

Translated from Arabic

Disasters that are likely to occur in the Sultanate and ways to  
mitigate their severity

One of the main priorities of the Government of the Sultanate of Oman is to ensure security, in the comprehensive sense of the term, for all categories of nationals and persons residing in the territory of the Sultanate by safeguarding and protecting the population, national resources, facilities, property, installations, buildings and projects from the dangers of general disasters with a view to ensuring that life follows its normal course.

Responsibility for the security of Omani society is not confined to agencies of the State; every individual must protect himself and help to protect his community.

Accordingly, with a view to optimizing the procedures and measures taken to protect the population, safeguard property and resources, organize and coordinate action and define the duties and responsibilities of all public and private bodies, H.M. the Sultan has promulgated the following decrees: Royal Decree No. 22/88, as amended, calling for the establishment of the National Committee on Disasters; Royal Decree No. 76/91, concerning the Civil Defence Act; and Ordinance No. 21/93, drafted by H.E. the Inspector General, concerning regulations for the implementation of civil defence measures.

A. Natural disasters in the Sultanate

The geographical location, topography and climate of the Sultanate of Oman, as well as the economic development boom that it has experienced, expose it to the hazards of various disasters. These hazards can be divided into two principal categories:

1. Natural hazards

These are hazards resulting from sudden natural disasters for the occurrence of which man cannot be held responsible. Although they can be forecasted and predicted, the actual time of their occurrence cannot be determined, nor is it possible to avert or limit the extent of their effects. They include:

Earthquakes (earth tremors)

The Sultanate has never been exposed to this type of hazard, at least not in the recent past.

### Volcanic eruptions

There are no volcanoes, not even of the inactive type, in the Sultanate.

### Fissures and landslides

No such hazards have occurred, apart from a limited number of small man-made landslips in rocky mountainous or hilly areas due to excavation, land-levelling and grading operations, usually in the vicinity of buildings and installations.

### Storms and hurricanes

The Sultanate experienced a disaster of this type on 12 June 1977 when the island of Masira was struck by a hurricane following an abnormal course in the northern Arabian Sea. It demolished the buildings on the island, sparing only a few of more solid construction. The hurricane, the eye of which was located at a distance of 200 miles to the south-east in the Arabian Sea, swept the entire island of Masira twice on 12 June 1977 when the wind velocity increased from 80 to 120 miles per hour during the early hours and maintained that velocity for about 20 hours, bringing heavy rainstorms. The Omani authorities had forecast the hurricane 48 hours before its occurrence, thereby enabling the population to take refuge in the hospital and the police station, which withstood the wind pressure.

### Flash floods

Torrential rain fell in the eastern part of the Dhofar governorate of the Sultanate on 15 June 1977 and continued for three days without interruption. Although the population had taken precautions in preparation for that seasonal rainfall, its intensity was totally unexpected. Small watercourses were transformed into raging torrents that merged as they cascaded down the mountain slopes. Hillside villages, as well as those situated at locations where the coastal plain narrows, were particularly affected and human beings, animals and houses were swept away by the floodwaters flowing down to the sea. In the mountains, the hitherto unprecedented torrents continued to flow for a whole week after the occurrence of the disaster.

## 2. Man-made hazards

These are hazards for the occurrence of which man is partly responsible through deliberate or inadvertent negligence. They include:

### Fires

The extent and causes of fires vary depending on the places at which they occur. According to the statistics published by the Directorate General of Civil Defence of the Omani Police, the average annual increase in the number

of fires has not exceeded the standard worldwide rates in spite of the high levels of economic growth and development in the Sultanate. This is due to the competent manner in which the Directorate General is monitoring and implementing the safety and security regulations prescribed for the various types of activities.

Collapse of houses

Although no incidents involving the collapse of houses have led to human injury, their occurrence is only to be expected in view of the existence in various parts of the Sultanate of numerous old structures that are liable to collapse. Accordingly, there is a need for measures and preparations to deal with such occurrences.

Aeroplane crashes

By the grace of God, no such accidents have occurred in the Sultanate, although there have been some minor incidents involving aircraft used to spray insecticides.

Mine cave-ins

An incident involving the cave-in of a mine belonging to a copper plant in the governorate of Sohar occurred a long time ago and there have been no other incidents of this type.

Chemical pollution

There have been some minor incidents involving tankers transporting chemical substances by road. These were dealt with and no damage or casualties were suffered, due to the competent manner in which the Directorate General is monitoring and implementing the safety requirements laid down in the regulations governing the operation of such tankers.

Radiation pollution

In view of the fact that the use of radioactive isotopes is still confined to some fields of physical research and industrial activities, which are strictly controlled by the competent authorities in the Sultanate, no hazards of this type have yet been encountered.

B. Measures taken to deal with states of emergency in the Sultanate

Like other States, the Sultanate has taken numerous measures to mitigate the effects and limit the losses that might result from potential states of emergency. To this end, it has benefited from the experiences of others and

has promulgated legislation, regulations and instructions to ensure a high degree of protection from their effects in conformity with the highest safety standards.

These measures include the following:

1. The National Committee on Natural Disasters: Royal Decree No. 32/88, as amended, called for the establishment of a National Committee on Disasters to be chaired by H.E. The Inspector General of Police and Customs and including among its members representatives of the Ministries of Communications, Local Municipalities and the Environment, Defence and Social Affairs and Labour, as well as the Council for the Protection of the Environment and the Public Authority for Warehousing and Food Reserves. The Committee can invite any government officials, experts or other persons to participate in any of its activities whenever it feels the need to avail itself of their services in that regard.

That Decree and its amendments define the Committee's functions, which include the preparation of plans to deal with states of emergency. They also define the functions and responsibilities of the various Ministries and government agencies.

2. The Emergency Management Plan: The National Committee on Natural Disasters has formulated and published a Disaster Management Plan for the Sultanate and has formed subcommittees of the National Committee to deal with emergencies in the governorates and regions of the Sultanate. The Plan covers the following principal points:

(a) Assignment of responsibility for the proclamation of states of emergency.

(b) Designation of the executive bodies responsible for implementing the Plan and specification of the method of coordination among the bodies participating in endeavours to deal with states of emergency.

(c) Definition of the duties of the bodies concerned, as well as the manner in which use should be made of the resources available at the local, regional, Arab and international levels.

(d) Definition of the tasks and responsibilities of Ministries and official institutions.

(e) Specification of the bodies to be notified.

3. Civil defence preparations: Royal Decree No. 76/91 promulgated the Civil Defence Act, which defined the functions of the Directorate General of Civil Defence, which is attached to the Royal Omani Police Command. It is

administered by a Director General, who is responsible for setting up and organizing the Directorate General and its subsidiary directorates, divisions and centres, providing them with all the qualified and trained human resources that they need for the various tasks assigned to them under the above-mentioned Act, and supplying them with the appropriate vehicles and equipment required for civil defence operations.

Civil defence centres have been established and provided with staff, vehicles and equipment in various governorates and regions of the Sultanate and there is a plan to increase the number of the centres to cover all the provinces, governorates and regions. The implementation of this plan will depend on the availability of resources.

4. Stipulations and requirements for disaster prevention: Pursuant to the provisions of the articles of the above-mentioned Civil Defence Act, the following stipulations have been formulated to regulate the supervision of disaster prevention systems for numerous activities in the Sultanate:

- (a) Safety stipulations to avert fire hazards in industrial installations.
- (b) Safety stipulations for the transport and storage of hazardous substances.
- (c) Safety stipulations for the transport, storage and handling of liquefied petroleum gas.
- (d) Safety stipulations for vehicle service and supply stations.
- (e) Stipulations for the transport, storage and handling of explosives.
- (f) Safety stipulations for the piping of natural gas inside industrial installations.

5. Environmental pollution and prevention of radiation hazards: In accordance with its Statutes, the Ministry of Local Municipalities and the Environment has formed subcommittees consisting of representatives from various academic and occupational sectors to prepare studies, proposals and plans to deal with environmental and radiation pollution hazards and reduce the losses that might result therefrom, regardless of whether the hazard threatens human or animal life, the soil or the air. These committees are still working on the preparation of draft proposals and plans for those hazards.

6. The Public Authority for Medical Services: Royal Decree No. 68/91 established the Public Authority for Medical Services, which is responsible for the formulation and implementation of plans to provide the best medical

assistance services for persons injured in accidents at the place of the accident, during transportation by road and until they are placed within reach of medical care. The Authority is also responsible for the provision of first aid medical services in the event of emergencies and disasters and for helping other medical agencies to combat epidemics and contagious diseases. This Authority will endeavour to establish subsidiary centres when trained manpower is available and after it has been provided with all the vehicles, equipment and appliances needed for its work.

7. Information concerning hazardous substances: Pursuant to the provisions contained in the articles of the above-mentioned Civil Defence Act, the Directorate General of Civil Defence is collecting information on the hazardous substances stocked in all public and private institutions in preparation for the formulation of plans to avert those hazards.

A handbook in four parts on the chemical substances used in the Sultanate has been prepared. It explains the hazards to which those chemical substances can give rise, as well as ways to avert them and their consequences. The Directorate General will soon be storing this data on its computer in order to facilitate its use for reference purposes as and when needed.

8. Emergency plans: Emergency plans have been prepared for some vital institutions in the Sultanate in order to protect them from hazards and organize a mutual exchange of assistance between them and the General Directorate of Civil Defence. Endeavours are continuing to prepare similar plans for the other institutions.

9. Preventive public awareness campaigns: The specialized official bodies, each within its respective field of operation and jurisdiction, attach special importance to preventive public awareness campaigns, which are regarded as a means to eradicate the malady without the need for a remedy. The main aim of preventive public awareness campaigns is to avert or reduce the incidence of the hazard and minimize the losses resulting therefrom.

Pursuant to the provisions contained in the articles of the Civil Defence Act, the Directorate General of Civil Defence has printed and distributed numerous brochures, pamphlets and posters concerning the objectives of civil defence. It has also coordinated its endeavours with the Ministry of Education with a view to introducing a civil defence curriculum in the various educational syllabuses and arrangements are currently being made to formulate an appropriate plan for these syllabuses in a manner consistent with the

various stages of primary, preparatory, secondary, college and university education.

10. Voluntary civil defence: The Sultanate's Civil Defence Act makes provision for the formation and training of teams of volunteers to deal with states of emergency. A draft plan regulating the activities of these teams is currently being studied and discussed.

11. Cooperation in the field of civil defence: The civil defence authorities in the Sultanate maintain good relations with other Arab civil defence authorities, with whom they exchange information and visits. The civil defence authorities also maintain excellent relations with the States of the Gulf Cooperation Council and regular annual meetings of the Directors General of Civil Defence in the GCC States are held in order to formulate a joint civil defence strategy and organize a mutual exchange of assistance in the event of emergencies arising in the GCC States.

The Directorate General of Civil Defence

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