# SOUTH CAUCASUS: Subnational INFORM risk 2022

## RISK MAP



Racha-Lechkhumi-Kvemo Svaneti

GEORGIA

Imereti

ARMENIA

AZERBAIJAN

Shirvan-Salyan

Karabakh

Central Aran

Mil-Mughan

**200 km**

### LEGEND

| 0 | 4.2 | 4.8 | 5.2 | 5.5 | 10.0 |
|---|---|---|---|---|---|
| Very low | Low | Medium | High | Very high | |

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
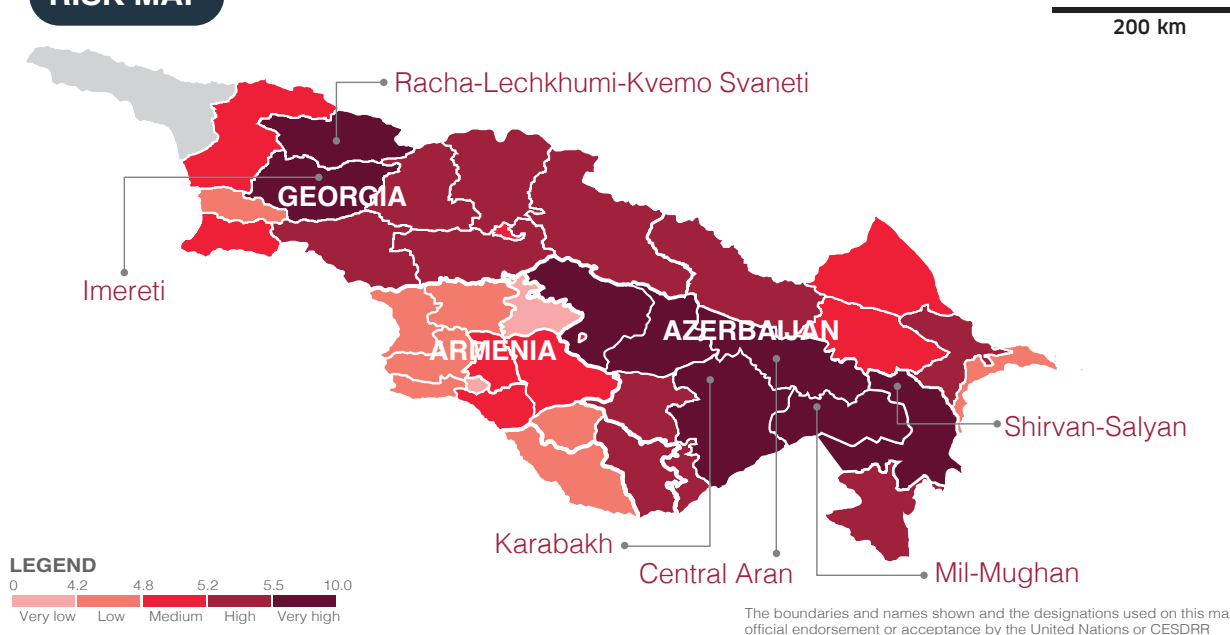
## RISK DISTRIBUTION

The graph below illustrates how risk levels are spread within a country and allows comparison across the region. In 2022, six regions in Azerbaijan and a two in Georgia are prone to high risk comparing to the rest of administrative unit in the South Caucasus region.

| | Very Low | Low | Medium | High | Very high |
|---|---|---|---|---|---|
| Armenia | • • | • • • • • | • • • | • | |
| Azerbaijan | | • | • • | • • • • | • • • • • • |
| Georgia | | • | • • • | • • • • | • • |
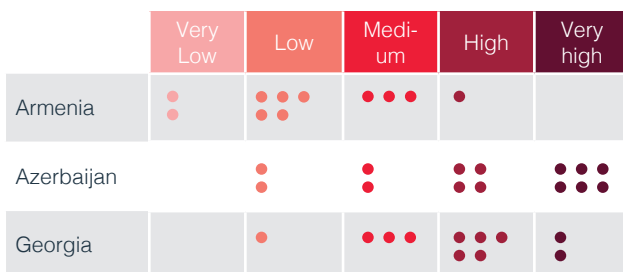
## DATA RELIABILITY

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 are reliable, with low variability of reliability across units, except for one region in Azerbaijan with somewhat lower reliability due to the low ratio of data availability at subnational level compared to other regions. 60% of indicators are at subnational level, while the rest of indicators are at national level.

## HOW TO USE THIS 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, monitoring of the Sendai Framework for DRR, etc.

## 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.
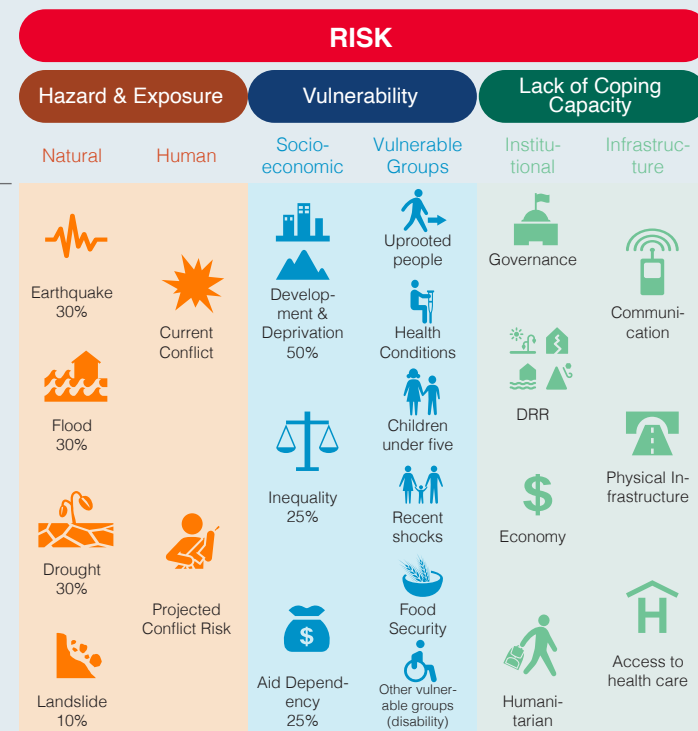
### Data on 36 first admin levels
The first administrative level is the largest subdivision of a country. There are 36 such subdivisions in the three countries of South Caucasus (SC), and commonly include regions, autonomous republics, marzes and cities.
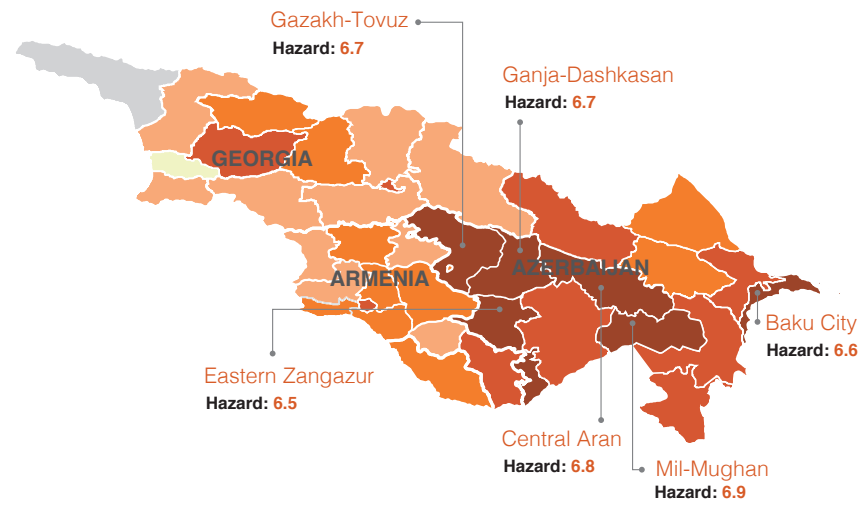
### 64 indicators
The model builds up a picture of risk by bringing together 64 different indicators that measure three dimensions of risk:

hazard and exposure, vulnerability, and lack of coping capacity. Each dimension is composed of a number of risk categories, e.g. natural hazards, vulnerable groups, or infrastructure capacity. Categories comprise numerous components. While the dimensions and categories are constant across all INFORM models, the components are carefully chosen sets of indicators that capture a specific topic that is relevant and specific to the region, e.g. landslides, number of children under five, or physical infrastructure. Indicators are the individual datasets that make up INFORM risk index, e.g. the physical exposure to earthquakes of a certain magnitude, child mortality rate, or road density. Below, the structure of INFORM for South Caucasus is presented.



| RISK | | | | | |
|---|---|---|---|---|---|
| **Hazard & Exposure** | | **Vulnerability** | | **Lack of Coping Capacity** | |
| Natural | Human | Socio-economic | Vulnerable Groups | Institutional | Infrastructure |
| Earthquake 30% | Current Conflict | Development & Deprivation 50% | Uprooted people | Governance | Communication |
| Flood 30% | Projected Conflict Risk | Inequality 25% | Health Conditions | DRR | Physical Infrastructure |
| Drought 30% | | Aid Dependency 25% | Children under five | Economy | Access to health care |
| Landslide 10% | | | Recent shocks | Humanitarian | |
| | | | Food Security | | |
| | | | Other vulnerable groups (disability) | | |

Dimensions / Categories / Components

# SOUTH CAUCASUS

| | | Natural | Hu-man |
|---|---|---|---|
| AZE | Mil-Mughan | 5.8 | 7.7 |
| AZE | Central Aran | 5.6 | 7.7 |
| AZE | Ganja Dashkasan | 5.5 | 7.7 |
| AZE | Gazakh-Tovuz | 5.4 | 7.7 |
| AZE | Baku City | 4.8 | 7.9 |
| AZE | Eastern Zangazur | 4.8 | 7.7 |

| | | Socio-economic vulnerability | Vulner-able groups |
|---|---|---|---|
| GEO | AR Adjara | 5.7 | 7.8 |
| GEO | Kakheti | 6.6 | 6.9 |
| GEO | Samthske-Javakheti | 6.1 | 6.4 |
| GEO | Samegrelo-Zemo Svaneti | 6.1 | 6.5 |
| ARM | Aragatsotn | 5.6 | 6.6 |
| GEO | Racha-Lechkhumi-Kvemo-Svaneti | 4.1 | 7.4 |

| | | Institu-tional | Infra-struc-ture |
|---|---|---|---|
| GEO | Kakheti | 7.0 | 6.2 |
| GEO | Guria | 7.3 | 5.0 |
| GEO | Samthske-Javakheti | 6.7 | 5.7 |
| GEO | Racha-Lechkhumi-Kvemo-Svaneti | 5.8 | 6.5 |
| GEO | Shida Kartli | 7.2 | 4.9 |
| GEO | Mtskheta-Mtianti | 6.5 | 5.7 |
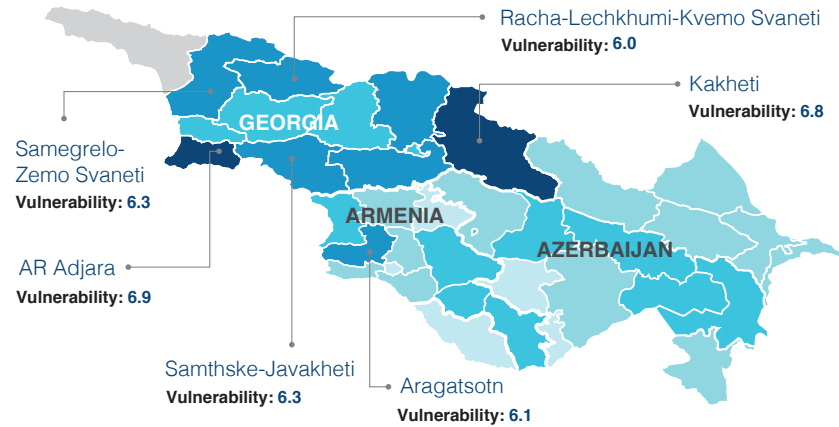


Gazakh-Tovuz
**Hazard: 6.7**

Ganja-Dashkasan
**Hazard: 6.7**

GEORGIA

ARMENIA  AZERBAIJAN

Baku City
**Hazard: 6.6**

Eastern Zangazur
**Hazard: 6.5**

Central Aran
**Hazard: 6.8**

Mil-Mughan
**Hazard: 6.9**



Racha-Lechkhumi-Kvemo Svaneti
**Vulnerability: 6.0**

GEORGIA

Kakheti
**Vulnerability: 6.8**

Samegrelo-Zemo Svaneti
**Vulnerability: 6.3**

ARMENIA

AZERBAIJAN

AR Adjara
**Vulnerability: 6.9**

Samthske-Javakheti
**Vulnerability: 6.3**

Aragatsotn
**Vulnerability: 6.1**



Racha-Lechkhumi-Kvemo Svaneti
**Lack of coping capacity: 6.2**

Shida Kartli
**Lack of coping capacity: 6.2**

Mtskheta-Mtianeti
**Lack of coping capacity: 6.1**

GEORGIA

Kakheti
**Lack of coping capacity: 6.6**

Guria
**Lack of coping capacity: 6.3**

ARMENIA  AZERBAIJAN

Samthske-Javakheti
**Lack of coping capacity: 6.2**

**200 km**

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## INFORMRISK
SUBNATIONAL
**SOUTH CAUCASUS**

## 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 | 2.3 | 4.3 | 5.3 | 6.2 | 10.0 |
|---|---|---|---|---|---|
| Very low | Low | Medium | High | Very high | |

## 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 | 4.1 | 5.2 | 5.8 | 6.3 | 10.0 |
|---|---|---|---|---|---|
| Very low | Low | Medium | High | Very high | |

## 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 | 3.6 | 4.5 | 5.1 | 5.9 | 10.0 |
|---|---|---|---|---|---|
| Very low | Low | Medium | High | Very high | |

ARM - Armenia        AZE Azerbaijan        GEO - Georgia

# DETAILED RESULTS

**INFORMRISK**
**SUBNATIONAL**
**SOUTH CAUCASUS**

| COUNTRY (a-z) | FIRST ADMINISTRATIVE LEVEL (a-z) | 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) | Rank (1-83) | Reliability Index (*) (0-10) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Armenia | Aragatsotn | 2.2 | 4.8 | 3.6 | 5.6 | 6.6 | 6.1 | 5.7 | 4.2 | 5.0 | 4.8 | Low | 27 | 4.2 |
| | Ararat | 5.1 | 4.8 | 5.0 | 5.5 | 4.2 | 4.9 | 5.7 | 4.2 | 5.0 | 5.0 | Medium | 25 | 4.2 |
| | Armavir | 4.5 | 4.8 | 4.7 | 5.1 | 3.9 | 4.5 | 5.7 | 3.7 | 4.8 | 4.7 | Low | 29 | 4.2 |
| | Gegharkunik | 4.8 | 4.8 | 4.8 | 5.8 | 4.8 | 5.3 | 5.2 | 4.9 | 5.1 | 5.1 | Medium | 21 | 4.2 |
| | Kotayk | 4.8 | 4.8 | 4.8 | 5.8 | 3.9 | 4.9 | 5.3 | 4.9 | 5.1 | 4.9 | Medium | 26 | 4.2 |
| | Lori | 4.8 | 4.8 | 4.8 | 4.5 | 5.5 | 5.0 | 5.1 | 3.4 | 4.3 | 4.7 | Low | 29 | 4.2 |
| | Shirak | 3.2 | 4.8 | 4.0 | 5.1 | 5.5 | 5.3 | 5.3 | 3.7 | 4.5 | 4.6 | Low | 31 | 4.2 |
| | Syunik | 6.8 | 4.8 | 5.9 | 5.0 | 6.4 | 5.7 | 5.1 | 4.4 | 4.8 | 5.4 | High | 10 | 4.2 |
| | Tavush | 3.3 | 4.8 | 4.1 | 5.2 | 2.7 | 4.1 | 4.5 | 4.3 | 4.4 | 4.2 | Very Low | 35 | 4.2 |
| | Vayots Dzor | 3.0 | 4.8 | 4.0 | 3.8 | 7.0 | 5.6 | 4.4 | 4.3 | 4.4 | 4.6 | Low | 31 | 5.3 |
| | Yerevan (city) | 4.8 | 6.5 | 5.7 | 2.5 | 3.9 | 3.2 | 4.1 | 1.8 | 3.0 | 3.8 | Very Low | 36 | 4.2 |
| Azerbaijan | Absheron-Khizi | 4.2 | 6.8 | 5.7 | 4.9 | 5.0 | 5.0 | 6.3 | 3.5 | 5.1 | 5.3 | High | 15 | 4.8 |
| | Baku (city) | 4.8 | 7.9 | 6.6 | 4.6 | 5.0 | 4.8 | 5.3 | 1.3 | 3.6 | 4.8 | Low | 27 | 4.2 |
| | Central Aran | 5.6 | 7.7 | 6.8 | 5.6 | 5.9 | 5.8 | 5.9 | 4.8 | 5.4 | 6.0 | Very High | 2 | 4.8 |
| | Daghlig Shirvan | 2.8 | 6.8 | 5.1 | 6.0 | 3.5 | 4.9 | 5.1 | 5.8 | 5.5 | 5.2 | Medium | 19 | 5.5 |
| | Eastern Zangazur | 4.8 | 7.7 | 6.5 | 5.0 | 2.6 | 3.9 | 6.7 | 4.6 | 5.8 | 5.3 | High | 15 | 7.7 |
| | Ganja-Dashkasan | 5.5 | 7.7 | 6.7 | 6.1 | 4.8 | 5.5 | 5.6 | 3.6 | 4.7 | 5.6 | Very High | 7 | 5.1 |
| | Gazakh-Tovuz | 5.4 | 7.7 | 6.7 | 5.1 | 4.4 | 4.8 | 5.7 | 5.3 | 5.5 | 5.6 | Very High | 7 | 5.8 |
| | Guba-Khachmaz | 3.4 | 6.8 | 5.3 | 5.4 | 4.0 | 4.7 | 5.7 | 5.5 | 5.6 | 5.2 | Medium | 19 | 5.5 |
| | Karabakh | 4.0 | 7.7 | 6.2 | 5.3 | 5.0 | 5.2 | 5.9 | 5.3 | 5.6 | 5.7 | Very High | 3 | 5.1 |
| | Lankaran-Astara | 3.9 | 6.8 | 5.5 | 5.9 | 3.4 | 4.8 | 5.8 | 6.0 | 5.9 | 5.4 | High | 10 | 6.3 |
| | Mil-Mughan | 5.8 | 7.7 | 6.9 | 6.7 | 4.3 | 5.6 | 5.6 | 6.2 | 5.9 | 6.1 | Very High | 1 | 5.1 |
| | Nakhchivan | 2.2 | 6.8 | 4.9 | 4.8 | 3.1 | 4.0 | 6.2 | 3.8 | 5.1 | 4.6 | Low | 31 | 5.2 |
| | Shaki-Zagatala | 4.1 | 6.8 | 5.6 | 5.3 | 4.0 | 4.7 | 5.6 | 5.6 | 5.6 | 5.3 | High | 15 | 6.3 |
| | Shirvan-Salyan | 5.6 | 6.8 | 6.2 | 6.6 | 4.6 | 5.7 | 5.2 | 5.1 | 5.2 | 5.7 | Very High | 3 | 5.1 |
| Georgia | Autonomous Republic of Adjara | 3.9 | 3.1 | 3.5 | 5.7 | 7.8 | 6.9 | 6.7 | 3.9 | 5.5 | 5.1 | Medium | 21 | 1.5 |
| | Guria | 1.5 | 3.1 | 2.3 | 5.7 | 5.6 | 5.7 | 7.3 | 5.0 | 6.3 | 4.4 | Low | 34 | 2.3 |
| | Imereti | 6.7 | 4.3 | 5.6 | 5.1 | 6.4 | 5.8 | 7.1 | 3.6 | 5.6 | 5.7 | Very High | 3 | 2.0 |
| | Kakheti | 4.1 | 3.1 | 3.6 | 6.6 | 6.9 | 6.8 | 7.0 | 6.2 | 6.6 | 5.4 | High | 10 | 1.7 |
| | Kvemo Kartli | 5.4 | 3.1 | 4.3 | 6.0 | 5.8 | 5.9 | 7.0 | 4.9 | 6.1 | 5.4 | High | 10 | 1.7 |
| | Mtskheta-Mtianeti | 3.8 | 4.3 | 4.1 | 5.8 | 6.2 | 6.0 | 6.5 | 5.7 | 6.1 | 5.3 | High | 15 | 2.3 |
| | Racha-Lechkhumi and Kvemo Svaneti | 5.5 | 4.3 | 4.9 | 4.1 | 7.4 | 6.0 | 5.8 | 6.5 | 6.2 | 5.7 | Very High | 3 | 1.8 |
| | Samegrelo-Zemo Svaneti | 4.0 | 3.1 | 3.6 | 6.1 | 6.5 | 6.3 | 6.9 | 4.8 | 6.0 | 5.1 | Medium | 21 | 1.4 |
| | Samtskhe-Javakheti | 4.9 | 3.1 | 4.1 | 6.1 | 6.4 | 6.3 | 6.7 | 5.7 | 6.2 | 5.4 | High | 10 | 1.4 |
| | Shida Kartli | 4.8 | 4.3 | 4.6 | 5.1 | 6.2 | 5.7 | 7.2 | 4.9 | 6.2 | 5.5 | High | 9 | 1.4 |
| | Tbilisi (city) | 5.8 | 5.3 | 5.6 | 4.7 | 6.2 | 5.5 | 5.2 | 3.1 | 4.2 | 5.1 | Medium | 21 | 1.4 |

(*) Reliability Index: 0 more reliable, 10 less reliable.