



**Expert Forum for Producers and Users of
Climate Change-Related Statistics**

**Main Issues of Availability and Reliability of Climate
Change Related Statistics in Armenia**
28-30 August 2023, Geneva, Switzerland

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Content

01-Section A

The Institutional Framework of Climate Change Statistics

03-Section C

Strengthening the "indicator-policy" link in climate change



02-Section B

Current climate change statistics (ArmStatBank)

04-Section D

Developments in National Climate Change Statistics

01

Section A

The Institutional Framework of Climate Change Statistics

Annex 1
Resolution No. 10-A of 27 February 2020
of the State Council on Statistics
of the Republic of Armenia

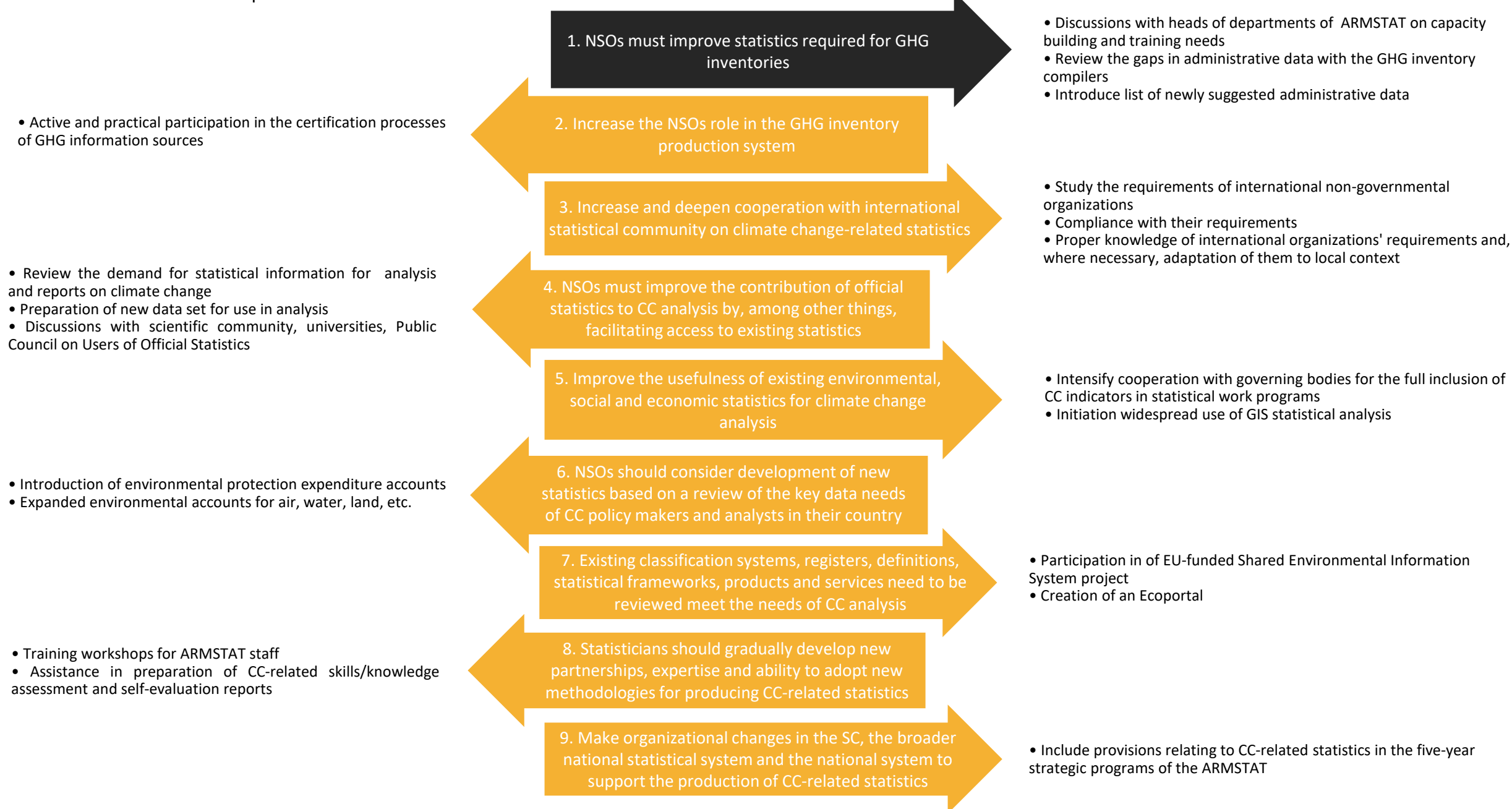
Armenia: Road Map for the Development of Climate Change-related Statistics

Yerevan
2020

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"Armenia: Road Map for the Development of Climate Change-related Statistics / Statistical Committee of the RA (www.armstat.am)

The priorities structured around the defined 9 main CES recommendations and actions to be taken



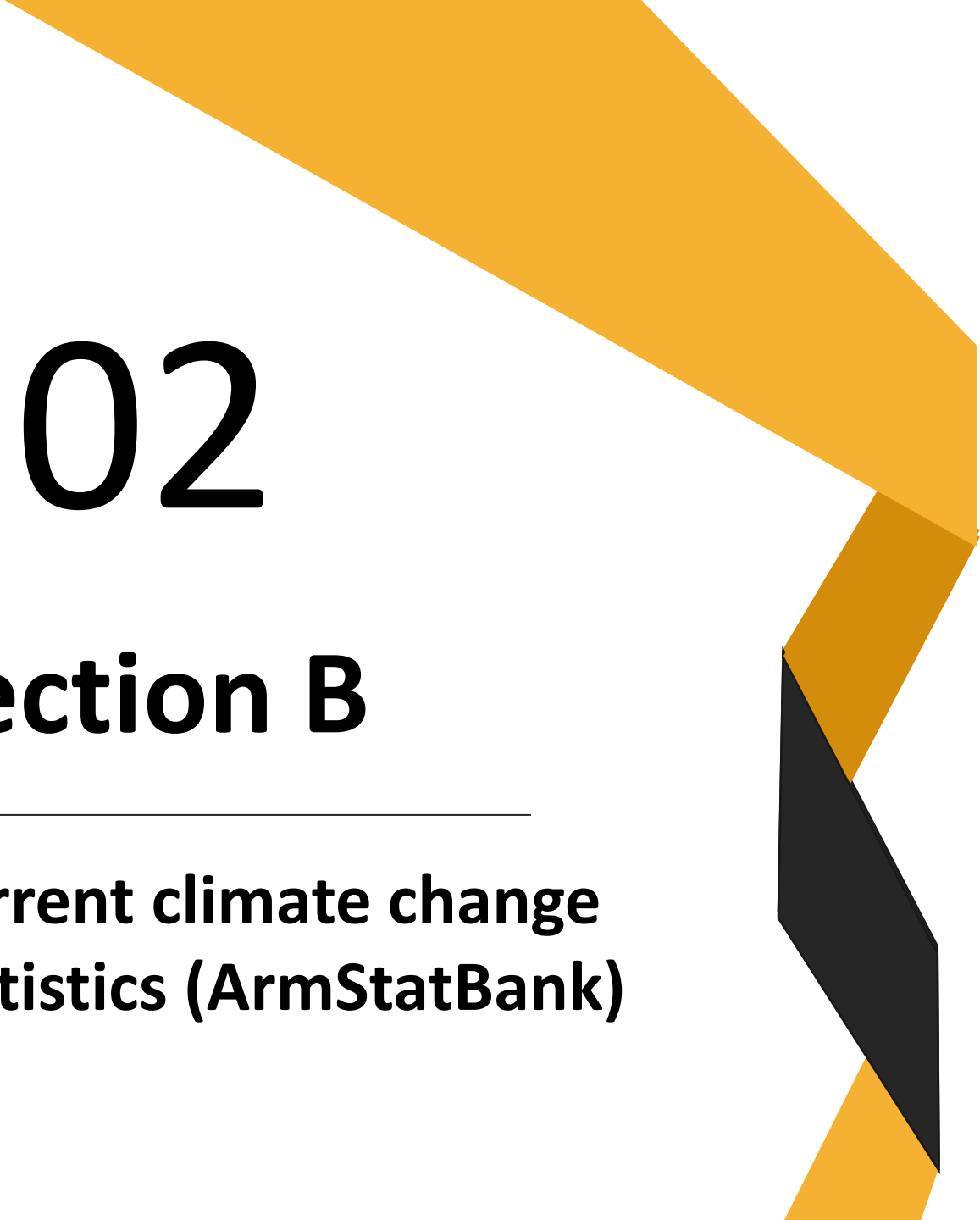
Decision of the Prime Minister of RA, in July 2021, an Inter-Agency Coordinating Council (IACC) chaired by the RA Deputy Prime Minister of RA on implementation of requirements and provisions of the UN Framework Convention on Climate Change and the Paris Agreement by the Republic of Armenia was established

Inter-Agency Working Group
on climate change mitigation
and adaptation



Inter-Agency Working Group on
country accountability under the
Convention

Inter-Agency Working Group
on financial issues

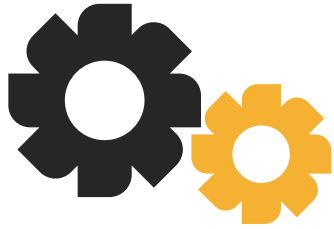


02

Section B

**Current climate change
statistics (ArmStatBank)**

The official website of the RA Statistical Committee includes several databases



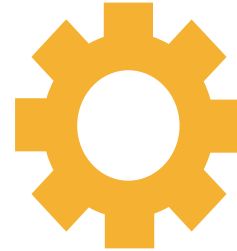
ArmStatBank

The latter was developed in 2012 and also includes the Environment sector which is based on the principles and requirements of the Shared Environmental Information System (SEIS)

ArmStatBank



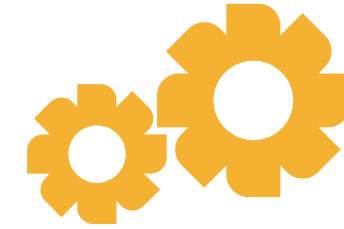
- 1. Economy and finances
- 2. Population and social processes
- 3. Industry (including Energy), construction, trade and services
- 4. Transport, communication and tourism
- 5. Foreign trade
- 6. Agriculture, forestry and fishing
- 7. Food Security
- 8 Environment
 - (A) Emissions of pollutants into the atmospheric air
 - (B) Climate change
 - (C) Water resources
 - (D) Biodiversity
 - (E,F) Land and Agriculture
 - (H) Transport
 - (I) Waste
 - (J) Environmental financing
- Mining of solid minerals by indicators and years
- Environmental economic accounts
- Life quality



Sustainable Development Goals (SDG)

Climate change indicators of SDG have been developed on the basis of ArmStatBank and UNECE indicators, which are available on a separate platform of Armstat website. 13 global (Annex 2) and 5 national SDG indicators are available on the SDG platform

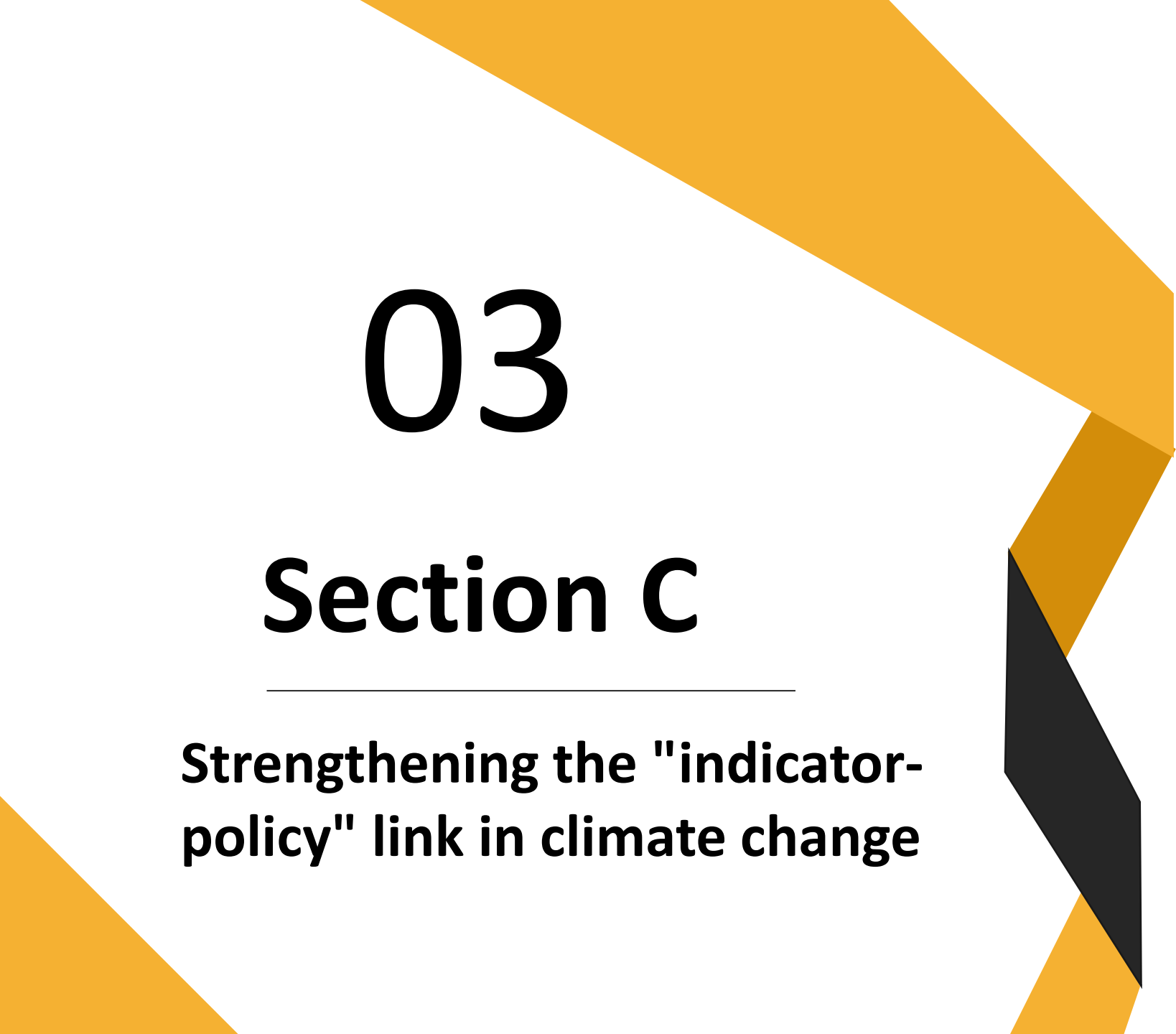
The screenshot shows the header of the Sustainable Development Goals website with the Armenian flag and the text 'SUSTAINABLE DEVELOPMENT GOALS'. Below the header are navigation links: 'Reporting Status', 'About', 'Guidance', and 'FAQ'. A search bar and a language dropdown set to 'English' are also visible. The main content area features the heading '17 goals to transform our world' followed by a paragraph explaining the goals. Below this is a grid of 17 colorful icons representing the Sustainable Development Goals, numbered 1 through 17.



System of Environmental Economic Accounting (SEEA)

The dynamic series of Water Accounts for 2015-2021 are available in the Water Accounts (SEEA) sector of ArmStatBank, while the Handbook of "Formation of the System of Water Satellite Accounts in Armenia (Armenian)" (only arm. version) is available on the website of Armstat

- Environmental economic accounts
 - Water Accounts
 - Physical water use and supply table by years, indicators and NACE categories and types
 - Physical water use and supply matrix inside economy by years, indicators and NACE categories and types
 - Hybrid water supply table by years, indicators and NACE categories and types
 - Hybrid water use table by years, indicators and NACE categories and types
 - Key Indicators by type and years
 - Life quality
 - Mortality rate attributed to household and ambient air pollution
 - Environmental satisfaction of population
 - Annual mean levels of fine particulate matter in cities
 - Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene
 - Mortality rate attributed to unintentional poisoning
 - Number of deaths, persons missing, who survived and evacuated attributed to disasters
 - Proportion of population using safely managed drinking water services
 - Proportion of population attributed to exceedance of air quality standards in urban areas
 - Proportion of population using safely managed sanitation services
 - Composite indicator of Life Quality related to the environment



03

Section C

Strengthening the "indicator-policy" link in climate change

Global Set of Climate Change Statistics and Indicators



UNSD Climate Change indicators

In 2020, Armstat, among the relevant institutions of the remaining 85 countries, filled out a questionnaire on 134 CC indicators

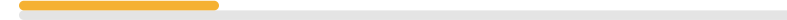
"compliance" 26.1%



"calculated by a justified methodology" 23.1%



"available" 24.6%



Armstat

Armstat is responsible for only 9 of the 35 calculated indicators, which are obtained as a result of households and other surveys.



Territorial Administration and Infrastructure

5 CC indicators (mainly on energy sector)



Other entities

The rest 11 indicators are provided by different agencies



Ministry of Environment

8 CC indicators (water resources, atmospheric air, forest, greenhouse gases, etc.)



Ministry of Internal Affairs

2 CC indicator (on natural disasters)



Studied phenomena under the influence of CC

Is the positive or negative trend of the phenomenon/sector related to climate change?

To what extent has climate change affected the observed phenomenon/sector?

Is the CC effect direct or indirect (mediated)?

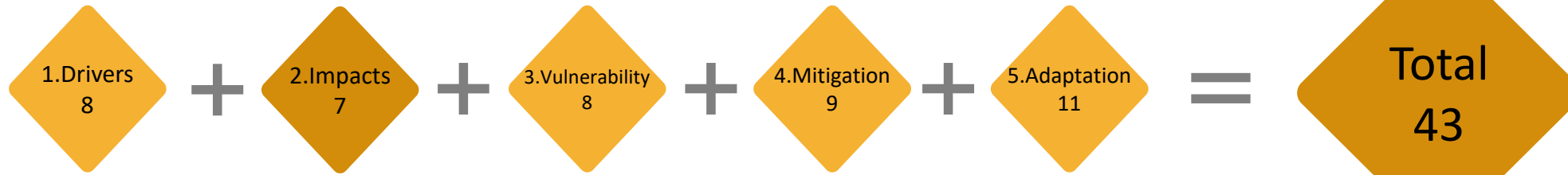
How could be separated the CC impact from the influence of other factors, etc

“The Problems of Accessibility and Quality Assurance of the Statistical Data for Climate Change National Report” Workshop

Based on climate change statistics developed by UNECE/UNDS and the complete list of indicators (158 indicators) and taking into account the country's CC specifics, the sector experts assessed and compiled a list of 43 indicators, which are mostly requested by researchers and policy makers



Mostly requested and available indicators



1. Drivers – 8 indicators	
Total greenhouse gas emissions per year	Ministry of Environment
Greenhouse gas emissions from land use, land use change and forestry	Ministry of Environment
Total greenhouse gas emissions from the national economy	Ministry of Environment
Total primary energy production from fossil fuels	Statistical Committee, Ministry of Territorial Administration and Infrastructures
Final energy consumption per capita	Statistical Committee, Ministry of Territorial Administration and Infrastructures
Population growth	Statistical Committee
Number of (fossil-driven) vehicles per capita	-----
Intensity of use of forest resources	-----

3. Vulnerability – 8 indicators	
Prevalence of undernourishment	Statistical Committee
Customer price of drinking water	Statistical Committee
Population relying on subsistence and pastoral farming	Statistical Committee
Infrastructure vulnerable to climate change	-----
Proportion of population served by municipal waste collection	-----
Proportion of population using (a) safely managed sanitation services and (b) a hand - washing facility with soap and water	Statistical Committee
Proportion of population using safely managed drinking water services	Statistical Committee
Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)	Statistical Committee

5. Adaptation – 11 indicators	
Proportion of sectors planning, budgeting and implementing climate change adaptation actions	-----
Coverage of early warning systems	Ministry of Internal Affairs
Proportion of population with access to climate information	-----
Number of reports on climate change statistics and indicators	Statistical Committee
Share of green urban areas in the total area of cities	-----
Progress towards sustainable forest management	Ministry of Environment
Meteorological monitoring network	-----
Air quality monitoring systems	-----
Water monitoring systems	-----
Municipal waste collected per capita	-----
Proportion of domestic and industrial wastewater flows safely treated	Statistical Committee, Environmental Protection and Minig Inspection Body

2. Impacts – 7 indicators	
Direct agricultural loss attributed to disasters	-----
Crop loss due to climate extremes	-----
Impact of climate change on livestock productivity	-----
Renewable freshwater resources per capita	Ministry of Environment
Water quality	Ministry of Environment
Climate-induced air pollution	-----
Change of land area affected by soil erosion	-----

4. Mitigation – 9 indicators	
Production of renewable energy as a proportion of total energy production	Ministry of Territorial Administration and Infrastructures
Renewable energy share in the total final energy consumption	Ministry of Territorial Administration and Infrastructures
Non-fossil fuel energy consumption as a proportion of final energy consumption	Ministry of Territorial Administration and Infrastructures
Share of climate change mitigation expenditure in relation to gross domestic product	-----
Climate change mitigation technology	-----
Greenhouse gas intensity of the economy (including transport)	Ministry of Environment
Rate of decrease of greenhouse gas emissions per unit of gross domestic product	-----
Increase in forest area	Ministry of Environment
Progress towards achieving the nationally determined contribution	Ministry of Environment



04

Section D

**Developments in National
Climate Change Statistics**

Disagregation of energy consumption by NACE

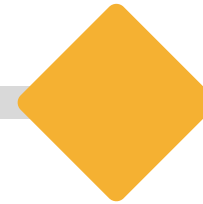
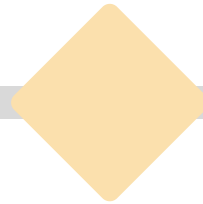
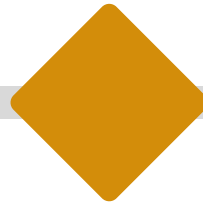
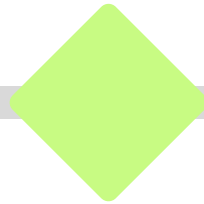
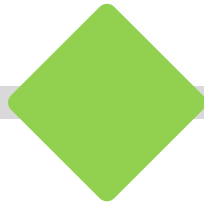
The reporting form is still under discussion with the relevant specialists of the "Electric Networks of Armenia" CJS Company

Disagregation of emergency events by types

The semi-annual statistical reporting form "On the reported emergency events" is under review, as a result of which the number of reported emergency events and the number of victims by types of emergency will be available for each marz/regions and Yerevan city. The number of victims will also be separately presented by gender

Complete information on the consumption of manure and firewood

From the GHG inventory perspective this information still remains as a challenge. Armstat obtains it from the Household's Integrated Living Conditions Survey. Another source of information on firewood is the administrative register (forest management) of the Ministry of Environment, but these two data vary widely and are not comparable.



2023 Statistical Program

"Greenhouse Gas Emissions" and "Land Cover Classification"

Green urban areas

Armstat jointly with the Yerevan Municipality has developed a reporting format on green urban areas, which will also enable to calculate or adjust indicators aimed at sustainable development goals (SDGs 11, 13 and 15)

Pesticides and fertilizers

Since it is not possible to report on the quantities of used pesticides and fertilizers, only the quantity of imported pesticides and fertilizers are used as statistical indicator.

Sector Review of Environment Statistics

Statistical Committee of the
Republic of Armenia

Report

July 2022

This report has been financed by Eurostat (the Statistical Office of the European Union) and prepared in cooperation with external experts and ARMSTAT, the Statistical Committee of the Republic of Armenia

This project has been financed by



Recommendations

- Ensure the data access provisions in the Statistics Law and collaboration practices with other stakeholders are kept up to date in the changing data landscape
- Further strengthen ARMSTAT's role as a data steward for Environment Statistics
- Ensure that the human and financial resources are fully in place
- Create a sustainable specific capacity plan for the Nature Protection Statistics Division
- Further clarify the role of the ARMSTAT State Council on Statistics in reviewing and approving methodological changes in Environment Statistics
- Ensure that the mandated quality dimensions are enforced in practice
- Continue the integration of concepts and definitions in line with European standards for Environment Statistics
- Ensure that Environmental Protection Expenditures are defined and comply with the EU CEPA 2021
- Ensure integration of specific classifications that are used in Environment Statistics
- Continue the application of UN FDES, UN SEEA and SDG frameworks
- Set up a National Environmental Indicator Catalogue.
- Continue existing work to access and introduce new, alternative, and complementary administrative data sources
- Assess the importance of developing a data platform of e-governance services that will serve as a channel for various data sources, including data sources to produce Environment Statistics.
- Develop a formal working group for regular contacts and interaction between the Nature Protection Statistics Division and key users and stakeholders
- Assess the opportunity and develop a strategy for allocating existing staff resources to Environment Statistics production
- Identify and investigate potential sources of errors and biases that may have an impact on the Environmental Indicators and Statistics
- Introduce metadata attributes to all Environmental Indicator and Statistics releases



Thank You !

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