



Monitoring report

**Strengthening the Civil Society monitoring of CEPA implementation
(monitoring of CEPA 52 article (a) and (b) points, 54 (b), (c), (d), (e) and (f)
points)**

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ABBREVIATIONS

CC	Climate change
CEPA	Comprehensive and Enhanced Partnership Agreement Between the European Union and the European Atomic Energy Community and Their Member States, of the One Part, and the Republic of Armenia, of the Other Part
CJSC	Closed joint-stock company
EU	European Union
GDP	Gross Domestic Product
GHG	Greenhouse gas
GoA	Government of Armenia
HPP	Hydropower plant
LT-LEDS	Long-term low greenhouse gas emission development strategy
MRV	Monitoring, reporting and verification platform
NDC	Nationally determined contributions
RA	Republic of Armenia
SC	Statistical Committee
SPNA	Specially protected natural area
TAI	Territorial Administration and Infrastructure
WWTP	Wastewater treatment plant



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EXECUTIVE SUMMARY

Within the framework of the research, an assessment was conducted of the performance of CEPA's¹ CC adaptation and mitigation provisions, specifically Article 52 (a) and (b) points, Article 54 (b), (c), (d), (e), and (f) points, as well as measures 121, 122, 123, and 130 of the CEPA implementation roadmap² for the years 2021-2024. The implementation of Armenia's climate change adaptation and mitigation policies in the "Forestry," "Agriculture," "Energy," and "Waste" sectors has been studied, the issues/gaps have been identified, and targeted recommendations have been developed for the relevant authorities.

From the perspective of climate adaptation and mitigation, the development and subsidy programs of four enlarged communities have been studied, and the resources have been assessed. Based on the results, the issues related to the localization of climate adaptation and mitigation policies in the communities have been identified, and a package of recommendations for integrating national climate policies at the local level has been developed.

¹ Comprehensive and Enhanced Partnership Agreement Between the European Union and the European Atomic Energy Community and Their Member States, of the One Part, and the Republic of Armenia, of the Other Part, https://www.mfa.am/filemanager/eu/CEPA_ENG_1.pdf

² GoA decision No. 666-L of the Prime Minister of the Republic of Armenia dated June 1, 2019, "On Approving the Roadmap for the Implementation of the Comprehensive and Enhanced Partnership Agreement between the Republic of Armenia and the European Union, the European Atomic Energy Community, and their Member States", <https://www.arlis.am/DocumentView.aspx?docID=153164>



The legal acts regulating the climate sector have been studied. Omissions have been identified in 14 acts, and recommendations for addressing these omissions have been developed.

The study revealed: in Armenia, during the period of 2021-2024, within the framework of CEPA articles related to CC adaptation and mitigation, 3 laws, the RA Governmental 7 decisions, and the RA Prime Minister 1 decision and 4 normative acts were adopted. Climate adaptation programs were developed for 4 regions of Armenia (Tavush, Shirak, Gegharkunik, Syunik), as well as a CC adaptation program for 1 SPNA, along with reports and guidelines.

CEPA roadmap 121 123, and 130 measures were implemented particularly. 122 measure can be considered as initiated.

The study of the implementation of CC adaptation and mitigation policies has revealed that:

- In the forestry sector, the country is unable to achieve the set targets due to a continued reduction in forested areas year by year. The areas for forest cover restoration and newly planted forests are small. A larger area of forest is burned by forest fires than is planted. Only 1.64% of the 50,000 hectares of new forests planned under the NDC by 2030 were planted between 2021 and 2024.
- In the agriculture sector, the systems for ensuring climate resilience, such as hail protection, insurance, and irrigation, are underdeveloped. There are issues with access to irrigation water. The area of land for agricultural purposes is decreasing.
- In the agriculture sector, the systems for ensuring climate resilience, such as hail protection, insurance, and irrigation, are underdeveloped. There are issues with access to irrigation water. The area of land for agricultural purposes is decreasing.
- In the energy sector, the country can achieve the target set by the NDC regarding the doubling of the share of renewable energy, as the share of electricity generated by small HPPs and solar power stations in the energy system has increased from 8.57% to 19.4% during 2021-2024. More than half of Armenian households—58.6%—are unable to adequately heat their homes during the cold months. According to the Eurostat definition, they can be considered energy-poor. Directives defined by CEPA do not include specific regulations on energy poverty.



- The majority of the requirements in the "Waste Management" section of CEPA Appendix 3 have not been implemented. In Armenia, the majority of water intake does not enter the sewage system. The volumes of environmental pollution by sewage water and GHG emissions are not assessed. Biogas is not being collected from sewage water treatment plants, which leads to an increase in GHG emissions. The issues related to the installation of sewerage systems in 580 settlements remain unresolved. Armenia does not have a development program for the wastewater management sector.

The study of the localization of CC adaptation and mitigation policies in the communities has revealed the following:

- Although some community subsidy and development programs have a climate focus, the climate impact component of these programs is not assessed. Subsidy programs are not considered, evaluated, or planned from the perspective of GHG emission reductions. Communities have not voluntarily undertaken such commitments. Communities have not conducted climate risk assessments and do not have a developed CC adaptation and mitigation program/strategy. Communities lack specialists and capacity to develop programs related to CC mitigation, adaptation, and energy transition. Limited community budgets are insufficient to finance new initiatives.

The study of the legal acts adopted within the CEPA framework has revealed:

- Deficiencies in the legislative framework, particularly the lack of tools, concepts, and provisions, as well as contradictions with other legal acts, hinder the achievement of climate targets.



INTRODUCTION

The study was conducted within the framework of point 3.1.9 "Strengthening the Civil Society Monitoring of CEPA Implementation" of the "Support to CEPA Monitoring, Implementation, and Communication ENI/2023/442-873" program. The program is implemented by GOPA Partners in Action for Change and Engagement.

The study focuses on the monitoring of the implementation of the provisions of the CEPA³ articles on CC adaptation and mitigation at both the national and local levels.

The objectives of the study are:

- To monitor the implementation of the requirements of Article 52 (a) and (b) and Article 54 (b), (c), (d), (e), and (f) of CEPA, as well as the implementation of measures 121, 122, 123, and 130 of the CEPA Implementation Roadmap 2019, which ensure the fulfillment of these requirements during the period of 2021-2024. **(On May 31, 2021, Decision No. 587-L of the Prime Minister of the RA⁴ was adopted regarding amendments and additions to the CEPA Roadmap. No amendments or additions related to CC were made in the document)**
- Identify legislative and institutional gaps regarding CC adaptation and mitigation, as well as challenges in localizing relevant policies.
- To present targeted recommendations for the improvement of CC mitigation and adaptation policies.

Among the studies conducted on CC adaptation and mitigation in Armenia, this research stands out for its comprehensive examination of Armenia's legislative and institutional framework within the CEPA framework, identifying gaps, presenting recommendations to solve them, assessing sectoral climate targets, identifying gaps, and presenting recommendations, as well as highlighting the issues and solutions related to the integration of climate policy at the local level.

The research is composed of the following chapters: “Analysis of the compliance and performance of CEPA articles and the measures of the CEPA implementation roadmap”, “Analysis of the RA CC adaptation and mitigation sectorial policies implementation”, “Communities”, “Analysis of adopted legal and normative acts”, “Recommendations”.

The chapter "**Analysis of the compliance and performance of CEPA articles and the measures of the CEPA implementation roadmap**" presents a comparative analysis of the implementation of CEPA's Article 52 (a) and (b) points, Article 54 (b), (c), (d), (e), and (f) points, as well as measures 121, 122, 123, and 130 of the CEPA implementation roadmap.

The chapter "**Analysis of the RA Climate Change Adaptation and Mitigation Sectorial Policies Implementation**" presents the status of CC adaptation and mitigation policy implementation in the "Forestry," "Agriculture," "Energy," and "Waste" sectors. It identifies the issues/gaps and provides targeted recommendations to the relevant authorities.

³ Comprehensive and Enhanced Partnership Agreement Between the European Union and the European Atomic Energy Community and Their Member States, of the One Part, and the Republic of Armenia, of the Other Part, https://www.mfa.am/filemanager/eu/CEPA_ENG_1.pdf

⁴ Decision No. 587-L of the Prime Minister of the RA dated May 31, 2021, "On Making Amendments and Additions to Decision No. 666-L of the Prime Minister of the Republic of Armenia dated June 1, 2019", <https://www.arlis.am/DocumentView.aspx?docid=153159>



The chapter "**Communities**" presents the level of localization of climate adaptation and mitigation policies in 4 enlarged communities, the issues, and the recommendations for the integration of national climate policies at the local level.

The chapter "**Analysis of Adopted Legal and Normative Acts**" identifies gaps in 14 legal acts regulating the climate sector and provides recommendations for addressing them.

The chapter "**Recommendations**" presents a summary of the recommendations developed within the framework of the research.

METHODOLOGY

The study was conducted within the framework of assessing the implementation of the CEPA articles related to CC adaptation and mitigation (Articles 52(a), 52(b), and 54(b), (c), (d), and (f)), as well as the implementation of the corresponding measures (121, 122, 123, and 130) outlined in the CEPA Implementation Roadmap.

The study includes statistical analysis, thematic analysis, and comparative analysis methods, structured as follows:

The methods used for the analysis included.

1. Analysis of Legal and Strategic Documents

Within the scope of the study, legal acts adopted in Armenia during 2021-2024 aimed at the implementation of CEPA requirements in the fields of CC adaptation and mitigation were reviewed.

- RA laws, RA Governmental and the Prime Minister decisions;
- Sub-legislative acts adopted by Governmental bodies;
- CC adaptation programs at regional and local levels, as well as five-year community development and subsidy programs;
- Documents developed in the frame of international climate programs.

2. Correspondence with State Bodies and Local Self-Government Authorities, Discussion with Representatives of Sectoral State Bodies and Independent Experts

- Inquiries were sent to the Ministries of Environment, TAI, Economy, and Internal Affairs of the RA, as well as to the heads of 4 local self-government bodies.
- A discussion was organized with representatives of sectoral state bodies and independent experts to reveal practical obstacles.

3. Statistical Analysis, Thematic Analysis, and Comparative Assessment

- **Statistical Analysis:** Quantitative data of the scale and scope of CEPA-related climate actions undertaken during 2021-2024.
- **Thematic Analysis:** Qualitative data obtained from lettering and discussion with local self-government bodies, sectoral state bodies, and experts were analyzed to identify the challenges in policy implementation, capacity gaps, and sector-specific needs related to CC adaptation and mitigation.



- **Comparative Assessment:** The study compared CEPA Roadmap requirements with the actual policies, programs, and activities implemented in Armenia.

4. Indicators

The monitoring was carried out using the following indicators:

1. **The number of adopted legal acts and their practical applicability.**
2. **Sectoral policies.**

A) Forestry Sector

- Existence of a climate adaptation program for the forestry sector
- Total area of reforestation and afforestation activities
- Total area of forest lands affected by wildfires
- The number of illegally logged trees

B) Agriculture Sector

- Existence of a climate adaptation program for the agriculture sector
- Share of agricultural output in the Gross Domestic Product (GDP)
- Trends in the dynamics of changes in agricultural land area
- Ratio between the area of newly planted intensive orchards and the area covered by hail protection nets
- Trends in water loss within the irrigation system
- Area of agricultural land irrigated through the implementation of advanced irrigation technologies
- Trends in the development of agricultural insurance mechanisms
- Number of agricultural adaptation programs implemented, including those supported by international organizations
- Area of consolidated agricultural lands resulting from measures aimed at reducing land abandonment and fragmentation

C) Energy Sector

- Availability of an adaptation program for the energy sector
- Dynamics of the share of electricity generated from renewable energy sources in the electricity balance
- The number of energy efficiency measures implemented by the Renewable Resources and Energy Efficiency Fund of Armenia during 2022-2024

D) Waste Management Sector (Solid Waste Management, Wastewater)

- Number of landfills established in Armenia in compliance with sanitary standards during 2021-2024
- Number of operational waste recycling facilities
- Number of operational hazardous waste treatment and incineration facilities and their total processing capacity



- Length of the sewage network managed by "Veolia Djur" CJSC, number of mechanical wastewater treatment plants, and number of pumping stations in the drainage system
- Volumes of water intake, wastewater discharge, and wastewater treated in Armenia during 2021-2023

5. Stakeholders

The stakeholders selected for the work are the government bodies, civil society organizations, local self-government bodies, and the EU.

ANALYSIS OF THE COMPLIANCE AND PERFORMANCE OF CEPA ARTICLES AND THE MEASURES OF THE CEPA IMPLEMENTATION ROADMAP

CEPA's Article 52 (a) and (b) points

Article 52 of CEPA reads that the cooperation shall promote measures at domestic, regional, and international level, including the points: (a) the mitigation of CC; (b) adaptation to CC. The fulfilment of the requirements of Article 52, points (a) and (b), is envisaged by the CEPA roadmap 121 and 130 measures.

- **121 measure requirement – implementation deadline: 1st quarter of 2026 (Article 52, points (a), (b) Article 54, point (b))**

Establishment of a national system for the inventory of GHG emissions related to CC (including aviation emissions), development of a domestic system for policies, measures, and projections, and strengthening of relevant institutional capacities (Articles 5 and 12 of Regulation (EU) 525/2013, repealing Decision 280/2004/EC).

Measure Performance

4 legal acts adopted.^{5,6,7,8}

Omissions

- According to the Ministry of Environment's response No. 3/18.15/618, "Hydrometeorological and Monitoring Center" SNCO has not received technical assistance for the establishment of a national system for the inventory of GHG emissions related to CC (including aviation emissions), development of a domestic system for policies, measures, and projections, and strengthening of relevant institutional capacities for the years 2021-2024.

⁵ The Law of the PA on Amending the Law on "Protection of Atmospheric Air" (ՅՕ-522-N, December 7, 2022), <https://www.arlis.am/documentview.aspx?docid=172207>

⁶ The National Greenhouse Gas Inventory Report of RA for 1990-2019, <http://env.am/storage/files/nir-2019-eng.pdf>

⁷ GoA decision No. 54-N of January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions", <https://www.arlis.am/DocumentView.aspx?DocID=188713>

⁸ Order No. 1176-L of September 30, 2022, dated the "Hydrometeorology and Monitoring Center" SNCO of the Ministry of Environment of RA, "On the Approval of the Program of Measures Aimed at Improving Climate Predictions and Early Warning Systems and the Timelines for Their Implementation"



- The domestic forecasting system has not yet been established (the deadline is the first quarter of 2026). According to the Ministry of Environment's response No. 5/07.3/1741, the program for establishing the "System for Forecasting Hazardous Hydrometeorological Events and Early Warning" is included in the Ministry's 2025-2027 Medium-Term Expenditure Program proposal.

Conclusion

The measure was carried out partially.

- **130 measure requirement - implementation deadline: 1st quarter of 2021 (Article 52, point (b), Article 54, points (c) and (d))**

Development of a CC adaptation concept and a national action plan aimed at planning and implementing activities in line with the requirements and measures for CC mitigation, reduction, and prevention in agriculture, the economy, and other sectors potentially affected by CC.

Measure Performance



Within the framework of the measure 130, 2 laws^{9,10} focused on adaptation, RA Governmental 6 decisions^{11,12,13,14,15,16}, 1 order¹⁷, 6 sectoral and regional adaptation draft projects^{18,19,20,21,22,23}, 1 strategic plan²⁴, 2 roadmaps^{25,26}, 1 guideline²⁷, and 1 atlas of climatic and related natural hazards and risk geographical information systems for 2 regions²⁸ have been adopted and developed.

⁹ The Law "On Amendments to the Law of the Republic of Armenia "On Environmental Impact Assessment and Expertise" 30-150-L, <https://www.arlis.am/documentview.aspx?docid=178443>

¹⁰ RA Law "On Amendments and Supplements to the RA Water Code " Law No. 07.07.22 30-316-N, <https://www.arlis.am/DocumentView.aspx?docid=166206>

¹¹ Draft Decision of the Government RA (2023) "On Approving the Implementation Program, Financing Strategy, and Investment Plan for the Nationally Determined Contributions (NDCs) of the Republic of Armenia under the Paris Agreement for 2023-2030", <https://www.e-draft.am/projects/5672/about>

¹² GoA decision No. 1692-L, dated November 3, 2022, "On Approving the Climate Change Adaptation Program in the Water Resources Sector and the List of Measures for 2022-2026", https://www.e-gov.am/u_files/file/decrees/kar/GV1E-287B-6173-DAB9/1692.1.pdf

¹³ GoA decision dated July 20, 2023, "On Amendments to the Government of Armenia Decision No. 1886-L, dated December 19, 2019", <https://www.arlis.am/DocumentView.aspx?docid=180654>

¹⁴ GoA decision No. 174-L, dated February 9, 2023, "On Approving the Development Strategy of the Healthcare System of the Republic of Armenia for 2023-2026 and the List of Measures Arising Therefrom", <https://www.arlis.am/documentview.aspx?docid=174219>

¹⁵ GoA decision No. 719-A, dated July 6, 2021, "On the Establishment of an Interagency Coordination Council for the Implementation of the Requirements and Provisions of the United Nations Framework Convention on Climate Change and the Paris Agreement, Approval of Its Composition and Working Procedures, and Repeal of the Government of Armenia's Decision No. 955-A, dated October 2, 2012", <https://www.e-gov.am/decrees/item/23576/>

¹⁶ GoA decision No. 638-L, dated May 2, 2024, "On Approving the Types of Activities Subject to Assessment and Expertise, Which Are Not Included in the Foundational Documents That Have Received a State Expert Positive Conclusion, in Specially Protected Natural Areas, Forest Lands, Green Zones of Settlements, Boundaries of Historical and Cultural Monuments, or Environmental Lands", <https://e-gov.am/gov-decrees/item/42558/>

¹⁷ "Order of the Chairman of the Committee on Urban Development of the Republic of Armenia on Approving the Construction Climate Science Standards of the Republic of Armenia, No. 22-01-2024, and Repealing the Order No. 167-N of the Minister of Urban Development of the Republic of Armenia, dated September 26, 2011," Order No. 03-N, dated January 15, 2024, <https://www.arlis.am/DocumentView.aspx?DocID=188846>

¹⁸ The draft GoA decision on "Measurement, Monitoring, Evaluation, and Accountability of Greenhouse Gas Emission Mitigation Policies and Measures", https://drive.google.com/file/d/14m14CjW_mG0lyZjVe8Bw82Ahk5ulPuDw/view

¹⁹ "Integration of Climate Change Factors into the Management Plan of the 'Sevan' National Park and the Implementation of Adaptation Measures". The document is in the development phase within the framework of the "EU for Sevan" program (the material has not been officially published)

²⁰ Draft of the Climate Change Adaptation Program for Tavush Province, <https://drive.google.com/drive/folders/1Jp-IoBfzr2UJXcvPbBF5YhvhjwQojC7e>

²¹ Draft of the Climate Change Adaptation Program for Shirak Province, <https://drive.google.com/drive/folders/1Jp-IoBfzr2UJXcvPbBF5YhvhjwQojC7e>

²² Drafts of the Adaptation Programs for Gegharkunik and Syunik Provinces have been developed under the UNDP JSB-2 program (the material has not been officially published)

²³ Draft of the Ministerial Order on Approving the Guidelines for Strategic Environmental Assessment and Environmental Impact Assessment, <https://www.e-draft.am/index.php/projects/7464/about>

²⁴ "National Strategic Plan for communication and information on the process of the national Plan for Adaptation and Adaptation to climate change", <https://drive.google.com/file/d/1UVqT5ECZmzoCjLcnBjVHQ2mjjbPjFJ/view>

²⁵ Armenia's adaptation monitoring and assessment framework and roadmap, https://drive.google.com/file/d/1cRTTptByYG_3dnP3kZjRBX7erhyhPpy/view

²⁶ "Roadmap for the development of a functional National Greenhouse Gas Emissions Inventory System and MRV system for Armenia" <https://drive.google.com/file/d/1SeZ817HmFFNjbs1x7BX13VX5hyzGUv7f/view>

²⁷ "Guideline for the Development of Climate Change and Adaptation Programs for Settlements", https://api.mtad.am/storage/pages/files/2022/11/pdf/07_12-01-sc796-6368bb5f3eccc.pdf

²⁸ Atlas of Geographical Information System Maps for Climatic and Related Natural Hazards and Risks for Shirak and Lori Provinces, <https://drive.usercontent.google.com/download?id=1mvxjcP83hdYIZW5jkWxfeHafz3KeCodD&export=download&authuser=0>



Within the framework of measure 130 in accordance with CEPA 54 article c) point, focused on mitigation, RA Governmental 2 decisions^{29,30} have been adopted.

Omissions

- The Climate Change Adaptation Program envisaged by the CEPA Roadmap was adopted by the RA Government Decision N749-L of May 13, 2021. However, not all measures envisaged in the program have been implemented. In particular, the sectoral and regional adaptation programs (except for the water sector) envisaged by the action plan of the Decision have not been adopted. According to the instructions of the RA Deputy Prime Minister dated September 8, 2023, No. 02.1/03.8/31094, and the protocol decision No. KA/382 of the Financial-Economic Ministerial Committee meeting dated December 26, 2022, sectoral adaptation programs should be integrated into the development strategies of the respective sectors. As a result, the requirements of Decision No. 749-L have not been fulfilled, narrowing the scope of adaptation measures.
- **Developed, but not yet adopted:**
 - Governmental decision on "Measurement, Monitoring, Evaluation, and Accountability of Greenhouse Gas Emission Mitigation Policies and Measures"
 - Ministerial Order "On Approving the Guidelines for Strategic Environmental Assessment and Environmental Impact Assessment"
- **Not yet developed:**
 - Database on CC mitigation policies and actions
 - Database on CC vulnerabilities and adaptation
 - Database on financial support received for climate resilience

Conclusion

The measure was carried out partially.

CEPA's Article 54 (b), (c), (d), (e), and (f) points

According to CEPA's Article 54, cooperation should include the following objectives:

- (b) measures to enhance the capacity to take effective climate action;
- (c) the development of an overall climate strategy and action plan for the long-term mitigation of and adaptation to CC;
- (d) the development of vulnerability and adaptation assessments;
- (e) the development of a low-carbon development plan;

²⁹ GoA decision No 398, dated March 24, 2022, "[EnergySaving and Renewable Energy Program 2022-2030](https://www.arlis.am/DocumentView.aspx?docid=161408)" <https://www.arlis.am/DocumentView.aspx?docid=161408>

³⁰ GoA decision No. 2318-L, dated December 28, 2023 "On Approving the Long-Term Strategy for Low Greenhouse Gas Emissions Development of the Republic of Armenia (until 2050)", <https://www.arlis.am/DocumentView.aspx?DocID=188021>



(f) the development and implementation of long-term measures to mitigate CC by addressing emissions of GHGs. The fulfillment of the requirements of points (b), (c), (d), (e), and (f) of Article 54 of CEPA is planned through measures 122, 123, and 130 of the CEPA roadmap.

- **122 measure requirement – implementation deadline: 1st quarter of 2026** (Article 54, points (e), (f); Directive 2003/87/EC; Regulation 600/2012)

Periodic development of national inventories of anthropogenic GHG emissions, national communications, and biennial reports.

Measure Performance

Within the framework of its obligations, Armenia has developed and submitted 4 national communications on the implementation of the provisions of the UNFCCC^{31,32,33,34}.

Currently, the 5th National Communication on CC is in the process of being developed. 3 Biennial Update Reports have been developed^{35,36,37}. The National GHG Inventory Report of RA for 1990-2019³⁸, adopted in 2023 and also 2 Governmental Decisions were adopted^{39,40}.

Conclusion

Measure 122 does not address point (e) (the development of a low-carbon development plan) and point (f) of CEPA Article 54 (the development and implementation of long-term measures for CC mitigation, through addressing GHG emission quotas). These points were planned by the adoption of Decision No. 2318-L on December 28, 2023 concerning LT-LEDS. The measures for the implementation of LT-LEDS also include the introduction of quotas for GHG emissions, as well as internal and external payments and fines for exceeding certain emission limits. The decision also includes the selective introduction of carbon pricing instruments (emission trading system, carbon tax, accounting mechanisms, and performance-based carbon financing). The issue has also been addressed in the RA draft law "On climate". With its adoption, legal (institutional) foundations will be established for the introduction of the carbon trading system.

The 122 measure can be considered as initiated.

³¹ The 1st National Communication on Climate Change, <http://env.am/storage/files/fnc-of-armenia-eng.pdf>

³² The 2nd National Communication on Climate Change, <http://env.am/storage/files/snc-final-eng-0109101.pdf>

³³ The 3rd National Communication on Climate Change, <http://env.am/storage/files/1armenias-tnc-2015-eng.pdf>

³⁴ The 4th National Communication on Climate Change, <http://env.am/storage/files/fnc-eng.pdf>

³⁵ The 1st Biennial report, <http://env.am/storage/files/bur-report-eng.pdf>

³⁶ The 2nd Biennial report, <http://env.am/storage/files/2bur-eng-final.pdf>

³⁷ The 3rd Biennial report, <http://env.am/storage/files/bur3-armenia.pdf>

³⁸ The National Greenhouse Gas Inventory Report of RA for 1990-2019, <http://env.am/storage/files/nir-2019-eng.pdf>

³⁹ GoA Decision No. 2318-L of December 28, 2023 "On Approving the Long-Term Strategy for Low Greenhouse Gas Emissions Development of the Republic of Armenia (until 2050)" <https://www.arlis.am/DocumentView.aspx?DocID=188021>

⁴⁰ GoA decision No.610-L of April 22, 2021 "On Approving Nationally Determined Contribution (NDC) of the Republic of Armenia to the Paris Agreement for 2021-2030" <https://www.e-gov.am/gov-decrees/item/36064/>



- **123 measure requirement – implementation deadline: 1st quarter of 2026** (Article 54, point (d), Regulation 525/2013).

Establishment of a MRV system, and the formation and consistent strengthening of the process for the development and transfer of technologies aimed at addressing CC issues.

Measure Performance

1 Governmental decision⁴¹, 1 ministerial order⁴² are adopted. 1 draft of Governmental decision⁴³ and 1 bill⁴⁴ are developed. As a Non-Annex I Party to the UNFCCC Armenia has already established the basic national system for MRV under the existing transparency arrangements. It has designated a formal coordinating body (MoE), as well as other institutions involved in the process, and has established a horizontal inter-institutional coordination and verification mechanism.⁴⁵

Omissions

The GoA decision "On Approving the Implementation Program, Financing Strategy, and Investment Plan for the Nationally Determined Contributions of the RA under the Paris Agreement for 2023-2030" and the draft law “On Climate” has not adopted. The procedure for the collection of mitigation actions has not been developed.

Conclusion

The measure was carried out partially.

ANALYSIS OF THE RA CLIMATE CHANGE ADAPTATION AND MITIGATION SECTORIAL POLICIES IMPLEMENTATION

Armenia is one of the countries with the lowest GHG emissions globally, accounting for just 0.02%. However, the country is highly vulnerable to CC. According to data from the 'Hydrometeorology and Monitoring Center' SNCO under the Ministry of Environment, if before 2016 Armenia had recorded a temperature increase of 1.23°C compared to the pre-industrial period (1929), by 2022, the temperature was 1.7°C above the norm, in 2023 by 1.6°C, and in 2024 again by 1.7°C. In recent years, there has been an increase in climate risks, including reduced snow cover, decreased atmospheric precipitation, and a rise in water stress indicators.

There has been a significant increase in the frequency and intensity of extreme weather events and the natural hazardous phenomena resulting from them, such as mudflows, floods, heavy rainfall, forest fires, hailstorms, frost damage, and droughts, as well as seasonal weather anomalies, all of

⁴¹ GoA decision No. 54-N, dated January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions", <https://www.arlis.am/DocumentView.aspx?DocID=188713>

⁴² The Order of the Minister of Environment of RA No. 310-L, dated August 1, 2024, on Approving the General Program for Ensuring the Quality of Greenhouse Gas Emissions Inventory and the Resulting Annual Plan, http://env.am/storage/files/hraman310-1_1.pdf

⁴³ Draft Decision of the Government RA (2023) "On Approving the Implementation Program, Financing Strategy, and Investment Plan for the Nationally Determined Contributions (NDCs) of the Republic of Armenia under the Paris Agreement for 2023-2030", https://drive.google.com/file/d/14m14CjW_mG0lyZjVe8Bw82Ahk5ulPuDw/view

⁴⁴ Draft law “On Climate”, <https://www.e-draft.am/projects/7726>

⁴⁵ Roadmap for the development of a functional National Greenhouse Gas Emissions Inventory System and MRV system for Armenia, <https://drive.google.com/file/d/1SeZ817HmFFNjbS1x7BX13VX5hyzGUv7f/view>



which have a negative impact on ecosystems, the economy, human activities, and health.

This chapter examines the implementation of Armenia's CC adaptation and mitigation policies in the "Forestry," "Agriculture," "Energy," and "Waste" (solid waste management, wastewater) sectors.

I. Forestry Sector (CEPA Article 52, point (b), Article 54, points (c) and (d), CEPA Roadmap 130 measure)

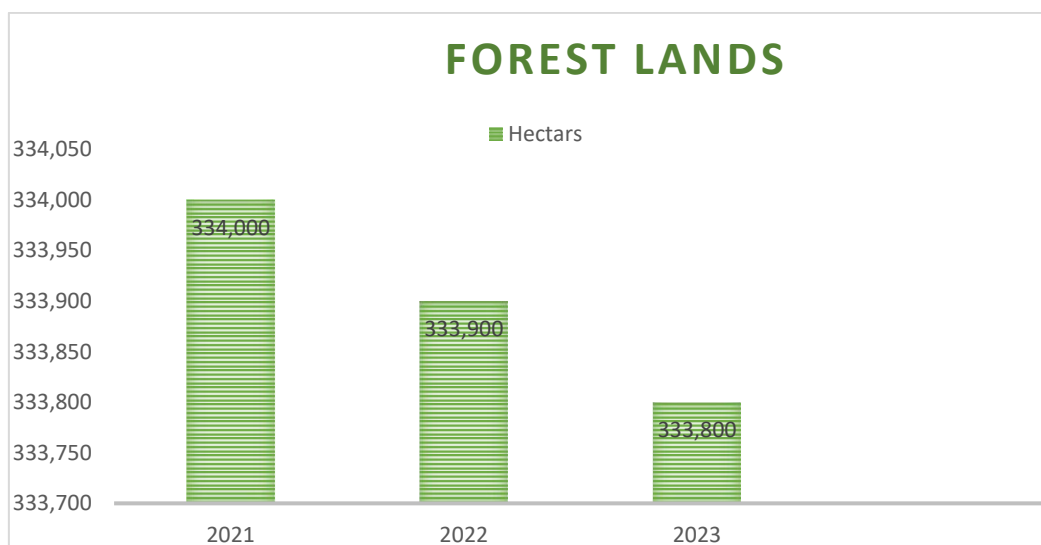
The forest cover in Armenia varies according to different sources. According to the results of the 1993 State Forest Inventory (the most recent inventory), forests and forest lands in Armenia cover about 11.2% of the country's territory, which is 460,000 hectares, of which 334.1 thousand hectares are forested areas (these figures do not include changes in forest areas in subsequent years). According to data obtained by remote sensing methods (GPS) in 2011 by the "Integrated Biodiversity Management in Armenia" program of the German International Cooperation Agency, the forested area in Armenia is 332,332 hectares or about 11.17% of the total area of the country⁴⁶.

According to the 1990-2019 report of the National Greenhouse Gas Inventory of Armenia, the CO₂ sequestration volumes from the “Forest Management and Other Land Use” sector have decreased, from -550.1 Gg CO₂ equivalent in 2010 to -373.0 Gg CO₂ equivalent in 2019.

In Armenia's climate policy, the forest sector is considered both from the perspective of adaptation and mitigation. The climate adaptation program for forest management, as proposed by the Government of Armenia in Decision No. 749-L on May 13, 2021, has not been adopted. Instead, it was decided to initially include it in the Forest Management Strategy and later incorporate it into the currently developed Environmental Strategy.

According to the SC’s 2024 report⁴⁷, there has been a reduction in forest land areas and forested areas from 2021 to 2023.

Forest land according to the SC of the RA



⁴⁶ Web site of the Ministry of Environment RA, <http://env.am/shrjaka-mijavayr/yndhanur-texekutyunner-antar>

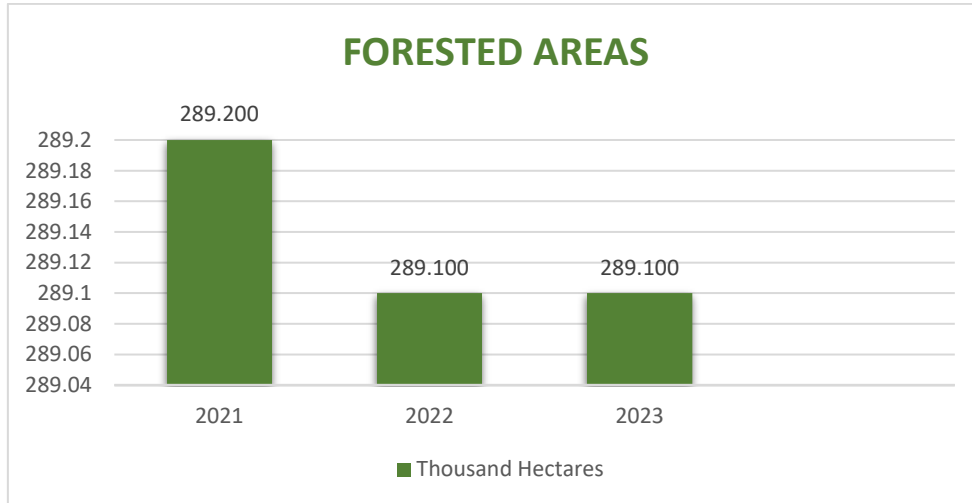
⁴⁷ Statistical Yearbook of Armenia 2024, Environment and Natural Resources, <https://armstat.am/file/doc/99552323.pdf>



Conclusion

Thirty years after the 1993 forest land state inventory, forest lands have been reduced by 126,200 hectares. Only during 2021–2023, it has decreased by 200 hectares.

Forested areas according to the SC of the RA



Conclusion

Thirty years after the 1993 inventory, forested lands have decreased by 45,000 hectares.

Armenia’s Commitments:

- To plant **266,500** hectares of forest (forest cover up to 20.1%) according to the GoA decision No. 41-11, dated September 10, 2015⁴⁸.
- To plant **50,000** hectares of forest (forest cover up to 12.9%) by 2030, according to the GoA Decision No. 610-L, dated April 22, 2021⁴⁹.
- To plant **450,000** hectares of forest by 2050, according to the GoA decision No. 2318-L, dated December 28, 2023 on LT-LEDS⁵⁰.

The SC's data on illegal logging, forest fires, and reforestation in Armenia⁵¹

⁴⁸ GoA Protocol Decision No. 41-11, dated September 10, 2015 "On Approving the Intended Nationally Determined Contribution of the Republic of Armenia within the Framework of the United Nations Framework Convention on Climate Change", <https://www.e-gov.am/protocols/item/544/>

⁴⁹ GoA decision N 610-L, dated April 22, 2021 "On Approving the Nationally Determined Contribution of the Republic of Armenia for 2021 - 2030 to the Paris Agreement", <https://www.arlis.am/DocumentView.aspx?docID=151985>

⁵⁰ GoA decision No. 2318-L of December 28, 2023 "On Approving the Long-Term Strategy for Low Greenhouse Gas Emissions Development of the RA (until 2050)" <https://www.arlis.am/DocumentView.aspx?DocID=188021>

⁵¹ Statistical Yearbook of Armenia 2024, Environment and Natural Resources, <https://armstat.am/file/doc/99552323.pdf>



Year	The number of illegally cut trees	Forest areas affected by fires, ha	Reforestation, ha
2021	19674	890	3,3
2022	17193	1099,4	6,1
2023	13 973	179	0
Total	50641	2168	63,4

Conclusion

Analysis of this data shows that over 3 years, the forest burned area exceeds the restored forest area by 2104.6 ha.

The RA Ministry of Environment data on illegal logging and forest area fires, reforestation, and the establishment of forest cultures in the forestry enterprises of the RA during 2021-2024

Year	Number of illegally cut trees found in the forestries of "Armforest" SNCO	Forest areas affected by fires (ha)	Forest restoration/ coppice regrowth in the territories of "Armforest" SNCO (ha)	Establishment of forest cultures: in the territories of "Armforest" SNCO (ha)
2021	11962	150,205	93	118,3
2022	2692	199,2364	77	167,3
2023	13644	147,552	96	344,2
2024	9062 (Included SPNA)	31,867	124,6	194,0
Total	40960	528,8604	390,6	823,8

In the SPNAs from 2021 to 2024, 4,109 illegally cut trees were discovered, the area of burned land amounted to 982.236 hectares, and forest restoration work was carried out on approximately 50 hectares.

In addition to state bodies, various non-governmental organizations are carrying out reforestation works, but the share of forests they have planted is small.



As a result of a study conducted between 2020-2022 on reforestation and assisted natural regeneration measures, the "Hydrometeorology and Monitoring Center" SNCO⁵² under RA Ministry of Environment found the following issues in 13 forestry enterprises managed by "Armforest" SNCO:

Key Problems Identified:

- Mismatch between planned and actual reforestation areas
- Inappropriate selection of tree species for local bioclimatic conditions
- Low survival rate of planted trees (average 40%)
- Inadequate maintenance and care of plantations
- Lack of irrigation systems
- Insufficient fencing (poor or missing protective barriers)

Conclusion

1. Data on Armenia's forests from different sources vary and cannot be used to set new climate targets for increasing forest cover.
2. The burned forest cover area exceeds the restored forest area: only 1.64% of the 50,000 hectares of new forests planned under the NDC by 2030 were planted between 2021 and 2024. Considering that 528,8604 hectares of forest areas burned during this period, and illegal logging reached 40,960 trees, to achieve climate targets for forests will be extremely difficult.
3. Government agencies do not apply uniform indicators to assess the condition of forest systems, which complicates the effectiveness of planned measures, including climate ones.

Recommendation to the EU

- Guided by Article 52 of the CEPA, assist Armenia in implementing forest area inventorying.

Recommendations to the RA Ministry of Environment

- Conduct an inventory of forest areas in the RA to obtain an accurate picture of the real state of forest areas and set realistic targets. To ensure the financing of these activities, apply to the Government of Armenia and international donor organizations.
- Strengthen control over forest areas to exclude anthropogenic sources of forest fires.
- Direct the vector of control over illegal timber transportation towards preventive measures for illegal deforestation in forests.
- When developing the environmental strategy, take into account the targets set for the forest sector in the GoA Decision No. 2318-L on LT-LEDS, and include provisions for afforestation and reforestation of community-designated forest lands.
- After the establishment of new forest areas, ensure the necessary measures for their protection.
- Improve the existing forest monitoring system.

⁵² Armenia Environmental Bulletin 2022, "Hydrometeorology and Monitoring Center" SNCO, <https://armmonitoring.am/public/admin/ckfinder/userfiles/files/texekanq/tarekan/annual-2022-1.pdf>



- Develop uniform indicators for assessing the condition of forest systems, including climate indicators.

Recommendations to the local self-government institutions

Increase the area of community forests using the following mechanisms:

- creation of forest cooperatives, whose members can enjoy the rights and benefits defined in Article 5 of the Forest Code of the RA,
- adoption of a decision of the community council on the allocation of territory for community forests,
- allocation of separate funds in the community budget for the creation of community forests,
- conduct events to raise public awareness of forest fires, teach fire safety rules, place information stands on fire safety,
- develop renewable energy on the community level to reduce the load on forests.

II Agriculture sector (CEPA Article 52, point (b), Article 54, points (c) and (d), CEPA Roadmap 130 measure)

In the context of CC, the agricultural sector is involved in both adaptation and mitigation measures.

According to data from the SC, agricultural land decreased from 2,042.5 thousand hectares in 2021 to 2,041.4 thousand hectares in 2023, reflecting a decline of 1.1 thousand hectares⁵³. This decrease results from the change in land category from agricultural to industrial, energy, and other purposes. This process was facilitated by the GoA decision No. 987-N of 2021⁵⁴, which allows the reclassification of agricultural land for other purposes without defining exceptional cases.

Recommendation to the RA Government and the Ministry of Economy

- Make amendments in the GoA decision No. 987-N, dated June 17, 2021 "On Defining Cases of Conversion of Agricultural Land to Non-Agricultural Land", to establish the cases excluding the conversion of agricultural lands.

Existing agricultural lands are experiencing an acute water deficit, which makes their full use impossible.

According to the annual reports of the RA Water Committee⁵⁵, Jrar" CJSC, the main supplier of irrigation water in the country, along with 15 water user companies, provided water for the irrigation of the following cultivated land areas:

- In 2021: Out of 481.5 thousand hectares of arable land and perennial plantations, 87.3 thousand hectares (18.13%) were irrigated.
- In 2022: Out of 481.9 thousand hectares, 90.2 thousand hectares (18.72%) were irrigated.

⁵³ Statistical Yearbook of Armenia 2024, Agriculture, <https://armstat.am/file/doc/99552343.pdf>

⁵⁴ GoA decision No. 987-N, dated June 17, 2021 "On Defining Cases of Conversion of Agricultural Land to Non-Agricultural Land", <https://www.arlis.am/DocumentView.aspx?docID=153709>

⁵⁵ The RA Water Committee reports, <https://www.scws.am/am/reports/annual-report>



- In 2023: Out of 481.8 thousand hectares, 87.36 thousand hectares (18.13%) were irrigated.

Community suppliers also contribute a small share to the irrigation system, which does not significantly increase this indicator.

According to the Public Services Regulatory Commission⁵⁶, the water loss from irrigation systems in the service area of "Jrar" CJSC was 19.2% in 2021, 19.2% in 2022, 19.2% in 2023, and 18.6% in 2024.

According to the Armenian Government's 2021-2026 program⁵⁷, the construction of 15 new small and medium-sized reservoirs was planned. However, not a single reservoir has been built yet.

One of the reasons for uncultivated agricultural lands is land fragmentation (small land fragments privatized to individuals, which does not allow to effectively use them for agricultural purposes). To address this issue, the government had planned measures including consolidation of land plots in fields, land enlargement, and establishment of agricultural cooperatives.

However, these measures either have not been implemented or show minimal progress.

Conclusion

During the reporting period, the key reasons for the non-cultivation of lands including lack of access to irrigation water, insufficient accumulation of water resources in reservoirs, and land fragmentation - remained unresolved.

Recommendation to the RA Government

- To increase the effectiveness of CC adaptation and mitigation policies in the agricultural sector, it is a priority to introduce a set of state incentives for reservoir construction and agricultural land consolidation.

Despite the implementation of various programs, a decline in GDP in the agricultural sector was observed during 2021-2024. The GDP of the agricultural sector (including forestry and fishing) was 11.1%⁵⁸ in 2021, 10.4%⁵⁹ in 2022, 8.4%⁶⁰ in 2023, and 7.9%⁶¹ in 2024.

⁵⁶ The reports of the Public Services Regulatory Commission, https://www.psrc.am/contents/fields/water/water_reports

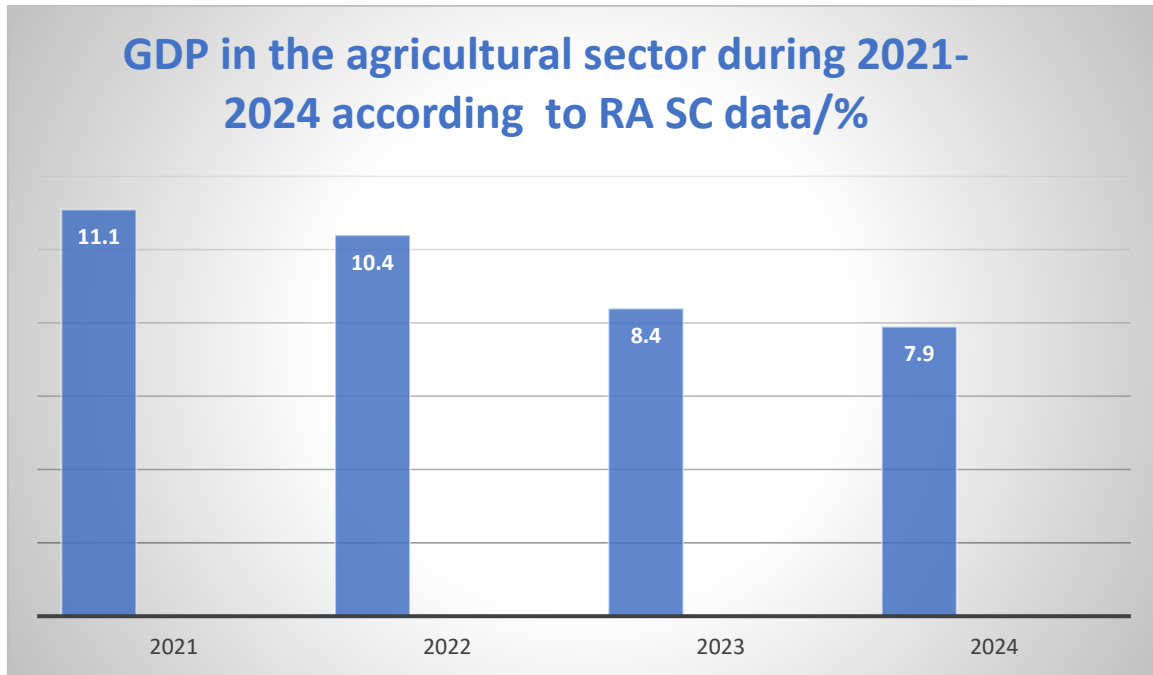
⁵⁷ RA Government Program for 2021-2026, <https://www.arlis.am/DocumentView.aspx?docID=188853>

⁵⁸ RA Statistical committee, Preliminary quarterly and annual data of the Gross Domestic Product (GDP) for 2021, <https://armstat.am/file/doc/99528978.pdf>

⁵⁹ RA Statistical committee, Preliminary quarterly and annual data of the Gross Domestic Product (GDP) for 2022 <https://armstat.am/file/doc/99536113.pdf>

⁶⁰ RA Statistical committee, Preliminary quarterly and annual data of the Gross Domestic Product (GDP) for 2023, <https://armstat.am/file/doc/99545118.pdf>

⁶¹ RA Statistical committee, Preliminary quarterly and annual data of the Gross Domestic Product (GDP) for 2024, <https://armstat.am/file/doc/99556063.pdf>



The agricultural sector development strategy and action plan for 2020-2030 were approved in 2019⁶². The action plan of the strategy has been updated, and new climate adaptation measures have been included in 2023.⁶³

CC adaptation measures of the agricultural sector strategy and their implementation

1. "Development and implementation of the insurance system in 6 regions of the RA

Measure Performance

By GoA decision No. 1485-L, dated October 24, 2019⁶⁴, an insurance system was planned for the period 2019-2023 in 6 regions, covering 3 risks: hail, fire, and frost.

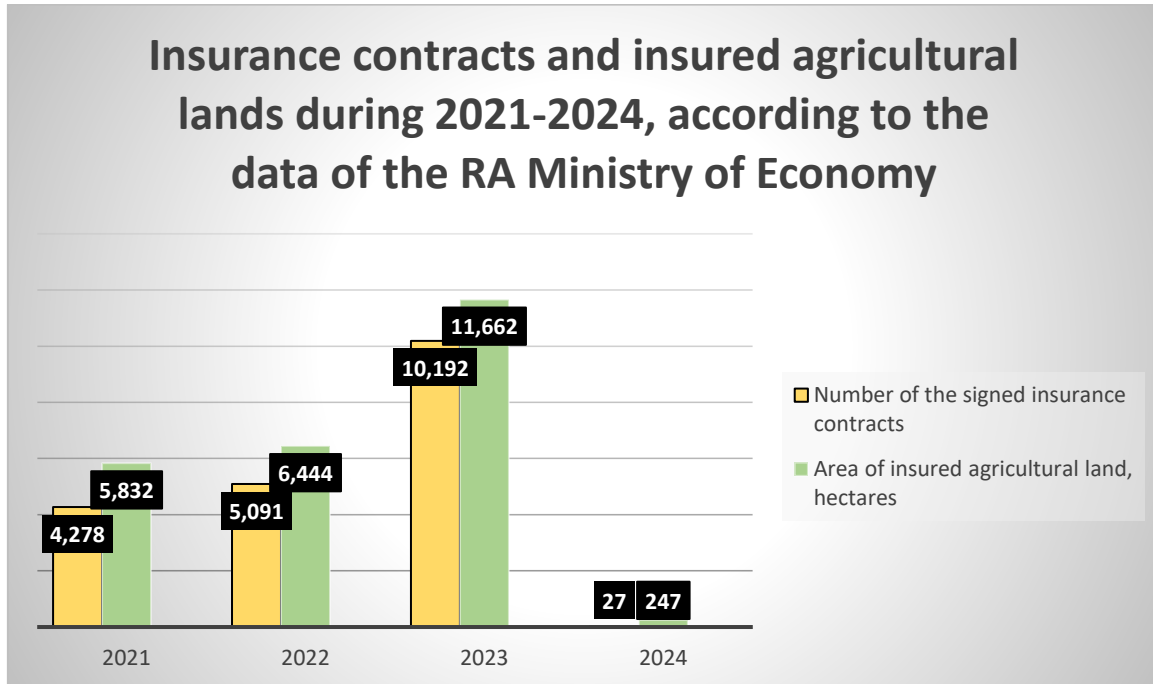
In 2021, 4,278 contracts were signed, insuring 5,832 hectares of land, in 2022, 5,091 contracts, insuring 6,444 hectares⁶⁵. According to the response from the Ministry of Economy, No. 09.9.9/3102-2025, dated February 19, 2025, in 2023, 10,192 contracts were signed, insuring 11,662 hectares of land. The same response from the Ministry mentions that, due to the high loss rates recorded in 2023, the reinsurance company exited the Armenian market in 2024, and in order to mitigate the risks of insurance companies, the RA Government assumed this responsibility. As a result, for the 2024 agricultural year, 27 insurance contracts were signed to insure a total area of 247 hectares.

⁶² GoA Decision N 1886-L, dated December 19, 2019 "On the Approval of the Economic Development Directions of the Agricultural Sector of the Republic of Armenia for 2020-2030 and the Program of Activities for the Implementation of Economic Development Directions of the Agricultural Sector of the Republic of Armenia for 2020-2022 and 2023-2026 and the related timeline", <https://www.arlis.am/DocumentView.aspx?docid=180657>

⁶³ GoA Decision No. 1222-L, dated July 20, 2023 "On the amendments to Government Decision No. 1886-L of the Republic of Armenia", <https://www.arlis.am/DocumentView.aspx?docid=180654>

⁶⁴ GoA decision "On Approving the State Assistance Program for the Implementation of the Pilot Program for the Introduction of the Insurance System in the Agricultural Sector" No. 1485-L, dated October 24, 2019, <https://www.arlis.am/DocumentView.aspx?docid=135781>

⁶⁵ The RA Ministry of Economy, Agricultural Support Programs 2022 Annual Report, <https://mineconomy.am/media/22735/2022.pdf>



By comparing the data from the RA SC and the RA Ministry of Economy, it is revealed that:

- In 2021, out of a total of 481.5 thousand hectares of arable land and perennial plantations, 5.832 thousand hectares were insured, which accounts for 1.21% of the total land area.
- In 2022, out of a total of 481.9 thousand hectares of arable land and perennial plantations, 6.444 thousand hectares were insured, which accounts for 1.34% of the total land area.
- In 2023, out of a total of 481.8 thousand hectares of arable land and perennial plantations, 11.662 thousand hectares were insured, which accounts for 2.42% of the total land area.
- In 2024, 247 hectares were insured. Assuming the 2023 figures for the area of arable land and perennial plantations, this results in 0.05% for 2024.

Conclusion

The agricultural insurance system is weak, and the implemented adaptation measure is insufficient.

Recommendation to the RA Government

- Ensure the development of the agricultural land insurance system’s capabilities, which will allow for an increase in the area of insured lands and the variety of crops covered.

2. Develop and implement an effective anti-hail system

Measure Performance

- According to the Ministry of Economy, the hail protection nets have been installed in 729.9 hectares of new intensive gardens, the total area of which is 3270 hectares. In percentage terms, this is only 22.32% of intensive gardens.



Recommendation to the EU

Guided by Article 52 of the CEPA, assist Armenia in introducing new anti-hail technologies.

Recommendation to the RA Government

- Encourage the installation of hail protection nets in new areas.

Recommendation to the Ministry of Economy

- Study the international experience of anti-hail systems operating with modern technologies, and adapt them for use in Armenia.

3. Promotion and dissemination of the introduction of advanced irrigation technologies

According to the strategy, it is planned to promote the introduction of modern irrigation systems in an area of about 1000 ha annually with state support.

Measure Performance

According to the RA Ministry of Economy, within the framework of the Intensive Gardening Development Program for 2021-2024, an application for the establishment of gardens and the introduction of advanced irrigation technologies was signed for about 9400 ha. Irrigation systems were introduced in an area of 4375 ha.

Conclusion

The implementation of the target for the introduction of modern irrigation systems on 1,000 hectares annually, as outlined in the strategy, is sufficient.

According to the response from the RA Ministry of TAI, dated 17.02.2025, No. AE/17.1/5513-2025, with the support of UNDP, the modernization of the "Benjamin" pumping station in Shirak region, and the two-stage "Ayroum-Tsotskan" and "Tsotskan" pumping stations in Lori region was carried out in 2024.

Within the framework of the "Irrigation System Rehabilitation" program, 15 rehabilitation works were carried out from 2021 to 2024, of which 8 are still in progress.

From 2021 to 2023, works on the construction of water metering points and installation of metering devices were carried out in the service areas of 15 water users and "Jrar" LLC.

4. Establishment of a System for Forecasting and Early Warning of Hazardous Hydro-Meteorological Events

Measure Performance



By order No. 1176-L, dated September 30, 2022, the Director of the Ministry of Environment’s “Hydrometeorology and Monitoring Center” approved a program of measures aimed at improving the climate forecasting and early warning system, along with implementation timelines. According to the response from the Ministry of Environment No. 5/07.3/1741, the program has been included in the 2025-2027 medium-term expenditure program application.

Conclusion

The measure has not yet been implemented in practice.

5. Implementation of mechanisms for the targeted and efficient use of agricultural land / Reduction of unused and fragmented agricultural land: 200 ha in 2023, 500 ha in 2024, and 500 ha in 2024

Measure Performance

According to the response from the Ministry of Economy, within the framework of the “Support for Agricultural Land Consolidation in the RA (2023-2025)” program, from the start of the program until December 30, 2024, 13 contracts have been signed for the consolidation of approximately 530 ha of land. However, no land has been consolidated yet in practice.

Conclusion

The implementation of the measure is insufficient.

Recommendation to the RA Ministry of Economy

- Develop mechanisms for promoting cooperatives in farming enterprises and implement them in communities.
- Revise the agricultural sector strategy, taking into account the targets for the agricultural sector set by the GoA's decision on the LT-LEDS.

6. Assessment of the potential for effective cultivation of crops according to agricultural zones under changing climatic conditions / Development of guidelines

Measure Performance

According to the response from the Ministry of Economy, the Armenian National Scientific Center for Vegetables, Fruits, and Technical Crops is conducting breeding work on the development of new varieties adapted to changing climatic conditions. The testing of over 20 imported varieties of vegetable crops will continue in 2025. Additionally, 16 varieties of locally produced vegetable crops, adapted to changing climatic conditions, have been introduced for testing in different climatic zones.

Conclusion

The performance of this measure is satisfactory.



7. Development of pedigree livestock breeding, poultry farming, and fish farming — implementation of a support program for the acquisition of pedigree animals, management of the pedigree animal registry, and support for the application of effective livestock management technologies.

The target is to increase the share of pedigree animals in the total livestock population by 1.5-2%, with the acquisition of 500-600 pedigree large and small ruminants annually from 2023 to 2026.

Measure Performance

The import figures of large and small ruminants in Armenia for the years 2021-2024 according to the Ministry of Economy's 2024 report⁶⁶ are as follows:

Year	Large ruminants	Small ruminants
2021	750	123
2022	334	331
2023	369	301
2024	269	63

The work is ongoing, as evidenced by the GoA No. 1392-L, adopted on August 22, 2024⁶⁷, regarding the approval of "Programs for the Promotion of Animal Husbandry in the RA."

Conclusion

The import figures for large and small ruminants align with the targets set in the strategy.

8. Support for the construction or reconstruction of small and medium "Smart" livestock barns and their technological provision

The strategy has set targets for the construction of 21 "smart" livestock barns in 2023, 10 in 2024, 10 in 2025, and 2 in 2026.

Measure Performance

According to the Ministry of Economy's 2024 report, 45 "smart" livestock barns were built from 2021 to 2024. According to the Ministry of Economy's response, 58 barns have been commissioned as part of the state support program for the construction or reconstruction of small and medium "smart" livestock barns and their technological provision since the program's launch.

⁶⁶ The RA Ministry of Economy, Agricultural Support Programs 2024 Annual Report, <https://mineconomy.am/media/32614/Hashvetvutyun2024..%20%285%29.pdf>

⁶⁷ GoA decision No 1392-L, dated August 22, 2022 “On approval of Programs for the Promotion of Animal Husbandry in the Republic of Armenia”, <https://mineconomy.am/media/30195/1392.pdf>



Additionally, the "support for investment programs in the livestock sector" pilot program is being implemented, under which it is planned to establish 7 large-scale livestock complexes.

Conclusion

The implementation of the measure is satisfactory and in line with the agricultural sector strategy.

9. Establishment of a Rapid Response System for Outbreaks of Highly Dangerous Diseases and Pests / Development and Implementation of a Risk Prevention and Management System Due to CC

Measure Performance

According to the response from the Ministry of Economy, a draft law on amendments and changes to the "Plant Sanitary Law" has been developed and circulated. This draft is aimed at creating the legal basis for the preparation of a legal act to establish a working group for the introduction of a rapid response system for outbreaks of highly dangerous diseases and pests and to approve its working procedures. After the draft law on amendments and changes to the "Plant Sanitary Law" comes into force, it is planned to circulate the already prepared draft decree on the establishment of a working group and approval of its working procedures for the introduction of a rapid response system for outbreaks of highly dangerous diseases and pests.

Conclusion

The implementation of the measure has commenced.

10. Preventive measures against the penetration and spread of diseases and pests in the context of CC / Improvement of the quality of control at border points in Armenia

Measure Performance

According to the Ministry of Economy's response, a discussion was held on January 17, 2024, at the RA Ministry of Economy, with the participation of representatives from relevant bodies, regarding the full implementation of preventive measures against the penetration and spread of diseases and pests in the context of CC.

Considering that the customs authorities are responsible for the functions of state control at border crossing points, the Coordination Office of the Supervisory Bodies has proposed the State Revenue Committee as the responsible body for this measure. The results of the discussion were presented to the Office of the Prime Minister of Armenia on January 19, 2024, in a letter from the Ministry.

Conclusion

The implementation of the measure is still in the discussion phase, and the performance remains unclear.

Recommendation to the Ministry of Economy



Make amendments in the GoA decision N 1886-L, dated December 19, 2019 “On the Approval of the Economic Development Directions of the Agricultural Sector of the RA for 2020-2030 and the Program of Activities for the Implementation of Economic Development Directions of the Agricultural Sector of the RA for 2020-2022 and 2023-2026 and the related timeline” to ensure the inclusion of the targets set by the LT-LEDS for the agricultural sector, and to include provisions for supporting, advising, and assisting communities and farm enterprises in the implementation of climate adaptation measures and programs, as well as promoting agricultural cooperatives.

III Energy Sector (CEPA Article 52, point (b), Article 54, points (c) and (d), CEPA Roadmap 130 measure)

The energy sector is the largest source of GHG emissions in Armenia, accounting for 64.0% according to the latest GHG Emissions Inventory.

CC mitigation measures in the energy sector are reflected in the LT-LEDS document. Accordingly, the reduction of GHG emissions in the energy sector is planned to be achieved through the commissioning of new renewable and nuclear energy capacities.

According to Armenia’s NDC, the share of renewable energy in the total energy balance is planned to be doubled by 2030.

According to the GoA decision No. 1827-L, dated October 26, 2023⁶⁸, the capacity of solar and wind power plants is planned to reach at least 2000 MW by 2040, while the capacity of small HPPs is set to increase from 380 MW to 430 MW.

As a result, the share of electricity generated from renewable energy sources in the total final electricity consumption is expected to reach around 50% by 2030, including large HPPs, and around 60% by 2040.

During 2021-2024, the combined share of electricity generated by large HPPs, solar power plants, and small HPPs has increased in the electricity balance.

According to the data from the Public Services Regulatory Commission the share of electricity generated from renewable energy sources in the electricity balance during 2021-2024

Year	Share of electricity generated by large HPPs, small HPPs, and solar power plants, %	Share of electricity generated by small HPPs and solar power plants, %	Share of electricity generated by small solar power plants (till 30MW), %
2021	29.87	8.57	1.17
2022	24.57	11.81	2.71
2023	24.01	12.87	4.52
2024	30.9	19.4	5.3

⁶⁸ GoA decision No. 1827-L, dated October 26, 2023 “On Making Amendments and Additions to the Republic of Armenia Government Decision No. 48-L of January 14, 2021”, <https://www.arlis.am/DocumentView.aspx?docid=184420>



Conclusion

If these trends continue, the Government of Armenia may achieve the 50% target set for 2030. To reach this goal, industrial-scale solar power plants are being constructed in Armenia. According to the response from the Ministry of TAI, the 55 MW "Masrik 1" solar power plant will be commissioned in 2025, while the 200 MW "Ayg 1" solar power plant will be commissioned in 2027.

The "CC Adaptation Program in the Energy Sector," planned under GoA decision No. 749-L, dated May 13, 2021, was not approved.

According to the instructions of the Deputy Prime Minister (No. 02.1/03.8/31094 dated September 8, 2023) and the protocol decision No. KA/382 of the Financial and Economic Ministerial Committee meeting dated December 26, 2022, the Energy Sector Adaptation Program must be incorporated into the Energy Sector Development Strategy.

Recommendation to the RA Ministry of TAI

- Define the energy sector adaptation measures through a separate GoA decision or prioritize the adoption of a new Energy Sector Development Strategy that includes comprehensive measures for both CC adaptation and mitigation in the energy sector.

Energy poverty

According to the GoA decision No. 398-L dated March 24, 2022⁶⁹, more than half of Armenian households—58.6%—are unable to adequately heat their homes during the cold months. According to the Eurostat definition, they can be considered energy-poor.

The "EcoLur" Informational NGO proposed that the Ministry of TAI define the term "energy poverty" in the RA Law on "Energy Efficiency and Renewable Energy," establish requirements for overcoming energy poverty, and develop regulatory mechanisms for this issue. In response, the Ministry stated that the development of the draft Law on "Electricity" was based on the directives defined by CEPA, which do not include specific regulations on energy poverty⁷⁰.

Recommendation to the EU

- Include clear indicators for measuring "energy poverty" in EU directives and develop a set of tools aimed at overcoming it.

⁶⁹ GoA decision No. 398-L dated March 24, 2022 “On approving the energy efficiency and renewable energy program for 2022-2030 and the implementation program-timeline for the first phase (2022-2024) of the energy efficiency and renewable energy program for 2022-2030”, <https://www.arlis.am/DocumentView.aspx?docid=161408>

⁷⁰ “TAI’s Observations on Ecolur’s Recommendations in Energy and Climate Change Policies” , <https://www.ecolur.org/en/news/energy/15835/>



Since the energy sector is multi-layered, within the framework of this research, we have focused only on the progress of renewable energy development, while the study of the remaining components requires additional monitoring.

IV Waste Sector (Solid Waste Management, Sewage Water) (CEPA Article 52, point (b), Article 54, points (c) and (d), CEPA Roadmap 130 measure)

As of 2020, 298 landfills have been mapped in Armenia, which do not comply with sanitary standards, do not have the status of legal landfill. According to the Ministry of TAI, Armenia’s first sanitary landfill has been built in Hrazdan, Kotayk region, with operations expected to begin in 2025.

According to the SC of Armenia⁷¹, the volumes of solid household waste transferred to landfills in 2021-2023 years are as follows:

- 2021 - 487,400 tons of waste
- 2022 - 532,700 tons of waste
- 2023 - 433,300 tons of waste

The following have been neutralized and destroyed:

- 2021: 28.8 tons of non-hazardous waste
- 2022: 20,930.6 tons of non-hazardous waste
- 2023: 190.9 tons of non-hazardous waste

The amount of non-hazardous waste neutralized and destroyed during 2021-2023:

- 2021: 28.8 tons of waste
- 2022: 20,930.6 tons of waste
- 2023: 190.9 tons of waste

According to the Ministry of TAI data, 22 waste recycling plants are currently operating in Armenia. However, there are no municipal waste utilization or incineration plants in the country.

The main requirements of Annex 3 of CEPA on "Waste Management" have not been implemented:

- Preparation of waste management plans in line with the five-step waste hierarchy and of waste prevention programmes (Reduce, Reuse, Recycle, Recover, Dispose).
- Establishment of a permitting system for establishments/undertakings carrying out disposal or recovery operations, with specific obligations for the management of hazardous wastes
- Establishment of a register of waste collection and transport establishments and undertakings
- Preparation of a national strategy reducing the amount of biodegradable municipal waste going to landfill.

⁷¹ https://armstat.am/file/article/eco_book_2023_9.pdf



- Establishment of full cost recovery mechanism in accordance with the polluter pays principle and extended producer responsibility principle
- Classification of landfill sites.

There is a lack of information databases and registries regarding landfills or waste piles in Armenia. The monitoring of landfills by the Ministry of Environment and the Ministry of TAI is incomplete. The waste sorting process is still in its initial stage.

Conclusion

Due to the small volumes of waste sorting and recycling, the majority of municipal solid waste is transported to landfills. The economic mechanisms for waste sorting and recycling are insufficient to incentivize businesses involved in this sector. In such a situation, achieving the targets set by the NDC is unlikely.

The main part of the requirements under the "Waste Management" section of Annex 3 of the CEPA has not been fulfilled.

Recommendation to the RA Government

- In the newly developed CEPA road map, provide clear mechanisms for implementing measures to ensure compliance with the requirements of the "Waste Management" section of CEPA Annex 3.

Waste Water

In Armenia, the key operator of water supply and sewage water management is “Veolia Jur” CJSC since 2017.

About 580 settlements not served by “Veolia Djur” CJSC have no sewerage systems.

In 2021, Armenia generated 310 million m³ of municipal wastewater annually, with 91.94% untreated, 7.93% mechanically treated, and only 0.13% biologically treated. This trend continues.

In 2022, a draft decision⁷² of the RA Government on "Approving the Concept for the Development of the Wastewater disposal sector" was developed but not adopted.

According to the draft, six wastewater treatment plants have been built in recent years and are currently operational, serving the towns of Parakar, Gavar, Martuni, Vardenis, Jermuk, and Dilijan, along with nearby villages. However, the majority of the 21 previously constructed treatment plants are no longer functional.

⁷² Draft decision of the RA Government on "Approving the Concept for the Development of the Wastewater disposal sector", <https://www.e-draft.am/projects/5036/about>



At Yerevan’s "Aeration" wastewater treatment plant, only removal of large garbage is performed. A new treatment plant was built in Yerevan during 2013-2017, but it has not yet been put into operation.

In Gyumri, Vanadzor, and several other settlements, the areas of the existing treatment plants have been alienated.

There is no quantitative or qualitative monitoring of wastewater discharges into sewerage systems by commercial entities.

Water intake, drainage, and wastewater volumes in Armenia for 2021-2023, according to the SC data⁷³

Year	Total water intake volume, million m ³	Waste water disposal volume, million m ³	The percentage ratio of water intake to generated waste water	Polluted waste water volume, million m ³
2021	2966,5	803	27,6%	286
2022	3077,8	888	28,9%	750
2023	2917,6	722	24,7%	155

Conclusion

The ratio of generated wastewater to water intake indicates that most of the supplied water does not enter the sewerage network. The volumes of environmental pollution and GHG emissions from wastewater have not been assessed.

No biogas is collected from wastewater treatment plants.

580 settlements lack sewerage systems.

Recommendation to the RA Government

Adopt a Wastewater disposal Sector Development Program. The document must:

- Take into account state commitments to reduce GHG emissions from the wastewater sector;

⁷³ Statistical Yearbook of Armenia 2024, Environment and Natural Resources, <https://armstat.am/file/doc/99552323.pdf>



- Include provisions for implementing GHG mitigation measures outlined in Armenia’s NDC;
- Introduce measures to expand sewerage systems in the 580 settlements currently lacking such infrastructure.
- Ensure biogas capture infrastructure integration into existing WWTPs and planned WWTPs.

Recommendation to the RA Ministry of TAI

Make amendments in the GoA decision “On Amendments and Additions to the Government Decision No. 143-L of February 13, 2025” regarding the Waste management system strategy, to ensure the inclusion of the targets set by the LT-LEDS in that document.

COMMUNITIES

To determine the localization level of CC adaptation and mitigation policies, the 2021-2024 subsidy and development programs of Pambak (Lori region), Dilijan (Tavush region), Martuni (Gegharkunik region), and Yeghegis (Vayots Dzor region) enlarged communities were studied, and correspondence was conducted with local self-government bodies.

Conclusion

- As a result, the following findings have been identified:
- Although some community subsidy and development programs have a climate focus, the climate impact component of these programs is not assessed.
 - Subsidy programs are not considered, evaluated, or planned from the perspective of GHG emission reductions. Communities have not voluntarily undertaken such commitments.
 - Communities have not conducted climate risk assessments and do not have a developed CC adaptation and mitigation program/strategy.
 - Communities lack specialists and capacity to develop programs related to CC mitigation, adaptation, and energy transition.
 - Limited community budgets are insufficient to finance new initiatives.

Recommendations to the local Self-government bodies

- To reduce energy poverty, mitigate, adapt to, and prevent the impacts of natural and man-made disasters and CC, establish a professional working group. Define clear circle for the group's authority, responsibilities, and accountability. Initiate the process of staffing the municipal administration with relevant energy and climate expert positions. This will promote engagement in climate policy at the local level and the inclusion of a



climate component in the community’s annual work plans, development programs, and subsidy programs.

- Include a component in the expenditure section of the community budget titled "Expenses for the Implementation of Annual Environmental, Climate, and Energy Programs, as well as Disaster Risk Reduction Measures", creating the basis for climate tagging in the community’s annual budget.
- Set up a fund within the municipal staff structure to outsource work related to engagement in international programs to professional entities.
- Conduct a climate risk assessment and develop a CC adaptation and mitigation action plan or strategy.
- Establish forestry cooperatives in the community to create, maintain, and expand community forests, allowing the cooperative members to benefit from the rights and privileges defined under Article 5 of the RA Forest Code.
- Designate special zones for the creation and expansion of community forests and green spaces, taking into account the geographical location of proposed areas, water accessibility, and in collaboration with specialists and donor communities. Additionally, restrict construction in areas where the establishment of community forests is feasible.
- Conduct awareness campaigns among the population on fire safety regulations and the harmful effects of forest fires. Install information fire safety signs in vegetated areas and forests.
- To reduce pressure on forests, promote community-based renewable energy.
- When developing the community’s five-year development and subsidy programs, consider:
 - The localization of national CC mitigation and adaptation policies,
 - The UN Sustainable Development Concept,
 - The real needs of the population.
 - Introduce advanced and water-efficient systems in water supply, particularly in irrigation system.
 - Support the expansion of anti-hail systems in the community.
 - Carry out work to join the EU Covenant of Mayors.
 - Neutralize spontaneously formed waste piles.

Recommendation to the RA Ministry of TAI

- Submit a proposal to the RA Government to make amendments in the GoA decision No. 1708-N of November 16, 2006, "On Approving the Procedure for Allocating Subsidies from the State Budget to Communities." The amendment should establish a lower co-financing share for communities in programs aimed at:
 - CC adaptation and mitigation;
 - Energy conservation and energy efficiency.

This measure will serve as an incentive for promoting climate-related programs and fulfilling the country’s international commitments.

- Make a supplement in the RA law "On Local Self-Government" to define the relevant powers and duties for local self-government bodies regarding the annual reporting of GHG, GHG absorption indicators from the atmosphere, and CC mitigation measures monitoring, in order to ensure compliance with the requirements of the GoA decision



No. 54-N, dated January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions."

- Support the process of filling positions with energy and climate specialists in the staff of community municipalities. This will strengthen the community's capacities, aimed at involving local-level climate policy, and will ensure that, with the help of these specialists, a climate component is included in the community's annual work plans, four-year development, and subvention programs.

ANALYSIS OF ADOPTED LEGAL AND NORMATIVE ACTS

1. The Law of the RA on Amending the Law on "Protection of Atmospheric Air" (ՀՕ-522-N, December 7, 2022)

Omissions

The concept of "Emission Permit" in the Law does not include the term "GHG Emission Permit", nor a requirement to obtain such a permit for GHG emissions.

Recommendation To the Ra Ministry of Environment

Make additions and amendments to the Law on "Protection of Atmospheric Air":

Amend point 19 of Article 4 introducing the concept of a unified permit for maximum allowable emissions of GHGs and other pollutants from stationary sources.

This will allow organizations to obtain a single unified permit for emissions of harmful substances and GHGs into the atmosphere, avoiding duplication.

"On Amendments to the Law of the RA on Environmental Impact Assessment and Expertise" Law ՀՕ-150-N.

Omissions

The law does not define a practical assessment toolkit for CC mitigation and adaptation measures, which makes it impossible to evaluate the impact of planned activities, policies, or strategies on CC, as well as to assess the effectiveness of CC mitigation and adaptation measures during the implementation of these activities.

Recommendation to the Ministry of Environment

Define in the article 9 of the "On Amendments to the Law of the RA on Environmental Impact Assessment and Expertise" Law ՀՕ-150-N the authority for authorized body to develop an assessment toolkit for the activities' and concepts' climate factors, as well as measures aimed at CC mitigation and adaptation.

3. RA Law “On Amendments and Supplements to the RA Water Code ” Law No. 07.07.22



ZO-316-N

Omissions

1. **Article 10, which defines the functions of the authorized body, lacks the following:**
 - The authority to establish mechanisms for mitigating negative climate impacts in the water sector and for assessing water use applications from a CC perspective.
 - The authority to assess water resource vulnerability and CC adaptation, as well as to adopt criteria for determining the reduction of water resources due to anthropogenic impacts.
2. **The Code lacks provisions promoting water reuse and its promotion.**

Recommendations to the Ministry of Environment

- **Amend the RA Water Code** to include:
 - “Criteria for water resource reduction caused by CC or anthropogenic impact”, which will enable the implementation of Article 33.1 of the law that defines the cases for reviewing water use permits.
 - Provisions on mechanisms for assessing water use applications from a CC perspective and for mitigating negative climate impacts in the water sector.
 - Provisions to promote and ensure the effective implementation of water reuse, which will contribute to rational water use and conservation.

4. GoA Decision No. 54-N, dated January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions"

Omissions

Form 4, approved by the decision, requires the provision of information on the volume of waste deposited in municipal landfills. However, the terms "community landfill" are absent in the Laws of the RA Law on Waste Disposal and Sanitary Cleaning and RA law “On Waste.”

In addition to solid household waste sites established by community utility services or operators, unauthorized landfills and waste dumps also exist within the administrative territories of communities. The current data collection procedure does not account for these unauthorized sites, which will result in inaccurate calculations of methane emissions from landfills.

Additionally, point 2.8 of Form 2 requires information on the "recorded number of illegal tree cuttings." However, this data is insufficient, as it does not reflect the actual number of illegal deforestation cases, leading to an incomplete calculation of GHG emissions.

The regulation does not provide for penalties or accountability measures in cases where reports on GHGs are not submitted.

Recommendations to the Ministry of Environment



Amend the decision to include:

- A provision for amending the RA Code on Administrative Offenses to ensure the enforcement of the regulation by establishing liability for failure to submit GHG reports.
- The establishment of realistic indicators for the volume of municipal solid waste disposed of in "community landfills" and for illegal logging to enhance the accuracy of GHG calculations.
- Amendments to the RA laws “On Waste Disposal and Sanitary Cleaning” and “On Waste” to define the concept of "community landfill", ensuring alignment with Decision No. 54-N on the procedure for inventorying GHG emissions and providing a legal basis for reporting GHG emissions from community landfills.

5. GoA Decision No.610-L, dated April 22, 2021 "On Approving Nationally Determined Contribution (NDC) of the RA under the Paris Agreement on the UN Framework Convention on Climate Change for 2021-2030”

Omissions

- The selection of certain targets for GHG reduction in the NDC is not well-founded, as the baseline forest area was not considered in the calculations. Additionally, emissions from spontaneously formed waste piles were not taken into account.

Recommendations to the RA Government

1. Define performance indicators for the implementation of NDC 2.0, evaluate its performance based on these indicators, and ensure its transparency.
2. When developing NDC 3.0, set realistic targets considering both the performance of NDC 2.0 and the actual foundations of calculations, as well as the capabilities of Armenia.
3. Approve the GoA decision on "Measurement, Continuous Monitoring, Evaluation, and Accountability of Policies and Measures for Mitigating Greenhouse Gas Emissions".

6. Draft law “On Climate”

Omissions

- The draft law lacks a set of tools to guarantee state support to climate-vulnerable communities, which does not ensure the targeting of the guarantee and the applicability of the law in this matter.
- There is no provision for supporting communities in reducing GHG emissions and expanding carbon sinks, which is necessary to prevent the failure of state policy.
- The climate marking requirement for community budgets set by the draft law is not imperative.
- There is no corresponding mechanism for conducting continuous monitoring of the climate financing, technology transfer, and capacity-building activities received by local governments and for submitting data to the authorized body every two years.
- The process for local governments involvement in the development of legal acts related to CC mitigation and adaptation, which have direct or indirect effects on the community



as outlined in Article 15, Part 2 of the draft law, is missing, as well as the procedure for presenting written positions on this matter.

- The draft law does not require amendments to the RA Code on "Administrative Offenses" to enforce liability for violations of the draft law's provisions.

Recommendations for the Ministry of Environment

- Define the toolkit of guarantee mechanisms for supporting vulnerable communities provided in the draft law, ensuring the targeting of the guarantor and the enforceability of the law in this regard.
- Add a provision for providing support to communities in reducing GHG emissions and expanding carbon sinks.
- Make the climate marking requirement for the community budget, as defined in the draft law, mandatory.
- Provide a mechanism for continuous monitoring of the climate financing, technology transfer, and capacity-building measures received by local governments, with data submission to the authorized body every two years.
- Include procedures for local governments to participate in the development of legal acts containing components of CC mitigation and adaptation that have direct or indirect effects on the community, as well as procedures for submitting their written positions on these matters.
- Include in the draft law a provision on amending the "Code on Administrative Offenses" of the RA.

7. GoA decision No. 1692-L, dated November 3, 2022, "On Approving the Climate Change Adaptation Program in the Water Resources Sector and the List of Measures for 2022-2026"

Omissions

- The decision does not clearly define the regulatory framework for interrelations between state agencies authorized in the sector, except for the provision on information exchange with the Water Committee.
- It does not address the implementation of the measure outlined in Appendix 1 of the RA Governmental Decision No. 650-L, dated May 16, 2019, which mandates the development of hydrological and chemical forecasts of water resources based on CC, including the formulation of baseline, optimistic, and pessimistic scenarios.
- The participation of civil society organizations is limited to local impact monitoring of CC. There is no inclusion of civil society and community perspectives in the indicators used to assess the effectiveness of water sector adaptation measures.
- The timelines and required financial investments for the 26 planned measures are unrealistic, given that the program was approved in November 2022, and its implementation within three years is unlikely, particularly considering financial risks.

Recommendations to the RA Ministry of Environment



- Include in the decision the measure "Hydrological and Chemical Forecasting, Base, Best-Case, and Worst-Case Scenario Construction for Water Resources," which will contribute to risk management in the water sector under CC conditions.
- Insert a provision for cooperation among the state agencies responsible for the sector, ensuring the harmonization of functions of various competent state agencies in the implementation of adaptation measures in the water sector.
- Include a component of civil society opinions in the indicators for assessing the effectiveness of water sector adaptation measures, which will ensure the inclusiveness of the evaluation process.
- Set realistic timelines for the implementation of program measures, taking into account.

8. GoA decision, dated July 20, 2023, "On Amendments to the Government of Armenia Decision No. 1886-L, dated December 19, 2019"

Omissions

The measures don't include provisions regarding the support and consultation provided by the authorized body for the local communities and farms to implement CC adaptation programs aimed at the local level.

Recommendation to the Ministry of Economy RA

1. Make amendments in the RA Governmental decision **No 174-L, dated February 9, 2023** "On approving the 2023-2026 Action Plan for the Implementation of the Strategy for the Main Directions Ensuring the Economic Development of the RA Agricultural Sector for 2020-2030" which will ensure:
 - the inclusion of provisions regarding the support and advisory assistance provided by an authorized body to communities and farm enterprises when they present CC adaptation programs,
 - alignment with the targets outlined in the LT-LEDS for the agricultural sector.
2. Develop promotion mechanisms for agricultural cooperatives and introduce them in communities.

CONCLUSION

CEPA roadmap 121 123, and 130 measures were implemented particularly. 122 measure can be considered as initiated. During the period of 2021-2024, within the framework of CEPA articles related to CC adaptation and mitigation, 3 laws, the RA Governmental 7 decisions, the RA Prime Minister 1 decision, and 4 normative acts were adopted. Omissions have been identified in 14 acts, and recommendations for addressing these omissions have been developed.

Forestry sector

- Data on Armenia's forests from different sources vary and cannot be used to set new climate targets for increasing forest cover.
- Only 1.64% of the 50,000 hectares of new forests planned under the NDC by 2030 were planted between 2021 and 2024.



- Thirty years after the 1993 forest land state inventory, forest lands have been reduced by 126,200 hectares. Only during 2021–2023, it has decreased by 200 hectares. Forested lands have decreased by 45,000 hectares. Only during 2021–2023, it has decreased by 100 hectares.
- Government agencies do not apply uniform indicators to assess the condition of forest systems, which complicates the effectiveness of planned measures, including climate ones.
- According to the report of the National Greenhouse Gas Inventory of Armenia, the CO₂ sequestration volumes from the “Forest Management and Other Land Use” sector have decreased, from -550.1 Gg CO₂ equivalent in 2010 to -373.0 Gg CO₂ equivalent in 2019.

Agriculture sector

- Only during 2021–2023 agricultural lands decreased by 1.1 thousand hectares.
- The systems for ensuring climate resilience, such as hail protection, insurance, irrigation, system for forecasting and early warning of hazardous hydro-meteorological events are underdeveloped.
- During 2021-2023, an average of 18.5% of irrigable lands was irrigated by "Jrar" CJSC
- During the reporting period, the key reasons for the non-cultivation of lands including lack of access to irrigation water, insufficient accumulation of water resources in reservoirs, and land fragmentation - remained unresolved.
- During 2021–2024, the GDP share of the agricultural sector (including forestry and fishing) decreased from 11.1% in 2021 to 7.9% in 2024.
- The import figures for large and small ruminants align with the targets set in the Agricultural strategy.

Energy sector

- Armenia can achieve the target set by the NDC regarding the doubling of the share of renewable energy, as the share of electricity generated by small HPPs and solar power stations in the energy system has increased from 8.57% to 19.4% during 2021-2024.
- According to the Eurostat definition, 58.6% of Armenian households are energy-poor. CEPA does not include specific regulations on energy poverty.

Waste sector

- The majority of the requirements in the "Waste Management" section of CEPA Appendix 3 have not been implemented.
- Due to the small volumes of waste sorting and recycling, the majority of municipal solid waste is transported to landfills. The economic mechanisms for waste sorting and recycling are insufficient to incentivize businesses involved in this sector. In such a situation, achieving the targets set by the NDC is unlikely.
- In Armenia, the majority of water intake does not enter the sewage system. Biogas is not being collected from sewage water treatment plants, which leads to an increase in GHG emissions.
- The issues related to the installation of sewerage systems in 580 settlements remain unresolved.
- Armenia does not have a development program for the wastewater management sector.

Communities

- Communities have not conducted climate risk assessments and do not have a developed CC adaptation and mitigation local program/strategy.
- Deficiencies in the legislative framework, the lack of tools.
- Contradictions with other legal acts, hinder the achievement of climate targets in communities.



- The lack of the technical resources and specialists.

RECOMMENDATIONS

Recommendations to the EU

- Include clear indicators for measuring "energy poverty" in EU directives and develop a set of tools aimed at overcoming it.
- Guided by Article 52 of the CEPA, assist Armenia in introducing new anti-hail technologies and implementing forest area inventorying.

Recommendations to the RA Government

- Define performance indicators for the implementation of NDC 2.0, evaluate its performance based on these indicators, and ensure its transparency.
- When developing NDC 3.0, set realistic targets considering both the performance of NDC 2.0 and the actual foundations of calculations, as well as the capabilities of Armenia.
- Approve the GoA decision on "Measurement, Continuous Monitoring, Evaluation, and Accountability of Policies and Measures for Mitigating GHG Emissions".
- Include the measures outlined in the sectoral scenarios of the LT-LEDS in the sectoral development strategies for energy, industry, agriculture, waste management, and forestry, which will ensure clear planning for the achievement of CC adaptation and mitigation targets.
- Develop and implement state support mechanisms for the expansion of the community-based autonomous solar power plants, with the aim of gradually reducing the use of liquefied gas in households and GHG emissions.
- Ensure the development of the agricultural land insurance system's capacities to enhance the sector's climate resilience.
- Encourage the installation of hail protection nets in new areas.

Recommendations to the Ministry of Environment

- Make supplements and amendments to the Law on "Protection of Atmospheric Air" introducing the concept of a unified permit for maximum allowable emissions of GHGs and other pollutants from stationary sources in the point 19 of Article 4. This will allow organizations to obtain a single unified permit for emissions of harmful substances and GHGs into the atmosphere, avoiding duplication.
- Define in the article 9 of the "On Amendments to the Law of the RA on Environmental Impact Assessment and Expertise" Law ՀՕ-150-N the authority for authorized body to develop an assessment toolkit for the activities' and concepts' climate factors, as well as measures aimed at CC mitigation and adaptation.
- Make amendment in the RA Water Code to include:
 - “Criteria for water resource reduction caused by CC or anthropogenic impact”, which will enable the implementation of Article 33.1 of the law that defines the cases for reviewing water use permits.



- Provisions on mechanisms for assessing water use applications from a CC perspective and for mitigating negative climate impacts in the water sector.
- Provisions to promote and ensure the effective implementation of water reuse, which will contribute to rational water use and conservation.
- Make amendment in the “RA Governmental Decision No. 54-N, dated January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions" to include:
 - A provision for amending the RA Code on Administrative Offenses to ensure the enforcement of the regulation by establishing liability for failure to submit GHG reports.
 - The establishment of realistic indicators for the volume of municipal solid waste disposed of in "community landfills" and for illegal logging to enhance the accuracy of GHG calculations.
 - Make amendments in the RA Laws “On Waste Disposal and Sanitary Cleaning” and “On Waste” to define the concept of "community landfill", ensuring alignment with Decision No. 54-N on the procedure for inventorying GHG emissions and providing a legal basis for reporting GHG emissions from community landfills.
- Make supplements in the GoA decision No. 1692-L, dated November 3, 2022, "On Approving the Climate Change Adaptation Program in the Water Resources Sector and the List of Measures for 2022-2026":
 - Include in the decision the measure "Hydrological and Chemical Forecasting, Base, Best-Case, and Worst-Case Scenario Construction for Water Resources," which will contribute to risk management in the water sector under CC conditions.
 - Insert a provision for cooperation among the state agencies responsible for the sector, ensuring the harmonization of functions of various competent state agencies in the implementation of adaptation measures in the water sector.
 - Include a component of civil society opinions in the indicators for assessing the effectiveness of water sector adaptation measures, which will ensure the inclusiveness of the evaluation process.
 - Set realistic timelines for the implementation of program measures, taking into account
- Make supplements in the draft law “On Climate”:
 - Define the toolkit of guarantee mechanisms for supporting vulnerable communities provided in the draft law, ensuring the targeting of the guarantor and the enforceability of the law in this regard.
 - Add a provision for providing support to communities in reducing GHG emissions and expanding carbon sinks.
 - Make the climate marking requirement for the community budget, as defined in the draft law, mandatory.
 - Provide a mechanism for continuous monitoring of the climate financing, technology transfer, and capacity-building measures received by local governments, with data submission to the authorized body every two years.
 - Include procedures for local governments to participate in the development of legal acts containing components of CC mitigation and adaptation that have direct or indirect effects on the community, as well as procedures for submitting their written positions on these matters.
 - Include in the draft law a provision on amending the "Code on Administrative Offenses" of the RA.



- When developing the environmental strategy, take into account the targets set for the forest sector in the GoA decision No. 2318-L on LT-LEDS, and include provisions for afforestation and reforestation of community-designated forest lands.
- Conduct an inventory of forest areas in the RA to obtain an accurate picture of the real state of forest areas and set realistic targets. To ensure the financing of these activities, apply to the RA Government and international donor organizations.
- Strengthen control over forest areas to exclude anthropogenic sources of forest fires.
- Direct the vector of control over illegal timber transportation towards preventive measures for illegal deforestation in forests.
- After the establishment of new forest areas, ensure the necessary measures for their protection.
- Improve the existing forest monitoring system.
- Develop uniform indicators for assessing the condition of forest systems, including climate indicators.

Recommendation to the Ministry of Economy

- Make amendments in the GoA decision No. 987-N, dated June 17, 2021 "On Defining Cases of Conversion of Agricultural Land to Non-Agricultural Land", to establish the cases excluding the conversion of agricultural lands.
- Make amendments in the GoA decision N 1886-L, dated December 19, 2019 “On the Approval of the Economic Development Directions of the Agricultural Sector of the RA for 2020-2030 and the Program of Activities for the Implementation of Economic Development Directions of the Agricultural Sector of the RA for 2020-2022 and 2023-2026 and the related timeline" to ensure the inclusion of the targets set by the LT-LEDS for the agricultural sector, and to include provisions for supporting, advising, and assisting communities and farm enterprises in the implementation of climate adaptation measures and programs, as well as promoting agricultural cooperatives.
- Study the international experience of anti-hail systems operating with modern technologies, and adapt them for use in Armenia.

Recommendations for the Ministry of TAI

- Make a supplement in the RA law "On Local Self-Government" to define the relevant powers and duties for local self-government bodies regarding the annual reporting of GHG, GHG absorption indicators from the atmosphere, and CC mitigation measures monitoring, in order to ensure compliance with the requirements of the GoA decision No. 54-N, dated January 11, 2024, "On Approving the Procedure for Inventory of Greenhouse Gas Emissions"
- Make amendments in the GoA decision No. 1708-N, dated November 16, 2006, "On Approving the Procedure for Allocating Subsidies from the State Budget to Communities" to establish a lower co-financing share for communities in programs aimed at:
 - CC adaptation and mitigation,
 - Energy conservation and energy efficiency.
- Make amendments in the GoA decision “On Amendments and Additions to the GoA decision No. 143-L of February 13, 2025" regarding the waste management system strategy, to ensure the inclusion of the targets set by the LT-LEDS in that document.



- Prioritize the adoption of a new energy sector development strategy, which will include comprehensive CC adaptation measures and the targets of the LT-LEDS.
- Develop Wastewater disposal Sector Development Program. The document must:
 - Take into account state commitments to reduce GHG emissions from the wastewater sector;
 - Include provisions for implementing GHG mitigation measures outlined in Armenia’s NDC;
 - Introduce measures to expand sewerage systems in the 580 settlements currently lacking such infrastructure.
 - Ensure biogas capture infrastructure integration into existing WWTPs and planned WWTPs.
- Support the process of filling positions with energy and climate specialists in the staff of community municipalities. This will strengthen the community's capacities, aimed at involving local-level climate policy, and will ensure that, with the help of these specialists, a climate component is included in the community's annual work plans, four-year development, and subvention programs.