Initiating Dialogue on Post Disaster Reconstruction,

Building Safer Urban Spaces for Post-disaster Nepal

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Impact of Earthquake on Urban Areas

• The earthquake of April 25, 2015 severely affected urban settlements of Kathmandu Valley, Dolakha, Nuwakot and Gorkha, Sindhupalchowk.

• Kathmandu, Lalitpur, Bhaktapur, Bungamati, Sankhu, Khokana, Harisiddhi, Chautara, Charikot, Nuwakot are the worst affected settlements.

• Housing, public buildings and heritage sites are mostly affected.
Impact of Earthquake on Urban Areas

• Poor people have become homeless and are staying at temporary shelters.
• Due to the destruction of temples and shrines Gods are being kept in temporary shelters.
• Partially damaged buildings are resting on supports.
• Tourism activities are seriously affected.
Response of the Government

• Temporary shelters were erected at different locations for displaced people.
• Government declared the heritage sites as safe and allowed tourists in those sites.
• Government approached other countries to support the rehabilitation and reconstruction of heritage sites.
• The basic building construction and urban development byelaws was enacted.
• Model design of rural and urban houses was approved.
• National Reconstruction Authority was established under a separate act.
• Necessary policies and guidelines were also approved.
• NRA hired more than 2000 technical personnel and deployed them in towns and villages.
Response from International community

• More concerned with the destruction of the World Heritage sites and settlements.

• Offered technical and financial support for the reconstruction and rehabilitation.

• Supported in Damage Assessment, provision of temporary shelters, technical support etc.
Response from Professional Organizations

• Nepal Engineers’ Association (NEA) mobilized more than 3000 engineers and conducted rapid visual assessment of more than 60 thousand houses in Kathmandu Valley.

• NEA organized design competition for rural house design.

• SONA conducted studies in Sankhu, Bungamati, Sindhupalhowk and Nuwakot.
Response from NGOs

- NGOs- both Nepali and foreign, are working with community in reconstruction of schools, hospitals, rehabilitation of houses.
- NGOs are more active in rural areas of the earthquake affected districts.
Basic Building byelaws

- Six months after the earthquake, the Government approved “Settlement Development, Urban Development and Building Construction Basic Byelaws 2072”.
- Its objective is to assist all local governments in urban planning and building construction.
Special features of the Byelaws

• Central level technical committee.
• Restriction on building design by municipal engineers.
• Third party verification of newly constructed public buildings.
• Restriction on the use of public land.
• Restriction on updating cadastral maps.
• Restriction on the use of public buildings without completion certificate.
Special....

• Land use control by municipality.
• Following Soil Investigation Guidelines for all public and A class buildings.
• New provisions for Right of Way (ROW) of roads.
• Maintaining aesthetic beauty of roadside buildings.
• Emergency response plan for apartment buildings.
• Institutional arrangement at municipal level.
Issues in implementation of Basic Byelaws

• Perception of the citizens.
• Perception of newly elected representatives.
• Capacity of local governments for implementation.
• Overlapping roles and responsibilities of different agencies in Kathmandu Valley.
Public Open Spaces

- Traditional open spaces: Chowk, Bahal, Bahi, Nanil, Chaur, Tundikhel,
- Modern open spaces: Playground, parks, parking lots.
- Marginal open spaces: leftover spaces during housing development, spaces along river banks.
Public space at Bungamati
Perception of Public Open Spaces

- Local people
- Local clubs
- Government agencies
- Use and abuse of public open spaces
- Use of open spaces during disaster.
Relief Camp at Nandikeshar Garden
Rehabilitation of Cultural Heritage Sites

- Cultural and tourism value of heritage sites.
- Responsible agencies.
- Legal requirement.
- Technological requirement.
- Ownership of stakeholders.
Bungamati after earthquake
Rehabilitation of Traditional Settlements

• Rehabilitation of housing and heritage sites.
• Conservation of traditional art and architecture (Building back better).
• Creation of job opportunities to local craftsmen during construction.
• Recovery of livelihood.
Rehabilitation of Traditional Settlements

- Promotion of tourism as an alternative source of employment and income.
- Preserving the unique identity of the place and boosting the self pride of the community.
Rehabilitation of Heritage Settlements
Pillachhen Reconstruction Project

• The neighbourhood consists of 7 chowks and 82 houses and is located at Ward no. 7 of Lalitpur Metropolitan City.

• The community has decided to reconstruct the private houses with vernacular architecture but with modern facilities.

• Individual buildings will have shops at the ground floor, guest rooms at the first floor and residence in the second and third floor.
Institutional arrangement

• Pillachhen Reconstruction and Tourism Project has been launched for reconstruction of individual houses and public structures.
• Maya foundation, a local philanthropic organization has supported it.
• The Project is implemented by a committee headed by a local resident.
• The project needs Rs. 12 crore but till now donors have pledged 4 crores only.
Financing Scheme

• The funds for reconstruction shall be arranged as follows:

  Maya Foundation: 25 percent as grant
  Local Community: 25 percent as labour contribution.
  Household’s: 25 percent
  Bank loan: 25 percent
External support

- Lalitpur Metropolitan City has agreed to waive the building permit fee.

- CE Construction, a well known construction group has contributed free technical service for design and construction supervision.
View of a Typical Courtyard after Reconstruction
Issues in Reconstruction and Rehabilitation of heritage sites

• Conflicting Roles and Responsibility
• Funding gap
• Ownership of the place
• Choice of Technology
• Shortage of skilled human resource
• Right of way of roads (Harisiddhi, Chautara)
Framework for Urban Planning for Disaster Preparedness

• Improved road network
• Accessible open spaces
• Earthquake resistant buildings
• Emergency shelters with water and sanitation
• Security and Firefighting system
• Health facilities
• Disaster preparedness plan.
Way forward

• Identification of open space at the community level.

• Creation of new open spaces as a part of reconstruction.

• Demonstration model of rehabilitation of heritage settlements.

• Demonstration model of reconstruction of heritage sites.
Way forward

• ‘House pooling’ for readjusting dwelling units and reconstructing traditional houses on the same footprint.
• Adequate and reliable water supply and sanitation.
• Relocation of vulnerable settlements.
• Revitalizing the core area of Kathmandu and Lalitpur
Message from Gorkha Earthquake

• Building safer houses is not enough. The entire community should be disaster resilient.
• Follow appropriate technology and traditional building practices.
• It is an opportunity to learn from mistakes in the earthquake affected areas, develop corrective measures and apply to the entire country.
Slogan

Mantra

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(Build Back Better)
Thank You for Your Attention