

# Emergency Field Assessment Mazandaran Earthquake May 30-31

## Acknowledgements

Our sincere thanks go to the provincial authorities and in particular of Eng. Behzad Pour Mohammad, Head of the Disaster Task Force of the Governor's Office (Mazandaran Province) and Eng. Dadash Pour Mohammad, Natural Disaster Expert, who facilitated the mission in Mazandaran Province. Without their assistance this mission would not have been possible. Our thanks go as well to WFP and Unicef who provided transport and logistics for this mission and OCHA who arranged for initial contacts with MoI and Provincial Authorities.

## Introduction

Following the 28<sup>th</sup> May earthquake in Mazandaran and Qazvin provinces, the UNDMT met on May 29<sup>th</sup> and decided to send a preliminary field assessment mission to the affected area to collect, verify and compile information on the extent and impact of the earthquake.

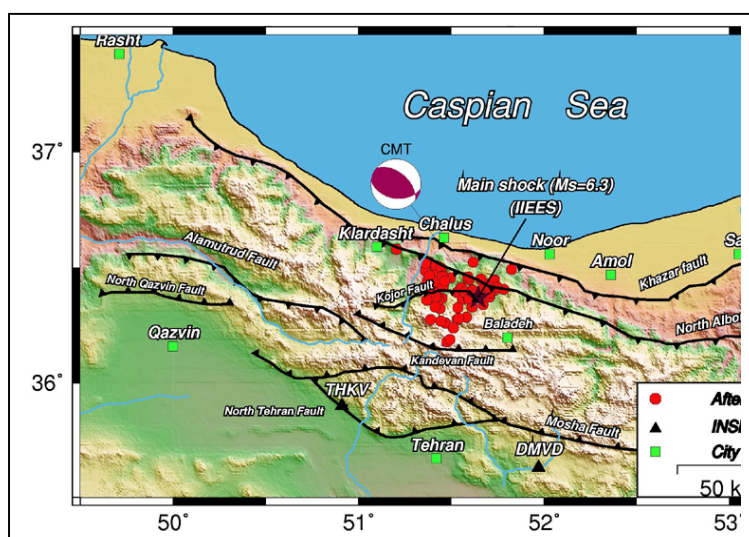
The team was lead by Unicef and comprised of WHO, UNFPA, OCHA and WFP<sup>1</sup> and departed to on 30<sup>th</sup> May At 8:00hrs and arrived in the affected area at 12:40hrs. Accompanied by the Provincial Authorities, the team visited Baladey, Yoosh, Nahieh, Chalus road, Pole Oshen and Firooz Abad. Based on the information collected during the first day the team decided, after consultation with the UN offices in Tehran, to cancel the planned visit to Qazvin province. The mission returned to Tehran on May 31 at 18:00hrs.

The mission report followed the outline of the 'Checklist for reporting by the Field Assessment Teams' as described in the 'United Nations Disaster Management Plan for the Islamic Republic of Iran'.

## 1. Nature of Disaster

### 1.1. Main event

On Friday 28<sup>th</sup> of May 2004 at 17:08 local time (12:38 UTC), an earthquake measuring 5.5 on Richter scale<sup>2</sup> affected nine provinces in the north, northwestern and central parts of the country. The epicentre has been in East MarzanAbad, Mazandaran Province in a mountainous part approximately 69 km north of Tehran. The epicenter was located at 36.37°N and 51.64°E.



<sup>1</sup> Team members were: Mr. Steven Lauwerier, Emergency Officer, Team leader (Unicef), Ms Mojgan Darabi, Field Monitor (WFP), Dr. Bijan Hamidi, Medical Officer (WHO), Dr. Ali Shirazi, Programme Officer (UNFPA), Mr. Shahriar Delavar, Programme Assistant (OCHA/UNDP).

<sup>2</sup> IIEES reported that the earthquake had a magnitude of 6.2 on the Richter scale and a depth of between 10-12 kms.

The Tehran University Institute of Geophysics reported an intensity of 5.5 on Richter scale at a depth 26 km. The Broad Band Seismic Network (INSN) of IIEES<sup>3</sup> reported a surface wave of magnitude (Ms) 6.3 on Richter scale at a depth of 10 km. The earthquake was felt severely in a radius of 200 km.

The official reports indicate more than 30 deaths and near 200 injured. These figures are expected to rise as new information is made available from remote areas. The majority of the casualties have been due to landslides and falling rocks along the heavily used Tehran-Chalus road. The road has been blocked in at least 5 locations.

## **1.2. Subsequent events**

After the main event more than 150 aftershocks have been reported, some of them were reaching more than 4.5 on Richter scale.

## **1.3. Current conditions**

Aftershocks are still continuing but decreasing in intensity.

## **1.4. Expected development**

The affected area is mainly a mountainous region with cold humid weather. Most part of the area is covered by forests and pasture. The weather is expected to turn significantly cold in three months starting from September.

## **2. National Authorities**

### **2.1. National authority in charge of coordinating domestic response to emergency**

Eng. Behzad Pour Mohammad, Head of the Provincial Emergency Task Force

Mobile: +98 911 1513164

Office +98 151 221 0276; +98 151 0211-19

Email: pour\_beh@yahoo.com

24 hour contact Mobile number: +98 911 1513164

Address: Office of the Governor General, Mazandaran Province

### **2.2. National authority (if separate from above) in charge of co-coordinating/focal point for international response**

Eng. Jazayeri, DG for Natural Disasters, Ministry of Interior

Office +98 21 896 8024;

Address: Ministry of Interior Affairs, Fatemi Ave., Tehran

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<sup>3</sup> International Institute of Earthquake Engineering and Seismology

### 3. Affected Area

Apart from the vast area that includes ten provinces and the capital where the earthquake could be felt, only two provinces have been significantly affected. In the Mazandaran province, Baladeh, MarzanAbad, Pool, Kodjor, Noor, KalarDasht, Chalus districts are the most affected areas, the officially announced epicenter was outskirts of Baladeh and Yoush villages.

In Mazandaran province about 60 villages with 4000 households and around 20,000 inhabitants have been reported to be affected by the earthquake. Of these 20 villages including FirouzAbad, Samaa, Pole-Oushan, Anarak, were severely damaged. The total area affected stretches over 200 Km around the epicenter.

The rural population is from a low-income category and is mainly involved in agricultural activities (animal husbandry and crops) and manual labor.

No big cities suffered significant damage.

### 4. The Damage

#### 4.1. Buildings

The traditional buildings constructed of stones, mud and wood were severely damaged. Other buildings such as masonry and concrete buildings were much less or remained not affected. Traditional Roofs were mostly made of wood and iron sheets based on wooden pillars which were not strong enough to stand pressure of earthquake and after shocks.



Destruction in Firooz Abad

Out of the villages visited, Pole-Oshan and Firooz Abad were the most affected with about 80% damage. Other villages like Baladeh, Yoosh, and Nahieh were not significantly affected, some minor damages were observed.

Damage to the public buildings including schools and health facilities were not significant.

#### 4.2. Lifelines and critical facilities (LCF)

The team observed that the local authorities were active in assisting affected population with the basic requirements. The affected area is accessible by road. However, the Tehran-Chalus road is still dangerous due to risk of falling rocks and landslides and is closed to the public. Mobile phone coverage was good everywhere and the telecommunication infrastructure was intact.



Tehran-Chalus road

All health facilities including Health Houses, Health Centers and one OPD clinic in Baladeh were not affected and functioning. According to Dr. Hosseini, Director of the Health Network, 17 Health houses and 3 Health Centers (Baladeh, Ooz, and Takor) were providing primary and secondary health services in most of the affected area in the province.

No shortage of electricity and fuel was noted and the power lines were mostly intact.

The source of the water in most parts was natural springs brought to the villages by pipes. In some villages we found breakages of the water pipes which could be easily repaired. Availability, safety and quality of the water do not seem to be affected by the earthquake. The sanitary system before the earthquake was basic and does not seem to be affected.

No damage to the crops was reported.

In some case large number of live stocks reported death (Pole Oshen) due to falling rocks.

No damage was reported to the public food storage. Due to damage to home ovens, people were facing some difficulties in making home-made bread which is their main food together with rice . Some minor shortages were observed. The government and IRCS have already distributed 1500 food baskets to all affected villages. Each food basket, serving two people for one week consists of 6 kg rice, 3 kg sugar, 15 tuna can, 5 canned eggplant , 5 canned beans, 3 kg pulses, 1 kg tea and 2 kg vegetable oil.

## **5. Secondary Threats**

No official figure of the number of homeless people was available by the government at the moment . Over 2400 tents have been reported distributed by the IRCS. There was a demand for more tents from the beneficiaries' side. A large part of the population is afraid of spending the nights in their houses. Government has provided temporary camps for homeless and people afraid of returning to their homes.

Due to availability of primary health care, no significant threat of communicable disease observed . No interruption of reproductive health, Safe motherhood and family planning observed. Secondary health and curative services were available.

IRCS had transported the adequate amount of food items packed in the different size of rations equal to the number of household members.



IRCS warehouse in Baladey

## **6.Ongoing Relief Activities**

### **6.1. National response**

Team's members have observed , well administrated relief operation and close monitoring of the operation by the government . IRCS is the most active organization in terms of operational capacity. Responsible government authorities were observed to have adequate knowledge and experience to co-ordinate relief and rescue operations. The coping mechanisms of the Government seem to be sufficient to manage the situation.



Shelter provided by IRCS in Firouzabad

### **6.2. International response**

The government of Iran had not requested international assistance and up to now there has been no international presence in the affected region.

## **7. Estimated Needs for Assistance**

The response seems to be adequate and at this time no immediate action seems to be necessary. The mission suggests that no international assistance is needed at this stage. The reader is kindly referred to the attached minutes of meeting between the UN assessment team and local authorities and MoI sitrep where possible future avenues for collaboration in the recovery phase are discussed.

Longer term interventions in the fields of capacity building, awareness raising and mitigating activities could be explored by the UN.

## ANNEX 1

### Minutes of the meeting between UN disaster FAT with the local authorities

Date: May 31

Place: Lobby of the Koroush Hotel in Chalus

Participants:

- Eng. Pour Mohammad, Head of the Provincial Task Force
- Mr. Dadashpour, Earthquake Expert in the Task Force
- Mr Ahmadi, Area responsible of MoI for Chalus
- Members of the UN FAT from OCHA, UNFPA, UNICEF, WFP, and WHO

- The UN FAT expressed its appreciation for the government support to this mission. The purpose and set up of the mission was explained. Furthermore, the mission praised the exemplary rescue and relief operations undertaken over the past days by the Provincial authorities, together with the defence forces and the Iranian Red Crescent Society.
- Head of the Provincial Task Force and the Governor thanked the mission for involvement in the assessment of the situation. He also briefed the team on the availability of local seismology center that supports the natural disaster task force 24 hours a day.
- Head of the Provincial Task Force suggested support from the UN system in 2 areas:
  - 1- Support for social rehabilitation and livelihood of the community
    - In the Health sector he suggested support to second curative health services and general hospital care in the Baladeh. When suggested for the technical assessment of level of need, he left it to the organizations with a health mandate and Ministry of Health & Medical Education.
    - He also asked for focus on the children and their education.
    - With emphasizing the vital role of the Chalus road in socio-economic development of the region, he suggested involvement of UNDP in the risk reduction plans and projects for the area as well as assistance in repairing of the road to increase safety and prevent future hazards.
    - Community participation in all activities is essential.
  - 2- Mitigation and prevention activities:
    - Awareness at community level
    - Awareness at primary and secondary schools
    - Use of successful methodologies tested in other parts of the world
- UNICEF discussed the possibility for extension of psychological support projects for the affected population.
- WHO explained about their Community Based Risk Management Program and suggested that may be the affected areas in the Mazandaran province would also be selected for the pilot implementation of the project.
- The mission would pass the suggested areas of intervention to the UNDMT in Tehran.

Finally the government shared their experiences and lessons learnt with the UN team and asked the UN agencies to share their knowledge and experiences with the Government authorities.

## ANNEX 2

Ministry of Interior  
Mazandaran Governorate

28 May 2004

### **Earthquake Situation Report**

A strong earthquake with a magnitude of 5.5 rattled Iran's Northern provinces by the Caspian Sea on Friday 30 May, at 17:08 local time. The epicenter has put on Southern part of Noshahr and some residences, government buildings and infrastructure installations incurred damages in Tonekabon, Chalus, Noshahr, Nur & Amol provinces. In line with this disaster, measures are taken by the Natural Disaster Taskforce as follows:

#### **Tonekabon Province:**

- 1 killed as a result of giant boulders rolling down the mountain.
- Some residents are damaged and it is estimated around %30 to %80.

#### **Chalus Province:**

- 18 killed as a result of giant boulders rolling down the mountain.
- Out of 157 injured, 20 hospitalized and the others were out patients.
- Vehicles stuck in Kandovan road.
- 15 villages damaged & it is estimated around %30 to %100.

#### **Noshahr Province:**

- 2 killed & 20 injured.
- 25 villages damaged & it is estimated around %30 to %100.

#### **Amol Province:**

- 2 killed & 20 injured
- Giant boulders rolling down the mountain on a car connecting road of Haraz-Larijan but no death report.
- 40 residents damaged & it is estimated around %30 to %80.

#### **Measures adopted:**

- Taskforce meeting was held in the provinces incurred damages.
- Dispatching members of Taskforce, Aid workers, Law enforcement forces, necessary supplies and Machinery to the areas.

#### **Active Executive Branches:**

- Governorates/ IRCS/ University of Medical Sciences/ Basij Forces/ Law enforcement forces/ Road & Transportation/ Regional Electricity Co./ Fire Fighting / Expertise & Aid Workers/ Department for Physical Education/ Aid Vehicles/ Machinery
- IRCS dispatched 16 ambulances, 160 aid workers, food items and tents to the areas.
- University of Medical Sciences announced readiness of all the hospitals and clinics via emergency number 115 as well as dispatching 17 ambulances, doctors, an airplane with aid workers to Mazandaran province.
- Basij Forces dispatched two battalions, a multitude, two groups of aid workers, 10 ambulances, two emergency team and a team of mountaineers to the areas.
- Law enforcement forces/ Road & Transportation dispatched forces to the areas and cleared up the roads by bulldozer, grader and truck.
- Fire Fighting dispatched forces to the areas.
- Regional Electricity Co. restored the electricity in the damaged areas.
- Department for Physical Education dispatched a team of mountaineers to the areas.
- Semnan province dispatched aid workers and machinery to clear up the roads.

#### **Current Situation:**

- Kelardash-Abbasabad / Nishahr-Kajour roads are cleared.
- Kandovan road blocked up as a result of boulders rolling down the mountain.
- IRCS erected tents and distributes necessities to the earthquake stricken.
- Aid workers try to identify the injured and the dead.
- The problems with water, electricity and telephone have been solved and the condition has returned to normal

#### **Essential Needs:**

- Road & Transportation forces are in dire need of bulldozer, grader and truck to clear up the roads ( Kandovan in particular) from neighboring provinces like Tehran, Gilan, Semnan
- Government Emergency Allotted Budget for reconstruction of infrastructure installations, residents, residents appliances and agricultural and livestock units.

Mr. Behzad Pourmohammad

Chief

Natural Disaster Taskforce

Last report- Saturday 29 May 2004 / 09:00 AM