

C.1 Historical Introduction - by Ian Davis

It has been fascinating to revisit these historical case studies that have triggered some reflections I have been encouraged to share.

Almost thirty years ago I compiled the original case studies for the UNDRO 'Shelter after Disaster: Guidelines for Assisting Groups', that have been drawn on in collecting examples for the current publication. This material was adapted from my PhD, an epic assignment that took all of 12 years to complete in UCL in 1985. This was on the same topic as the UN Guidelines. However, many of these case studies first appeared in print in my first book 'Shelter after Disaster' (1978, Oxford Polytechnic Press).

I also had the good fortune to work closely with Fred Cuny during the 1970s and 1980s, as we developed these case studies together, with the valued support of many colleagues. I am delighted that Fred's important and highly innovative work in Haiti is being reproduced with support from the Cuny Center as a vital contribution to current reconstruction efforts.

There are many threads that tie the following case studies together, but I will single out two positive concerns: the need to strengthen local capacities, and to create training programmes, and two negative concerns: to avoid creating transition housing wherever possible and to always avoid rebuilding vulnerability.

- Support the key role of disaster survivors in re-building their own dwellings.

These were early days in the development of 'owner-driven' approaches to housing generally and within reconstruction programmes. But these were the roots being laid down by many, including John F.C. Turner and Fred Cuny, that were to lead to the recent achievements in the earthquake reconstruction in Pakistan. In this massive operation, the vast majority of the 463,243 dwellings were rebuilt in safe construction in under three and a half years by their owners. Supporting this enterprise by the army of rural builders, were the financial, logistical and technical resources of the Government Reconstruction agency ERRA, UN-HABITAT and the World Bank

- Support the training of local builders in safe building design and
- Avoid the waste of Stage 2 Transition Housing

In 1976 I met Fred Cuny when he got off the plane in Guatemala about a week after the earthquake. We participated in some exciting early meetings with the Oxfam Field Director, Reggie Norton as the initial builder training courses in safe construction were being devised. (see case studies C.4 and C.5)

The developmental approach, to sell building materials to families (only to give them corrugated iron roofing when families had no cash to buy) and to train them in safe building was regarded as totally bizarre by agency directors who were embarking on the delivery of tents as well as traditional contractor based approaches to reconstruction. Families used the corrugated iron sheet to improvise temporary accommodation. And then later they reused the roofing on their permanent dwelling, thus avoiding the waste of 'double reconstruction' by building an interim transition house.

By extending the life of emergency sheltering and rapidly embarking on reconstruction, as happened in Guatemala it is possible have a simple '1-3' reconstruction strategy. But if authorities adopt a '1-2-3' strategy of emergency sheltering, transition, permanent reconstruction these three stages can delay recovery and waste valuable resources on double reconstruction.

Tragically, in the late 1970s and early 1980s many of the local community leaders who participated in these rural training sessions were exiled or killed by the extreme right wing government armies, who saw these trained leaders as potential subversive elements to be liquidated.

- Avoid reconstructing vulnerability (or avoid 'Building Back Badly')

The El Asnam earthquake of 2000 (see case study C.2) provides a vivid reminder of the importance of the 'build back better' campaign initiated by Bill Clinton after the 2004 tsunami. As the case study describes, El Asnam was badly damaged in its 1980 earthquake, with over 3,000 killed and a total of 85 schools being destroyed.

What is particularly pertinent is the fact that Orleansville, (the name for El Asnam before Algeria became independent of France) had been devastated in an earthquake in 1954, just 26 years earlier. At that time the population was less than a third of the population it was to be in 1980. After the 1954 earthquake there was a rapid reconstruction programme where some shoddy construction took place during a veritable building boom. Many schools were built to poor standards, with totally inadequate seismic protection. Thus the root causes of the many of the collapsed schools of 1980 lay in the 'reconstruction of vulnerability' resulting from poor construction, a lack of effective building controls, unsafe designs and a lack of enforcement in the mid 1950s.

The case study C.2 serves as a graphic reminder of the necessity to look for the root causes of vulnerability, not just at the symptoms of unsafe conditions. In this case the root causes of the deaths and destruction were population growth, rapid urbanisation, negligent building industry and design profession, and inadequate building safety codes.

It is doubtful if any engineers or architects were prosecuted for the building failures in Algeria in 1980. However, following the Sichuan earthquake in China in 2008, where over 70,000 died, press reports state that a number of the engineers responsible for the inadequate structural design of the failed schools have been executed by the authorities.

Professor Nick Ambraseys' summing up of the building failures after the Guatemala earthquake (case studies C.4 and C.5) may be coming true thirty years later *"today's 'Act of God' will be regarded as tomorrow's act of criminal negligence"*.

Finally, may the reading of these 23 case studies encourage the directors and staff managing current shelter and housing reconstruction programmes to carefully document their own actions and where possible the plus or minus consequences, and to widely disseminate such lessons.

These studies indicate a clear need to make sure that:

- lessons are learned and applied,
- wheels are not reinvented, and
- the seeds of new effective policies (such as user-driven housing pioneered in 1976) are sown and nurtured in fertile soils, to yield future benefits to society.

Ian Davis July 2010

Ian Davis is Senior Professor in Risk Management for Sustainable Development, Lund University, Sweden, and Visiting Professor in Cranfield, Oxford Brookes and Kyoto Universities



Collapsed school in El Asnam, Algeria, 1980. Act of God or Criminal Negligence?
Photo: Giles Whitcombe