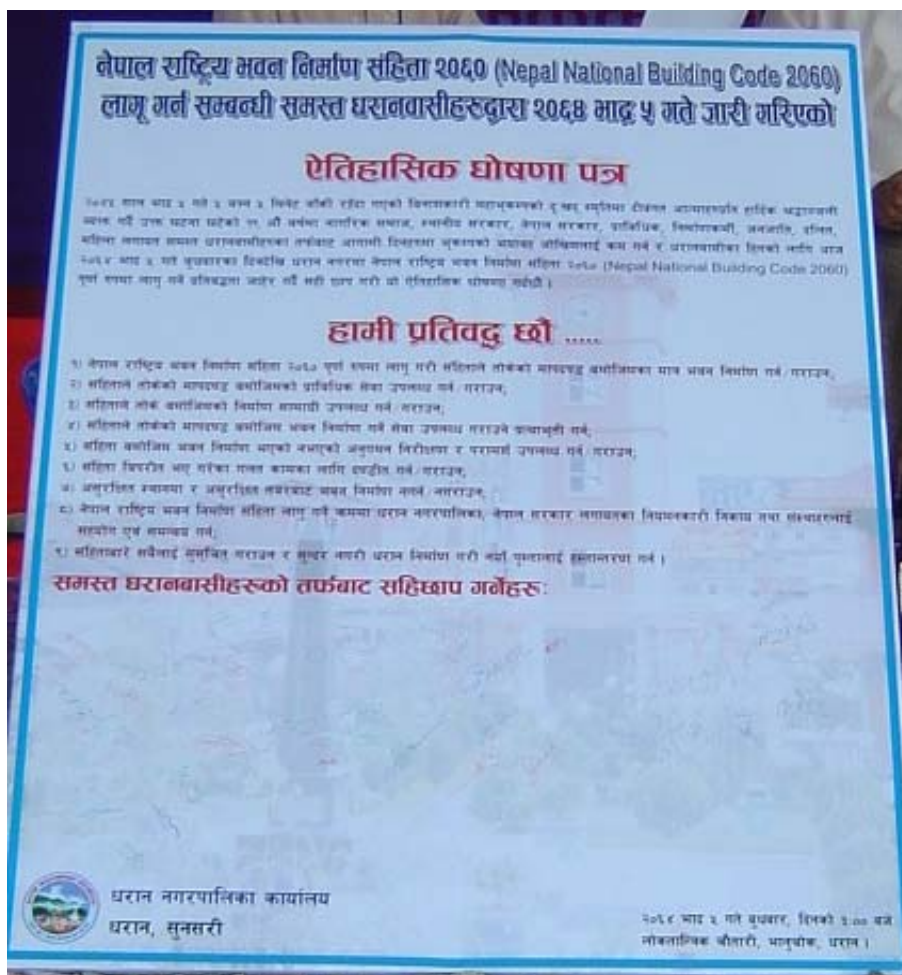


A Brief Report on
Earthquake Awareness Program in Dharan Municipality
(EAP-Dharan 2007)

2-7 Bhadra 2064 (19-24 August 2007)



Prepared by:



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Earthquake Awareness Program in Dharan Municipality (EAP-Dharan 2007)

Dharan has a terrifying experience of 1988 (2045 BS) earthquake. The 1988 earthquake, with a magnitude of 6.6 in Richter scale, killed 138 people and left 2117 people injured with more than 2500 damaged buildings in Dharan. Now the people of Dharan are committed to reduce the risk due to such devastating earthquakes in their city and it's been about a decade, they are actively working.

In commemoration of 1988 Earthquake, Dharan Municipality conducted a week long Earthquake Awareness Program (EAP) during 2 - 7 Bhadra 2064 B.S. (19-24 August 2007). As in the previous years, Dharan municipality invited NSET for organizing jointly the EAP in Dharan with financial support of ACTION AID NEPAL. As requested by Dharan Municipality, National Society for Earthquake Technology-Nepal (NSET) sent its representative Mr. Ganesh Kumar Jimée, Geographer/Urban Planner and Mr. Rudra Pun, Structural Engineer to observe EAP-Dharan. Mr. Amod Mani Dixit, Executive Director, NSET participated the main day of the EAP as the especial guest.

A short report prepared by NSET team is as follows:

Day 1, 19 August 2007 (2 Bhadra 2064)

Community Awareness Program in ward no. 15 Dharan Municipality

Venue: 19th Branch Office of The Reyukai, ward no. 15, Dharan Municipality

Time: 9:00 am-11:45 am

The first day of EAP-Dharan was started by conducting a community awareness program in ward no. 15 of the municipality. The program was conducted at the office of 19th branch of Reyukai. Participants from different background were present in the program. However, the house owners who are constructing new buildings and/or planning to construct were especially requested to participate. About 20 local people participated the program. The program was facilitated by Mr. Sunil Nepal, Information and Communication Officer, Dharan Municipality. Mr. Suraj Shrestha, Engineer, Dharan Municipality informed all about a week long program and its objectives, and also requested all for joining the program.

Mr. Rudra Pun, Structural Engineer, and Mr. Ganesh Kumar Jimée, Geographer/Urban Planner from NSET made technical presentations on Earthquake Risk of Nepal-Dharan, Structural/Non-structural Vulnerability and Earthquake Preparedness.



Community Awareness Program in ward no. 15 Dharan Municipality

A meeting for the preparation of EAP-Dharan

Venue: Learning Centre, Dharan Municipality Office

Time: 1:30 pm-2:30 pm

After community awareness program in ward no 15, a meeting for the preparation of EAP Dharan 2007 was conducted at Learning Center, Dharan Municipality. About 45 participants representing from different political parties, NGO, CBO and other Government organizations participated the meeting and discussed the responsibility of each organization during the EAP and finalized the program schedule. As requested by Dharan Municipality, Mr. Ganesh Kumar Jimee from NSET made a presentation on Earthquake Risk of Nepal and Dharan, and the need of preparedness. The risk analyses of Dharan made during DERMP by NSET were also included in the presentation. It was found the people of Dharan are convinced and ready to work together for reducing the risk due to earthquakes. Everybody in the meeting was enthusiastic to contribute something for EAP-Dharan.



A meeting for the preparation of EAP-Dharan

Community Awareness Program in ward no. 8 Dharan Municipality

Venue: Ward No. 8, Kabir tole

Time: 3:30 pm-5:45 pm

The last hour of the first day of EAP-Dharan was used for conducting a community awareness program in ward no. 8 of the municipality. The program was conducted at the office of ward no. 8. About 20 participants from different background were present in the program. However, the majority of ladies participation was observed. This program also was facilitated by Mr. Sunil Nepal, Information and Communication Officer, Dharan Municipality. Mr. Raju Pokharel, Engineer, Dharan Municipality informed all the participants about a week long program and its objectives, and also requested all to join the program.

Mr. Rudra Pun, Structural Engineer, and Mr. Ganesh Kumar Jimjee, Geographer/Urban Planner from NSET made technical presentations on Earthquake Risk of Nepal-Dharan, and Earthquake Preparedness. Due to an interruption of electricity supply, a presentation on the structural and non-structural vulnerability was just verbally explained by Mr. Suraj Shrestha, Engineer, Dharan municipality.



Community Awareness Program in ward no. 8 Dharan Municipality

Day 2 and 3, 20-21 August 2007 (3-4 Bhadra 2064)

Training on Nepal National Building Code

Venue: Learning Centre, Dharan Municipality Office

Time: 10:00 am-4:30 pm

A two days training on Nepal National Building Code was conducted on the occasion of EAP-Dharan 2007. The program was conducted at the Learning Centre of Dharan Municipality Office. About 40 technical personnel representing from Eastern Regional Engineering Institutes (IOE, Tinkune, Dharan), B P Koirala Memorial Institute of Health and Science (BPKIHS), consulting firms, Dharan municipality and other municipalities participated the program.

The two days training included:

- Overview of Disaster and Earthquake Risk of Dharan-Nepal
- Concept and Philosophy of Earthquake Resistant Design
- Introduction to Nepal national Building Code, Philosophy, Need, Process, Implementation Mechanism
- Implementation of Building Code in Dharan Municipality
- Technical Details of Nepal National Building Code
- Exercises on (Mandatory Rules of Thumbs) MRT

An overview of Disaster and Earthquake Risk of Dharan-Nepal was presented by Mr. Ganesh Kumar Jimée and rests of the classes were taken by Mr. Rudra Pun, Structural Engineer, NSET in assistance of Mr. Ganesh Kumar Jimée, NSET and engineers from Dharan municipality.

The training program was followed by an exercise on MRT. The participants were divided in to two groups. One group was assigned to prepare a plan of load bearing house individually and for the next group a plan of Reinforced Concrete House at the end of first day. On the next day, practice on MRT was carried out at the class. At the end, participants presented their designs and had a discussion on the major points. They found MRT easy and useful.



Training on Nepal National Building Code

Day 4, 22 August 2007 (5 Bhadra 2064)

Main Day-EAP-Dharan

Meeting at BPKIHS, Dharan

Date: 22 August 2007

Venue: BPKIHS

Time: 11:00 am-1:00 pm

A meeting with B P Koirala Memorial Institute of Health and Science (BPKIHS) was conducted at the office of Acting Director of BPKIHS on 22 August 2007 (Day 4) before participating the main event of EAP (earthquake awareness rally). As planned a meeting with hospital director in consultation of Dr. Gyanendra Malla and Dr. Balakrishna Bhattarai from BPKIHS, at 11:00 am Mr. Amod Mani Dixit, Executive Director, Mr. Ganesh Kumar Jimée, Mr. Rudra Pun from NSET and Mr. Suraj Shrestha, Engineer, Dharan Municipality went to the Hospital Director's room in BPKIHS. However, due to his busy schedule the Director of BPKIHS could not attend the meeting.

Participants of the meeting

1. Mr. Amod Mani Dixit, Executive Director, NSET
2. Mr. Ganesh Kumar Jimée, Geographer/Urban Planner, NSET
3. Mr. Rudra Pun, Structural Engineer, NSET
4. Mr. Suraj Shrestha, Engineer, Dharan Municipality
5. Dr. Owen Lewis, Chief, Emergency, BPKIHS
6. Dr. Gyanendra Malla, Emergency Incharge and member secretary of Emergency Advisor Committee, BPKIHS
7. Dr. Balakrishna Bhattarai, BPKIHS
8. Dr. Bijendra Kumar Rai, BPKIHS
9. Dr. Prabin Nepal, BPKIHS
10. Dr. Rajat, BPKIHS
11. Dr. Mukunda Regmi, BPKIHS

Major Discussions

Mr. Amod Mani Dixit, Executive Director, NSET made a brief presentation on the NSET activities and possibility to work jointly in the days to come with BPKIHS. He mentioned that NSET is interested to work continue in Dharan as it has been working from the past. He expressed the achievements of previous joint works of NSET with BPKIHS i.e. HOPE course and the Mock Drill exercise in 2005. He also mentioned the possibility of BPKIHS to be developed as eastern hub for safer hospitals. However, he made aware the representatives of BPKIHS that the assessment of structural/non-structural and functional vulnerability of major hospital buildings is prerequisite for working further. He also informed to the participants that ISDR has planed the year 2008-2009 for the campaigning of safe hospitals.

Representatives from BPKIHS were positive and enthusiastic to work further. They wanted to know the tentative cost for the assessment of buildings and other functional and non-structural vulnerabilities in BPKIHS and the process for conducting the assessment. In response of their

interest Mr. Dixit advised them to request NSET engineers to stay couple of more days during the planned Drill exercise in BPKIHS (tentatively during the last week of September) for making quick inventory of the structures and other major systems of BPKIHS for further detail assessment and cost estimation.

The planned Earthquake Drill in BPKIHS is postponed tentatively to be conducted after 9 September (BPKIHS birthday), which will be designed in coordination of hospital management, Emergency department, Dharan municipality and other relevant organizations.

Earthquake Awareness Rally:

Time: 2:30 pm- 4:30 pm.

A preparation meeting for earthquake awareness rally was conducted on 4 Bhadra 2064 at the Dharan Municipality office. The meeting decided to conduct a huge earthquake awareness rally program on the occasion of Earthquake Awareness program (EAP) in commemoration of 2045 B.S. (1988) earthquake involving different ethnic groups, political parties, professional associations, educational institutions/schools, NGO, CBOs and municipal staffs. As decided by the meeting Dharan Municipality organized an awareness rally on 5 Bhadra 2064 involving the participants from different indigenous groups, schools, professional associations, NGO/ CBOs and other government agencies. About 1000 people participated the rally starting from Dharan Municipality office-Chhata chowk-Laxmi Chowk- Purano Bazaar- Machha bhoudi –Bhanuchowk and it took about an hour. The former mayor, Chief/Executive Officer, representatives from civil society and other political leader also participated the rally. A car with municipal volunteers announcing earthquake awareness message lead the rally followed by the political leaders, former mayor, executive officer and other professional groups and school children. All the groups had their representative banners. The participants holding banner and play cards with earthquake awareness messages also announced the slogans.

It was interesting and touching that the local people of purano bazaar had distributing water for the participants on the way of rally.



Earthquake Awareness Rally, EAP Dharan 2007

A ceremony for announcement of Nepal National Building Code Implementation in Dharan Municipality

Venue: Loktantrik Chowk, Bhanuchowk, Dharan Municipality

Time: 4:30 pm- 6:00 pm.

The awareness rally was followed by a ceremony for announcement of Nepal National Building Code Implementation in Dharan Municipality. The ceremony was participated by the Chief/Executive Officer Dharan Municipality, former Mayor, representatives from all political parties, Professional associations, Civil Society and National Society for Earthquake Technology-Nepal (NSET) and the participants of the earthquake awareness rally.

The ceremony was facilitated by Mr. Sunil Nepal, Information/Communication Officer, Dharan Municipality and chaired by Mr. Suraj Shrestha, coordinator of EAP-Dharan/Engineer, Dharan Municipality. Chief/Executive Officer of Dharan Municipality was invited as the chief guest of the ceremony and Mr. Amod Mani Dixit, Executive Director, NSET was invited as the especial guest. The political leaders, representatives from NGO, CBO, civil society, Nepal Police and other professional associations also were invited as the guests in the ceremony.

All the representatives in the ceremony put their words realizing that Dharan lies in earthquake hazard zone which can not be avoided and further they are still adding the risk by the construction of unsafe buildings and other structures. Moreover some of the speakers expressed sentimental feelings in commemoration of 2045 (1988) earthquake. All the speakers representing from their agencies/associations, committed that they will help from their side to implement the building code for safer building construction in Dharan and read together the written announcement of building code implementation in Dharan Municipality. In the same ceremony the representatives from all participating organizations of awareness rally and the training participants were distributed the certificates.

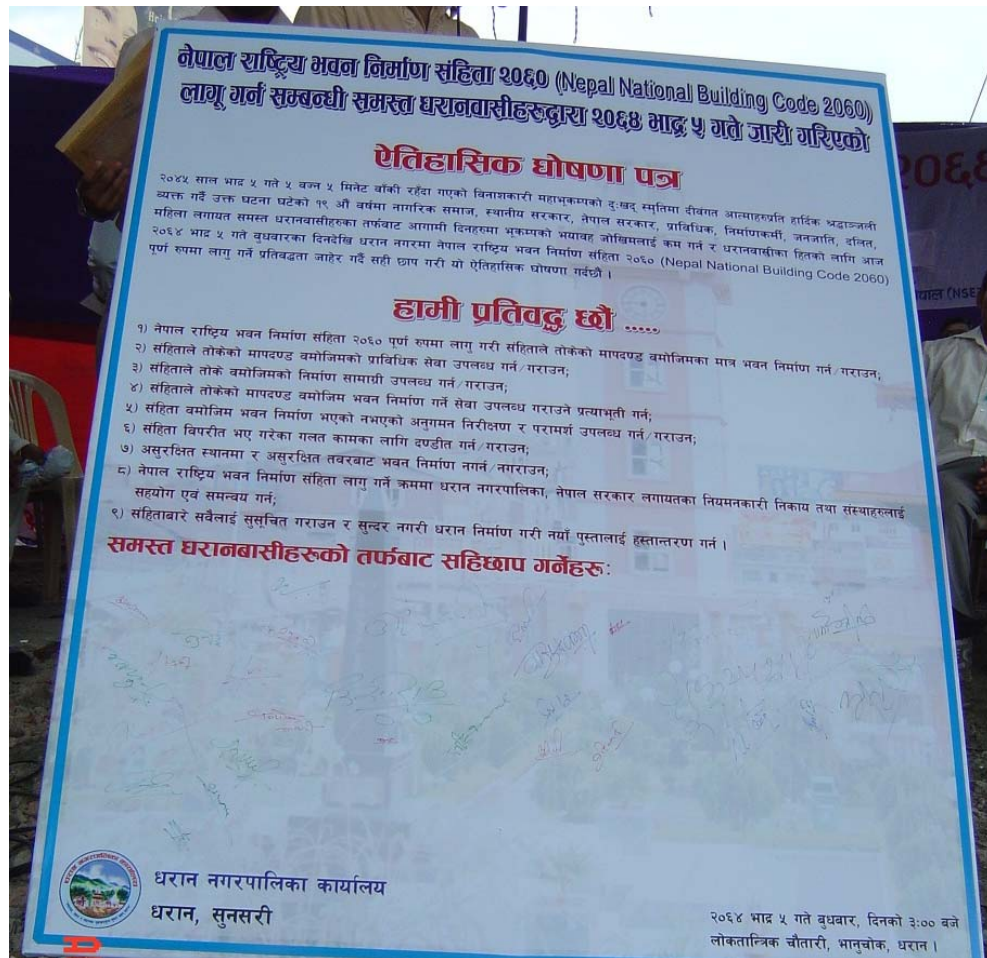
In the ceremony NSET was awarded with a certificate for its regular and valuable contribution to Dharan Municipality for earthquake risk reduction activities.



A ceremony for announcement of Nepal National Building Code Implementation in Dharan Municipality



One of the trained masons in Dharan wearing printed vest and card as an identity of mason



Written announcement of Nepal National Building Code Implementation in Dharan Municipality, all the participants of the ceremony have agreed and signed in this historic document

Lighting the lamp in commemoration of the people killed by 1988 Earthquake

Venue: Bhanuchowk, Earthquake Memorial Park

Time: 6:15 pm -7:00 pm- 6:00 pm.

The ceremony of announcing building code implementation in Dharan was followed by a program for lighting lamp and 1 minute commemorative silence in commemoration of the people killed by 1988 earthquake. This program was organized in the earthquake memorial park, Bhanuchowk near the Dharan clock tower.



Lighting the lamp in commemoration of the people killed by 1988 Earthquake

Day 5, 23 August 2007 (6 Bhadra 2064)

Earthquake Preparedness Orientation to School

Venue: Sarada Balika Higher Secondary School, Dharan

Time: 2:30 pm- 4:30 pm.

An earthquake preparedness orientation program was conducted in Sarada Balika Higher Secondary School on 23 August. About 80 participants representing from class 8, 9 and 10 of the school, the teachers and the resource person from District Education Office Sunsari were present in the program. The program was facilitated by Mr. Sunil Nepal, Information/Communication Officer, Dharan Municipality / President School Management Committee, Sarada Balika Higher Secondary School. Mr. Rudra Pun, Structural Engineer and Mr. Ganesh Kumar Jimee, Geographer/Urban Planner from NSET made the presentations on earthquake risk of Nepal and Dharan, structural/non-structural vulnerability and preparedness. Mr. Suraj Shrestha and Mr. Raju Pokharel also assisted the program from Dharan Municipality. and chaired by Mr. Suraj Shrestha, coordinator of Dharan EAP-Dharan/Engineer, Dharan Municipality



Earthquake Preparedness Orientation to the students of Sarada Balika Higher Secondary School, Dharan

Day 6, 24 August 2007 (7 Bhadra 2064)

Earthquake Preparedness Orientation to School

For the day 6, it was planned to conduct an earthquake preparedness orientation program in one of the government schools of Dharan. However, due to strike of Madheshi Janaadhikar Forum it was risky to drive at day time of 24 August to catch the plane of 3:00 pm for Biratnagar-Kathmandu. Therefore, making an understanding for conducting the said orientation program by municipal engineers, NSET team moved from Dharan at 2:30 am on 24 August.