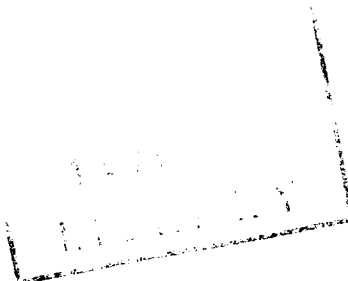




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EARTHQUAKE IN YEMEN

Note by the Executive Secretary

In response to an appeal by the Government of Yemen the United Nations General Assembly adopted on 17 December 1982 resolution 37/166 on assistance to Yemen which inter-alia requested the appropriate organizations of the United Nations system, in particular the United Nations Development Programme (UNDP), the United Nations Economic Commission for Western Asia (ECWA), and the World Bank to maintain and expand their programmes of assistance to Yemen and to co-operate closely with the Secretary-General in organizing an effective programme of assistance to that country. A joint mission was undertaken by several regional organizations with the participation of ECWA between 21 January - February 1983 to prepare a programme of post-earthquake reconstruction of the Dhamar Region of the Yemen Arab Republic (YAR). Summary of the background of the mission and its findings is annexed to this note.

1. It will be recalled that on December 13, 1982 the Yemen Arab Republic was the scene of an earthquake in the magnitude of 5.8 of the Richter scale and a series of earth tremors that wreaked havoc in a wide area. In particular, the Dhamar region had suffered considerable loss of life and damage to property - whole towns and villages were obliterated.
2. In conformity with the General Assembly resolution 37/166 of 17 December 1982 on assistance to Yemen and following a visit to ECWA of H.E. Fuad Kaid Mohammed, Minister of Development and Chairman of the Central Planning Organization of the Government of Yemen, the secretariat designated two of its staff members to take part in a joint mission of representatives of The World Bank, The Kuwait Fund for Arab Economic Development, The Arab Fund for Economic and Social Development and the Organization of Arab Petroleum Exporting Countries. The mission included expertise in architecture, engineering, urban and regional planning, sociology, agriculture, economics and geophysics.
3. The draft terms of reference stipulated that "the mission will prepare a detailed report giving conclusions and recommendations on the requirements for reconstruction and resettlement with a view to formulating a short and long-term rehabilitation strategy while at the same time preserving the process of over-all economic and social development in the country. Additionally, the mission was to formulate recommendations on the implementation of the strategy and the financing of the activities."
4. The mission was briefed by both H. E. Fuad Kaid Mohammed and H. E. Dr. Abdel - Karim Al Iriani, the Prime Minister, on the extent and magnitude of destruction caused by the earthquake and the actions taken by the Government and, through it, by sister Arab countries and the international community to alleviate the suffering of the people immediately after the earthquake. The mission's terms of reference and operational logistics were discussed and approved. The importance the Government attached to the final report was emphasized. It was agreed that the mission would deliver the report by the end of February or early March 1983.

5. The joint mission organized itself into three groups reflecting the major aspects of the reconstruction problem. Thus, the engineering group, which included an ECWA representative, dealt with the technical and planning aspects of housing, and urban and regional planning. The socio-economic group, which also included an ECWA representative, handled all the economic and social aspects of the reconstruction programme. The third group was concerned with the geological and geophysical aspects of the country in general and the Dhamar region in particular. Its recommendations were a vital input to the work of the two other groups.
6. The mission analysed and evaluated all the data supplied by the Government. In addition, it had the opportunity to travel to the affected areas where it made an on-the-spot inspection and drew its own conclusions regarding the nature and magnitude of the damage. The main findings of the mission were that although the earthquake caused considerable loss in life and property, and the farmers suffered losses of cattle, hand pumps and grain which could result in substantial decrease of their incomes in 1983/84, comparatively little damage was done to the physical or social infrastructure of the Dhamar Governorate; and that most of the damage to buildings was due to their poor construction, deficient design and inappropriate siting; further, out of about 42,000 damaged buildings, 15,000 would need to be rebuilt, and about 27,000 repaired; about 14,000 out of the 27,000 cracked buildings could be reoccupied if their owners were reassured by qualified engineers of the soundness and safety of the structures.
7. The joint mission adopted a pragmatic approach in formulating the proposed reconstruction programme. It emphasized self-reliance and maximum popular participation and suggested that the Government's financial contribution should be restricted to meeting the basic shelter needs of the population and to augmenting local initiative. It encouraged construction of low-cost, traditional but earthquake-resistant dwellings using local materials, and to that end, it proposed five different construction-types based on a core-house unit concept. The core-house would be built by the Government, but the people themselves could expand them as their means improved.

8. The mission recommended phasing the reconstruction programme into a short-term (up to November 1983), a medium-term (up to end 1984) and a long-term phase which would link the reconstruction programme to the national development objectives. During the short-term phase, farmers in the stricken areas are to be provided with government loans to enable them to reconstitute lost capital and ensure crop production in the season starting in March or April 1983. At the same time several other operations will be undertaken such as the establishment of building-material depots in selected areas; inspection, propping up and repair of cracked buildings; technical advice on both the type of construction and the siting of new core-houses, etc... . The medium-term phase was recommended for the reconstruction of the physical and social infrastructure.

9. To facilitate reconstruction operations, four centres were identified by the joint mission as sites for building-material and equipment depots which are to serve as branch offices for the technical assistance teams that are necessary for the implementation of the programme. By improving their access roads and accelerating urban investment, the selected centres will become the future service centres for the surrounding villages and thus a basis for a long-term regional planning programme for the whole country.

10. An aide-memoire containing a summary of the mission findings and recommendations was handed over to the Government. These were discussed on 1 February 1983 at a meeting chaired by H. E. the Prime Minister. The final report which had to be submitted to the Government by early March 1983 included detailed costing of the reconstruction programme and the institutional arrangements that were required for its implementation. The Government has already established a Higher Council for the Reconstruction of the Dhamar Region in line with the mission recommendation.

11. The reconstruction programme will cost hundreds of millions of U.S. dollars to implement. The programme should be completed by the end of 1984. Under prevailing economic conditions, the expenditure of such enormous amounts of money over such a short period of time would constitute a crushing burden even on wealthy nations. Yemen is among the least developed of the developing countries and will need massive external financial and technical assistance to implement the programme. It is hoped that such assistance from the sister Arab countries, the United Nations system and the international community will be forthcoming in generous proportions.

12. ECWA, on its part, stands ready to provide, upon request and within its limited resources, advisory services and technical assistance to the Government of Yemen. ECWA believes that the monitoring and documentation of the reconstruction activities would be of value to its member countries and will endeavour to do so through correspondence and, subject to availability of funds, through occasional field missions to Yemen. In addition, ECWA will publish and disseminate the technical part of the joint mission report which will benefit all the States members of the Commission and in particular those countries that are prone to seismic activities.