

National Report, Mongolia

(World Conference on Disaster Reduction, Kobe, Japan, 2005)

Part One

Political and Organizational Bearings

1.1 Within the framework of changes in the government some 50 laws or regulations have been adopted on the prevention of disaster and to reduce its risks in such areas as public health, production of foodstuff, agriculture, environment and infrastructure.

In Mongolia the Law on Disaster Protection was approved in 2003, which came into force in July of the same year. As a result, the following can be observed:

- (1) Disaster prevention management work has become efficient free from any bureaucratic method of practice, and personal duties and responsibilities have been well defined and specified.
- (2) That the system has come into effect gives rise to concerted efforts by the management for disaster reduction in the country as a whole.
- (3) Legal conditions have been created to make technical changes for better work dealing with disaster reduction or prevention on the strength of humanitarian assistance receiving from foreign countries and international organizations.
- (4) It has been helpful to communicate with other international organizations of similar nature.

The reason why the law was needed is the situations when the country was experiencing in recent years difficulties and problems emanated from disasters of which magnitude and frequency increased causing a lot of losses and damages in the country's social and economic condition. And it was therefore necessary to take precautionary measures prior to disaster impact in the light of the fact that the people suffered from disasters, trying to mitigate the disaster sufferings as soon as possible, and in so doing, it was purposeful to elaborate an adequate means of procedure whereby close collaboration may be developed with foreign countries and international organizations for humanitarian assistance in this matter of urgency, and to bring a change in disaster reduction management structure in line with world standards.

In order to make provisions of the law being implemented for the purpose of its *raison d'être*, the State Board for Civil Defence, Fire Fighting Department and State Reserve Agency have been united into one organization, that is, the National Disaster Management Agency, Mongolia, under the direct supervision of the Prime Minister.

As was said earlier that the new law came into force and the National Disaster Management Agency started functioning as well as the project on Strengthening the Disaster Mitigation and Management System that is to be implemented, detailed information whereof one may get at the webpage <http://www.mongolidisaster.org>

A number of programmes or projects are being implemented for disaster risks reduction. For example, a policy concept of the Government of Mongolia to be effected within the period of next 15 years is reflected in the national programme for natural disaster reduction, specifying the means of how to implement it. The project provided by UNDP at the

request of the Government of Mongolia on the management system to deal with earthquake disasters in Ulaanbaatar has been completed in 1999. In Mongolia livestock is very prone to natural disaster. With this in view the Government has worked out the national programme thus implementing it to prevent the livestock from the disaster impact or reduce its risks and mitigate the sufferings and pains caused by natural disaster that is severe natural conditions such as extreme cold weather coupled excessive snow fall as well as heat and drought.

A public health law, health Insurance Law, immunization law, law on donors, hygiene law, law on medicaments, as well as a concept on zonal land development in Mongolia and concept on social health protection in the country were approved by parliament. These laws and regulations are conducive to creating legal conditions for disaster reduction and for effective medical care to the people at large.

The Government of Mongolia approved the documents, namely, a work and activities' strategy and programme for structural changes of the Ministry for Public Health, programme for public health service development, national programme to support the family living standard viability and programme for combating against communicable diseases and preventing the people from such diseases through immunization.

Standard patterns for the organizational structure and work of *Soum* medical centre, those of the *Aimag* clinical hospital and of specialized hospitals (MNS 5095:2002) have been approved.

In order to improve the quality and adequacy of medical care to the people in rural areas, Inter-zonal centres for diagnosing and treatment were set up on the basis of the Government protocol No.194 of 2001 in

Dornotu, UberHangai, and Kobdo *aimags*. This is aimed at providing specialized medical care to the people in case of emergency in the area.

A list of diseases which should be treated without any delay and which may cause a danger to life was compiled under decision No. 265 of the Minister for Public Health in 2002 to take precautionary measures against the diseases in all medical establishments.

Upon instructions (210) from the Public Health Minister, directions and recommendations were issued for the purpose of precautions or warning the people in case of wild fire, and for taking special measures, if necessary, to protect those people who are close or within the wild fire sensitive areas, providing them with necessary medicine, clean water and healthy food, billets and at the same time to prevent or reduce possible disaster impact.

Provisions of giving the people essential advices during the period of transhumance for their safety and of medical care to the people in the same period contained in the decision No.264 of the minister of Public Health made in 2002.

Basic problems: Due to the fact that Mongolia's territory is vast and the population is scanty, in the event of wild fire, floods, drought and extreme cold weather conditions, it often happens to waste time in rendering first aid or specialized medical care to the people. In the country road and communication system is bad, in a word, the infrastructure system is very weak.

Problems of continued concern. Financial resources are limited in the country to deal with sensitive situations of extreme bad weather

conditions wherein the nomadic-oriented livestock people have to move and they need medical care of various types.

In the field of food and agriculture there is a possibility of wide-reaching disaster because of such frequently observed phenomena as very harmful plant diseases, plant destroying insects including those specified under “A” list by international fauna healthiness organization (OIE), rodents, weeds, or droughts and severe natural conditions, floods, wind storm, food shortage and hunger. As far as this possible disaster preventing and reducing questions are concerned, it is reflected in the laws on livestock genetic resources, health, food, plant protection, insurance of cereals and cultivation, animals and plants, raw materials and products originated therefrom that are subject to being controlled and banned to export, and the national programme for protection of livestock against national disasters (related reports, laws and programmes [http://gate 1.pmis.gov.mn/mofa](http://gate1.pmis.gov.mn/mofa)). And these laws and programmes were put now into effect.

The laws on livestock genetic resources and public health stipulate that disease originated from the one contains in list “A” which was determined by the international organization concerned should be treated or taken precautionary measures against it at the government expense. Thanks to these legal acts, duties and responsibilities of the government and professional agencies as well as individuals or natural persons to act vis-à-vis the diseases have been specified by law.

In case of disaster, problems concerning food resources and security matters shall be regulated according to the law on food. To deal with harmful diseases to plant or, to prevent situations from possible effects by harmful insects, rodents, or to place a ban on the same is a

work to be executed at the government expenses according to the law on plants (flora). Mongolia whose climate is continental with four distinctive seasons, people would habitually experience such undesirable natural phenomena as severe cold winter, or heat and drought, floods, wind storm, including hailstone, hoar-frost, snow, acute drop in temperature, harmful disease to plants, harmful insects, rodents and wild fire. Therefore insurance against those happenings is compulsory by the provisions of the "law on Cereals and Cultivation". It is of importance for disaster reduction. The law on Control, Banning and Preventing Raw Materials or Products Originating from Animals or Plants that were effected with the harmful disease prohibits to export through any border check points, and stipulates the coordination of matters relating to the problems in question. This is the idea to achieve a disaster reduction purpose.

Because of the fact that livestock in Mongolia is more vulnerable to natural disaster, the Government of Mongolia has devised the national programme for protecting the livestock against possible droughts and severe winter natural disaster. In conformity with the decision No.04 of the State Standing Emergency Commission, a sub-committee was set up in 1999 to facilitate the activities in possible disasters and they devised a rule to follow it in the daily routine work to deal with adversities efficiently.

In spite of the fact that we are working in this way to prevent any adversities happening or for reducing disaster in conformity with the laws mentioned above, any desirable upshot is not obtained owing to the following conditions such as inadequate level in industrial development, obsolescence of technological equipment and financial constraints, etc. And this state of affairs creates difficulties in the way of carrying out the provisions of the aforesaid laws and regulations; that is to say, the

prevention and reduction of disaster efforts come to be ineffective. In addition, it has an adverse effect on the laws being implemented.

- 1.2** In the light of adopting the Law on Disaster Protection, the State Board for Civil Defence, the State Reserve Agency and the Fire Fighting Department were brought into one entity to act in unison for preventing disasters and mitigate sufferings and damages resulted from such phenomena; and for the management of this situation, it was essential for the local governments and organizations concerned with enterprise units to ensure necessary correlated assistance to entities concerned in regulating the relief activities . For the purpose of better coordination and management of the work, a nation-widely acting organization was set up within the framework of the Prime Minister's functional duties.

Organizational set-up of the National Disaster Management Agency:

- a) A policy and coordination department (with 2 divisions: strategic management and planning; training and research)
- b) A professional management department (with 3 divisions: emergency management and coordination; information and communication; and prevention and controlling)
- c) A disaster research center (with 2 sections)
- d) A state reserve department (without divisions)
- e) An administrative department (with 3 divisions: public administrative and human resource; monitoring and assessment; external relation, cooperation and public related service)
- f) A financial and accounting division

The objectives of the disaster protection organization are to avoid feasible disaster and reduce the vulnerability situations. The strategy of the National Disaster Management Agency (NDMA) is to facilitate the work for implementing the government priority programme tasks, including those contained in the Prime Minister's duties and to provide ministries, aimak authorities and capital city authorities as well as provide them with professional advises to the effect.

Priority concerns:

- to initiate and present recommendations concerning legal measures for preventing disasters in conditions of market economy system.
- to improve the system and legal grounds for preventing disasters in the interest of government organizations, local administrative entities, enterprise units and individuals.
- to make arrangements for work and activities in conformity with the laws and regulations to enhance working capacity of all organizations concerned for dealing efficiently with any phenomenon of disaster, organize emergency combat groups, rescue teams, national and country services or so-called "headquarters", and train people to the effect.

The wholesome objective of organization's work for preventing disaster is to safeguard therefrom and reduce the vulnerability of situations.

The Strategy of the National Disaster Management Agency work and activities:

- Priority of the Government work and activities.
- Government work programme.

- Bearings of the Prime Minister's duties.

The National Disaster Management Agency is to provide ministries and *aimag* authorities as well as the capital city authorities with professional advice and recommendations on these points.

Priority in Work and Activities:

- to initiate and present suggestions concerning legal grounds in line with the conditions of market economy system for preventing disasters.
- to improve the system and legal grounds for preventing disasters in the interest of government organizations, local administrative entities, enterprise units and individuals.
- to make arrangements for work and activities to enhance working capacity of all organizations concerned for dealing efficiently with any phenomenon of disasters, organize emergency combat groups, rescue teams, central and country services and train people for the purpose.

Priority in work activities:

- Policy and coordination.
- Professional management.
- Disaster research.
- State reserve management and coordination.
- Management Lead in government ruling.
- Finance and accounting management.

In order to ensure the disaster reduction efforts, State services are at work relying on related government administrative organizations. They are as follows:

- (1) Service for assessment of natural and chemical dangerous things;
- (2) Public health service;
- (3) Food and agriculture service;
- (4) Infrastructure service;
- (5) Public order keeping service;
- (6) Information service;
- (7) Service for the protection from radiation;
- (8) Professional control service.

Common duties of disaster protection state services

The state services duties in this respect include:

- Disaster reduction measures are to be elaborated and put into effect within the framework of the organization concerned;
- To ensure the implementation of laws and regulations on disaster reduction as well as decisions by higher authorities to the same effect;
- To ensure the work for a needed management and setting up units of professional skills suited to the specifics within the organization concerned so as to deal with matters of preventing disasters and train people providing the preparedness to act in disaster.
- To keep the normal functioning of the organization where you are.
- To ensure information system ready in place at the organization where you are.
- To make supplies of materials and techniques to be used in the preventive measures available against disasters and for eliminating the dangerous consequences thereof, and keep the supplies ready in place.

- To provide *aimag* and the capital city services with the skills of professional management in preventive measures.
- To report urgently on the disaster situation to the government agency in charge of disaster protection for professional assistance.
- To make people of professional skill from the organization you are in charge involved in the emergency group to deal with disaster areas.
- To spend as specified the resources allocated for the purpose of dealing with disasters.
- To assess the value of losses and damages caused by disasters and draw up suggestions on how to eliminate the consequences.
- To review the disaster consequences and report thereon.

1.3. Policy and planning on disaster reduction is well reflected in the following legislative documents, namely: “National programme on natural disaster reduction”, “National programme on the prevention of desertification”, “National Programme on weather changes”, “National programme on forestry”. The difficulty experienced in the implementation of these programmes is the lack of resources or financial constraints.

“The National programme on weather changes”, which was approved in 2000, contains reports about present-day weather (atmosphere) change in Mongolia trend and future (up to 2070) perspectives, the impact of atmosphere natural ecology on social and economic sphere, the assessment survey on the adaptation, the greenhouse effect stocktaking, further changes, the measures to reduce greenhouse effect, the ways of their implementation, things to be implemented at first and other ideas of the programmes.

1.4. Questions of disaster risk reduction have been duly reflected in the plans for the objectives of the UN millenium development, strategy documents for poverty reduction and the work and activities for the national adapting, and in the national plan for environment protection as well as in the Johannesburg implementation plan, and are in the process of being implemented.

1.5. The important point is to prevent in advance the threat to constructions, town building systems and other enterprise objects that might be possible as a result of an earthquake. With this in view, a short-term and long-term plans have now been worked out to the effect to reduce the vulnerability situations and the risks of earthquake on the basis of studies and evaluation. According to the initial risk evaluation survey, some 70 over percent of the capital city construction and houses, and from 5 to 6 per cent of the city population are vulnerable to a possible earthquake. The Ulaanbaatar Governor's Office is carrying out a study vis-à-vis all constructions and buildings in the city for documentation beginning from 2001, and in this scheme three buildings were selected.

It is important to have mobile seismological stations for the purpose of continued studies on the feasibility of a strong earthquake and develop cooperation with international professional organizations in this domain to implement projects. It is also essential to draw up a micro-mapping of division into seismological regions in the territories of Darhan, Erdentu cities and in the *aimag* centers of Tsetserlig, Bayan Hongor, Mandal Gobi, Arbaiheyer where there are 7 points on the Richter scale or more according to the master mapping of seismology division into regions. This is to be done step by step. We will step up the work for documentation of constructions and houses upon evaluating their earthquake resistance to earth vibrations in the capital city, aimag centres, and take measures to

equip, if necessary, constructions and houses with vibration measuring instruments, draw up a new construction rules on the basis of engineering and methodological practice.

1.6. Expenses to be used in the work of preventing disaster threats and eliminating dangerous consequences thereof are drawn from the government overheads.

1.7. Private sectors, civic societies, non-governmental, scientific organizations and the information media are involved in the disaster risks reduction work. For example, scientific organizations carry out various related research work and studies of which outcome is used by agencies and institutions concerned. The public is told about the phenomena of dangerous disasters and the measures to prevent thereof by the media.

“The Law on Disaster Protection” specified the rights and responsibility of the private sectors, civic societies, non-governmental and scientific organizations, as well as the mass media in the matters.

The aforesaid organizations are responsible regardless of being what organization and of what ownership for preventing disaster threats. For example:

- Disaster prevention plan and implementation thereof;
- Organizing professional service or groups of supernumeraries in line with their specific conditions of work and activities for preventing disaster threats;
- Training the groups of supernumeraries to be able to work at the spot of disaster;
- Assessing the vulnerability and risks of disaster;

- Finding needful resources to be used in the event of disaster and spend in conformity with purpose for which it was allocated;
- Getting the teams or groups professional supernumeraries worked in disasters.

Part Two.

Determination of risks

2.1. Related agencies and departments of the Ministry of Environment and Nature are in charge of determining and evaluating natural disaster phenomena. We receive everyday weather report information pictures from the HOA satellite in dry autumn and spring season which depict the positions of clouds and forest or wild fire, then we compare them against the reports received from 392 weather watch-posts and stations located in the territory of Mongolia and put them into a weather picture showing the snow-cover and plant-cover for the purpose of publishing them every ten days. Within the framework of the above-mentioned project being implemented under NDMA, the Institute of Hydrology and Meteorology is drawing the weather chart mapping of disaster phenomena originating from meteorology-related development on the basis of the above project in Henteye *aimag*. The disaster threat assessment reports are of great interest to the livestock people, land farmers and organizations in charge of disaster prevention work.

2.2. The mapping of forest and wild fire and meteorological disaster situations is worked out at the Information and Computer Centre at the Institute of Hydrology and Meteorology, Ministry of Environment and Nature.

The specification of public health risks in disaster is one of the important questions of economy and finance vis-à-vis public health.

Present-day Situation

We have started to carry out studies about reduction of adverse influence that may crop up in public health as after-effect of fire, severe weather conditions, plane crash, train catastrophe, explosion, earthquake, spread of infectious diseases.

Studies report on SARS and other new communicable diseases, focus of infection, plague is used in preventing and combating against these diseases.

In accordance with the decision No.36 of the Public Health Minister signed in 2004, "a plan of action to fight against the Flu spread, preventing infectious diseases covering the period of 2004/2007" has been worked out and it is being implemented.

The Public Health Minister issued a decision No.45 in 2004 to the effect that medical and public health organizations should work hard against the spread of the Birds' Flu. In this connection, a regulation has been approved and it specifies, among others, the ways and means for fighting against the diseases, making available necessary things that can be used to treat patients and special instructions and guidance have been made available for the purpose of rapidly dealing with the situation.

Health and medical assistance and services to the population at the time when it is needed in disaster of fire, bad weather conditions should be done with immediate effect. Medical centres in *Soums*, medical centres catering individual family members and *aimag* clinical hospitals, inter-aimag analysis centres are responsible for participating in the work.

Basic Difficulties

When such infectious diseases as plague, anthrax, tick-related disease, foot and mouth disease break out there is a demanding need to place a ban or restriction

on the movement, and information service be in place for reporting on the disease situation, but possibilities are limited to do so.

Difficulties to be encountered on the way in the years to come:

Because of new diseases which are unknown to Mongolia as Birds' Flu, SARS, and so on, we need to cope with the situation effectively but it is possible of lacking in special knowledge and experience. It is therefore essential for us to have assistance in training specialists and other facilities.

2.3. The centre for studying the causes and circumstances wherein disasters can develop deals with such situations as fires especially forest and wild ones, exercising control over the dangerous things or chemicals. Policy measures have been worked out on the basis of last ten-year statistical data related to forest fires and the size of affected areas, etc. to assist efficiently the disaster preventing work.

2.4. Studies were made on fire disasters with particular reference to those in which loss of many lives and big damages costing tens of million had been recorded. Namely, the study work was related to the social, economic and ecological consequences resulted in the forest and wild fires that were recorded in 1986, and 1996/1997. Initial steps have been made to look into the social and economic consequences of the fires broke out in the warehouse, Erdenitu Copper Mine Industries, and in Oil products of US Investment SOKO company, Dornotu *aimag*, where lost is estimated at a billion over tugriks. Work has been started to make an adequate and real estimate of the natural and ecological loss of forest fires.

2.5. On the basis of reports received from more than 300 meteorological networks special warning signals are used to the effect of disasters through mass media. We use various systems of

communications to inform people in advance about meteorological disasters such as windstorm, snow or dust storm, snowfall of great intensity, heavy rain. As a result people would know of it two or three days in advance. And in the case of cloudburst, fierce hail, storm water and floods they should be notified at least 30 minutes in advance. Warning information may be obtained from organizations concerned such as NDMA and local branches by way of fax or radio meetings are also employed. National Disaster Management Agency (NDMA) is responsible for further taking preventive measures in this respect.

Last time the system was used on 8th and 9th March 2003 when there were an extremely strong windstorm and snow-cum-dust storm affecting most parts of the country. There was no loss of life thanks to the work executed in collaboration by the Ministry of Environment and Nature and National Disaster Management Agency.

In densely populated Bayan Hoshioo, Sukhbaatar District, Sub-District No.3, Hailiastu, Chingheltye District, Ulaanbaatar there were seven disaster warning signal systems installed, and they were in use with effect from 2000. These warning signals are used to take preventive measures in case of disaster threats of meteorological nature in and around Ulaanbaatar. These were last used also on 2nd September 2003 when there was a heavy rain in Ulaanbaatar.

Part Three

Information Management

- 3.1.** Government organizations in charge of disaster protection take disaster preventing measures by way of using special purpose communications network throughout the country, namely in *aimags*, capital city, *soums*, districts, *bags*, sub-districts and other units.

In disaster situations communications national network, special purpose networks, and if necessary, non-government owned communications network, including hand phones, high speed internet, etc are to be mobilized in matters for preventing disaster threats.

The national communications system is to be employed in matters of collecting disaster situation reports, transmitting high authority instructions to government and local organizations or various branch organizations and units as well as in exchange of information with other foreign countries. Reports on the disaster situations, warning announcement signals are transmitted through special communications means or through communications organizations.

The regular customers of the media are the government, organizations working for preventing various forms of disasters, ministries, agencies and other governmental and public and organizations and individual people as well.

The following information and communications system of external organizations is used in the work, namely:

- Telephones (external and internal);

- Wireless communications;
- Post (postal item);
- Service to announce publicly (non-existent for the time being);
- Computer network both external and internal; or that is to say, it is an

Intention keep the leadership informed about the situation in question or on how to prevent disaster threats, reduce risk and vulnerability, or reduce expected consequences, or restore with immediate effect at a time when the disaster is seriously dangerous in magnitude affecting the whole of the country.

We feel that public announcement service is unavoidably needed.

The newly created organization to prevent disaster threats is, however, working with an eye to achieving modern technological level in information system in the country by making use of available facilities, executing the functional work on the basis of the studies and researches, and through devising and implementing a medium-term programme to introduce new technological practice into the information system. In this country especially in rural areas such information facilities as internet, mobile communications infrastructure is developing rapidly give rise to creating favourable conditions for the improvement of the practice to exchange information and of disaster management. The work and activities to establish a disaster risk information management system and a foundation for information are started and specified in the following directions:

- to develop information and communications technological network in support of the work and activities of agencies to prevent disasters.
- to ensure information exchange system between organizational branch units.
- to create an information management foundation for the purpose of getting disaster prevention organization's aims achieved.

- to automate the work and operational process of disaster preventing, rescuing lives, eliminating consequences, restoring, being things available, and planning and taking decisions.

The disaster risk information management system and foundation for information will make their services available to the following customers.

The regular customers of the national system for information are the government (cabinet), disaster prevention organizations' leadership and *de facto* customers are ministries, government coordinating and executive agencies, and national, media and public organizations concerned and people. The Administrative Office of the Government, National Service for Disaster Protection, governors of *aimag*, capital city governor, and their disaster prevention teams, rescue teams, local services of professional supernumeraries, professional groups working at enterprises that accepted responsibility to prevent disaster. The present-day economic difficulties have exerted a very negative bearing on the efforts aimed at equipping the work of information management with new technology.

- 3.2.** Some scientific research organizations are at work in cooperation with government and local organizations concerned with disaster threat reduction. These organizations exchange information through the instrumentality of communications media. The Institute of Hydrology and Meteorology, Institute of Social Health and Scientific Institute of Animal Husbandry, and others are the principal scientific institutions dealing with disaster threats reduction. The research work carried out by these organizations is completely in line with the work for disaster risks reduction.
- 3.3.** The question of disaster preventing is now reflected in the curriculum of the general educational schools. Teaching materials on this subject to be used by teachers are now available.

- 3.4.** Civil servants, rescue teams, professional workers and others of the government organizations dealing with disaster preventing problems are subject to civic training once a year, and those from cities, *aimags*, *soums*, *bags* as well as workers dealing with the same subject from sub-districts, capital city are trained not less than twice a year.

In the case of universities and colleges where there are headquarters dealing with disaster reduction matters, training work is carried out under special training programmes.

“The National Law on Disaster Protection” specifies the meaning of the word “disaster protection” as the protection of people, domestic animals, properties and environment from disaster threats, rescue life, eliminating disaster consequences and recovery of what is urgent, and complex measures to train the people for the purpose of the aforesaid. That is said in the law is to be understood that training for combating against disaster threats is the basis of the work and activities to deal with any disaster.

We have trained officials and other personnel from organizations and enterprises dealing with disaster prevention, including students, workers and individuals. During the above-mentioned training work we have had lecture sessions 500 times, and there were some 90,200 people trained with double counting a year.

From the standpoint of educational theory the disaster preventing training is an independent educational practice in inner content of creative education based on its activity, being a government-initiated education of pragmatic type. The special importance of this

training is a thing in which the training can be completed in a short period of time in the end.

The content of disaster prevention purpose training in any country is consistent with the ideals of national security as its work objectives are aimed at protecting the people, animals, properties and environment in common with the practice and experience in the world.

Disaster preventing purpose training is in its content aimed at ensuring the security, preventing disaster threats in advance, eliminating consequences, and to restore what is necessary and make sure that working capacity, mind and body be fit to act so as to have the loss being little or less.

3.5. They say that the Mongols know something unpleasant in store for them by behaviour of some animals, or by shape of some vegetation or plants. For example, dogs bark and run this way and that, yaks go down from the mountain moving in a wedge-shape, farm animals become unsettled and stay not where to be supposed – all this may mean that there would be an earthquake.

Bad winter can be expected when voles, especially *daurian pikas* collect their food-hoard in some way or other in autumn, seeds of plants ripen and fall early, or migratory birds fly back in a hurry. The livestock people say that these things are a sign of disasters. People therefore know that animal fodder should be prepared earlier as much as possible and select places for transhumance.

3.6. Government officials concerned with disaster threat prevention work in advance carry out training people in the country in line with the work programmes of disaster threats preventing organizations, capital city, *aimags*,

soums, to organize all-inclusive local schools. Press information, educational organizations and others actively participate in the schools.

Part Four.

Equipment and Consumption of Risk Management

For the purpose of improvement in the forest management and of preventing forest fire it is relevant to get local people owned some land with some forest and get the forest belonging to enterprise organizations protected under a contract. Today there are 29 groups and enterprise organizations are working in charge of land with some forest, and making use of forest riches. As a result, no fire was recorded in these areas during the last two years.

4.2. Insurance Against Disasters

Although a system of insurance has been started to develop in Mongolia but disaster insurance is not yet effectively worked. It is associated with the following factors:

- In spite of the fact that some progress has been made in developing insurance system in the country, the insurance system fails to be meaningful and desirable among the customers as the country is now in transition to a new social and economic system of relations.
- As the forms of disaster happening and that may happen in Mongolia are many, so does the form of risks. For this reason, it is somewhat difficult to introduce adequate system of insurance in the face of newly developing market economy relations.
- Possibility of being in an accident is of sudden probability and at the same time the number of accident happenings is less than that of people who are afraid of. In the light of this situation insurance

companies come into being to make profit by way of reducing the losses getting it scattered. But it is clear that the number of weather change related, sudden natural phenomenon related disaster and of its occurrence frequency and range of effect gives rise to the failure of disaster preventing insurance companies being duly operated in the country. Therefore the formation of insurance against disaster and its further development will depend on the following factors:

- (1) Strengthening of insurance system;
- (2) Detailed assessment of disaster -related risks and their classification;
- (3) Government support of those who get their properties insured.

The government is taking measures to improve the system for natural disaster preventing and reduce losses and damages that may affect social, economic and ecological values, and reduce the vulnerability situations, protecting human life, and national riches. For example, “The national programme for reducing natural disasters” approved by the government in 1999 (resolution No. 25), the “National programme for supporting the protection of livestock from natural disasters” approved in 2001 (resolution No.47).

A draft law on livestock insurance was worked out, and it was tabled in parliament, but the speaker asked the house whether it could be considered at the spring sittings, therefore the house insisted on the draft being looked into with an eye to the betterment, thus parliament postponed the consideration. The Ministry of Finance and Economy and the Ministry of Food and Agriculture were consequently instructed to do the job. The two ministries worked jointly in 2001 on the draft. Today the draft law is ready to be discussed at the level of cabinet meeting.

If the livestock insurance system were put into being, it would create conditions for the development of disaster insurance system in Mongolia. Livestock is the branch that is prone to most large loss in natural disaster. This branch is the largest one in the country's economy producing 1/3 of GDP.

Disaster Management Updating and Finance

The question of disaster mitigation, disaster prevention, preparedness, eliminating consequences, assistance, recovery and updating is closely linked to finance matters and availability of resources. In today's conditions, the sources of financing are:

- State budgetary allocation devoted to taking measures for natural disaster reduction and resources allocated yearly from local budget.
- Resources received in the form of assistance or loan from other countries and international organizations for mitigating disaster effects;
- Some parts profits received as a tax levied on livestock and money received from the use of pastures;
- Resources coming from industries and enterprises for disaster preventing and for keeping production process going.
- Resources contributed by individuals and organizations within the country.

Countryside in Mongolia and Financial Service therein

Mongolia is the third country in the world where the population density is very low. The rural population is of the order of one million, and most of the people in the rural areas are nomadic type of herdsmen and the rest are office people working at the local administrative units and residents of *soum* centres.

Nomadic animal husbandry now feeds almost half of the population. Some 85 per cent of livestock breeding homes (or families) has less than 200 heads of animal, and 63 percent of homes less than 100 heads of animal. Under this condition, the business of herdsmen is more close to the risk of poverty and prone to the effect of nature. Following the collapse of agricultural cooperative system of the former social set-up, the economic growth especially in *soums* has been hovering at the same place. The functioning of small and medium scale industries based on livestock raw materials is deteriorating because of poor financial service and market inadequacy. In the country financial service is being rendered by banks, non-bank financial organizations with the participation of contributors.

- 4.3. It was of great importance for information and communications improvement in the country for the benefit of herdsmen to use the Japan Government non-repayable assistance provided to mitigate the sufferings resulted from natural disasters. Within the framework of the assistance we implemented the "*bag Communications*" project and provided all *somons and bags* with short wave communications facilities.

Part Five

Plan: Preparedness and Possible Disaster

5.1. Disaster prevention plan

Plan for disaster prevention measures in Mongolia was worked out at the following levels. Namely:

- (1) National Plan for disaster prevention.
- (2) *Aimag*, capital city plan for disaster protection.
- (3) *Soum*, district plan for disaster protection.

The national plan for disaster prevention consists of master plan and sixteen other supplementary plans. The master plan content includes such common things as (disaster prevention, rescue work, elimination of consequences, documents of management relating to recovery, setting a secrecy term, planing expenses needed), legal power organizations, preparedness thereof, (supernumerary or unestablished external to that of disaster prevention organizations, readiness for disaster prevention, assessment of disaster situation that might be in Mongolia, and conclusion to be learnt from it (disasters that happened in Mongolia and losses and damages thereof and conclusions drawn) draft decisions to be taken by the management during the disaster that happened, and plan for implementing measures during the disaster.

Supplementary plans, they are as follows:

- (1) Working plan on assessment reports about radiation, chemical poisoning and natural disaster threats;
- (2) Plan for protecting from radiation and chemical poisoning;
- (3) Plan to evacuate the people;
- (4) Plan to bring out news and information;
- (5) Plan to protect infrastructure from disaster;
- (6) Plan for keeping the law and order and for fire-service;
- (7) Plan for organizing legal power groups;
- (8) Plan for medical service in disaster
- (9) Plan for preventing and dealing with forest fire;
- (10) Plan to protect agricultural production from disaster;
- (11) Plan of supplying materials and techniques

- (12) Plan on human resources;
- (13) Plan to sound up, search, reconnoiter and control;
- (14) Plan for administering management in disaster to deal with it;
- (15) Plan for information and publicity
- (16) Plan for working in collaboration with the units of armed forces, and of internal and border troops to prevent disasters.

In accordance with the “Law on Disaster Protection” in Mongolia enterprise organization are duty bound to have plans for disaster prevention.

Plans for disaster prevention in *aimags*, the capital city are updated every year and there was a need to revise civil defense plans in line with international standards because the civil defense law was revised, the Law on Disaster Protection was adopted anew and the disaster prevention organizations were changed in their structure or duties to be performed by them. In this connexion, work is being carried out to revise the civil defense plans.

5.2. National disaster prevention measures are financed by the government and those in *aimags*, capital city, *soums*, *bags* and sub-districts are covered from local outlays as far as the enterprise organizations are concerned they do the work on their own resources.

Necessary sums to be used in case of disasters are provided in the state budget every year, food, consumer goods, and other articles of industrial and technical origin, medicine and veterinary purpose preparations, working tools or implements, oil and fuel, food grain, animal fodder are kept in reserve to be used in emergency. There are store-houses for the purpose in the country.

The Government of Mongolia keeps in hand most essential kinds of food and goods, food grains, cereals, animal fodder, oil and fuel, technical items,

vehicles, human and veterinary medicines, tools, implements to be used in case of highly infectious human and animal diseases, industrial accidents, fire, natural disaster such as floods, wind storms or earthquake, and other possible natural or non-natural disasters, natural and economic difficulties.

The type and amount of what is to be kept in state reserve and where it should be is updated by the Government every year and the prime minister is empowered to dispose of the same.

Type and amount and location of things in state reserves for disaster is of strategic importance, and it is therefore considered in terms of zonal need, specified consumption, meteorological factors, computerized possibility of disaster and other factors.

In this country whose territory is large a zonal consideration is taken into view for location of reserve goods for disaster with an eye to delivering goods to the place of designation by a shortest way of travelling in a speediest manner.

This consideration is consistent with the experience drawn from natural disaster occurrences and strategic points of view as well as with the wish and suggestions made individual people and herdsman. The stationing of food grain reserve being in areas of land cultivation provides a possibility to economize in working costs for shifting or alternating process. Besides its being close to the principal consumers is a factor supporting land cultivation.

In Mongolia there are warehouses and related facilities for food grains, fodder, and fuel as well as grain elevators.

In state reserves there are goods, materials, techniques and machinery. They are as follows:

Consumer basic foodstuffs

Consumer foodstuffs include flour, granulated sugar, rice, millet, powdered milk, green tea, lump sugar, vegetable cooking oil, salt, candle, matches, carcass meat, tinned meat, dried meat (borsa). The amount of foodstuff is reckoned by zonal consideration relying on the total number of people of the region concerned and taking account of food calorie, fat, carbohydrate, vitamin-rich quality, and on the basis of the need per person.

Goods designed for production and technical necessity

They are temporary dwelling, cloth tent, *gher*, (produced for winter and summer) and clothes for work, defense implement, electricity, mining, and well, equipment for dwelling and public utilities and construction materials. In particular, goods designed for production and technical needs are kept in stocks or get such goods kept by way of contracts for the purpose of using in the possible event of disaster such as earthquake or other adversities to rescue human life, ensure the functioning of electricity, heating system or water supplies in towns where there are many people and buildings.

Human and veterinary medicam preparations and tools or implements

General and partly anaesthetizing preparations, pain killing, fever dropping medicine, or one against inflammation or allergy and anaphylaxes, or medicine for treating poisoning and against bacterium, medicine for cardiovascular trouble and tools or implements are included. Human and veterinary preparations or medicine is used in places where there are many people and animals not to get any infectious diseases spread and to eliminate the source of diseases.

Oil and fuel

This portion includes motor vehicle fuel, diesel motor fuel, aircraft fuel, motor oil, thick oil, brake liquid, antifreeze, and lubrication oil for aircraft. We keep goods of multi-purpose in reserve to coordinate supply and demand of oil and fuel, to send the same goods where there is demand in order to ensure the continued work of land tilling, the service of local and international air traffic at airport as well as at the railway and the work and activities of legal power organizations and the means of transport.

Supplies of oil and fuel are imported to meet the growing need throughout the country, and since the territory of this country is vast, vehicle transport is playing a dominant role as far as the transport is concerned, and we are carrying on a research work to have and keep oil and fuel with reserve enough for 90 days as advised by countries like Japan.

All this is closely associated with the economic capacity of the country; everything is not likely to be implemented with ease. But taking account of the specifics of the country we would feel the need to improve the present oil and fuel storage tanks or containers and expand their holding capacity, if possible this can be executed through the instrumentality of donor countries' assistance resources, and there is a pressing need to have reserves for at least 30 days.

Food grain seeds reserves

As far as food grain seeds reserves are concerned, the government has the same in the cultivating areas.

Seeds of wheat reserves:

`Hay and fodder reserves

As far as hay and fodder are concerned, we know of bales of hay, feed pellets and bran in the country. Although there were negative phenomena as the period in between frequencies of meteorological phenomenon-related disaster has become short, risks of livestock loss increased, and by virtue of the privatization of properties the former state run security funds of fodder reserves went bankrupt and decreased in number, and for this reason, fodder reserves are being accumulated in the government stocks to use in the event of natural disaster. In future it is therefore a policy matter to have more hay of mineral and vitamin-rich quality in reserves, which should be suitable for transportation and good keeping for longer period of time.

In recent years we increased the number of fodder producing branch of industries from 9 to 22 in consideration of requests and suggestions of local authorities and people in the light of the repeated natural disasters, taking account of the strategic importance of fodder reserve keep-location.

The question of successful combating against the natural disaster, of overcoming the difficulties is one of things that give rise to the concern of the authorities.

We are working at the time when frequency of natural disasters has been increasing and possible threats are likely to increase in the world. In spite of the globalization process and speedy development of techniques and technology, we are so weak to deal with natural disaster threats, and people continue to suffer from disasters in great number.

My country has spent a lot of resources within the framework of the related Government resolutions to deal with the consequences of disaster. In this sense,

drought and severe cold snow-storm winter was the much resource consuming “customer”, and agriculture especially livestock breeding was the loser as a result.

5.3. Government organizations in charge of disaster protection, and *aimag*, capital city, districts headquarters for disaster protection, and *soum* supernumerary or unestablished headquarters are duty - bound to take necessary measures for disaster prevention in the country as a whole. These organizations have human and financial resources to carry out their duties.

Part Six

Disaster management top paradigm

Within the framework of legal changes “the Law on Disaster Protection” was approved in parliament on 20th June 2003.

The objective of the law is to specify the rights and responsibilities of government, local administrations, enterprise organizations and individuals in relation to the question of disaster prevention organizations, service system, management, work and activities.

The Disaster Protection Law and regulations consists of other laws and regulations which are in line with the Constitution of Mongolia, and other legal acts.

This law governs the work of disaster prevention, rescue, eliminating dangerous consequences, recovery of what is urgent, and other measures to be taken in this connexion, except for those affected by war or other fatally effective means of destruction.

The government approved the “National Programme for assisting to protect livestock from natural disasters” on 13th of March 2001 and it was started to be implemented in July 2001. The term of the programme will expire at the end of 2005.

While implementing provisions of the programme, we have got the project: “Haymaking/ fodder-2001” approved by the government resolution No.144, 2001, and we implemented it with an eye to preparing and increasing fodder reserve and, thus setting up security fodder reserve in soums.

A regulation about preparing, disposing, and reporting on “a foundation for protecting livestock” was approved by government Resolution No.246, 2001.

As a result of what we have got 11 resolutions of the government, 7 protocols of the cabinet sitting, 16 directives of the Prime Minister, 1 official instruction from the Prime Minister, or in all 35 questions on various matters relating to programme implementation, arrangements for over wintering, dispatching such things as hay, fodder and other goods in connexion with weather-related difficulties in over wintering and getting through spring in some *aimags* were discussed at the cabinet meetings and resolutions were taken to the effect.

Over the last three years the government spent 1,4 billion tugriks for the purpose of establishing a system in support of protecting livestock from natural disasters and creating conditions for setting up a unified network and a national foundation for protecting livestock, and increased fodder providing centres by 13 units thus making all *aimags* had fodder supplying point. The fact that the government increased the amount of fodder reserves to be at the providing centres by 60% in 2001, 50% in 200 and took measures to transport before

mountain passes get blocked by snow fall the necessary amount of hay or fodder to the places close where livestock people could get it easily gave rise to a positive effect. According the figures, in last three years aimags were provided with 43,900 tons of hay and 14,300 tons of fodder from the State Reserves at the cost of 4,5 billion tugriks. Under the loan conditions some 50% of which is non-repayable and the rest are repayable.

By resolution No. 246 of 2001 the government approved the regulation about preparing, disposing, reporting on “a foundation for protecting livestock”, as a result, the Foundation was okayed and the goods or cash received in the form of relief assistance from foreign countries and international organizations and other resources and loans which are being used in conformity with the purpose.

All *aimags* and the capital city have now livestock Protection funds that consist of tax revenues received from individuals having livestock, resources allocated from local budgetary outlays, loans and assistance receiving from the National Foundation for Protecting Livestock and contributions coming from enterprise and non-governmental organizations.

In the case of *soums*, some 75% of all *soums* having funds for livestock protection, the losses emanated from the work to create conditions for capacity or being able to prevent livestock from natural disaster are subject to compensation.

70% of what is really wanted to be done under the programme was put into effect.

The UNDP initiated project entitled “ Lessons Learnt from the Natural Disaster –2000”-Mon/00/302 was implemented in 1990/2000. The objective of the project was to work out recommendations in relation to the disasters happened in recent years, in particular measures taken in getting through the

disaster and to evaluate the assistance received. Within the framework of the project studies have been carried out on the traditional ways and methods in free-range animal husbandry. Also the disasters, basic causes, environmental, social and economic factors were specified therein. In relation to the disaster risk causes, and to reduce them, a first choice of methodology has been determined. In conformity with the studies, an initial strategic recommendation on meteorology-related feasible disasters has been worked out. Views and comments received from heads of local administration, animal specialists and livestock breeders from those areas where natural disasters of the type are ubiquitous were reflected in the study.

Within the framework of the UN set-off "Radius" project, a possible earthquake prototype was devised showing material destruction and human life loss together with the idea of how to decide the management in disaster, and to determine and assess the earthquake resistance of buildings, work out ways and means of buttressing them. This project is, in a way, close to the end, it has been implementing since 1998.

Partnership:

Disaster Mitigation and Mitigation Partnership between Government and Donors: The newest international best practice in disaster mitigation and management within a country is a Disaster Mitigation and Management Partnership (DMM-Partnership). Such a Partnership is between all levels of government, national NGOs, and the grassroots population; and international donors and international NGOs. A disaster mitigation and management partnership has the objective of including the concept of disaster mitigation in to all development projects. The Development Objective of such a Partnership is:

- (1) Poverty reduction

- (2) Environmental protection
- (3) Sustainable development

These development objectives are achieved in a DMM-Partnership through:

- (1) Coordination between government and donors
- (2) Cooperation to include disaster mitigation into all types of development project at all levels of government and community, using bottom-up approach starting from the grassroots population.
- (3) Ranking of priority programmes and projects to mitigate and management disasters.
- (4) Consultation for the optimum allocation of scarce financial, personal and material resources.

Such a DMM-Partnership is considered to be best international practice for implementation in Mongolia.

Part Seven

Urgent Problems to be addressed to World Conference on
Disaster Reduction:

1. Development of international cooperation through participation of government organizations and NGOs, promoting partnership cooperation, and by signing agreements on developing multilateral and bilateral cooperation to prevent disasters;
2. Support to encourage investment being made for the purpose of disaster prevention and promote contributory investment by way of exempting from customs duty;
3. Increase the supply of techniques and equipment designed to prevent disaster in advance, eliminate dangerous consequences, and improve ability and skills of legal power agencies.