

Hai an-Dam: fighting the floods.

Photo by Y. Yi-Qiu

The strategy of reducing susceptibility to flood damage strives to avoid dangerous, uneconomic or otherwise undesirable use of the flood plain. This is accomplished by land-use planning regulations, development policies, raising buildings above flood levels, and flood-proofing of buildings. These non-structural measures can be very effective in keeping new development out of the way of floods, but they afford little protection for existing developments and for the natural and cultural resources of the flood plain. They can be unpopular. Planning regulations and policies preventing development are seen as reducing land values, which can lead to legal claims for compensation. Flood forecasting and warning systems are also important for reducing losses by giving the affected population time to take precautions such as moving goods and furniture above the forecast flood level, reinforcing flood defences or evacuating. These measures all need to be set up long before the flood occurs and it may be difficult to maintain them in force if there is a long interval between damaging floods. Chapter 5 describes these non-structural measures in more detail.

When, despite the precautions taken, a flood does occur, an efficient and effective emergency response system is needed to provide both immediate and post-disaster assistance to the victims. The population at risk needs to be informed in advance of the steps that will be taken emergency evacuation, temporary shelters, etc.-and of the arrangements for setting them in motion. Assistance with post-disaster recovery will be needed and this may be provided by flood insurance or special disaster relief funds. The opportunity needs to be taken after each emergency to reinforce the information provided to the public and, of course, to review the operation of the relief system. Chapters 5 and 7 deal with these measures.