



Disaster Management Questionnaire

Kazakhstan

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Information in Green and bold: Response from the country

Information in Blue and Italic: Information gathered via the internet and other sources

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1. GENERAL INFORMATION



Geographic coordinates: 48 00 N, 68 00 E

Area:

total: 2,717,300 sq km

land: 2,669,800 sq km

water: 47,500 sq km

Land boundaries:

total: 12,012 km

border countries: China 1,533 km, Kyrgyzstan 1,051 km, Russia 6,846 km, Turkmenistan 379 km, Uzbekistan 2,203 km

Coastline: 0 km (landlocked)

note: Kazakhstan borders the Aral Sea, now split into two bodies of water (1,070 km), and the Caspian Sea (1,894 km)

Maritime claims: none (landlocked)

Climate: continental, cold winters and hot summers, arid and semiarid

Terrain: extends from the Volga to the Altai Mountains and from the plains in western Siberia to oases and desert in Central Asia

Elevation extremes:

lowest point: Vpadina Kaundy -132 m

highest point: Khan Tangiri Shyngy (Pik Khan-Tengri) 6,995 m

Natural resources: major deposits of petroleum, natural gas, coal, iron ore, manganese, chrome ore, nickel, cobalt, copper, molybdenum, lead, zinc, bauxite, gold, uranium

Land use:

arable land: 12%

permanent crops: 11%

permanent pastures: 57%

forests and woodland: 4%

other: 16% (1996 est.)

Irrigated land: 22,000 sq km (1996 est.)

Environment - current issues: radioactive or toxic chemical sites associated with its former defense industries and test ranges are found throughout the country and pose health risks for humans and animals alike; industrial pollution is severe in some cities because the two main rivers which flowed into the Aral Sea have been diverted for irrigation, it is drying up and leaving behind a harmful layer of chemical pesticides and natural salts; these substances are then picked up by the wind and blown into noxious dust storms; pollution in the Caspian Sea; soil pollution from overuse of agricultural chemicals and salination from poor infrastructure and wasteful irrigation practices

Environment - international agreements:

Party to: Biodiversity, Climate Change, Desertification, Endangered Species, Ozone Layer Protection, Ship Pollution

Signed, but not ratified: Climate Change-Kyoto Protocol

Population: 16,733,227 (July 2000 est.)

Population growth rate: -0.05% (2000 est.)

Infant mortality rate: 59.39 deaths/1,000 live births (2000 est.)

Religions: Muslim 47%, Russian Orthodox 44%, Protestant 2%, other 7%

Languages: Kazakh (Qazaq, state language) 40%, Russian (official, used in everyday business) 66%

Country name:

conventional long form: Republic of Kazakhstan

Government type: republic

Capital: Astana

note: the government moved from Almaty to Astana in December 1998

Administrative divisions: 14 oblystar (singular - oblysy) and 3 cities (qala, singular - qalasy)*; Almaty, Almaty*, Aqmola (Astana), Aqtobe, Astana*, Atyrau, Batys Qazaqstan (Oral), Bayqongyr*, Mangghystau (Aqtau; formerly Shevchenko), Ongtustik Qazaqstan (Shymkent), Pavlodar, Qaraghandy, Qostanay, Qyzylorda, Shyghys Qazaqstan (Oskemen; formerly Ust'-Kamenogorsk), Soltustik Qazaqstan (Petropavl), Zhambyl (Taraz; formerly Dzhambul)

note: administrative divisions have the same names as their administrative centers (exceptions have the administrative center name following in parentheses); in 1995 the Governments of Kazakhstan and Russia entered into an agreement whereby Russia would lease for a period of 20 years an area of 6,000 sq km enclosing the Bayqongyr (Baykonur) space launch facilities and the city of Bayqongyr (formerly Leninsk)

Independence: 16 December 1991 (from the Soviet Union)

Economy - overview: Kazakhstan, the second largest of the former Soviet republics in territory, possesses enormous untapped fossil fuel reserves as well as plentiful supplies of other minerals and metals. It also has considerable agricultural potential with its vast steppe lands accommodating both livestock and grain production. Kazakhstan's industrial sector rests on the extraction and processing of these natural resources and also on a relatively large machine building sector specializing in construction equipment, tractors, agricultural machinery, and some defense items. The breakup of the USSR and the collapse of demand for Kazakhstan's traditional heavy industry products have resulted in a sharp contraction of the economy since 1991, with the steepest annual decline occurring in 1994. In 1995-97 the pace of the government program of economic reform and privatization quickened, resulting in a substantial shifting of assets into the private sector. The December 1996 signing of the Caspian Pipeline Consortium agreement to build a new pipeline from western Kazakhstan's Tengiz oil field to the Black Sea increases prospects for substantially larger oil exports in several years. Kazakhstan's economy turned downward in 1998 with a 2.5% decline in GDP growth due to slumping oil prices and the August financial crisis in Russia. A bright spot in 1999 was the recovery of international oil prices, which, combined with a well-timed tenge devaluation and a bumper grain harvest, pulled the economy out of recession.

GDP - real growth rate: 1.7% (1999 est.)

GDP - per capita: purchasing power parity - \$3,200 (1999 est.)

GDP - composition by sector:

agriculture: 10%

industry: 30%

services: 60% (1999 est.)

Inflation rate (consumer prices): 8.3% (1999 est.)

Industries: oil, coal, iron ore, manganese, chromite, lead, zinc, copper, titanium, bauxite, gold, silver, phosphates, sulfur, iron and steel, nonferrous metal, tractors

and other agricultural machinery, electric motors, construction materials
Agriculture - products: grain (mostly spring wheat), cotton; wool, livestock

2. Disaster profile

Hazards

- Complete the attached database regarding natural disasters, industrial accidents and population displacements, which occurred between the years 1990 to 2002.
- *See attached database for complete information*

Year	Total Events	Total Killed	Total Affected	Drought/famines		Earthquakes		Epidemics		Floods			
				Events	Killed	Events	Killed	Events	Killed	Events	Killed		
2001	2	3	3,680	-	-	-	-	-	-	1	-	3,668	
2000	2	-	2,614	-	-	-	-	1	-	114	1	2,500	
1999	1	-	166	-	-	-	-	1	-	166	-	-	
1998	1	7	593	-	-	-	-	1	7	593	-	-	
1997	2	-	608,000	-	-	-	-	-	-	-	-	-	
1996	-	-	-	-	-	-	-	-	-	-	-	-	
1995	1	112	-	-	-	-	-	-	-	-	-	-	
1994	-	-	-	-	-	-	-	-	-	-	-	-	
1993	1	10	30,000	-	-	-	-	-	-	-	1	10	30,000
1992	-	-	-	-	-	-	-	-	-	-	-	-	
1991	-	-	-	-	-	-	-	-	-	-	-	-	
1990	-	-	-	-	-	-	-	-	-	-	-	-	

- What are the impacts of most damaging hazards occurring in the country, on communities, infrastructure, environment etc?
 - **Varied natural conditions in Kazakhstan determine its considerable vulnerability to hazardous natural emergencies such as earthquake, mudflow, landslides, landfalls, river flood, draught, temperature drops in spring and autumn, flood in the coastal area of the Caspian Sea, forest and steppe fires, outbreaks of hazardous infections etc.**
 - **High urban extension and industrialisation in Kazakhstan determine also occurrences of fires and explosions in industry and household activities including those with emission of toxic substances, and transport and industrial accidents.**
 - **Hazardous natural and man-caused occurrences often induce natural and man-caused catastrophic emergencies.**
 - **A special concern arises in relation with man-caused emergencies, primarily those which may occur in hazardous industrial objects and household explosions, transport and industrial accidents which cause high damage to the country.**
 - **High probability of man-caused emergencies exists when operating hazardous objects of key industries in Kazakhstan.**
 - **97 people and 78 of them died as a result of sudden explosion of methane in 1978 in Sokurskaya mine (Karaganda coal basin).**
 - **The world classifier of natural calamities and man-caused disasters reports of the oil and gas blow-out in Tengiz in 1986 which required 400 days for its liquidation.**

- **High intensity of oil operations in the sea in inland water bodies of Kazakhstan, deterioration of technical conditions of wells flooded by the Caspian Sea and increased oil transportation by sea aggravate the risk of large-scale disasters of trans-boundary effect.**
- **The most disastrous consequences of trans-boundary impact may happen if no immediate measures are taken against environmental threats in Pavlodar Chemical Plant OJSC with about 1000 tons of mercury stored under the building 2 meters deep. So, populated areas of Kazakhstan and Russia adjacent to the Irtysh and Ob Rivers are exposed to danger.**
- **Hazardous industrial objects of mining complex are the source of high industrial risk. Over 60% total number of deadly injures in mining enterprises happen in the ore mining complex. This year coal mining objects have reported 6 fatal cases and 8 heavy injury cases.**
- **A real threat of disaster with a large number of victims and considerable material damage exists when gas is used in houses and municipal-domestic objects in Kazakhstan. 45 explosions have been registered in houses in 2001 with 72 victims (13 of those have died). In 2002 22 people have suffered from gas explosions in the housing sector and 2 of them got lethal injuries. One of the main reasons of disasters is a lack of control over safe use of gas by people which was lost in early 90th in Kazakhstan.**
- **Unstable situation is seen in relation with emergencies associated with hazardous infections and other infectious diseases. Many cases of plague and cholera have been recorded. Regular cases are reported of tularaemia, brucellosis, anthrax, Crimean-Congo hemorrhagic fever and typhoid fever. An adverse situation is seen for tuberculosis, hepatitis, HIV and venereal diseases.**
- **Since 1994 about 40 thousand people died and over 250 thousand people suffered from emergencies in Kazakhstan.**

EARTHQUAKES

- *In the south and southeastern areas, 27 cities and 400 settlements (6 million people) and 40 % of the industrial potential are situated in seismic zones.*
- *The Agency for Emergencies of the Republic of Kazakhstan has estimated that an earthquake of 9 Richter in Almaty will affect 300,000, killing 75000. 1/3 of residential buildings will be destroyed.*
- *A huge potential for the release of energy in the earth's crust in South-east Kazakhstan.*
- *Earthquakes could lead to very large landslides and ruptures in mountainous areas.*
- *A map of the long term forecast of earthquakes for the region of northern Tianshan shows six zones (- South Jungarian, 2 - Turgenskaja, 3 - Kastekskaja, 4 - Narynkolskaja, 5 -Kochkorskaja, 6 - Kadzhisaiskaja) where seismic activity is predicted until the year 2000.*

DEBRIS FLOW

- Most serious disaster both in scale and consequence
- Prone areas: South-eastern region of the country
- 2720 glaciers
- 5140 debris catchments areas
- More than 300 debris basins and over 500 dangerous glacial lakes
- These debris flows result in drastic damage to the environment and its flora and fauna. They also interfere with effective development of the mountainous areas.

HYDRO-METEOROLOGICAL PHENOMENA

- Floods, seasonal flash floods, downpours, thunderstorms, heavy snows, heavy frost, ice, sever wind-storms, and droughts.
- The plains of the central and northern territories are at greatest risk.

ARAL SEA:

- In the 60s, upstream irrigation schemes by the Soviets for the growing of rice and cotton, lead to a drop of more than 90% of the natural flow of water to the Aral Sea.
- As a result the Sea's surface area declined. 27,000 sq. km. of former sea bottom became dry surface. About 60% of water volume was lost. The sea level declined 14 meters. Salt concentration doubled.
- Today, an estimated 200,000 tones of salt and sand are being carried away by wind and discharged within a radius of 300 km.
- Results: desertification, pollution of air, rise of salt in soil causing reduction in the crop and crop quality; total collapse of fishing industry.
- Salting river result in a decrease in land fertility and diversity of plant and animal life.

CASPIAN SEA

- High winds cause waves of heights up to 2.5-2.7 meters, resulting in flooding of distances of up to 20-25km from the sea. The threat of this type of flooding has grown with the drastic rise of the level of the Caspian Sea.

COLD WAVE

- Extremely cold weather (minus 50 Celsius) in Jan and Feb 2001 put severe strain on the country's power system and put residents of public facilities such as orphanages and hospitals at risk.

MUDSLIDES

- Mud slides around Almaty

EPIDEMIES

- TB: rate of infection in the Aral Sea area range from 250 to 370 out of every 100,000 people

- How are risks identified and expressed? – reports, database, maps, GIS, etc?

Emergency	Databases	Maps	GIS	Other
Earthquakes	X	X		

Floods	X	X		
Drought	X			
Slide/Avalanche	X	X		
Epidemics	X			
Mudflow	X	X		
Hazardous meteorology occurrences	X	X		
Forest and steppe fires	X	X		
Man-caused disasters and catastrophes	X	X		

- What organizations keep records of past disasters?
 - Earthquakes: **Seismology Institute of the Ministry of Education and Science**
 - Floods: **Kazgidromet Republican State Enterprise of the Ministry of Environmental Protection**
 - Drought: **Kazgidromet Republican State Enterprise of the Ministry of Environmental Protection**
 - Slide/ Avalanches: **Kazgidromet Republican State Enterprise of the Ministry of Environmental Protection, Institutes of Geology and Geography of the Ministry of Education and Science**
 - Epidemics: **Ministry of Health**
 - Other: **(including all natural and man-induced disasters) RK Agency of Emergency.**

Vulnerability/ Communities

- Complete the attached database regarding the type and level of disaster risk and vulnerability in the districts of your country.
- Are villages (rural areas) that prone to disaster identified?
 - **No any special comprehensive research to assess the risk and area vulnerability in Kazakhstan. Preliminary oblast-level large-scale and country-level small-scale maps are available for specific risks: seismic hazard, mudflow hazard, flood zone maps, spread of hazardous infections.**
 - **The list of possible natural calamities are available for any populated area in Kazakhstan.**
- What major historic infrastructures are likely to be affected by future disasters? What actions have been taken to reduce the risk?
- Are there communities that organize themselves to monitor potential disasters? (e.g. monitoring river levels)
 - **No information within EA available.**
- What is the level of awareness of disaster risk factors at the community level?
 - **Community awareness of risk factors is ensured under the Laws of Kazakhstan «On Natural and Man-caused Emergencies», «On State Secrets» which prohibits secrecy of any information in the field of emergency, and other normative and legal documents of Kazakhstan.**

- How ready are communities to understand official warnings and react?
- **Communities are supervised to timely implement the approved emergency response and warning plans.**
- What percentages of vulnerable areas have evacuation plans/maps?
All !!!!!

3. National policies, plans and projects

Policies

- Is there a national disaster management policy, act or related legislations? Specify.
See "government structure".
- *Key laws and other regulatory legal acts form the basis for the implementation of emergency planning for natural disasters*
- *LAWS AND LEGISLATIONS*
 - *Law on Civil defense*
 - *Law on Emergency Situations of a Natural and Technological Character*
 - *Law on Fire Safety*
 - *Law on Emergency Rescue Services and the Status of Rescuers*
 - *Law on the National Safety in the Republic Kazakhstan*
 - *Law on the Health and (Epidemiological) Welfare of the Population*
 - *Law on the Legal Regime of Martial Law*
- *USAID is helping to draft a new national environmental law*
- Are there national disaster management plans and procedures? Specify.
- **To prepare efforts and emergency response measures, to coordinate the activities of central and local executive authorities in occurrence and liquidation of emergency the Agency has developed relevant National plans including civil defence plans of Kazakhstan for peace and war time, earthquake response plans, winter emergency plans, flood plans, plans of using chemical, radioactive and biological toxic substances, refugee plans etc.**
- **In 2000 Emergency Agency in co-operation with UNDP have prepared the Plan of Kazakhstan's preparedness to natural calamities within the project of RK Government. In 2002 within the project of Capacity building for Kazakhstan's emergency preparedness the proposals have been given to develop key activities in the field of emergency: development of emergency information management GIS-based system for Almaty City for the event of disastrous earthquake; codification of civil defence and emergency laws; establishment of national information-analytical centre etc.**
- **The relevant plans have been developed on the oblast and local level, in the ministries, departments, enterprises and organisations.**
- **The above plans identify functions of ministries, departments, enterprises and organisations as well as local authorities to liquidate emergency situation; those plans describe the efforts and means employed, procedure of communications and information.**

- *A KAZAKHSTAN NATURAL DISASTER PREPAREDNESS PLAN has been created (with the collaboration of UNDP) and adopted by the Resolution of the Government of the Republic of Kazakhstan in the year 2000. Please refer to the attached document.*
- *Measures for the reduction of danger of natural disasters: A national IDNDR has been created and it is headed by the Chairman of Agency for Emergencies.*
- *Plans for interactions with central executive and civil military cooperation are also developed*
- *Framework of the overall Civil defense*
- *Framework of the Corps of the CIS countries*

Projects/ Programmes

- *List the past, current and pipeline projects in disaster management sector, specifying the owners (U.N., the World Bank, Gov...) and the executors of the projects (Provincial Gov. NGOs...):*
See the previous Section passage 2.
 - *Previous projects: Prevention of Emergency situations*
 - *Implementation of the preventive engineering measures*
 - *A unique complex of anti-debris flow protection structures has been created in Almaty city and Oblast*
 - *Reinforcement and protection of river banks in flood prone regions of the country have been carried out*
 - *Methods for coping with debris flows have been developed and realized in the mountainous areas of Kazakhstan.*
 - *Snow avalanches are prevented by placement of tactical explosive charges*
 - *Systems of warning and observations of debris flows, avalanches, seasonal flash flooding and flooding are ongoing*
 - *The state program for the seismic reinforcement of buildings and other structures in cities and settlements located in the seismic zones has been implemented. New building norms and rules of construction in seismic zones are developed.*
 - *Local governments have created 269 special volunteer groups for emergencies*
 - *USAID is helping to draft a pilot air pollution emission programme*
 - *Food aid for TB patients would be an appropriate intervention. The aid is being distributed through a joint effort of the American Red Cross, the international Federation of Red Cross and Red Crescent Societies and the Uzbekistan and Kazakhstan Red Cross and Red Crescent Societies.*
 - *The creation of five professional rescue groups is planned*
- *Are there any disaster awareness and public information projects or programmes being undertaken in the country?*
 - **Yes. The work is carried out within mass media plans annually approved by AE.**
 - *Special attention is paid to training of the general public and the dissemination of information and awareness about natural hazards (see training for further information)*

Trainings

- What is the disaster management training strategy and/or plan of the country with regards to disaster management?
- **To ensure prospective planning for emergency prevention and liquidation, the Concept Paper and the draft Republican Program of State Emergency Prevention and Liquidation for 2003-2005 (hereinafter referred to as the Program) have been elaborated in 2002. The Program is focused on the following issues: normative and legal base, institutional development of SES and EA, activation and improvement of central and local authorities in the field of emergency, logistical support of SES, SES emergency planning, research development in the field of emergency and civil defence, personnel training and retraining, international co-operation development, social protection of rescuers and people involved in emergency prevention and liquidation activities.**
- *A system of national education in the field of preparation and response in emergency situations has been set up*
- Has disaster management training been undertaken in the country? Is so what which organization (s)? What form of training has been utilized and who has been the audience?
- **In order to ensure practical testing of the plans as above as well as their adjustment and development test every year the Agency of Emergency organise countrywide training «WINTER», «SPRING», «FIRE», «EARTH», manoeuvre training «NEPTUN», «KAZSPAS». Local authorities, Civil Defence and Emergency services from all oblasts of Kazakhstan take part in such training. Preparedness reports are made to the Government on the basis of the results of such courses. Seismic training are organised in Almaty and earthquake areas. Destructive earthquake response training courses have also been organised in Kazakhstan. In addition to such large-scale training, command-and-staff training exercises are organised with involvement of experts and managerial staff of central and local executive authorities.**
- *Special attention is paid to training of the general public and the dissemination of information and awareness about natural hazards*
- *Republic's 27 training centers have trained more than 50 thousand trainee annually.*
- *Training has focused on practical actions to be taken in the event of emergencies*
- *Special course " Protection of Critical Life support" was designed for school children*
- *Schools and kinder-gardens have regular training on what to do in case of earthquake*
- *The mass media is actively involved in the training of the population*
- *Also booklets, video films and pamphlets*
- *Specialized training is conducted for headquarters staff*
- *The Red Crescent Society Youth Centers are the centers for disaster management training*

INTERNATIONAL WORKSHOP FOR EARTHQUAKE RESPONSE

- In the framework of the NATO program "Partnership for Peace"
- May 17-21, 1999
- Partnership for Peace Information management System (PIMS): a joint database between USA and country partners
- A work plan of American Kazakhstan Cooperation in the field of emergency preparedness and disaster management between US federal emergency management agency and emergency agency of the republic of Kazakhstan was held.

Type of Training	Audience	Trainer
Full-time attendance	Administration staff	Republican professional training courses in the field of civil defence and emergency
Full-time attendance	Commanders of civil defence and emergency units	Training centres within oblast-level emergency departments

- Where are the training centers located?
 - **Location of training centres: Central training centre in Almaty-Republican professional training courses in the field of civil defence and emergency; oblast-level centres of emergency departments – in oblast centres**
 - *The Red Crescent Youth Centers*
- Is there training at the community level?
 - **Emergency training activities for population using mass media (newspapers, TV coverage)**

Publications

Kazakhstan vulnerability survey (1997)

4. Government structures:

- What is the structure/ organigram for disaster management in the country? What is the number of personnel in each organization/ agency?
 - **In Kazakhstan state management in the field of protection of people and territories from natural calamities, disasters, catastrophes and the associated emergencies is implemented by the State Emergency System (SES) established by Decree of the Cabinet of Ministers of Kazakh SSR ref. 935 dated June 25, 1991.**
 - **SES operations are governed by RK Constitution, Laws of Kazakhstan "On Natural and Man-Induced Emergencies", "On Civil Defence", "On Rescue Services and Status of Rescuers", "On Fire Safety", Decree of RK Government "On the State Emergency System" dated August 28, 1997 ref. 1298 and other legal and normative documents.**
 - **SES is established to prevent and liquidate natural and man-induced emergencies in peace and war time.**
 - **Key goals of SES are enlisted below:**
 - **implement a unified national policy in the field of emergency liquidation and prevention, protection of human life and**

- health, protection of material and cultural values and environment;
 - develop the system of economic and legal measures to ensure protection of people, technical and environmental safety;
 - develop national, industry-based, regional and scientific-technical programs focused on emergency prevention, protection of human being and environment, sustainable operation of economic and social objects in the event of emergency, disaster, natural calamity, epidemic, epizooty, epiphytoty;
 - readiness of control points and bodies, communications and warning systems, means and efforts of SES in order to ensure prompt emergency response, rescue activities and other urgent liquidation operations;
 - forecast and assessment of social-economic consequences;
 - primary livelihood of affected people;
 - emergency training for people, training and professional upgrade of SES personnel;
 - international co-operation in the field of emergency prevention and liquidation, assistance to foreign countries to liquidate the consequences of disasters, catastrophes and natural calamities.
- **Agencies included in SES composition are enlisted as follows:**
 - RK Agency of Emergency (EA) which ensures the overall SES management, and its territorial branches and subdivisions;
 - Management bodies, day-to-day management bodies (monitor-control services) of central executive authorities and national organisations competent in emergency prevention and liquidation;
 - In-service rescue divisions of central and local executive authorities and organisations, territorial and object-based emergency and civil defence units and services;
 - **Forest protection services, disaster medicine services, unified air rescue services of Kazakhstan, environmental monitoring and control services (impact of potentially hazardous objects) of central executive bodies and organisations of Kazakhstan, Republican Seismic Observation and Forecast System.**
 - **In compliance with Resolution of RK Government, EA shall ensure inter-sector co-ordination, fulfil special licensing function related to natural and man-caused emergency prevention and liquidation, bear responsibility for RK Civil Defence operations and fire security, supervise safe industrial and mining operations.**
 - **Co-ordination of central and local executive authorities and organisations:**
 - ***On the national level:* RK Agency on Emergency, Interdepartmental Emergency Commission, Republican Epidemic Commission, Interdepartmental Blasting Work Council, Emergency Commission within central executive authorities;**

- **On the local level: RK Agency on Emergency through its territorial branches, emergency commissions of local executive authorities and organisations based in the relevant jurisdictions.**
 - **SES is continuously developing and its enhancement will contribute to improvements.**
 - **Measures to reduce the risk of emergency are taken through specific, annual, mid-term and long-term national development programs approved by the authorised bodies.**
 - *The Prime Minister heads the civil defense of the country*
 - *The direct management of the activities is assigned to the Chairman of the Agency for Emergencies of the Republic Kazakhstan*
- List all of governmental organizations related to disaster management?
- *The Agency for Emergencies has local bodies at the Oblast, Region and City levels.*
 - *Oblast, Regional and City Departments*
 - *Civil defense and military divisions*
 - *Center for Emergency Medicine*
 - *Republican Emergency Rescue Unit*
 - *Republican Fire Prevention and Anti-Debris Flow Service*
 - *Training and information centers*
 - *The Water Rescue Services*
 - *The State Inspection of Prevention and Reduction of Emergencies*
 - *Territorial Emergency Rescue Formations*
 - *The following operate under the Aegis of the Agency*
 - *Interdepartmental State Commission for the Prevention and Reduction of Emergency Situations*
 - *Interdepartmental Commission for the Provision of Safety of Road Transportation*
 - *The Republican Epidemiological Emergency Commission*
 - *The Scientific and Technical Council*
 - *A Special system for the prevention and solution of emergency situations: system covers 19 regions and the capital of the republic and involves appropriate divisions of all ministries, departments and other organizations. The lead organization of this state system is the State Emergency Committee*

	Mitigation	Preparedness	Relief	Reconstruction
National	EA and all central and oblast-level executive bodies	ditto	ditto	ditto
Regional	ditto	ditto	ditto	ditto
Provincial	ditto	ditto	ditto	ditto
District	ditto	ditto	ditto	ditto

- Is there a national disaster management office/ ministry or a national disaster response mechanism? Specify
See "government structure"

Agency for Emergencies of the Republic of Kazakhstan

- What are the functions of the office/ministry?
 - *Development of proposals and implementation of the state policy*
 - *Maintenance and operation of the state system*
 - *Coordination of actions of central and local executive bodies in the field of prevention*
 - *Emergency civil planning*
 - *Training of the general population, official of bodies of management*
 - *Realization of international cooperation*
 - *Realization of a system of measures to reduce the danger of natural hazards, preparation for and response to emergencies*
 - *Operative management of the activities*
 - *Coordination of activities, control and maintenance of readiness of monitoring systems, communications and warning. Republican automated emergency information management system.*
 - *Warning of the general population of emergencies*
 - *Organization and implementation of research on the problems of protection of the population and territories from emergency situations*
 - *State expert appraisal of compliance of construction projects*
 - *Facilitation of humanitarian operations and the coordination of international humanitarian assistance*

- Does the above office handle all types of disasters (natural and technological)?
- Is the office in charge of disaster management a military force/formation?
 - **No**
 - *The direct management of the activities is assigned to the Chairman of the Agency for Emergencies of the Republic of Kazakhstan, which is a civil society.*

- What are the criteria for recruitment in the offices of disaster management? (Military ranks...)
 - **The laws of Kazakhstan «On State Service» and «On the Universal Military Obligation and Military Service».**

- Is there transfer/ rotation of staff between districts and regions?
 - **Yes.**

- What are the functions of the provincial and local authorities in disaster management? (e.g. Evacuation)
 - **Authorities of local executive bodies are provided by the Law of Kazakhstan «On Natural and Man-caused Emergency» and other normative and legal documents.**

- Which governmental entity has the mandate of assisting during a disaster?
 - **Army**
 - **Fire fighters**
 - **Police**
 - **Normally SES (including the above-mentioned forces)**

- How are various sectors such as (agriculture, health, infrastructure, education, Water resources, Interior) engaged in risk management issues?

Within SES system

- How is the ministry of health organized for preparedness?
 - **In accordance with the norms provided by SES.**
 - *Emergency medical service has divisions in all areas of the republic.*
- What ministry is in charge of maintaining law and order during disaster?
 - **Ministry of Interior**
 - *Agency for Emergencies of the Republic Kazakhstan is responsible for the maintenance of law and order in case of an emergency*
- What entity coordinates the actions of all of the ministries?
 - **RK Agency on Emergency**
- Is there a published overview to ensure a common understanding of the precise roles of and inter-relationships between different bodies (ministries, NGOs, Offices, ...)?
 - **The procedure is established by the relevant resolution of RK Government. Non-governmental entities.**
 - *A Special system for the prevention and solution of emergency situations: system covers 19 regions and the capital of the republic and involves appropriate divisions of all ministries, departments and other organizations. The lead organization of this state system is the State Emergency Committee*

5. Non-government structure

- Identify NGOs, international organizations, etc working in any aspect of disaster management:
 - *American Red Cross in the Aral Sea region (Timothy Cummings)*
 - *Institute for Social Action and Renewal (ISAR)*
 - *USAID is helping to draft a legislation to establish water user association*
 - *Almaty City Organization of the International Antinuclear Movement "Nevada-Semipalatinsk"*
Protection people, suffered from ecological disaster on the Semipalatinskiy proving ground; conducting conferences and seminars on that theme; prevention of the ecological disasters.

■ **National NGOs:**

Name	Area of Work	No. of Personnel	Location of Work
UNDP	Expert services, financial assistance		Countrywide
RK Red Cross and Crescent Society	Mitigation, response, humanitarian aid for affected people	About 100 people	Countrywide

▪ **International NGOs/ Organizations:**

Name	Nationality	Area of Work	Location of Work

▪ **Universities and Geo-Physical Institutions:**

Name	Area of Work	No. of Personnel	Location of Work
For emergency prevention measures universities are involved in certain activities			
Institutes of geography, geology, seismology, Kazgidromet RSE and other AE subdivisions	Research and forecast of natural and man-caused hazard		
<i>The Central Asian Academy of Sciences of an Ecology both Safety of the person and Nature</i>			
<i>Kazakhstan National Academy Institute of Seismology</i>			
<i>Experimental Institute Aseismic Building and Architecture (Kazakh State Scientific Project)</i>	Kazakh State Scientific Project → Director of Institute → Mr. Marat Ashimbayev		

The Kazakh Agro-Forestry Research Institute (KAFRI)

KAFRI belongs to the National Academic Centre of Agricultural Research, Ministry of Education and Science of Kazakhstan. It is a leading forest science organisation in Kazakhstan. The main targets of Institute are elaboration of scientific systems of forest management and improving of protective afforestation for different climate zones of Kazakhstan. The Forest Protection Department deals with forest fires. A national fire report is provided in English and in Russian.

▪ **Other**

Name	Area of Work	No. of Personnel	Location of Work

- Identify Financial and regulatory instruments
 - Insurance sector (level of engagement)
 - No engagement**
 - Building codes / bylaws
 - Modern building guidelines have been developed, approved and applied.**
 - *The state program for the seismic reinforcement of buildings and other structures in cities and settlements located in the seismic zones has been implemented. New building norms and rules of construction in seismic zones are developed.*
 - *The new standards for the construction of new buildings in zones liable to seismic activity are more rigid.*
 - *Kazakhstan was one of the initiators of an international symposium on "Urban earthquake risk management strategies for the Central Asian republics"*
 - *In the republic as a whole, it is necessary to strengthen or to demolish more than 256000 buildings, 700 schools, 900 kindergarten and 450 hospitals*
 - *There is a system, which allows to disconnect the electric power when the threat of earthquake strikes and to transfer storage facilities of natural gas from the earthquake zone to safer locations.*

- What is the nature of liaison between governmental disaster management entities with the academic of the national disaster management institutions?
 - **Through SES**

- What is the framework of cooperation between the ministry in charge of disaster management, the Red Crescent and the NGOs?
 - **Under Co-operation Agreements (the scale of co-operation is small) with RK Red Crescent/ Red Cross or other similar organisations**
 - *Red Crescent Society of K. developed a national disaster preparedness plan (2000), mentioning the role of RCSK and NGOs in disaster preparedness and in response*

Red Cross/ Crescent or equivalent Society

RED CRESCENT SOCIETY OF KAZAKHSTAN

Address: Kunaev St. 86

480100 Almaty

Tel: (7)(3272) 916291/61691

Fax: (7) (3272) 918172

E-mail: kazrc2@yahoo.co.uk/ kazrc@ru

- *Generally a positive public image*
- *Works closely with the government*
- *An agreement with the government for joint disaster preparedness and response activities*

- Some branches receive substantial support from the local government while others do not have such a good relationship
- 18 branches, 14 provincial committee, two territorial committee, two city committees, two railroad committees and 21 district and city committees
- **Leadership**
 - The national council is highest governing body; based in Almaty and has 35 members.
- **Human Resources**
 - Total of 129 staff (Branches employ one or two staff)
 - 430255 members and volunteers
 - 3126 Volunteers in the field of dissemination of IHL and fundraising activities
- **Financial resources**
 - Income/expenditure: CHF 172310
 - The society is facing financial hardship
- **Material Resources**
 - National committee has 4 vehicles, each branch has a vehicle
- **Priorities**
 - One priority is to raise the income of the society
 - Strategic work plan for 1997-2001 highlights:
 - Strengthening of the society
 - Development of international cooperation
 - Dissemination of IHL and Fundamental Principles of the movement
 - Emergency relief assistance
- **Activities**
 - **Disaster Preparedness**
 - Developed a national disaster preparedness plan (2000), mentioning the role of RCSK and NGOs in disaster preparedness and in response
 - Four regional disaster preparedness centers were established where rapid response teams are functioning.
 - Trained 120 disaster preparedness volunteers
 - Special attention is to be paid to education
 - Assistance to the flood victims
 - Two RCSK branches have their own water rescue teams
 - **Health**
 - 3 hospitals
 - 3 mercy houses
 - 3 RC wards
 - 4 pharmacies
 - 2 medical humanitarian centers (one for the refugees)
 - 4 training centers (3 equipped with first aid training, in Almaty, Karaganda, Ust-Kamenogorsk)
 - Visiting nurses programme
 - **Social welfare**
 - Assistance is provided to vulnerable groups (e.g. flood victims) from donations received

- 8 soup kitchens
- 20 distribution centers for second hand cloths

Youth

- 12 youth centers throughout the country.
- These centers have become a base for training volunteers

Population movement

- Support centers for repatriates (mainly women)
 - Is there a Red Crescent or an equivalent entity in the country?
 - **Yes.**
 - What is the structure/ organigram of the Red Cross/ Crescent?
 - **National RC&RC includes Central Committee and oblast-level (14), city-level and district subdivisions**
 - What are the functions of the Red Crescent?
 - **Establish reserve stocks**
 - **Identify vulnerable groups in the population**
 - **Provide emergency humanitarian assistance to injured/ affected people**
 - **collaboration with the government in creating rapid-response team**
 - How many branches of the Red Crescent are there? Where are they located?
 - **Headquarter is located in Almaty, 14 oblast-level committees, 2 city committees (Almaty and Astana) and local subdivisions.**
 - Is the Red Crescent responsible for operation in any other countries?
 - **No.**
 - How are the RC volunteers trained?
 - **Volunteers are engaged through youth movement; workshops, training courses etc.**

Refer to section 6 for Relief Inventory of RC.

6. UN Country Office

- List of UN offices in the country:
 - *WHO, UNDP, UNICEF, UNHCR,*
- Is there an effective UN Disaster Management Team?
- How is coordination between different agencies is done for disaster mitigation, relief and reconstruction?

7. Material and human resources

- Is there an information management system for disaster response management? What organization manages the system?
 - **AE**

Early Warning Systems

- What early warning systems are in place? Where?
 - **Flood, mudflow, hazardous meteorological events: Kazgidromet RSE**
 - **Seismic hazard: Institute of Seismology**
 - **Drought: Kazgidromet RSE**
 - *Systems of warning and observations of debris flows, avalanches, seasonal flash flooding and flooding are ongoing*

- What organization is responsible for disaster warning? (e.g. flood)
 - **AE and its territorial entities based on the forecast of related organisations.**

Relief Resources

- Identify human resources available for disaster management in the country
 - *The creation of five professional rescue groups is planned*
 - *Local governments have created 269 special volunteer groups for emergencies*
 - *Red Crescent: Four regional disaster preparedness centers were established where rapid response teams are functioning.*

	Red Crescent	Govern.		
Search & Rescue Personnel (FTE)	No data available	ROSO and 5 regional units, rescue units of regional 051 Rescue Teams		
Relief volunteers	---«---	No data available		
Emergency doctors	----«---	Disaster Medicine Centre		
Disaster management trainers:	----«---	No data available		
Logistics officers	-----«--	No data available		
Meteorology experts	-----«--	Approved staff		
Heavy machinery operators:	-----«--	No data available		

- Identify materials available for disaster management in the country (for different organizations : RC, WFP,)

	Red Crescent	WFP		
Immediate relief for x persons	No approved norms			
Immediate relief of x hours	----«---			
Ready-to-eat food	----«---			
# of tents	----«---			
# of cars	----«---			

# of Bulldozers	---<---			
# of Excavators	---<---			
# of Trucks	----<--			
# of Helicopters	---<---			
Sufficient Fuel	---<---			
Suffieient spare parts	---<--			

- Warehousing facilities

Kazakhstan has established on its territory a regional warehouse of supplies with the United Nations

	Red Crescent	WFO	
# of Warehouses	4		
Location and Size	Almaty		
	Karaganda		
	Uralsk		
	Semipalatinsk		

- What ministry is responsible to arrange transport to meet emergencies? (e.g. transportation to safe areas)
 - **Civil Defence and Emergency Transport Services established in the Ministry of Transport and Communications; oblast-level transport services.**
- What are the capacities to respond to chemical/ industrial accidents?
 - **Organisations, which use hazardous chemicals have the appropriate means as provided by emergency liquidation plans.**

Communications

- How are the warnings transmitted to officials and to the population? (Channels of dissemination)
 - **National warning system is used to warn government authorities and population. Clarified information is disseminated by TV and radio.**
- What are the means of communications? (e.g. HF radio, normal phone lines). How dependable are these communication means?
 - **Radio and telephone channels.**
 - *A national system of communication (television, radio, mobile, loud speaker unit) has been set up.*
- Is public radio/T.V. used to broadcast disaster warnings?
 - **Radio and telephone channels.**
 - *Yes*
- Do all high risk areas have a HF radio?
 - **Observation point located in mudflow dangerous areas are equipped with communications facilities to be able to provide warning of possible dangerous occurrences.**

- Are there radios in electrical sub-stations, water pumping stations, meteorology and hydrology posts, etc...
 - **Available in all points. All points are being equipped by radio stations.**
- Can all frequencies turn into a common UN security channel in case of a security alert (common disaster frequency)?
 - **No information available. No any activities carried out.**
- Is there coordination between radio frequencies of different offices/ organizations during disaster?
 - **Radio frequencies are available for emergency occurrences.**

8. Funding

- What has been the impact of disaster in the country during the past 5 years? (GDP, development)
 - **1-2% GDP per year**
 - **(1USD= 153 KZT, Tenge)**
 - **Every year direct damage from emergency in the country makes 2.2 – 3.5 billion tenge. By expert assessment indirect damage is estimated to be 15-20 billion tenge and damage from lethal cases and medical treatment of victims makes 3 billion tenge. The total estimated amount may reach 25 billion tenge per year.**
 - **Since 1994 the total direct damage (apart from indirect damage) was over 0.6 billion USD. These data do not even reflect potential consequences of global disasters which are not predictable**
- Average budget of the government per year allocated for:
 - Mitigation:
 - Preparedness:
 - Relief:
 - Reconstruction:
 - **0,5-1,0% GDP**
- Average cost of disaster to the government per year?
 - Relief
 - Reconstruction
 - **See above**
- Is the national disaster office and/ or programme fully funded by the government? What is its budget?
 - **No. About \$50-70 million.**
- What are the sources of funding for emergency responses and relief programmes?
 - **Financial reserves of local executive authorities, related organisations and GOK.**
- What role do international financial (lending) institutions play?
 - **Allocation of \$300 000 to develop Natural Calamity Preparedness Plan of Kazakhstan.**

9. International and national assistance organizations

- What are the existing international and regional operational supports?
 - **Consulting and technical assistance in seismic hazard forecast and emergency prevention (Japan, China, Russia).**
- Have national organizations been established to bring together key stakeholders of disaster management? Eg. REACT, what are their functions?
 - **No**
- What entity coordinates international response?
 - **Ministry of External Affairs**
- Do programmes and procedures exist for mutual assistance between neighboring jurisdictions?
 - **A package of relevant agreements between CIS.**
- How can the collaboration between various players be enhanced?
 - **On the basis of increased humanitarian aid from developed countries.**
- What has been the country's experience with the provision and receipt of international assistance?
 - **Kazakhstan provides humanitarian aid to Mongolia, Tajikistan, Uzbekistan, Kyrgyzstan, Yakutia, Turkey, Afghanistan, Czech Republic, Poland, Slovakia, Azerbaijan etc. Kazakhstan received technical humanitarian aid from USA, Japan and China.**

10. Links outside the country

- Identify any organizations outside the country that Government and/or NGOs have links with in terms of disaster management; Determine the nature of those links
 - **The country has links with CIS within the relevant agreements, links with NATO within Partnership for Peace Program, Asian Disaster Centre, Asian Disaster Preparedness Centre, International Civil Defence Organisation, Interstate Emergency Council, International RC&RC Federation etc. Friendly relations.**
 - *In the framework of the NATO program "Partnership for Peace"*
 - *Partnership for Peace Information management System (PIMS): a joint database between USA and country partners*
 - *A work plan of American Kazakhstan Cooperation in the field of emergency preparedness and disaster management between US federal emergency management agency and emergency agency of the republic of Kazakhstan*
 - *A joint declaration of the Republic of Kazakhstan and Germany about rendering mutual help in case of natural disasters and accidents is on the point of signature*
- Are there any relevant international/ regional agreements relating to any aspect of disaster management:
 - Watershed / flood management protocols:

- **The protocols are signed with neighbouring countries: Russia, China, Kyrgyzstan, Uzbekistan, Turkmenistan**
- *Aral Sea disaster: Kazakhstan, Kyrgystna and Uzbekistan (Interstate Council) entered into a multi-year agreement on water and energy for the Syr Darya River Basin, one of the two major tributaries that flow into the Aral Sea (water sharing).*
- Customs agreements:
 - **RK Customs Code**-----«-----
- Transit of relief materials to other countries
 - **Road, railway, air** -----«-----
- *There are supra-national and international agreements in place some of which are;*
- *Intergovernmental Agreement on interaction in the field of the prevention and reduction of consequences of natural and technological disasters- participants of CIS countries (Minsk, 1993)*
- *Cooperation and interaction in the field of study of earthquakes and forecasting of seismic danger of the countries of the CIS (Moscow 1993)*
- *Agreement between the government of Kazakhstan, Kyrgyz tan, and Uzbekistan in the field of research on earthquakes and forecasting of seismic danger 9Bishkek 1995)*
- *CIS agreement in case of evacuation of their citizens from the third countries in the event of a natural disaster (Moscow 1996)*
- *Between Kazakhstan and the Russian federation in the field of prevention of industrial failures and acts of nature (Moscow 1998)*
- *Seismological monitoring of territories of the CIS states (Moscow 1998)*
- *Seismological monitoring of territories of the CIS states (Moscow 1998)*
- *Kazakhstan, Kyrgyz, Tajikistan, Uzbekistan in the field of prevention and liquidation of emergencies (CholponATA 1998)*
- *Kazakhstan and Ukraine in the field of prevention of emergencies and liquidation of their consequences (Kiev 1999)*
- *Membership in the international civil defense organization (ICDO)*
- *Country member of NATO*
- *Protocol with Federal Emergency Management Agency of the United States (FAI A) (1997)*
- How can collaboration between the government and external players be enhanced?
 1. **Activate humanitarian aid from developed countries**
 2. **Share information, technologies, know-how**
 3. **Involvement in various activities to share the experience etc.**
- What role has regional cooperation played to date in disaster management in the country?
Priority

11. Strengths, gaps, outstanding needs & requirements

- What are the strengths and the challenges for disaster preparedness and prevention in the country?
 - **Strong point: intellect of the nation.**
 - **The main challenges for disaster preparedness: development of normative and legal base, establishment of research institutes, emergency management upgrade, additional technical support and staffing of emergency sector, material and technical reserves, institutional strengthening of central and local authorities, professional training and community training.**
- What are seen as gaps, outstanding needs and requirements for effective disaster management in the country and in the region?
 - **Financial and material and technical support**
- What needs to be strengthened?
 - **Material and technical support**
- Are there ways in which the country can assist other countries in the region?

Yes
Kazakhstan conducted the humanitarian operations in the region suffering from the destructive earthquake in Turkish republic August 19-27 1999
- What are the gaps in international co-operation and support in risk assessment and disaster preparedness and response?
 - **Insufficient use of experience gained by developed countries**
- What situations are likely to require international support?

Disastrous earthquakes
*Natural and technological disasters
 Forecasting of seismic danger
 Industrial failures and acts of nature
 Human Induced disasters*
- Is the country able to make appropriate use of external assistance and support?

Yes

12. Sources:

Disaster Preparedness plan: <http://www.lorton.com/~unzh/index.html>
<http://www.redcross.org/news/in/asia/020410aral.html>
<http://www.bousai.go.jp/kyoryoku/unisdr/020124menberlist.html>
<http://www.helid.desastres.net/cgi-bin/library.exe?e=q1c11home-who-1-C.1-500-50-00e&q=turkmenistan&org=&lb=&bb=&a=t&d=B.230.6.2.2>
<http://geography.about.com/library/cia/blckazakhstan.htm>
<http://www.cango.net.kg/db/navigate.asp?Country=2>
http://www.geocities.com/kazniilha/index_e.htm
<http://nailaokda.8m.com/>