

C.14 Nicaragua - 1972 - Earthquake

Case study:

Overview

Case study credit:
UNDRO 1982

Disaster:

7.5 magnitude earthquake
Managua, Nicaragua

Disaster date:

23 December 1972

Population pre-disaster:

500,000

Number of houses damaged:

50,000

Number of people displaced:

200,000

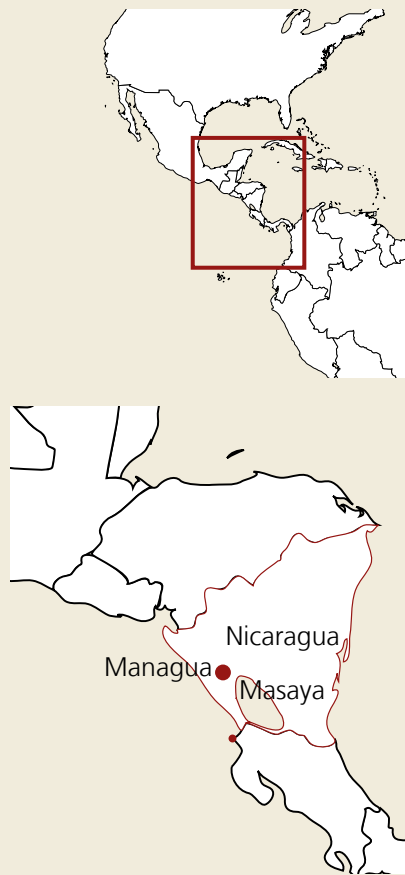
Note. Of the homeless, 90 per cent were listed as lodging with relatives/friends, and a small proportion were occupying improvised shelter.

Value of damage:

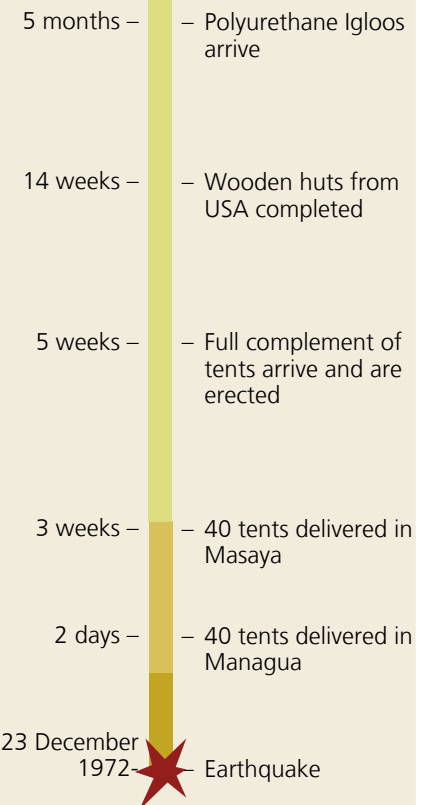
Approximately
800 million USD.

Value of assistance:

226 million USD between
1975 and 1978.



Project timeline



Emergency

The government policy was to evacuate Managua city centre. The reasons given were the risks of looting and epidemics. The government provided campsites, in Masaya and outskirts of Managua, and assisted in building wooden huts for 11,600 families. Initially, survivors tended to ignore government action, preferring to stay with friends and relatives.

Reconstruction

Prior to the Popular Revolution, Government policy was to cordon off the city centre, pending reconstruction using new seismic-resistant building codes. Reconstruction was placed under a special ministry. By freezing construction in the central area, vast suburban sprawl was encouraged, increasing costs of infrastructure development and maintenance, and altering the socio-economic base of the affected population. Housing reconstruction was entirely carried out by the private sector. The reconstruction policy was dictated by the interests of a small but wealthy land-owning class under the former regime.

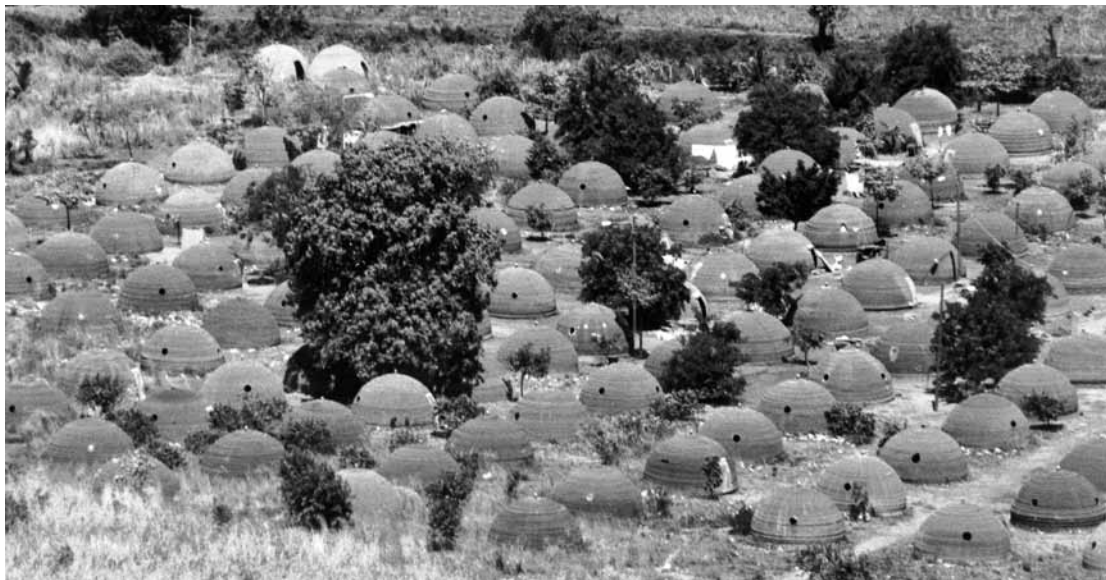
Strengths and weaknesses

- ✓ The extended family system was a highly effective 'sponge', absorbing the homeless. This may have been due in part to rapid urbanization in the previous decade which created extensive rural-urban ties.
- ✓ The private sector played a key role in reconstruction, particularly on the periphery of the city.
- ✗ The evacuation policy was the basic cause of the waste land that remained undeveloped in the centre of Managua until the 1979 revolution. If families had been allowed to remain within the earthquake ruins, it is probable that rebuilding would have proceeded rapidly. Thus, the obvious benefits of anti-seismic

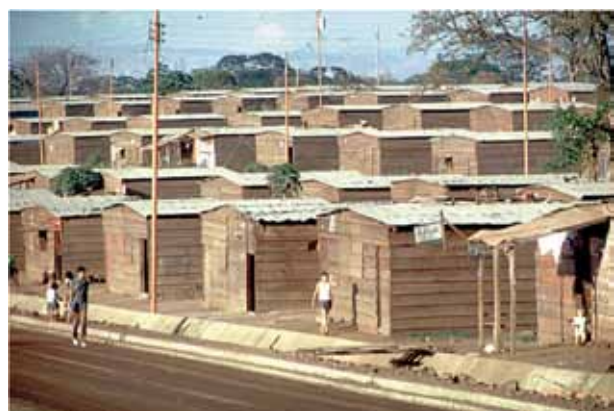
- planning and building construction have to be set against the cost and social disruption of such measures.
- ✗ A consequence of the restriction of development in the urban centre has stimulated suburban decentralization, which radically changed the form of post-earthquake Managua.
- ✗ Polyurethane igloos arrived too late to satisfy emergency shelter needs.
- ✗ The USAID wooden huts were ineffective as emergency provisions; they were remotely sited, and inadequate attention was paid to infrastructure.



The earthquake left large volumes of rubble to deal with
Photo: Ian Davis



Above and Centre: polyurethane igloos arrived too late to satisfy emergency shelter needs. Similar shelters were also deployed in Turkey (Gedez, 1970 and Lice 1975) and Peru (1970). they were finally abandoned as a system following the experiences in Lice (1975)
Photo: Ian Davis



The US Government donated money to build a total of 11,635 wooden huts as temporary houses for earthquake victims. The first units were completed 14 weeks after the earthquake. They were ineffective: remotely sited, and paid insufficient attention to infrastructure: water supply, sanitation or road access.
Photo: Ian Davis