



General Assembly

Distr.
GENERAL

A/45/494
11 October 1990

ORIGINAL: ENGLISH

Forty-fifth session
Agenda item 86 (b)

**SPECIAL ECONOMIC AND DISASTER RELIEF ASSISTANCE: SPECIAL
PROGRAMMES OF ECONOMIC ASSISTANCE**

Emergency assistance to the Islamic Republic of Iran

Report of the Secretary-General

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I. INTRODUCTION

1. In view of the gravity of the situation following the earthquake that struck the north-western part of the Islamic Republic of Iran on 21 June 1990, the Secretary-General decided on 22 June to appoint the United Nations Disaster Relief Co-ordinator as his Special Representative for the Emergency in Northern Iran.
2. In its resolution 44/242 of 6 July 1990, the General Assembly recognized the importance of international co-operation for the mitigation of the devastation caused by the earthquake, and appealed to all Governments, the specialized agencies and organizations and programmes of the United Nations system, as well as non-governmental organizations, to extend generous assistance to the Government of the Islamic Republic of Iran for relief, rehabilitation and reconstruction in the affected area. It also welcomed the appointment of the Special Representative made by the Secretary-General and requested him to submit a report to the General Assembly at its forty-fifth session.
3. In its resolution 1990/64 of 26 July 1990, the Economic and Social Council expressed its gratitude to the States, international organizations and agencies that had provided relief assistance, and requested the Secretary-General to continue to intensify his endeavours to mobilize every possible assistance to help the Government and people of the Islamic Republic of Iran in their efforts towards the rehabilitation and reconstruction of the stricken areas. It also requested the Secretary-General to include in his report to the General Assembly at its forty-fifth session an assessment of the damage and the requirements for this rehabilitation and reconstruction of the affected areas.
4. The present report is submitted accordingly.

II. SUMMARY AND CONCLUSIONS

5. The earthquake, which struck on 21 June 1990 at 00.31 hrs local time, caused widespread devastation, mainly in the provinces of Gilan and Zanzan in the north-western part of the Islamic Republic of Iran. The official estimation of losses as at 25 June was 50,000 dead, 60,000 injured and 500,000 homeless. All facilities for normal life, such as health centres, water provision, schools etc., were severely damaged and disrupted.
6. This report gives an overview of the national and the international response to the earthquake, including the efforts of the United Nations system. It also describes the requirements and actions planned for rehabilitation and reconstruction in the stricken area. The salient conclusions and remarks in the report can be summarized as follows:
 - (a) Much of the devastation occurred in mountainous terrain, presenting initially difficulties of access to the area and consequent uncertainties over the extent of losses;

(b) The scale and speed of intervention by national authorities were most impressive and commensurate to the magnitude of the disaster;

(c) Offers of assistance came on a massive scale from 46 countries. The need for relief goods, especially shelter and medical supplies and equipment, was obvious and such goods were promptly disseminated. The need for foreign rescue and medical teams was less evident. Some of these arrived unexpectedly, and others only after lengthy diplomatic negotiation. None the less they were welcomed and were able to demonstrate their equipment and techniques;

(d) The Iranian relief management officials were somewhat surprised by the wide range of international relief services available and the alacrity with which they were offered. Future preparedness planning should include a review of the nature and scale of external needs for probable future disaster scenarios;

(e) The appointment of the Secretary-General's Special Representative for the Emergency in Northern Iran was made to ensure the full co-ordination of system-wide action to support the extensive relief efforts needed for the affected population. It was also made on the understanding that the effectiveness of action depended, for a large part, on a unified approach that would avoid duplication of efforts and on close co-operation of all external assistance, including the donor communities, non-governmental organizations and Governments;

(f) As a result of the prompt response by the United Nations to the emergency, the Government of the Islamic Republic of Iran expressed a wish that the United Nations engagement in rehabilitation and reconstruction should be continuously co-ordinated in the same manner as during the emergency phase and a hope that international assistance could be channelled through the United Nations Development Programme (UNDP);

(g) UNDP, as the focal point, the Office of the United Nations Disaster Relief Co-ordinator (UNDRO) and several United Nations agencies are at present committed in the different aspects of the international assistance in the rehabilitation and reconstruction phase;

(h) The Iranian Government is preparing a master plan for the reconstruction of the devastated area. The report is expected to be ready in September and could serve as guidance to the international community in the continued assistance to the Islamic Republic of Iran following the earthquake.

III. BACKGROUND

7. The Islamic Republic of Iran, with an area of 1,648,000 square kilometres, has a population of approximately 54 million people and a per capita gross national product of about \$US 1,690. A vast portion of its area is desert, and the average population density is only 31 inhabitants (1987) per square kilometre. However, in the area affected by the June 1990 earthquake, the average population density is at least twice as high because of the suitability of the area for agricultural production.

8. As a result of the Arabian plates movement (as much as 16 millimetres per year) towards Eurasia, the Islamic Republic of Iran is to a large extent affected by serious earthquakes and has during the past 45 years been struck by more than 30 major earthquakes, most of them occurring further South in the Zagros Mountains or in the Makran, towards Pakistan. In addition to this the Islamic Republic of Iran has also repeatedly been affected by other kinds of disasters such as floods.

9. On 21 June 1990, at 00.31 hrs local time, a major earthquake of Richter magnitude 7.3 struck the provinces of Gilan and Zanjan, in the Elburz mountains of north-western Iran bordering the south-western margin of the Caspian Sea. The worst devastation took place near the centre of the triangle between the cities of Rasht, Qazvin and Zanjan, especially in the three towns of Rudbar, Manjil, and Loushan, which are situated at an elevation of about 300 metres in the valley of the Shah and Sefik rivers and in several hundred neighbouring mountain villages (at up to 2,000 metres above sea level) where 60 to 90 per cent of the houses collapsed.

10. The official estimation of losses at 25 June was 50,000 dead, 60,000 injured and 500,000 homeless. A similar large earthquake (magnitude 7.3 Richter) occurred in this part of the country in 1962 with its epicentre in the Bu'in area (about 100 kilometre south-east of the 1990 event). That earthquake killed 12,200 people.

IV. DAMAGE

11. As is often the case after a major earthquake, early estimates corresponded to only a small proportion of the losses. Casualties were reported to be in the hundreds by mid-morning on 21 June, then 3,700 dead and 1,350 hospitalized by 14.00 hrs local time. By 20.00 hrs on 21 June, the official estimate of fatalities was 10,000 and early on 22 June this had reached 20,000. Later on the same day the probable death toll was declared to be 35,000 with over 105,000 presumed to be injured.

12. The main reason for the early uncertainties in the losses was because the widespread landslides and difficult conditions for the use of helicopters, which impeded access to a considerable part of the devastated area. As a result, and especially in the mountain villages, numerous undocumented burials had already taken place before the first relief teams arrived, while in the most devastated locations with few survivors an unknown number of corpses remained beneath the rubble.

13. The zone of major destruction of buildings and infrastructure included the three towns of Manjil (90 per cent collapsed), Rudbar (70 per cent) and Loushan (60 per cent). Most of the remaining structures in those towns were so heavily damaged that they could not continue to be used. Health centres, hospitals, schools and all other public buildings/services vital for the normal functions of a community were severely damaged or destroyed. Water, electricity and telephone systems were totally disrupted in the towns although the pylons and high voltage transmission lines across the devastated area appeared to be mostly intact.

14. Large-scale destruction had occurred as far as approximately half-way (30 km) down the valley from Rudbar to Rasht, but in Rasht (population about 300,000) less than 10 high rise buildings had collapsed and the lower buildings, mostly with light-weight roofs unlike Rudbar and Manjil, were unaffected. The water tower (60 metres high, capacity 700 m³), providing water pressure for the city, had completely collapsed and the city was left without piped water for seven days until new pumps could be connected directly between the wells and the distribution network. Very little damage was observed eastward from Rasht along the coast.

15. In the three towns in the most heavily affected area, the houses and business premises were mostly of one or two (rarely three) stories, with bricks and mortar built into, but poorly anchored to, steel frames. Building collapse in the towns resulted primarily from the rupture of poorly welded connections in the steel frame and from the heavy weight of ceiling and especially roof masonry. In the surrounding mountain villages, where most of the affected population lived, construction was mainly of irregularly shaped lava blocks set in dried mud or of sun-dried mud bricks with similar cement. The roofs in those villages were of thick layers of dried mud spread upon reeds laid across closely spaced horizontal poles, a structure with a very low resistance to earthquake.

V. EMERGENCY RELIEF

A. National response

16. An Earthquake Relief Task Force was created at the President's Office in order to co-ordinate the national relief effort carried out by the different ministries and the High Council for Defence, including the Armed Forces and the Revolutionary Guards. Within each of the different ministries disaster co-ordination centres were set up such as the one at the Ministry for Foreign Affairs dealing with international aid.

17. The Ministry of Roads and Transportation immediately dispatched technicians, loaders, bulldozers, cranes and mechanical shovels to the area, and by 24 June all main roads through the area had been cleared of the rubble caused by extensive landslides. Some of the heavy equipment was being deployed to clear the rubble from collapsed buildings in the cities. The Ministry also dispatched vans equipped with wireless communication systems from nine provinces to Gilan and Zanjan provinces to restore communications with the affected area.

18. Owing to the fact that almost all of the health facilities in the affected area had collapsed or been heavily damaged, the seriously injured victims of the earthquake had to be transported to hospitals or health centres outside the area, in some cases several hundred kilometres from the earthquake zone. The Iranian Government also announced that 20 per cent of all beds in private hospitals must be set aside for earthquake victims.

19. In order to improve the transport capacity Iran Air established special flights to Rasht, and up to 23 June it transported more than 3,000 relief workers, earthquake victims and their family members. Airbridges were created directly to

the affected area, with helicopters carrying relief personnel into the area and the seriously injured out of it. Although relief helicopters started to work early, the adverse weather conditions and steep slopes greatly complicated airlifting and air-transport operations. That made it impossible to reach some of the villages situated in the high mountainous areas until 23 or 24 June. However, on 24 June a new helicopter landing field was established in Rudbar with extensive helicopter traffic consisting of airforce Chinook helicopters and smaller Bell helicopters arriving or leaving every few minutes. On 23 June the Air Force Command stated that up to midday on 22 June, that is, during the first 36 hours after the disaster, over 6,000 critically wounded victims together with 3,000 tons of goods had been transported.

20. The Red Crescent Society of the Islamic Republic of Iran (RCSIRI) played a major role both in providing relief personnel and material from national resources and in receiving and distributing the very large amounts of international aid that had arrived.

21. The public reacted promptly to the news of the disaster and throughout the country special committees were set up for voluntary relief to the earthquake victims. Both volunteer rescue teams and large quantities of clothes, food, etc. were collected and sent to the area.

22. It is clear that the national response to the disaster was carried out on a large scale and in an efficient manner. This included the rapid mobilization of personnel and equipment from a broad variety of national organizations such as the Armed Forces, the Revolutionary Guards, Red Crescent, Ministry of Health, Ministry of Transportation etc.

B. International response

23. Following the earthquake the Ministry of Foreign Affairs of the Islamic Republic of Iran on 21 June indicated to UNDR0 that it would welcome assistance from Governments and non-governmental organizations to the suffering people in the stricken area. On that date, UNDR0 issued the first of 14 situation reports alerting the international community to the disaster situation and urging donor countries to extend generous emergency assistance.

24. The response of the international community was an example of international solidarity. As at 14 August 1990, the UNDR0 mobilization effort had helped to secure contributions amounting to \$US 95,327,210 (those reported to UNDR0) from United Nations agencies, Governments, intergovernmental organizations, Red Cross and Red Crescent Societies, non-governmental organizations, private firms and individuals. Not less than 46 Governments had contributed with emergency aid in cash and kind. Of those contributions more than \$US 1,000,000 were entrusted to UNDR0 in favour of the earthquake victims. (A complete list of all contributions registred with UNDR0 is available upon request. It includes information on the donor, the value, description and quantity of the contribution and the implementing agency.)

C. Reception and distribution of external relief

25. Following indications from the Islamic Republic of Iran on the most outstanding needs in the emergency situation, UNDR0 sent on 23 June a first flight with emergency goods from the UNDR0 warehouse at Pisa, Italy. The first flight was later to be followed by two additional flights with relief goods from Pisa. In all, the cost of the operation was evaluated at \$700,000 and made possible thanks to contributions from the Governments of Italy and Japan.

26. Joining the world effort for emergency assistance to the earthquake victims, the Organization of Petroleum-Exporting Countries (OPEC) Fund channelled a grant of \$100,000 through UNDR0 for purchase of medicines and medical supplies. The procurement of those items was made through United Nations International Packing and Assembly Center (UNIPAC) in Copenhagen and arrived in the country on 3 July.

27. At the peak of incoming relief flights as many as 45 cargo aircrafts from a variety of donor countries arrived within a single day.

28. At an early stage following the earthquake the Ministry of Foreign Affairs requested that all incoming international relief should be channelled through RCSIRI. At the military part of Tehran airport, to which all incoming relief flights were directed, RCSIRI set up a reception centre and, from the UNDR0 representative's observations at the airport, incoming flights were dealt with promptly, unloaded, refueled and cleared to return without delay.

29. After unloading, the goods were transferred to trucks and in some cases taken directly to the affected areas for distribution but more commonly to the RCSIRI warehouse facilities for sorting and registering. RCSIRI has large warehouses close to the airport. Their main centre, the so-called "mother relief base of the society", has a total indoor storage capacity of 45,000 square metres and is normally manned by a staff of 400 members, including maintenance workshop; for some 500 vehicles. During the disaster this staff was reinforced by military and other personnel. Medical equipment and medicaments were taken to a separate medical procurement centre for sorting and distribution.

30. Reports from the affected area on the need of relief material and medicaments were received at RCSIRI headquarters at Tehran where a decision was made upon priorities and distribution. The final distribution in the affected area was carried out through RCSIRI.

D. Action of organizations of the United Nations system

1. United Nations Development Programme/Office of the United Nations Disaster Relief Co-ordinator

31. In Tehran the UNDP/UNDRO Resident Representative reacted immediately on the news of the earthquake, which was actually strongly felt in Tehran. Contact was taken with the Government to establish the extent of damage and to determine whether there was a need for outside assistance. All news was communicated to UNDRO and disseminated United Nations system-wide. Throughout the emergency phase close contacts were maintained between the UNDP office, governmental focal points for relief and UNDRO to ensure a response from the United Nations system and the international community relevant to the needs.

32. UNDRO mobilized rapidly to provide on-the-spot assistance in disaster relief co-ordination, including damage and needs assessment. On 21 June, UNDRO dispatched a team to assist with in-country disaster co-ordination, and two delegates left by the next available flight for Tehran on the following morning. At the teams arrival, contact was immediately made with the Co-ordination Centre at the Ministry of Foreign Affairs and other focal points for disaster relief such as RCSIRI in order to clarify the situation and outstanding relief needs.

33. On 22 June, the United Nations Disaster Relief Co-ordinator decided to allocate a UNDRO grant of \$30,000 for local purchase of the most urgently needed relief goods such as medicaments and shelter material. UNDP contributed an emergency grant of \$50,000 for the same purpose.

34. Following the appointment as the Secretary-General's Special Representative for the emergency situation, the Co-ordinator left on 25 June for a five-day mission to the Islamic Republic of Iran to meet with representatives of the Government and to assess the situation on the spot. During his stay he also chaired the inter-agency co-ordination meetings held between the United Nations entities present in the country.

35. In order to ensure close co-operation and information sharing between the different United Nations agencies represented in the Islamic Republic of Iran, an Inter-Agency Emergency Group was established. The group consisted of representatives of the UNDP office in Tehran, UNDRO, the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), the Office of the United Nations High Commissioner for Refugees (UNHCR) and the Office of the United Nations Co-ordinator for Assistance Programmes in respect of Afghan refugees, and the League of Red Cross and Red Crescent Societies. A first meeting was called on 23 June, and thereafter the group was reconvened every time new important information was available or when further action was called for concerning relief requirements. When the emergency phase was coming to an end the group was expected to continue its work to facilitate co-ordination of international assistance in the reconstruction and rehabilitation phase.

36. The UNDRO delegates undertook three missions from Tehran to the disaster area for field assessment of damage and needs. On the second day in the country (24 June), accompanied by senior officials of RCSIRI and League of Red Cross and Red Crescent Societies, an all-day trip to Qazvin, Loushan, Manjil and Rudbar was made. In each of these locations the most senior surviving representatives of local authorities were met. The overall impression, given that only three days had elapsed since the disaster, was that the relief effort was massive, organized and effective.

37. The second UNDRO field mission took place on 27 June, by helicopter to the same area, but also included visits to Zan'jan and to some of the high mountain villages where devastation had been severe and where search and rescue operations were still in progress under difficult conditions of steep slopes, high winds and low clouds.

38. A third, extended trip to the disaster area was undertaken by UNDRO and UNDP senior officials on 29 June in order to ascertain more closely the nature of the damage to buildings and progress in the establishment of the relief camps. This included visits not only to the severely devastated area but also further down the Sefid river to Rasht and eastward along the coast of the Caspian Sea.

39. At its headquarters in Geneva UNDRO maintained contact with relevant donor Governments, non-governmental organizations and a great number of private donors (also through the UNDRO office in New York), and was in constant touch with the relevant United Nations system agencies. The latter responded promptly and kept UNDRO informed of their activities.

2. United Nations Children's Fund

40. UNICEF responded to the emergency by airfreighting 30 tons of tents, blankets, water tanks, generators, pumps, tarpaulins, water purification pills and drugs on 25 June. Urgently needed supplies in the rescue phase and for the immediate care of the survivors, including approximately 150 tons of emergency kits, pesticides and vaccines, arrived soon thereafter. The UNICEF office in the Islamic Republic of Iran ensured that the supplies were directly loaded onto trucks and delivered to the disaster area within hours. Field visits to the affected provinces of Gilan and Zanjan by UNICEF staff confirmed that the supplies provided had been distributed and made effective use of UNICEF's total input in the emergency response phase amounted to approximately \$1 million.

41. A UNICEF team was sent to the county to visit the affected areas in order to identify the immediate needs of mothers, children and vulnerable groups, primarily in the fields of health services and water provision, and to prepare an emergency appeal proposal to address them. The document, together with a seven and one-half minute documentary film, was issued by UNICEF on 24 July 1990 for fund-raising purposes. The financing required to carry out the urgently required activities identified by the UNICEF team amounted to \$10,680,000.

3. Office of the United Nations High Commissioner for Refugees

42. Although UNHCR is not mandated to be associated with relief programmes aimed at assisting people internally displaced or by other internal calamities such as the earthquake, UNHCR responded immediately to the appeal made to the international community by the Government of the Islamic Republic of Iran for relief assistance. UNHCR contributions included blankets, tents and tarpaulins to be used in immediate relief efforts of the Government and RCSIRI to alleviate the suffering of thousands of homeless people in the affected provinces. The relief supplies originated from the original supplies UNHCR had received from the European Economic Community (EEC) to be used for Afghan repatriation programme.

4. World Food Programme

43. Bilateral donations from France, Italy and Switzerland were channelled through WFP. Following those donations WFP arranged three airlifts to Tehran where the food was transferred to RCSIRI by the local WFP representative. The total value of those contributions, including transport, reached \$676,000.

5. World Health Organization

44. Following the earthquake, the WHO representative in the Islamic Republic of Iran was the first international official to reach the scene on 21 June 1990 to conduct an assessment of the needs, which resulted in the urgent request from the Government for WHO expertise to deal with the emergency. WHO provided relief assistance in the form of medical kits and technical expertise from headquarters and the WHO Regional Office for the Eastern Mediterranean in dealing with the relief phase of the emergency.

VI. REHABILITATION, MITIGATION AND RECONSTRUCTION

45. Immediately after the earthquake, the Government of the Islamic Republic of Iran set about preparing a master plan for the reconstruction of the devastated area. This plan is expected to be ready in September 1990. In the short term to the medium term, the major part of the plan addresses the problem of housing reconstruction because of the urgency in this sector (approximately 500,000 persons are homeless). The Government has estimated that roughly 90,000 new houses must be built and a further 30,000 need extensive repairs.

46. UNDP is responsible for co-ordinating international co-operation for rehabilitation and reconstruction. During the months of July and August 1990, UNDP requested UNDR0 to organize and lead a multi-agency mission with the United Nations Centre on Human Settlements (Habitat) and the United Nations Industrial Development Organization (UNIDO) in the country to prepare those documents which were most urgently needed to define the United Nations system's inputs to the reconstruction process in housing, building and planning. This, naturally, covered but part of the total United Nations involvement in reconstruction for the many sectors of the economy.

47. In accordance with its mandate, UNDR0 will focus on the disaster mitigation aspects of reconstruction. That is to say, attention will be given to the assessment of seismic hazards, the consequent risks to human lives and property, and the adoption of measures serving to reduce such risks.

48. According to the information available to UNDR0, among the other United Nations agencies contributing to the rehabilitation and reconstruction process are (a) UNICEF, which is assisting in the fields of primary health care and water provision in rural areas for mothers and children, with special attention to the disabled, orphans and displaced persons, (b) WHO, which is assisting the Government to prepare a new health sector plan as part of the overall reconstruction master plan being prepared by the Government, and (c) WHO, which is assisting in building up the country's disaster preparedness in the health sector.

49. The UNDR0-led multiagency mission identified the most pressing needs for reconstruction, taking into account the number of houses destroyed and homeless. In so doing, the mission prepared the following:

(a) Recommendations to the Resident Co-ordinator on assistance required for immediate reconstruction needs;

(b) A technical review of the impact of the earthquake, and recommendations for a multi-disciplinary approach to reconstruction;

(c) A draft project proposal entitled "Assistance to the Government of the Islamic Republic of Iran in the implementation of a post-earthquake emergency rehabilitation and reconstruction programme".

50. The documents were prepared in close co-operation with all the Iranian institutions concerned, and with special reference to the Housing Foundation, which has built up much experience in reconstruction and which was, therefore, given overall responsibility for the reconstruction planning and implementation.

51. The first and most urgent document mentioned will provide the basis for an international appeal for the most urgently needed building materials. It also contains recommendations on the policies to be adopted for the reconstruction, technical suggestions for building earthquake-resistant housing.

52. The second document is largely technical and aims at providing all institutions concerned with a broad technical background in earthquake risk mitigation. It deals with seismic hazard in the region affected, earthquake damage and loss assessment, engineering and building construction methods, planning under seismic conditions, and the production of local building materials.

53. The third document to be prepared was a project document for UNDP, as the Resident Co-ordinator envisaged the possibility of rapidly obtaining funds for the reconstruction programme from the UNDP Special Programme Resources. The main aim of the project is to provide the Government with suitable technical support to deal with all the questions which may emerge during reconstruction. Cost-sharing contributions will be sought from donors with a view to increasing the volume of the technical assistance activities and equipment deliveries.

54. The UNDP office in Tehran finalized the draft project document and submitted it to its headquarters for approval at the end of August 1990. UNDR0 expects to be appropriately associated with the project in order to ensure that earthquake mitigation elements are fully taken into account. Donors have been approached by the United Nations system for assistance to improve the quality and rate of production of building materials.

55. Finally, the United Nations system hopes to be able to assist the reconstruction effort at all stages of its implementation and at all levels within the country (national, regional and local). It has been greatly impressed by the dedication and efficiency of the authorities of the Islamic Republic of Iran, and is convinced that the reconstruction programme will be completed within the two-year period foreseen, and with success.
