

State Commission at the Government of Kyrgyz Republic  
on Emergencies and Civil Defence

Your Excellencies, Ladies and Gentlemen, Dear Colleagues! Government of Kyrgyz Republic wants to express its gratitude to the Prime Minister of Japan, His Excellency Mr. Tomiichi Murayama, organizers of so imposing meeting, for the opportunity to hold the Asian Natural Disaster Reduction Conference.

Kyrgyzstan is a small mountainous country in Central Asia with population of 4,5 million.

Over the last few years, nature has reminded us of its tremendous destructive force as if in response to the deep, one can say, tectonic, changes in the socio-economic sphere.

We have no social conflicts, wage no wars with any country, so human loss is felt more acutely.

As any mountainous country, Kyrgyzstan is exposed to vast number of natural hazards. Earthquakes, debris flows, snow avalanches, landslides distinguish from the rest. Over 1992-1995 203 people died, 60,000 were left homeless in the territory of Kyrgyz Republic due to hazards. Enormous damage was caused to shelters, houses, industrial and agricultural enterprises, roads, communication lines, power transmission lines, irrigation network, transport.

A. DISASTER REDUCTION MEASURES IN KYRGHYZ REPUBLIC

Every state is responsible for protection own people, public facilities and other national property from influence of hazards and disasters.

Kyrgyz Republic gives much attention to this problem. One of the evidences was the creation in 1991 State Commission of Kyrgyz Republic Emergencies, which has been transformed in 1994 to State Commission at the Government of Kyrgyz Republic on Emergencies and Civil Defence.

Kyrgyz Republic, if we try to compare with many other countries has not advanced legislation in the field of disasters or emergencies.

We have one law " About the Order of Formation and Using of

Funds for Prevention and Elimination of Emergency Consequences" accepted by parliament of the Republic and two governance decrees only: " About State Commission at the Government of Kyrgyz Republic on Emergencies and Civil Defence" and " About Management System of Civil Defence in Kyrgyz Republic ".

According to these legislative acts the funds for prevention and elimination of emergency consequences are formed from 1,5 % tax to the cost of realized production or services, and State Commission at the Government of Kyrgyz Republic on Emergencies and Civil Defence is a state governance body which forms and carries out unified state policy in the sphere of prevention emergencies and actions in case of natural, manmade, environmental disasters, coordinates activities of departments, state committees and agencies in prevention, mitigation and elimination of the consequences of disasters.

The lack of legislation base was not so sensitive at the beginning of Commission's activity because the actions of a commission had prompt and urgent character, the main purpose was prompt restorations of regions were damaged by two destructive earthquakes in 1992.

As the formation of the Commission and creation of a management system of a new independent state a number of tasks which brings up against the Commission is permanently expanding. We have come to the conclusion that Commission's activities becomes inefficient or Commission is forced to deal with tasks which are not primordially inherent for the Commission without serious legal basis.

Interaction and share of responsibility between government, ministries, by local authorities, population is especially large problem, and decision can not be find without the legislative basis. Moreover, this problem is equally sharp in every phase: disaster prevention or preparedness; relief operations; elimination of consequences, restoration and rehabilitation.

Questions of life and property insurance , as for people affected as for participants of relief operations are referred to this problem of absence of legislative base also.

Evidently, it is the same reason of our slight cooperation with non-governmental organizations and volunteers, though as we

know in other countries, for example, in the Federal Republic of Germany, these institutions introduce very large contribution to disaster reduction.

The questions of the legislation can be referred to strategic tasks, which determine a long-term prospect of activity, and at the same time there is the whole list of operative or tactical tasks.

If to evaluate activity of our Commission, according to separate phases of disaster reduction, it is possible to say, that we can recover consequences and conduct restoration works quickly enough. For example, if to summarize volume of renewal works, has been completed by the means of the Commission or by its funds, it is possible to say, that the Commission is able to build a settlement with population of 20 thousand people and relevant infrastructure for three years.

Things go less satisfactorily during disasters. A lot of time is wasted to collect and test information, to accept a decisions. As a rule, the initial information is not complete and does not permit to accept the reasonable solution, or compels to accept decision named "strong-will", that is the decision, which seldom happens be correct with absence or lack of the information.

The main reasons cause delays in collecting and testing information are: absence of modern communication systems and and imperfect management system.

The efficiency of actions in extreme situations depends also on availability of special means, mechanisms and skill to use them. Unfortunately, the quantity of special equipment in the rescue structures of our republic is too small.

Next phases in disaster reduction are preparedness and mitigation. Main directions of activity of our commission are followings: creation of material stocks; increasing qualification of the Commission's staffs; increasing awareness of population by presentation of its activity in mass media; development of modern monitoring and notification systems.

Existing buildings are need to strengthen their earthquake resistance. This problem stands by itself.

Kyrgyz Republic is located in the earthquake prone area.

The total area of probable earthquakes of magnitude 9 is about 40,000 square km and magnitude of 8 - 158,000 square km. 193 settlements have been referred to earthquake risk category. 74 of them are in zones where earthquake intensity can be of 9 and more. 75 % of total population of the republic live in these settlements.

In order to ensure safety of people, living in earthquake prone zones, to increase stability and counteraction of existing and building houses and constructions against destructive effect of earthquakes the norms and rules providing various measures, ensuring earthquake resistance are created and used in the practice.

These measures have become the most effective since beginning of sixties when appropriate building specifications were accepted, and it was more important, large scale production of pre-fabricated reinforced concrete ceilings was developed.

So, one can say, that all objects have been erected until 1957 were not earthquake resistant according to modern specifications, because these buildings had wooden ceilings and had not antiseismic belts.

Methods to evaluate the earthquake resistance and to strengthen houses and constructions have been developed in our republic. Lack of funds is the main obstacle, detaining large scale realization of this measure.

In these circumstances, our commission has decided to give priority for strengthening schools, hospitals, boarding schools, houses for retired (these buildings have maximum concentration of the most vulnerable groups: women, children, aged and ill people). Moreover, by the same reason, this measure is not carrying out in all settlements where earthquakes of intensity more than 9 balls can be, but only in those, where, according to the conclusion Institute Seismology of National Academy of Sciences earthquakes are expected in the nearest 2-3 years.

The theme of prediction is closely connected to questions of observation and notification.

The main problem has faced our commission was discontinuance of functioning of observation network for natural phenomena existed in the former Soviet Union. Network destruction has hap-

pened because of two reasons:

- heavy economic situation;
- former head scientific institutions were concentrated in Moscow, Leningrad, Tashkent, Almaty.

In these conditions State Commission at the Government of Kyrgyz Republic on Emergencies and Civil Defence was compelled to create own systems of observation. They are very determined, have limited quantity of parameters, and in addition, these parameters are usually defined by visual. So, our Commission has put landslide and high mountainous lakes observations under the own control.

Creation of a system for observation debris flows and snow avalanches is in discussion. Naturally, it is very difficult to name visual observations by a modern monitoring system but they have proved to be effective in a number of cases.

Activity of the Commission contains following in the field of disaster prevention:

- revealing sites with landslide, avalanche, debris flow risks;
- resettlement of population from risk zones to more safe places;
- building of diverse protective constructions;
- forced release of snow avalanches, high mountainous lakes;
- temporary prohibition during dangerous seasons or time.

The Commission pays much attention to scientific research programmes. In particular, SCE and CD granted the programme "Sak-too". This programme includes investigations of several institutions in the sphere seismic prediction, seismic microzoning and seismic resistance constructions.

From the brief background above we can identify following conclusions about disaster reduction activity in Kyrgyz Republic:

1. The republic have certain potential for elimination of consequences natural disasters and renewal.
2. There are not enough material and financial resources for prevention and mitigation programmes.
3. Not only material and financial resources are need for transition from priority given for recovery programs to prevention and mitigation programs but changes in the legislation, social

psychology are required.

4. The following activities are expected to be prioritized in the nearest future:

- development of modern of communication, detection, observation and notification systems, processing of the information;
- increasing awareness of population and skill how to act during disaster;
- equipping of rescue teams;
- strengthening earthquake resistance of existing buildings.

#### B. INTERNATIONAL COOPERATION IN DISASTER REDUCTION IN ASIA

State Commission at the Government of Kyrgyz Republic on Emergencies and Civil Defence executes international cooperation as on the bilateral as multilateral basis.

Multilateral cooperation is realized in the frames of two treaties with CIS-countries. At first, this is the agreement about Interstate Council on Emergencies of Natural and Technogenic Character. Azerbaijan, Armenia, Byelorussia, Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan are the participants of the Council.

The Agreement "About Cooperation and Interaction in in the Sphere of Researching Earthquakes and Predicting Seismic Risk" has been signed by the Governments of Kazakhstan, Kyrgyzstan, Uzbekistan.

Institute of Seismology of National Academy of Sciences cooperates with Russian and American institutes in the field of earthquakes researchs also.

Good contacts have been established with German IDNDR Committee. Exchange of delegation has taken place in the frames of the this contacts. The concrete directions of the cooperation has been determined as a result of the exchanges:

- scientific-technical (seismology, engineering geology, evaluation of risk and risk mapping);
- technical (exchange of experience in rescue works and using technical means in searching);
- increasing of qualification of the experts by taking part in existing seminars and organization new forms of information

exchange; - education of population ( mutual cooproduction educating-methodic manuals).

Developing these directions the agreement about cooproduction film on earthquake and seminar on rescue and searching work have been achieved.

Mutual works on project of Global Positioning System is carrying now.

SCE and CD has especially close contacts with German Urgent Technical Relief Service (THW) and Federal Institute of Geosciences and Mineral Resources.

Using dogs for searching and creation of computer data base on landslide are the results of cooperation with two German institution mentioned above.

Kyrgyz Republic is also the participant of the agreement between countries of the Central Asia (Kazakhstan, Kyrgyzstan, Tadjikistan, Turkmenistan, Uzbekistan) about cooperation on problem of Aral Sea.

The ecologic disaster in region of Aral Sea concerns directly Kyrgyz Republic. The upper waters of Syr-Daria lies in the territory of Kyrgyzstan and there is a problem of potential salt pollution of the glaciers.

The potential of the Asian countries to cooperate is far from exhausted.

What do we expect the mechanism of regional cooperation in sphere of disaster reduction to, or at least, what are the starting points that could make this mechanism start to function ?

1. The organizing of a continuous exchange of information related to this area through the following means:

- establishing regional systems to warn of natural disasters and to monitor hazards;

- increasing of volume and contents of the journal " Asian Disasters News ";

- regular seminars and working meetings of the respective departments ( ministries, departments, commissions on extreme situations, committees environmental protection, hydrometeorological and seismological services, academies of sciences, etc.). The need for cooperation is dictated by the fact, that previously each of countries managed to accumulate a certain experience in certa-

in areas. Thus, Kyrgyz school of avalanche research was one of best in former Soviet Union. Kazakhstan was the first in USSR has created a unique organization "KazGlavSeleZashita" for mudflow protection. Uzbek and Tajik geologists are recognized authorities in matters of landslide research.

2. Natural disasters in the mountains and environmental consequences of them have their own specific features. Our countries have accumulated certain experience in this area, and, possibly some of the solutions of these problems might be of interest to the other countries of the world. At the same time, the experience of other countries might be of use to us. In our view, it would provide a powerful impulse if we establish a regional Office of the IDNDR, specializing in "mountain" problems.

3. The idea of Asian Atlas of Hazards can be referred to as plans of perspective character. Even discussion itself about it would greatly stimulate contacts between countries interesting to participate in the project.

We greatly appreciate the initiative of Japanese Government, Hyogo Prefecture and Kobe City. We hope the Conference will become a mark point of new stage in cooperation of Asian countries in natural disaster reduction.