













# ALL ABOUT FLOODS

## INTRODUCTION

Floods generally occur as a result of bad weather (for example: storms, cyclones, tornadoes or thunderstorms, heavy or persistent rain), melting snow or ice, or the sudden discharge of water. These events lead to a rise in the water level of major riverbeds or to an accumulation of flow water, to the resurgence of underground rivers or to thaws in low-lying areas adjoining stream banks or river estuaries.

Damage caused by floods can vary greatly according to the nature of the phenomenon at the origin of the flood. They can affect whole regions or certain limited sectors. Moreover, their impact will vary according to whether the event is sudden and violent or a steady but relatively slow rise of flood waters which will inundate a vast area, especially plains situated near or at the mouth of rivers.

All types of floods have grave consequences, mainly because of their secondary effects. Localized flood, or one involving a small rise in water level can lead to large-scale damage, to the interruption or destruction of communication routes (road, rail, etc.) or the loss of infrastructure and damage to the environment (economy, supplies, crops).

#### PREVENTIVE AND PROTECTIVE MEASURES

As opposed to other natural phenomenon (landslides) or the causes of certain floods (tidal waves, bad weather), the risk of flood from rising water levels is predictable, although it is difficult to know when it will occur. It is therefore possible to determine the areas at risk.

Long-term preventive and protective measures will essentially consist in regulating the layout of the areas at risk by legislation calling for a systematic appraisal of potential natural dangers, and taking these into account when defining areas that can be built on, and when granting planning permission.

At the community level general preventive measures can be summarized as follows:

- Monitoring of the risk of flooding
- > Issuing regulations limiting building in identified risk zones.
- > Building and developing infrastructure that will prevent, avoid or limit floods and protect the population.
- Planning the evacuation of the population likely to be at risk, and instructing them on how to behave in case of a flood.
- Forming well trained and equipped management and rescue teams.

### INTERVENTION AND RESCUE MEASURES

As soon as a major flood danger is identified, and after an assessment of the seriousness of the situation, the local, regional or national authorities decide on the protective measures to be taken, as dictated by the probable evolution of the situation. It is up to them to instigate the preventive and protective measures planned, notably the warning services, close the area under threat, instruct the population on how to behave, order if necessary the evacuation of all or some inhabitants, domestic animals and cultural objects and valuable goods from the potential flood area.

## INSTRUCTIONS FOR THE POPULATION -IN CASE OF POTENTIAL DANGER FROM FLOODING

- Avoid as far as possible living in an area at risk from flooding.
- > Conform to the laws on land development and environmental protection, especially with regard to building restrictions and technical security measures intended for installation substances and waste material likely to cause major damage to man and the environment in the event of a disaster.
- Find out the highest levels reached by floods in the past and the speed at which the water rose. Keep up-to-date with the protective measures to be taken immediately and, in particular, obey the specific prescriptions on buildings and other installations.
- ➤ Know the alarm signals and behavioral rules, especially the evacuation zones and routes.
- Always keep an emergency kit ready for the family, as well as enough supplies of food and drink to last the estimated length of the emergency situation.
- Plan how to reinforce the building and neighboring structures, and to protect vital installations from floods (electricity, gas, water, heating, evacuation of waste water).
- Take into account the risk of flooding when fitting the interior of the house, especially by placing furniture, valuable goods or those susceptible to water damage, as well as pollutants, on higher levels together with reserves of food, drinking water, a portable radio and a torch.

#### Instructions for the population- During a disaster

- ➤ Keep calm, do not panic.
- > Warn neighbor's and give priority to helping the handicapped, children and the elderly.
- ➤ Keep informed of the danger and how it may evolve, listen to the radio but do not use the telephone without good reason (do not overload the lines).
- > Switch off electricity, gas and central heating. If there is enough time move valuable or delicate objects and pollutant products to the higher levels of the strongest parts of the building.
- > Implement the measures planned for the immediate protection of people and the environment (if possible untie and set free animals from stables and other such buildings).
- > If obliged to leave your house, lock it securely and make your way on foot to the evacuation zone using the route indicated by the authorities.
- > Take with you only what is strictly necessary (emergency baggage, identity and personal papers, medicines).
- > Do not cross flooded areas on foot or in a vehicle. If necessary secure yourself by holding onto ropes or cables.
- > Collaborate with public safety bodies and the services helping the homeless.

# INSTRUCTIONS FOR THE POPULATION - AFTER THE FLOOD

- > Keep calm, do not panic.
- > Check and see if there any injured people in the vicinity and, if possible, help them.
- Listen to the radio but do not use the telephone unnecessarily.
- > Collaborate with official rescue and assistance services helping the victims.

Source: International Civil Defense Organization