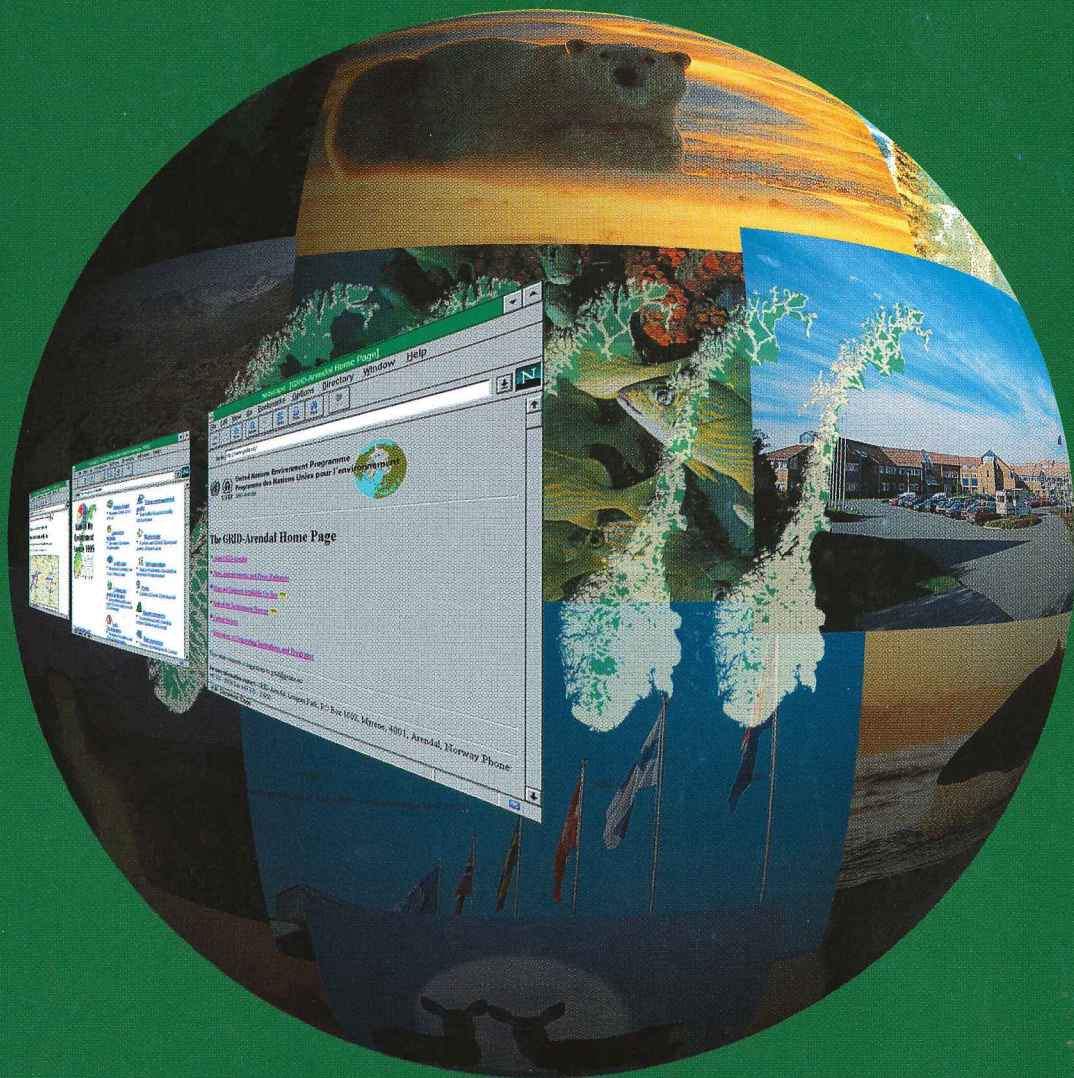


GRID Arendal

Annual Report 1995



Elizabeth Dowdeswell, Executive Director, UNEP

UNEP is very satisfied with our arrangement with the Government of Norway — the Ministry of Environment in particular — for the dynamic and productive cooperation through GRID-Arendal. UNEP is proud to «have its mark» on the outputs and results GRID-Arendal is achieving in the area of information for decision-making and institutional capacity-building. We appreciate GRID-Arendal's expanding operational role, not only for its important and successful programmatic contribution, but also as a model for how UNEP and governments can better work together to implement our common Environment Programme.

Norway, through GRID-Arendal, is making the State of the Norwegian Environment available to an increasing international audience over the «electronic highways» of the Internet. This, too, should serve as an excellent example of making environmental information more readily available for sound policy setting and increased public awareness for our common goals and «for life on earth».



Elizabeth Dowdeswell, Executive Director, UNEP



Elizabeth Dowdeswell

UNEP

The United Nations Environment Programme (UNEP) was created by the United Nations (UN) General Assembly following the Conference on Environment and Development which took place in Stockholm in 1972.

Since then, a central task of UNEP during the past 23 years has been to supply accurate and reliable environmental information as a basis for comprehensive assessments of environmental issues. UNEP's Division of Environment Information and Assessment (DEIA) has made significant contributions to **Earthwatch**, a coordinating mechanism through which UN bodies, in collaboration with governments and scientists, gather environmental data and information.

International environmental agreements, developed by UNEP in the form of conventions and protocols, contribute significantly to shaping national environmental policies and international response.

Continuously at the forefront to meet current environmental information needs, UNEP's DEIA aims to provide the world community with improved access to meaningful environmental data and information, and to help increase the capacity of governments to use environmental information for decision-making and action-planning for sustainable human development.

An integral part of this Division is the Global Resource Information Database (GRID), a global network of cooperating centers providing access to environmental information for decision- and policy-making processes. GRID also provides data distribution, data cataloguing, archiving and analytical services, using GIS, remote sensing, database and telecommunication technologies. The users of this information are other UN organizations, national governments, scientific and environmental institutions, universities, schools and the general public.

Front page photographs: Earth Audit © UNEP, 1992, Per Lunden
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The Year in Review

During 1995 UNEP/GRID-Arendal pioneered an innovation within UNEP. In cooperation with the Norwegian Ministry of the Environment, UNEP/GRID-Arendal produced the Internet version of the 1995 State of the Environment Report for Norway. This multi-media national report was the first of its kind and was released in July 1995 by Norway's Minister of the Environment, Thorbjørn Berntsen.

We were particularly encouraged by UNEP's endorsement of this reporting concept as a reference point for the production and dissemination of similar reports by other countries.

We have continued to focus major attention on the polar areas. The priority in 1995 has been data and information preparation for programs under the Arctic Environmental Protection Strategy (AEPS), including the Arctic Monitoring and Assessment Program (AMAP), Conservation of Arctic Flora and Fauna (CAFF) and Protection of the Arctic Marine Environment (PAME).

Our Arctic work has been strengthened by close support from and cooperation with the Government of Russia. The Russian Minister of the Environment, Mr. Victor I. Danilov-Danilyan, visited Arendal. Together with the Norwegian Minister of the Environment, Mr. Thorbjørn Berntsen, and many other distinguished participants, he attended an Executive Seminar on «The Role of the Electronic Highway in the Preparation of Environmental Information for Decision-Making» hosted by UNEP/GRID-Arendal. This occasion was also the setting for the signing of a memorandum of understanding between UNEP and the European Environment Agency (EEA).

Consultations with the Government of New Zealand have progressed substantially towards an arrangement with UNEP on the establishment of GRID-Christchurch using GRID-Arendal as a model.

Our Baltic activities, managed from our branch office in Stockholm, included the development of an Internet on-line Baltic Sea drainage basin GIS and map database. This became our most popular product on the World Wide Web.

Since 1994, UNEP/GRID-Arendal, in cooperation with UNEP's Regional Office for Europe, has implemented UNEP's Environment and Natural Resources Information Network (ENRIN) project in countries with economies in transition in Central and Eastern Europe. In 1995 work has continued to focus on capacity building at the national level.

Our cooperation with the Consultative Group for International Agriculture Research (CGIAR) on the use of GIS in agricultural research has been another important activity.

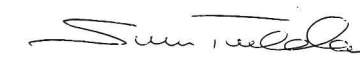
UNEP/GRID-Arendal has provided active technical support to the development of UNEP's new global communication network. A new MERCURE A station in Arendal will increase our opportunities for active participation in this network.

The total turnover in 1995 increased to NOK 16 million from 11 million the previous year.

The findings of an external evaluation team, which completed its work September 1995, were complimentary of work performed by UNEP/GRID-Arendal and helped to focus priorities on a further strengthening of our institution.

UNEP/GRID-Arendal expanded to a total staff of 20 in 1995, and moved into a newly constructed wing in the Longum Park Technology Center.

A highly motivated staff, a well functioning Board and active feedback from our clients have been major factors behind UNEP/GRID-Arendal's encouraging performance in 1995.

Svein Tveitdal
Director



Leif E. Christoffersen
Chairman of the Board

UNEP/GRID-Arendal



UNEP/GRID-Arendal was established in 1989 by UNEP and the Norwegian Ministry of Environment as a foundation subject to Norwegian laws and regulations. As a part of the global GRID network of cooperating centers, UNEP/GRID-Arendal aims at being a center of excellence for improving the accessibility and the application of scientific knowledge about the environment to policy formulation and decision-making processes. UNEP/GRID-Arendal concentrates its efforts on the collection, integration, analysis and dissemination of environmental data from existing sources.

work of cooperating centers, UNEP/GRID-Arendal aims at being a center of excellence for improving the accessibility and the application of scientific knowledge about the environment to policy formulation and decision-making processes. UNEP/GRID-Arendal concentrates its efforts on the collection, integration, analysis and dissemination of environmental data from existing sources.



Longum Park Technology Center.

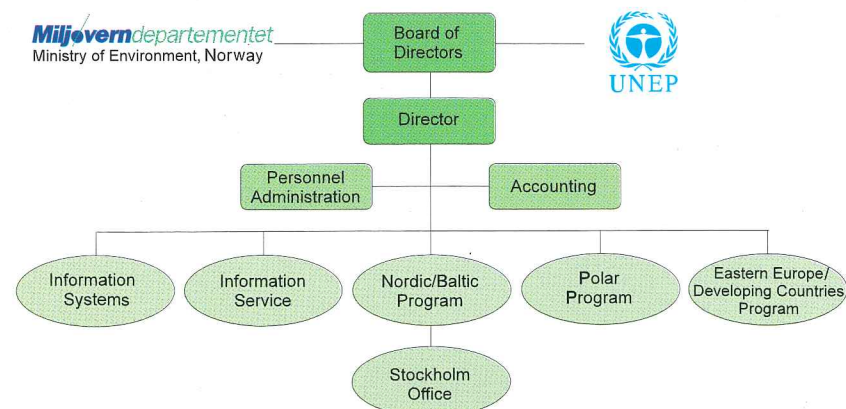
Photo: Per Lundén

UNEP/GRID-Arendal's Location

UNEP/GRID-Arendal is located in the Longum Park Technology Center in Arendal, a city on the southern coast of Norway. Longum Park is a unique center housing high technology services and promoting cooperation and network potential among its 15 firms and 150 employees.

UNEP/GRID-Arendal's branch office for Nordic/Baltic activities is located at the Department of Systems Ecology, University of Stockholm, Sweden.

UNEP/GRID-Arendal's Organizational Structure



UNEP/GRID-Arendal's Long-term Objectives

From the Executive Summary of UNEP/GRID-Arendal's Strategic Plan:

Operating within UNEP's global framework, UNEP/GRID-Arendal's activities serve the UN system and its member countries. Six key long-term objectives have been articulated for the future:

The Arctic

To assume full responsibility for serving as an effective regional node for the Arctic area within UNEP's Division of Environment Information and Assessment (DEIA).

The Antarctic

In collaboration with an institution on the Southern Hemisphere, to serve as an effective regional node for the Antarctic within the UNEP/DEIA system.

Norway

To be an efficient GRID node for Norway. It shall become the key link between Norway and the UN system in providing and facilitating environmental information.

Nordic countries with adjacent seas

To contribute to the development of a Nordic GRID network.

Global

To strengthen UNEP's global environmental management, assessment and reporting functions. Activities under this heading must reflect UNEP's current priorities and regional programs.

Methodological development

To develop and improve methods related to the use of UNEP/GRID-Arendal's database technology, GIS, remote sensing and telecommunications technologies.

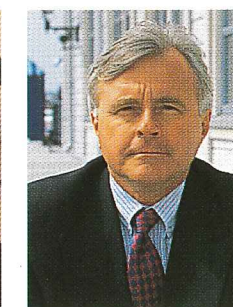
UNEP/GRID-Arendal's Board of Directors



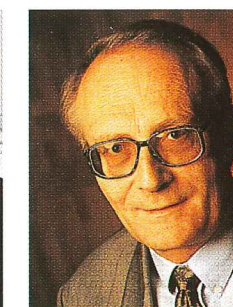
Leif E. Christoffersen
Chairman of the Board



Hans Alders
Director
Regional Office for Europe
UNEP



Harvey Croze
Assistant Executive Director
Division of Environment
Information and Assessment
UNEP



Harald Dovland
Director
Norwegian Institute for
Air Research



Herdis Meihack Engen
County Council
Representative



Tove Strand Gerhardsen
Director
Research Council of Norway



Lars-Erik Liljelund
Director
Environmental Advisory
Council
Ministry of Environment,
Sweden



Odd Rogne
Executive Secretary
International Arctic
Science Committee



Øyvind Schreiner
Head of Department
Norwegian Pollution
Control Authority

UNEP/GRID-Arendal's Statement of Accounts

Balance sheet as per December 31, 1995

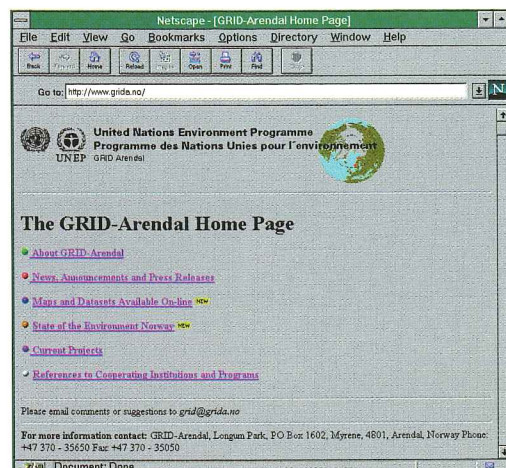
	1995	1994
Current assets	7 562 473	5 326 949
Fixed assets	524 297	196 313
Total assets	8 086 770	5 523 262
Short-term liabilities	4 576 461	2 714 710
Equity	3 510 309	2 808 552
Total liabilities and equity	8 086 770	5 523 262

Profit and loss account for the period January 1, to December 31, 1995

	1995	1994
Operating revenues	16 082 388	11 038 836
Operating expenses	15 639 009	10 493 284
Operating result	443 379	545 552
Net financial items	258 378	207 493
Result for the year	701 757	753 045

The above statement of accounts has been audited by State Authorized Public Accountant Terje H. Holst, KPMG Peat Marwick, Arendal.

UNEP/GRID-Arendal's Focus on the Internet

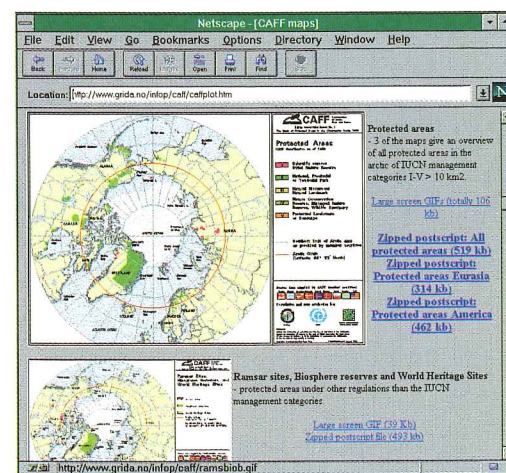


A main objective for UNEP/GRID-Arendal is dissemination of environmental information. Up-to-date, reliable and easily understandable information for both decision-makers and the public is needed to support policy-making processes and increase public awareness. Our information is public domain, and the more users sharing and using it, the higher is its social value and impact.

1995 was the year when information technology through the World Wide Web (WWW) gave us a new tool to reach more users with our data and information products. The number of people worldwide accessing Internet was approximately 50 million in December 1995. In Norway 13% of the population currently has access to the Internet, and its use will increase dramatically in years to come.

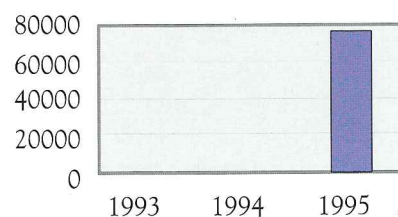
Some highlights of 1995 were:

- the first indicator-based multi-media state of the environment report in the world on WWW, prepared by UNEP/GRID-Arendal in cooperation with the Norwegian Ministry of the Environment. The report was released on the Internet by the Norwegian Minister of the Environment, Thorbjørn Berntsen in July,
- more than 77 000 pages have been downloaded from our WWW site since June,
- 2 000 maps and data sets were disseminated to users through WWW,
- in December our state of the environment report was selected by the Norwegian Internet Guide to be among the "top ten" in Norway.

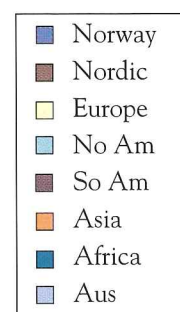
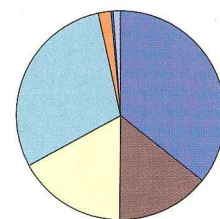


The statistics below clearly show the soaring development in UNEP/GRID-Arendal's dissemination of environmental information through the Internet.

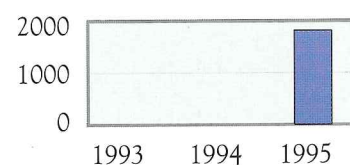
On-line queries
gopher/www



WWW. Domain
access. 1995



On-line distribution
of maps and data sets



UNEP/GRID-Arendal's Focus on Telecommunications

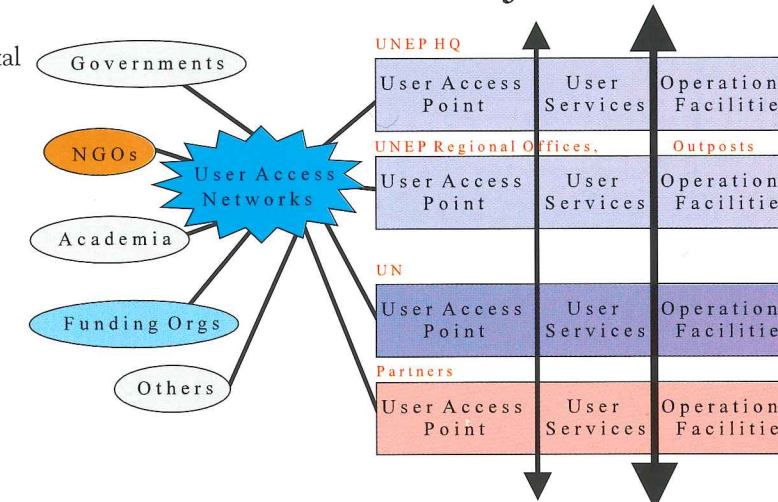
Contribution to the development and installation of MERCURE and the UNEPnet

UNEPnet

The UNEP international environmental internet (the "green global lane")

- developed by UNEP
- using cost-effective modern data communications
- designed to better meet the needs of developing countries for timely and comprehensive environmental information.

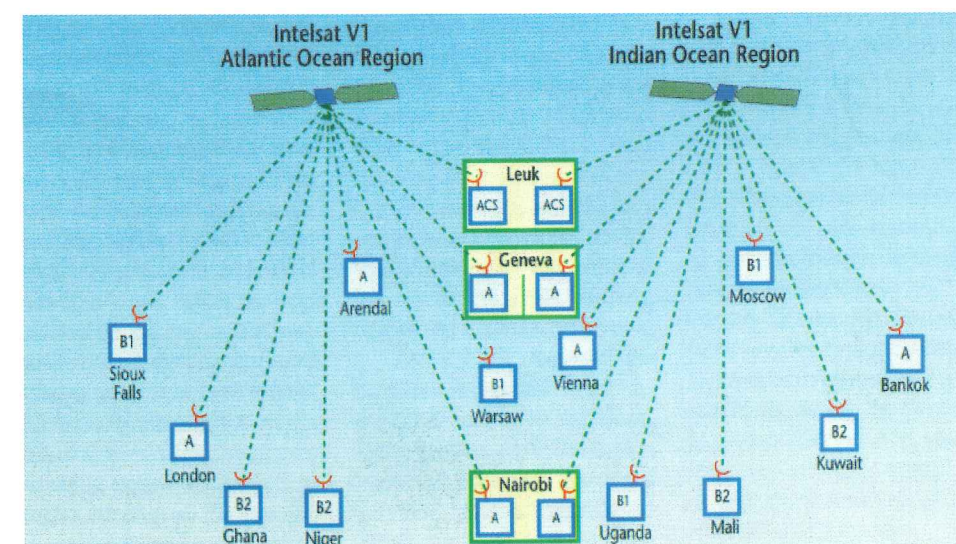
UNEPNET - Objectives



The backbone of UNEPnet is a satellite-based communications system called MERCURE. The MERCURE project will result in an initial array of sixteen ground antenna stations around the world, communicating through "Intelsat" satellites located over the Indian and Atlantic Oceans. This will allow UNEP Headquarters and Regional Offices, national environment agencies and scientific partners to exchange documents, environmental data, images and messages economically, rapidly, easily and reliably. The MERCURE system will provide long-term flexibility by servicing users in hundreds of countries. MERCURE is donated to UNEP by member states of the European Space Agency (ESA).

UNEP/GRID-Arendal is acting as the technical coordinator in the implementation of this unique environmental internet network which will be operational in 1996. As shown below, one of the 7.3 m parabola antennas will be located at UNEP/GRID-Arendal. This antenna has been funded by the Norwegian Ministry of Environment and UNEP/GRID-Arendal.

MERCURE



The objective of this unique environmental internet network is to enhance access to environmental information products from UNEP and other sources. This will give national and international policy-makers and the public access to the most up-to-date environmental information. Research institutions, involved in a range of environmental issues, will now be able to link together through UNEPnet.

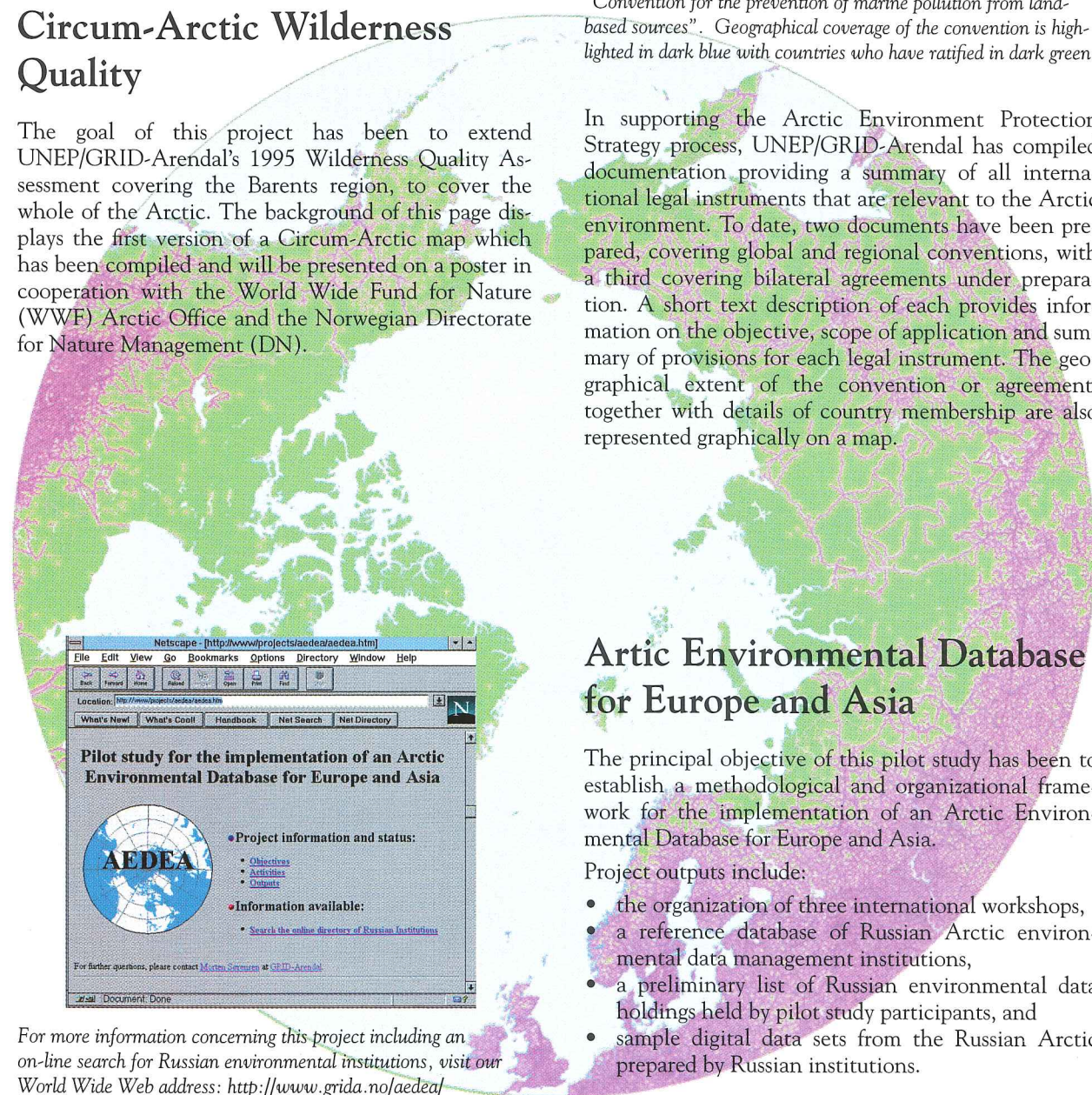
UNEP/GRID-Arendal's Polar Focus

The Arctic

The main Arctic focus in 1995 has been data and information preparation for programs under the Arctic Environmental Protection Strategy (AEPS), including the Arctic Monitoring and Assessment Program (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME) and support to AEPS' Indigenous Peoples' International Secretariat. Other activities include cooperation with Russian institutions to compile environmental data and information on the Russian Arctic and the preparation of information products from the Barents Region.

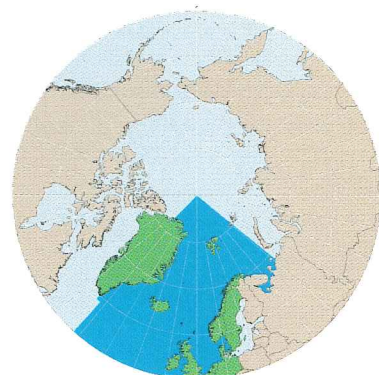
Circum-Arctic Wilderness Quality

The goal of this project has been to extend UNEP/GRID-Arendal's 1995 Wilderness Quality Assessment covering the Barents region, to cover the whole of the Arctic. The background of this page displays the first version of a Circum-Arctic map which has been compiled and will be presented on a poster in cooperation with the World Wide Fund for Nature (WWF) Arctic Office and the Norwegian Directorate for Nature Management (DN).



For more information concerning this project including an on-line search for Russian environmental institutions, visit our World Wide Web address: <http://www.grida.no/aedea/>

Arctic Conventions



"Convention for the prevention of marine pollution from land-based sources". Geographical coverage of the convention is highlighted in dark blue with countries who have ratified in dark green.

In supporting the Arctic Environment Protection Strategy process, UNEP/GRID-Arendal has compiled documentation providing a summary of all international legal instruments that are relevant to the Arctic environment. To date, two documents have been prepared, covering global and regional conventions, with a third covering bilateral agreements under preparation. A short text description of each provides information on the objective, scope of application and summary of provisions for each legal instrument. The geographical extent of the convention or agreement, together with details of country membership are also represented graphically on a map.

Arctic Environmental Database for Europe and Asia

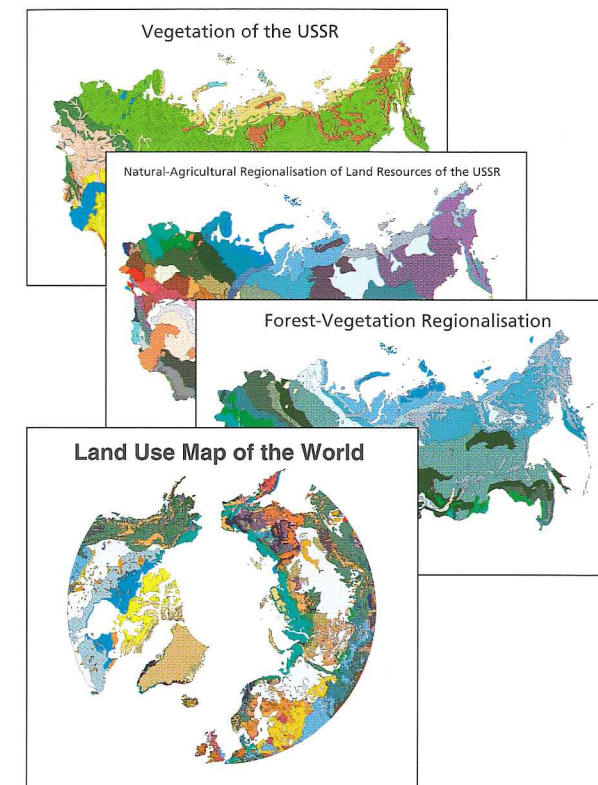
The principal objective of this pilot study has been to establish a methodological and organizational framework for the implementation of an Arctic Environmental Database for Europe and Asia.

Project outputs include:

- the organization of three international workshops,
- a reference database of Russian Arctic environmental data management institutions,
- a preliminary list of Russian environmental data holdings held by pilot study participants, and
- sample digital data sets from the Russian Arctic prepared by Russian institutions.

Circumpolar Ecoregions

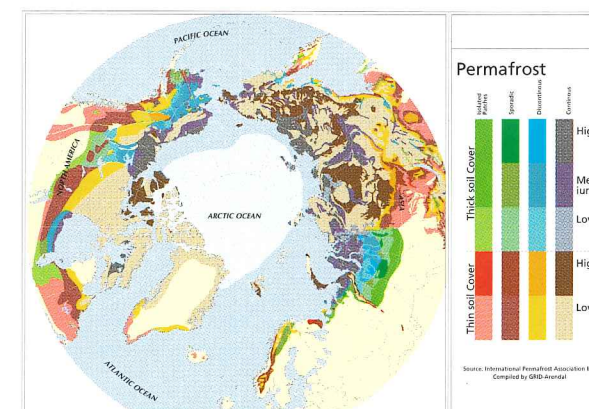
In order to investigate the possibility of creating a Circumpolar Map of Arctic Ecoregions, this project focused on building a data foundation for a circumpolar ecoregion classification, with particular regard to the Russian Arctic. Based on a preliminary survey of Russian small-scale spatial data sources, a set of analogue and digital data sets was selected to represent such themes as bedrock and surficial geology, land surface forms, climate, permafrost, hydrology, soils, vegetation, wildlife, land use/land cover and cultural and ecological regionalization patterns. Cooperating institutions include the United States Environment Protection Agency (USEPA), the Norwegian Directorate for Nature Management (DN), the United States Geological Survey (USGS), Environment Canada, Moscow State University, the Soil Institute of the Russian Academy of Agriculture, the Institute of Environmental Conservation of the Russian Ministry of Environmental Protection and Natural Resources, the Arctic Monitoring and Assessment Programme and the World Conservation Monitoring Centre (WCMC).



Three examples of data sets in the Circumpolar Arctic Ecoregions project database; Forest-Vegetation regionalization, Vegetation of the USSR, Natural-Agricultural Regionalization of Land Resources of the USSR.

The International Arctic Environmental Data Directory (ADD)

ADD is a cooperation between institutions in the Arctic countries aiming at providing the best possible gateway to all Arctic environmental data. ADD is an activity under the International Arctic Science Committee (IASC). For external users of Arctic data, we especially recommend ADD's homepage, maintained by UNEP/GRID-Arendal and linking to other collaborating organizations' directories holding Arctic environmental data and information. Visit our World Wide Web address: <http://www.grida.no/add/>



The circumpolar permafrost map compiled by the International Permafrost Association is an example of a digital product in the Arctic Environmental Database for Europe and Asia.

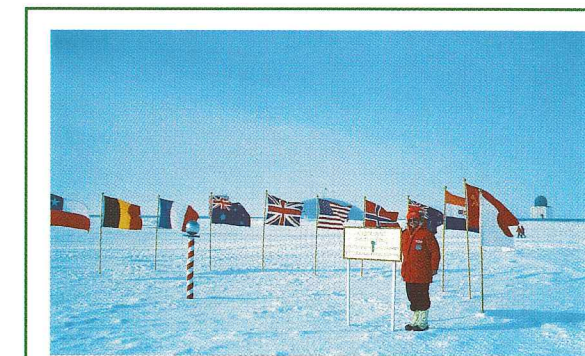


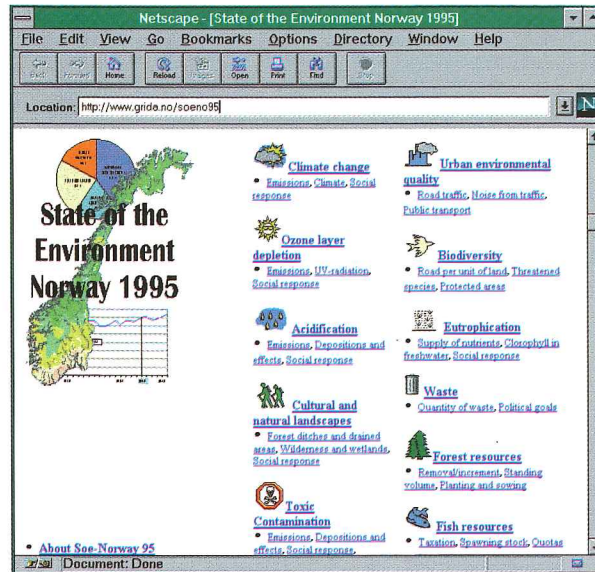
Photo: Odd Rogne

The Antarctic

Consultations with the Government of New Zealand have progressed substantially towards an arrangement with UNEP on the establishment of UNEP/GRID-Christchurch with UNEP/GRID-Arendal as a model. GRID-Christchurch is co-located with the International Centre for Antarctic Information and Research (ICAIR), and is expected to be in operation during the first half of 1996. A collaborative arrangement between UNEP/GRID-Arendal and GRID-Christchurch will increase UNEP's capacity significantly for preparing environmental information for decision-making and raising awareness on matters related to the Antarctic environment. The first major output from this cooperation is expected to be a State of the Antarctic Environment Report requested by UNEP for the UN General Assembly. For environmental information on the Antarctic, visit "Gateway to Antarctica": <http://icair.iac.org.nz/>

UNEP/GRID-Arendal's Focus on Norway

The State of the Environment Norway (SoE-N) 1995 on the Internet



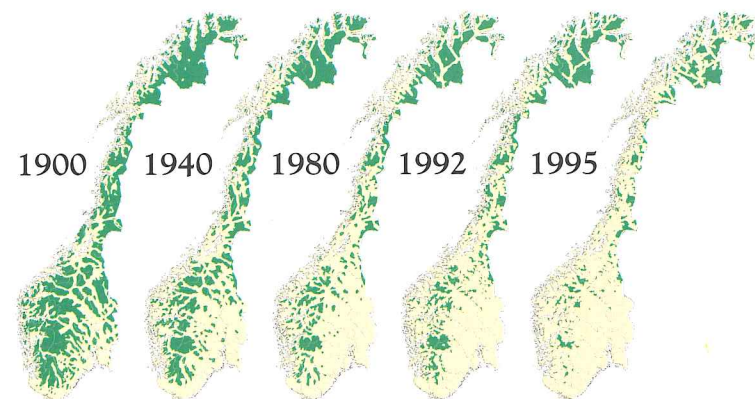
Pressure: Human activities put pressure on the environment in different ways, for example through emissions of SO₂ and NO_x.
State: This pressure is reflected in an altered quality and quantity of natural resources, for example increased acidity in fresh water.
Response: Society responds to limit these alterations and attempts to repair damages to the environment through various methods and measures, for example adding lime to water courses.

UNEP/GRID-Arendal's Annual Report 1992 announced the production of SoE-N 1992 which was prepared for the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June of that year. This state of the environment report was produced in diskette form and presented as a PC-based information system, using the most widely available tools in information technology at that time.

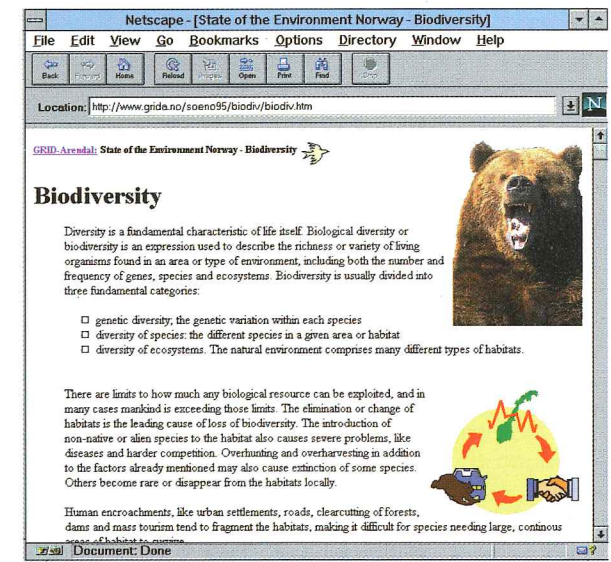
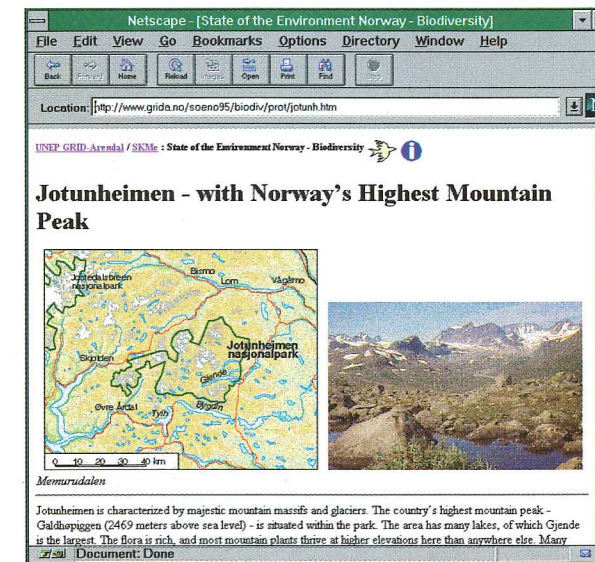
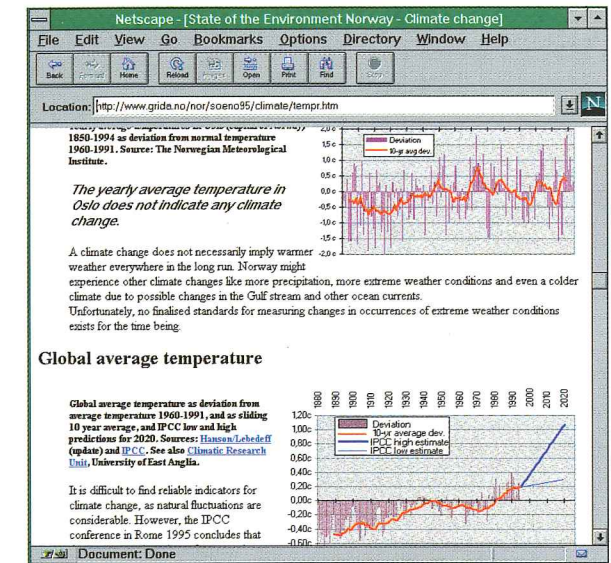
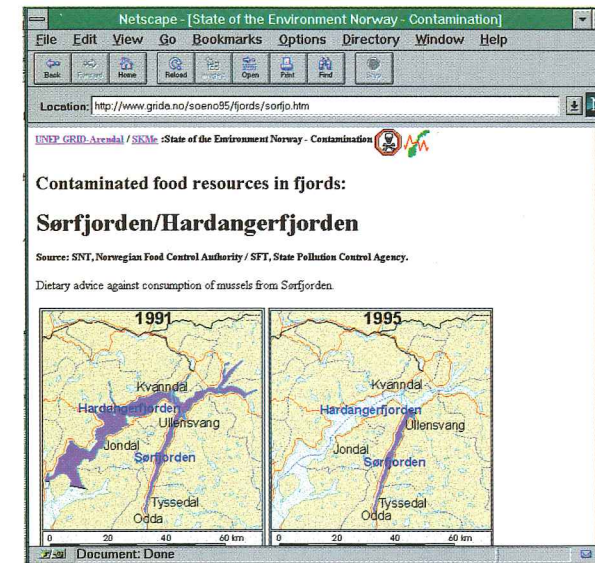
An Internet version was prepared by UNEP/GRID-Arendal in 1995. This was produced in cooperation with the Norwegian Ministry of the Environment, the Norwegian Mapping Authority, the Norwegian Pollution Control Authority, Statistics Norway, the Directorate for Nature Management and UNEP. This was the first comprehensive indicator-based national state of the environment report on the Internet/WWW. It was released on the Internet by the Norwegian Minister of the Environment, Thorbjørn Berntsen, in July 1995.

SoE-N 1995 report is based on sets of environmental indicators. These indicators are based on recommendations from the Nordic Council, showing pressure, state and social response to various environmental issues. The Internet user obtains a graphic presentation of the indicators, and is presented with an easy overview of national goals for environment protection. Performance is measured against established goals. International treaties and agreements signed or ratified by Norway are also shown. Links to relevant environmental databases are provided. Visit our Internet/World Wide Web address: <http://www.grida.no/soeno95/>

Wilderness in Norway 1900-1995



Wilderness territory is defined as areas lying more than 5 kilometers from roads, railways and power lines.



Graphics taken from SoE-N 1995.

SoE-N 1995 is constructed as follows:

The first page is a menu showing different problem areas or topics. When choosing a topic, a short overview of the problem is given. Graphics on pressure, state and response indicators are presented. Additional background information can be found under an information button. SoE-N will be regularly updated with new information and expanded with additional sets of indicators as deemed appropriate. The report will be translated into Norwegian and launched in March 1996. It is expected to be used extensively by Norwegian schools.

The Internet version of SoE-N is an example of the use of new technology in the field of electronic networks to greatly augment the number of users otherwise not reached by traditional means. Common guidelines and indicators are being sought for the preparation of SoE reports globally.

UNEP/GRID-Arendal's Focus on Eastern Europe

UNEP/ENRIN in Central and Eastern Europe

UNEP's Environment and Natural Resources Information Network (ENRIN) project is designed to catalyze and assist capacity building of environmental information networks in developing countries and countries with economies in transition of Central and Eastern Europe. Since 1994, UNEP/GRID-Arendal has been implementing this project, focusing in particular on capacity building at the national level. This includes assistance in strengthening or providing cooperating environmental institutions with the necessary competence in GIS, remote sensing and other environmental information management tools.

The project's main objective is to improve the availability of environmental data and information for decision-makers and the general public. Activities in 1995 included a number of country assessment reports which can be accessed via the Internet:

<http://www.grida.no/enrin/>

Published Reports	Reports in Preparation
Estonia	Azerbaijan
Latvia	Armenia
Lithuania	Kazakhstan
Russia	
Ukraine	
Georgia	
Hungary	

Regional workshops/seminars were held in Russia (Moscow), Estonia (Jäeneda), Georgia (Kazbegi) and Ukraine (Kyiv) to present national assessments and to discuss the UNEP/ENRIN project. Reports from these meetings have been published and are available from UNEP/GRID-Arendal.

These seminar activities were complemented by missions to the countries and the attendance of international conferences and meetings, such as 'Environment for Europe' in Sofia. In addition, several meetings with relevant cooperating partners took place in Arendal.

ENRIN feasibility studies were completed for Hungary and Russia and are underway in Georgia and Ukraine. Funds for the proposed three-year project implementation in Hungary were granted by the Swiss Government, and project implementation will start in January 1996.

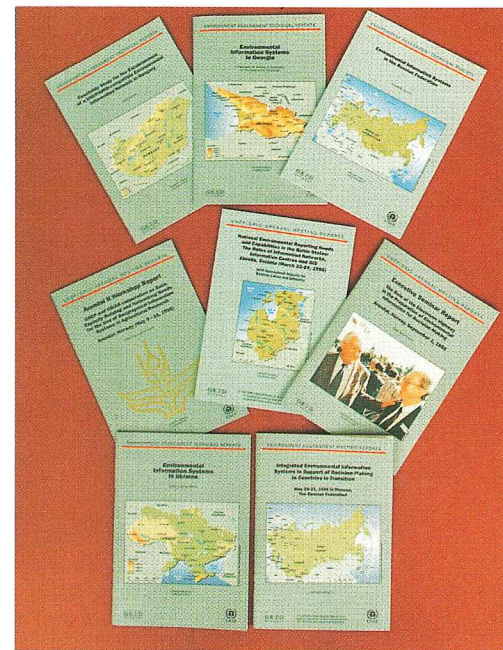


Photo: Stern Bay Stryvold

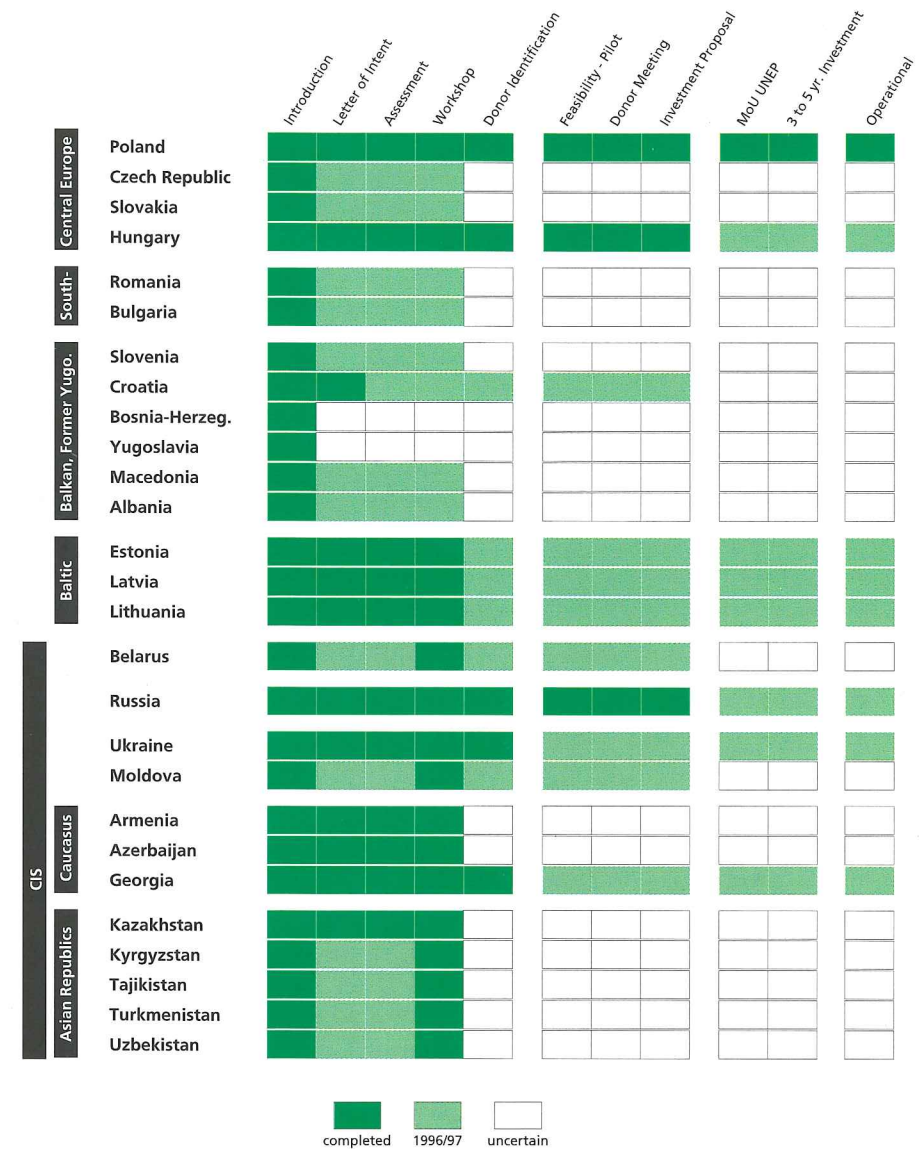


Photo: Otto Simonett

"Environment for Europe"
Conference in Sofia October 1995

Environment Information Network in Central and Eastern Europe

Countries - Status, January 1996



Outlook

In 1996/97, UNEP/GRID-Arendal will continue the UNEP/ENRIN implementation at the national level in Central and Eastern Europe; UNEP/GRID-Geneva will focus on regional environmental programs; UNEP's Regional Office for Europe (RoE) is coordinating the activities.

Focus will be on:

- institutional issues: set-up, sustainability, data release and pricing policy, UNEP terms and conditions for cooperation,
- networking issues: newsletters and workshops, strengthening electronic capacities, cooperation with other international initiatives such as The European Union (EU), The United Nations Development Program (UNDP), The Organization for Economic Cooperation and Development (OECD),
- information management: SoE reporting for decision-makers and the general public, use of the Internet, visual communication, directories (meta database).

By the end of the biennium, it is expected that environmental information system assessments will be completed for all the countries in the region participating in ENRIN. Through further network implementations, relevant information on the state of the environment will be made available to a wide audience. Visit our Internet/World Wide Web address: <http://www.grida.no/enrin/>

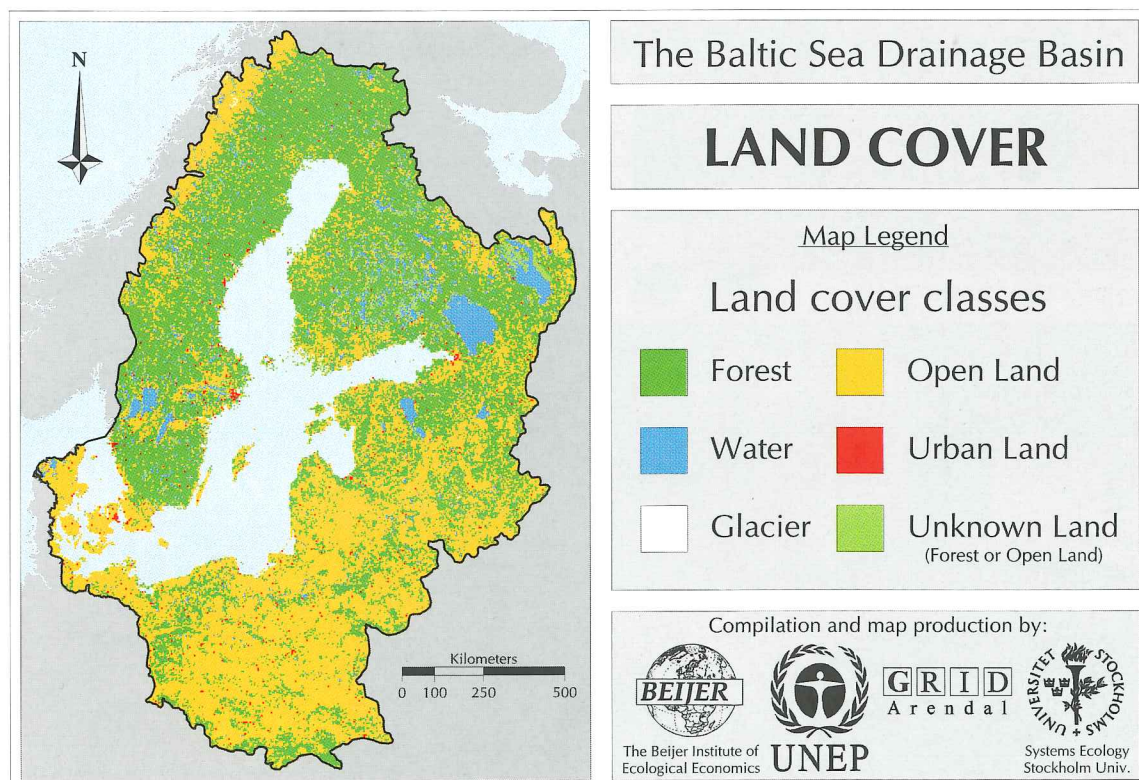
UNEP/GRID-Arendal's Focus on the Baltic

Environmental GIS Database and "Atlas" of the Baltic Region on the Internet

In August 1995, UNEP/GRID-Arendal made available on the Internet a comprehensive GIS and map database of the entire Baltic Sea drainage area. This database has been recognized as the most comprehensive public domain multi-national and multi-thematic GIS and map database on the Internet within Europe. The database was initially created during the EU Environmental Research Program (1991-1994). UNEP/GRID-Arendal's Baltic Drainage Basin Project is implemented in cooperation with the Beijer Institute and the Department of Systems Ecology, Stockholm University, Sweden. During the period from August sets 1995, more than 8 000 visits were registered on the homepage of the database, and 1 500 GIS data sets and cartographic map files have been downloaded. A CD-ROM version of this database will be released in the Spring of 1996.

The database covers the entire Baltic Sea drainage area, fully or partly, including the following countries: Denmark, Norway, Sweden, Finland, Russia, Belarus, Estonia, Latvia, Lithuania, Ukraine, Poland, The Czech Republic, Slovakia and Germany. The following thematic layers are included:

- administrative units (first or second sub-national level) with attributes (names, urban/rural population)
- land cover (six classes)
- coastline
- meso-scale drainage basins (82 sub-basins) with attributes (nitrogen and phosphorous loads)
- arable land distribution
- pasture land distribution
- population density distribution
- wetland distribution



Land Cover is a crucial determinant for many environmental processes taking place in the Baltic Sea drainage area. This map is one of several which can be found in the on-line environmental "atlas" and GIS database at the UNEP/GRID-Arendal WWW server: <http://www.grida.no/baltic/>

UNEP/GRID-Arendal's Global Focus

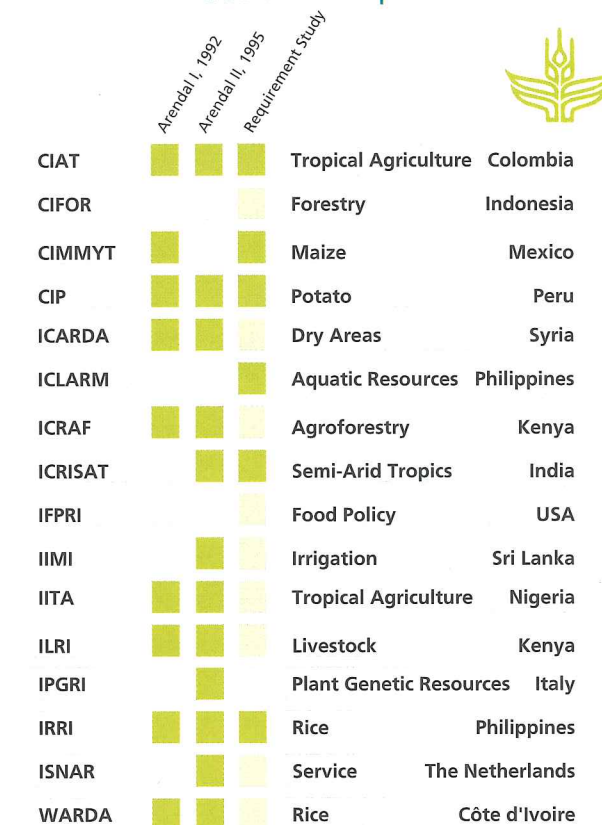
Use of Geographic Information Systems in Agricultural Research

UNEP/GRID-Arendal is implementing a joint UNEP/CGIAR project which aims at establishing long-term links between UNEP and the Consultative Group for International Agricultural Research (CGIAR). The aim is to use the GRID and CGIAR networks to compile and distribute high quality natural resource and socio-economic digital data sets. The project assists CGIAR centers to assess their capacity and needs to use such technologies and data sets in agricultural research.

CGIAR is supporting 16 international agricultural research centers dedicated to promoting sustainable agriculture for food security in developing countries. There has been an increase in interest among the CGIAR centers in the use of GIS, as research activities are shifting from single crop analysis to integrated ecoregional approaches, opening a broad field for GIS applications.

During visits to a first set of CGIAR centers, data and institutional development needs were assessed and will be compiled in a requirement study report. GRID services were delivered upon request from individual CGIAR centers. The project is likely to be extended for a new two-year period starting in April 1996, focusing on methodological questions, training needs and translating the results of the requirement studies into concrete action.

CGIAR Participation



For more information, visit <http://www.grida.no/cgiar/>

Palestinian Environmental Information and Decision Support System

The Middle East Peace Process and the Oslo agreement, following the Declaration of Principles in 1993, has created a new urgency to provide decision support to solve the environmental problems of the occupied territories. There is an apparent need for up-to-date environmental information for decision support and environmental awareness to ensure sustainable development of the Palestinian reconstruction process.

The overall goal of this project, funded by NORAD, is to help the Palestinian government to acquire the necessary capacity and systems needed for sound environmental decision-making, for education and public environmental awareness.

This will be accomplished through support to the Environmental Planning Directorate (EPD) of the Ministry of Planning and International Cooperation. The EPD will, through this project, acquire the neces-

sary capacity to facilitate this process efficiently. In addition, a framework for future relations with other local and international agencies will be developed.

The proposed project will be implemented in two phases. A short-term (four-month) feasibility phase will result in a three-year implementation proposal.



from l. to r.: Svein Tveitdal, UNEP/GRID-Arendal Director, Dr. Mohammed Ajjour, Director, Directorate for Environmental Planning, Ministry of Planning and International Cooperation, Palestine. Mr. Abdull-Nasser A. Dawoud, Director, the Government Computer Center, Ministry of Planning and International Cooperation, Palestine

Photo: Stein Bay Styrvold

UNEP/GRID-Arendal as Conference Host

ARENDALE II Workshop:

UNEP and CGIAR cooperation on Data, Capacity Building and Networking Needs for the Use of Geographic Information Systems in Agricultural Research

Arendal, May 9-11, 1995

The workshop was a major activity of the joint UNEP/CGIAR project whose long-term goals are to create lasting links between CGIAR, the UNEP/GRID network and other expert institutions in the fields of GIS and remote sensing. Representatives from twelve of the sixteen agricultural research institutes supported by the CGIAR, along with 20 experts and representatives from UNEP and other international organizations discussed how the objectives of the project can be translated into concrete action. As a follow-up, the project financed the improvement of population data, published a monthly newsletter, and several CGIAR centers were visited. The purpose of these visits was to create a catalogue of available data sets, further assess training needs and initiate proposals for collaborating projects. The proceedings from the workshop have been summarized in a report which is available from UNEP/GRID-Arendal.



Participants, Arendal II Workshop.

Photo: Per Lundén

UNEP/GRID-Arendal Executive Seminar:

The Role of the Electronic Highway in the Preparation of Environmental Information for Decision-Making
Arendal, September 1, 1995

Representatives from UNEP, the European Environment Agency, the World Bank and the governments of Russia and Norway met at UNEP/GRID-Arendal to discuss the role of the electronic highway in providing environmental information for decision-makers and the general public.

The institutions, organizations and governments present recognized the rapidly growing importance of electronic networks for the exchange and harmoniza-

tion of environmental information in a global context. Representatives present were encouraged to cooperate in the preparation of common guidelines and indicators for the presentation of SoE reports on the Internet.

This seminar was also the setting for the signing of a memorandum of understanding between UNEP and the European Environment Agency. This agreement formalizes cooperation between the two agencies and is based on the principles of reciprocity and work sharing.



The Director of UNEP/RoE, Hans Alders, and the Executive Director of the EEA, Domingo Jiménez-Beltrán, signing the Memorandum of Understanding between the EEA and UNEP, Arendal, September 1, 1995.

Photo: Per Lundén



The Norwegian Minister of the Environment Thorbjørn Berntsen during his presentation at the seminar.

Photo: Per Lundén

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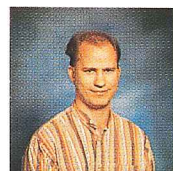
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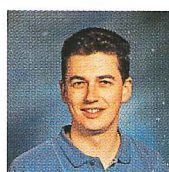
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Looking Forward



Harvey Croze. Assistant Executive Director.
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The voices of the world community heard at Stockholm, echoed in Rio, are still resonating today, enjoining UNEP to provide the information necessary to identify environmental problems, formulate policy options, guide actions and check results of those actions. The currency of UNEP is information, ranging from data showing state and trends, to integrated assessments elucidating cause and effect. Whatever the form of the information, the aim of providing it must be to inspire and guide action. The message is: Let's not just watch and measure; let's understand and do.

The governments who are our principals have in effect challenged us to look beyond the traditional bounds of the physical environment — to understand as well the pressures associated with environmental stress and to present possible responses for ameliorating impacts. UNEP's ecologists and environmental scientists are beginning to understand the language of the social and economic sciences. And vice versa, I might add.

State of the environment — SoE — reports are one of the products we are required to produce. Indeed a specific decision at the 18th Session of the Governing Council of UNEP last May requires that UNEP produce for the next Council a «new» comprehensive SoE covering the present state of the

global environment, the state of the global environment in the year 2015 taking into account such things as impacts of population, consumption and production patterns and economic development, and then to top it all off with the range of responses for virtually all environment sectors. All this to be done within existing financial resources! A tall order indeed! Perhaps, some might say, even impossible in the 20-odd months available between Governing Councils. Fortunately we had already begun thinking about a Global Environment Outlook, «GEO».

The «old» SoEs from which we are required to depart used to be typically crafted by a contracted group of wise persons drawing on their venerable science and information contacts. A large book was produced: excellent quality material stimulating debate and enhancing libraries. But from where springs the action? Where is the engagement of the policy-setters and decision-makers? How do we get the stake-holders involved?

That is what is new about «GEO»! Not just the product, which we hope will be innovative and forward-looking, but the process itself. Here is a very simple truth about UNEP: we cannot do the job we have to do alone, and we must not do it from only one point of view. In «GEO», we are embarking on a process which is founded on participation of collaborating institutions in the regions of the world and on integration of information within constructs that allow us to go beyond descriptive reporting. It is a process intended to persist beyond publication date, tracking the pledges of policy and the impact of action to 2002 and beyond.

In the preparation and presentation of «GEO», we shall draw heavily on our partners at UNEP/GRID-Arendal, and their recent success with the Norwegian SoE on the Internet. We believe that our growing network of partners can help us provide a unique view of the globe as seen from the regions.

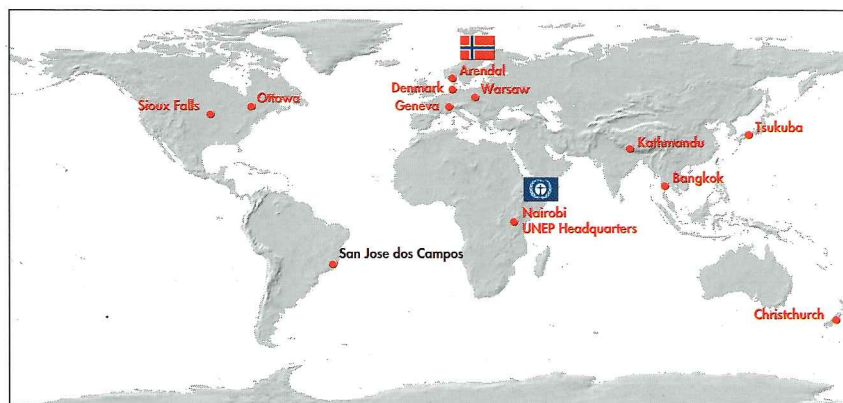


Harvey Croze

Glossary

ADD	International Arctic Environment Data Directory	ICAIR	International Centre for Antarctic Information and Research
AMAP	Arctic Monitoring and Assessment Programme	Internet	International electronic communication network
AEDEA	Arctic Environment Database for Europe and Asia	MERCURE	Satellite-based communication system, donation from 6 European countries
AEPS	Arctic Environment Protection Strategy	NGO	Non-governmental Organization
CAFF	Conservation of Arctic Flora and Fauna	PAME	Protection of the Arctic Marine Environment
CD-ROM	Compact Disc-Read Only Memory	RoE	Regional Office for Europe
CGIAR	Consultative Group for International Agricultural Research	SoE	State of the Environment
DEIA	Division of Environment Information and Assessment	SoE-N	State of the Environment Norway
DN	Directorate for Nature Management	UNCED	United Nations Conference on Environment and Development
ENRIN	Environment and Natural Resources Information Network	UNEP	United Nations Environment Programme
EPD	Environmental Planning Directorate	UNEPnet	The UNEP international environmental internet
ESA	European Space Agency	USEPA	United States Environment Protection Agency
GIS	Geographic Information Systems	USGS	United States Geological Survey
GRID	Global Resource Information Database	WCMC	World Conservation and Monitoring Centre
IASC	International Arctic Science Committee	WWF	World Wide Fund for Nature
		WWW	World Wide Web, an interacting graphical and text medium on the Internet

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