

National circumstances, institutional framework, prioritization and barriers on adaptation



ARMENIA: MINISTRY OF ENVIRONMENT

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Armenia At-A-Glance



Mountainous landlocked country 29,743 km² in the Southern Caucasus region of Eurasia.

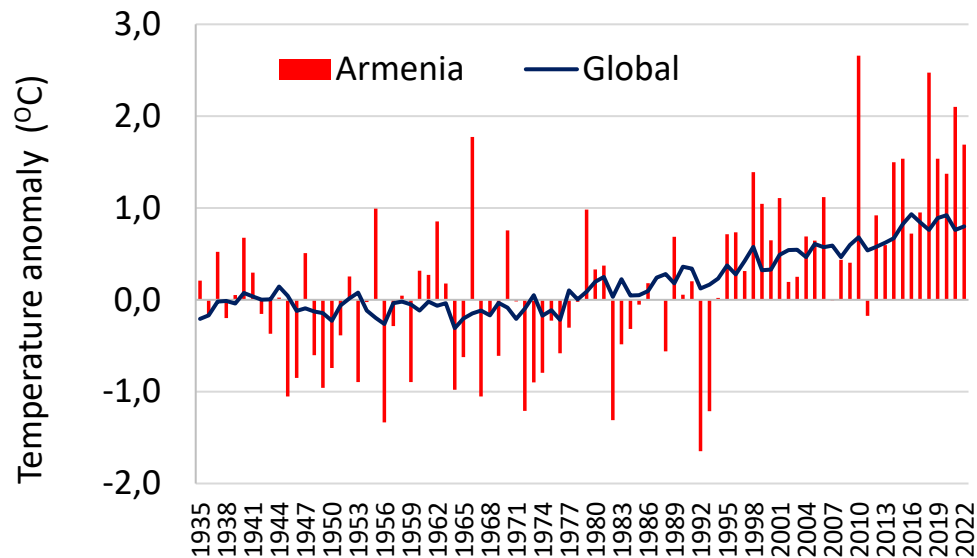
Population – 2.96 million.

As a mountainous, landlocked country, Armenia is characterized by vulnerable ecosystems, arid climate, active exogenous and desertification processes, and frequent natural disasters. Armenia has become more sensitive to current and projected climate change impacts. A warmer and more drought prone environment is likely to drive significant changes in ecosystems composition, notably driving dryland expansion, forest loss, agricultural productivity, and species range shifts.

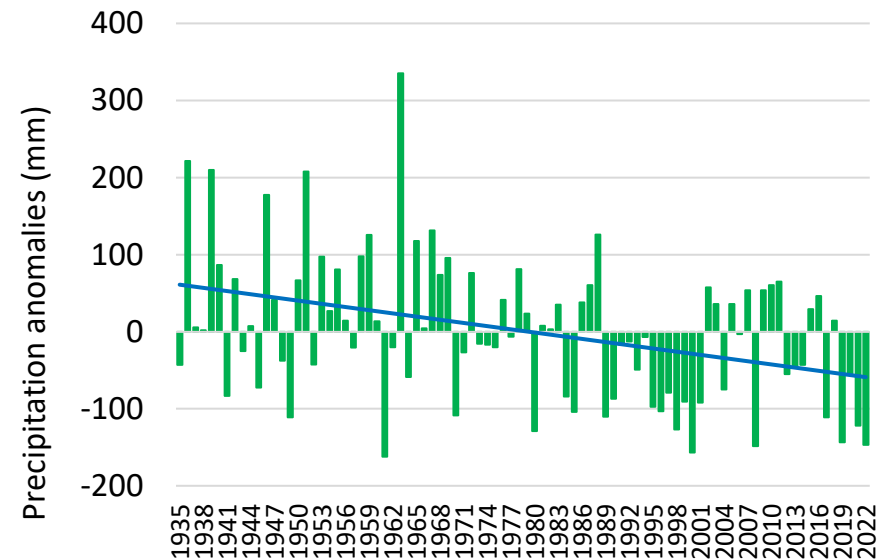
Mountainous communities and ecosystems are among the most vulnerable areas to climate change and already facing negative impacts of climate change affecting health, agriculture, water and land resources (including forests), energy, infrastructure, ecosystems and biodiversity, etc.

Changes in mean annual temperatures and precipitation in Armenia

Temperature has increased by 1.6 °C: The three warmest years were observed in 2010, 2018 and 2021



Precipitation has decreased by 15 mm, which is 20 % relative to norm



Climate change and associated natural hazards in Armenia

Climate change hazards

- Heat waves
- Cold waves
- Decreased precipitation /droughts
- Frost (early spring, late fall)
- Heavy rainfall
- Strong winds

Associated natural hazards

- Mudflows
- Seasonal floodings
- Forest fires
- Rockfall

Threatening:

WATER SECURITY	HEALTH SECURITY
FOOD SECURITY	INFRASTRUCTURE SECURITY
ENERGY SECURITY	SOCIO-ECONOMIC STABILITY & SECURITY
NATIONAL SECURITY	

Projected impacts of climate change in Armenia

By 2100:

- Snow cover reduction: by 20-40%;
- River flow reduction: by 39%;
- Reduction of river inflow into reservoirs: by 60%,
- Reduction of river inflow into Lake Sevan: by 41% (or by 310 mln m³), increase of evaporation of Lake Sevan balance: by 36.5% (or by 392 mln m³)
- Deterioration of Lake Sevan water quality, increase in water temperature: by 2°C by 2070, by 4°C by 2100,
- Intensification of eutrophication processes;
- Reduction of soil humidity: by 30% (by 2070), decrease in availability of irrigation water, more frequent and intensive droughts;
- Decrease in crop yield production: wheat, potatoes, grapes by approx. 20% (by 2070)
- Pasture yields' decrease: by 22% etc.



Institutional framework

The Ministry of Environment/ Climate Policy Department, is responsible for coordinating the implementation of UNFCCC and related activities in the country, including the preparation of National Communications, Biennial Update Reports (BURs) and GHG Inventories.

In 2017 after adoption of the Paris agreement, the country's responsibilities highlighted and clarified.

In 2020 the Department of Climate Policy was established with the aim of emphasizing the role of climate policy in the country. The Prime Minister established Inter-agency Coordinating Council for the Implementation of the Requirements and Provisions of the UNFCCC and the Paris Agreement. The Department of Climate Policy acts as secretariat to the Council.

In 2021 Nationally Determined Contributions (NDC) is adopted by the Government: a new economy-wide mitigation target of 40% reduction below the 1990 emissions level to be achieved in 2030.

In 2021 National Action Program of Adaptation to Climate Change and the List of Measures for 2021-2025 approved by the Government guides efforts towards facilitating the integration of climate change adaptation into sectorial and provincial development plans.

By the adoption of National Action Program, the Republic of Armenia aims to promote the reduction and management of climate risks in Armenia, by using the opportunities, reducing the socio-economic vulnerability, avoiding the losses and damages and reducing the negative impacts of climate change. The Government emphasized the importance of adaptation principles and identified six priority sectors, natural ecosystems (aquatic and terrestrial, including forest ecosystems, biodiversity and land cover), human health, water resource management, agriculture, including fishery and forests, energy, human settlements and infrastructures, tourism.

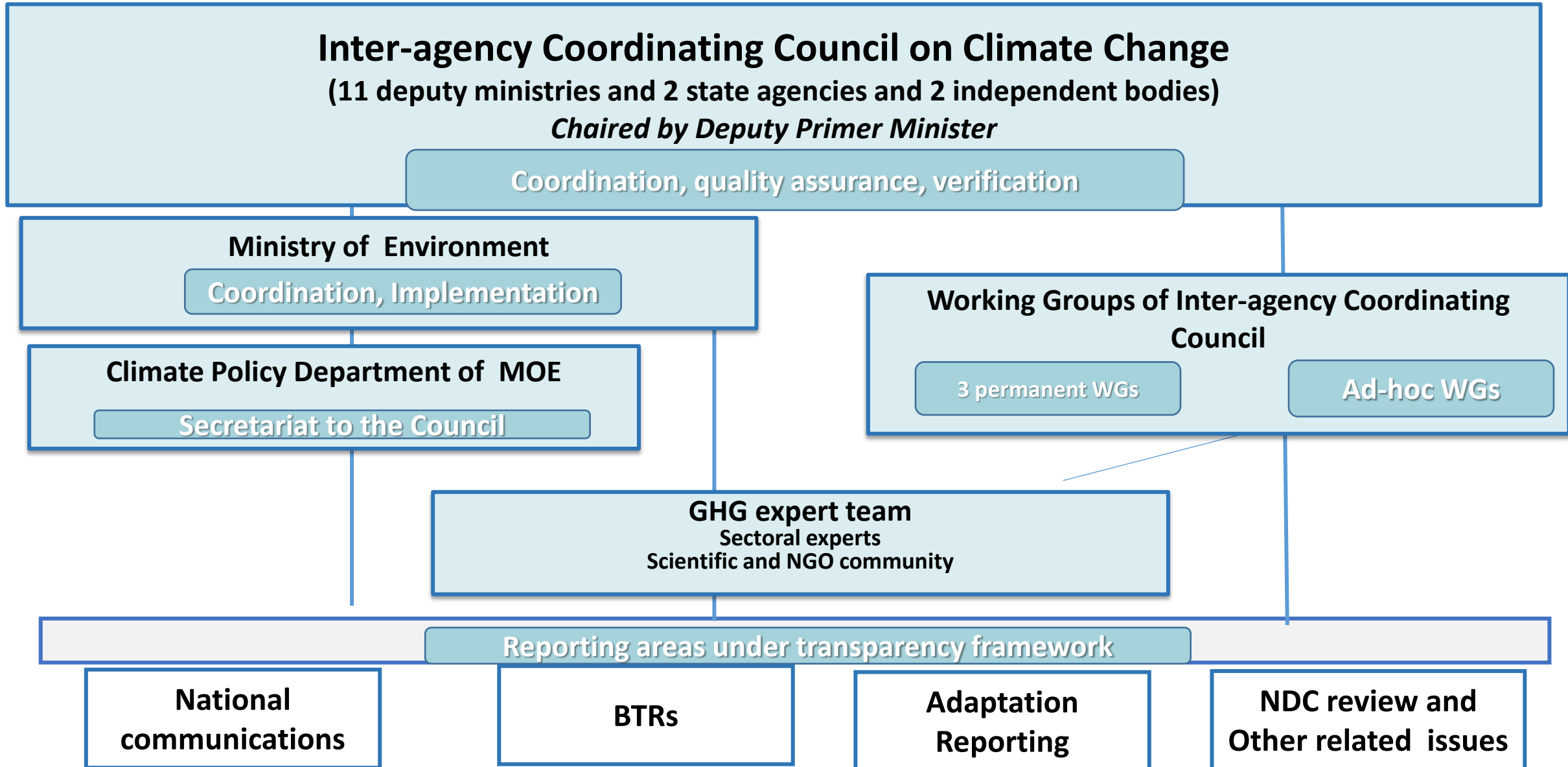
In 2021 Inter-agency Coordinating Council for Implementation of Requirements and Provision of the UNFCCC, which was established in 2012 and since 2021 the status was revised and approved by the Prime Minister's Decree N719-A from 06 July 2021 to coordinate national climate change policies and actions, evaluate progress and results towards the fulfillment of the obligations undertaken by the Republic of Armenia under the UNFCCC and Paris Agreement.

In 2023, the Government approved "Long-term (until 2050) low greenhouse gas emissions development strategy of the Republic of Armenia to achieve ecosystem climate neutrality by 2050.

Draft law on "Climate" has been developed. The purpose is to fix the approaches of legal regulation of development and implementation of climate change mitigation and adaptation policies (climate policies), and institutional coordination of these processes in the country.

In 2024 the Government approved "The order of inventory of greenhouse gas emissions" by N54-H decree.

Institutional Framework



Developed and under Development of NAP's Sectoral/Marz Adaptation Plans



Water Sector Adaptation Plan and 2022-2026 Action Plan

Has been **approved** by the RA Government Decree N 1692-L, 03.11.2022



Agriculture Sector Adaptation Concept and 2023-2026 Action Plan

Developed and incorporated into the sectorial strategy



Health Sector Adaptation Plan and 2022-2026 Action Plan

Developed and incorporated into the sectorial strategy



Energy Sector Adaptation Plan and 2023-2027 Action Plan

Developed and planned to be incorporated into the sectorial strategy



Tourism Sector Adaptation Plan and 2023-2026 Action Plan

Developed and envisaged to be incorporated into the sectorial strategy



Shirak, Tavush, Lori and Gegharkunik Marz Adaptation Plans

Developed, discussed with national stakeholders and submitted to the Ministry of Territorial Administration and Infrastructure and respective Marz Administrations, Yerevan city adaptation plan has been developed

Measures of climate change adaptation concept in the agricultural sector:

- ❖ Increase the resistance of agriculture to climate hazards, risks and disasters, it is planned to regularly develop and launch new insurance products,
- ❖ Develop and implement effective mechanisms of targeted support to seed breeding and seed production suited to changing climate conditions,
- ❖ Introduce sustainable and efficient technologies for land and water use; develop and implement measures to mitigate negative impacts of extreme weather events, including the launch of an early warning system,
- ❖ Support the introduction of cold storage; promote development of greenhouse industry; encourage intensive horticulture; prevent the spread of diseases and pests caused by climate change, etc.
- ❖ Strengthen of the awareness on climate change, its impacts, risks and vulnerabilities and increasing adaptation capacities in the sector; increasing the sector's resistance to negative impacts of climate change, extreme weather events and climate related natural; as well as reducing loss and damages resulted by climate change.

Measures of climate change adaptation plan in healthcare sector:

- ❖ Build cross-sectoral collaboration to prevent climate-sensitive diseases,
- ❖ Enhance community-level knowledge regarding health adaptation to climate change impacts,
- ❖ Development of guidelines to reduce the climate change impacts and risks for health among medical practitioners providing healthcare services in primary healthcare sector,
- ❖ Develop and implement early heatwave alert systems for priority climate-sensitive diseases to ensure protection of vulnerable people,
- ❖ Conduct climate change impact studies in terms of vector-borne, waterborne and foodborne diseases and food security, including analysis of weather, vector and epidemiological data.

Measures of climate change adaptation plan in water sector:

- ❖ Designation of an authorized body for flood risk prevention and management, definition of flood and flood risk-related concepts,
- ❖ Establishing a system for monitoring, evaluation, accountability and improvement of water sector adaptation plans,
- ❖ Implementation of early warning systems for floods and mudslides at the local level, taking into account hydrometeorological forecasts

Measures of climate change adaptation plan in tourism sector:

- ❖ Development and implementation of management and operational programs for historical and cultural monuments taking into account the climate change issues: it assumes inventory of historical and cultural monuments that have priority tourism significance and creation of “tourism passports”.
- ❖ Development of insurance programs for hotels, guesthouses, food establishments in tourist areas, infrastructure agents and transportation companies, to reduce climate change risks and develop adaptation capacities.
- ❖ Road and tourism infrastructure development in selected tourist areas. It is aimed at the enhancement of Tourist Areas’ resilience to heat, and cold waves, extreme temperatures, reduced precipitation, landslides, mudflows.

CURRENT ARRANGEMENTS FOR BTR PREPARATION

By the 191-L order (dated on June 2, 2023) of the Minister of Environment, amendments and supplements were made to the Charter of “Hydrometeorology and Monitoring Center” SNCO and the function of implementing greenhouse gas inventory is stipulated in the Charter.

The preparation and implementation process of BTR is led by the Ministry of Environment. “Hydrometeorology and Monitoring Center” SNCO is responsible for quality control - a set of current processes of a technical nature aimed at ensuring the reliability, accuracy and completeness of data at each stage of the inventory, determining the quality of the assessments carried out, identifying and correcting errors and omissions, documenting and recording all quality assurance activities.

The Ministry of Environment implements and is responsible for quality assurance: the process of assessing, monitoring and continuously improving the quality of the greenhouse gas inventory to submit best possible assessments and information.

The Implementing Body (hereinafter “HMC” SNCO), collaborating with **the Authorized Body, the Ministry of Environment**, develops and submits to the approval of **the Authorized Body** the overall quality assurance program and the annual action plan with appropriate measures, schedule and responsible personnel, defining also the tools of review processes as necessary.

Adaptation prioritization and barriers

Since May 7, 2021 “CBIT” project has been launched and being implemented to support the Republic of Armenia, as a UNFCCC party country, to build institutional and technical capacities to meet enhanced transparency requirements as defined in Article 13 of the Paris Agreement, in accordance with the general terms, procedures and guidelines.

In the frames of the Project, Indicators of Climate Change (mainly Adaptation) has been developed to be collected and reported annually by the Ministry.

The list of newly elaborated 34 climate change indicators has been developed in accordance with the Global Set of Climate Change Statistics and Indicators adopted by the United Nations Statistical Commission (in March 2022) under the UNFCCC and the Paris Agreement.

Barriers:

- ❖ deficiency of relevant assessment of financial needs on adaptation
- ❖ adaptation measure impact assessment-indicators

The Ministry as a responsible body for NAP implementation prioritizes ensuring of measurable indicators collection and publication for maintaining and evaluation of NAP-progress.



Thank you