

Effective Implementation of Building Code : Effort of DUDBC

Presented By

Purusottam Dangol

Deputy Director General

Department of Urban Development and Building
Construction

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Building Code Implementation"

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Nepal National Building Code

FORMULATION OF NATIONAL BUILDING CODE

- After 1988 earthquake (6.7 Richter scale) in eastern Nepal,
- More than 600 deaths and
- More than 20,000 buildings collapsed or damaged, including many hospitals and school buildings
- Ministry of Physical Planning and Works (former HMG, Ministry of Housing and Physical Planning)
- "Policy and Technical Support to the Urban Sector" (UNDP/UNCHS(Habitat) Nep/88/054
- Sub-project "**National Building Code Development Project**" was formulated on 1992–93 within the HMG, Department of Urban Development and Building Construction (former Department of Buildings) with the government counterparts from the department.

Nepal National Building Code has been divided in Four Categories.

1) **International State of Art**

2) Professionally Engineered Buildings

3) **Mandatory Rules of Thumb**

4) Guidelines for Remote Rural Buildings (Low Strength Masonry / Earthen Buildings)

Lists of Building Codes, which the Department of Urban Development & Building Construction had already published.

1) Under International State of Art

NBC 000:

2) Under Professionally Engineered Buildings

- NBC 101 : Materials Specifications
- NBC 102 : Unit Weight of Materials
- NBC 103 : Occupancy Load
- NBC 104 : Wind Load
- NBC 105 : Seismic Design of Buildings In Nepal
- NBC 106 : Snow Load
- NBC 107 : Fire Safety
- NBC 108 : Site Consideration
- NBC 109 : Masonry: Unreinforced
- NBC 110 : Plain & Reinforced Concrete
- NBC 111 : Steel
- NBC 112 : Timber
- NBC 113 : Aluminum
- NBC 114 : Construction Safety
- NBC 206 : Architectural Design Requirements
- NBC 207 : Electrical Design Requirements
- NBC 208 : Sanitary and Plumbing Design Requirements

3) Under Mandatory Rules of Thumb

NBC 201 : Mandatory Rules of Thumb Reinforced Concrete Building with Masonry

NBC 202 : Mandatory Rules of Thumb Load Bearing Masonry

NBC 205 : Mandatory Rules of Thumb Reinforced Concrete Building without Masonry infill

4) Under Guidelines for Remote Rural Buildings (Low Strength Masonry/ Earthen Buildings)

NBC 203

NBC 204

Approval of NBC

- These codes have been formally approved by the Government of Nepal in the year 2062.
- Now the codes are being implemented as per "*Building Act : 2055*" (1998) in all public and private building throughout the country including 58 municipalities and 92 VDCS.

Building Act : 2055

- *Amendment on Building Act : 2055 was done in 2064*
- *to classify building as per Building code*
- *to give more responsibility to municipalities for effective implementation of Building Code*

Strategy and Policy of DUDBC

- * DUDBC is working as facilitator and Govt. policy maker in Earthquake Resistance Building Construction and implementation of NBC
- * Coordinate the Curriculum Branch of University Education to endorse NBC in the Engineering Degree Courses.
- operate different Earthquake Safety exhibitions and public awareness in different regions of the country.
- Retrofitting of existing vulnerable Government buildings (Hospital Buildings, School Buildings & other Public Buildings).

भवन निर्माण निर्देशिका ।



भवन निर्माण निर्देशिका

चौथो संस्करण २०६०



श्री ५ को सरकार
भौतिक योजना तथा निर्माण मन्त्रालय
शहरी विकास तथा भवन निर्माण विभाग
बबरमहल, काठमाण्डौ, नेपाल
फोन नं.: ४२६२३६५, ४२६२३६७, ४२६२४६६
फ्याक्स नं.: ४२६२४३९
E-mail: dudbc@most.gov.np

Activities of DUDBC regarding Earthquake Risk Reduction

* - Different training programs are conducted every year

Training for more than 5200 masons

- Training on Structural Design Software (SAP 2000) for municipal Engineers.

-From this year we are conducting training for 40 no. of Masons in each District.

Training for more than 300 nos. of engineer and 450 nos. of overseers / draft persons

TOT for Engineers and Sub Engineers in association with NSET.

Activities of DUDBC regarding Earthquake Risk Reduction

- Training Workshop on Effective Implementation of Building Code jointly organized by DUDBC, UNCRD and NSET. (August 2007) for municipal Engineers and Executive Officers.
- Training Workshop on Building Code Implementation in jointly organized by DUDBC, UNCRD and NSET. (19-23 May) for Municipal Engineers.

Activities of DUDBC regarding Earthquake Risk Reduction

- Training for engineers on Damage Assessments jointly with NSET.

Training Program on Building Code

Training for Engineers and Architect about NBC and Earthquake Safety Design of Buildings



Training for Engineers and Architect about Earthquake Analysis and Design of Buildings using Computer Software



Training on Earthquake Resistance Design of Buildings and Nepal National Building Code for Sub-Engineers

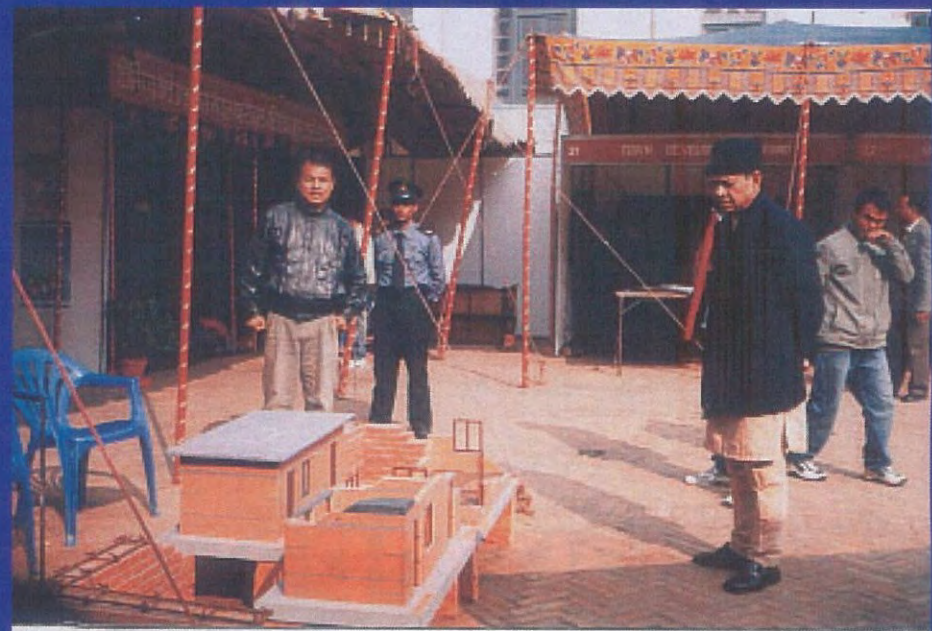


Training for Masson in Various Districts



**Awareness Program on
Earthquake risk Reduction**

Earthquake Safety Day, Jan. 2007



Shake Table Demonstration : Importance of Earthquake Resistance Building Construction I



Shake Table Demonstration on Public Place during Earthquake Safety Day Celebration Jan. 2007 :



Posters / Hoarding Board

भूकम्प सुरक्षा दिवस - २०६३ Earthquake Safety Day 2007

घटाऔं भूकम्पको खतरा जागरूक भई युवा
 Let's reduce earthquake risk with active involvement of informed and energetic youth

छरौं ज्ञानको ज्योति, जोखिम पहिचान र न्यूनीकरणमा ।
 घटाऔं प्रकोप क्षति, लागीं पूर्व-तयारी र सुशासनमा ॥

जोखिम न्यूनीकरणको विश्वव्यापी कार्ययोजना
 जनसा वाचा कार्यमा गरी नेपालमा पनि पूरा

संस्थागत सहयोगीहरूको सूची (Logos of various organizations like UNICEF, UNDP, etc.)

भवन निर्माण संहिता पालना गरी
 बनावएको घर

भवन निर्माण संहिता पालना गरी
 बनावएको घर

भूकम्पबाट सुरक्षित रहन

सुरक्षित रहनको लागि
 सडकको किनारमा
 घर बनाउनु पर्छ

सुरक्षित रहनको लागि
 सडकको किनारमा
 घर बनाउनु पर्छ

सुरक्षित रहनको लागि
 सडकको किनारमा
 घर बनाउनु पर्छ

भूकम्पबाट सुरक्षित रहन
 माथका तिनोटा संहिता
 पालना गरी :

सर्वसुलभ सेवाहाम्रो अधिकार भ्रष्टाचारीलाई पारौं नगरेभार।
 जिल्ला विकास समिति, मोरङ

प्रो. पब्लिक इन्जिनियर विष्णु नारायण समथ परिवेजका
 मोरङ, जन १२/०३/२००६

Thank you for your attention !