

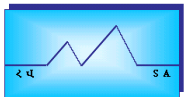
# Disaster Related Statistics in Armenia

*from data collection  
to publication of statistics*



**Naira Mandalyan**

Statistical Committee of RA,  
Division of Environmental statistics  
and Natural Resources,  
2023

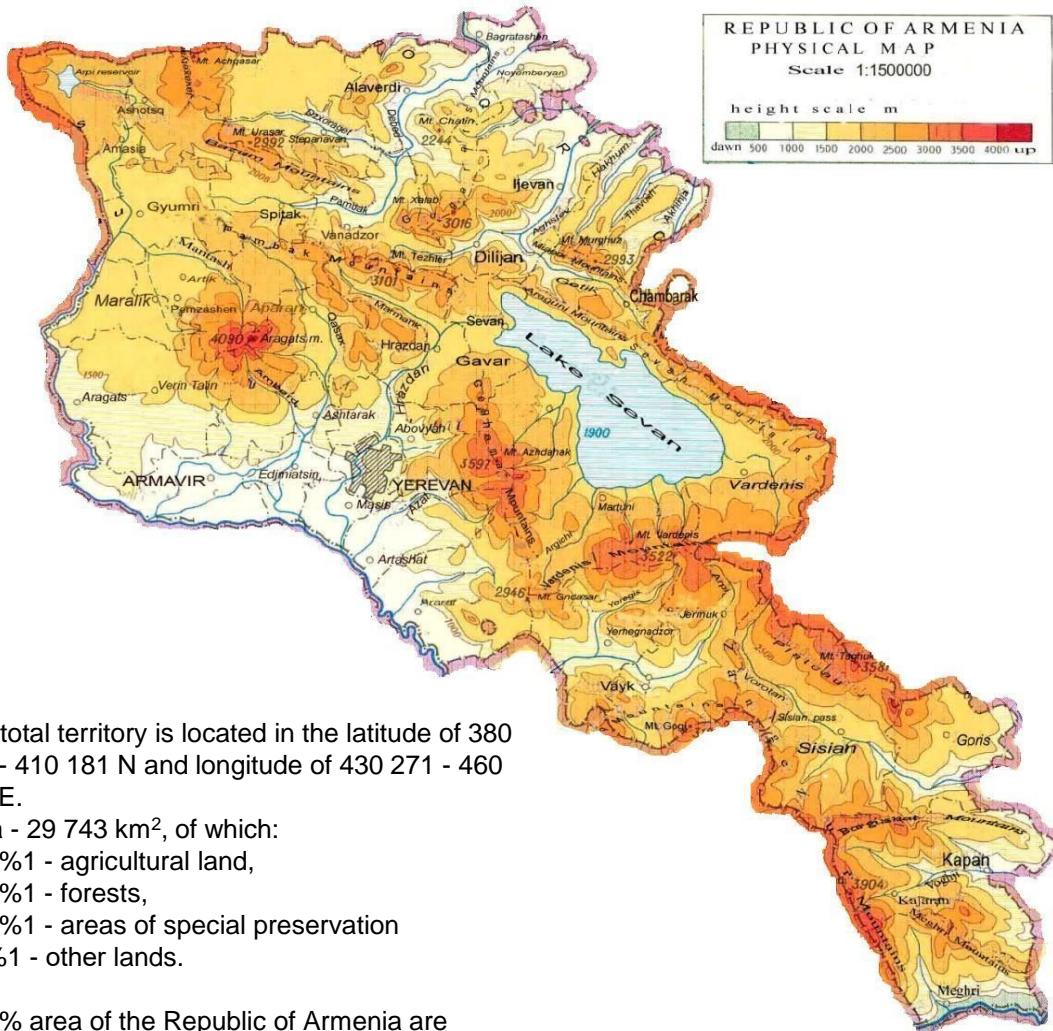




# REPUBLIC OF ARMENIA: GEOGRAPHY







The total territory is located in the latitude of 38° 50'1" - 41° 18'1" N and longitude of 43° 27'1" - 46° 37'1" E.  
 Area - 29 743 km<sup>2</sup>, of which:  
 68.7% - agricultural land,  
 11.2% - forests,  
 11.3% - areas of special preservation  
 8.8% - other lands.

36.4% area of the Republic of Armenia are mountains, plateaus and other lands.  
 The highest elevation of the country is the **Peak of Aragats Mountain (4 090 m)**, the earth lowest point – the underflow region of **Debed river canyon (375 m)**.  
 The longest extension from north-west to south-east is 360 km, and from west to east - 200 km.

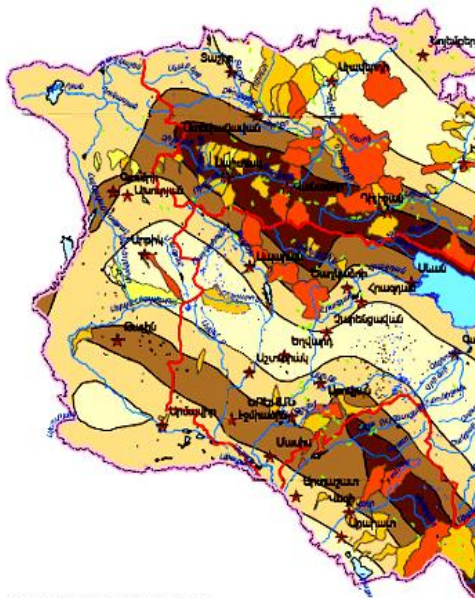
	2019	2020	2021
De jure population number (end of year), 1 000 persons	2 959.7	2 963.3	2 961.4
Gross domestic product, bln. drams	6 543.3	6 181.9	6 983.0
Volume of industrial production, bln. drams	2 091.5	2 101.1	2 419.4
Volume of agricultural output, bln. drams	853.3	833.3	934.4
Volume of construction, bln. drams	450.8	433.5	510.9
Goods turnover of general purpose transport, mln. tons-km	995.7	898.6	1 052.3
Passenger turnover of general purpose transport, mln. passenger-km	2 284.2	706.6	1 072.2
Trade turnover, bln. drams	3 280.5	2 918.8	3 464.8
Volume of services, bln. drams	1 993.4	1 721.7	1 914.9
Average annual number unemployed, 1 000 persons	240.8	234.4	199.0
Average monthly nominal wages and salaries, drams <sup>2</sup>	182 673	189 716	204 048
External trade turnover			
mln. US dollars	8 175.9 <sup>2</sup>	7 101.0 <sup>2</sup>	8 378.2
bln. drams	3 923.4 <sup>2</sup>	3 477.1 <sup>2</sup>	4 197.3
including:			
export			
mln. US dollars	2 647.2 <sup>2</sup>	2 537.0	3 016.0
bln. drams	1 270.5 <sup>2</sup>	1 242.1	1 514.3
import			
mln. US dollars	5 528.7 <sup>2</sup>	4 564.0 <sup>2</sup>	5 362.2
bln. drams	2 652.9 <sup>2</sup>	2 235.0 <sup>2</sup>	2 683.0

Armenia, Spitak – December, 1988  
Over 25,000 human lives





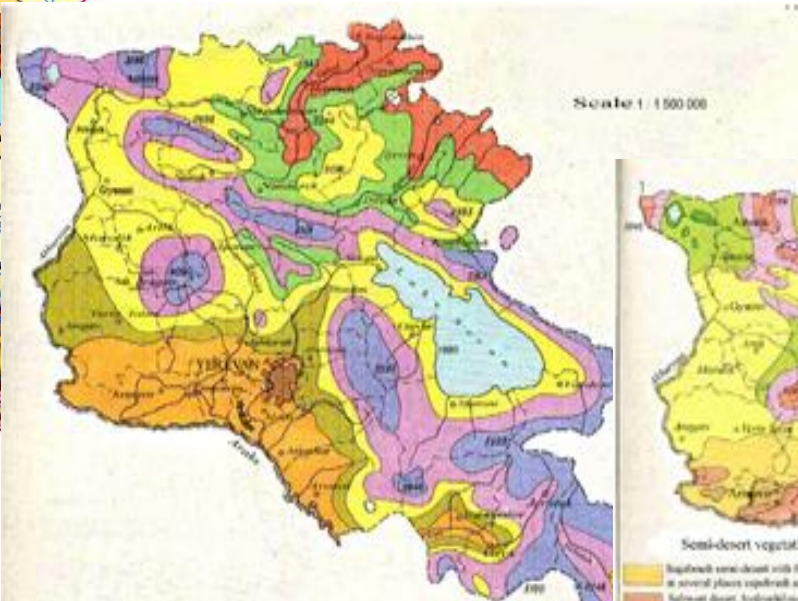
# SEISMIC ZONATION AND MUDFLOW RISK AREAS



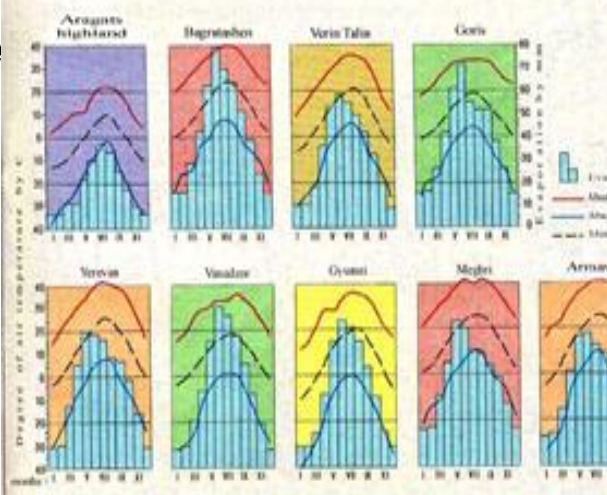
- Պայմանագնացանքներ / Legend**
- Սողաքաններ / Landslide
  - Սեյսմիկ ռիսկի գոտիներ**  
Seismic Risk Areas
  - Չնչին / Slight
  - Ցածր / Low
  - Միջին / Medium
  - Բարձր / High
  - Սելավների ռիսկի գոտիներ**  
Mudflow Risk Areas
  - Ցածր / Low
  - Միջին / Medium
  - Բարձր / High
  - Սալարահեղ / Extreme



## CLIMATE MAP



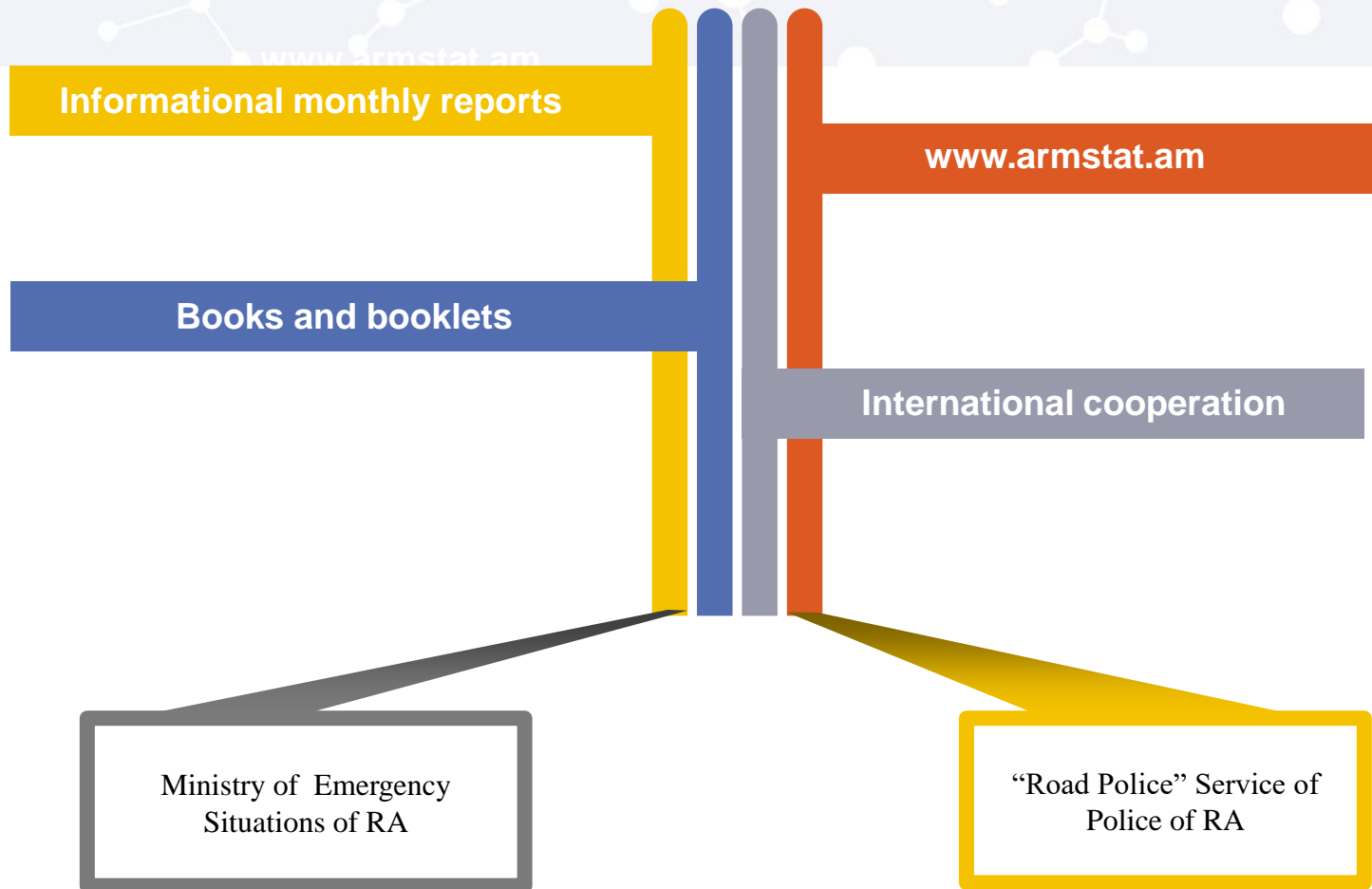
Annual course of air temperature and evaporation



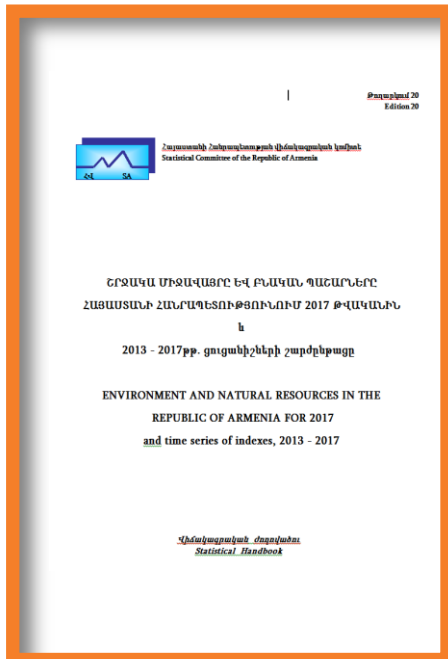
## BOTANICAL MAP



# DISASTER DATA: FROM COLLECTION TO PUBLICATION



# ARMSTAT PUBLICATIONS / DATABASES



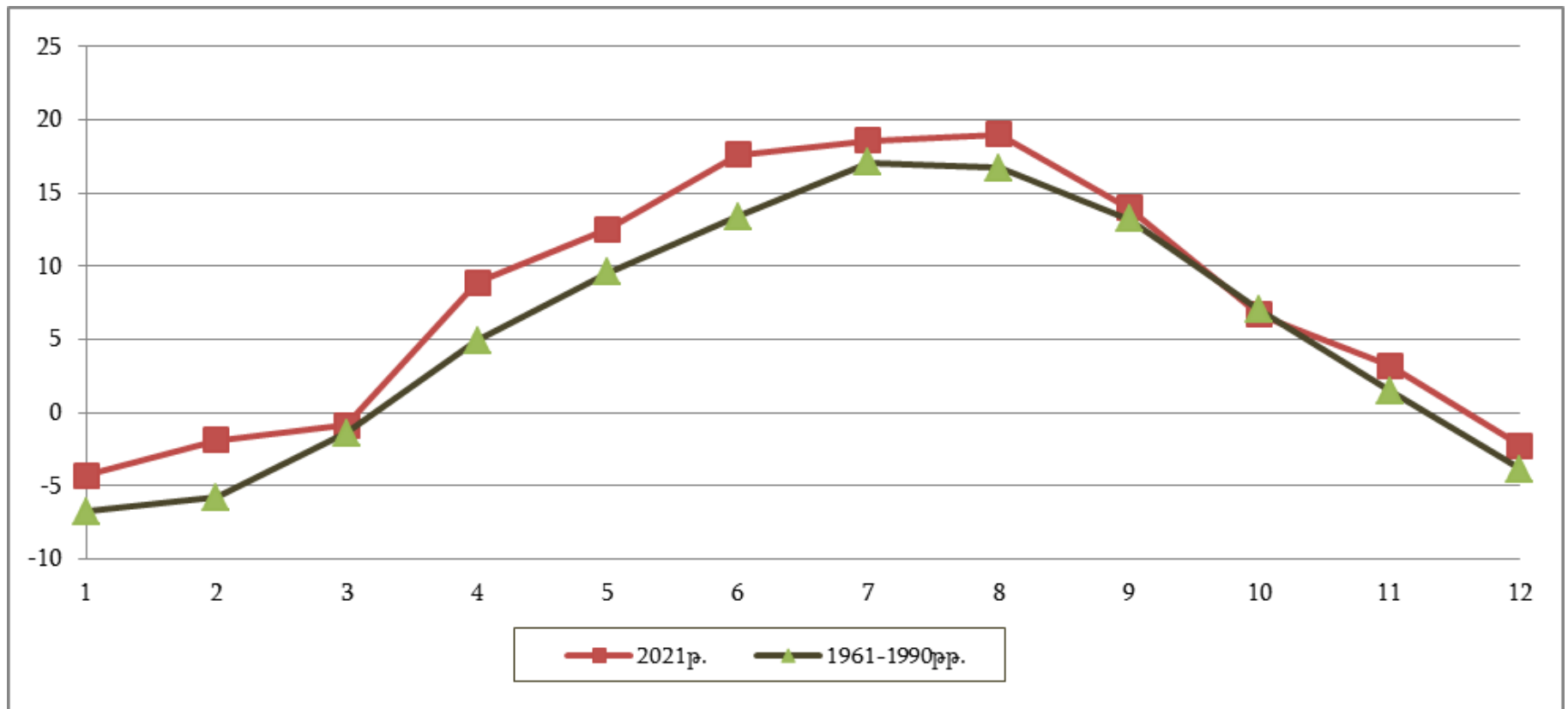
Environment and Natural Resources in the Republic of Armenia



SDG PLATFORM

# Environment and Natural Resources of RA: brief characteristics of hydro meteorological condition

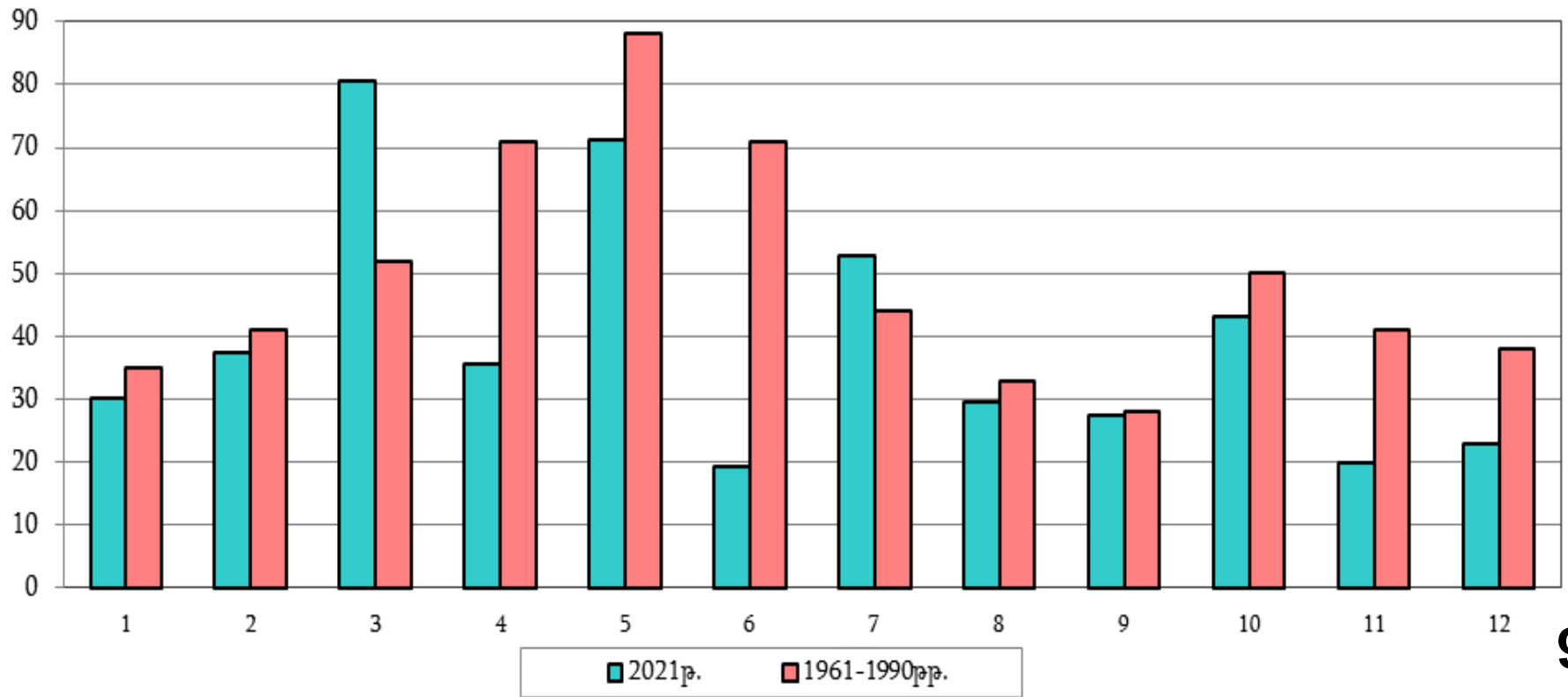
Monthly average air temperature and norms, 2021





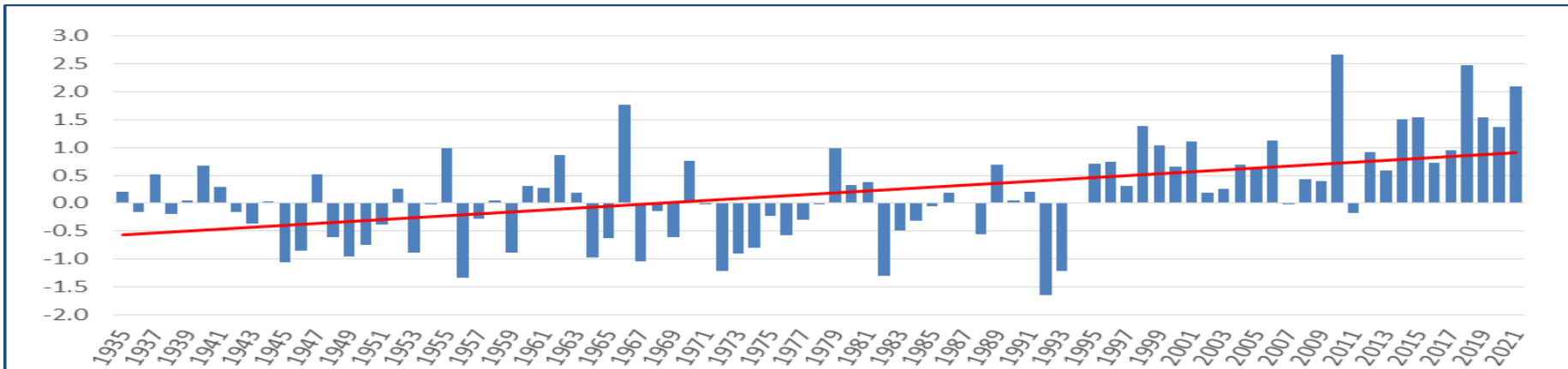
# Environment and Natural Resources of RA: brief characteristics of hydro meteorological condition

Monthly precipitations and norms, 2021

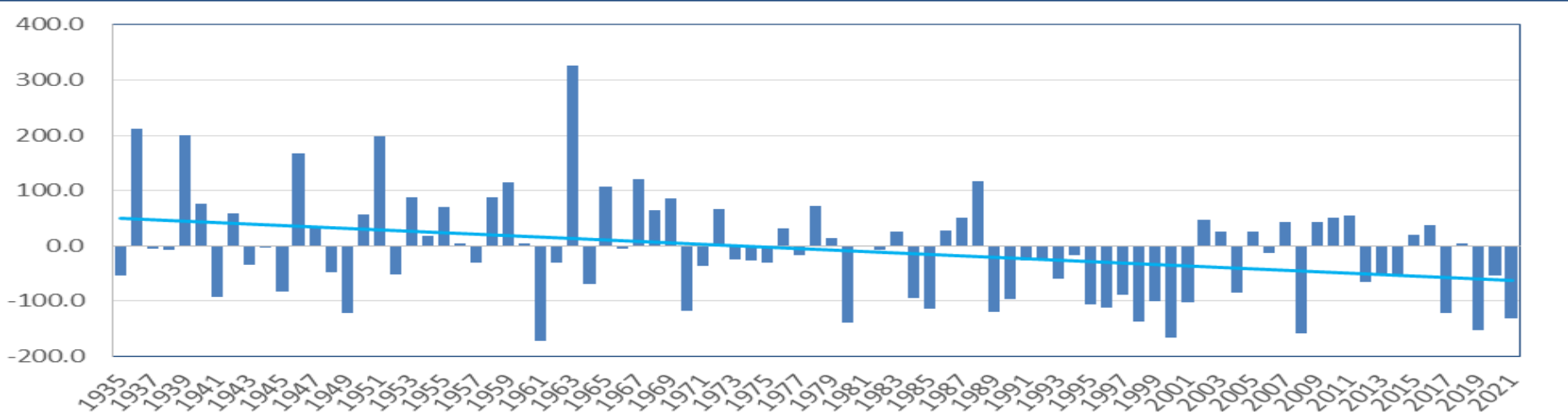


# Environment and Natural Resources of RA: brief characteristics of hydro meteorological condition

Annual average air temperature deviations from norm of 1961-1990, 1935-2021



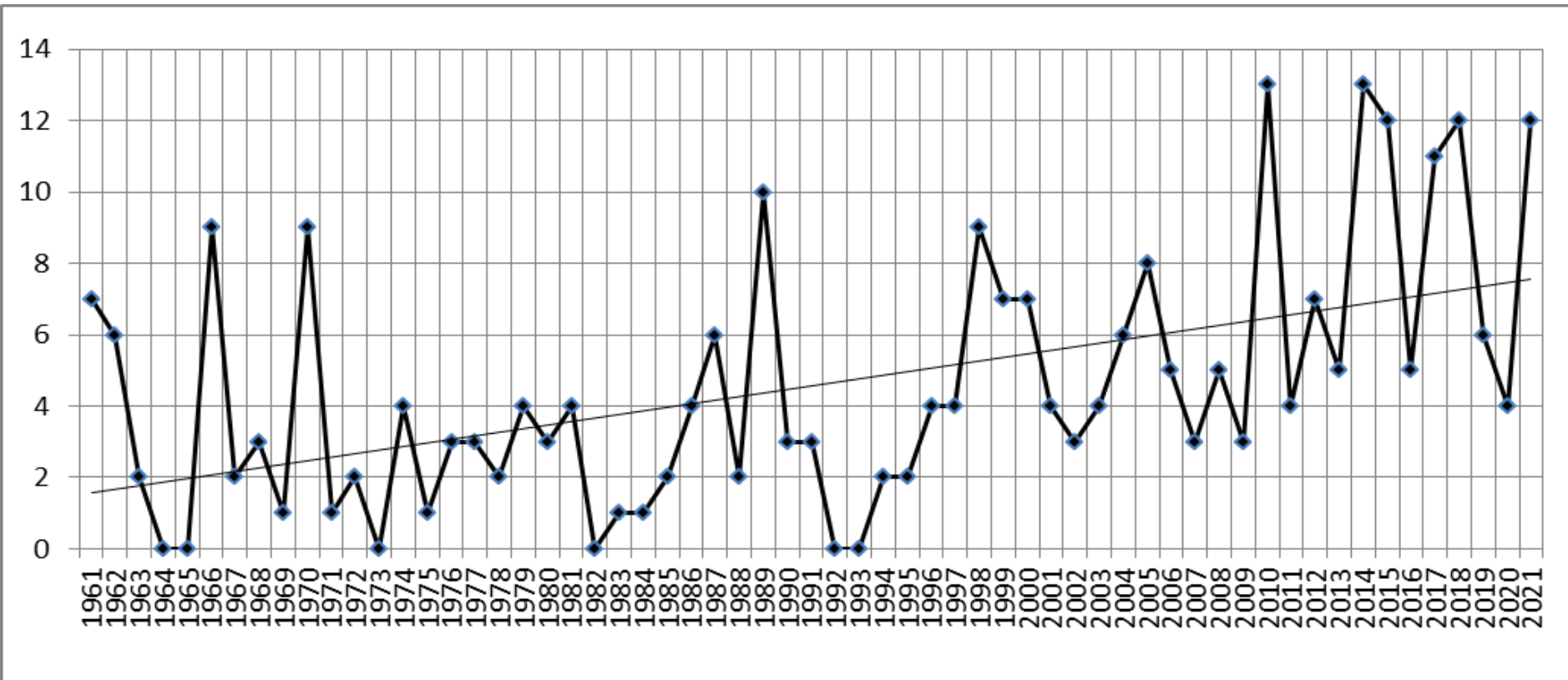
Annual average precipitation deviations from norm of 1961-1990, 1935-2021





# Environment and Natural Resources of RA: brief characteristics of hydro meteorological condition

The number of cases of heat waves in Yerevan city, 1961-2021



# EMERGENCY EVENTS CAUSED BY

- Natural hazards
- Anthropogenic hazards
  - Road-traffic accidents
- Social-biological emergency events

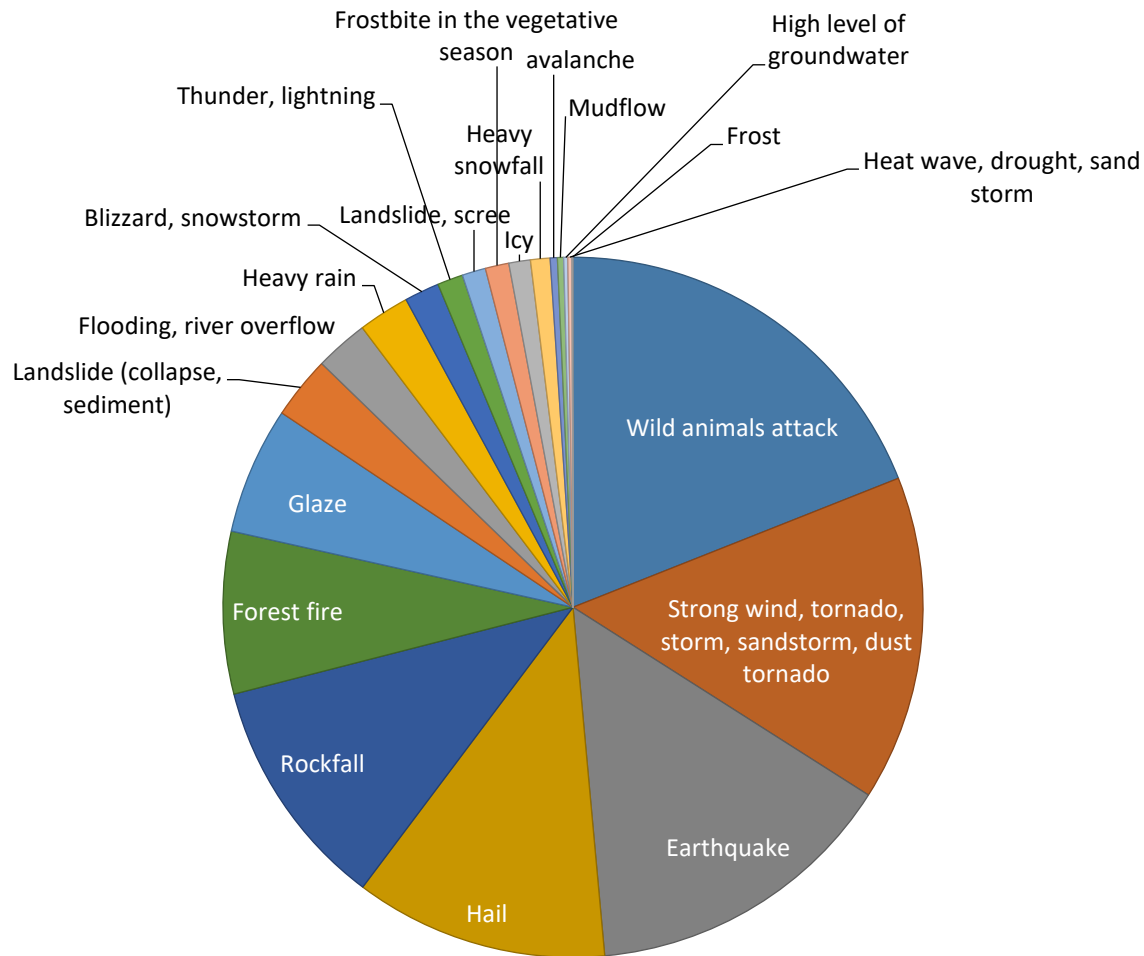
Number of casualties from registered emergency events, of which by gender:

- dead,
- injured,
- evacuated
- rescued



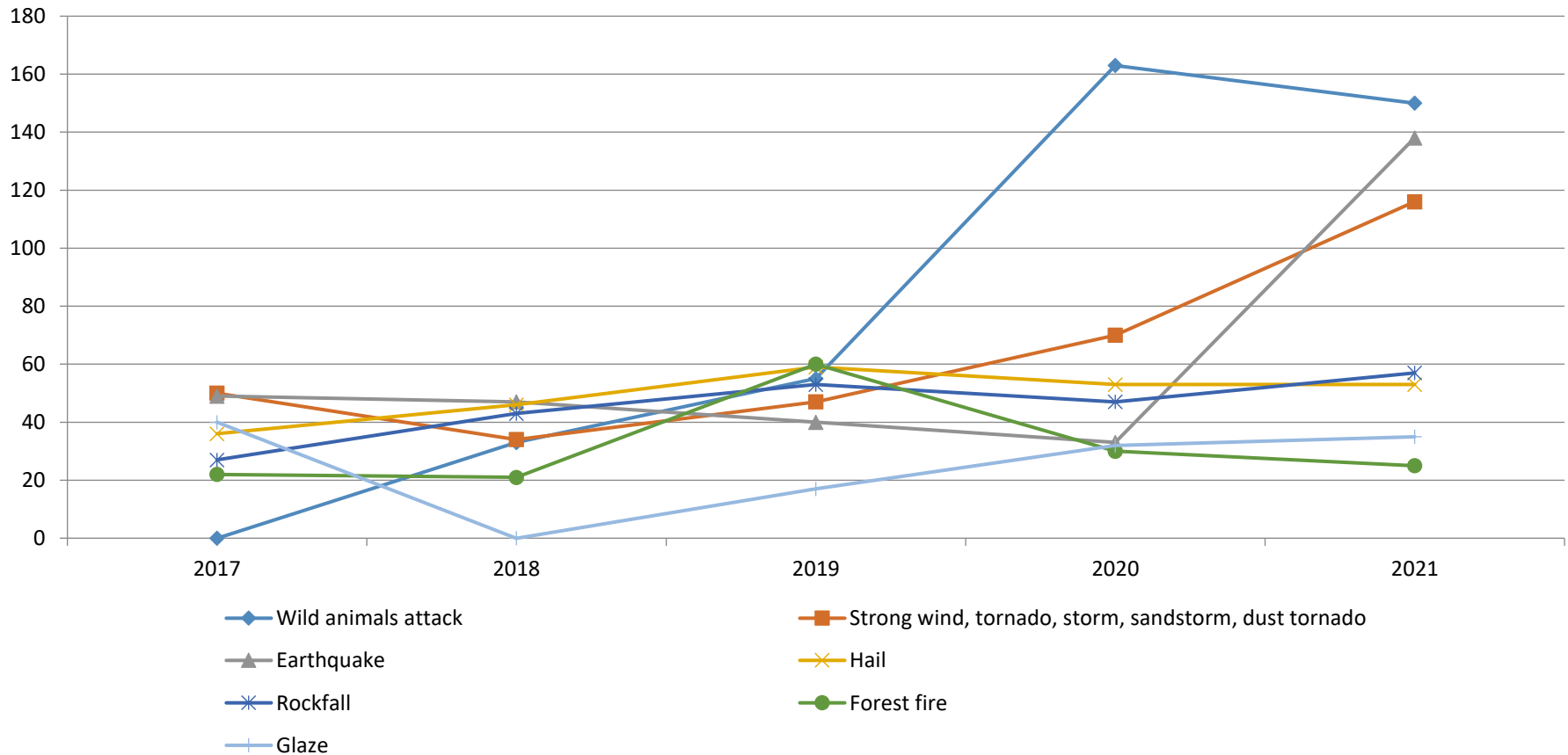
# EMERGENCY EVENTS CAUSED BY NATURAL HAZARDS

Registered number of emergencies by type, 2017-2021



# EMERGENCY EVENTS CAUSED BY NATURAL HAZARDS

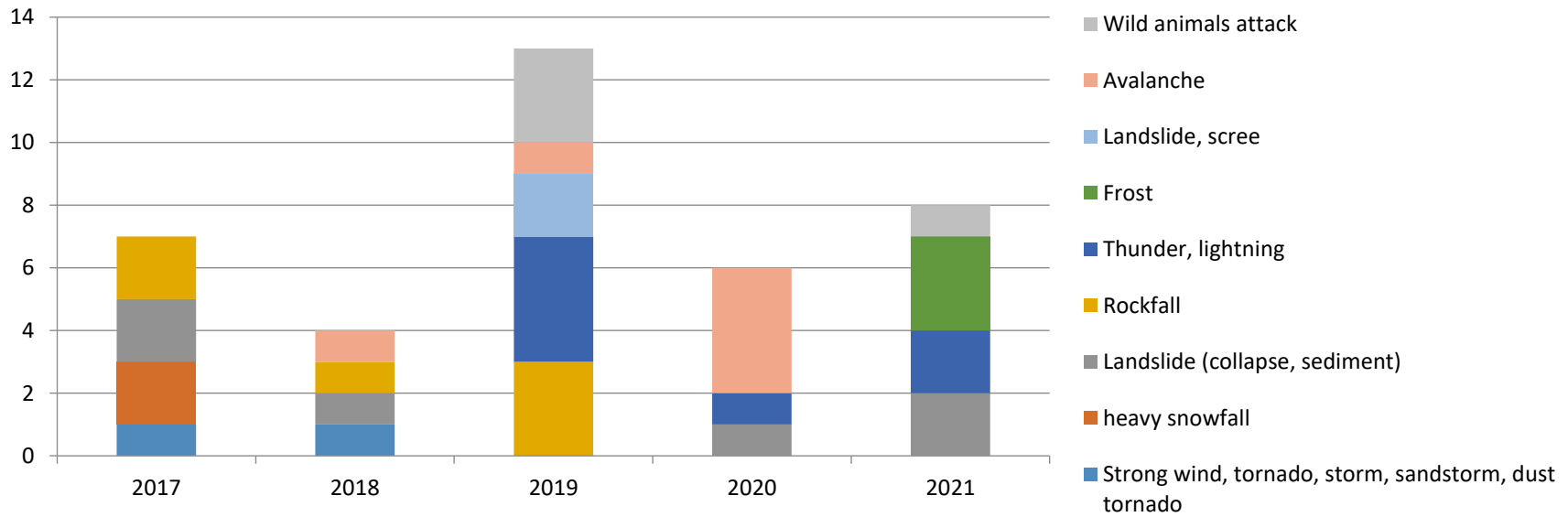
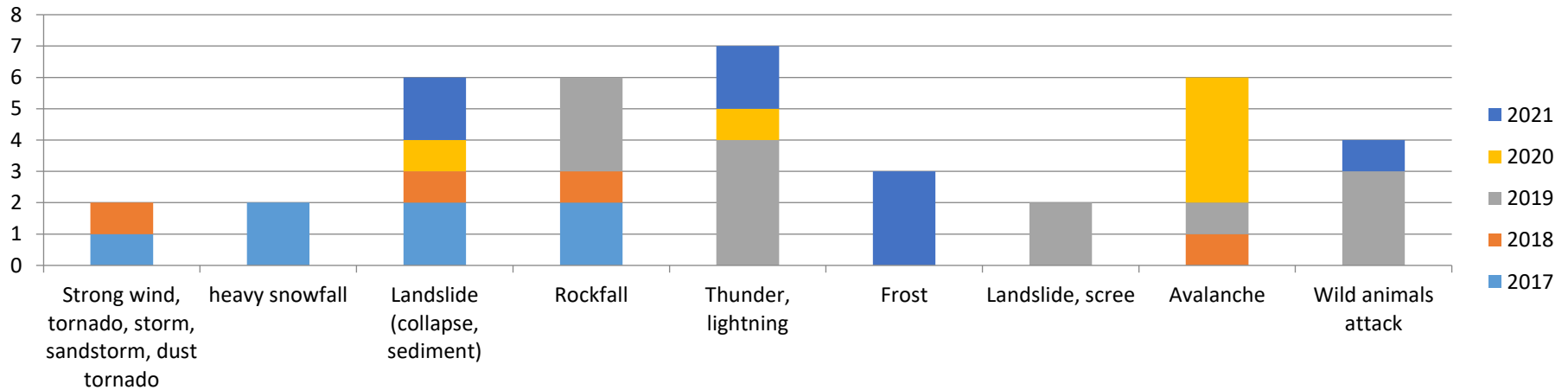
Registered number of emergencies by type, 2017-2021





# EMERGENCY EVENTS CAUSED BY NATURAL HAZARDS

Registered number of casualties from emergencies by type, 2017-2021



# DROUGHT CONDITIONS BY TEN DAYS, APRIL-SEPTEMBER 2021

Regions	Stations	April			May			June			July			August			September			
		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	
Valley	Bagratashen	5	5	5	5	5	3	2	1	1	1	1	1	1	1	1	1	1	1	2
	Meghri	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Kapan	4	2	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Ararat	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Artashat	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Yerevan-Agro	3	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Armavir	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Ijevan	5	5	4	5	5	4	4	3	1	1	1	1	1	1	1	1	1	1	2
Foothills	Dilijan	5	5	5	5	5	4	3	3	1	1	1	1	1	1	1	1	1	1	4
	Urtsadzor	3	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Yerevan-Aero	4	3	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Ashtarak	5	3	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Stepanavan	5	5	4	5	5	4	4	4	4	4	3	3	4	4	4	3	3	4	4
	Odzun	5	5	4	5	5	4	3	4	1	1	1	1	1	2	2	1	2	1	4
	Goris	5	4	3	5	5	5	1	1	1	1	1	1	2	2	2	1	1	1	3
	Eghvard	5	3	2	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Vanadzor	5	5	3	5	5	4	4	4	2	3	2	2	2	1	2	3	3	4	4
Mountain	Sisian	5	4	3	5	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1
	Martuni	5	4	2	5	4	4	2	1	1	1	2	2	2	2	2	2	2	1	1
	Masrik	4	3	2	5	5	4	1	1	1	1	1	2	1	2	1	1	1	1	1
	Talin	5	5	2	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Fantan	5	5	4	5	5	5	2	2	1	2	3	4	4	3	4	3	2	2	2
	Gavar	5	5	2	5	3	3	1	1	1	2	3	4	3	2	2	2	1	1	2
	Hrazdan	5	5	2	5	4	5	2	2	1	1	2	2	3	1	1	2	2	2	2
	Shorzha	4	3	2	3	2	2	1	1	1	1	2	3	2	2	1	1	1	1	2
	Aparan	5	5	3	5	3	3	2	2	1	1	1	2	3	1	1	1	1	1	1
	Sevan	5	5	3	5	5	5	3	4	1	1	3	3	4	3	2	1	1	1	2
	Chambarak	5	5	5	5	5	5	4	3	2	3	4	5	4	3	2	2	4	5	5
	Gyumri	3	3	2	5	3	4	3	3	1	1	1	1	1	1	1	1	1	1	1
	Amasia	5	5	5	5	5	4	4	4	1	1	1	4	5	5	4	4	4	4	4
	Tashir	5	5	5	5	5	5	4	4	3	3	3	4	3	3	3	3	3	3	4
	Alpine	Tsaghkahovit	5	5	4	5	3	5	3	3	2	2	3	5	5	4	3	2	2	5
Semyonovka		5	4	4	5	2	2	3	3	2	2	3	5	5	4	2	2	1	5	5
Ashotsq		5	5	5	5	5	5	5	5	2	5	4	4	2	3	5	5	4	5	5
Anonymous mountain pass		5	5	3	5	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Jermuk		5	5	5	5	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Amberd		5	5	4	5	3	3	1	1	1	1	1	2	2	1	1	1	1	1	1

1 – very strong,  
2 – strong,  
3 – medium,  
4 – weak,  
5 – no drought

# Losses and Damages

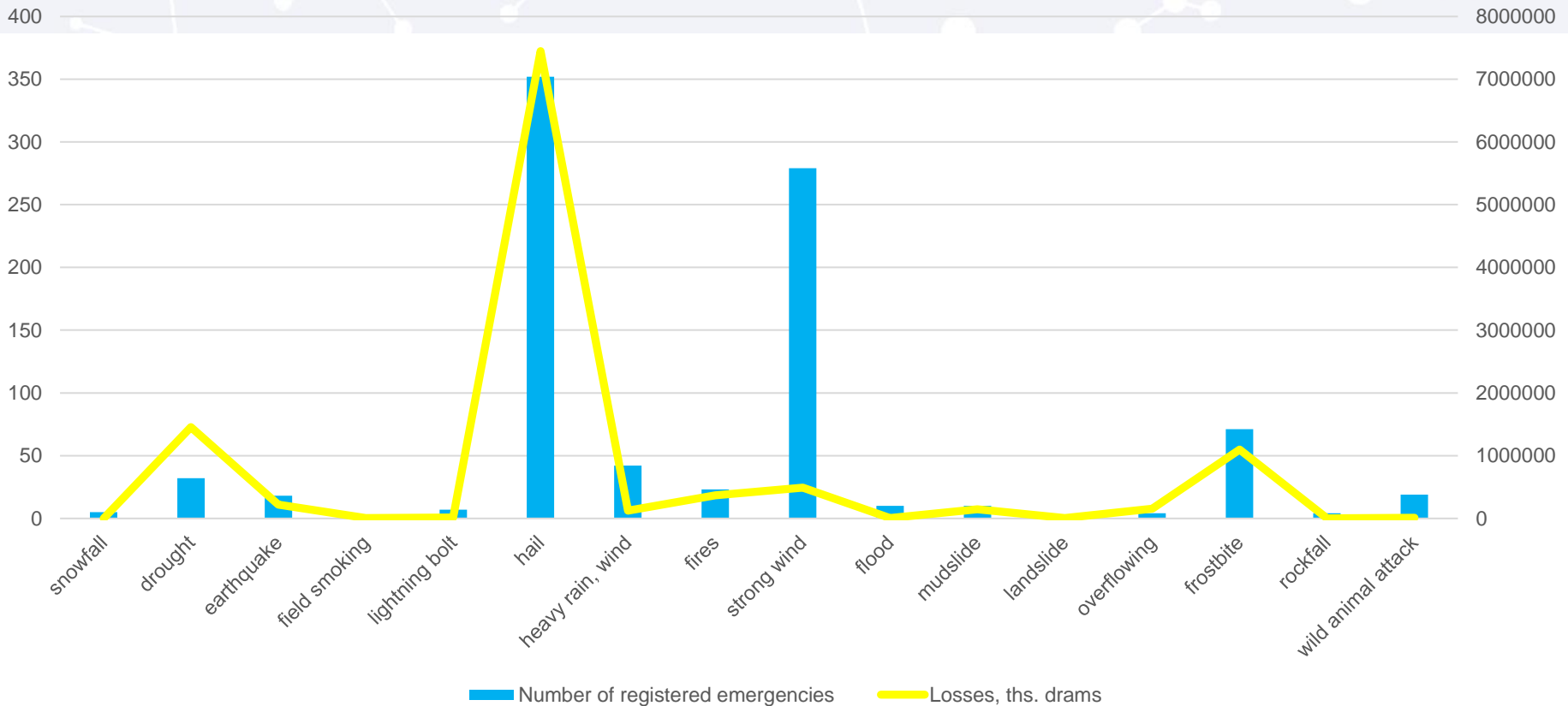
Acts drawn up by Regional Commissions are provided by the Ministry of Emergency Situations to the Statistical Committee from 2018. The following information is provided in the documents attached to the act:

- Region, community, settlement
- Date of the disaster
- Date of adoption of the act
- Name of the disaster
- Caused damages: land areas (gardens) /ha/ and buildings (units), (m<sup>2</sup>)
- Losses (approx., in drams)



# Challenges: Losses and Damages

Registered disasters and losses, 2018-2021



# LEGAL FRAMEWORK FOR NDC IMPLEMENTATION

- UNFCCC and Kyoto Protocol, ratified by Armenia in May 1993 and December 2002, respectively
- The Paris Agreement and the Doha Amendment to the Kyoto Protocol, ratified in February 2017
- The Sendai Action Plan for Disaster Risk Reduction 2015-2030, which Armenia joined in 2015.
- The Comprehensive and Enhanced Partnership Agreement between the European Union and the Republic of Armenia (CA-EU CPA), ratified in April 2018.
- Decision of the Government of the Republic of Armenia N 610 – L dated 22.04.2021 “On approval of the Nationally Determined Contribution 2021-2030 of the Republic of Armenia to Paris Agreement”
- Decree of the Government of the Republic of Armenia N 749 - L dated 13.05.2021 “On approval of the National Action Program of Adaptation to Climate Change and the List of Measures for 2021-2025”.



THANK YOU