

**UN JOINT ASSESSMENT MISSION
Kyrgyzstan Earthquake**

RAPID ASSESSEMENT REPORT



December 29-30, 2006

RAPID EMERGENCY ASSESSMENT REPORT

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Introduction

On December 26, 2006 at approx. 02:00 am local time, an earthquake registering 5.8 on the Richter scale struck Kochkor District of Naryn Oblast, which is located approximately 2.5-3 hours drive from the capital, Bishkek. The total population of Kochkor district is about 55,000 people.

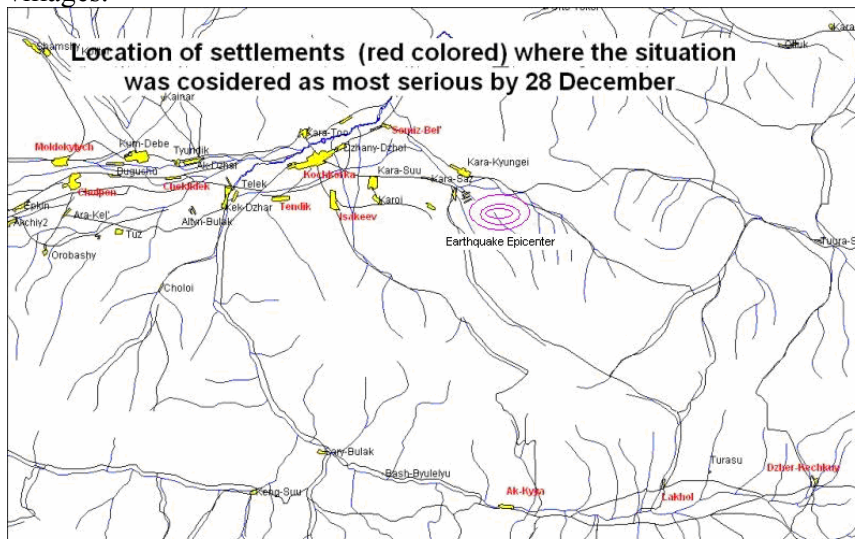
Following the decision of the UN Crisis Management Team, a Joint UN Rapid Assessment mission was undertaken to Kochkor district on Dec 29-30, 2006. The team included:

1. Murat Koshoev, UNDP Disaster Program Adviser (*Joint Assessment Team Leader*)
2. Farhad Imambakiyev, UNICEF Assistant Project Officer (*focus school / general*)
3. Damira Ruzieva, UNICEF Assistant Project Officer (*focus health and nutrition*)
3. Emil Omuraliev, WHO DPR Focal Point (*focus health*)
4. Sanjar Ibraimov, UNDP Disaster Component Assistant (*focus infrastructure*)
6. Nurlan Karybekov, UN RC Associate (*focus infrastructure*)

The objectives of the mission are:

- to assess status of infrastructure (houses, social buildings, etc);
- to assess health and food/nutrition as well as water and sanitation in the affected areas;
- to define priority areas for UN assistance;
- to prepare a Situation Assessment Report

Due to limited time and remoteness of some affected settlements (see map below) the assessment team was divided into two groups. The first group assessed the situation in the most remote and mountainous villages of Akkyja, Lakol, Jerkochku and the second focused on Kochkor and Isakeev villages.



Territorial priorities

According to the Ministry of Emergency of Kyrgyz Republic (MOE) and the Kochkor rayon administration datum and reports, the following villages were affected the most (it was also confirmed during the visits and discussions with the local population):

- Kochkor
- Isakeev (former Bol'shevik)
- Tendik
- Chekildek
- Semizbel
- Moldoklych (former Osoviahim)
- Partly: Cholpon, Akkyja, Lakol, Jerkochku.

PART 1 – SITUATION

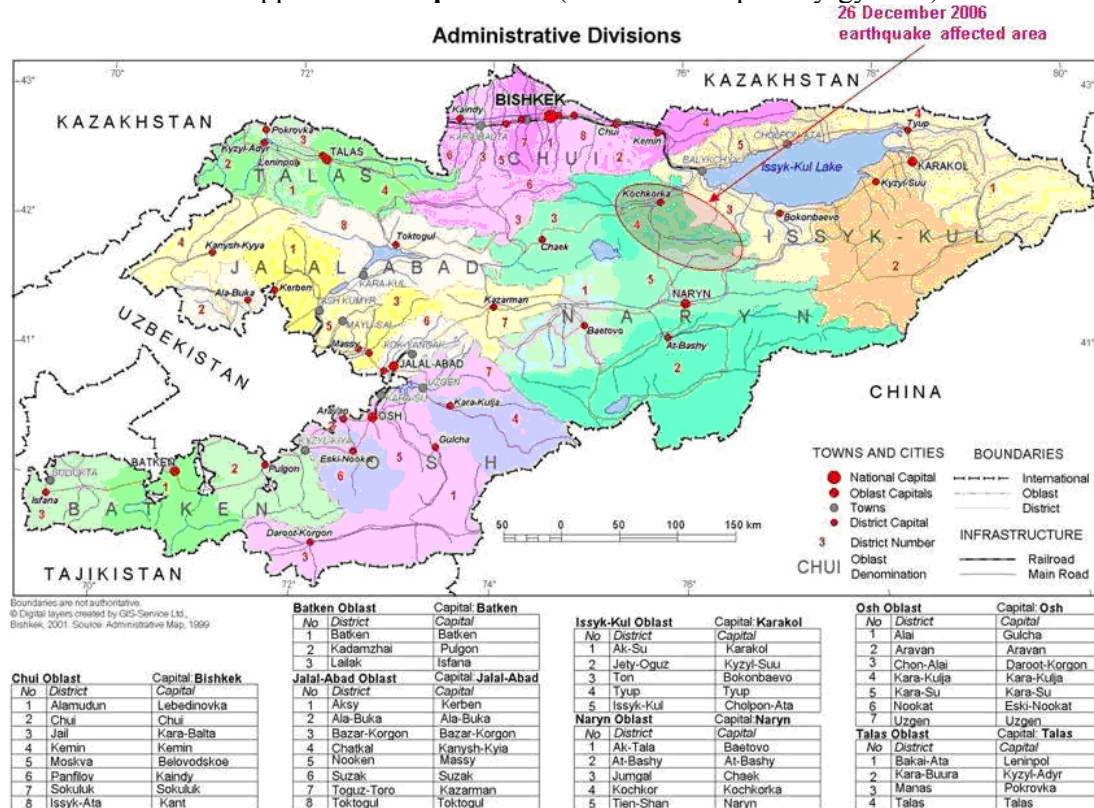
1.1. Type of disaster: **Earthquake**

1.2. Magnitude: **5,8**, “**moderate**” by USGS (United States Geological Survey) evaluation and classification

1.3. Location: **42.192°N, 75.975°E**, coordinates are given by USGS. It means approximately 5 km to south-east from Karakungey village, reference was defined manually, using former Soviet topographic map, scale 1: 500000.

1.4. Date and time: **December 26, 2006 at 2:01:00 AM (local time)**

1.3. Affected area: Approx. **3700 square km** (See below map of Kyrgyzstan)



1.4. Number of deaths: **None**

1.5. Number of wounded: **Two adult women were hospitalized with minor head injuries**

General features of the Kochkor rayon

The rayon territory is situated in the inland Tianshan. The total population is about 55000. Adult population (15-59) is about 48%, population younger than 15 years is about 42% and 10% of total population is older than 59 years old.

Most of the population lives in Kochkor valley. The climate is continental and dry. The average temperature for January is -10,2°C and +16,3°C for July. Precipitation is about 200 mm per yers. Average annual air temperature is + 4,3 °C. Settlements are located lower than 2000 meters above sea level.

Karakujyr valley (Lakol zone). The climate is sharp-continental, the average temperature for January is -12,5°C and +10,2°C for July. Precipitation is about 400 mm per years. Average annual air temperature is - 0,5 °C. Winters in the valley have little snowfalls and many places remain free of snow (so called “kara jerler”) which makes them good winter pastures. Settlements are located between 2500 and 3000 meters above sea level.

Before the earthquake, the Kochkor rayon was one of the quite rayons in Kyrgyzstan from the point of view of occurrence and scale of the damages. Since 1986 year, 32 small scale emergency were registered here. The main hazardous process is inundation by underground waters.

Rayon has a rather ramified network of automobiles roads. All villages have an access to the voltage power lines. Water pipelines are in 25 villages out of 31. At the same time there is no water in the water-pipe in 8 villages. Great number of street water-pumps need to be repaired.

Agriculture is the main source on income of local population. 93 % of agricultural lands are used as a pastures and 7% as tillage. The cereals occupy nearly half of the sown lands and 35 to 40% of the land is for forage crops. In the structure of the livestock of the nomad farms the sheep and goats prevailed, and to a certain extent-horses.

PART 2 – SEARCH & RESCUE

According to the Ministry on Emergency Coordination Center in Kochkor, no search and rescue works are required; there are no reports of missing people.

PART 3 – EVACUATION

No major evacuation is planned by the local authorities. Several families whose houses were destroyed or seriously damaged found shelter with relatives or moved to empty “apartments”. Most of the families stay in their own houses using rooms which have not been damaged or have minor cracks in the walls (see Annex 4. Picture1). There are no exact numbers of those who need evacuation. Some families said they would like to move to their relatives in Bishkek or elsewhere but due to lack of money and winter conditions it becomes impossible until spring.

PART 4 – INFRASTRUCTURE

No major destruction was reported or observed during the mission. The MOE and local authorities reported that 10 houses were completely destroyed. The roads, bridges and other communication infrastructure have not been damaged by the earthquake. Two village power transformers were said to be out of order though there is no clear indication that it happened because of the earthquake.

The rayon Department of Education reported on 9 schools with various damages. Three of them seriously damaged (details in Part 11). Also, 4 FAPs (primary health facilities) were said to be affected by the earthquake. Two of them, were relocated to different buildings in the villages. Other communal buildings that have various damages include a centre for cultural events, a library, a central drug store, a building of archive and an old building of the Sanitary Epidemiological Surveillance.

PART 5 – MEDICAL & HEALTH

No dead and/or wounded people were reported. Two women were hospitalized with minor head injuries - concussion and bruise of the neck-bone. According to the Chief Doctor of the Kochkor rayon hospital 150 people turned to medical assistance. Most of the health problems related to the post-earthquake shock, cold (many people left houses without warm clothes during the earthquake) and high-blood pressure. Many mothers pointed out that children have problems with going to bed and often wake up during the nights. Some have fear to stay alone in bed.

The medicines for 3,000 people were provided by WHO/EURO to rayon hospital in Kochkor. The medicines are meant for the most affected villages of Kochkor rayon.

As previously mentioned, 4 FAPs were damaged after the earthquake. Two of them were relocated because of serious damage to the buildings and the heating system.

PART 6 – SHELTER AND CLOTHING

The MOE together with the local authorities undertook a rapid assessment of the communal and residential buildings in Kochkor rayon. In addition, special commissions of representatives of Ministry of Health and Ministry of Education, Science and Youth Policy assessed damage to the health structures and schools.

According to the official MOE preliminary reports dated 31/12/2006, 5 houses were completely destroyed, 67 houses are seriously damaged, 2,269 houses have moderate damages and 3,204 houses are insignificantly damaged. The damage assessments are yet to be finalized in all affected villages and therefore, numbers may change. Also, according to MOE classification of damage, “serious damage” means one or more vertical through-the-wall cracks along the walls (Attachment 4. Picture 2). The level of damage depends on date of construction, construction norms and standards and materials used. Territorial distribution of damaged houses is shown in Annex 4, Picture 5, 7. Most of the affected buildings were made of mud bricks without reinforcement.

The local authorities have no plans to relocate people from damaged houses. As noted earlier people keep staying in their own houses despite the fact that some houses are not totally safe. Such houses have through-the-wall cracks along the walls and in the corners. The families indicated that they would start any construction or repair works only in March. It is believed that seriously damaged houses will hardly withstand another earthquake.

Special commission made of representatives of local authorities and MOE are visiting affected houses to rapidly assess the damage. There are already complaints from the villagers that the commissions have selective approach and not all houses are examined. A more thorough inspection of damages and what construction materials needed is promised to come later.

As far as clothing is concerned, no wide-scale provision of clothing is required. None of the families lost their belongings. However, a small delivery of warm clothes to most vulnerable families may be needed.

PART 7 – FOOD

The earthquake has not affected the food situation in the villages. No food or loss of life-stock has been reported. Most of the families have had poor diets even before the earthquake.

The local administration and representatives of Ministry on Emergencies did not recommend a need for food assistance as food supply was not affected by the earthquake.

PART 8 - WATER

No disruption of the water supply was reported. A small network of water pipes was not affected. Most villages in Kochkor rayon use water from open sources such as gravity fed canals, which were not damaged.

No any change in water supply before and after earthquake in Lakol zone. Water supply system is absent in Jerkochku settlement (people take water from open sources and have some difficulties in winter time) and primitive gravity water supply systems in Lakol and Akkyja settlements were not damaged;

In the first hours after the earthquake the villagers of Isakeev village noted that the water in the small river became muddy. The villages also reported about a crack in the hill right above a water spring from which the villagers take water (see picture 4 in the Annex 4). The UN team visited the water spring and found a large crack along the hill. A part of the earth above the free water intake slid down

threatening to destroy water intake constructions. The snow-melt or rains may cause a landslide anytime. This was reported to the MOE.

PART 9 - SANITATION

No changes caused by earthquake observed or reported

PART 10 – LIFELINE SYSTEMS

Temporary difficulties during the first 3 days were observed. The situation is back to normal.

PART 11 – SCHOOLS

As many as 9 schools in Kochkor rayon were reported to have serious to moderate damages. Out of them, 3 schools (Kochkor, Semizbel, and Akjar villages) were seriously damaged (as per the MOE classification). According to the damage assessment reports made by the two special commissions, the three schools have mostly the following damages: brick chimneys destroyed; classrooms and corridors have small to deep cracks in the walls and in the corners; in some places the plaster came off and windows broken. All affected school buildings are made of mud bricks. Some buildings were built in 1925(!) with partial reconstruction in the 1950s

The UN Team visited the Arabayev School, Kochkor village, which had the most serious damages. The school buildings were constructed in 1925. The school has 4 separate one-storey buildings plus a workshop and a cafeteria. It accommodates 850 students. As a result of the earthquake, 24 classrooms and the corridors in the two main buildings have deep cracks in the walls. The brick chimneys are destroyed (see Picture 3 in the Annex 4). The Principal and teachers of the school are concerned of safety of the students in the damaged buildings. The local authority promised to organize transportation for students and teachers to a different school in Kochkor village.

Similar damages were reported in schools of Semizbel, Ak-Jar and Kara Kungei villages.

PART 12 - OTHER DONOR ACTIVITIES:

WHO: Provided medicine for 3,000 people

National Red Crescent Society: provided non-food items to families in the villages of Cholpon, Isakeeva, and Kochkor. According to unconfirmed information the NRCS pledged \$50,000 for reconstruction of the school in Semizbel or Akjar village.

Counterpart Consortium and USAID: pledged to provide non-food items to families

Ministry of Emergency: provided 9 tons of cement, 11 tents, 892 sq.m. of glass, 500 roofing slates (unofficial information)

General and specific comments and conclusions:

- Excellent field equipment and facilities for communication and displaying were deployed by MOE in Kochkor settlement (see photos below).



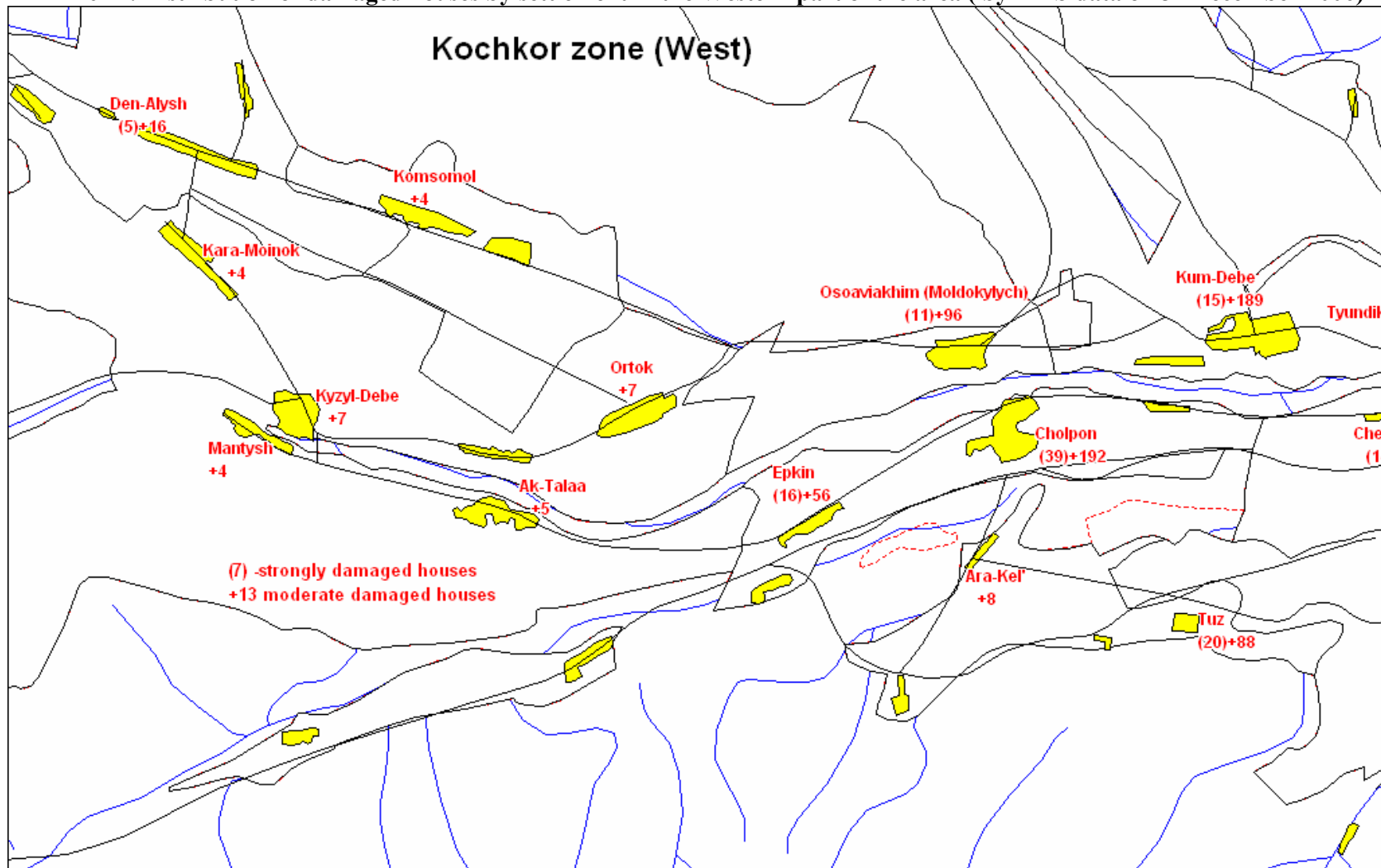
Unfortunately, such truck is the only for whole Kyrgyzstan. In case of breakage or two disasters in different regions urgent disaster management and coordination will face serious difficulties.

- Coordination and trust between local authorities, MOE staff and population can be improved;
- Lack of disaggregated data by communities, sex, age, poverty and etc;
- Needs assessment conducted by local authorities is based on damage and not needs
- Threats to block the road Naryn-Bishkek if no cash money provided to owners of damaged houses were articulated by some people in Telek village
- Initial information that earthquake caused damages measured at 7 points on Richter scale was wrong. This has led to wrong assumption and estimation of priority items such as window glass, medicaments, heating devices, and roofing materials.

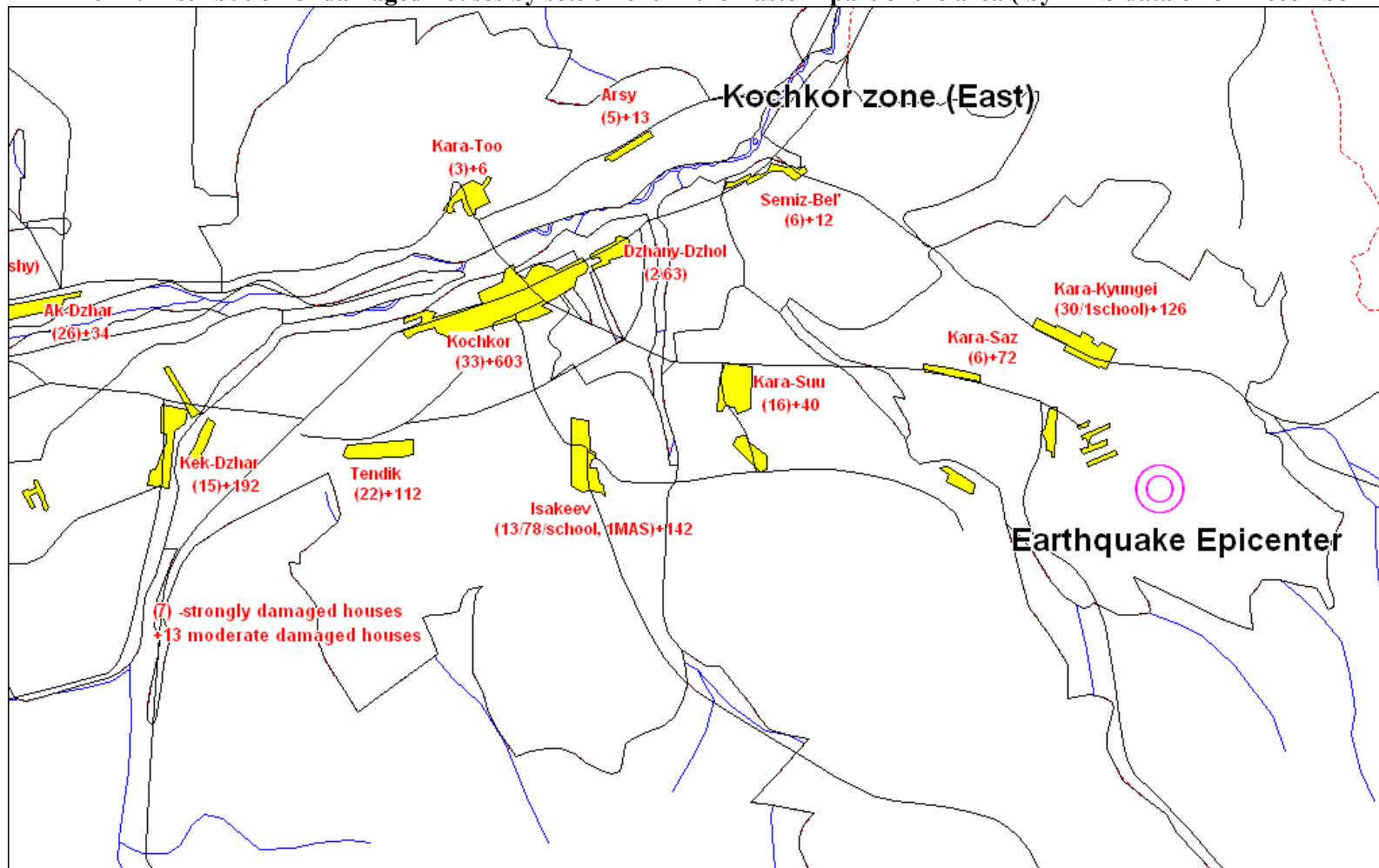
Recommendations to UN near-term assistance

1. Construction materials should first be provided to repair schools and FAPs.
2. Warm clothing could be provided to the most vulnerable families population as per list submitted by aiyl okmots (village self governance bodies). Some of the aiyl okmets already prepared such list of vulnerable families (e.g. Lakol area, see Annex 6).

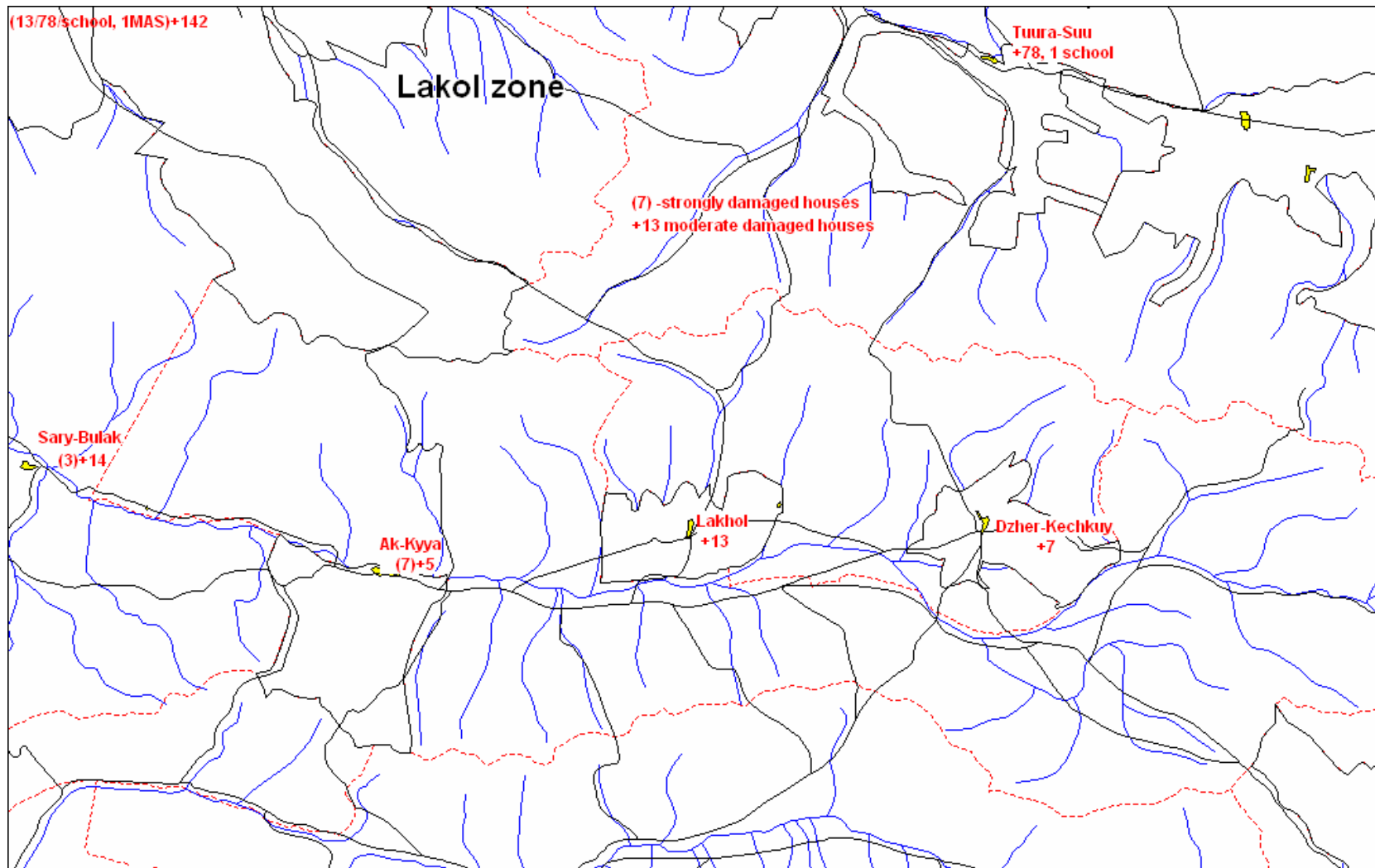
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Annex 3. Distribution of damaged houses by settlement in the Lakol zone (Karakujur valley) of the area (by MES data on 31 December 2006)



Annex 4. Photos of damaged houses and premises



Picture 1. People moved to less extent damaged rooms (Isakeev village)



Picture 2. Seriously damaged house (outside and insight view) in Isakeev village. But it is evidently that the house was uninhabited long before earthquake



Picture 3. School named after Arabaev (outside and insight view) in Kochkor village seriously damaged by MOE classification



Picture 4. Landslide cracks in the slope over water chlorination station



Picture 5. Moderate damaged house (outside and insight view) in Jerkochku village.



Picture 6. Moderate damaged FAP primary health facilities premise in Isakeev village

Picture 7. Moderate damaged house in Lakol village

Annex 5. List of officials met during the assessment

1. Senior officer of operative unit of MES Kyrgyz Republic, lieutenant colonel, Konstantin Jashin
2. Israilov Kurmanbek, secretary of Karakujur AO
3. Duishenaliev Esenaly, Deputy of Sarybulak AO Head
4. Tentimishev Jumamudun, Sarybulak AO taxes inspector
5. Jukenov Ermek, Head of Karakujur AO
6. Toktobaev Sapy, Head of Jerkochku village
7. Beishembiev Mambet, principal of Jerkochku village school
8. Abdramanov Abdygul, land surveyor, Karakujur AO
9. Bayterekov Kurmanbek, Head of State Administration of Kochkor rayon
10. Rustenbekov Janysh, Minister on Emergency Situations of Kyrgyz Republic
11. Kamchibekov Almaz, Deputy of Minister on Emergency Situations of Kyrgyz Republic
12. Irsaliev Rakhatbek, Parliament Member

