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CONFERENCE OF EUROPEAN STATISTICIANS**

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Joint Intersectoral Task Force on Environmental Indicators**

**jointly with
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NATIONAL REVIEW OF THE APPLICATION OF ENVIRONMENTAL INDICATORS

Submitted by Mongolia¹

I. Introduction

There are 5 kinds of producers of environmental statistic indicator in Mongolia. Of which:

- The Ministry of Environment
- Administration of land Affairs, Geodesy and Cartography
- Agency of standardization and Metrology
- Climate institution.

Joint resolution made by the Chairman of the National Statistical Office and the Minister of Environment has been issued in 2005. The resolution states on manual and questionnaire form with official environmental statistics would be collected and produced. The Ministry of Environment sends the annual report and data to National Statistical Office by 25 March every year. Also every year Minister of Environment determines maximum limit of hunting wild animals for domestic purpose.

Administration of Land Affairs, Geodesy and Cartography (ALAGC) prepares the report on land classification and submit to the NSO. Land classified according to the article of the law on land.

Mongolian Agency of Standardization and Metrology has approved the standard on General Requisites on Air Quality, which defines the acceptance amount of chemical and

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physical pollutant in the atmosphere and the standard, is being used for the estimation of chemical and physical pollutants in the atmosphere.

Climate related indicators reported by Climate institution.

National Emergency and Land Management Agency collects and aggregate the disasters data from its offices and submit the data to the NSO.

According to the law on water, every 4 year, water affairs agency conducts water census with the budget allocated from the central government. This census has been conducted in 2003 and 2007.

All collected information are included in monthly and quarterly statistical report and the statistical year book and the environment statistical yearbook that issued by NSO and the Ministry of the Environment.

Currently the National Statistical Office of Mongolia collects and compiles totally 30 indicators relating to environment and publishes them in environment reports and compendia of environmental statistics. Of which:

1. Annual average temperature, by provinces and the capital
2. Land classification, by types (agricultural land, cities, villages and other settlements, transportation and network land, forest resources land, water resources land, state special use land)
3. Forest resources land
4. Protected areas
5. Threatened and protected species
6. Area affected by soil erosion
7. Fertilizer consumption
8. Pesticide consumption
9. Final energy consumption
10. Total energy consumption
11. Energy intensity
12. Plants classification
13. Total rainfall and number of days with rainfall
14. Multi year mean indicators of climate/ air temperature/, by provinces and the capital
15. Atmospheric precipitation
16. Freshwater abstraction
17. Household water use per capita
18. Drinking water quality
19. Number of forest fires, by regions
20. Forest harvest volume, by regions
21. Reforestation, forestry activities
22. Land protection and rehabilitation
23. Maximum limit of hunting wild animals for domestic purpose, by type of animals
24. Land degradation, by type of land
25. Report of the surface water, by water resources
26. Annual average concentration of pollution in air, by chemical combinations (sulphur dioxide SO₂, nitrogen dioxide NO₂, dust, CO)
27. Amount of pollution permissible in the air concentration
28. Disasters occurred and the damages
29. Air pollution of large cities
30. Percentage of total expenditure of environment protection in state budget expenditure

31. Capital investment for protection and rehabilitation of Natural resources, by types of activity

II. PROGRAM OF USE THE ENVIRONMENTAL INDICATORS COVERED BY THE INDICATOR GUIDELINES

The Parliament of Mongolia has approved its long term core program of country development. For measure of effectiveness and assess this program implementation the National statistics office stressed the importance of environmental information and data for policy making and for their periodic environmental assessments and their evaluation of effectiveness of development policies and decision making.

Consequently there is need to develop environmental statistics with collaboration Ministry of the Environment. With accordance to this objective the National Statistical office is implementing its long term program of official statistics development 2006-2010. This program approved by State great Ikh Hural.

Principal objective of the official statistics is to develop national standards which meet public needs and are based on the internationally accepted methodologies and provide users with a high-quality statistical information service by introducing up-to-date information technologies into statistical activities.

In the light of the objective of official statistics, the sub-objectives of the developments of environment statistics and statistical methodologies and analysis, information and communication technologies shall be implemented.

For the sub-objectives for environment statistics measures shall be implemented:

Of which:

- Compile consolidated economic and environmental accounts and take preparatory steps for compilation of environmentally adjusted gross domestic product (hereinafter called GDP) and introduce it further.
- Improve indicators of environmental statistics in accordance with international standards and methodologies.

Second: The Mongolian government has approved the country sustainable development program including environment aspects. The national statistics office will be responsible for producing the key indicators to assess its efficiency. These indicators are as following:

1. Forest Areas
2. Deforestation
3. Nationally Protected Areas
4. Proportion of Land Area Covered by Forest
5. Fresh Water Resources
6. Fresh Water Withdrawal per Capita
7. Water Erosion
8. Air Pollution Concentrations
9. Carbon Dioxide Emissions per Capita
10. Energy Usage per Person.

For the requirement of expanding the coverage of environmental indicators the NSO shall be study the possibility to collect information and implemented the following KEY

ENVIRONMENTAL INDICATORS recommended in the guidelines for the application of environmental indicators, which is currently not available.

Of which:

1. Consumption of ozone-depleting substances
2. Greenhouse gas emissions
3. Reuse and recycling of freshwater
4. Nutrients in freshwater
5. Nutrients in coastal seawater
6. Polluted /non-treated/ wastewaters
7. Trends in the number and distribution of selected species
8. Land uptake
9. Renewable energy consumption
10. Passenger transport demand
11. Freight transport demand
12. Composition of road motor vehicle fleet by fuel type
13. Average age of road motor vehicle fleet
14. Waste generation
15. Transboundary movements of hazardous wastes
16. Waste reuse and recycling
17. Final waste disposal

III. PROPOSE ADDITIONAL ENVIRONMENTAL INDICATORS

We are going to outline the indicators for measuring of Mongolian sustainable development strategy and formulate the economic incentives and instruments for natural resources.

1. Sustainable development strategies in Mongolia

A widely held view of sustainable development is that it refers at once to economic, social and environmental needs. First, each of the three pillars is independently crucial. Second, each of the three pillars is urgent and they must be addressed simultaneously. Finally the three pillars are interconnected.

Under the environmentally sound and sustainable development strategy (ESSD), the main concepts include proper valuation utilization of environment, extension of the time horizon of development to include long term benefits and costs, and equity concerns. The general principles embodied in the ESSD include:

- Maximization of citizen's quality of life including material well being, the environment and social stability.
- Stemming of urbanization through control of population influx and industrial concentration
- Consideration of environmental protection in all development project to ensure the optimization of both economic growth and environmental protection
- Proper valuation of environmental stocks and continuous examination of environmental capacity
- Recognition of environmental problems of global dimensions and Mongolia's role for their protection.

2. Economic incentives and instruments for natural resources

The Economic Incentives and instruments (EII), which can be used by governments, are the key approaches for environment protection and natural resources management. In other word will

play an important role in the proper utilization of various natural resources and mitigate the negative environmental consequences caused by economic development. This system includes the EIIs that will stimulate the activity of economic units, enterprises and individuals, and attract their interest in and responsibility for environmental protection and the sound use of natural resources, using the advantages of prices, cost charges and planning, reporting, stimulation and economic sanctions for violations of environmental legislation. The use of differential rent, gross output and net profit methods for the valuation of all types of natural resources, became the key means to accumulate additional income in the form of users payment for resources, which are independent of the natural resources based sectors own activities. According to the features of current economic development condition, the system of economic incentives and mechanism is playing the role of one of the methods of government activities taken to overcome the difficulties of economic development ant the environment. Therefore to implement the EII consist of the following activities. They are:

- To create a legal basis or background for market based economic incentives to operate
- To establish a system of economic Incentives and instruments and develop their methodology
- To establish the rates and standards of economic incentives, in regulation to market prices, and the perspective of NRBS development.

Consequently, we need the methodology of valuation of utilization environment and the methodology to estimate green GDP.

III. MODERN PRESENTATION FORMATS AND TOOLS FOR EFFECTIVE DISSEMINATION OF ENVIRONMENTAL INDICATORS, INCLUDING THE USE OF MODERN INFORMATION TECHNOLOGIES

We are disseminating all statistics indicators as a statistical bulletin, report, yearbook, and other publication, web cite, CD.

Objectives for statistical information and communication technology development plan are to introduce low operational-cost and efficient information and communication technologies and techniques in every stage of statistical data processing and to upgrade techniques and technologies of central and regional statistical offices and to eradicate the gap in technique and technology development level between central and regional statistical offices.

For these objectives the following measures shall be implemented:

- Undertake step-by-step actions to create an integrated statistical database and provide statistics to users by online services;
- Create a meta-database; create opportunities to utilize the meta-database in all stages of questionnaire design of statistical surveys and censuses and data processing, storing and dissemination;
- Widely use laptops/notebooks in collecting census and survey data;
- Process data of statistical reports, censuses and sample surveys through software developed in the environment of Windows application system;
- Collect and process census and survey data by e-technology-based software that enables the automatic loading of processed data into database;
- Keep upgrading techniques of statistical offices of all levels and resolve the issues on acquisition of techniques and software that ensure safe network maintenance and data storage, security, protection and confidentiality when the need arises;
- Upgrade 15% of techniques of statistical offices of all levels and include necessary resources in the annual state budget; and cooperate with the Government within the “e-Mongolia” Program

and introduce statistical data processing techniques, technologies and software in soum, bag and horoo levels.

The expected outputs from the sub-objectives identified above are summarized below:

- Enhanced data processing level reached international standards;
- The same level of technique and technology development between central and regional statistical offices and opportunity created to process statistical data and completion of consolidated database; and conditions created for statistical respondents to transmit data and utilize database using advanced technologies regardless of time and location.

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