

has been poor. Even though some 91 per cent of the population claimed to have understood the warnings, only 50 per cent reacted to them. The reasons given for not evacuating as advised included:

- No clear understanding of where to go or how to get there;
- Did not believe the warning;
- Did not want to leave possessions and their land;
- In the absence of the husband, the family could not decide what to do.

Similar reasons for failure of the population to heed warnings are observed in other societies and the design of any warning system needs to take these factors into account. Much effort needs to be spent on public awareness and in building up public confidence in the system. Evacuation routes must be designated and clearly marked. In Florida, for example, the prominent signs marking designated evacuation roads in case of hurricanes are one of the first things that a tourist is likely to see. The police and/or the army must be mobilized to protect evacuated properties from looting. Families must be encouraged to establish their own emergency procedures so that action can be taken even if key members of the family are temporarily absent. In many countries this is done by distributing posters with space for the families to complete to indicate where they are to go when an evacuation is ordered, how to get there, how to secure the house and what to take. These can then be posted prominently in the house to provide a ready reference in case of a flood.

Communities need to have their emergency plans. Evacuation centres and hospitals have to be staffed to deal with evacuees and the injured. The requirements here are the same as for other disasters.

So far this discussion has centred on evacuation of the population in time of flood, but there is much that people can do to prevent loss of life and property before an evacuation has to be ordered and advice on this has to be provided. If a property is about to be flooded furniture and other valuables can be moved to higher floors to keep them dry; doors, windows and other openings can be blocked to keep water out; emergency supplies of food and water can be prepared; and emergency equipment and warm, waterproof clothing can be readied. Many people are very reluctant to leave their homes and belongings during an emergency, not only because of the risk of looting, and there is much that they can do to protect themselves if properly advised in advance.

Special precautions for floods

A feature of the Netherlands storm surge procedure is the use of dyke patrols as the first call-out, even when the surge level would be well below the top of the dyke. As noted in chapter 4, dykes are very prone to failure and during a flood they must be carefully watched for the early signs of failure. Sandbags are the usual means of effecting emergency repairs to dykes. The bags can be filled near where they are to be used to make a strong package that can easily be handled by one man and that can be stacked with others to form a resilient structure. Manhandling is necessary because the flood may prevent construction machinery reaching the required site. In addition, sand is easy to handle, but a bank of sand will not resist water. However, when bagged, sand is very resistant. The numbers of sandbags that have to be provided can be very large. During the Christmas 1993 floods on the Rhine and the Moselle, the town of Trier, with a