Global Platform for Disaster Risk Reduction (GP/DRR)
Side Event

Building Code enforcement and dissemination: Safer Buildings for Sustainable Habitat

Organized by: UNCRD, UN HABITAT, UNESCO, UNDP
Chair: Amod Dixit (NSET), Esteban Leon (UN-HABITAT)
Partners: IRP, EMI, ADRC, MLIT, other national governments and organizations
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Background

Building codes, which are considered as the most effective remedy tools to safeguard the lives and property against major disasters like earthquakes and hurricanes, are in place in most of the disaster prone countries. In contrary, the large scale deaths and property loss in recent disasters have been largely attributed to the non-compliance of building codes by the residential buildings

Effective building code application requires implementation of set of actions spread over several themes of priorities for action of Hyogo Framework for Action (HFA), notably, governance, knowledge dissemination and reducing the risk factors. A mechanism of review, policy sensitization and intervention, monitoring and evaluation in respect to the building code enforcement and dissemination within Global Platform would be instrumental to provide a sustained support to national and local/municipal governments in the field of disaster risk reduction.

Goal and Objectives

In order to promote the effective building code application as a disaster risk reduction tool targeting to national and local governments, it is proposed to set up a Taskforce Group from concerned member agencies through interactions in the side event.
The broad objectives of the taskforce would be:
1. Sensitize national and local governments on the building codes
2. Review the current state of implementation of building code and find the gaps and opportunities.
3. Develop a template of policy framework to be adopted by national and local/ municipal

governments
4. Compile sound practice cases of local government and community actions in building code application and set some model enforcement and dissemination systems for possible replications
5. Monitor the progress against targets stipulated in HFA document.

Round Table Presentations

- "Building Code: Enhancing international cooperation and transdisciplinary approaches" (Badaoui Rouhban, UNESCO)
- "A snapshot view of building code enforcement and dissemination" (Shoichi Ando, UNCRD)
- "Promoting earthquake safe building code through regional knowledge networking" (Sohel Khan, IRP)
- "Developing and implementing building codes: experiences from disasters" (Takashi Imamura, Ministry of Land, Infrastructure and Transport of Japan)
- "Selected Case Studies for Code Implementation" (Fouad Bendimerad, EMI)

Key Issues

Current disaster–development context / importance of building codes

- Majority of death in disaster results from collapse of houses. Building code is one of the most effective policy tools for housing safety, especially in earthquake prone environment.
- Current trend is characterized by rapid urbanization with poor construction quality, increasing the risk in middle sized cities in developing countries,
- Appropriate damage assessment and post-disaster retrofitting technology prevent secondary loss/damage from disaster
- Properly implemented, we could reduce life loss by half by making small investment (USD5 million over 20 years) in risk reduction

Trans-disciplinary / multi-stakeholder nature of building codes

- Implementation of building codes requires involvement of different stakeholders: trans-disciplinary, all-encompassing including political science, engineering, community stakeholders

- Building codes are not only technical matter, but they relate to social, economic and environmental issues. Administrative feasibility of building codes as a policy tool is a key consideration
- Roles of government (national and local) and civil society for dissemination and implementation
- Capacity building needed for local government and other stakeholders, need to overcome socio-economic obstacles
- The weakness in building codes implementation is systemic, stemming from a lack of capacity, information and linkages of city planners, architects, construction workers, owners (e.g. not knowing what to ask for)
- Solution must result from implementing sound construction practices coming from primary roles of professionals in coalition with government and stakeholders
- Systemic training of construction professionals from planners, designers, engineers, etc
- Build awareness among public and provide incentives to informal sector builders, home builders

Key concerns raised on building codes: what they are and how they are implemented

- Purpose of building codes is to provide minimum standards. This is not clearly understood when it comes to implementation.
- National building codes insufficiently addressing disaster perspectives
- Building codes old/outdated -- not consistent with the current/new construction patterns
- Building codes are usually too complicated/scientific -- need to be easily understandable and user friendly
- Enforcement is also questionable / ineffective. Standards exist in most countries, the problem is a lack of the effective enforcement: “If people can get away with it, they will”
- Implementation is not flexible, due to liability of their decisions, making it too rigid. Too much emphasis on liability could be a barrier for BC implementation
- Linkage is missing between different institutions -- between implementing institutions and monitoring institutions of building codes
- Building codes need to be continually revised and improved over time, as additional risk is identified in disaster. Incorporate disaster experience in building code revision.

- Addressing existing buildings is necessary: old/existing buildings not in compliance with new building codes. How do we retrofit the existing buildings?
- Development of social systems to disseminate them and ensure their thorough implementation

Common myths

- Too expensive to conform with building codes?: No, incorporating building codes accounts for only small portion (e.g. 1.2 %, in Ecuador) of the total construction cost
- Is it government responsibility?: Government will never have enough resources to enforce BC provisions on their own, as government also needs to address a large proportion (70% in some cities) of informal buildings

Need to create a platform / network

- Create environment for change: creation of a platform/forum needs to be cultivated at the regional level, as construction patterns and socio-economic environment are similar at the regional scale. Suggested functions include:
  - Continuous sharing of BC practice lessons, updates, application, etc..
  - Organize a pool of regional experts by regional organization to facilitate
  - develop common guidelines for BC
  - common tools for monitoring of a) application of BC and b) building vulnerability monitoring
- Development code is not a domestic issue, but experiences, lessons and good practices to be exchanged/upscaled among disaster prone countries through a network

Reinforcing multi-sector / multi-stakeholder involvement

- Linkages are missing between engineers/scientific/professional communities and other stakeholders
- What is the relation of this dialogue with engineering community? Needs to create strong linkages for effectiveness. Liability/accountability of professionals should be ensured
- Need to involve academic/educational communities in the dialogue. Risk education is essential for the implementation of building codes.
- Currently we rely largely on professional expertise for building code development and implementation. Local communities, as the ones that are impacted by disaster, have relevant knowledge within the communities but these are not recognized well.

There is a need to incorporate local knowledge sufficiently in the development of the building codes.

- Importance of gender issues: grassroots women are involved already, but more involvement is needed at the national level

Improving responsiveness to needs

- Approach to simplification of building codes – need to be socially and economically compatible. If BC is too restrictive, it hinders local economic development. BC and engineering knowledge need to be transferred to local awareness raising
- Residential buildings (houses) can be exposed to increased vulnerability, due to a lack of financial resources or a lack of knowledge of BC when constructing individual homes. Emphasis should be placed on housing (rather than all-encompassing as building), to address largest risk/weakness. Engineers should also form an alliance/forum to support it.

Broader perspective

- Land use planning should also be looked at, to expand the risk reduction from building codes alone to spatial risk reduction. Incorporate sustainable development perspective and multi-risk/hazard reduction (floods, fire, earthquakes).
- International cooperation is necessary, to support engineers, local governments, communities.
- Availability of simple information on strengthening building resilience could go a long way in broader implementation. Supplement top-down enforcement with bottom-up dissemination, capacity building, and cooperation

Conclusions / way forward

- Exchange of information is necessary. Suggestion was made to establish workshop or a task force to go further and be more systematic.
- UNESCO is planning to establish a network/platform for research and training on earthquake disaster mitigation. To be mutually reinforcing with this initiative for information collection/sharing on disaster mitigation, it was suggested to also establish a taskforce group on building code, as an entity to promote enforcement, implementation and dissemination.
- UNESCO volunteered to be a secretariat for the taskforce group, starting the networking of actors through the e-mail list of the participants of this side event. UN-HABITAT expressed its support to the initiative.