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**STATUS OF ENVIRONMENT RECORD-KEEPING
IN THE NEWLY INDEPENDENT STATES**

Submitted by the “Eco-Soglasie” Centre*

Introduction

1. The production of regular environmental records is likely to prove a key step in addressing environmental protection issues in the newly independent States. It will require a combined effort on the part of various ministries and government departments, businesses, and

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voluntary organizations. What follows below is an attempt to analyse the status of environment record-keeping in the newly independent States, focusing on the production of national reports on the status of the environment. In producing it, the authors took account of replies on the following main topics:

- I. Legal underpinnings
- II. Brief history
- III. Institutional structure
- IV. Topics covered and development
- V. Indicators
- VI. Time sequence
- VII. Publication media
- VIII. Language(s) of publication
- XI. Use of records in policy formulation
- X. Accessibility to the public
- XI. Other environmental records

2. Recommendations for improved environment record-keeping, which is essential when deciding on specific action to improve the status of the environment and public health, are expected to be produced on the basis of this summary for submission to State authorities in the newly independent States. The lack of items of data in replies to the questionnaire emphasises the need for specific recommendations on this subject.

I. OVERVIEW OF THE STATUS OF ENVIRONMENT RECORD-KEEPING IN THE NEWLY INDEPENDENT STATES

3. A preliminary analysis of the status of environment reporting-keeping in the newly independent States leads to the following conclusions:

A. Not all newly independent States produce regular national reports on the status of the environment

4. This is true, for example, of Azerbaijan, Armenia, the Republic of Moldova, Turkmenistan and Uzbekistan.

5. In Kyrgyzstan, the Russian Federation and Ukraine, on the other hand, national reports on the status of the environment are produced regularly.

6. Additionally, in Belarus, for example, the Ministry of Natural Resources and Environmental Protection and the National Academy of Sciences publish a yearly bulletin entitled “the state of the environment in Belarus”. To supplement this bulletin, every year the Ministry publishes information and statistics on the state of the environment and nature conservation efforts, and compilations of laws and regulations on environmental protection issues.

7. The results of national efforts to monitor and protect the environment and make rational use of natural resources in Turkmenistan are distilled in the State statistical records. These are analysed and published every year by the Turkmen National Statistical Institute, Turkmenmillikhasabat.

8. On the basis of statistical records from businesses and organizations, the Department of Statistics at the Ministry of Macroeconomics and Statistics in Uzbekistan produces a statistical bulletin entitled “Basic indicators of nature conservation and rational use of natural resources in the Republic of Uzbekistan”. The records have been published since 1991.

B. Not all newly independent States have a network of experts responsible for producing individual chapters of reports on the status of the environment

9. Each ministry in Armenia, for instance, reports separately to the National Statistical Institute. There is no coordinating body or network of experts to analyse material before it reaches the Institute; as a result, the incoming material does not contain full data or an analysis of the situation. The records do not give a clear picture of the environmental situation in the country or the opportunities available for tackling the main environmental conservation problems.

10. Georgia, likewise, has no network of experts to prepare national reports on the status of the environment. Responsibility for producing individual chapters lies with staff members at the Ministry of Environmental Protection and Natural Resources and the Institute of Environmental Protection.

11. The Ministry of Natural Resources and Environmental Protection in Kazakhstan has set up a scientific board, but this is more concerned with giving formal hearings to and approving environmental status reports. Other than subdivisions, there are no coordinating bodies.

12. Uzbekistan, too, has no network of experts preparing reports on the status of the environment within the country. Businesses and organizations submit statistical records to the statistical bodies responsible for the areas where their head offices are situated, and to their local Goskompriroda (State Committee for Nature) branches. They are responsible for the completeness, accuracy and timeliness of the records they produce and submit. The Department of Statistics at the Ministry of Macroeconomics and Statistics is responsible for the completeness, accuracy and timeliness of the statistical bulletin “Basic indicators of nature conservation and rational use of natural resources in the Republic of Uzbekistan”.

13. A similar situation is found in Turkmenistan, where the results of national efforts to monitor and protect the environment and make rational use of natural resources are concentrated in State statistical records.

14. Meanwhile, Azerbaijan has set up a network of experts to produce environmental status reports. A similar network, gathering and analysing material for national reports, exists in Kyrgyzstan. Drafts of the reports are revised by experts from Kyrgyz ministries and governmental departments.

15. A network of experts has been set up at the Moldovan National Environmental Institute, with experts on loan from other organizations, to produce individual chapters of reports and the national report on the state of the environment; an advisory body also exists.

16. Ukraine has set up a network of experts for individual chapters of the report; in some years, however, it also calls in other experts on a one-off basis.

17. Production of the national report in the Russian Federation is the responsibility of the Ministry of Natural Resources, with input from the various ministries, governmental departments and other State organizations concerned and from the Russian Academy of Sciences, which supply the necessary information, analytical material and assessments, including forecasts and environmental safety recommendations. Ministries and governmental departments involved in regulating the use of natural resources on behalf of the State, monitoring the state of the environment and monitoring and overseeing compliance with nature conservancy and health laws help to produce the report, as do other State bodies and organizations. Altogether between 35 and 39 different Federal ministries and departments, the environmental protection and natural resource-use bodies in the 89 constituent entities of the Federation, the Russian Academy of Sciences, Academy of Medicinal Sciences and Academy of Agricultural Sciences, a variety of leading ministerial and government-department-run research institutes, Norilsky Nickel, Gazprom, EES Rossia and other corporations, the Profkurort association of health spas and resorts, the All-Russian Association for Nature Conservancy, and other non-governmental environmental protection organizations are involved in the production of reports. By agreement with the ministries, departments and organizations concerned, responsibility for producing individual parts, chapters and sections is assigned each year to their delegated representatives serving on the interdepartmental task force producing material for the yearly State report.

C. Not all newly independent States submit their draft environment status reports for approval to the individuals who have contributed to their preparation

18. This is particularly true of Azerbaijan, Armenia, Turkmenistan and Uzbekistan.

19. The environment status report in Kazakhstan is formally approved by the scientific board at the Ministry of Natural Resources and Environmental Protection, but can also be approved by the head of a subdivision if he feels it necessary.

20. In the Republic of Moldova, the Russian Federation and Ukraine, meanwhile, the draft reports are approved by the experts who have contributed to their preparation. When the draft report is finalized in the Russian Federation, for example, it is considered at an enlarged meeting of the senior management at the Ministry of Natural Resources, attended by representatives of the ministries and governmental departments concerned, the Russian Academy of Sciences and voluntary organizations; after approval it goes to the Federal Government for appropriate action. Once the Government has approved it and ordered its distribution, the report is printed and sent to the President, the Government, the State Duma, the Federal Assembly, the Federal ministries, governmental departments and organizations that were involved in its production, the administrations of the constituent entities of the Federation and the mass media.

21. The Georgian draft national report on the status of the environment is gone over with the ministries and governmental departments concerned. Up to 50 experts can be involved in its production.

22. Draft reports in Kyrgyzstan are revised by experts from ministries and governmental departments. The situation in the Republic of Moldova is similar: once a draft report is finished, the material it contains is normally approved by the individuals who took part in its production.

D. Virtually all newly independent States have insufficient financial resources to produce environment status reports, far less to increase print runs, issue the reports in several languages or use attractive design work to improve presentation

23. Many countries do not translate their reports into any language other than the national one, or do so only when donors provide the resources.

24. The cost of producing environment status reports in the Russian Federation and Ukraine is put at US\$ 20,000-23,000. Even this is not enough to cover attractive design work, increase print runs or translate the reports into English. The situation in the Russian Federation is made harder by the fact that in recent years the report has swelled to 580 pages, and publishing such a work has become financially burdensome.

25. Special designer layouts are not used in Georgia for want of resources. Similar situations are found in Armenia, Azerbaijan, Turkmenistan, Uzbekistan, Kyrgyzstan and Tajikistan.

26. Kazakhstan, on the other hand, pays a good deal of attention to modern graphic and other technologies in producing its environment status reports, using colour graphics, diagrams and tables.

27. The situation in Armenia is very difficult. The country's environmental monitoring network has been all but destroyed, it lacks the chemical reagents to carry out analytical tests and has no funds for expeditions to remote parts of the Republic. As a result, the data submitted for its environment status reports cannot be regarded as complete.

E. Not all newly independent States submit the material for inclusion in their environment status reports in electronic form: this severely complicates production of the reports

28. This is the situation in Azerbaijan, Armenia, Kyrgyzstan, Turkmenistan and Uzbekistan.
29. Recently, some of the material in Georgia and Kazakhstan has been submitted on diskette or by e-mail. The remainder has been submitted in hard copy.
30. Electronic mail is used extensively in Tajikistan for the submission of material for use in producing the environmental status report.
31. Over the past four to five years, material for inclusion in the report of the Republic of Moldova has been sent electronically and over the Internet. The same is true of the Russian Federation. Most of the material for the Russian report arrives electronically, chiefly by e-mail - less frequently, on diskette.
32. Until recently, information for the Kyrgyz report tended to be submitted in hard copy in the absence of electronic mail and Internet access. The situation is now changing, and material is also coming in over the electronic networks.

F. The departments responsible for producing environment status reports do not have access to the data banks at the institutions and institutes supplying information in all newly independent States

33. This problem has been resolved in Ukraine, where the Ministry of the Environment and Natural Resources serves as the coordinating body for the preparation of the report and has access to the databases at the institutions and institutes supplying information.
34. The Ministry of the Environment in Azerbaijan has access to databases at other institutions and institutes and is also assembling its own electronic data bank.
35. The Department of Statistics at the Ministry of Macroeconomics and Statistics in Uzbekistan has full access to the databases at the businesses, organizations and institutions submitting statistics and departmental reports.
36. In the remaining newly independent States, including the Russian Federation, the coordinating body responsible for producing the State environmental status report does not have access to the databases at the institutions and institutes submitting material.
37. In Kazakhstan, for example, all material for the report is prepared by experts at the Ministry of Natural Resources and Environmental Protection. Material from other governmental departments can be obtained only through the intra-departmental hierarchy.

38. The Ministry of the Environment, Construction and Land Development in the Republic of Moldova, which is responsible for producing the report, does not have access to the databases at the institutions and institutes providing material. Material is made available only upon application from the Ministry or the National Environmental Institute.

G. Not all governmental departments responsible for producing environment status reports in newly independent States have their own databases for reporting purposes

39. Armenia is in the worst situation. Its National Statistical Institute, which receives data from a variety of ministries, has neither its own data bank for use in producing environment status reports nor access to the databases at other governmental departments.

40. Report-compilers in Georgia do not have access to the databases at the ministries, departments, institutions and institutes submitting material for the report. A data bank for use in report compilation is, however, under construction at the Institute of Environmental Protection.

41. Meanwhile, the Ministry of the Environment and Natural Resources in Ukraine already has its own electronic data bank for report compilation purposes.

42. The State Centre for Environmental Programmes (Gosekotsentr), a part of the Ministry of Natural Resources in the Russian Federation, now has its own electronic data bank for use in producing the State report and responding to various requests for information from governmental bodies.

43. The Ministry of Natural Resources and Environmental Protection in Kazakhstan has its own data bank of material assembled over the past three to five years. The remaining information exists as hard copy. The Ministry does not have the extra resources to put it into the data bank.

44. The Ministry of the Environment and Emergencies in Kyrgyzstan, which is responsible for producing the environment status report, has no access to the databases at the institutions and institutes submitting material. The Department of Environmental Strategy and Policy, however, has now set about creating its own electronic data bank for reporting purposes.

45. The Ministry of the Environment, Construction and Land Development in the Republic of Moldova has set up an electronic data bank for use in producing environment status reports.

H. Not all newly independent States environment status reports are accessible over the Internet or on CD-ROM

46. In Azerbaijan, for instance, some environment status reports can be accessed over the Internet, but they are not released on CD.

47. Basic information on the status of the environment and environmental trends has been put on the Internet in Belarus.

48. The Georgian national report is not released on CD-ROM but is available over the Internet at the Institute of Environmental Protection's web site, <http://environmental.gol.ge>.
49. In Kazakhstan, donors have paid for reports to be released on CD-ROM. Press runs are not large, but large enough for presentation purposes. The reports can also be accessed at the Ministry of Natural Resources and Environmental Protection web site.
50. Ukraine initially releases its reports on CD-ROM for its principal users. Since 2000, some of them have been available over the Internet.
51. In the Russian Federation, too, some of the reports are available over the Internet, but they are not released on CD-ROM.
52. The Uzbek, Turkmen and Tajik reports are neither released on CD-ROM nor available over the Internet.

I. Reports tend to be issued only in the national languages, making it difficult for experts from other countries and international organizations to gain access to information on the state of the environment. This makes it harder for international bodies to arrive at recommendations on how to improve the environmental situation in the newly independent States

53. In Armenia, for instance, material on the state of the environment is released only in Armenian.
54. In Georgia, meanwhile, the statistical bulletin is issued in Russian.
55. Until recently, reports in Kazakhstan were issued only in Russian. Today they also come out in Kazakh, but in even smaller print runs. They are produced in other languages only as necessary, with money supplied by donors.
56. Kyrgyzstan releases its report only in the official language, Russian. It does not have the wherewithal to translate it into other languages.
57. A compilation on the state of the environment was produced by a group of experts from non-governmental organizations in the Republic of Moldova and published in Romanian in 1999 with financial support from the German Agency for Technical Cooperation (GTZ).
58. Environment status reports are published in the Russian Federation in the State language (Russian); some reports have been published in abridged form in English.
59. The statistical bulletin in Uzbekistan is published in Russian.
60. Environment status reports in Ukraine are published in the State language, Ukrainian, and in 1995-96, 1998 and 1999 were released in English.

J. Print runs are too small

61. This is actually true in all newly independent States. An acute shortage of financing means that editions of environment status reports in most countries are limited, making them unavailable to the public at large. Reports are mostly intended for official use by staff at ministries and government departments.
62. In Kyrgyzstan, for example, the national report is printed in a run of 300 copies.
63. Environment status reports in Uzbekistan are published in printed form as the statistical bulletin “Basic indicators of nature conservation and rational use of natural resources in the Republic of Uzbekistan”, which is released in editions of roughly 30 copies at a time.
64. The best situation is clearly that found in the Russian Federation, where the annual State reports on the status of the environment for the period 1991-2001 were all released as printed documents in official print runs of 1,000 copies, or several times that if one counts reprints in the newspapers. The reports are also printed by publications such as the newspaper Zeleny Mir and the journal EKOS-inform.
65. Environment status reports in Ukraine have been issued as printed documents in 1,000 copies (1992-1999) and 1,500 copies in 2000. It is planned to issue the 2001 report in a print run of 2,000 copies.

K. The general public does not always have ready access to the information in the reports

66. This is because of:
- small print runs;
 - a failure by report compilers and coordinating bodies to distribute them sufficiently energetically;
 - the large volumes of material;
 - the complicated way in which information is transmitted;
 - failure to appreciate the role the public can play in producing environment status reports;
 - inability to work with the general public.
67. In most newly independent States, environment status reports are not effectively publicized in the media and as a result the general public is not fully informed about their contents. Short, easily readable publications (information bulletins, pamphlets, brochures and

leaflets) based on the reports are not produced in all countries. Non-governmental organizations and representatives of other public groups are not enlisted in all countries in the production and subsequent discussion of environment status reports.

68. The information in some newly independent States reports has to be paid for, and not all voluntary organizations or concerned citizens can obtain it.

69. In Georgia, for example, the State report comes out in two forms. Besides the main report, there is a shorter version (25 pp) which is intended for the general public and distributed through the mass media. The main report is made available free of charge only to governmental bodies.

70. Environmental status reports in Azerbaijan are subject to limited release among the general public.

71. News of the production of the report may be given in the media in Kazakhstan, but the public at large cannot obtain the report itself free of charge. Information bulletins, pamphlets, brochures and leaflets based on the reports are published, but only for certain purposes, such as presentations, not for the information of the general public. There is virtually no discussion of the reports with environmental NGOs and other major groups.

72. In Kyrgyzstan, on the other hand, the national report is available to anyone who wants it. It is distributed free of charge to experts, ministries, government departments, non-governmental organizations, schools and colleges, at presentations and other gatherings.

73. A public relations department has been set up under the Monitoring Centre of the Ministry of Environmental Protection in Armenia; it is accountable for the distribution of information on the state of the environment to the general public and the mass media.

74. Yearly publication not being a possibility of the Republic of Moldova, access to environment status reports is chiefly available to experts in the field. Nonetheless, the Ministry of the Environment, Construction and Land Development has drawn up a Memorandum of Cooperation with non-governmental organizations which was signed in 1997. The Memorandum sets out the obligations of the Ministry, which include publishing in the periodical press a brief exposé of the environment status report and the results of State environmental monitoring.

75. The Ministry of Natural Resources and Environmental Protection and The National Academy of Sciences in Belarus issue a bulletin on the state of the environment in Belarus every year. Besides this, the Ministry publishes yearly releases of information and statistics on the state of the environment and nature conservation activities in Belarus and compendiums of laws and regulations on environmental protection issues. Twenty-six such compendiums have so far come off the presses. Statistics on the state of the environment and natural resource use are published every year by the Ministry of Statistics and Analysis and also, within their various spheres of competence, by the ministries of health, forestry and emergencies, the State Committee on Meteorology and other governmental bodies.

76. Official reports on the state of the environment are published in the Russian Federation through the mass media. Reporters are offered briefings and television interviews with explanations of the material in the reports; given the acuteness of other social problems (falling living standards, unpaid wages, rising crime, drug addiction etc.), however, media interest in environmental problems has fallen markedly.

77. Statistics and environment status bulletins are issued in Uzbekistan for official use and at set prices. The data they contain are used by ministries and organizations to compile reports on the state of the environment and the rational use of natural resources (e.g. the National Report on the state of the natural environment and the rational use of natural resources and the National Report on the state of land resources), and to formulate national strategies and programmes on nature conservation and sustainable development. These latter items are available and on sale at set prices.

78. Environment status reports in Ukraine are distributed to order and at special-purpose environmental conferences, meetings, press conferences and other events. They are available to the general public and distributed free of charge. Short, easily readable publications (information bulletins, handouts, pamphlets and leaflets) based on the reports are, however, published infrequently. The reports are discussed by environmental NGOs. They have special sections on environmental education, public information and social movements.

L. Insufficient use is made of environmental modelling and forecasting to extrapolate data during the production of reports

79. This is particularly true of Armenia, Tajikistan, Turkmenistan and Uzbekistan.

80. Azerbaijan, on the other hand, does use environmental modelling and forecasting to extrapolate data in its environment status reports.

81. Kazakhstan also uses environmental modelling to produce material for its environment status reports.

82. In Kyrgyzstan, despite the country's advanced system of environmental record-keeping, environmental modelling and forecasting are not used to extrapolate data.

83. Different sections of the Russian Federation's reports cover different time periods. At a minimum, comparisons are made with the preceding year; at a maximum, with 1991 - i.e. they range over 2 to 10 years and, where apposite, all available figures for a span of years are given. Data extrapolation is used for environmental forecasting; environmental modelling is not, for lack of time, since in accordance with a Governmental decision dating from 24 January 1993 the national environment status report for the year just concluded is supposed to be ready by 1 June of the current year, whereas full Government statistics appear only in May.

84. Environment status reports in Ukraine contain analyses covering the period from 1991 onwards; the remainder cover the past several years or the previous year. Where possible, environmental modelling and forecasting are used to extrapolate data.

M. Newly independent States make fairly extensive use of graphics and other modern technology to represent data and indicators

85. Exceptions to this are Armenia, Turkmenistan and Uzbekistan.
86. In Ukraine, for example, the use of graphics and other modern technology, including cartographic material accompanied by interpretation and analysis, to present data and indicators is mandatory.
87. Environment status reports in Azerbaijan include graphics, figures and maps.
88. The Georgian environment status report presents data in the form of tables and graphs which are explained in the text.
89. Graphics and other modern technology are used extensively in Kazakhstan - colour graphics, diagrams and tables, for example. The information is accompanied by analysis and interpretation.
90. The same holds true in Kyrgyzstan, where a variety of maps and diagrams accompanied by explanations, analysis and interpretation are used to present data for national reports.
91. For ease of use, the Russian Federation makes fairly extensive use of maps, graphics, tables and diagrams in its reports, accompanied by analysis and explanations.
92. Graphics and other modern technology, including cartographic material accompanied by interpretation and analysis, must be used in Ukraine to present data and indicators.

N. The layout of many countries' reports reflects State environmental priorities but does not allow progress in the execution of State environmental conservation programmes and plans or how consistent such programmes and plans are with international environmental obligations to be measured

93. The situation in Ukraine may be regarded as encouraging: the layout of the report reflects national environmental priorities as closely as possible. The layout changes a little every year, the better to reflect some pressing regional problems. Both the layout and content of the report allow progress in the execution of State environmental conservation programmes and plans, and the consistency of those programmes with international environmental obligations, to be measured.
94. The Ministry of Natural Resources and Environmental Protection decides on the layout of the report in Kazakhstan. The layout reflects State priorities. Only slight changes have occurred, and in the main all reports relate either to the country's Strategy 2010 (medium-term)

or Strategy 2030 (long-term). But the layout and content of the report do not make it possible to measure progress towards the attainment of State environmental conservation programmes and plans or those programmes' consistency with international environmental obligations. This would require an assessment, whereas the reports tend to give accounts of what has been accomplished.

95. The Georgian national report is an official State document reflecting the actual state of the environment at the moment the report is prepared. Some general forecasts and recommendations, which it is the prerogative of the executive authorities to adopt, appear at the end.

96. The layout and content of the report in Kyrgyzstan allow progress in executing State environmental conservation programmes and plans and their consistency with international environmental obligations to be measured to some extent.

97. The layout of the Russian Federation's yearly State report on the state of the environment is fairly standard and tends to remain the same for 10 years at a time, offering a reliable statistical basis for comparison over an adequate sequence of years. This latter point is very important for identifying changing trends in the condition of basic natural environments and resources, determining how well-established those trends are, establishing what factors influence them, forecasting changes and justifying the appropriate recommendations to amend the related laws and regulations and take organizational, technical and economic steps to regulate natural resources and the protection of the environment.

98. Inasmuch as the Russian Federation has the largest land area of any country on earth, while its 89 constituent entities enjoy substantially different natural, climatic, economic and social conditions, the question of nationwide environmental conservation priorities is to some extent a matter of definition. For a long time, air purity and the quality and quantity of drinkable water have been constant priorities for the majority of entities in the Federation. In a number of them, the most pressing current problems have to do with radioactive contamination resulting from accidents, while in others the problem is desertification, in others again, soil degradation, and in yet others, growing volumes of toxic waste. All these various priorities are reflected in part VI of the report, "The environmental situation in the regions". The layout and content of the report do allow progress in the execution of national plans and targeted programmes and compliance with international obligations to be measured, but the main problem with putting them into practice is entirely obvious - an acute shortage of financing.

99. The layout of the Uzbek report reflects the following national environmental conservation priorities:

- air quality
- toxic waste
- land reclamation
- geological prospecting

- general information on forest resources, wildlife reserves and hunting ventures
- State monitoring of environmental conservation and compliance with environmental protection legislation
- payment by businesses for statutory and excessive emissions and other environmental payments
- current nature conservation-related spending
- average yearly value of basic productive resources
- use of investment to finance the conservation and rational use of natural resources, and the bringing on line of nature conservation capacity.

100. The layout and content of statistical records and the statistical bulletin “Basic indicators of nature conservation and rational use of natural resources in the Republic of Uzbekistan” do not allow progress in Uzbekistan resulting from State programmes or the consistency of those programmes with international environmental requirements to be fully measured. The Department of Statistics at the Ministry of Macroeconomics and Statistics is putting together a “human development” report for that purpose.

O. A number of countries’ reports are oriented towards the present, containing no conclusions or recommendations for the future. Not all reports afford scope for specific decisions on matters of nature conservation policy

101. In Georgia, for example, the environment status report covers a single year and is more oriented towards the present.

102. Kazakh reports narrate successes in environmental conservation. More thorough analysis may indicate that they are static, do not reflect the actual state of affairs and are not future-oriented. They show the current situation in comparison with the past. They contain short summaries, conclusions and recommendations. They are in the main intended for action by internal units at the Ministry of Natural Resources and Environmental Conservation.

103. To some extent, the layout and content of Kyrgyz reports allow progress in the execution of State environmental conservation programmes and plans and their conformity with international environmental obligations to be measured.

104. Each annual report of the Russian Federation principally reflects the environmental situation in the year to which it is devoted. Each such report ends with conclusions, forecasts and recommendations for amendments to the law on nature conservation, the related laws and regulations, and organizational, technical and economic measures to improve the use of natural

resources and environmental protection. The conclusions and recommendations in reports have been used to draw up both short-term and long-term environmental plans and programmes, including:

- Main Elements of the National Strategy of the Russian Federation on Environmental Protection and Sustainable Development, approved by Presidential decree on 4 February 1994;
- Government of the Russian Federation - Plan of Action on Environmental protection, 1994-1995, approved by the Government on 18 May 1994;
- Government of the Russian Federation - Plan of Action on Environmental Protection and Use of Natural Resources, 1996-1997, approved by the Government on 19 February 1996;
- Outline Plan for a Shift to Sustainable Development in the Russian Federation, approved by Presidential decree on 1 April 1996;
- Outline Plan for the National Security of the Russian Federation, approved by the President on 17 December 1997;
- State Strategy for the Sustainable Development of the Russian Federation, approved by the Government in December 1997;
- National Plan of Action for Protection of the Environment in the Russian Federation, 1999-2001, approved by the Government on 12 November 1998.

105. Material in the reports has been used to identify environmentally poor cities and regions, together with other problems to address which over 20 special-purpose State programmes have been drawn up and adopted (“Establishment of a single State-owned automatic radiation monitoring network in the Russian Federation”, “Provision of drinking water for the general public in Russia”, “Refuse”, programmes to improve the environmental situation in Orenburg, Samara, Sverdlovsk and Tula oblasts, Maritime Territory and the cities of Nizhny Tagil, Bratsk, Chapaevsk and Cherepovets, the Comprehensive Federal Programme for the protection of Lake Baikal and rational use of the natural resources within the Baikal basin etc.).

106. Environment status reports in Ukraine are oriented towards the future. They contain short summaries, conclusions and recommendations on decisions to take, and are intended for senior management at the Ministry of the Environment and Natural Resources, the Cabinet of Ministers, the Parliament, and the Interministerial Commission. Senior management at the Ministry of the Environment and Natural Resources uses the reports every year as the basis for decisions on matters of nature conservation policy.

II. PROGRESS IN ENVIRONMENTAL RECORD-KEEPING IN THE NEWLY INDEPENDENT STATES

107. Progress in environmental record-keeping in the newly independent States includes, notably, the following:

**A. The range of topics covered in reports is quite broad.
Most countries have extensive information about
environmental quality and burdens**

108. Examples of aspects considered:

(a) Environmental quality, including:

- atmospheric emissions
- air quality
- domestic surface and groundwater (quality and quantity)
- marine and coastal area environment
- land and soil contamination
- chemical products
- industrial accidents
- waste generation, treatment and storage
- biodiversity, specially protected natural areas, rare and disappearing species
- the urban environment
- the health of the environment

(b) Environmental burden:

- energy
- transport
- farming
- forestry

- fisheries
- tourism
- other economic sectors

(c) Environmental policy:

- reduction of pollution and pollution control
- economic instruments
- spending on environmental conservation, including foreign aid
- cooperation with regional and local authorities
- involvement of environmental NGOs and other major groups
- environmental education
- environmental research and development
- international cooperation.

109. Besides the above, Georgia's report on the state of the environment provides information on:

- radiation contamination
- status of mineral reserves
- environmental impact of harmful physical factors
- natural disasters
- distinctive meteorological factors
- the law, environmental assessment of projects and authorization to engage in economic activity.

110. Kyrgyzstan has added the following chapters to its report:

- specially protected natural areas
- forest resources

- industrial and domestic waste
- spending on environmental protection
- naturally destructive events
- environmental transboundary impact of the mining complex in Central Asia
- efforts to address environmental issues at Kyrgyzaltyn plants
- environmental protection at the Kumtor mine
- state of the environment in Bishkek, health and hygiene monitoring
- monitoring in Chuy oblast
- international cooperation in environmental protection
- environmental education in Kyrgyzstan.

111. In section 3 of its report, “Environmental policy measures”, Kazakhstan sheds a little light on matters such as:

- economic instruments
- spending on environmental protection, including foreign aid
- cooperation with regional and local authorities
- involvement of environmental NGOs and other major groups
- environmental education
- environmental research and development.

112. The state of the environment is covered most thoroughly in the national reports of the Russian Federation:

Environmental quality:

- Toxic atmospheric emissions are discussed in the parts of the report on “Effects of different industries on the environment” and “The environmental situation in the regions”.
- Air quality is discussed in the section entitled “Atmospheric air. Transboundary air pollution. The ozone layer”.

- Domestic surface and groundwater (quality and quantity) and the marine environment are considered in the section of the report entitled “Surface and groundwater. Marine waters.” Coastal areas are not discussed separately.
- Land and soil pollution is discussed in the section entitled “Soil and land resources”, and in the part of the report on “Effects of different industries on the environment”.
- Chemical products are discussed in the sections entitled “farming” and “soil and land resources”.
- Details of industrial accidents are given in the section entitled “Industrial and transport accidents and disasters” within the part of the report on “Effects of different industries on the environment”.
- Waste generation, processing and storage is discussed in the sections entitled “Manufacturing and consumer waste”, “Industry”, “The Armed Forces” and the part of the report on “The environmental situation in the regions”.
- Biodiversity, specially protected natural areas, rare and disappearing species are discussed in the sections entitled “Plant life, including forests” and “Animal life, including fish stocks” within the part of the report on “Specially protected natural areas”.
- The urban environment is discussed in a special section entitled “Environmental situation in built-up areas” in the reports for 1996-1999.
- The health of the environment is presented in the part of the report on “Effects of environmental factors in the habitat on public health”.

Environmental burden

- The environmental burden imposed by industry, including power generation, transport and farming, is set out in the part of the report on “Effects of different industries on the environment”.
- Forestry and fishing are dealt with in the part on “Environmental quality and the state of natural resources” as natural resources, not as burdens on the environment. In Russian nature conservation practice, operations associated with timber felling, transport and processing are regarded as a burden on the environment. Fishing is considered from the point of view of artificial reproduction and introduction of valuable fish species, and regulation of catches.

- Environmental burden is not discussed specifically but only incidentally in the section on national parks in the parts of the report on “Specially protected natural areas” and on “The influence of environmental factors on the preservation of the cultural heritage”.
- The report also covers the burden imposed upon the environment by housing and community life and by the Armed Forces.

Environmental policy

Pollution control is covered in the parts of the report on “Environmental quality ...”, “Effects of different industries on the environment”, and “The environmental situation in the regions”. Pollution monitoring, economic tools, spending on environmental protection, environmental education, environmental research and development, international cooperation and involvement of NGOs and other major groups are covered in the part of the report on “State regulation of environmental conservation and use of natural resources” in the sections dealing respectively with:

- “State environmental monitoring and monitoring of the use and conservation of particular natural resources”;
- “Economic regulation and the financing of nature conservation activities”;
- “Environmental education, instruction and awareness”;
- “Science and technology in efforts to address environmental conservation issues and bring about environmental safety”;
- “International cooperation”;
- “The public environmental movement”.

Cooperation with regional and local authorities is covered in the main in the sections entitled “State policy ...” and “Nature protection laws in the Russian Federation”. Among the issues considered are:

- environmental safety
- environmental programmes and their execution
- enforcement of nature protection laws by procuratorial bodies

- State environmental assessments
- environmental monitoring, and
- information for nature conservation activities.

113. Though trends in many newly independent States are clearly positive, the situation in Armenia is extremely difficult. The country does not have legislation stipulating the layout and content of environment status reports. Each government department assembles information as it sees fit and sends it to the Statistical Institute. The Institute puts together environment status records on the basis of the data received. Obsolescent equipment and inadequate financing mean, however, that thorough monitoring of the state of the environment is not possible. For want of a coordinating body the material reaching the Institute contains incomplete data and no situation analysis. The records give no idea of the state of the environment in Armenia or the opportunities available for tackling the main environmental issues. In the absence of a clear record layout, it is hard to spot environmental trends, determine the factors influencing them, forecast changes or justify recommendations on means of regulating natural resources and protecting the environment.

B. A variety of indicators are considered in producing environment status reports in the newly independent States: these permit a fairly thorough assessment of the environmental situation, covering:

- The objectivity and thoroughness of information on the state of the environment;
- The principle of sustainable development;
- Conformity to international law; and
- Agreement with international treaties and agreements.

114. The Russian Federation also makes use of the following officially adopted standards in its national reports as indicators of the status of the environment and natural resources and of compliance by natural resource users with environmental legislation:

- health and hygienic (maximum permissible concentrations of toxic substances in the air, water and soil, admissible effective radiation doses, noise levels, levels of electromagnetic radiation etc.);
- environmental (maximum permissible concentrations of toxic substances in fishing waters, critical ecosystem loads of acidifying and eutrophying compounds, yearly biomass increase of particular species of plants and animals, maximum permissible atmospheric emissions from stationary sources, maximum permissible toxic emissions in waste water etc.);

- resource conservation (extraction rates from mineral ores and mineral deposits, fuel consumption per unit of heat and energy generated, toxic emissions per unit of production etc.).

115. The Kyrgyz national report uses the following basic indicators:

(a) Atmosphere:

- total emissions;
- total emissions of nitrogen, sulphur and carbon oxides;
- benz[a]pyrene content in the surface stratum of the atmosphere;
- CO content;
- dust content;
- total road vehicle emissions.

(b) Water resources:

- total emissions of polluted water;
- volume of untreated waste water;
- nitrate content in underground and surface waters;
- BOD in surface waters;
- petroleum and petroleum-product content in underground and surface waters.

(c) Land resources:

- soil yield indicators (value of yield v. cost);
- area of land taken out of agricultural use.

(d) Biodiversity:

- number of species of wild animals and plants listed in the Red Book;
- number of extinct species of animals and plants;
- reduction in forested area.

- (e) Hazardous waste and manufacturing processes:
 - quantity of solid waste per category;
 - volume of household waste;
 - volume of household waste recycled and processed;
 - calculated costs of reclaiming burial sites for radioactive and other dangerous waste.

- (f) Impact of environmental factors on human health:
 - life expectancy;
 - infant mortality;
 - incidence of allergies;
 - cancer rates;
 - incidence of infectious diseases;
 - blood and cardiovascular diseases.

- (g) Forest resources:
 - volume of reforestation operations;
 - establishment of new plantations;
 - area of forest affected by pests and diseases;
 - extent of woodland affected by fire.

116. The basic national indicators adopted when the layout of the environment status report is approved each year in Ukraine remain the same; a few may be added or removed.
