

Actions speak louder . . .

Fact Sheet no.5: Living with floods

Description and analysis

400,000 people who live on the Limpopo and Zambezi floodplains suffered grievous loss of homes and possessions during recent floods in Mozambique . Over a hundred people died before dramatic international efforts began by boat and helicopter to rescue survivors from house roofs and tree tops. People of good will respond to such dramatic images with customary generosity, but the expensive hiring of helicopters does nothing to prepare for future flood events or to re-establish the everyday livelihoods of the people caught up in the tragedy.

Flooding is the most common of all environmental hazards, often claiming over 20,000 lives every year. Floodplains are popular locations for human settlement because of the fertile soils and proximity to the freshwater supply of rivers. Some floodplains cover such geographically vast areas that there is sometimes little other choice for building land, and flood defences would be both expensive and relatively pointless.

However in some parts of the world people build houses on stilts to cope with frequent flooding, and even in Britain new forms of integrated river catchment management are looking at ways to live with rivers with as little interference as possible - scientists suspect this is the most sustainable approach.

Design response

Produce a safe-haven during floods located within villages which can double as a useful building to be utilised before and after flooding. An obvious use for this building would be a school, as the building will be of an appropriately large size to be able to hold the village inhabitants during flood events.

The specifications of height, strength of supports and size would be matched to the needs of the village and to the magnitude of flood events of a specified frequency.

Parry Associates technical input possibilities

We developed a new hollow coffer or 'waffle' which together with hollow column blocks, slab tops and shuttering slabs, completes the high school construction. We can offer design advice, training, and we can send agents to the location to supervise construction and the mobilisation of labour.

Local resources required

Principally labour (to be trained), clays, sands, gravels and laterites also limited possibility of using straight growing poles in substitution for sawn timber for roof structures.

Potential local business response

With the low cost equipment and easily learned skills to build the high school, there is also the scope for small business activity after the project is completed. The existence of secure areas during floods will change attitudes for example to investment in equipment and the build up of stocks, encouraging enterprise and the move from subsistence to the generation of a saleable surplus. The circulation of incomes will advance the integration of the village into money economy, giving its people ever greater control over their lives.

Real case studies

The challenge of living with floods has already been successfully resolved using Parry technology in the Lionde High School Project, Mozambique (2002). For a list of case studies where Parry technology has been used to combat problems in the developing world see the Success Stories page on our website.

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