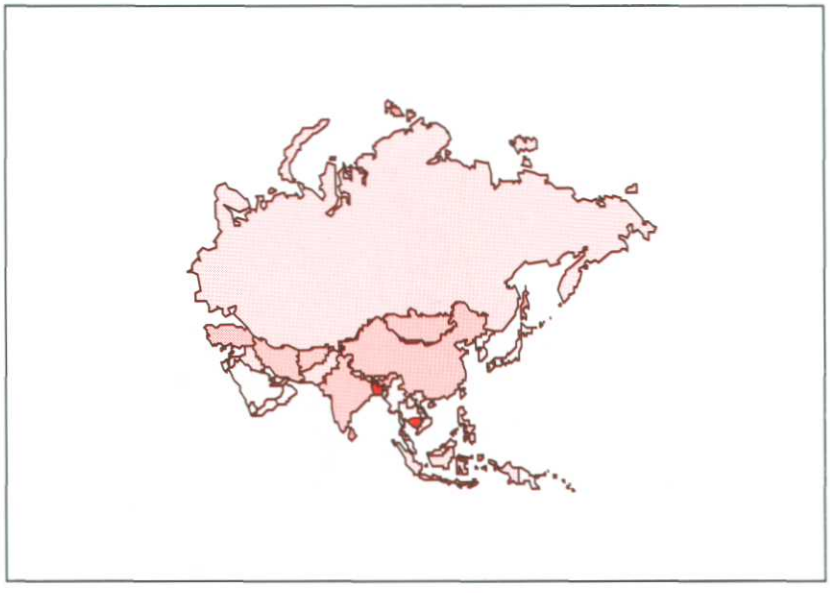
Slow-onset natural disasters, such as droughts, famines and some floods, have a high possibility of being predicted and generally low direct mortality rates, though they can cause great damage in the long term, especially if the disaster response is slow or the situation is aggravated by conflict.

Sudden-onset disasters, such as earthquakes, sea surges and flash floods, give little scope for forecasting and usually have high death tolls, though they affect relatively limited areas. Until recently, sudden-onset disasters involving high winds were hard to forecast. With the increasing use and sophistication of satellite technology, the prediction of storms, cyclones and typhoons is far more accurate.

Socio-economic factors

In general, so-called natural disasters are a function of geological and meteorological factors, but their impact depends largely on the socio-economic conditions of the community they hit. Poor people in poorly-organised communities in poor countries are the most vulnerable. Developing nations in high-risk areas have most need to organise against disaster.

In the past 25 years, the Philippines has been affected by 272 natural disasters that have had a severe impact upon the population. In that ranking by absolute numbers of disasters, India comes a close second, with China, Indonesia and Bangladesh at three, four and five respectively.



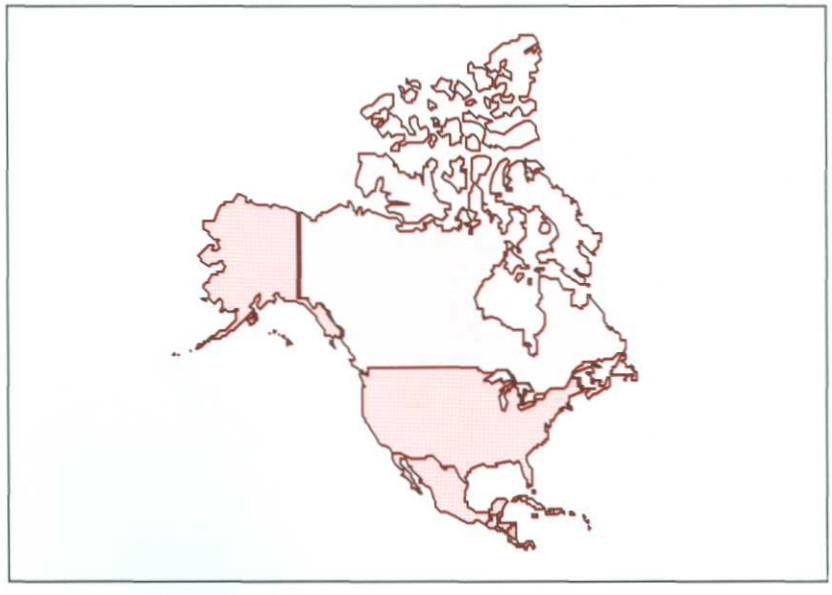


Figure 7: Number of events in countries most frequently struck by disaster: 1967-1991. The number of disaster events across the world in the past 25 years reflects both vulnerability to natural hazards and exposure to new technological risks.