Introduction

Armenia is one of few countries entirely located in the zone of high seismic risk. Due to it the losses from earthquakes in the territory of Armenia in 1988-1998 are 94% of the amount caused from all types of disasters. There were 2028 emergencies in Armenia in 2003 including 1915 e.g. 92% of technogenic origin (wildfire, destruction, car accidents etc) and 168 e.g. 8% of natural origin (earthquake, floods and deluge, landslides, hail, frost). During these events 227 people have been perished and 1788 people have been suffered. Appendix 1 represents the catalogue of earthquakes occurred in Armenia in 2003. There were significant steps in the field of earthquake caused disaster management in the Republic of Armenia:

- establishment (after destructive Spitak 1988 Earthquake) of Armenian National Survey for Seismic Protection (Armenian NGSP) which succeed in relatively short time and awarded by UK-Gassakawa premium for impressing results in the field of natural disaster prevention.
- in 2002 the National Assembly of the Republic of Armenia adopted The law "On Seismic Protection"

Armenian NGSP main tasks and goals are as follows:

- a. seismic hazard monitoring in the territory of the Republic of Armenia
- b. seismic hazard and risk assessment
- c. seismic risk reduction
- d. assessment of induced seismicity level
- e. assessment of secondary hazards caused by seismic hazard

The Stages of Disaster Management

The stages of disaster management are as follows:

- organization of disaster management
- organization of rescue operations
- organization of pre-medical aid
- organization of local authorities actions
- evacuation of population from disaster zone
- aid education

Disaster Management National System in the Republic of Armenia

The scheme of disaster management system in the Republic of Armenia is presented in Appendix 2. The main goal of the scheme is population protection and its system along with subsystems is presented in Appendix 3.

Organization and structure of Disaster Management National System (DMNS) is stipulated by:

- losses and damage caused by earthquake and size of zone involved
- seismic vulnerability
- relief force preparedness and being equipped
- government strategy based on understanding of disaster hazard and risk level
- availability of necessary resources in case of disaster

Major earthquake can cause national disaster for small nation.

In this case the government handles the disaster management and the regional (municipal and community) are established under the aegis of DMNS including local authorities and representatives of a number of institutions namely Emergency, Seismic Protection, Internal affairs, Defence etc.

DMNS and its elements structure, staff, and tasks as well as responsibility are stipulated by legal and normative documents and government decisions. Below the tentative structure and tasks of the republican and community seismic disaster management headquarters are presented.
Main Tasks of the Republican Headquarters

The headquarters are arranged immediately after an earthquake by the order of Prime Minister or Governor. The order provides the headquarters named staff, location and main obligations and responsibilities. Operative Headquarters are working round clock and maintaining meetings everyday. Conditions for headquarters’ effective work are provided and permanent communication with DRMES, government and municipal services are ensured. Headquarters comprise of 15-20 experts and representatives of state management bodies who are directly dealing with rescue operations and organizational tasks of earthquake consequences elimination. To solve problems mentioned below the special committees under the town headquarters are expedient to establish. Every committee should have clear and distinct idea about its main tasks, obligations and authority, and work timetable (round clock during the first month after earthquake).

Main Tasks of the Republican Headquarters

1. Assess the situation and earthquake consequences extent and provide necessary activity for organization of rescue operations
2. Define the extent of destruction and the number of victims and injured
3. Define the necessary equipment and mechanisms for rescue operations
4. Involve Army and its equipment in rescue operations
5. Meet and allocate rescuers from abroad according damaged areas and units

2. Organize the providing injured with immediate medical aid
3. Define the number of required experts and equipment including specialized cars, medicine and materials
4. Define the required amount of donor blood or substitutes
5. Organize the medical service
6. Define the possibility of heavy sick people evacuation to other towns and abroad

3. Ban the transportation entrance to disaster zone besides those of special purpose
4. Organize people evacuation
5. With families to foreign country by shuttle buses, railroad and airplane
6. To other towns and resorts of the country by local transportation

5. Organize the registration of unknown victims and burying
6. Put in place law and order and flight lodging
7. Provide operative activities for earthquake secondary consequences prevention and localization
8. Get, allocate and install the temporary households such as vans and tents
9. Provide the people with the necessary resources including dry and liquid fuel, warm clothes, sleeping accessories, food and water
10. Organize the answer service for inquiries about the destiny of relatives and acquaintances
11. Make up the list of missing and injured, and died people
12. Provide citizens who have lost the passport due to earthquake with temporary identity

Earthquake Consequences Liquidation Permanent Acting Committee under the Community Headquarters

1. Committee on rescue operations organization
2. Committee on rapid medical aid
3. Information center
4. Committee on victims burying
5. Committee on population evacuation
6. Committee on temporary shelter reception allocation
7. Committee on earthquake consequences extent and situation evaluating
8. Committee on a place law and order
9. Committee on life-support
10. Committee on a place law and order
11. Committee on temporary shelter reception allocation
12. Committee on rapid medical aid
13. Committee on a place law and order
14. Committee on life-support

Republican Management Operative Headquarters

Usually the destructive earthquakes circle the territory of several administrative areas (marzes, regions, town etc). Due to it the establishment of republican earthquake consequences liquidation headquarters is essential. The main goal of republican headquarters is the coordination of activities of different community headquarters with the aim at saving human lives and liquidation of earthquake consequences. The republican headquarters are formed by the decree of the President. It indicates the staff of headquarters, location and main obligations and responsibilities. The headquarters are working round clock organize the meetings several times if needed and not less than once a week. The headquarters are headed by the Prime Minister. It involve the ministers, governors and the Chairman of National Assembly, etc.

Main Tasks of the Republican Headquarters

1. Define the borders of disaster zone, settlements selection by the priority of aid provided
2. Evaluation of damage extent and number of victims and suffered as well as other earthquake consequences in the territory of state
3. Rescue operation organized on state level
4. Organization of providing the injured with immediate medical aid
5. Coordination of activities of regional community earthquake liquidation headquarters and providing support to local authorities of disaster zone and planning the actions after earthquake
6. Define the number of required specialists including rescuers, physicians etc. and equipment (first place rescue and medical ones) and amount of medicine and other materials and appeal to international organizations and foreign countries for assistance
7. Allocation of experts including the foreign ones and equipment and materials in disaster zone
8. Organization of population evacuation from disaster zone to other regions and if possible to foreign countries
9. Visa and customs easy clearance for experts arrived from international organizations and foreign countries and for material and technical assistance
10. Providing the assistance including food, water and shelter to the population of disaster zone at the expense of state resources and reserves, increase of life-support and preserving the essential resources including valuable equipment and materials
11. Developing and organization urgent actions for earthquake secondary consequences prevention and localization
12. Providing population and organizations with information about earthquake and current situation

2003 Earthquake Catalogue

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