

AZERBAIJAN

COUNTRY REPORT



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SITUATIONS OF THE REPUBLIC OF AZERBAIJAN

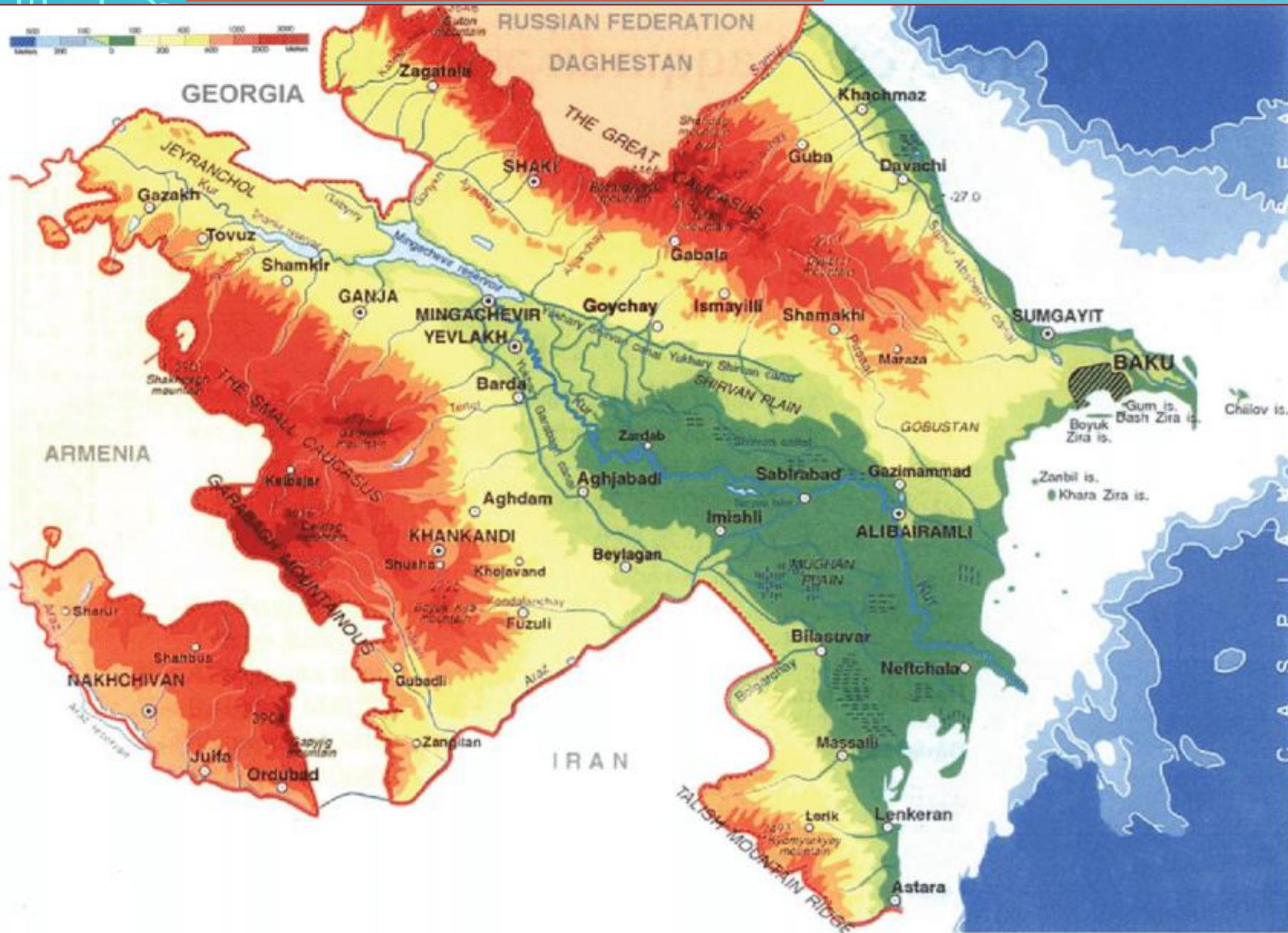
ADRC VISITING RESEARCHER FY2023

Overview of Azerbaijan



Azerbaijan, bordered by the Caspian Sea, is a country known for its diverse relief, including mountains, valleys, and plains. Azerbaijan has a total land area of approximately 86,600 km² with a population of over 10 million, Azerbaijan has faced various natural disasters due to its geographic location and diverse climatic conditions.

Physical map of Azerbaijan



The **climate of Azerbaijan** is very diverse. Nine out of eleven existing climate zones are present in Azerbaijan.

Disasters in Azerbaijan

Azerbaijan, located in the South Caucasus region, has experienced a variety of natural disasters throughout its history. From floods to earthquakes, these disasters have had a significant impact on the population and infrastructure. In this guide, we will explore the types of disasters, major historical events, government response, and current initiatives for disaster prevention in Azerbaijan.

Types of Natural Disasters in Azerbaijan

1

Earthquakes

Azerbaijan is located in a seismically active zone, making it prone to earthquakes that can cause significant damage.

2

Floods

Heavy rainfall and melting snow can lead to floods, particularly along the major rivers in Azerbaijan.

3

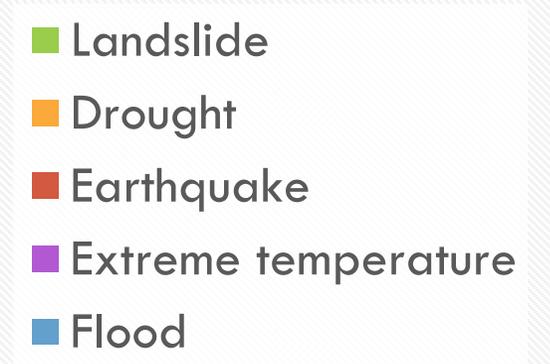
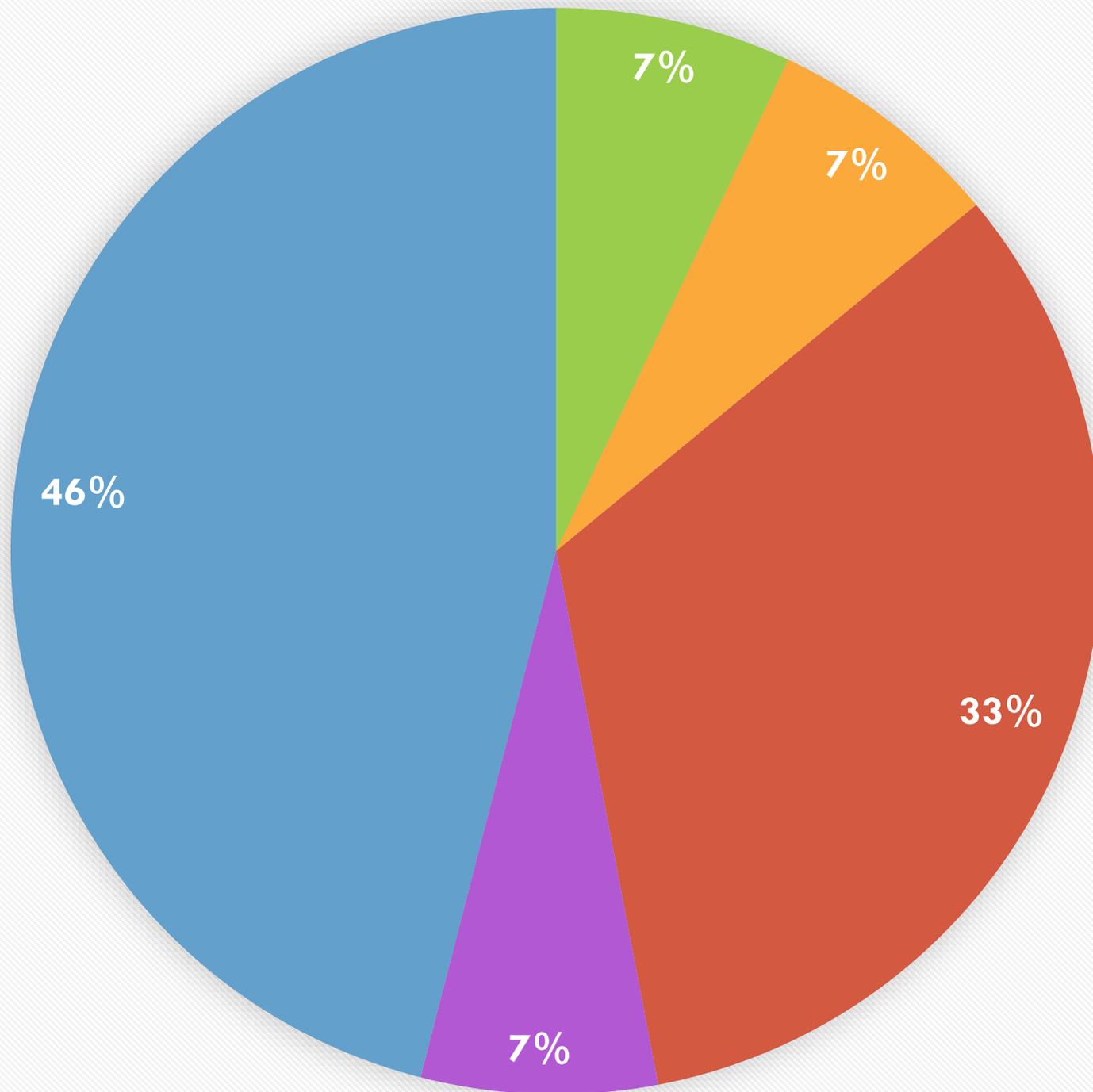
Landslides

The mountainous terrain of Azerbaijan is susceptible to landslides, especially during periods of heavy rain.

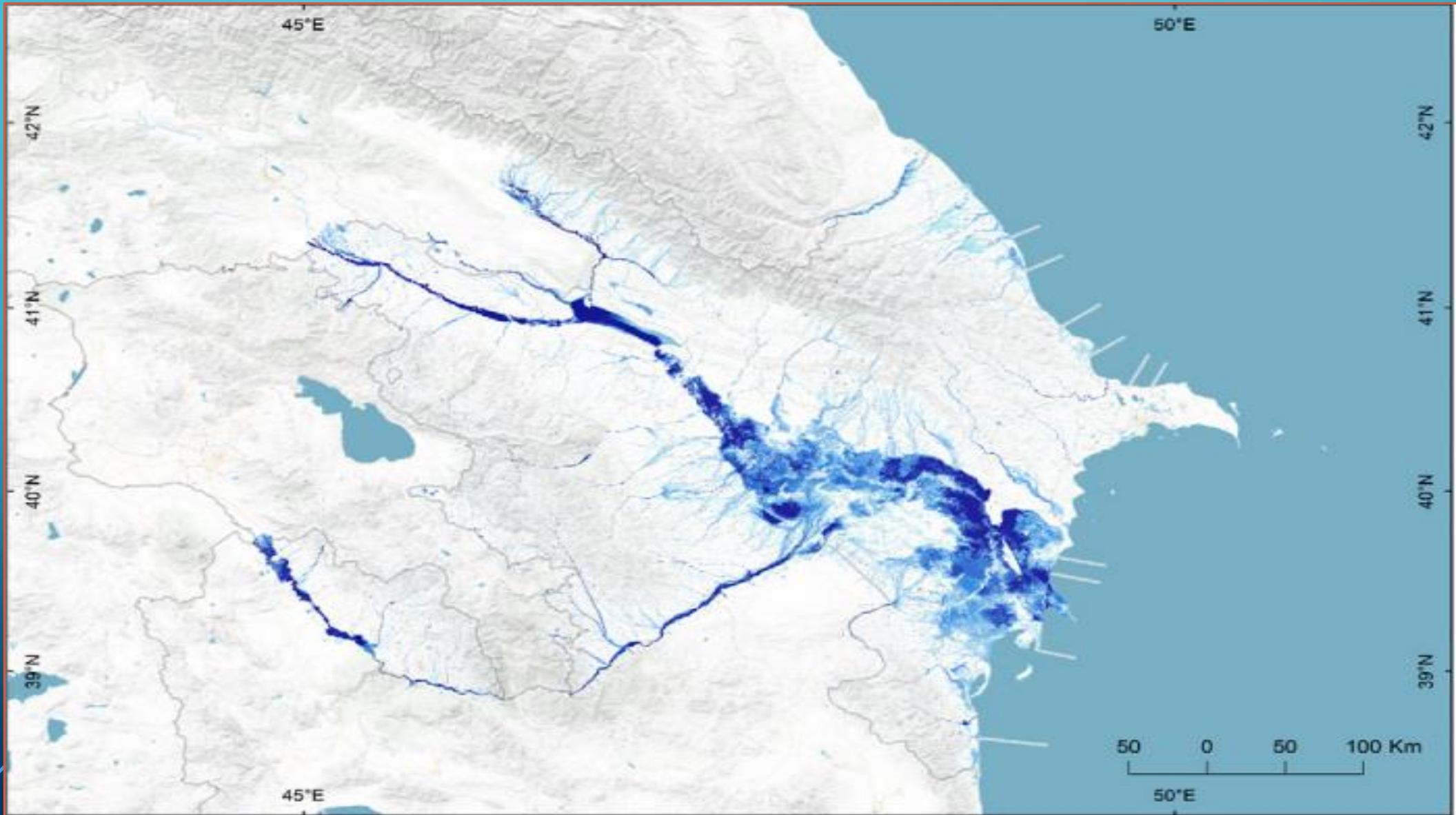
4

Droughts

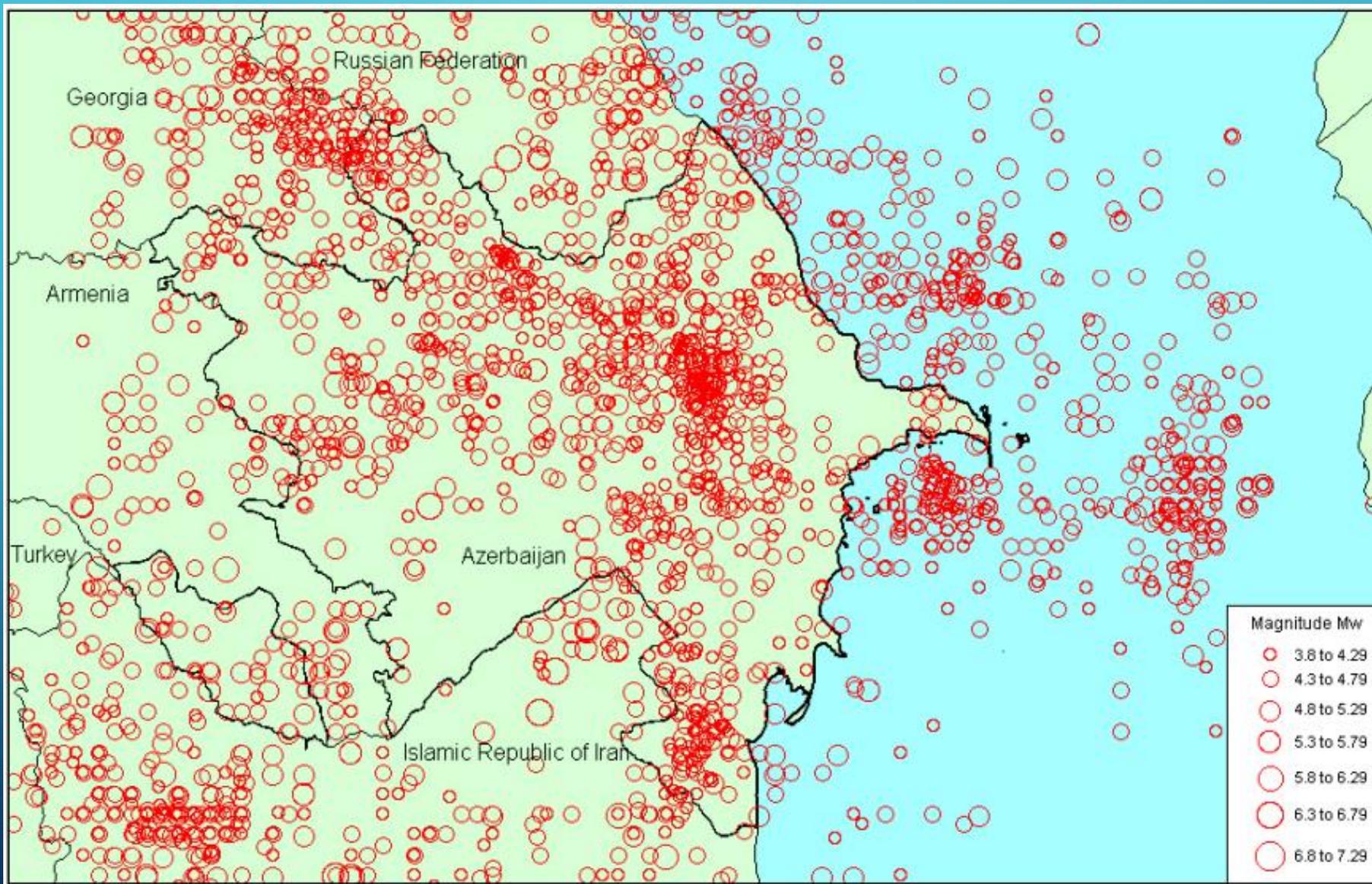
Periods of prolonged drought can have a severe impact on agriculture and water resources in Azerbaijan.



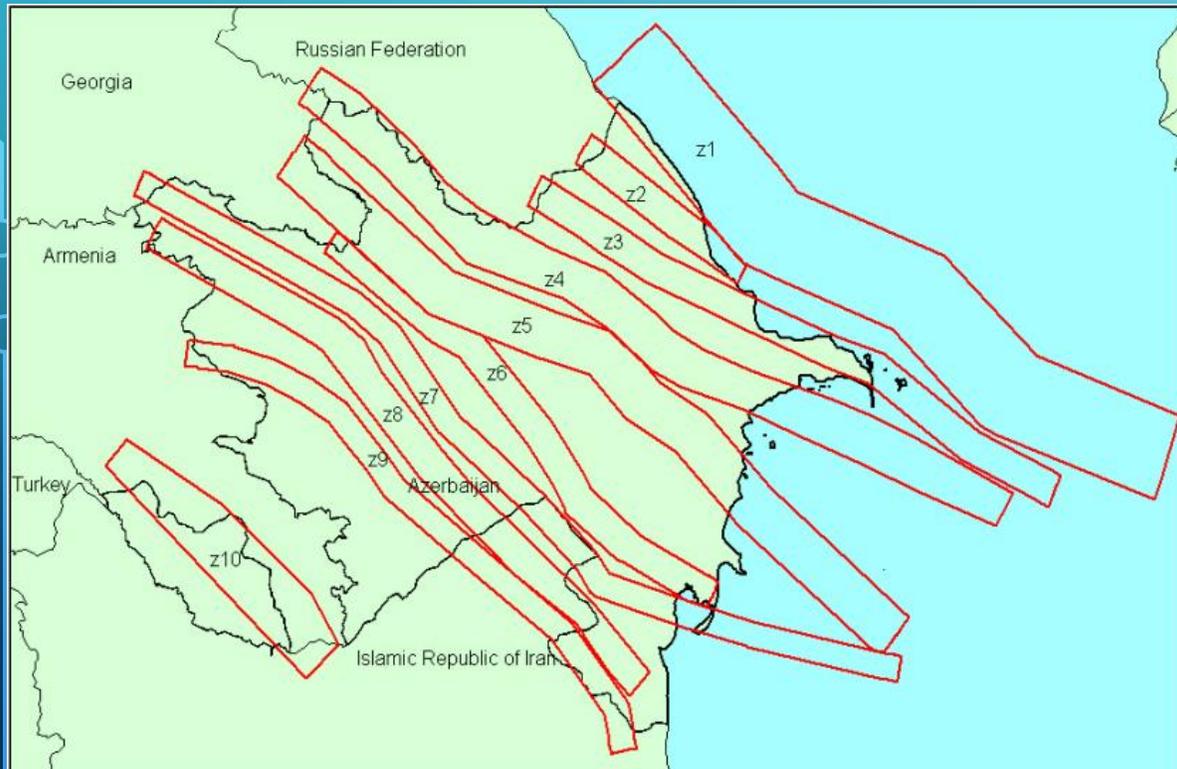
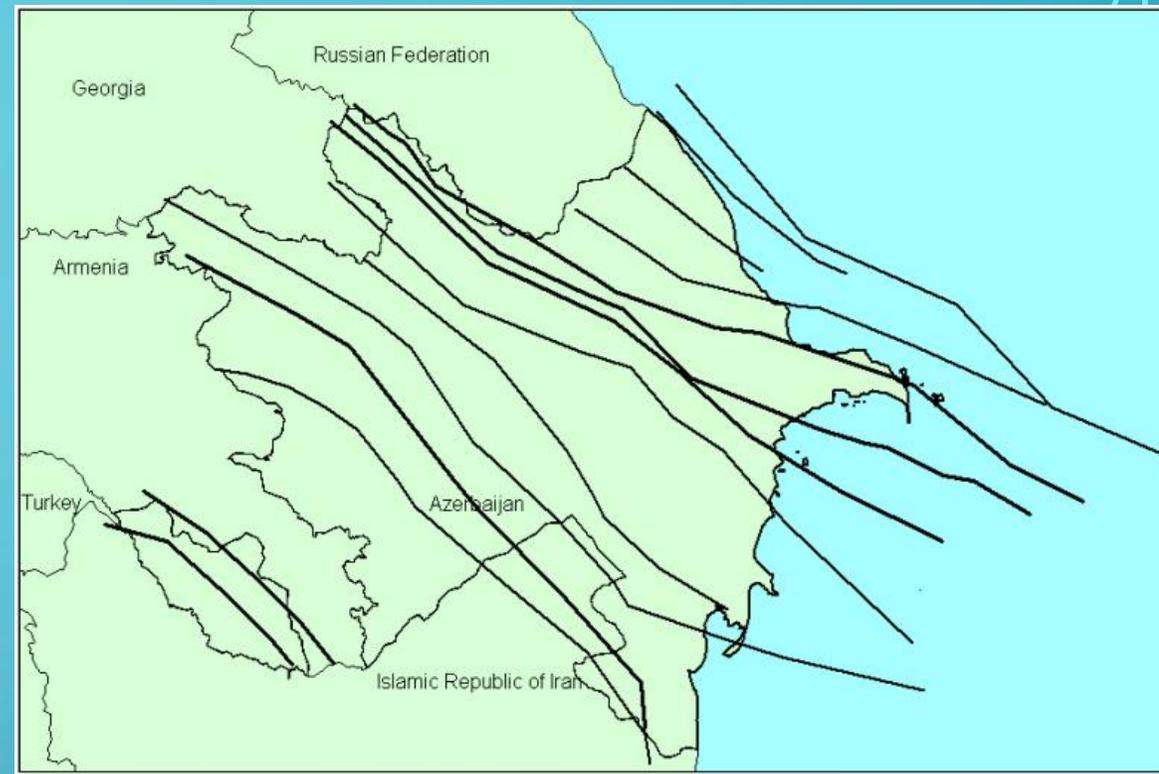
Map of river (fluvial) flooding (areas in blue) at the 200-year return period level



Map of epicentres of earthquakes (with $M_w \geq 4$) arisen in the territory of Azerbaijan within 427-2008.



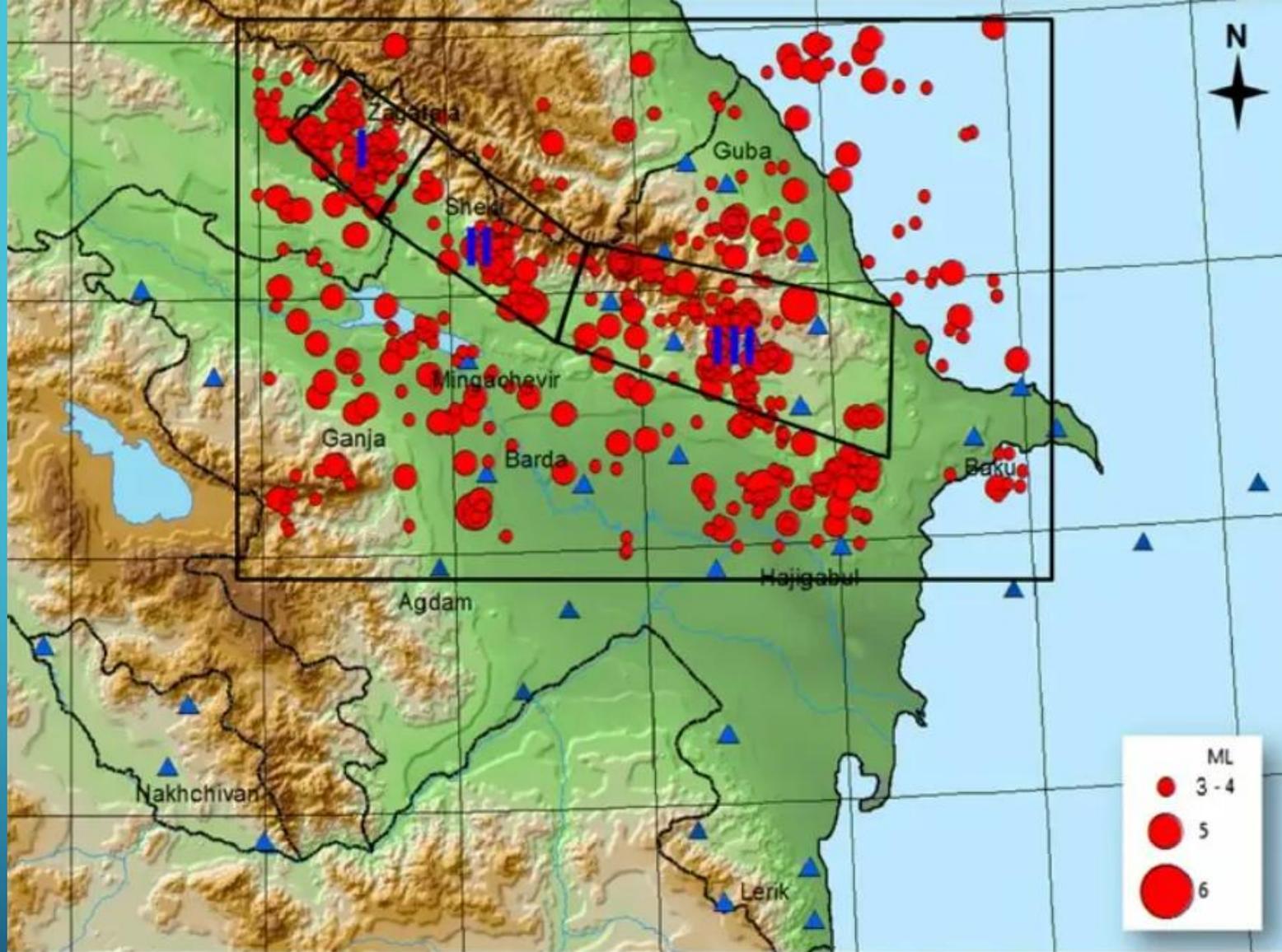
The map of active tectonic faults of Azerbaijan



Seismic source zone models of Azerbaijan territory (SSZ)

MAJOR NATURAL DISASTERS OCCURRED IN THE PAST IN AZERBAIJAN

| Year | Natural Disasters |
|--------------|--|
| 429 | Earthquakes in Ganja region (M6.7) |
| 1139 | Earthquakes in Ganja region (M6.8), followed by a landslide that created Goygol Lake |
| 1235 | Earthquakes in Ganja region |
| 1668 | Earthquake in Shamakhi resulted with landslides and more than 80,000 casualties. |
| 1902 | Earthquake in Shamakhi region (M6.9) |
| 4 Jun. 1999 | Earthquake measuring 3.5 to 4 on the Richter scale struck the central regions. (GLIDE: EQ-1999-000196-AZE) In Agdash district, about 150 houses were totally destroyed, 800 houses were damaged, five educational institutions and four hospitals received some damages. |
| 7 Mar. 2000 | Landslide in south of Baku city, leading to relocation of 300 families |
| 22 Oct. 2002 | Storm in the Caspian sea with 43 casualties (GLIDE: AC-2002-000662-AZE) |
| 21 Sep. 2009 | Flood in central parts of Azerbaijan. (GLIDE: FL-2009-000208-AZ) |
| May 2010 | Unusual large amounts of rain in the south caused the Kura River to rise to its highest level in over 100 years, bursting dams and overflowing onto nearby villages. This unprecedented level of flooding hit hardest in the Sabirabad, Imishli, Saatli districts, near the confluence of the Kura and Araz rivers. More than 24,000 people were affected with tens of thousands of homes flooded or destroyed and 50,000 hectares of farmland inundated. (GLIDE: FL-2010-000089-AZE) |
| May 2012 | Earthquake (M.5.6) struck Zagatala and Gakh, north-western Azerbaijan (15 injured 3,124 destroyed houses and buildings) |



Location of the study area in a quadrangle with distribution of earthquake epicenters (2012–2017). Blocks: I—Balaken–Zagatala, II—Sheki–Oguz–Gabala, III—Ismailli–Shamakhi. Note: Earthquakes were selected from the Republican Seismic Survey Center (RSSC) at the Azerbaijan National Academy of Sciences (ANAS) catalogue.

Baku Earthquake

Baku earthquake (2000, EQ-2000-000769-AZE) Baku earthquake (2000) - One of the most powerful earthquakes took place in the last hundred years in the history of Azerbaijan on 25th November 2000. The earthquake was felt at 6.8 magnitude in Baku at 21:30. Epicenter of the earthquake was in the Caspian Sea sector of Azerbaijan. Horrible tires hit 22 seconds with two waves. According to the report, 30 people were killed. Although earthquakes hit some buildings, there were no serious damages. Former Soviet buildings in Baku have been hit by severe earthquakes. Then magnitude of earthquakes were recorded. This earthquake has created a shock effect among people.



| | |
|-----------------------|---|
| UTC time | 2000-11-25 18:09:11 |
| ISC event | 2770732 |
| USGS-ANSS | ComCat |
| Local date | November 25, 2000 |
| Local time | 22:09:11 UTC+4 ^[1] |
| Magnitude | 6.8 M_w ^[1] |
| Depth | 35 km (22 mi) ^[1] |
| Epicenter |  40.25°N 49.9°E ^[1] |
| Areas affected | Azerbaijan |
| Max. intensity | VI (Strong) ^[2] |
| Casualties | 26 dead, 412 injured |

Kur Flood

Kur flood (2010, GLIDE: FL-2010-000089-AZE) It was large-scale flooding in Azerbaijan's Aran zone in May 2010. The areas along the bank of river of Salyan, Sabirabad, Saatli, Hajigabul, Shirvan, Imishli and Kurdamir regions have been flooded. In the eastern part of the country, Kura flooded Shirvan and destroyed the Bayramli settlement. Fortunately, human losses have not been recorded. Approximately 70,000 hectares of land and more than 20,000 homes were flooded. More than 300 homes have been completely destroyed. With over 10,000 hectares of sowing areas and pastures were flooded, the farm has been heavily damaged. Ten thousand people left their homes and they were settled in tents.



Guidelines, Laws and Regulations related to Emergency Situations in Azerbaijan

The Ministry of Emergency Situations

Responsible for coordinating emergency response and managing disaster situations in Azerbaijan.

Law on Civil Defense

Provides a legal framework for disaster management and outlines the responsibilities of relevant authorities and organizations.

Early Warning Systems

Azerbaijan has implemented various systems to provide timely warnings for different types of disasters.

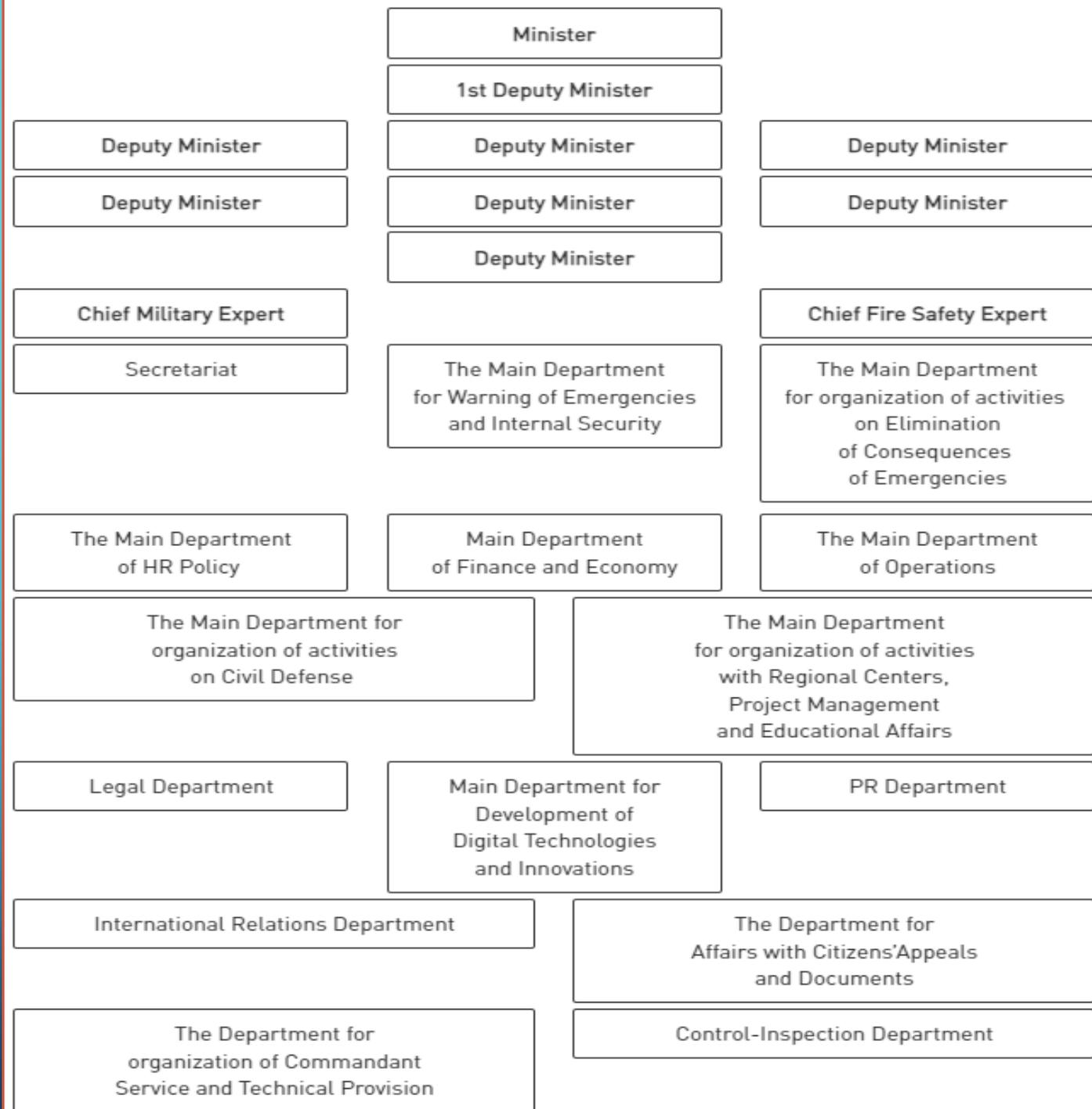


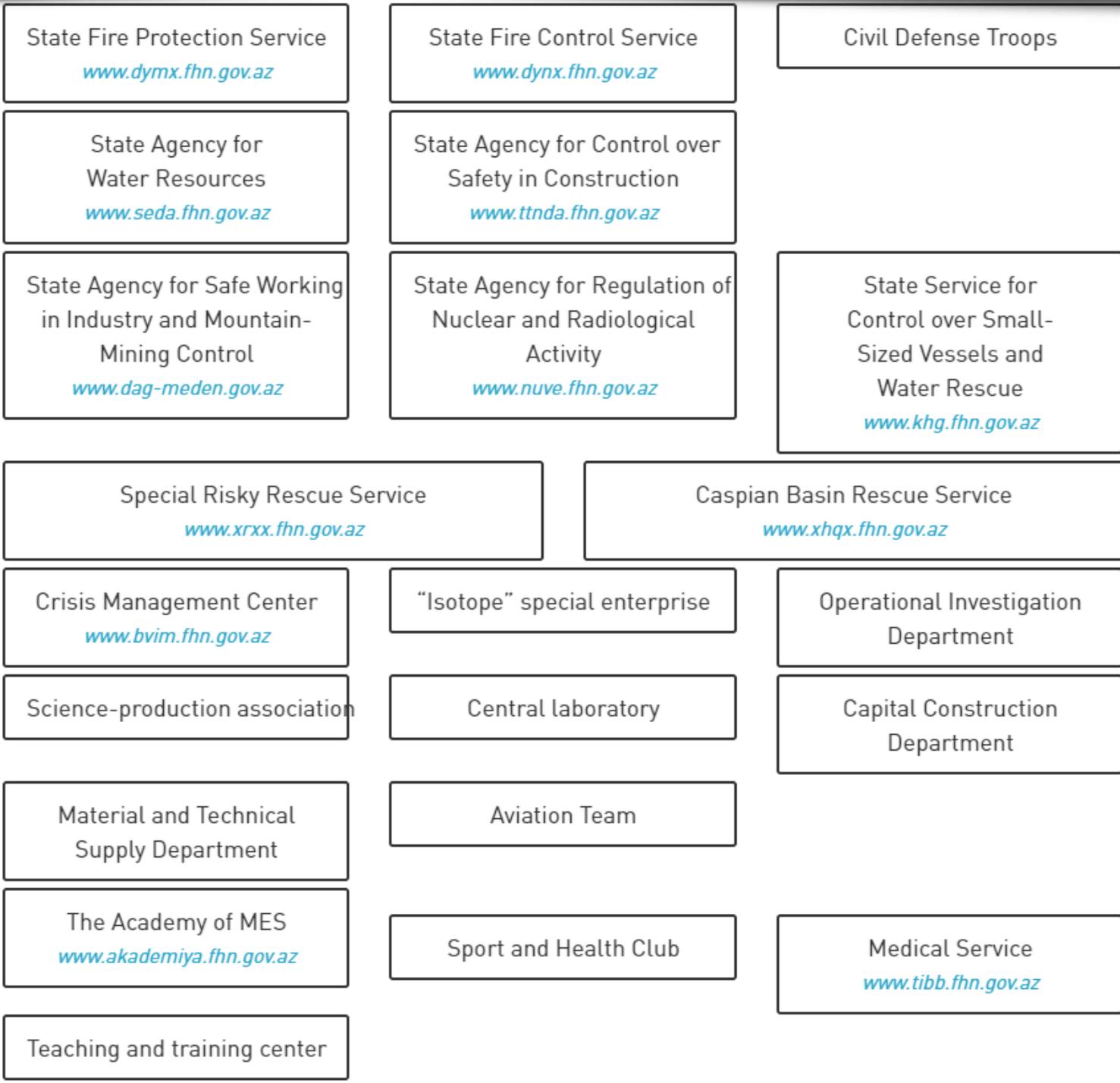
The Ministry of Emergency Situations of the Republic of Azerbaijan is a central executive body responsible for the following areas:

- - civil defense;
 - protection of the population from natural (geophysical, geological, meteorological, hydrological, maritime hydrological contingencies, natural fires, etc.) and man-made (arsons, explosions, collapse of buildings and constructions, chemical, biological and radiological hazards, accidents in electric power supply system, vital utilities, waste treatment facilities, breakdowns in hydrodynamic installations, oil and gas production units, main pipelines, transportation and traffic accidents, etc.) disasters:
- - prevention of emergency situations and elimination of their consequences;
- - fire security;
 - safety of people in water basins;
 - security of smaller vessels' operations;
 - technical safety in industry and mountain-mine works
- - safety in construction;
 - drafting of government policy and regulations on the state material reserves funds;
 - management, coordination and supervision on the areas mentioned above;
 - protection of strategic facilities, objects and installations in cases of occurrence of an emergency situations

STRUCTURE OF THE MINISTRY

APPARATUS OF THE MINISTRY OF EMERGENCY SITUATIONS





SUBORDINATED AGENCIES OF MES

Ministry of Emergency Situations of the
Nakhchivan Autonomous Republic

www.fhn.gov.az/nmr-fhn

REGIONAL CENTERS

Baku Regional Center

www.fhn.gov.az/bakirm

Sumgayit Regional Center

www.fhn.gov.az/sumqayitrm

North-Western Regional Center

www.fhn.gov.az/simal-qerbrm

Northern Regional Center

www.fhn.gov.az/simalrm

Ganja Regional Center

www.fhn.gov.az/gencerm

Aran Regional Center

www.fhn.gov.az/aranrm

Mughan Regional Center

www.fhn.gov.az/muganrm

Karabakh Regional Center

www.fhn.gov.az/qarabagrm

Southern Regional Center

www.fhn.gov.az/cenubrm

Nakhchivan Autonomous Republic

Ministry of Emergency Situations of the
Nakhchivan Autonomous Republic

www.fhn.gov.az/nmr-fhn

The Academy of the Ministry of Emergency Situations of the Republic of Azerbaijan was established according to the Order of the President of the Republic of Azerbaijan No. 2850 dated June 2, 2008, and it is a higher education institution that trains specially qualified highly educated personnel for the Ministry of Emergency Situations of the Republic of Azerbaijan, provides additional education of employees, and conducts fundamental and applied scientific research in the field of emergency situations.



THE ACADEMY OF MES







The Ministry of Emergency Situations

Government Response and Disaster Management Strategies

The government of Azerbaijan has implemented various strategies to manage and respond to disasters effectively. These include:

- Establishing the Ministry of Emergency Situations
- Improving early warning systems and disaster preparedness
- Developing and implementing disaster risk reduction programs
- Enhancing coordination and collaboration between relevant agencies and organizations



Current Initiatives for Disaster Prevention and Preparedness



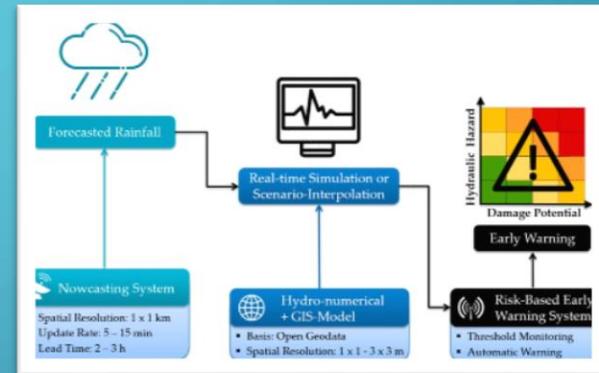
Infrastructure Development

Azerbaijan is investing in infrastructure projects to strengthen resilience against disasters.



Community Engagement

Efforts are being made to educate and empower communities to be prepared for disasters.



Improved Early Warning Systems

The government is working on enhancing the effectiveness of early warning systems to provide timely alerts.

Conclusion and Future Outlook

Azerbaijan has faced numerous natural disasters throughout its history, causing significant damage to infrastructure and impacting the population. However, with the government's proactive approach to disaster management and ongoing initiatives for prevention and preparedness, the country is taking steps towards building resilience and reducing the impact of future disasters.

RESEARCH PLAN

Research topic: Flood risk management System in Japan

Summary. Floods, which are among the most advanced natural disasters that occur in Azerbaijan and the world in terms of percentage, cause great damage to the country's economy, as well as human casualties and material losses. The inundation that occurred in the country are mainly manifested as a result of overflow of the river. Yevlakh-Neftchala territories, taken as the study area, is the region most exposed to the threat of flooding, and especially the predominance of agricultural areas in these areas results to the inundation of farmland in cases of flooding. Because of this, hectares of crop and agricultural fields are flooded, causing considerable (100 million manats) financial damage to the country's economy. So, this research learnt from Japan lessons will contribute Flood Risk Management of Azerbaijan.

Expected Results:

- ✓ The experiences and lessons learn from Japan Flood Risk Management (FRM) model;
- ✓ Best practices of FRM in Japan;
- ✓ To learn the measures can be taken to reduce the casualties before floods happen in Japan;
- ✓ To get methods (ways, algorithms) used in Flood Prediction in Japan.

The background is a dark blue gradient. In the corners, there are decorative white circuit-like patterns consisting of lines and small circles, resembling a PCB layout. The text is centered in a white, serif font with a subtle drop shadow.

Thank You for Your Attention!