



## SUMMARY REPORT

Workshop on  
"Urban Earthquake Risk Management"  
25 Feb 07 to 1 Mar 07  
Gorgan, Iran



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## 1. Title of the Workshop

Name: Workshop on “Urban Earthquake Risk Management”

## 2. Organization of the Workshop

*Organizers:*

1. United Nation Development Program, Iran
2. Management and Planning Organization of Iran
3. Golestan Province-Governor Office, Strengthening Capacities for Disaster Risk Management in Iran
4. Housing and Urban Planning Organization of Golestan Province

*Technical Assistant provided by:*

1. Asian Disaster Preparedness Center (ADPC)

Contact persons:

N.M.S.I. Arambepola (UDRM Director). E-mail: [arambepola@adpc.net](mailto:arambepola@adpc.net)

Sara Ahrari (Project Manager). Email: [sahrari@adpc.net](mailto:sahrari@adpc.net)

Established in 1986, ADPC is a leading regional resource centre dedicated to disaster reduction. ADPC works with governments, NGOs and communities of the Asia and Pacific regions to strengthen their capacities in disaster preparedness, mitigation and response through training, technical assistance, regional program management, country project demonstration, information sharing and research.

2. National Society for Earthquake Technology-Nepal

Contact person:

Ramesh Guragain (Director of Earthquake Engineering and Research Division): Email:

[rguragain@nset.org.np](mailto:rguragain@nset.org.np)

*Programme Development & Supervision by:*

United Nation Development Programme

Dr. Victoria Kianpour Atabaki (Program Analyst)

Energy, Environment and Disaster Management Cluster

Email: [Victoria.kianpour@undp.org](mailto:Victoria.kianpour@undp.org)

## 3. Location of the Workshop

Health Worker Education Center, 1<sup>st</sup> Golbarg Ave., South Motahari St., Karimi Sq., Gorgan, Iran

## 4. Starting date and duration of the Workshop

The period of the training course was from 25 Feb to 1 Mar 2007.

## 5. Workshop participants

The total number of the participants in the course was 40. There were 2 female participants and 38 male participants.

The training course participants were from different government organizations, involve in earthquake risk management in Gorgan city. The list of Participants is provided in the Annex III of this report.

## **6. Workshop Introduction**

In the aftermath of the Bam earthquake, there has been a renewed commitment on behalf of various Government and UN agencies in Iran to intensify efforts towards securing Iran against future disaster risks. The Government-UNDP Five-year National Joint Programme is the flag-ship program of UN/UNDP in Iran for reducing disaster risks. The program objectives are aligned with the broad outcomes identified by the UNDAF/UNDP Country Programme for the Islamic Republic of Iran (2005-2009) in the area of disaster risk management. The latter's emphasis on building strong disaster risk management capacities, especially through garnering community awareness and participation; enhancing coordination mechanisms amongst stakeholders at the local and national levels; and developing systems for effective disaster risk management at all levels to develop a strategy for reducing disaster risk in Iran.

Effective and efficient disaster risk management needs multi-disciplinary and multi-sectoral approaches which are not only limited to ensuring structures, but approaches, in which effective, efficient and result-oriented integration; cooperation and coordination with wide range of actors and stakeholders are prerequisites. Communication, networking and facilitation skills are also necessary skills for managers and experts that enable them to get optimum results of integration and partnership with various actors, partners, stakeholders and beneficiaries of the program at horizontal and vertical levels. Without appropriate communication/facilitation skills, partnership, integration and participation, cannot be achieved.

To support achieving the program outcomes, UNDP has contracted the Asian Disaster Preparedness Center (ADPC) to develop and conduct the workshop to improve the knowledge networking in the area of urban earthquake disaster risk management in the Central and Southwest Asian region, as well as developing in participants advanced skills in facilitation, communication and networking for integrated and participatory disaster risk management with actors, partners, clients, stakeholders and beneficiaries.

## **7. Implementation of the Workshop**

### **7.1 Conduct of the Workshop**

Four different Modules have been considered for this workshop:

*Module 1: Overview*

Session 1: Disaster Risk Management Terminology

Session 2: Urbanization and Governance

Session 3: Earthquake Basic Hazard  
Session 4: Vulnerability and Impacts

*Module 2: Risk Assessment & Scenario Development*

Session 5: Exposed Vulnerability  
Session 6: Tools (Radius)  
Session 7: Practical Session  
Session 8: Inventory and Fragility  
Session 9: Microzonation  
Session 10: Assessment of Physical damage and loss estimation  
Session 11: Existing Capacity Assessment  
Session 12: Scenario building practical

*Module 3: Action Plan*

Session 13: Stake Holder and Stake analysis, Action Planning Process  
Session 14: Activities to cover all phases and components of the plan (Actions, roles, resources),  
Prioritization (Short/Medium/long term)  
Session 15: Practical on Action Plan

*Module 4: Implementation of Earthquake Vulnerability Reduction (EVR) Program in Cities*

Session 16: EVR Options (general)  
Session 17: Structural (by laws, building code implementation, guidelines for non-engineered buildings, model construction)  
Session 18: on-structural measures (Policy, training, awareness)  
Session 19: Institutionalization EVR and developing Emergency response capacity in the city  
Session 20: Case Studies

Annex I contains descriptions of all the Modules and their objectives (as planned). Annex II contains the Workshop schedule as planned. In summary, the Workshop was implemented as follows:

*25/02/07 – First day of the Workshop: Opening Ceremony and Overview*

The opening ceremony featured speakers from Golestan Province Governor Office and United Nation Development Program. Dr. Victoria Kianpour UNDP Program Analyst, Energy, Environment and Disaster Management Cluster provided information regarding the formation of the project and the progress made so far.

Information regarding hazard risks of Golestan Province also was also provided by representative of Housing and Urban Planning Organization as part of opening ceremony. The participants then got to sharpen their knowledge about the terminology of Disaster Management in a group work. The day went on providing an overview on the matter to the participants.



**Fig1. Inauguration ceremony**

*26/02/07 – Second day of the Workshop: Risk Assessment*

The planned schedule had to be revised on this day since Mr. Nakayama Yoshinori from Japan



**Fig 2. Facilitator’s Presentation**

International Cooperation Agency (JICA) and Mr. Fabrizio Poretti from Swiss Cooperation Office in Iran were invited by UNDP to present their on going projects on “Microzonation of Tehran City” and “Strengthening Civil Society for Disaster Management; a new approach in Turkey”.

After these presentations the scheduled program was followed. The participants got to know how to work with Radius tool and had a practical session on it. The session on Inventory & Fragility had to be moved to the following day to accommodate the late start of the planned program.

*27/02/07 –Third day of the Workshop: Scenario Development*

The focus of the third day was to elaborate on the process which needs to be followed to develop a scenario. The subjects presented were: Inventory & Fragility, Microzonation, Assessment of Physical damage & loss estimation, existing capacity assessment & Scenario Building. After the capacity assessment session the participants were divided into three groups to do a SWOT analysis for two of five priority actions of HFA 2005-2015, for one of the organizations in Gourgan city.

The organizations selected by the participants were: i) Engineering Society of Gourgan, ii) Gourgan Municipality and iii) Gourgan Red Crescent. In the afternoon, after a short presentation of scenario building the participants were divided into three groups to answer three main questions which are needed to develop a scenario for earthquake in Gourgan City: a) which information/maps need to be translated into the scenario, b) who can be an appropriate representative of Gourgan City; c) For how long after an earthquake the scenario should be developed.



**Fig 3. Group work**

*28/02/07 –Fourth day of the Workshop: Action Plan*

The fourth day was intended to give participants a perspective on different steps of action planning. The first presentation of the day covered the concept of “Stake Holder and Stake Holder Analysis, Action Planning Process”. Then the activities to cover all phases, components of the plan (Actions, roles, resources) and Prioritization (short/medium/long term) were discussed. For the practical part of the action planning the participants were divided into three groups. A list of actions which can be carried out during: i) Mitigation and Preparedness, ii) Emergency Response and Relief and iii) Rehabilitation and Reconstruction; were given to these groups and they were asked to identify who the responsible organization is, what is the status of Program and Activities and Time Frame of the activity (short/Medium and Long Term). They were also asked to identify

three most crucial activities that need to be carried out in Gorgan City and prioritize those three actions.

*1/03/07 –Fifth day of the Workshop: Implementation of EVR program in cities*

The last day of the workshop was intended to elaborate on how to implement the Earthquake Vulnerability Reduction Programs in cities. Structural and Non-Structural measures to be taken to reduce vulnerability were discussed. Presentations on Institutionalization EVR and developing Emergency Response capacity in the city were also provided. The workshop was ended by presenting case studies from Nepal and India.

A detailed version of the program can be found in the Annex II.

## 7.2 Daily schedule

The workshop was schedule from 09:00hrs to 17:00hr with morning and afternoon coffee breaks of 30 minutes. Based on the participants request as of the 2<sup>nd</sup> day it was conducted from 07:30 to 15:00hr.

## 7.3 Resource persons

From ADPC

**Ms. Sara Ahrari**

*Project Manager*

*Urban Disaster Risk Management (UDRM)*

Sara joined ADPC in January 2007. She is managing Iran project in partnership with UNDP, intended to strengthen capacities for Disaster Risk Management (DRM) in Iran. Before joining ADPC, Sara worked for different INGOs and UN organizations in their emergency response programs and rehabilitation/reconstruction projects after major natural disasters (earthquake and Tsunami) in Iran, Pakistan and Indonesia. She has also led several Civil Engineering projects in different consultant companies in Iran. She has obtained her master degree from Carleton University, Ottawa/Canada. In her master's thesis she focused on studying the significance of using uniform hazard spectra (UHS) in the design of bridges, and in particular the soil amplification effects and the ductility demand of bridges.

**Mr. Anup Karanth**

*Program Coordinator (PROMISE)*

*UDRM*

Anup joined ADPC in January 2007 and is currently involved in the PROMISE Program.

Before joining ADPC, Anup worked with UNDP India for 46 months in the capacity of Project Officer (Urban Earthquake Vulnerability Reduction Project) and later as Project Coordinator (UEVR Project, a sub-component of the Government of India-UNDP Disaster Risk Management Programme). The UEVR Project is currently in the fourth year of implementation in 38 urban centers falling in medium to high risk seismic zones of India. He provided technical support to a team of 32 UN Volunteers and supported the city administration in the program implementation. He addressed very specific aspects such as development of training modules and background materials for training and capacity building programs for professionals and construction artisans, development of background materials and strategy for awareness generation programs, development of techno-legal framework for Urban Local bodies and advocacy on various structural and non-structural seismic risk mitigation measures for various identified sectors in the GoI-UNDP DRM program. He was also a member of the Technical Advisory Group and facilitated in the development of hazard specific strategies/guidelines /documents/manuals, provide support for developing the concept and draw up implementation mechanism for mainstreaming disaster risk reduction activities for the national/state/local/partner agencies. He has also contributed for the launch of the School Safety Programme (a subcomponent of the GoI-UNDP Programme) and in the development of the frontline curriculum on Disaster Management in Class VIII, IX, X for the Central Board for Secondary Education.

Prior to UNDP Anup worked with the Environment Management Division



(Confederation of Indian Industry) and also on major construction projects in India. He was involved in the voluntary work post Gujarat Earthquake in 2001 and was involved in the post-damage survey/grading/assessment of the buildings. Anup has Masters Degree in Environmental Planning from School of Planning CEPT University and Bachelors Degree in Construction Technology from School of Building Science and Technology, CEPT University, Ahmedabad India.

**Dr. Maksud Kamal**

*Consultant*

*UDRM*

Dr. Maqsud is associate professor in the department of Geology, University of Dhaka. He has his doctorate degree from the Tokyo Institute of Technology (TIT), Tokyo, Japan. He has done extensive research on Earthquake & Tsunami Vulnerability Reduction focusing on the use of spatial geo data (EVRC) as well as Community Based Risk Reduction activities. Dr. Maqsud also has close collaboration with “Asian Disaster Preparedness Center” (ADPC), on offering different capacity building trainings.

From NSET

**Mr. Ramesh Guragain**

*Director, Earthquake Engineering, Research and Training Division*

Mr. Ramesh Guragain, a Nepalese national is graduated from the University of Tokyo, Japan on earthquake engineering. He has been working in the field of earthquake risk management for the last eight years. He is working as Director, Earthquake Engineering, Research and Training Division of National Society for Earthquake Technology-Nepal (NSET). He is an author of about 30 papers in international conferences and journals. He has an intensive experience in the field of earthquake risk assessment of medical infrastructures. A publication of Mr. Guragain on Seismic Vulnerability Assessment of Hospitals has been published by World Health Organization, the South East Asia Regional Office (WHO/SEARO) as a regional publication and is being used in the region. Mr. Guragain is one of the facilitator in the medical infrastructure safety workshop.

**Mr. Narayan Prasad Marasini**

*Civil engineer*

Mr. Narayan Marasini a Nepalese citizen is a graduate in civil engineering. He is working as civil engineer at National Society for Earthquake Technology-Nepal (NSET). He has been involved in community based development programs in Nepal. He had worked in several projects as a project coordinator to mobilize the community in the development programs. His main field of interest is community mobilization for earthquake risk management activities. He has involved in the Trainings on Reconstruction of Earthquake affected areas on Kashmir and NWFP since the immediate aftermath of Kashmir Earthquake 2005. The training activities in Pakistan is being implemented by NSET with UN- HABITAT Pakistan and Earthquake Rehabilitation and Reconstruction Authority (ERRA) of government of Pakistan.

He is a certified instructor on Hospital Emergency Preparedness (HOPE) course under the Programme for Enhancement on Emergency Response (PEER), which is being implemented in 5 Asian countries Nepal, India, Bangladesh, Philippines and Indonesia by National Society for Earthquake Technology-Nepal (NSET).

**Mr. Ram Chandra Kandel**

*Director of School Earthquake Safety Programme(SESP)*

Mr. Kandel has successfully implemented the seismic safety at community level through several programs conducted by NSET. He is one of the key people in NSET for conduction of community programs, trainings, awareness programs.

He is the Manager of NSET's School Earthquake Safety Program (SESP) that incorporates school construction through community mobilization. The SESP program has triggered several other initiatives such as seismic safety of buildings, and training of local mason, parents on School Earthquake Preparedness Plan. He has developed several training courses and curricula for a variety of target groups, and has conducted several training programs. He is one of the specialists for designing awareness raising campaigns, materials and tools.

Mr. Kandel has perfected model design and construction supervision and has conducted *shaking table* demonstration-nationally and internationally, for public awareness Shake table demo on Indonesia Bandar Aceh with BRI, Japan and world bank Indonesia. (2003-2006). The Shake table has received the San Jose TECH Museum Award, Microsoft Education Category (2004).

He has successfully managed several *Earthquake Safety* days in different parts of Nepal that is commemorated in memory of Great Nepal-Bihar Earthquake that happened in 15 January 1934. The event includes numerous awareness raising activity such as construction of full scale building models (sub-assemblages) and their demonstrations, seminars, demonstration rallies, dramas etc. Further, he has successfully contributed to seismic assessment of hospital buildings, first ever done in Nepal.

He has extensively delivered lectures to national and international community, organizations on structural and non-structural earthquake safety, and earthquake preparedness.

#### 7.4 The purpose of the workshop

The purpose of the workshop was to provide training and guidance on:

- How to manage earthquake risk management programs to ensure optimum involvement of various actors
- How to develop earthquakes scenarios for two selected (Kerman/Gourgan) cities in Iran written in easily understandable format
- Methodology for understanding Urban Earthquake risk management assessment and mitigation measures in Iranian cities
- How to conduct a risk analysis of key public utilities and prioritization of the same in terms of need for retrofitting and resource work plan
- Introduce tools like RADIUS for earthquake risk assessment in urban areas
- How to develop earthquake risk management action plans

- How to set up community Information Centers in two cities (Kerman/Gourgan) that will serve as clearing house of information on different aspects of earthquake risk reduction
- Assess capacity building needs of strategic actors (across horizontal and vertical levels) for earthquake risk management in two cities
- Risk analysis of key public utilities and prioritization of the same in terms of need for retrofitting and resource need plan
- Advise on Public education and awareness generation campaigns in selected cities, which are combination of information outreach (dissemination) and in-reach
- Advise on development of a model action plan for enhancing public awareness of earthquake to be replicable throughout the country

#### 7.5 The learning objectives of the workshop

The following learning objectives were considered for this workshop:

- To design projects for earthquake risk management
- To develop and conduct Risk Assessment
- To prepare Earthquake scenarios for their city
- To prepare Action Plan for their city
- To use RADIOUS tool for earthquake Risk Assessment in the Urban Areas

### 8. Evaluation of the course

In order to assess the impact of the training workshop an evaluation was conducted by staff of “Strengthening Capacities for Disaster Risk Management (DRM) Project in Golestan Province” (by asking the course participants to fill in a questionnaire). From the results shared by ADPC it can be noticed that the workshop has been a successful and innovative one.

Some of the positive points that were listed in the questionnaires:

- The objectives of the workshop were clear.
- Good planning and management of the workshop
- Good snacks during the coffee break!

Some of the points/topics the participants indicated which might get more attention in a future course were:

- The workshop room was small
- Some of the presentation were too long
- The translation was not good
- The schedule was too tight and 5 days were too long for a workshop.

Annex IV contains the breakdown of responses per item of the evaluation questionnaire. Overall the participants valued the workshop content very positively.

## 9. Conclusions and recommendations

This workshop was part one of the third activity considered in the contract between UNDP Iran and ADPC and the first one to be conducted in the demonstrated cities. Although the overall the workshop had a good impact, there is still room for much improvement. The following recommendation could be considered for future workshops:

- Having a professional translator, (capable of translating from English to Farsi and vise-versa), and preferably capable of simultaneous translation and familiar with the theme of the workshop is of crucial importance. During this workshop, lack of proper translation, especially during the first two days, lead to prolonging the sessions and there was also the danger of missing the concepts or misleading the participants, which can affect considerably the quality of the workshop. It is highly recommended that the translators selected for this purpose be professional translators, who are familiar with simultaneous translation and can quickly familiarize themselves with the accents of different facilitators. The workshop materials also need to be provided in advanced to be translated and handed over to the participants.
- The workshop venue also needs to be selected more carefully, allowing space for group work, discussions and facilitation.
- Some of the presentations should be revised to be more interactive and less lecture type presentations.
- Although the participants were trained on the steps to develop the earthquake scenario and action planning, follow up meetings need to be held to get more in depth inputs to develop the scenario and make an action plan for Gourgan city.
- During this workshop, many participants, being from high rank officials in Gourgan, had to miss some sessions to attend to their work. It is preferable that the selected participants would be able to attend the whole workshop. Also since the series of the workshops considered in the in between contract is co-related, it would have been preferable if the same representative(s) from each organization would have attended all the workshops.
- A workshop leader or coordinator should be assigned to properly manage all workshop activities and summarize all discussions at the end of each day.

## Annex I: Workshop Topics and Objectives

### **Module 1 Overview**

This module consisted of the following sessions:

1. DRM terminology
2. Urbanization and governance
3. Earthquake Basics (Hazard)
4. Vulnerability and Impacts

#### **Learning Objectives Session 1**

After this session, the participants were expected to be able to:

- Define the common terms used in Disaster Risk Management
- Able to understand the meaning of the terminology used in DRM

#### **Learning Objectives Session 2**

After this session, the participants were expected to be able to:

- Discriminate between city and urban area
- Discover the subjective nature of the definition for term urban
- Describe the undesirable effects of uncontrolled increase in urban population
- List the positive aspects and negative spill-over of urbanization
- Discuss urban poverty and how it can create unsafe communities
- Give examples of global initiatives to create safer urban communities

#### **Learning Objectives Session 3**

After this session, the participants were expected to be able to:

- Distinguish between the concepts of earthquake hazards, secondary hazards, multiple hazards and disaster
- Explain hazard characteristics such as magnitude, frequency, intensity and rate of onset and their importance
- Conduct hazard identification, hazard assessment and hazard mapping and explain their functional value
- Distinguish between primary and secondary hazards of earthquake
- List types of data used in earthquake hazards

#### **Learning Objectives Session 4**

After this session, the participants were expected to be able to:

- Define what is meant by vulnerability
- List and describe criteria that add to the vulnerability of a community for earthquake hazard
- List and describe criteria that reduce the vulnerability

### **Module 2 Risk Assessment and Scenario Development**

This module consisted of the following sessions:

5. Exposed Vulnerability (where is Risk and how it is created)

6. Tools (RADIUS)
7. Practical Session
8. Inventory & Fragility
9. Microzonation
10. Assessment of Physical damage and loss estimation
11. Existing Capacity Assessment
12. Scenario building practical

### **Learning Objectives session 5**

After this session, the participants were expected to be able to:

- Distinguish between the concept of vulnerability and risk
- Name and explain components in quantification of risk
- Give a break down of elements at risk
- Construct a risk matrix
- Explain Risk as a function of hazard, loss and preparedness
- List components of earthquake risk and discuss them

### **Learning Objectives session 6**

After this session, the participants were expected to be able to:

- List the objectives of RADIUS method for earthquake risk assessment
- List the target audience segments of RADIUS exercise
- Describe guidelines for implementation of Risk Management Projects and discuss the advantages of this new method
- List the steps for data input/analysis for the damage assessment of the targeted city using RADIUS tool

### **Learning Objectives session 7**

After this session, the participants were expected to be able to:

- Get hands on experience of using RADIUS tool
- List proper steps for analysis of city's earthquake risk using RADIUS tool
- List the necessary information required for the assessment of city's risk against earthquake using RADIUS tool
- Able to use RADIUS tool to assess earthquake risk in their cities

### **Learning Objectives session 8**

After this session, the participants were expected to be able to:

- List shortcomings \ limitations of RADIUS tool
- List the possible options for modifying/localizing the RADIUS tool to meet the local conditions
- Describe the relation of building \ infrastructure inventory and their fragility for the proper risk assessment of the city

### **Learning Objectives session 9**

After this session, the participants were expected to be able to:

- List the importance of seismic microzonation for earthquake risk reduction, preparedness and effective response
- Describe the different methods of seismic microzonation
- Describe the use of seismic microzonation for development planning of the city

### **Learning Objectives session 10**

After this session, the participants were expected to be able to:

- Analyze the physical damage and loss due to scenario earthquake based upon the output from RADIUS
- Compare the risk with different physical environment
- Describe the change in overall loss if the physical environment is improved

### **Learning Objectives session 11**

After this session, the participants were expected to be able to:

- Describe the participatory approaches for the existing capacity assessment of the city
- Identify local resources for implementation of earthquake risk management activities in the city
- Describe the process of gap analysis

### **Learning Objectives session 12**

After this session, the participants were expected to be able to:

- List the steps of earthquake scenario development
- Describe the different use of earthquake scenario and required accuracy
- Describe the importance of translating scientific information to common people language
- Describe the process of scenario writing

## **Module 3      Action Plan**

This module consisted of the following sessions:

13. Stakeholder and stake analysis, Action planning process
14. Activities to cover all phases, components of the plan (Actions, roles, resources), Prioritization (short/medium/long term)
15. Practical on Action Plan

### **Learning Objectives session 13**

After this session, the participants were expected to be able to:

- Identify the stakeholders in their cities, who need to be involve in action planning process
- Describe the characteristics of a good plan
- Establishing Selection Criteria
- Distinguish different types of planning
- Describe the process of action planning



### **Learning Objectives session 14 & 15**

After this session, the participants were expected to be able to:

- Develop a process for Earthquake Vulnerability Risk Reduction action plan for their city
- Recognize factors that contribute to the successful implementation of their plan
- Identify strategies for implementation
- Put in place a mechanism for tracking implementation process

### **Module 4 Implementation of EVR Program in Cities**

This module consisted of the following sessions:

16. EVR options (general)
17. Structural (by laws, building code implementation, guidelines for non-engineered buildings, model construction)
18. Non-structural measures (Policy, training, awareness)
19. Institutionalization EVR and developing Emergency response capacity in the city
20. Case Studies

### **Learning Objectives session 16**

After this session, the participants were expected to be able to:

- List and describe the categories of earthquake vulnerability reduction methods
- Compare and contrast the two EVR approaches
- Distinguish between structural and non structural vulnerabilities of physical structures
- Give the characteristics of earthquake resistant communities
- List vulnerable elements in the built environment
- Outline vulnerability at household, community and national level
- List options available for vulnerability reduction
- Understand the principles and basic concepts of planning EVR programs and their implementation
- Recognize planning techniques and methods for implementing EVR programs
- Recognize basic approaches and key success factors in implementing EVR programs
- Describe constraints and roadblocks to EVR implementation and methods to overcome them

### **Learning Objectives session 17**

After this session, the participants were expected to be able to:

- Analyze existing construction mechanisms
- Analyze the need for improvement of construction process (by law, compliance to building codes, guidelines for non-engineered construction)
- Identify methods to ensure/improve earthquake resistance of new constructions
- Identify methods to decrease unacceptable risks of existing structures
- Develop strategies to increase public awareness on proper construction methods

### **Learning Objectives session 18**

After this session, the participants were expected to be able to:

- Describe the governing policies affecting the earthquake vulnerability

- Ways of policy improvement and building institutionalizing mechanism
- Explain the necessity of a need assessment of target groups for training
- Appreciate the need to set goals and objectives for training based on the need assessment
- List the activities needed for the formulation of a curriculum outline
- Discuss the process of material development
- List and describe things to do during training implementation

### **Learning Objectives session 19**

After this session, the participants were expected to be able to:

- Discuss the legal options available in reducing the earthquake vulnerability of a community
- Discuss the organization models that can be adopted by cities to reduce vulnerability against the seismic risks
- Recognize the importance of institutionalizing EVR
- Develop Emergency response capacity in their city

### **Learning Objectives sessions 20**

After this session, the participants were expected to be able to:

- Case studies on best practices and lessons learnt
- Different legal instruments that are employed to reduce the earthquake vulnerability of a community by some Asian countries or cities
- Organizational approaches that is resorted to by some cities in carrying out disaster reduction measures

Annex II: Workshop Schedule  
**Urban Earthquake Risk Management Workshop, Gourgan**  
**25 Feb 2007 to 1 Mar 2007**

<u>Day 1</u>		
Time	Description	Responsibility
<b>Module 1</b>	<b>Overview</b>	
0900-0930	Opening Ceremony	UNDP/Government Officials
0930-1030	DRM Terminology	Sara-ADPC
1030-1100	Tea Break	
1100-1230	Urbanization and governance	Anup - ADPC
1230-1330	Lunch Break	
1330-1500	Basics Earthquake hazard	Dr.Maksud- ADPC
1500-1530	Tea Break	
1530-1700	Vulnerability and Impacts	Dr.Maksud- ADPC
<u>Day 2</u>		
<b>Module 2</b>	<b>Risk assessment and Scenario development</b>	
0900-1030	Exposed vulnerability (Where is risk and how it is created)	Ram -NSET
1030-1100	Tea Break	
1100-1230	Tools (RADIUS)	Ramesh -NSET
1230-1330	Lunch Break	
1330-1500	-Do practical-	Ramesh+Ram+Narayan-NSET
1500-1530	Tea Break	
1530-1700	Inventory & Fragility	Ramesh-NSET

<b><u>Day 3</u></b>		
0900-1030	Microzonation	Dr.Maksud
1030-1100	Tea Break	
1100-1230	Assessment of Physical damage & loss estimation	Ram-NSET
1230-1330	Lunch Break	
1330-1500	Existing capacity assessment	Ramesh-NSET
1500-1530	Tea Break	
1530-1700	Scenario building practical	Ram+Narayan+Ramesh-NSET
<b><u>Day 4</u></b>		
<b>Module 3      Action plan</b>		
0900-1030	Stakeholder and stake holder analysis, Action planning process	Anup- ADPC
1030-1100	Tea Break	
1100-1230	Activities to cover all phases, components of the plan (Actions, roles, resources), Prioritization (short/medium/long term)	Anup- ADPC
1230-1330	Lunch Break	
1330-1500	Practical on Action Plan	Ramesh+Ram+Narayan-NSET
<b><u>Day 5</u></b>		
<b>Module 4      Implementation of EVR program in cities</b>		
0900-1000	EVR options (general)	Dr.Maksud- ADPC
1000-1030	Tea Break	
1030-1130	Structural (by laws, building code implementation, guidelines for non-engineered buildings, model construction)	Ram-NSET
1130-1230	Non-structural measures (Policy, training,	Ramesh-NSET

	awareness)	
1230-1330	Lunch Break	
1330-1500	Institutionalization EVR and developing Emergency response capacity in the city	Anup- ADPC
1500-1530	Tea Break	
15.30-17.00	Case studies	ADPC & NSET

Annex III: List of Participants

Urban Earthquake Risk Management Workshop, Gorgan

	Name of the Participant	Desegnation
1.	Dr. Mohammad Ali Zanganeh	Ministry of Health, Golestan Province
2.	Dr. Ebrahim Naeemi	Red Crescent- Golestan Province
3.	Dr. Estiri	Red Crescent- Golestan Province
4.	Mr. Rahimi	Red Crescent- Golestan Province
5.	Ms. Sayareh Hosseini	Red Crescent- Golestan Province
6.	Ms. Mahasti Ghodse Vali	Gorgan Municipality
7.	Mr. Livani	School Renovation Organization- Golestan Province
8.	Mr. Makhdoomi	School Renovation Organization- Golestan Province
9.	Mr. Asghar Heydarian Fard	Housing and Urban Planning Organization
10.	Mr. Ali Asghar Pasandi	Regional Basij
11.	Mr. Mehran Malek Pour	Communication Company
12.	Mr. Salari	Golestan Engineering Society
13.	Mr. Falsafi	Golestan Engineering Society
14.	Dr. Ghorchi	University of Medical Science-Gorgan
15.	Mr. Babaee	Governor Office-Golestan Province
16.	Mr. Safarian	Managing and Planning Organization- Golestan Province
17.	Mr. Mohebi	Islamic Republic of Iran Broadcasting (IRIB)
18.	Mr. Jabari	Ministry of Education- Gorgan
19.	Mr. SanadZaee	Ministry of Education-Gorgan
20.	Mr. Mohsen Jandaghi	Housing Foundation-Golestan Province
21.	Mr. Hamidreza Karimzadeh	Vocational & Technical Training Center-Gorgan
22.	Mr. Grayeli	Azad University-Gorgan
23.	Mr. Shakeri	Electrical Department-Golestan Province
24.	Mr. Asiyaban	Electrical Department-Golestan Province
25.	Mr. Mahyar Khosravi	Water and Wastewater Company
26.	Mr. Davood Taleshi	Gas Company- Golestan Province
27.	Mr. Mokhtar Zargarani	Municipality-Gorgan
28.	Mr. Damghani	Fire-Fighting Organization

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| 29. | Mr. Hesam                      | Governor Office-Golestan   |
| 30. | Mr. Mosadegh                   | Fire-Fighting Organization   |
| 31. | Mr. Ahmad Nazari               | Ministry of Health-Golestan Province   |
| 32. | Mr. Seyed Mehdi Hosseini Nejad | Association of Mass Construction<br>Contractors-Golestan Province                  |
| 33. | Mr. Sufi                       | Director of the Incident Task Force-<br>Governor Office, Golestan Province         |
| 34. | Mr. Janfeshan                  | Managing Director of Technical Office<br>at Governor Office, Golestan              |
| 35. | Mr. Mir Akbari                 | Technical Assistant, Incident Task<br>Force- Governor Office, Golestan<br>Province |
| 36. | Mr. Khosh Bayan                | Technical Assistant, Project Office-<br>Governor Office, Gourgane                  |
| 37. | Mr. Payandan                   | Technical Assistant, Project Office-<br>Governor Office, Gourgane                  |
| 38. | Mr. Dashti Zadeh               | Technical Assistant, Project Office-<br>Governor Office, Gourgane                  |
| 39. | Mr. Rabi narayan Gouda         | IUNV-UNDP  |
| 40. | Mr. Ardeshir Sayah             | UNDP   |

#### Annex IV: Participant Workshop Evaluation Report

1. Overall, how do you evaluate this Workshop ?
  - a. Very Useful : **36.6%**
  - b. Useful : **63.4%**
  - c. Not Useful : **0%**
2. How do you evaluate this workshop with regard to be innovative and presenting new material ?
  - a. Very good : **25%**
  - b. Good : **75%**
  - c. Average : **0%**
  - d. Bad : **0%**
3. How do you evaluate the objective considered for each session ?
  - a. Relevant : **60%**
  - b. Clear : **40%**
  - c. Not realistic : **0%**
4. How successful do you evaluate the workshop in being able to achieve these objectives ?
  - a. Very successful : **15%**
  - b. Successful : **75%**
  - c. Somehow successful : **10%**
  - d. Not successful : **0%**
5. How successful were the presenters in presenting different sessions :
  - a. Very successful : **26%**
  - b. Successful : **66%**
  - c. Somehow successful : **8%**
  - d. Not successful : **0%**
6. What were the strong points of the workshop in your opinion ?
  - Having clear objectives
  - Good planning and management
  - Good refreshments
7. What were the weak points of the workshop in your opinion ?
  - The workshop room was small
  - Participants were talking on their mobile phones inside the workshop
  - Long presentations
  - Lack of proper translation system
  - The duration of the workshop (5 days) was too long
  - Lack of sufficient facilities (computer to use the software)
8. Which of the presented topics were more attractive for you ?
  - Microzonation
  - Using RADIUS Tool
  - Developing simple Guidbooks/manuals including simple and practical information for public



9. Which of the presented topics were less attractive for you and needs modification in your opinion?
- The overlaps of some subjects in the presentation from different presentors
  - All the material were practical and needs the planning for implementation and coordination among different sectors. Implementing the training material could be very effective.
10. Other suggestions ?
- Repeating these workshops along with site visits and reporting on the progress of activities could be useful.