

1.1 Are there national policy, strategy and legislation addressing disaster risk reduction?

The legal bases of the protection against disasters are the Constitution of the Republic of Hungary, the Act on Home Defense, the Act on Civil Protection and the Act on the Protection against Fire, Rescue Operations and the Fire-Service. Based on the above Acts, the Hungarian Parliament enacted *Act No. LXXIV of 1999 on the direction and organization of the protection against disasters and on the protection against major accidents involving hazardous materials* (hereinafter: Act on Disaster Management) in 1999. The Parliament enacted this Act in order to establish and operate a uniform direction system of prevention of natural and man-made disasters threatening life, safety of property, natural and built environment and to determine the fundamental tasks of reconstruction.

The role of the Government is very important and primarily operational. In case the legal conditions prevail, the Government may declare the state of emergency and may take extraordinary measures that can be extended by the Parliament after the 15-day term has expired.

The tasks of the different sectors relating to disaster management is coordinated by the *Government Coordination Committee* (hereinafter: GCC) chaired by the Minister of the Interior.

The GCC has 8 Protection Working Committees. The preparation for and the protection against the most often occurring hazards are administered by these committees. The elaboration of the National Strategy on the Protection against the Impacts of Disasters and the Annual National Plan for Prevention and Preparation are also the duty of the GCC.

The professional disaster management authority is directed by the Minister of the Interior. Based on the Act the ministers of the different sectors and the heads of the different national authorities are responsible for the planning, organizational and operational activities relating to the protection against disasters in their field.

The professional disaster management authority was established by merging the fire-service and the civil protection. It coordinates the operation of the organizations and persons taking part in the protection against industrial, natural and other disasters.

One of the Chapters of this Act regulates the protection against industrial accidents caused by hazardous materials, the rules of mitigation of disasters and authoritative tasks. This Act is based on the 96/82/EC SEVESO Directive. With this regulation, the Republic of Hungary has engaged herself to fulfill this international commitment. The details are laid down in governmental and ministerial decrees.

The protection against industrial accidents is a very serious and complex field, it includes the technical issues of prevention, mitigation of the damaging impacts of accidents, the measures relating to the protection of human beings, the tasks of the managers of the hazardous plants, the authorities, and the municipalities, relating to the prevention of industrial accidents, and it also determines the rules of public information.

The operator of a hazardous facility has to prepare an internal protection plan for the internal operation. The mayor of a settlement near to an upper tier hazardous

establishment, together with the operator of the plant, has to prepare an external protection plan.

As far as the upgrade of a hazardous establishment or its surrounding is concerned, the operator can be restricted.

A hazardous establishment may endanger the population. This is why the population has the right to be informed on the threatening impacts and the methods and possibilities of protection, and on how to handle the situation in case of an accident. The operator of a hazardous plant is obliged to give an accurate report on the establishment, the possible sources of risks and the measures of elimination and the prevention of major accidents. Meanwhile, the protection of industrial and business secrets is ensured.

The main competences of the authorities and specialized authorities:

- Authoritative licensing, affiliation, taking restrictive or prohibiting measures
- Operation of a supervisory system
- Disaster management tasks
- To elaborate and exercise internal and external protection plans
- Pre-emergency and emergency public awareness, publicity
- Activities relating to settlement arrangement plans
- Operating a reporting and investigation system relating to major accidents
- Collecting and evaluating technical, organizational and management information, and preparing national reports
- Administrative (information) tasks

The above mentioned Act declares that disaster management is a national cause; the uniform direction of protection is a State task.

Since the spring of 2004 – when the Hungarian National Security Strategy was adopted – all the Ministries have been obliged to prepare their own sectoral strategy. One of the important strategies of the Ministry of the Interior is the National Disaster Management Strategy which is under preparation at the moment. The Strategy maps all the risks that may occur in the country and determines their tendency, the aims of prevention, preparation and emergency management and lists the main assets relating to this issue. The Strategy outlines the improvement of information technology and monitoring systems, the involvement of NGOs, the protection of the population and the pre-emergency public awareness.

The National Directorate General for Disaster Management (hereinafter: NDGDM) has its own *professional disaster management strategy*, which determines the objectives of the organization in the field of regulation, technical upgrade.

Bi- and multilateral international agreements regulate the obligation of protection against trans-boundary risk effects (e.g : the order of early warning, information and operational cooperation) is regulated by bilateral and multilateral agreements.

A special field is the protection against nuclear hazards. The EU directives are used in the Hungarian legal system. Act No. CXVI of 1996 gives a basis for the peaceful use of atomic energy, and also renders attention to the disaster reduction mechanisms. The National Nuclear Emergency Prevention System was established by a governmental decree. The order of public awareness on nuclear and radiological emergencies, the authorization of the cross-border transportation of radioactive waste and the regulations

relating to early warning in case of radiological emergencies (ECURIE) are regulated by statutes.

Summary:

The Hungarian legal regulation is broad and comprehensive and there are some specialized regulations relating to different hazardous impacts. We have disaster management strategies and the Hungarian disaster management mechanism has functioned in the past 5 years as a self-developing system, the coordination between the authorities concerned is constantly improving and the operational coordination works on a high level.

1.2 Is there national body for multi-sectoral coordination and collaboration in disaster risk reduction, which includes ministries in charge of water resource management, agriculture/land use planning, health, environment, education, development planning and finance?

In Hungary, based on the Act on Disaster Management, it is the GCC; you can find more about its operation in Section 5.3.

In order to reach the goals of UN OCHA ISDR, we have established a National Forum for Disaster Prevention. The Forum is practically a national mechanism coordinating and implementing objectives, concepts and activities. It contains information for the decision-makers, establishes and applies institutionalized procedures in the field of discussions, reconciliation and consensus-building between partners.

The main documents: the already mentioned Act, Minister of the Interior Decree No.: 48/1999, Government Decree No.: 179/1999, Government Decision No.: 2266/2000, GCC Decision No.: 1/2000 and Government Decree No.: 165/2003.

1.3 Are there sectoral plans and initiatives that incorporate risk reduction concepts into each respective development area (such as water resource management, poverty alleviation, climate change adaptation, education and development planning)?

There are different, sector-related plans which are to mitigate the negative effects of disasters, e.g. plan for preventing and managing of nuclear emergencies, affecting all the ministries and national authorities belonging to them. As the prevention of disasters, the protection against them and the reconstruction are very complex, so to solve these issues the cooperation between the ministries, the Government and the society is necessary and it requires multilevel plans. These multilevel plans together are the National Strategy for Disaster Management and there are also other sectoral strategies. In the frame of the aforementioned National Strategy, there is a National Information Technology System that enables a multi-sectoral cooperation. The only problem is the financing of the different tasks and the harmonization of different interests in the implementation of the National Strategy.

1.4 Is disaster Risk reduction incorporated into your national plan for the implementation of the UN Millennium Development Goals (MDGs), Poverty Reduction Strategy Paper (PRSP), National Adaptation Plans of Action, National Environmental Action Plans and WSSD Johannesburg Plan of Implementation?

The Programs of a healthy way of life and reduction of human health risk factors contains the following:

The response to today's challenges includes the preparation of the State Public Health and Medical Officer Service (SPHMOS) for unexpected emergencies (disasters, accidents, terrorism, etc.), the establishment of the scope of tasks of rapid response, and the development and operation of an information system supporting the safety of public health.

Issues relating to the elimination of the health consequences of disasters are legally regulated at different levels. Medical institutions have detailed plans to implement the relevant tasks. SPHMOS has a leading role in local recovery efforts. During disasters, statutes provide the head of this Service with a large freedom of movement to mobilize or regroup medical resources.

The NEP II (adopted by the Parliament in 2003), envisages special actions in the priority areas of environmental awareness, climate change mitigation, human health and food safety, urban environment, biodiversity, sustainable use of waters, rural development, land-use, waste management, and environmental security.

The backbone of NEP II is represented by the thematic action programs aimed to solve complex environmental problems. The elaboration and implementation of thematic action programs provide opportunities for concentrating resources, sectoral co-operation, and a more intensive integration of environmental and special policies in the following subject areas:

Action program for increasing environmental awareness

Comprehensive objectives:

- to expand the knowledge of society as related to the environment and sustainable development;
- to improve access to information;
- to promote environment-aware decisions and more sustainable lifestyles;
- to enhance responsible social participation in environmental policy decisions.

Action program for climate change

Comprehensive objectives:

- to regulate / decrease emissions from domestic economic activities;
- to reduce greenhouse gas emissions / the contribution to global air pollution, as well as to improve local / regional air quality;
- to contribute to the promotion of environmentally friendly consumption habits and to the improvement of urban environment quality.

Action program for environmental health and food safety

Comprehensive objectives:

- to reduce health risks caused by indoor and outdoor air quality;
- to improve noise protection, chemical and nuclear safety;
- to handle environmental health problems related to potable water quality;

- to handle environmental health problems of soil pollution and waste management;
- to improve food safety;
- to develop the environmental health and food safety institutional system;
- to promote and make accept environment-aware and environmentally sound lifestyles.

Action program for urban environment quality

Comprehensive objectives:

- to promote the environmentally appropriate transformation of settlement structure, development, and rearrangement as well as to reduce environmental problems arising from earlier mistakes;
- to improve the status of residential area water management;
- to protect urban green areas, to increase their proportion, and to improve their condition;
- to alleviate settlement environment problems originating from traffic;
- to ensure the proper state of repair of built environment components, of the built and archaeological cultural heritage.

Action program for the protection of biological diversity and landscape conservation

Comprehensive objectives

- to protect natural systems and values;
- to preserve biological diversity;
- to use natural resources in a sustainable manner;
- to establish a harmonious relationship between society and the environment.

Action program for urban environment quality, area and land use

Comprehensive objectives:

- to promote the protection of the natural and cultural assets of rural areas and the sustainable use of natural resources by properly co-coordinating spatial development, agricultural policy, and environmental policy;
- to ensure adequate income levels and infrastructure facilities for rural residents.

Action program for the protection and sustainable use of Hungarian waters

Comprehensive objectives:

- to implement pro-rata the scheduled domestic tasks included in the Water Framework Directive;
- to protect operating and future water bases and high-priority water protection areas;
- to spread rational water use and pollution-reducing technologies widely;
- to develop the treatment of communal waste water taking settlement characteristics into consideration (e.g. size, possibility of economical canalization);
- to increase the proportion of the utilization of communal waste water sluice;
- to eliminate environmental damage endangering subsurface water resources.

Action program for waste management

Comprehensive objectives:

- to develop prevention and utilization of communal and production waste;
- to perform low-risk treatment of communal and production waste to be neutralized;
- to improve planning and efficiency in waste management.

Action program for environmental safety

Comprehensive objectives:

- to elevate environmental safety to a strategic level;
- to analyze the impact of past environmental damage (disasters);
- to identify environmental disasters and hazards;
- to handle environmental risks;
- to perform horizontal tasks in environmental safety.

Beside the above action programs, the NEP II puts special emphasis on the development of the following main groups of measures:

- Integration of environmental aspects into decision-making and policies;
- Direct environmental developments;
- Indirect environmental developments;
- Legal and authority measures;
- Economic measures;
- Innovation and R&D;
- Improvement of the environmental performance of municipalities and their institutions;
- Environmental certification of products, services, and companies;
- Environmental information;
 - Social participation and access to environmental information;
- Environmental education, conceptualization.

1.5 Does your country have building codes of practice and standards in place, which takes into account seismic risk?

Hungary is not really prone to earthquakes. Since 1981, there is a technical guideline including national and regional rules relating to the construction of buildings. Currently, the translation and the adaptation of the European standards relating to earthquakes are in progress. This includes altogether 60 different standards. These rules will come into force foreseeable in 2008.

1.6 Do you have an annual budget for disaster risk reduction?

The financing of disaster risk reduction in our country has several different methods and practices.

The national authorities responsible for risk reduction are supported by the national budget. The activity of these authorities (NDGDM, professional and voluntary fire brigades) is first of all related to prevention, but as a specialized authority their activity also includes education and public awareness to mitigate disaster risks. Their work is many codification and low enforcement. Each year funding is insured within the budget of the institution concerned. Some examples: the operation of the warning system at the Paks Nuclear Power Plant, the storm warning systems at Lakes Balaton and Velencei.

In case of a new task additional allocation is included in the budget, based on a statute, providing funding for the implementation of the new task. After implementation only the operational costs of the new system is included in the budget. This is a project approach high of financing. Later the task will be financed through the institution's budget, for instance the tasks relating to the implementation of the SEVESO II Directive.

A special type funding comes from fire protection fines and the 1 per cent share of insurance fees.

The amounts collected in the above way on the account of the Ministry of the Interior may only be used for the technical upgrade of professional municipal fire brigades. It may only be used at the instruction of the Minister of the Interior. The plan for this funding is compiled by NDGDM and approved by the Minister of the Interior. NDGDM procures the equipment, the remaining amount stays on the account of the Ministry of the Interior.

Fire brigades have to apply for funding through tenders. One of the basic requirements is that they have to have their own share of the costs. There is also a possibility for disadvantaged entities to obtain financing through tenders, thus people living in the area are protected in the same way.

The above allocation does not form an integral part of the institution's budget, it is only available for a one-time technical upgrade.

1.7 Are the private sector, civil society NGOs, academia and media participating in disaster risk reduction?

According to the Act on Disaster Management voluntary and charitable organization participating in the protection affords may grant assistance and cooperate if they declare their willingness. The Government Program, the Ministry of the Interior and the PR Strategy of NDGDM pay a special attention to the involvement of NGOs in state tasks, thus disaster management also regards this topic as one of its strategic goals. The draft Government Decree on the regulated involvement of voluntary rescue organizations in their protection efforts in Hungary and in international relief operations has been elaborated. We have started the foundation and implementation of a training system meeting international requirements (INSARAG).

In the period of disaster prevention public information and awareness are based on a wide social assistance, ranging from kindergartens to higher education, and reaching all workplaces. There are numerous joint research tenders between professional disaster management organizations and NGOs, universities, etc. (e.g. joint research together with the Hungarian Academy of Sciences on climate change adaptation).

2.1 Has your country carried out hazard mapping/assessment?

Hazard maps and databases for hazard assessment are available at NDGDM and its regional bodies, they are continuously updated. They use the ArcView basic software for displaying GIS, considering the following factors:

- a layer is produced by user and is loaded into the database with the help of the above software
- DTA-50 and DDM-200 basic maps are available at present
- the topic-oriented layers are independent and different in each country
- personnel well trained and drilled for using and processing data through GIS is available

Groups of map layers by topics:

- basic map layers
- vulnerable establishments

- hazard sources
- miscellaneous information

Basic map layers:

- county border
- administrative borders of settlements, borders of built-in areas
- forests, enclosed gardens, green areas, cemeteries
- contour lines
- lakes and rivers
- railway lines and stations
- roads, streets, routes
- geo-coded road network (DSM 2003)
- all addresses (DSM 2003)

Vulnerable establishments:

- residential buildings
- population
- institutions

Hazard sources:

- water wells
- gas recipient stations
- electric transformer stations
- electric and gas lines
- routes for the transportation of hazardous material
- food industry
- animal farms

Miscellaneous information:

- hazardous activities
- hazardous waste management
- disposal of radioactive materials
- carcass pits
- petrol stations
- seismic areas
- areas vulnerable to floods and inland waters
- areas covered reeds and bushes
- areas covered with peat
- zones of hazardous plants
- zones of other establishments

Information layers:

- airports
- disaster management organs, boundaries of branch offices
- fire brigades, boundaries of areas of competence and operation
- UHF radio system
- evacuation
- reception

- hospitals, Hungarian Red Cross
- long distance bus transport
- border crossing points
- meteorological stations
- forests
- Lake Balaton Storm Warning System

Operational possibilities in the database:

Searches:

- settlement
- address

Operations with coordinates:

- query of the coordinates of a given point
- inserting a GPS point on the map

Graphic-based selections:

- circle
- line buffer zone
- free-hand polygon

Evaluation of chemical situation:

Goal: to procure the ALOHA software, developed by the US Department for the Environment, modeling the spread of chemical substances.

The EU Joint Research Center started its project "Management of Natural and Technological Hazards in Accession Countries" in 2003. In this framework, the disaster vulnerability map of Hungary was prepared. The hazardous establishments, areas affected by forest fires, floods and soil pollution are included in the map.

Operators of hazardous establishments evaluate the vulnerability caused by the plant, the risks and the consequences of a possible malfunction using hazard assessment. The assessment can be divided into the following phases:

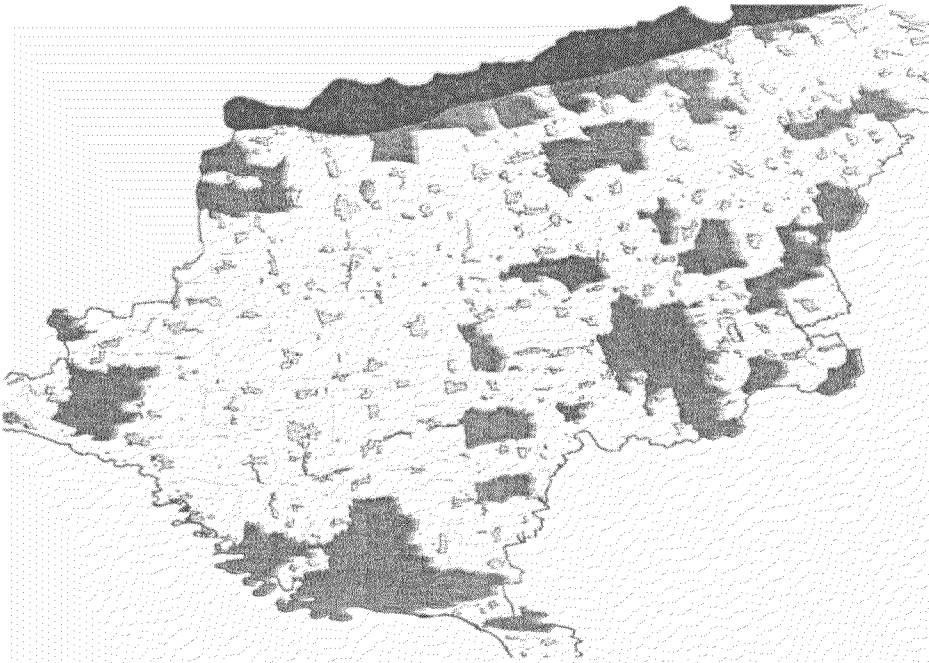
- a) hazard identification (of the possibility of a major accident)
- b) identification of the risk (frequency) of occurrence of a major accident
- c) evaluation of the consequences of the identified major accident
- d) integration of the probability and the consequences of a major accident in order to identify the individual and social risk in any point of the area affected by the impact.
- e) matching of the vulnerability figures gained as a result of the previous step with the licensing criteria.

Any method can be used to identify hazards and to evaluate the risks of major accidents which are accepted and international practice.

The layers made by Somogy County as specimen and for information from the full database:

Inland water vulnerability of Somogy County

Somogy Megye Belvíz veszélyeztetettsége



Areas of competence of Fire Brigades

