

CONCLUSIONS

Mitchell (1996) has pointed out the gap between the acceptance of listening and participatory approaches as good practice, and the application of these approaches in the field. Despite general recognition of the need for safe affordable housing for the rural poor of Bangladesh the gap is as evident in the housing sector as in others. This project has demonstrated the successful use of one appropriate participatory approach to implementing building for safety in Bangladesh.

Most poor householders cannot afford the prototype house models which are being developed in Bangladesh. For that reason, this project has advocated an incremental approach to housing improvements. Selling expensive house models developed by research organisations in Dhaka is not an appropriate response to the needs of poor villagers, even where the financial burden is alleviated by the provision of credit.

It has been the goal of this project to increase existing knowledge within the community as well as making knowledge from outside the community accessible. The shared knowledge of villagers proved to be extensive and frequently the main function of this project was a catalytic one to bring out productive and focused group discussion.

Surveys conducted as part of this project revealed a wide diversity of house construction types, even in the small project area. Each family has particular reasons for its choice of dwelling; any successful building for safety programme needs to take all available options into account.

This project developed an integrated dissemination path, as advocated by the *Building for Safety Initiative* of the Overseas Development Administration UK. A course of participatory workshops forms the core of this path, supported by a demonstration building and the use of a traditional song team as an appropriate cultural medium to promote the programme. This programme can, indeed should, be adapted in other localities to suit variations in the building practice. The programme does not teach any specific building solution and thus it requires only limited technical knowledge on the part of the trainers.

Using local trainers, known to the participants all their lives, has been integral to the success of the participatory workshops. Future extension of this project should work in partnership with other grass roots NGOs to sustain this local approach.

Outside agencies such as H&H or NGOs can provide a valuable service to poor householders by helping them to make informed assessments of building techniques with which they are already familiar. Considering the performance of these techniques in the light of a hazard threat is an area

of technical knowledge which can be developed. Perhaps more fundamentally, it is not easy for villagers to estimate the whole life costs of particular building solutions after the maintenance costs have been taken into account. Grass roots NGO staff typically have the education and resources to provide simple financial consultancy to help villagers assess and compare different housing options in both the short and medium to long term.

Blaikie et al. (1994) have charted a progression of vulnerability, from root causes of limited access to power, structures and resources and unbalanced political and economic systems, through dynamic pressures to unsafe conditions. By empowering villagers to develop their building decisions through participatory training and education this project hopes to release some of the dynamic pressures leading to unsafe conditions in the village. It is unlikely that this work could, in itself, address all the root causes of vulnerability. These must be tackled by a sustained and broader effort towards community development.

REFERENCES

- Ahmed, K. I. (1994) "Up to the Waist in Mud" *University Press Limited*
- Ahmed, K. I. (1996) "Hazard-resistant construction technology for rural housing in Bangladesh: Reinforced cement concrete (R.C.C.) posts" *Paper presented at the first International Workshop on Housing & Hazards*
- Ahmed, K. I. (1997) "The Tiverton-Sundarban Link: A case of partnership at the grassroots" *Paper presented to the 14th Inter-Schools Conference on Development*
- Anwar, A. M. M. T. (1996) "Wind Resistance of Non-Engineered Housing" *Paper presented at the 41st Annual Convention of the Institution of Engineers Bangladesh*
- Aysan et al. (1995) "Developing Building for Safety Programmes" *Intermediate Technology Publications*
- Barau, D. C. (1996) "Housing for the rural poor: The Grameen Bank experience" *Paper presented at the first International Workshop on Housing & Hazards*
- BBS (1996) "Statistical Bulletin Bangladesh" *Bangladesh Bureau of Statistics* Blaikie et al. (1994) "At Risk" *Routledge*
- Chisholm, M. P. (1979) "Bangladesh Rural Housing - Vol. I and II" *Bachelor of Architecture thesis, University of Newcastle upon Tyne*
- Coburn et al. (1995) "Technical Principles of Building for Safety" *Intermediate Technology Publications*
- Dudley, E. and Haaland, A. (1993) "Communicating Building for Safety" *Intermediate Technology Publications*
- Hall, N. (1988) "Thatching: A handbook" *Intermediate Technology Publications*
- Hall, N. (1996) "Incorporating local level mitigation strategies into national and international disaster response" *Paper presented at the Mitigating the Millennium seminar*
- Hasan, D. M. (1985) "A study of traditional house forms in rural Bangladesh" *Master of Architecture thesis, Bangladesh University of Engineering and Technology*
- Hodgson, R. L. P. (1995) "Housing Improvements: Disaster Response or Hazard Mitigation? Examples from Bangladesh" *Built Environment Volume 21 Numbers 2/3*
- Hodgson, R. L. P. and Carter, M. L. (1996) "Vernacular Buildings in Sundarban Village, Dinajpur District: Implementing building for safety" *Paper presented at the first International Workshop on Housing & Hazards*
- LGED (1996) "Low Cost Model House: Building materials & technology" *Local Government Engineering Department, Research & Development Unit*
- Mitchell, J. (1996) "The Listening Legacy: Challenges for participatory approaches" *Paper presented at the Mitigating the Millennium seminar*
- Norton, J. (1986) "Building with Earth - A handbook" *Intermediate Technology Publications*
- Pratt, B. and Loizos, P. (1992) "Choosing Research Methods: Data collection for Development workers (Oxfam Development Guidelines No. 7)" *Oxfam Publications*
- Sener Ingenieria y Sistemas SA (1996) "Cyclone Shelter Preparatory Study: Supporting Volume 9, Part D - Improved Domestic Construction" *European Commission, Technical Unit for Asia*
- Sultana, S. (1993) "Rural Settlements in Bangladesh: Spatial pattern and development" *Graphosman*
- Theiss, J. and Grady, H. M. (1991) "Participatory Rapid Appraisal for Community Development: A training manual" *International Institute for Environment and Development*