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JOINT MEETING ON ENVIRONMENTAL INDICATORS

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NATIONAL REVIEW OF THE APPLICATION OF ENVIRONMENTAL INDICATORS

Submitted by the Interstate Statistical Committee
of the Commonwealth of Independent States¹

Introduction

Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT) collects, analyzes and publishes statistical data received from the national statistical services of the Commonwealth of Independent States, as well as develops methodological recommendations for the improvement of statistical accounting. In its work CIS-STAT uses the recommendations of the United Nations, Eurostat, the Organization for Economic Cooperation and Development (OECD) and other international organizations. Submission and exchange of statistical data is carried out in accordance with the Agreement on information exchange between national statistical services.

CIS-STAT has developed a special questionnaire to collect statistical information that characterizes the state of environmental protection and sustainable use of natural resources. The questionnaire is sent annually to the national statistical services, to be filled up. Statistical data derived from this questionnaire have a high degree of comparability, because states of the Commonwealth apply similar methodology for collecting, processing and presentation of statistical data.

The questionnaire contains the following sections and indicators:

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Section 1. Air protection

1.1 Emission of harmful pollutants into the air from stationary sources:

- number of stationary sources of harmful pollutant emission into the air (thousand units);
- emission of harmful pollutants into the air from stationary sources (total and by ingredients (sulphur dioxide (SO₂), nitrogen oxides NO₂, carbon oxide CO, non-methane volatile organic compounds, methane);
- catching and neutralizing of harmful pollutants from stationary sources (total and as % of total volume of harmful pollutants from stationary sources);
- emission of harmful pollutants into the air from stationary sources per capita (kg);
- emission of harmful pollutants into the air from stationary sources without purification.

1.2. Emission of harmful pollutants into the air by kind of economic activity.

1.3. Emission of harmful pollutants into the air from mobile sources:

- emission into the air from mobile sources (total and from automobile transport);
- emission of harmful pollutants into the air from automobile transport (sulphur dioxide (SO₂), nitrogen oxides NO₂, hydrocarbons (CH), lead.

Section 2. Intake, use and protection of water resources

- water intake from natural sources for consumption (excluding transit water) (total and from underground sources);
- use of water (water consumption) (total, of which for industrial use, for household and drinking purposes and for agricultural needs and irrigation);
- use of water for household and drinking purposes per one person;
- volume of circulating and reverse water supply (total and as percentage of gross consumption for industrial use);
- water losses during transportation;
- wastewater discharge into surface water basins (total and polluted waste water discharge, of which without treatment).

Section 3. Toxic waste of production

- generation of toxic waste of production;
- use of toxic waste of production;
- neutralization of toxic waste of production;
- toxic waste of production forwarded to places of waste storage and burial.

Section 4. Ecologically especially protected territories. Reforestation and protection of forest resources

- Number and total area of especially protected territories (national parks, nature reserves, wildlife preserves, and special hunting reserves) (total, of which national reserves);
- reforestation in state forests (total and of which sowing and planting);
- number of forest fire cases;
- forest area affected by fires;
- volume of burnt standing forest.

The above indicators are used in the preparation of analytical notes and reports, as well as in the following official publications of CIS-STAT:

- Statistical abstract "Environment in the Countries of the Commonwealth of Independent States"(2006);
- Statistical yearbook "Commonwealth of Independent States"
- "Population, Employment and Living Conditions in the Countries of the Commonwealth of Independent States"(2008);
- "Large Cities – a Resource of Social and Economic Development of Countries" (report).

Along with these indicators, additional information on request or on the basis of official publications of national statistical services in the preparation of statistical compilations and reports can be obtained from.

I. APPLICATION OF INDICATORS FROM *UNECE INDICATOR GUIDELINES* IN NATIONAL ASSESSMENT REPORTS, STATISTICAL COMPENDIUMS AND OTHER PUBLICATIONS

1. Emissions of harmful pollutants into the atmospheric air

This indicator is used in the preparation of annual statistical note "Environment in the Countries of the Commonwealth of Independent States", and also appears in the Statistical Yearbook «The Commonwealth of Independent States». In the Yearbook data are provided on total emissions from stationary sources in the dynamics of (total and per capita and per unit area), as well as on the three main ingredients - sulfur dioxide (SO₂), carbon monoxide CO, nitrogen oxides, converted to NO₂. Also provided are data on emissions from automobile transport.

2. Ambient air quality in urban areas

The list of cities and the volume of emission of polluting substances was given in the statistical abstract "Environment in the Countries of the Commonwealth of Independent States" (2006), as well as in annual statistical note "Environment in the Countries of the Commonwealth of Independent States".

3. Consumption of ozone-depleting substances

The data are not collected by CIS-STAT and will not be used in its official publications.

4-5. Air temperature and atmospheric precipitation

The data are given in the Statistical Yearbook «Commonwealth of Independent States» and statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006).

6. Greenhouse gas emissions

Data on emissions of greenhouse gases are not collected by CIS-STAT and will not be used in its official publications.

7. Renewable freshwater resources

The data are not collected by CIS-STAT and will not be used in its official publications

8. Freshwater abstraction

Data on water abstraction (intake) from surface water sources are given in the Statistical Yearbook «Commonwealth of Independent States», statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006). CIS-STAT also collects data on water intake from underground sources. Statistical information about the water intake is used in the preparation of annual statistical note “Environment in the Countries of the Commonwealth of Independent States”.

9. Household water use per capita

In the Statistical Yearbook “Commonwealth of Independent States “and statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006) data are provided on the use of water for household and drinking purposes per capita.

10. Water losses

This indicator is published in the Statistical Yearbook “Commonwealth of Independent States “and statistical abstract “Environment in the Countries of the Commonwealth of Independent States” (2006), and is also used in the preparation of annual statistical note “Environment in the Countries of the Commonwealth of Independent States”.

11. Reuse and recycling of freshwater

This indicator is published in the Statistical Yearbook “Commonwealth of Independent States“ and statistical abstract “Environment in the Countries of the Commonwealth of Independent States” (2006). Also shown is the percentage of recycling and reuse of water in the total amount of water used for production purposes.

12. Drinking water quality

The data are not collected by CIS-STAT and will not be used in its official publications.

13-15. BOD and concentration NH₄⁺ (ammonium) in rivers, nutrients in freshwater and coastal seawaters.

The data are not collected by CIS-STAT and will not be used in its official publications.

16. Polluted waste water

This indicator is published in the Statistical Yearbook “Commonwealth of Independent States“ and statistical abstract “Environment in the Countries of the Commonwealth of Independent States” (2006). It is used in the preparation of statistical annual note “Environment in the countries of the Commonwealth of Independent States”. Along with a total volume of polluted waste water, data are given on the amount of polluted waste water discharged without purification.

17. Protected areas

Statistical data on the number and size of especially protected territories (national parks, nature reserves, wildlife preserves, special hunting reserves) (total, of which nature reserves) are used in the statistical abstract "Environment in the Commonwealth of Independent States" (2006) and annual statistical note "Environment in the countries of the Commonwealth of Independent States".

18. Forests and other wooded land

Data on the size of land covered by forest were published in the statistical abstract "Environment in the Countries of the Commonwealth of Independent States" (2006).

19. Threatened and protected species

Statistical data on the number of protected species were used in the preparation of a statistical abstract "Environment in the Countries of the Commonwealth of Independent States" (2006).

20. Trends in the number and distribution of selected species

The data are not collected by CIS-STAT and will not be used in its official publications.

21. Land uptake

The data are not collected by CIS-STAT and will not be used in its official publications.

22. Areas affected by soil erosion

The data are not collected by CIS-STAT and will not be used in its official publications.

23. Fertilizer consumption

Statistical data on using mineral and organic fertilizers were published in the statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006).

24. Pesticide consumption

The data are not collected by CIS-STAT and will not be used in its official publications.

25-28. Final energy consumption. Total energy consumption. Energy intensity. Renewable energy consumption

The data are not collected by CIS-STAT and will not be used in its official publications.

29. Passenger transport demand

In the Statistical Yearbook "Commonwealth of Independent States" data are published on passenger transportation by all kinds of transport, of which by railway transport, bus transport, taxi passenger, trolleybus transport, tram transport, metro, sea transport, inland water transport and air transport.

30. Freight transport demand

In the Statistical Yearbook “Commonwealth of Independent States” data are published on cargo transportation by all kinds of transport, of which by railway transport, automobile transport, sea transport, pipelines, inland water transport and air transport.

31. Composition of road motor vehicle fleet by fuel type

The data are not collected by CIS-STAT and will not be used in its official publications.

32. Average age of road motor vehicle fleet

The data are not collected by CIS-STAT and will not be used in its official publications.

33. Waste generation

Statistical information on generation of toxic waste was used in the statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006).

34. Transboundary movements of hazardous wastes

The data are not collected by CIS-STAT and will not be used in its official publications.

35. Waste reuse and recycling

CIS-STAT collects data on the removal (disposal) of toxic waste. These data were published in the statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006).

36. Final waste disposal

Data on toxic waste production, directed in place of storage and disposal are published in the statistical abstract «Environment in the Countries of the Commonwealth of Independent States» (2006).

Conclusion. Most of the indicators from *UNECE Indicator Guidelines* have been used by the Interstate Statistical Committee of the Commonwealth of Independent States and the national statistical services of the CIS for many years in the preparation of reports and abstracts. Using the entire list of recommended environmental indicators is not currently possible due to a number of unresolved issues that stem from deficiencies in the current statistical reporting and the state of the primary accounting in enterprises and organizations, and also of the lack of a methodological framework for the collection and analysis of these indicators.

II. USE OF MODERN PRESENTATION FORMATS AND TOOLS FOR DISSEMINATION OF ENVIRONMENTAL INDICATORS

Collected statistical data are used in the preparation of various statistical collections, yearbooks, and analysis. Statistical abstracts and yearbooks are published in paper and electronic format. Statistical reports and notes are published in the statistical bulletins. For many years CIS-STAT also maintains database of statistical indicators of state environmental protection and sustainable use of natural resources.