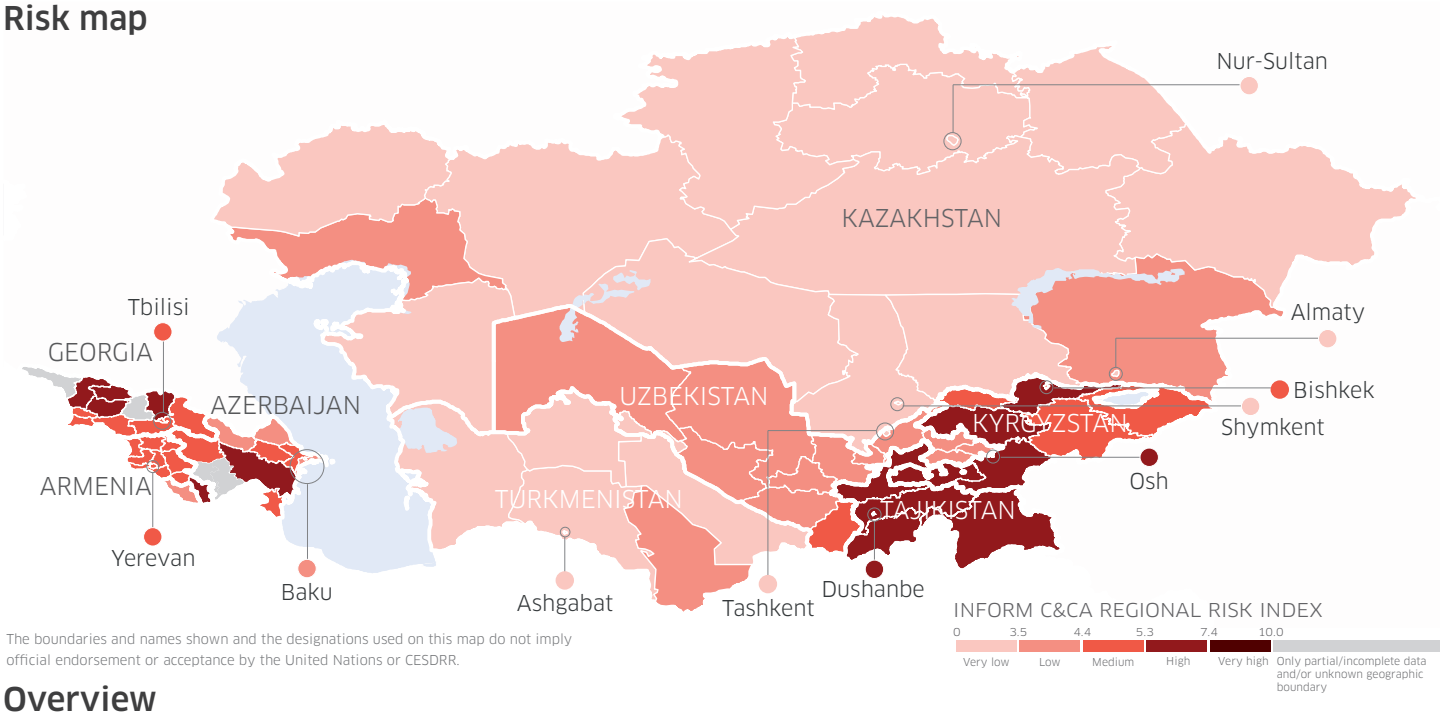
Caucasus and Central Asia: Subnational INFORM risk 2021

Risk map



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations or CESDRR.

Overview

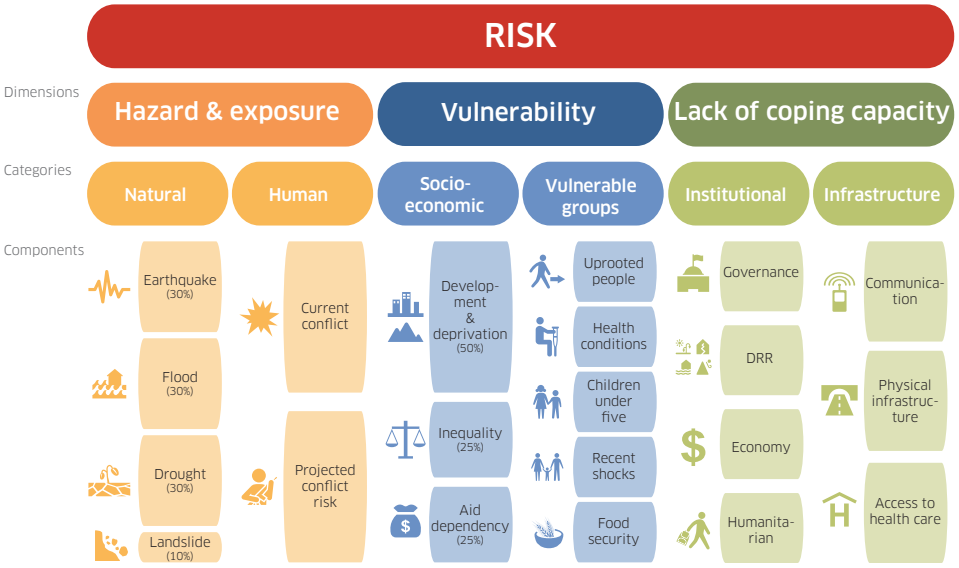
The subnational Index for Risk Management (INFORM) is a way to understand and measure the risk of disasters. It helps identify where and why humanitarian crises are likely to occur, and shows how risks differ **within** each country across its subnational units and **between** subnational units of different countries.

Data on 83 first admin levels

The first administrative level is the largest subdivision of a country. There are 85 such subdivisions in the Caucasus and Central Asia, and commonly include oblasts, regions and capital cities. The subnational INFORM includes data on 83 of these first administrative levels.

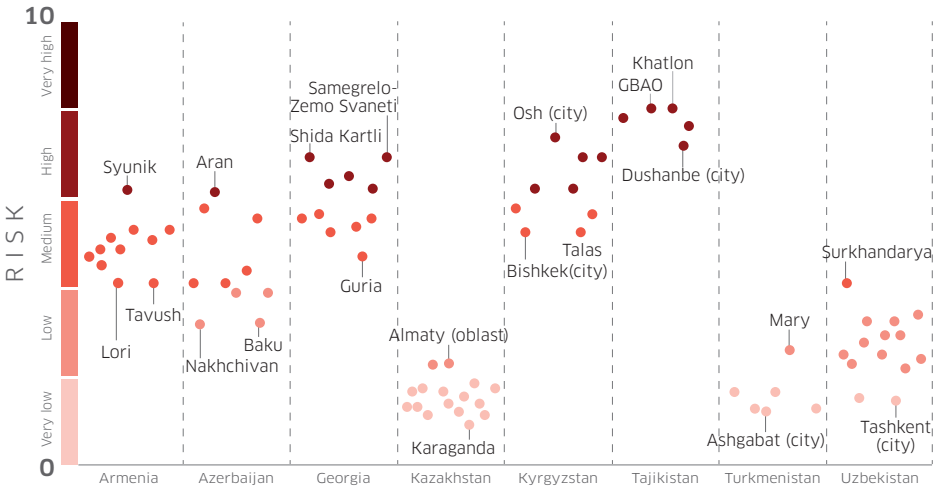
62 indicators

The model builds up a picture of risk by bringing together 62 different indicators that measure three **dimensions** of risk: hazard and exposure, vulnerability, and lack of coping capacity. Each dimension is made up from a number of risk **categories**, e.g. natural hazards, vulnerable groups, or infrastructure capacity. Categories comprise a number of **components**. Components are carefully chosen sets of indicators that capture a specific topic, e.g. earthquake, children under five, or physical infrastructure. **Indicators** are the individual datasets that make up INFORM, e.g. the physical exposure to earthquakes of a certain magnitude, child mortality rate, or road density.



Risk distribution

The graph below illustrates how risk levels are spread within a country and allows comparison across the region. All regions in Tajikistan are more prone to risk than any other country/region in the Caucasus and Central Asia.



Data reliability

The model includes **a lack of reliability index**, which considers missing indicators, the recentness of the data, and the degree of subnational data that was included (national averages were used when subnational data was missing – a less desired practice). It scores data on a scale from 0 to 10, where 10 is least reliable. The lack of reliability index shows that results for all areas in Turkmenistan are deemed less reliable.

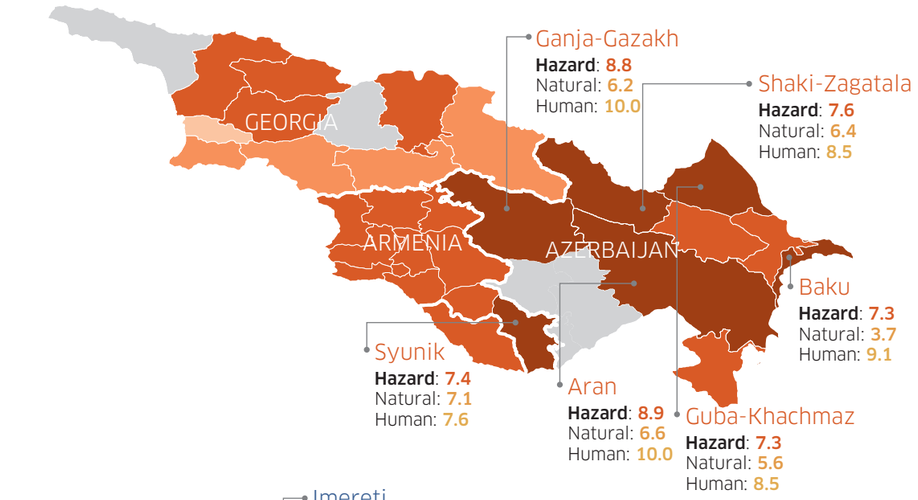
How to use the model

- National government or intergovernmental risk assessment and development planning can be updated to include INFORM results and components.
- By relying on shared risk analysis, government, donors, humanitarian & development actors can align their actions and funding decisions towards risk reduction and management.
- INFORM can help integrate disaster risk management into ongoing government, development, DRR, humanitarian, and preparedness planning processes.
- Validated to global standards, INFORM can support inter-agency processes: Common Country Assessment, UN Development Assistance Framework, Sendai Framework for DRR, etc.

Updated by CESDRR in collaboration with UNDRR & with financial support from USAID BHA in September 2021. Model **developed by** OCHA & EC's Joint Research Center for the RIASC Task Force for the C&CA in April 2017
More info: https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Subnational-Risk/Central-Asia-Caucasus **Subnational data sources:** Agency on Statistics under President of the Republic of Tajikistan, Bureau of National Statistics of the Republic of Kazakhstan, National Statistical Committee of the Kyrgyz Republic, National Statistical Service of the Republic of Armenia, National Statistics Office of Georgia, State Committee of the Republic of Uzbekistan on Statistics, State Committee on Statistics of Turkmenistan, State Statistical Committee of the Republic of Azerbaijan, EC-JRC, EM-DAT, ETH Zürich, FAO, GADM, GEM, HIIK, IFRC, National Red Cross/Crescent Societies, OPHI, OSM, UNDP, UNHCR, UNICEF, UNEP, UNDRR, USGS, WHO. **Sources for data at national level:** Central Bank of Russian Federation, Inter-Parliamentary Union, National Central Banks, National Ministries of Health, National Agencies on Emergency Management (Sendai Monitor Platform), OCHA, OECD, Transparency International, UNECE, UNIDO, World Bank, XE.

Caucasus

200 km

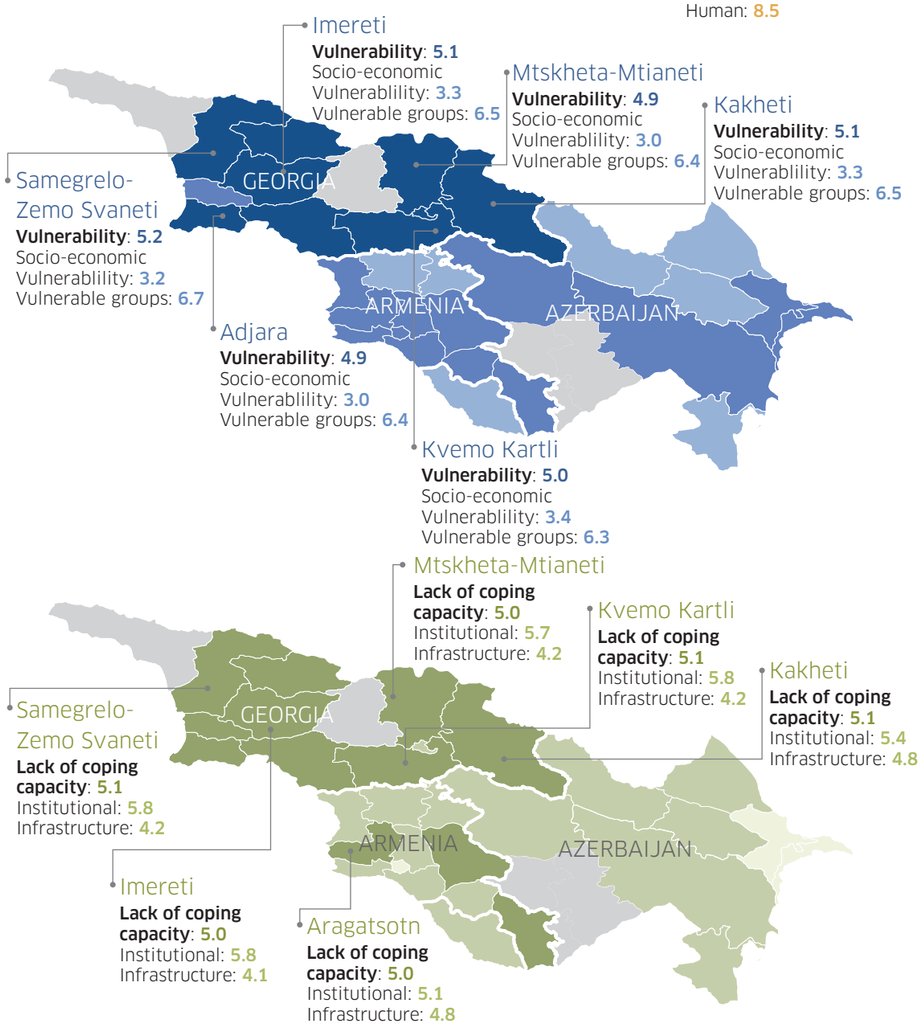


HAZARD AND EXPOSURE

This dimension of INFORM measures hazardous events that could occur and the people or assets potentially affected by them. It is made up of two categories – natural hazards and human hazards. These maps show details for the six subnational units in each sub-region with the highest values in the hazard & exposure dimension.

LEGEND

0	3.7	5.0	5.9	7.3	10.0	
Very low	Low	Medium	High	Very high		Only partial/incomplete data and/or unknown geographic boundary



VULNERABILITY

This dimension of INFORM measures the susceptibility of people to potential hazards. It is made up of two categories – socio-economic vulnerability and vulnerable groups. These maps show details for the six subnational units in each sub-region with the highest values in the vulnerability dimension.

LEGEND

0	2.0	3.2	4.6	6.1	10.0	
Very low	Low	Medium	High	Very high		Only partial/incomplete data and/or unknown geographic boundary

LACK OF COPING CAPACITY

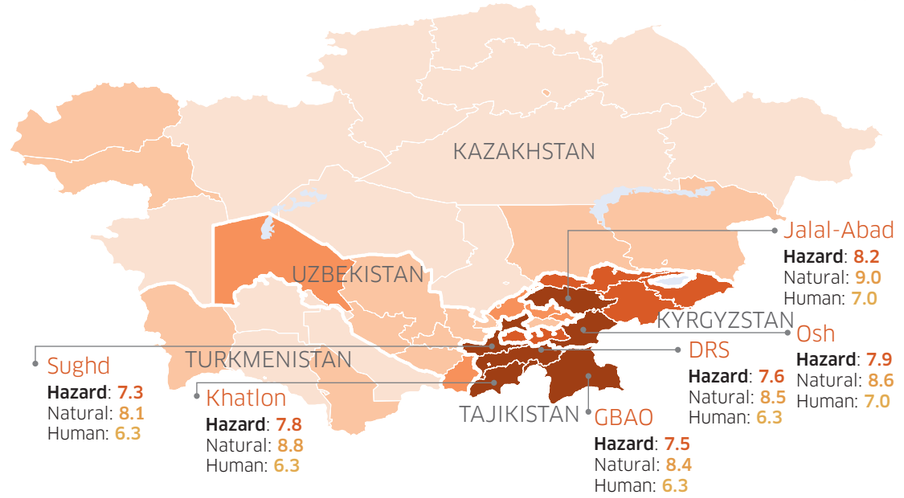
This dimension of INFORM measures the lack of resources available that can help people cope with hazardous events. It is made up of two categories – institutions and infrastructure. These maps show details for the six subnational units in each sub-region with the highest values in the lack of coping capacity dimension.

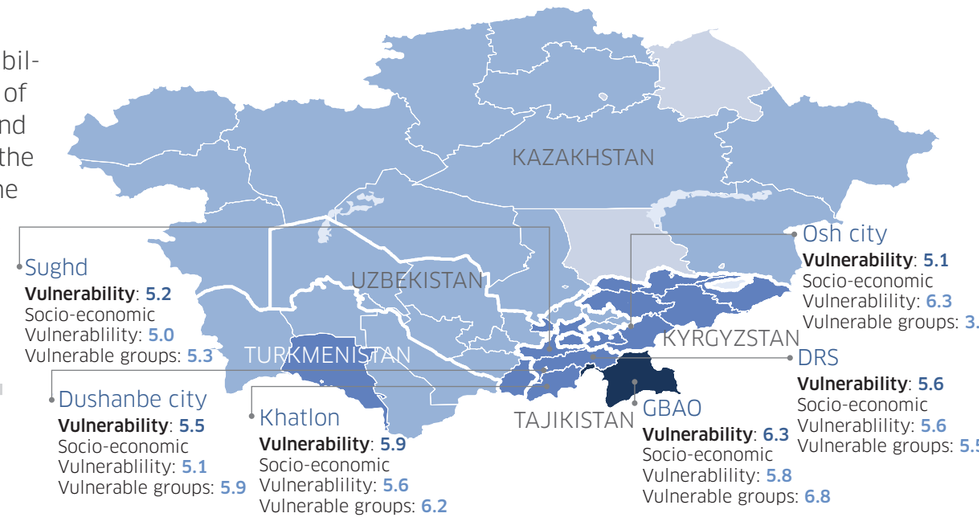
LEGEND

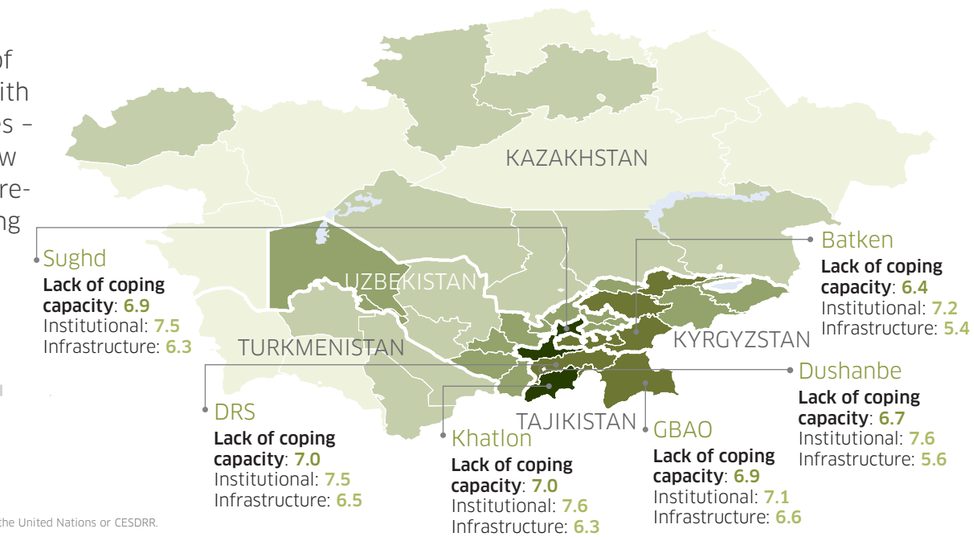
0	3.9	4.7	5.8	7.0	10.0	
Very low	Low	Medium	High	Very high		Only partial/incomplete data and/or unknown geographic boundary

Central Asia

200 km







INFORM
INDEX FOR RISK MANAGEMENT
SUBNATIONAL
Caucasus and Central Asia

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Detailed results

COUNTRY	FIRST ADMINISTRATIVE LEVEL	Rank (1-37)	Natural (0-10)	Human (0-10)	HAZARD & EXPOSURE (0-10)	Socio-Economic Vulnerability (0-10)	Vulnerable Groups (0-10)	VULNERABILITY (0-10)	Institutional (0-10)	Infrastructure (0-10)	LACK OF COPING CAPACITY (0-10)	INFORM RISK (0-10)	RISK CLASS (V.Low-V.High)	Lack of reliability Index [1] (0-10)
Armenia	Aragatsotn	14	4.0	7.6	6.1	3.2	4.2	3.7	5.1	4.8	5.0	4.8	Medium	6.0
	Ararat	15	5.6	7.6	6.7	3.0	3.5	3.3	4.8	4.3	4.6	4.7	Medium	6.0
	Armavir	15	5.7	7.6	6.8	3.5	3.5	3.5	4.8	4.2	4.5	4.7	Medium	6.0
	Gegharkunik	16	5.0	7.6	6.5	3.5	2.9	3.2	4.8	4.6	4.7	4.6	Medium	6.0
	Kotayk	13	5.7	7.6	6.8	2.9	4.7	3.9	4.9	3.8	4.4	4.9	Medium	6.0
	Lori	18	5.3	7.6	6.6	3.3	2.9	3.1	4.5	4.0	4.3	4.4	Medium	6.0
	Shirak	12	5.0	7.6	6.5	3.1	5.6	4.5	4.5	4.0	4.3	5.0	Medium	6.0
	Syunik	8	7.1	7.6	7.4	3.1	5.7	4.5	4.5	4.9	4.7	5.4	High	6.0
	Tavush	18	5.7	7.6	6.8	3.0	2.9	3.0	3.9	4.5	4.2	4.4	Medium	6.0
	Vayots Dzor	12	6.4	7.6	7.0	3.5	4.7	4.1	3.9	4.9	4.4	5.0	Medium	6.2
	Yerevan (city)	16	3.8	9.0	7.2	2.5	4.7	3.7	3.9	3.5	3.7	4.6	Medium	6.0
Azerbaijan	Absheron	17	3.8	8.5	6.7	3.2	4.2	3.7	3.7	3.6	3.7	4.5	Medium	6.7
	Aran	9	6.6	10.0	8.9	3.4	5.1	4.3	3.7	4.2	4.0	5.3	High	6.7
	Baku (city)	22	3.7	9.1	7.3	2.6	4.2	3.4	2.2	2.5	2.4	3.9	Low	6.8
	Ganja-Gazakh	10	6.2	10.0	8.8	3.0	4.5	3.8	3.7	4.5	4.1	5.2	Medium	6.7
	Guba-Khachmaz	19	5.6	8.5	7.3	3.1	2.0	2.6	3.7	4.4	4.1	4.3	Low	6.7
	Lankaran	18	4.5	8.5	7.0	3.5	2.0	2.8	3.7	4.6	4.2	4.4	Medium	6.7
	Mountainous Shirvan	18	4.6	8.5	7.0	3.4	2.6	3.0	3.7	4.2	4.0	4.4	Medium	6.7
	Nakhchivan	22	3.9	8.5	6.8	2.1	2.0	2.1	3.9	4.0	4.0	3.9	Low	6.9
	Shaki-Zagatala	19	6.4	8.5	7.6	2.9	2.4	2.7	3.7	4.3	4.0	4.3	Low	6.7
	Upper Garabagh [2]	11	4.1	10.0	8.3	2.8	5.1	4.0	3.7	4.2	4.0	5.1	Medium	6.7
Georgia	Autonomous Republic of Adjara	10	6.4	5.0	5.7	3.0	6.4	4.9	5.9	3.6	4.9	5.2	Medium	3.0
	Guria	16	3.4	5.0	4.2	3.0	5.8	4.5	5.7	4.2	5.0	4.6	Medium	3.0
	Imereti	8	5.6	6.5	6.1	3.3	6.5	5.1	5.8	4.1	5.0	5.4	High	3.0
	Kakheti	11	5.3	5.0	5.2	3.3	6.5	5.1	5.4	4.8	5.1	5.1	Medium	3.0
	Kvemo Kartli	12	5.0	5.0	5.0	3.4	6.3	5.0	5.8	4.2	5.1	5.0	Medium	3.0
	Mtskheta-Mtianeti	7	7.2	6.5	6.9	3.0	6.4	4.9	5.7	4.2	5.0	5.5	High	3.0
	Racha-Lechkhumi and Kvemo Svaneti	9	6.9	6.5	6.7	2.8	6.1	4.7	5.1	4.3	4.7	5.3	High	3.0
	Samegrelo-Zemo Svaneti	6	6.9	6.5	6.7	3.2	6.7	5.2	5.8	4.2	5.1	5.6	High	3.0
	Samtskhe-Javakheti	11	6.3	5.0	5.7	2.9	6.3	4.8	5.4	4.3	4.9	5.1	Medium	3.0
	Shida Kartli [2]	6	5.8	6.5	6.2	3.4	6.5	5.1	6.2	4.8	5.5	5.6	High	3.0
	Tbilisi (city)	13	5.5	6.5	6.0	3.2	6.1	4.8	4.6	3.6	4.1	4.9	Medium	3.0
Kyrgyzstan	Batken	9	6.5	5.5	6.0	4.7	2.8	3.8	7.2	5.4	6.4	5.3	High	3.7
	Bishkek (city)	13	3.9	7.0	5.7	3.8	4.5	4.2	6.3	3.3	5.0	4.9	Medium	3.7
	Chui	9	6.2	5.5	5.9	4.2	4.0	4.1	7.3	4.5	6.1	5.3	High	3.7
	Issyk-Kul	10	6.9	7.0	7.0	4.4	2.7	3.6	6.6	4.6	5.7	5.2	Medium	3.7
	Jalal-Abad	6	9.0	7.0	8.2	4.7	2.4	3.6	7.0	5.1	6.1	5.6	High	3.7
	Naryn	11	6.2	5.5	5.9	4.3	3.4	3.9	6.8	4.4	5.7	5.1	Medium	3.7
	Osh	6	8.6	7.0	7.9	4.5	2.7	3.7	7.1	4.8	6.1	5.6	High	3.7
	Osh (city)	4	7.4	7.0	7.2	6.3	3.5	5.1	7.8	3.0	5.9	6.0	High	4.3
	Talas	13	5.3	7.0	6.2	4.6	2.1	3.5	6.5	4.3	5.5	4.9	Medium	3.7
Kazakhstan	Akmola	33	2.7	0.2	1.5	3.6	1.1	2.4	4.2	3.8	4.0	2.4	Very Low	4.7
	Aktobe	34	2.4	1.0	1.7	2.5	1.4	2.0	3.7	3.6	3.7	2.3	Very Low	4.7
	Almaty	25	6.0	1.0	3.9	3.2	2.2	2.7	4.4	3.8	4.1	3.5	Low	4.7
	Almaty (city)	30	5.5	3.6	4.6	1.8	1.2	1.5	3.8	2.7	3.3	2.8	Very Low	5.0
	Atyrau	25	7.1	1.0	4.7	2.5	2.3	2.4	3.5	3.9	3.7	3.5	Low	4.7
	East Kazakhstan	30	3.7	0.2	2.1	2.6	2.5	2.6	4.1	3.9	4.0	2.8	Very Low	4.7
	Karaganda	37	1.7	0.2	1.0	2.7	1.3	2.0	3.1	4.3	3.7	1.9	Very Low	4.7
	Kostanai	34	2.4	0.2	1.4	3.2	1.1	2.2	4.1	3.9	4.0	2.3	Very Low	4.7
	Kyzylorda	30	3.6	0.2	2.1	3.3	1.8	2.6	4.4	3.7	4.1	2.8	Very Low	4.7
	Mangistau	35	2.4	0.2	1.4	2.5	1.8	2.2	3.3	3.6	3.5	2.2	Very Low	4.7
	North Kazakhstan	35	2.1	0.2	1.2	3.6	1.3	2.5	4.0	3.4	3.7	2.2	Very Low	4.7
	Nur-Sultan (city)	32	3.8	3.6	3.7	1.1	1.4	1.3	3.7	2.4	3.1	2.5	Very Low	5.0
	Pavlodar	36	3.2	0.2	1.8	1.9	1.2	1.6	3.2	3.4	3.3	2.1	Very Low	4.7
	Shymkent (city)	34	3.2	0.2	1.8	2.4	1.1	1.8	4.5	2.6	3.6	2.3	Very Low	6.1
	Turkestan	26	6.0	0.2	3.6	3.4	1.6	2.5	5.1	3.5	4.3	3.4	Very Low	4.7
	West Kazakhstan	29	6.4	0.2	3.9	2.3	1.6	2.0	3.5	3.7	3.6	3.0	Very Low	4.7
	Zhambyl	28	5.9	1.0	3.9	2.4	1.2	1.8	4.5	3.7	4.1	3.1	Very Low	4.7
Tajikistan	Districts of Republican Subordination	2	8.5	6.3	7.6	5.6	5.5	5.6	7.5	6.5	7.0	6.7	High	7.6
	Dushanbe (city)	5	5.0	6.3	5.7	5.1	5.9	5.5	7.6	5.6	6.7	5.9	High	7.7
	Mountain Badakhshon Autonomous Region (GBAO)	1	8.4	6.3	7.5	5.8	6.8	6.3	7.1	6.6	6.9	6.9	High	7.6
	Khatlon	1	8.8	6.3	7.8	5.6	6.2	5.9	7.6	6.3	7.0	6.9	High	7.6
	Sughd	3	8.1	6.3	7.3	5.0	5.3	5.2	7.5	6.3	6.9	6.4	High	7.6
Turkmenistan	Ahal	28	4.2	0.2	2.4	3.5	2.8	3.2	3.7	3.9	3.8	3.1	Very Low	9.3
	Ashgabat (city)	34	2.7	0.2	1.5	3.4	1.7	2.6	3.7	2.8	3.3	2.3	Very Low	9.7
	Balkan	26	6.3	0.2	3.9	3.5	2.2	2.9	3.3	3.9	3.6	3.4	Very Low	9.3
	Daşoguz	31	3.0	0.2	1.7	3.6	1.9	2.8	4.1	3.9	4.0	2.7	Very Low	9.3
	Lebap	26	5.8	0.2	3.5	3.8	1.8	2.9	4.1	3.9	4.0	3.4	Very Low	9.3
	Mary	23	7.0	0.2	4.4	3.3	2.9	3.1	4.2	3.9	4.1	3.8	Low	9.3
Uzbekistan	Andizhan	21	6.6	4.4	5.6	3.3	2.0	2.7	4.0	4.4	4.2	4.0	Low	2.8
	Bukhara	24	4.7	4.4	4.6	2.7	2.0	2.4	3.9	5.3	4.6	3.7	Low	2.8
	Fergana	24	5.0	4.4	4.7	3.0	1.9	2.5	4.1	4.4	4.3	3.7	Low	2.8
	Jizzakh	23	5.0	4.4	4.7	2.8	2.0	2.4	4.4	5.5	5.0	3.8	Low	2.8
	Kashkadarya	20	5.1	4.4	4.8	3.5	2.0	2.8	5.3	5.3	5.3	4.1	Low	2.8
	Khorezm	26	2.0	4.4	3.3	2.8	2.0	2.4	5.2	4.9	5.1	3.4	Very Low	2.8
	Namangan	21	6.6	4.4	5.6	3.1	2.1	2.6	4.1	4.4	4.3	4.0	Low	2.8
	Navoi	25	4.4	4.4	4.4	2.8	2.0	2.4	3.2	5.0	4.2	3.5	Low	2.8
	Republic of Karakalpakstan	20	5.7	4.4	5.1	3.1	2.4	2.8	4.4	5.6	5.0	4.1	Low	2.8
	Samarkand	23	5.2	4.4	4.8	2.9	2.1	2.5	4.1	5.2	4.7	3.8	Low	2.8
	Surkhandarya	18	6.8	4.4	5.7	3.5	2.9	3.2	4.1	5.5	4.8	4.4	Medium	2.8
	Syrdarya	19	4.9	4.4	4.7	2.6	5.2	4.0	4.1	4.4	4.3	4.3	Low	2.8
	Tashkent	22	6.0	4.4	5.3	2.4	2.1	2.3	5.2	4.8	5.0	3.9	Low	2.8
	Tashkent (city)	27	4.0	4.4	4.2	2.5	2.1	2.3	4.7	2.4	3.6	3.3	Very Low	2.8

[1] First administrative areas with a lower Reliability Index have risk scores that are based on more reliable data.

[2] There were no accurate geographic boundaries available to visualize results of these areas on maps.

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