

Development and Implementation of National Building Code in Nepal: Experiences and Challenges

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Nepal developed an earthquake-centric national building code during 1992-1994 following the unexpected devastation by the 1988 M6.6 Udaypur earthquake. Despite the lack of experience and research, Nepal could adopt innovative approaches to shape the building code to address a) prevailing seismic hazard and risks, b) entire building stock, prevailing building materials, and building production processes, c) the need to align the use of the building code with the existing design practice of code usage by professional engineers, d) use of the building code through legislation making it mandatory rather than a good practice alone, and e) incorporation of the building code into the building permit system of municipalities.

Consequently, a 4-tier Building Code was developed which allowed for professional design of state of the art constructions and other engineered buildings, as well as pre-engineered rules of thumb for masonry and concrete frame building less than 3 stories high, and a series of guidelines for rural constructions.

The building code in 22 volumes prescribed the standards for the materials as well as for the construction process. However, its implementation became extremely difficult due to various reasons including the myths of increased costs, fear of increased complexity of the building permits process, additional burden, and delays in getting the permits. There was a general lack of awareness and weak institutional capacity in the municipal organizations and also among the professionals. There were other conceptual problems that hindered implementation of the national building code.

Despite the problems, a few of the municipalities seriously started integrating the stipulations of the building code into the building permit system with assistance from NSET mainly in capacity development and awareness raising. The process was successful in varying extent in the pilot municipalities. Learning the important lessons of what worked and what not, NSET started working with the central government authority and also with about 20 municipal urban areas in Nepal in building code implementation. This process of collaboration itself was instrumental in clearing some of the myths and paved way for developing a process for building code implementation in Nepal. This has raised our confidence and hope for improving significantly the safety performance of professionally designed as well as non-engineered buildings in Nepal.

The paper will describe in details the strong and weak points of the code development process adopted, the approaches adopted in the development and implementation of the code, the challenges and possible ways of addressing those, the need and possible ways for code updating, and finally, will report on the future opportunities and the need for collaboration nationally and international, in particular with International Code Council, for a comprehensive and successful implementation of the national building code.

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