

REPUBLIC OF SLOVENIA

**NATIONAL REPORT AND
INFORMATION ON DISASTER
REDUCTION**

**for the World Conference on Disaster
Reduction
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INTRODUCTION

The Republic of Slovenia has been an independent and sovereign country since 25 June 1991. It came into existence on the basis of the results of a national plebiscite held on 23 December 1990. At that time, 89% of those voting opted for a sovereign and independent Republic of Slovenia. After a six month process of secession from what was then Yugoslavia, the Republic of Slovenia declared itself independent through a Declaration of Independence adopted on 25 June 1991. Slovenia is a democratic republic. Its total territory covers an area of 20,273 km². It has a population of 1,964,036. The official language of Slovenia is Slovene, but Hungarian and Italian are also official languages in ethnically mixed areas. The currency is the Slovenian tolar (SIT). The GDP of Slovenia in 2002 was 11.027 USD per capita.

Slovenia lies at the junction of the Alps, the Pannonian Plain, the Dinaric-Karst area and the Mediterranean. Karst covers around 9000 km or 44 % of the total area of the country. All of these regional environmental systems provide Slovenia with an exceptionally diverse landscape and breathtaking natural beauty, as well as a great number of natural disasters. The price that Slovenia has to pay every year from the results of summer storms, heavy floods, frost, landslides and other natural disasters is, on average, more than 2% of GDP. There have been years, however, when the damage caused by natural disasters has been significantly greater. For example, in 1990, flood damage alone was over one-fifth of GDP. Economic development has led to increasingly frequent and violent interventions in the natural environment, such as the construction of industrial plants, nuclear facilities, large water reservoirs, chemical runoff into the environment and rapidly increasing levels of traffic, economic development, which have also brought on new threats of man-made disasters.

COMPONENT 1

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

New legislation adopted after 1992 separated the system of protection against natural and other disasters from the defence system in order to organise it as an integral interdisciplinary activity based on common goals and principles, and to merge all rescue services and other protection, rescue and relief forces into an organisationally and functionally unified system. This opened up new possibilities for including extensive co-operation among non-governmental organisations and for the construction and utilisation of common telecommunications, information, educational and other infrastructure. Formally and legally prevention has become the fundamental guideline and major task of this system with implementation being carried out mainly within local communities.

It is defined by law that protection against natural and other disasters includes protection of people, animals, property, cultural heritage and environment against every danger and accidents that can threaten their safety. The main goal of the system of protection against natural and other disasters is to reduce the number of disasters,

and to forestall or reduce the number of victims and other consequences of disaster. The basic tasks of the system are:

- prevention
- preparedness
- protection against threats
- rescue and relief
- providing of basic conditions for life
- recovery.

Protection against the risk of natural and other disasters is based on the following measures:

- site and urban planning for protection and rescue purposes
- evacuation
- accommodation and care for the homeless and other people at risk
- radiological, chemical and biological protection
- construction and use of shelters and other protective facilities
- protection of cultural heritage
- protection against explosive ordinance disposal.

Rescue and relief in the event of a disaster mainly comprises the following:

- putting out fires
- rescue after an explosion
- rescue from rubble and landslides
- rescue on and from water
- mountain rescue
- rescue in caves and mines
- rescue after traffic accidents
- first aid
- first veterinary aid
- humanitarian assistance.

Personal and mutual protection includes measures to be taken by the population to prevent and mitigate the effects of natural and other disasters or military and terrorist activities so as to protect their health, lives and property in both the home and working environment.

The most important laws, governing the area of protection against natural and other disasters:

- **Act on Protection Against Natural and Other Disasters (Official Gazette of the Republic of Slovenia, 64/94)**
- Act on Fire Protection (Official Gazette of the Republic of Slovenia, 71/93)
- Act on Fire Service (Official Gazette of the Republic of Slovenia, 71/93)
- Act on the Slovenian Red Cross (Official Gazette of the Republic of Slovenia, 7/93)

- Act on Protection Against Drowning (Official Gazette of the Republic of Slovenia, 44/2000)
- Act on the Recovery from the Consequences of Natural Disasters (Official Gazette of the Republic of Slovenia, 75/2003).

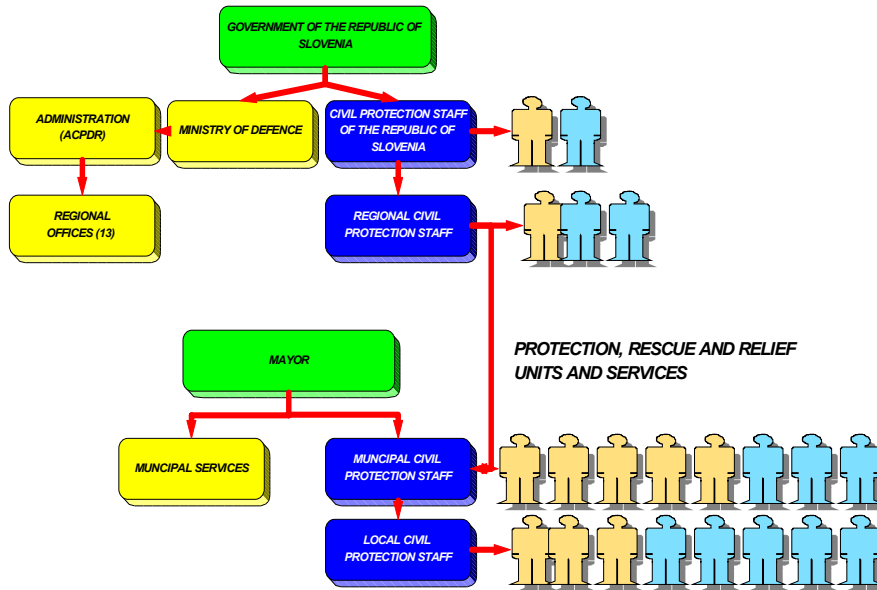
The Act on Protection against Natural and Other Disasters regulates this area systematically. Other special laws govern the areas of fire protection, fire-fighting and protection against drowning. Prevention is as a rule defined by the legislation of the field. All forms of protection, rescue and relief are carried out in accordance with the principles of international humanitarian law and the international law concerning the protection of people, animals, the cultural heritage and the environment against the harmful effects of natural and man-made disasters and international obligations that have been taken on by Slovenia. In addition, it provides the assurance that all of these activities are of humanitarian and non-military nature and that all of the available protection, rescue and relief resources can be used in the implementation of other forms of the humanitarian operations.

In 2001 the Resolution on the National Security Strategy of the Republic of Slovenia was adopted (Official Gazette of the Republic of Slovenia, 56/2001). On the basis of the Resolution the National Programme of Protection against Natural and Other Disasters for the period 2002 – 2007 was adopted (Official Gazette of the Republic of Slovenia, 44/2002). The National Programme is orientated in prevention and its basic aim is to reduce the number of accidents and to prevent or alleviate its consequences. The priorities of each year are defined in years Programmes which are in accordance with a five-year plan. Finally, on the basis of previously mentioned documents the Doctrine on Protection, Rescue and Relief was adopted (Official Gazette of the Republic of Slovenia, 64/94, 33/00, and 87/01). The Doctrine is a document which is comprised of common principles and views concerning professional and operational guidance, organisation, and conduct of protection, rescue and relief efforts in the event of natural and other disasters.

The control over the implementation of laws governing the area of protection against disasters is executed by the constituent body of the Ministry of Defence - the Inspectorate of the Republic of Slovenia for Protection against Natural and Other Disasters and its branch offices.

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

The system of protection against natural and other disasters is based on the obligation of the state and municipalities to prevent and eliminate dangers and to implement prompt measures in the event of a disaster. It is also based on the obligations of commercial companies, institutions and other organisations that, within the scope of their activities, are responsible for implementing emergency measures relating to the protection and rescue of people and property, and of individuals for the protection of themselves and their property. The system is activated in the event of accident according to the principle of graduality.



Organigram of the national system of protection and rescue

The state and municipalities are responsible for organising protection against natural and other disasters as a uniform and integral national system.

The state is mainly responsible for regulating the system, planning development and research activities, organising monitoring, information, alarm and communications systems, development of threat assessments and national emergency response plans, organising and preparing national units for protection, rescue and relief, and adopting education and training programmes for these units.

The municipalities are responsible mainly for the monitoring of possible threat, informing the population, implementing protective measures, developing personal and community protection and organising and training municipal units for protection, rescue and relief. The municipalities also organise and conduct protection, rescue, relief and recovery activities in their respective areas.

Commercial companies, institutions and other organisations must provide conditions that make it feasible to provide personal and group protection for their workers and implement the protective measures required in their place of work. They must provide suitable protection and rescue equipment for this purpose at their own expense. Commercial companies, institutions and other organisations whose work process involves the use, production, transportation or storage of hazardous substances, petroleum and petroleum derivatives or fuel gases, and which perform activities or are in charge of work equipment which pose the risk that an accident or disaster might occur, must also draw up risk assessment and protection and rescue plans, organise their own protection, rescue and relief units, provide information and alarm systems

for their workers and the local population in the event of an accident, and co-finance part of security preparations in the municipality in which they operate, in direct proportion to the extent and level of the hazards caused by their activities.

Any individual or organisation who intentionally or through extreme negligence causes an event or disaster which incurs costs because of emergency measures taken must cover the costs of intervention, rehabilitation and the restoration of conditions which existed prior to the disaster, and must pay compensation for damages suffered by other individuals or organisations.

MANAGEMENT AND ADMINISTRATION

The National Assembly lays down the basic guidelines for organising and implementing protection against natural and other disasters at the national level, adopts the national programme of protection against natural and other disasters and supervises its implementation, and secures funds for the reparation of the effects of major natural disasters.

The government guides and co-ordinates the organisation, preparation and implementation of protection against natural and other disasters at the national level, adopts the annual plan of protection against natural and other disasters and national protection and rescue plans, manages the protection, rescue and relief and reparation of the effects of major natural and other disasters, and regulates international disaster relief. The government also guides and co-ordinates the operations of the Ministries responsible for the implementation of measures and the prevention of natural and other disasters and their consequences, along with states of readiness and the adoption of measures in the areas under their jurisdiction.

Operational management of Civil and other protection, rescue and relief forces is organised and carried out as a uniform national system. It is carried out by Civil Protection commanders, headquarters and heads of intervention and rescue units.

The municipalities operate and manage the system of protection against natural and other disasters independently in their areas. Professional protection, rescue and relief tasks are carried out by the municipal administration.

Administrative and specific expert tasks related to protection against natural and other disasters are carried out by the **Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (multy-sectoral and coordinating body)**.

The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief is a constituent body of the Ministry of Defence. It is charged with the following tasks:

- elaboration of proposals of research and development projects relating to the protection against natural and other disasters;
- elaboration of the proposal of the national programme and plan of protection against natural and other disasters;
- providing for the organization and operation of the monitoring, notification and warning system;

- elaboration of threat assessments and other technical documents for the planning of protection, rescue and relief and directing and coordinating of measures for the prevention and mitigation of consequences of natural and other disasters;
- monitoring and announcing of danger of natural and other disasters and giving instructions for handling;
- elaboration of national emergency response plans in co-operation with ministries and governmental services;
- organization, equipment and training of national Civil Protection units and services and other protection, rescue and relief forces and provision of conditions for the work of the commander, the Headquarters of the Civil Protection of the Republic of Slovenia and the national and regional damage assessment committee;
- monitoring and co-ordination of the organization of the Civil Protection and other protection, rescue and relief forces;
- elaboration of programmes as well as organization and delivery of education and training for protection, rescue and relief;
- creation and maintenance of national material reserves for the case of natural and other disasters;

1.3 Are there sectoral plans or 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?)

Protection, rescue and relief in the event of natural and other disasters and in the state of war are planned by means of emergency response plans. National emergency response plans are elaborated by the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief in co-operation with other ministries. An integral part of the each emergency response plan is also the activity plan, which defines the duties of other ministries in a case of natural and other disasters.

1.4 Is disaster risk reduction incorporated in 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 Plans and WSSD, Johannesburg Plan of Implementation?

NA

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

There are quite some regulations that manage the field, most of them origin from the period when Slovenia was a part of Socialist Federal Republic of Yugoslavia (Slovenia became independent in 1991). In zones where earthquakes of VII. and more level on the MCS scale could occur the earthquake resisting constructing is required by law. There are no major difficulties in keeping with the regulations.

The European standard EC 8 (Eurocode 8) – Projecting of earthquake resisting buildings is in preparation.

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

Protection against natural and other disasters is financed by the national and municipal budgets and insurance and other funds contributed by commercial companies, institutions and other organisations. Every year the Republic of Slovenia allocates approximately 0.5% of the national budget for protection against natural and other disasters, and municipalities earmark 3 per cent of their annual municipal budgets. Protection against fire is partly financed from the fire fund, which is generated from a tax on fire insurance.

Regular activities of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief are financed by the national budget of the Republic of Slovenia. Programmes for assistance and activities in cases of major disasters, such as earthquakes, floods, droughts and the rigours of the weather are financed in accordance with the resolutions and intervention laws, which are adopted by the Government of the Republic of Slovenia in the event of disasters. Interventions in the case of minor accidents i.e. fire and traffic accidents are financed through regular resources of the system.

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

For the purposes of protection against natural and other disasters the citizens shall be obliged to:

- participate in the Civil Protection;
- provide material means (hereinafter referred to as material obligation);
- be trained and prepared for personal and mutual protection and implementation of required protective measures.

Protection, rescue and relief units are composed of voluntary and professional rescue services, Civil Protection and specific commercial companies, institutions and other organisations whose activities involve them in the protection and rescue system. Civil Protection is organised as a special-purpose element of the protection and rescue system.

Public rescue services, Civil Protection and other protection, rescue and relief units involve around 5 per cent of the total population of Slovenia, more than half of whom carry out tasks voluntarily without payment or as part of their obligations as citizens.

The Slovenian police and the Armed Forces also participate in the implementation of protection, rescue and relief tasks. The primary task of the police in the event of a disaster is to ensure public order and to provide security in affected and threatened areas. The units of the Slovenian Armed Forces are to carry out protection and rescue tasks related to their training and equipment. Their participation in protection and rescue operations is decided upon by the government and in emergency cases by the respective Ministers at the request of the Commander of Civil Protection of the Republic of Slovenia.

NON-GOVERNMENT STRUCTURES

Protection, rescue and relief tasks are performed by voluntary and other non-governmental organisations and their operational units in response to decisions made by the competent body at the local or national level if they meet the required personnel and material/technical conditions. These organisations include:

Slovenian Fire-fighting Association: There are approximately 1,300 voluntary fire brigades in Slovenia, with a approximately of 120,000 members. All fire brigades include a fire-fighting unit trained and equipped to extinguish fires and provide rescue services in the event of a fire or other disaster. The fire-fighting units include 40,000 operational voluntary fire-fighters, nearly 500 professional fire-fighters and 300 professional fire-fighters that work in industrial institutions. Fire brigades are linked together by municipal and regional fire-fighting associations, which together form the Slovenian Fire-fighting Association. The Slovenian Fire-fighting Association became a member of CTIF (International Technical Committee for the Prevention and Extinction of Fire), the international fire-fighting organisation in 1992.

Slovenian Red Cross: As a non-governmental, non-political non-profit humanitarian organisation, the Slovenian Red Cross is primarily responsible for the areas of health and social welfare. Its volunteers see to the implementation of social welfare, health education and first aid programmes, blood donation, investigation services, and assistance to high-risk groups within the population. The law authorises the Red Cross to provide first aid training for Civil Protection staff members, and, in the event of natural and other disasters, blood donation, investigation services, and providing accommodation and care for homeless and other people at risk. The Slovenian Red Cross is comprised of 800,000 volunteers and supporting members. It has been a member of the international Red Cross Movement since 1993 and is also a member of the International Committee of the Red Cross and the International Federation of Red Cross and Red Crescent Societies.

Caritas of Slovenia: Caritas of Slovenia is a charity institution of the Roman Catholic Church in Slovenia. Its activities are distributed among diocese and parish Caritas organisations. Its purpose is to perform charity and social welfare activities within the Slovenian Church and society, particularly related to response to the results of natural and other disasters both in Slovenia and throughout the world. Caritas of Slovenia is a member of both the international and European Caritas organisations.

Slovenian Mountain Rescue Service: The Slovenian Mountain Rescue Service is established by law as a public rescue service of national importance. It is organised in the form of 17 stations that cover the entire Slovenian Alpine and Sub-Alpine regions. More than 660 volunteer mountain rescuers operate the stations. The Slovenian Mountain Rescue Service was formally recognised by the International Mountain Rescue Commission (IKAR) in 1992, although the Slovenian Mountain Rescue Service has co-operated actively with this Commission and was the representative of all Yugoslav mountain rescuers from 1955 on.

Slovenian Cave Rescue Service: The Slovenian Cave Rescue Service is organised in 7 Rescue Centres and Republic Rescue Centre through the Slovenian Speleological Association. The law has also established the Slovenian Cave Rescue Service as a public rescue service at the national level. It is comprised of 53 cave rescuers. It

became a member of the International Speleological Association – Cave Protection Commission (UIS) in 1993.

The Slovenian Canine Association and the Slovenian Federation of Associations of Rescue Dog Handlers: In Slovenia there are 62 sport and 18 hunting canine associations, with a total of 7,500 members. These associations are linked to the Slovenian Canine Association and the Slovenian Federation of Associations of Rescue Dog Handlers. More than 150 rescue dog handlers, members of canine associations, are involved in rescues from rubble and landslides. The Slovenian Canine Association was accepted into the International Canine Federation (FCI) in 1992. The Slovenian Federation of Associations of Rescue Dog Handlers became a member of the International Rescue Dogs Organisation (IRO) in 1995.

Slovenian Federation of Divers: There are 21 Slovenian associations of divers linked to the Slovenian Federation of Divers. These associations include 1,200 volunteer divers, of whom 62 are instructors and 27 specialist physicians. The associations and their federation have jointly organised an underwater rescue service, intended to provide rescue services from and on water. More than 90 voluntary divers are involved in underwater rescue activities. The Slovenian Federation of Divers became a member of the World Underwater Association (CMAS) in 1993.

Slovenian Scout Association and the Slovenian Association of Catholic Scouts: Scouts are organised in branches and other organisational forms of camping and Scouting associations, and are linked to the Slovenian Scout Association and the Slovenian Association of Catholic Scouts. All together, they include 12,000 Scouts. Through their activities, scouts systematically develop their level of preparedness to help people in the event of natural and other disasters. Their task is primarily to set up tents and other temporary shelters for people who are left without safe accommodation in the event of a disaster. Slovenian Scout Association was accepted into the World Organisation of Scouting Movements (WOSM) in 1994.

Association of Slovenia Radio-Amateurs: In Slovenia, there are 90 amateur radio operator clubs with a membership of more than 7,000 volunteer amateur radio operators. Amateur radio operators can provide supplementary radio communications systems in municipalities for protection and rescue needs in the event of a mass disaster. They can also participate in providing information to the international public of the consequences of the disaster and the aid needed. The Association of Slovenian Radio-Amateurs became a member of the International Amateur Radio Union (IARU) in 1992.

COMPONENT 2

2.1 Has your country carried out hazard mapping/assessment?

2.2 Has your country carried out vulnerability and capability assessments?

DISASTER PROFILE

Slovenia is threatened by numerous natural and other disasters, such as earthquakes, floods, landslides, hail, storms, sleet, frost, and fire. The greatest threat of potential ecological consequences because of disaster resulting from industrial activities, transport or urbanisation comes primarily from accidents involving dangerous substances. Contemporary and historical experience has shown that appropriate attention must be given to unexpected population migrations, terrorism, and military threat.

EARTHQUAKES

Location/Affected area

Slovenia is geologically situated in a fairly active area. Destructive earthquakes are a potential threat to most of the Slovenian territory. The most active zones in Slovenia are the Gorenjska-Ljubljana and Dolenjska-Notranjska-Bela Krajina areas (figure 1). The greatest magnitude (M) possible in the Gorenjska-Ljubljana area is 6.2 M and intensity (Io) of IX on the MCS scale. The towns most at risk include Idrija, Ljubljana, Krško, Tolmin, Ilirska Bistrica and Litija. Over 650,770 citizens (33.1 % of the total population) live in areas where earthquakes of the VIII and IX levels on the MCS scale could occur.

Earthquake zone	Surface in m ²	Surface in %	No. of inhabitants	Number of inhabitants in %	No. of people per m ²
IX. MCS	363	1,79	10 573	0,54	29
VIII.MCS	4 332	21,37	640 207	32,56	148
VII. MCS	15 023	74,11	1 284 614	65,34	86
VI. MCS	553	2,73	30 622	1,56	55
TOTAL	20 271	100,00	1 965 986	100,00	97

Table 1. Number of inhabitants in individual earthquake zones (Orožen Adamič, 1993)

General characteristics

Most earthquakes occurred at a depth of between five and ten kilometres (km); these are followed by earthquakes with a very shallow focus (0 to five km). The third group is made up of earthquakes whose seismic focus was somewhere between ten and 15 km deep, while earthquakes whose focus is deeper are rare (Ribarič, 1984).

Each year the ground in Slovenia is shaken by ten weak to moderate shocks. In the past several very destructive earthquakes have taken place whose epicentres were either on the territory of present-day Slovenia or in its vicinity. Table 2 shows the most powerful earthquakes that have occurred so far in Slovenia and its wider environs. According to historical sources the most powerful earthquake during this period hit Idrija on 26 March 1511. The destructive 1895 earthquake caused a great

deal of damage in Ljubljana which, together with some of its surrounding areas, had to be completely restored.

Date	Time	Location	MCS	Magnitude	Notes
792	-	Kranjska regions	VIII		
Jan. 1000	-	Ljubljana	VIII		
26 March 1081	-	Ljubljana	VIII		
19 September 1509	-	Bled	VIII		
26 March 1511	2 p.m.	Idrija-Cerkno	X	6.9	Destructive
26 June 1511	9 p.m.	Idrija	VII	5.2	
8 August 1511	-	Čedad	IX	5.7	
5 May 1622	11 a.m.	Ljubljana	VII-VIII	4.9	
17 June 1628	6 p.m.	Krško-Brestanica	VIII	4.9	
1640	-	Brežice	IX	4.91	Shallow
10 May 1689	3 a.m.	Temenica Valley	VIII	5	
19 February 1691	-	Smlednik-Dob	VII-VIII	4.9	
11 February 1699	-	Metlika	VIII	5.02	Extensive damage
27 August 1840	12.05	Nevljica Valley	VII-VIII	4.87	
21 December 1845	8.40 p.m.	Ljubljana	VII-VIII	4.9	
7 March 1857	2.56 a.m.	Cerkno-Straža	VII-VIII	5.5	
14 April 1895	8.17 p.m.	Ljubljana	VIII-IX	6.06	Destructive
15 July 1897	5.57 a.m.	Ljubljana	VII-VIII	4.9	
9 January 1917	8.23 a.m.	Brežice-Krška vas	VIII	5.59	Destructive
1 January 1926	6.04 p.m.	Cerknica-Unec	VII-VIII	5.26	

Table 2. Most powerful earthquakes to hit Slovenia and surrounding areas since 792

Factors contributing to vulnerability: Slovenia's geotectonic situation, unsuitable construction

Specific preparedness measures:

Control of an earthquake situation encompasses various measures aimed at reducing the consequences, the two most important being:

- the monitoring and study of earthquake risks and
- earthquake-safe construction.

Studies and analyses of the ability of typical buildings to withstand earthquake show that the earthquake safety of a large proportion of residential, industrial, infrastructural and other facilities is unsuitable, which means that the readiness to provide protection, rescue and relief must be intensified. In order to ensure that organised and effective measures can be undertaken in the wake of an earthquake, appropriate emergency planning must take place both at local and national levels.

Overall protection against earthquakes includes prevention, the setting-up and maintenance of preparedness, protection, rescue and relief and the removal of consequences. The plan only regulates those protection, rescue and relief measures and activities, and the provision of basic living conditions, which lie within the responsibility of the state.

Assessment tools: MCS scale

FLOODS

Location/Affected area

Floods are a threat to more than 300,000 hectares of land or 14,8 % of the total area, which is situated mainly in valleys along torrentials and streams. The regions which suffer from normal levels of flood risk are home to 132,000 people or 7% of the population, while the number of people who live in regions where there is a high risk of flooding and who also own land and other property is around 480,000 or 24% of the total population.

General characteristics

Slovenia faces the threat of various types of floods – lowland, torrential, Karst plain and high sea tidal floods. Floods most frequently occur in early spring or autumn.

Factors contributing to vulnerability: rainy weather, melting of snow

Risk reduction measures: technical measures, such as regulation of river beds, making of protective dikes.

Specific preparedness measures: monitoring and study of floods risks; notifying the population; in order to ensure that organised and effective measures can be undertaken in the event of a flood, appropriate emergency planning must take place both at local and national levels.

Assessment tools: type of stream, intensity, duration, frequency of floods - frequent floods (floods recurring every 5 years), 10-20 years floods, catastrophic floods (floods recurring every 50 years or more)

LANDSLIDES

Location/Affected area

Landslides threaten app. 7,000 km² of the total area of the Slovenia. Such landslides are likely to occur everywhere except in the Primorska and Dolenjska Karst region. In Slovenia there are app. 1400 landslides.

Factors contributing to vulnerability: rainy weather, floods

Risk reduction measures: technical measures in environment

Specific preparedness measures: monitoring and study of landslide risk; in order to ensure that organised and effective measures can be undertaken in the event of a landslide, appropriate emergency planning must take place at local level; technical units have to be trained

Assessment tools: keeping records

AVALANCHES

Location/Affected area

In Slovenia are registered app. 1264 possible avalanches.

Specific preparedness measures: monitoring and study of avalanches risk, increasing of people's awareness of avalanches risk; notification; in order to ensure that organised and effective measures can be undertaken in the event of an avalanche, special units for triggering avalanches have to be trained and prepared.

Assessment tools: keeping records.

FIRES IN NATURE

Location/Affected area: Karst and coast region, Notranjska region

General characteristics: Fires are the most frequent natural disaster in Slovenia. Between 1987 and 1997 there were an average of 2,712 fires per year in Slovenia, of which 1,080 occurred outdoors, 1,337 in buildings and 295 on means of transport. The cause of most outdoor fires is negligence, and the months in which the largest number of fires occurs are March, April, July and August.

Factors contributing to vulnerability: climate

Risk reduction measures: reforestation

Specific preparedness measures: monitoring and study of fire risk; increasing of people's awareness of fire risk; in order to ensure that organised and effective measures can be undertaken in the event of a fire, appropriate emergency planning must take place at local levels; fire units/brigades have to maintain the appropriate level of readiness.

Assessment tools: 5 levels according to threat (index for fire threats).

CHEMICAL AND INDUSTRIAL ACCIDENTS WITH ECOLOGICAL CONSEQUENCES

Location/Affected area

Risk reduction measures: keeping to the regulation (Seveso II)

Specific preparedness measures: notifying the population; in order to ensure that organised and effective measures can be undertaken in the event of a chemical or industrial accident, appropriate emergency planning must take place in commercial companies, dealing with dangerous substances and in municipalities; special units have to maintain the appropriate level of readiness.

Assessment tools: 5 levels according to threat

NUCLEAR ACCIDENT OR OTHER RADIOLOGICAL THREATS

General characteristics:

Main threats are:

- nuclear facilities (nuclear power plants, nuclear research reactors, uranium enrichment facilities, facilities for the production of fissile substances, facilities for the treatment and depositing of irradiated nuclear fuel, and facilities used for the storage, processing and depositing of nuclear waste material)

- facilities where sources of radioactivity are used (stationary or mobile facilities where radioisotopes are used, e.g. in industry, research institutions and hospitals)
- transport of radioactive substances (by road, rail, air or sea)
- crash landing of a nuclear-powered satellite or satellite with radioactive substances on board (there are two types of radiation in a satellite: high alpha activity sources/plutonium isotopes and the reactor source).

There is one nuclear power plant in Slovenia. It is situated on the left bank of the Sava River, around 3 km from the town of Krško. The power plant is 70 km south-east of Ljubljana and 35 km north-west of Zagreb.

There are currently 437 nuclear power reactors operating around the world. Within a 1,000-km radius of Slovenia there are 50 power plants with 109 reactors; of these, 32 are within 500 km of Slovenia.

Risk reduction measures:

- keeping to the international security and technical regulations for operation of the nuclear power plants
- radiological monitoring
- co-operation with the international institutions to provide early warning in the event of nuclear power plant accidents abroad.

Specific preparedness measures: notifying the population; in order to ensure that organised and effective measures can be undertaken in the event of a nuclear power plant accident, appropriate emergency planning must take place in commercial and other companies, dealing with radioactive substances, and in municipalities; special units have to be trained.

Assessment tools: international scale

2.3 Does your country have any mechanisms for risk monitoring and risk mapping?

For the purposes of detection and monitoring of natural and other disaster hazards, as well as management and implementation of protection, rescue and relief, a unified monitoring, notification and warning system was established. The basic objectives of the system are as follows:

- the monitoring of meteorological, hydrological, seismological, radiological, ecological, health and other conditions
- the collection of data on hazards, disasters and other phenomena and developments important to the protection system against disasters
- the organisation and maintenance of a data base of protection, rescue and relief units and their intervention and resources
- the provision of information to competent national, local community and other bodies and services responsible for the management and implementation of protection, rescue and relief operations
- the warning of the population of any immanent danger, and public alarm announcements
- the activation and co-ordination of rescue service operations
- logistical and other forms of support in the provision of rescue services.

2.4 Is there a systematic socio-economic and environmental impact and loss analysis in your country after each major disaster?

The analyses are done by the governmental bureau - Statistical office of the Republic of Slovenia.

2.5 Are there early warning systems in place?

The monitoring, notification and warning system is comprised of:

- the monitoring network
- notification centres
- computer support and telecommunications service
- warning.

Notification centers play a pivotal role in the operation of this system. There are 13 regional notification centers and a National Notification Center in Slovenia. The National Notification Center is mainly responsible for the operation of the information system, while regional centers, in addition to collecting data and responding to emergency 112 calls, are in charge of dispatches for fire-fighting, emergency medical aid, the mountain rescue service, the cave rescue service, the underwater rescue service, Civil Protection and other rescue services.

The 112 emergency call number has been used in Slovenia since the beginning of 1997. This number can be used by ordinary citizens in an emergency or if they need a fire brigade, emergency first aid or aid from any other rescue services. In addition, by dialing this number, people can obtain other important information on weather, water, snow and other conditions, disturbances and interruptions in the supply of potable water and electrical and other energy sources and other areas of life importance.

At the beginning of 1997 new public alarm signals for use in the event of the risk of a natural or other disaster came into effect. In addition to warning, immediate danger and cessation of danger signals, two additional alarm signals were introduced in particular areas to warn of the risk of a chlorine leak and of flooding resulting from the collapse of hydroelectric dams. When sounding these alarms, the Notification center responsible must inform the public via radio and television of the purpose of the signal and the appropriate response to it.

COMMUNICATIONS SYSTEMS

A uniform (autonomous) system of operational radio communication (ZARE) and personal calls (pagers) is used in the administration of protection, rescue and relief operations. The ZARE is used by all rescue services. The communication centres of this system are located in regional information centres and are used to connect users to public and other telecommunication systems.

The ZARE radio communication system operates in the VHF range. There are 32 semi-duplex channels available for over 40 upper transmission layer repeaters and 36 simplex channels for direct connections. The pagers system consists of 40 upper layer transmitters and 50 lower layer transmitters. The ZARE system provides adequate protection against disturbance (sub-tone) and abuse (ID code). The Administration for

Civil Protection and Disaster Relief of the Republic of Slovenia plans a gradual transition to a new beam radio communication system after 2010.

COMPUTER NETWORK AND INFORMATION SUPPORT

All 13 regional notification centers and the Education and Training Center of the RS Administration for Civil Protection and Disaster Relief are integrated into one network through a computer network serving the needs of the centers so they can ensure protection against natural and other disasters. For major connections, we use leased virtual transmission ways via the Internet, which allow for a smooth increase in transmission speed on an as needed basis. Information support is provided through tailor made computer applications in the regional notification centers, such as the Geographic Information System (GIS-Ujme), the sound alarm management and triggering system (DUNJA), the system for the acceptance of telephone calls (ROK), the radio traffic control system (KC08), the radio network control system (Nadzor ZARE) and the pager system (ZAPP). All the systems are linked into a uniform application used for the management of interventions (SPU112). There are also web applications available in the computer network, such as GIS and hazardous materials.

COMPONENT 3

3.1 Does your country have disaster risk information management systems (governmental and/or non-governmental)?

Answer provided in 3. 6.

3.2 Are the academic and research communities in the country linked to national or local institutions dealing with disaster reduction?

Research and development efforts (R & D) follow the basic aim of protection against natural and other disasters, which is to reduce the number of disasters and to mitigate the consequences. Therefore, R & D is oriented towards the research of causes, types and consequences of disasters, and in obtaining results gathered through the analyses of legal, economic, social, psychological and other aspects of disasters. These results help answer questions related to the potential consequences of disasters and to the responsive measures taken. In this way, we are trying to keep abreast of the situation in all areas, follow new trends as much as possible, transfer new findings from abroad to Slovenia, promote the development of new methods and models and attain the subject-matter documents necessary for good work. In addition, we would like to support the work accomplished by research institutions and encourage them to cooperate in their various areas of expertise.

The R&D effort is focused on:

- monitoring, notifying and alarming,
- preventing and reducing disasters and their consequences,
- preparedness for protection and rescue,
- recovery and reconstruction after disasters and
- fire protection.

The area of protection against natural and other disasters is an interdisciplinary area. It comprises many different branches, which deal with natural processes. Therefore, there are many research institutions involved in R&D projects, such as colleges, institutions and companies registered for R & D as well as individual private researchers. The majority of work is accomplished in the following areas: civil engineering, chemistry and chemical technology, water resources management, forestry, geology, health, public relations, fire engineering, computer science, information systems, psychology and insurance companies.

It was established that R & D and cooperation with research institutions were necessary in order to maintain the sound development of a system of protection against natural and other disasters. The results of research projects, practical projects and case studies have been used in the operation, organization and planning of protection, rescue and relief. Given the importance of the development of protection against natural and other disasters, the RS Administration for Civil Protection and Disaster Relief also supports all major development projects within the “Konkurenčnost Slovenije 2001-2006” research program (The Competitive Position of Slovenia 2001-2006). This includes protection against natural and other disasters as well as fire protection tasks.

3.3 Are there educational programmes related to disaster risk reduction in your public school system?

The reduction of natural disasters is not an obligatory subject in the regular school curricula. Every school year, the Administration prepares an optional informative education and training program on personal and mutual protection for kindergartens and elementary schools. Among other things, the program includes evacuation procedure drills in kindergartens and schools. We provide them with any help that they might need within this program.

3.4. Are there any training programmes available?

3.5 What kind of traditional indigenous knowledge and wisdom is used in disaster-related practices or training programmes on disaster risk reduction in your country?

In accordance with the new legislation on protection against natural and other disasters a new system of education and training for protection, rescue and relief was established. The education and training programmes are prepared and conducted to include the new regulations and programmes, which will allow for gradual implementation of the international standards for disaster awareness.

The education and training programmes for protection, rescue and relief are prescribed by the minister responsible for protection and rescue from natural and other disasters. Introductory, basic and advanced training programmes are being carried out. The basic goal of such programmes is to prepare and train the units to be able to carry out the tasks of protection against disasters.

The target groups are:

- members of Civil Protection units, services and bodies,

- members of units, services and other operational bodies of associations and other non-governmental organisations,
- members of commercial companies, institutions and other organisations working in the field of protection, rescue and relief,
- inhabitants.

The professional training of personnel in the field of protection against natural and other disasters is part of the regular educational system. The only exception to this is professional fire-fighters, who are trained at the Training Centre of the Republic of Slovenia for Civil Protection and Disaster Relief in Ig near Ljubljana. Upon the completion of the training programmes the candidates acquire the level IV. of professional fire fighter or the level V. of fire fighter - technician.

The main national educational institution for the area of protection against natural and other disasters is the Training Centre of the Republic of Slovenia for Civil Protection and Disaster Relief. Other educational institutions can perform training in this field if they acquire authorisation. The training for members of voluntary organisations is carried out by the voluntary organisations themselves and the training for members of Civil Protection is carried out by the state and municipalities according to the programmes.

The Training Centre of the Republic of Slovenia for Civil Protection and Disaster Relief provides training according to programmes for members of Civil Protection, members of units, services and other operational bodies of associations and other non-governmental organisations, commercial companies, institutions and other organisations working in the field of protection, rescue and relief (i.e. Civil Protection commanders, members of Civil Protection headquarters, operational members of Slovenian Fire-Fighting Association, members of national units for protection and rescue, professionals from the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief, professionals from regions and municipalities working in the field of protection and rescue, Notification Centres Staff, inspectors for protection against natural and other disasters, members of Slovenian Mountain Rescue Service, members of canine associations, and others). The Training Centre of the Republic of Slovenia for Civil Protection and Disaster Relief provides also international programmes for participants from other countries.

The training of Civil Protection members consists of introductory, basic and advanced training. Introductory and basic training can last at most fifteen days, advanced training at most five days a year. As a rule, advanced training is always conducted on employees' days off.

The affect to training to real interventions is tested with exercises and analyses of the interventions. Upon the analyses the interventions are more effective as they were a few years ago.

3.6 Do you have any national public awareness programmes or campaigns on disaster risk reduction?

- The Administration of Civil Protection and Disaster Relief prepares leaflets and brochures in which it informs the population about disasters, which threat in Slovenia or in the local area and suggest how to take measures before, during and after a disaster to help oneself or others. Of special mention are:
 - " Earthquake Circle " (brochure on certain procedures in case of earthquake),
 - Leaflets - " First Psychological Aid " and " How to react in case of disaster "
- A poster of special graphics showing warning signal and directions for responding to them. It must be hung in a visible location in all multi-residential, public and business buildings, etc.
- Procedures and directions for citizen response to any kind of disasters, which might occur in Slovenia, are published on the home page of the Administration of Republic of Slovenia for Civil Protection and Disaster Relief (www.urszr.si).
- Notification and education of the public (including school children and their parents) about personal and mutual protection are done through the publication of articles in press media such as newspapers, magazines and children books. The public is also informed through radio broadcasting.
- We have prepared a didactical puppet show on natural disasters for children from 3 to 9 years and a didactical toy "Safe into the mountains" for children from 6 to 12 years. Didactical toy on earthquake is in preparation.
- The national artistic and literary competition on a selected disaster theme for preschool and school children is organised every year. The best works are awarded prizes. The objective of this competition is to educate and inform children about natural catastrophes, their consequences and how to help oneself and others.
- UJMA, a magazine about issues of protection against natural and other disasters, is published by The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief once a year.
- Warnings about possible disaster are published on the teletext of national television.
- We have different promo materials for children for the promotion of emergency call number – 112: hedgehog (hedgehog is our mascot with a slogan: "We save lives together"), T-shirts, caps, rucksacks, coffee pots ...
- Urgent announcements are broadcast on national and local television and radio stations in the event of disaster. Educational spots on earthquake, flood and snow slides for TV broadcasting are in preparation. Additionally we will prepare TV spots on following subjects: fire in a building, fire in nature, dangerous substances

in household, thunderstorms, landslides, nuclear accident, basic food and water supply in a household ...

COMPONENT 4

4.1. Is there any good example of linking environmental management risk reduction practices in your country?

By law each ministry is in charge for the prevention in its working area. The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief uses their monitoring for the risk reduction.

4.2 Are financial instruments utilised in your country as a measure to reduce the impact of disasters?

Slovene insurance companies insure against earthquakes, fires, hail, floods and frost. Act on the Recovery from the Consequences of Natural Disasters was adopted last year and also the Decree on common methodology for threat assessment in natural disasters is in practice.

COMPONENT 5

5.1 Do you have disaster contingency plans in place?

Protection and rescue plans are drawn up by state bodies, local communities, commercial companies and other organisations. The plans are drawn up in accordance with the Decree on Content and Drawing up of the Plans for Protection and Rescue. On all levels the plans must be drawn up and adopted by the relevant bodies responsible. The adopted protection and rescue plans have to be presented in public, particularly to threatened people and to other publics with a vested interest.

National protection and rescue plans are drawn up by the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief in co-operation with the ministries and other national bodies. On the national level protection and rescue plans for the potential large-scale disasters are drawn up that could affect several communities or regions. The following plans have already been prepared:

- Earthquake Protection and Rescue Plan
- Flood Protection and Rescue Plan
- Nuclear Accident Protection and Rescue Plan
- Air Crash Protection and Rescue Plan
- Railway Accident Protection and Rescue Plan
- Naval Accident Protection and Rescue Plan
- Protection and Rescue Plan in a case of multiplicative appearance of contagious disease at animals
- Military Aggression Protection and Rescue Plan

Plans are drawn up based on the following information:

- risk assessments
- analysis of vulnerability

- researches.

Threat, disaster	Level of planning			
	Company	Local	Regional	National
Earthquake	-	X	X	X
Flood	-	X	X	X
Heavy snow	-	X	X	-
Fire	X	X	-	-
Landslides and avalanches	-	X	X	-
Nuclear accident	X	X	X	X
Accident involving hazardous substances	X	X	X	X
Air crashes	X	-	X	X
Railway accidents	X	-	X	X
Tunnel accidents	-	X	X	-
Cable-car accidents	X	-	-	-
Mining accidents	X	-	-	-
Contagious disease at animals	X	X	X	X
War	-	X	X	X

Table 3. Level of planning of protection and rescue plans

5.2 Has your government established emergency funds for disaster response and are there national or community storage facilities for emergency relief items – mainly food, medicine, tents/shelters?

Programmes for assistance and activities in cases of major disasters, such as earthquakes, floods, droughts and the rigours of the weather are financed in accordance with the resolutions and intervention laws, which are adopted by the Government of the Republic of Slovenia in the event of disasters.

In the warehouses of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (one national and 13 regional) there are basic emergency relief items (protective equipment, beds, tents, blankets ...).

5.3 Who is responsible for the coordination of disaster response preparedness and is the coordination body equipped with enough human and financial resources for the job?

Administration of the Republic of Slovenia for Civil Protection and Disaster Relief (already described).

COMPONENT 6

Call for good practices in disaster risk management

INFORMATION ON THE EARTHQUAKE AWARENESS YEAR 2004 IN SLOVENIA

Slovenia is an earthquake prone country. This is the reason why the year 2004 was proclaimed to be year of earthquake awareness in Slovenia. The Administration of the Republic of Slovenia for Civil Protection and Disaster Relief is planning quite a number of activities regarding prevention and mitigation of earthquake impact and rescue and recovery after earthquakes.

The following activities are planned to be carried out through the year 2004:

- Renewal of the earthquake national emergency response plan;
- International conference on crisis management "Crisis Management in Europe – Problems and Perspectives" - special session will be dedicated to earthquake (11 to 14 March 2004);
- National Disaster Management Course with special emphasis on earthquake (15 to 26 March 2004);
- Conference on earthquake safety in Slovenia (September 2004);
- National Rescue and Relief Exercise "Earthquake 2004" (October 2004);
- Assessment of buildings earthquake safety in Ljubljana;
- Evacuation practice in schools;
- Activities for public information:
 - Television spots;
 - Radio broadcasting (for adults and youth);
 - Publishing annual magazine UJMA (Catastrophie);
 - Publishing articles in different youth publications;
 - Development of a didactical toy in connection with earthquake;
 - Development of a didactical book on earthquake for children till 4th grade;
 - Renewal of the Earthquake Circle " (brochure on certain procedures in case of earthquake).
- State tender on regional and national level for preschool and school children in connection with earthquake; the tender ends with final award for the best contributions.
- Puppet play on earthquake for preschool children.

COMPONENT 7

7 Priorities you want to addressed at the World Conference on Disaster Reduction

Climate changing significantly affect natural disaster. We believe that countries should take into consideration this aspect in planning and developing new disaster reduction strategies.

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