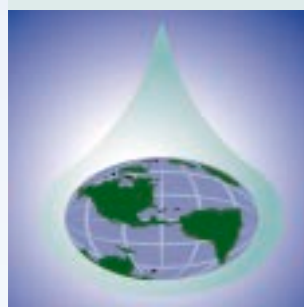


GRID-Arendal Annual Report 2000



Greeting from the Norwegian Minister of Environment

2



Good decisions are based on good information. Environmental issues are typically of a complex nature, and frequently have causes and impacts that reach across large areas, often crossing state borders. It is therefore crucial to have reliable, easily accessible sources of environmental information, which can present up-to-date and comparable data. This constitutes a sound knowledge base both for decision-makers making choices and - quite as importantly - for those whose lives and livelihoods are affected by these environmental choices.

Dependable environmental information is of great significance for awareness raising, public participation and promotion of environmental aspects in the political debate

The World Commission on Environment and Development emphasised in its report "Our Common Future" the importance of information and participation as prerequisites for achieving sustainable development. GRID-Arendal has a key role in living up to this challenge by constantly improving and increasing the dissemination of environmental information to target groups and the general public.

Over the last few years, electronic media, particularly the Internet, has become increasingly important for reaching both the public in general, the press and specific target groups, amongst which young people are of special concern. GRID-Arendal has proven to be able to be in the forefront of this development in their own work as well as in assisting other countries in establishing environmental information systems, which are made electronically accessible.

Dependable environmental information is of great significance for awareness raising, public participation, promotion of environmental aspects in the political debate and as food for the watch-dogs and critics of current environmental policy. In this way GRID-Arendal is also supporting a democratic development in many societies.

Siri Bjerke
Siri Bjerke

Front cover and report design was inspired by the artist **Lyonel Feininger**, 1871-1956, born in New York.

Feininger's work was influenced by his very intense study of the natural world, and by the innovations of Cubism which he developed into his own geometric style.

http://sheldon.unl.edu/HTML/ARTIST/Feininger_L/TO.html

Annual Highlights Year 2000 in Review



GRID-Arendal is now in its second decade of operations in support to UNEP and the UN. Today the essence of our mission seems even more important than when we started 11 years ago.

There is an increasing demand for services that provide reliable and up-to-date information for environmental policy and decision-making. We note a continuously strong public interest in environmental issues. We have been striving to develop our skills and capacities to implement our mission in the most effective way. While we have made some progress, we are well aware that much more needs to be done.

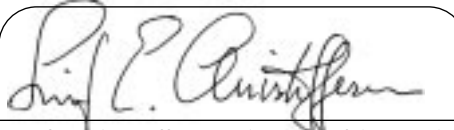
The Board has developed a 5 year strategic plan for the years 2000 to 2005 to guide the next stage of our institutional development. An important part of it is a new set of performance indicators to monitor our performance in relation to our mission statement. This facilitates more systematic assessments of progress in implementing our strategic objectives.

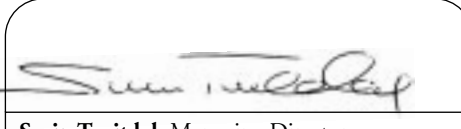
There is an increasing demand for services that provide reliable and up-to-date information for environmental policy and decision-making.

During the year we have expanded the close co-operation with UNEP's headquarters, and a dialogue has been started up involving both UNEP and the Ministries of Environment and Foreign Affairs in Norway, on how our unique institutional model as a non profit organization can be further developed to strengthen UNEP and perhaps also other parts of the UN.

Achievements and outputs of the year presented in this report speak for themselves. We will just mention that hits on our web site more than doubled to 8.2 million hits, with the State of Environment reports from Eastern Europe having the strongest demand. The Vital Climate Graphics presented by GRID-Arendal at the climate conference in Haag in November we consider a important break-through in supporting conventions with information for decision making. Year 2000 was our first operational year as UNEP's key Polar center. This new task has proved us with improved scope for serving our Arctic mission. A visible result of this is a much higher interest from international media for information from GRID-Arendal on information related to the Polar environment.

Our achievements during the year have been made possible by a growing network of partners, donors, users and, most importantly, continuously close cooperation with the leadership and staff in UNEP. None of this would have been possible without the dedication and commitment of our outstanding staff and by the wise guidance of the Board.


Leif E. Christoffersen, Chairman of the Board


Svein Tveitdal, Managing Director

UNEP and GRID-Arendal

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"As human activities continue to grow, old problems re-emerge and new ones appear. They require continuous monitoring, an increasing capacity for far-sighted and integrated understanding, and a commitment to sustainable development." UNEP Executive Director **Klaus Töpfer**

The mission of UNEP:

"to provide leadership and encourage partnership in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations."

The mission of UNEP's Division of Early Warning and Assessment (DEWA):

"to keep under review the state of the global environment, assess global and regional environmental trends, and provide early warning information on environmental threats."

GRID-Arendal contributes to UNEP's Division of Early Warning and Assessment.



GRID-Arendal is located in the Longum Park Technology Centre in Arendal, a city on the southern coast of Norway. Longum Park is an information technology centre housing 30 firms with a total staff of 250. GRID-Arendal has a satellite office co-located with UNEP's Regional Office for Europe in Geneva, Switzerland, and a satellite office in Stockholm, Sweden, collaborating with the Division of Land and Water Resources, Royal Institute of Technology (KTH).

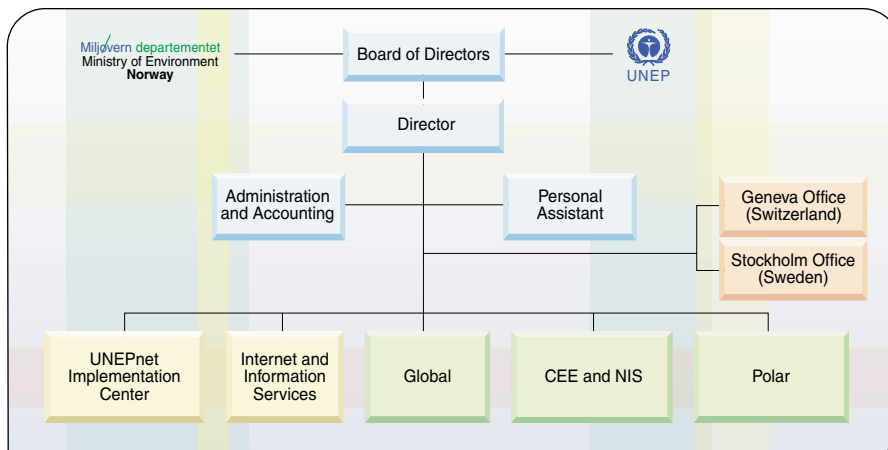
The mission of GRID-Arendal:

"GRID-Arendal provides environmental information, communications, and capacity building services for information management and assessment. Established to strengthen the United Nations through its Environment Programme (UNEP), our focus is to make credible, science-based knowledge understandable to the public and to decision-making for sustainable development."




































The main directions given to GRID-Arendal in the joint agreement between UNEP and the Government of Norway are to focus on:

- Norway
- the Nordic countries with their adjacent seas
- the polar regions, and
- to support the global and regional activities of UNEP in the field of environmental information

GRID-Arendal Organisation 2000



Staff 2000

 Hugo Ahlenius M.Sc. Nordic/Baltic	 Maren Aschehoug M.Sc. Polar	 Åke Bjørke B.Sc. BLL Web & Info	 Lorant Czaran M.Sc. UIC
 Margaret Katunga David B.A. <i>Consultant,</i> Web & Info	 Nickolai Denisov Ph.D. <i>Manager,</i> CEE/NIS	 Jarle Fjørtoft <i>Civil Service</i> UIC (March - April)	 Karen Folgen B.A. <i>Personal Assistant to the</i> <i>Managing Director</i>
 Mona Grenasberg M.Sc. Global	 Bertil Hågerhäll M.Sc. Nordic/ Baltic (until March)	 Dominique Habimana B.A. <i>Consultant,</i> Web & Info	 Øystein Halvorsen M.Sc. UIC
 Claudia Heberlein M.Sc. <i>Geneva Office</i>	 Lawrence Hislop M.A. <i>Manager,</i> Web & Info	 Harald Holt M.B.A., M.Sc. <i>Director,</i> UIC	 Ingrid Høgeli Administration
 Vidar Jortveit <i>Civil Service</i> Web & Info	 Torrey B. Karlsen M.Sc. UIC	 Lars Kullerud M.Sc. <i>Manager,</i> Polar	 Sindre Langaas Ph.D. Nordic/Baltic
 Stephen Lapointe B.A. Web & Info	 Wenche Lien Administration	 Brian Lucas M.Sc. Web & Info	 Jarle Mjåsund Web & Info
 John Mugwe M.S.S. UIC	 Terence Murphy M.B.A. UIC	 Agatha Ng'ang'a B.A. <i>Consultant,</i> Web & Info	 Vigdís Pedersen Administration
 Beat Peter M.Sc. UIC (until October)	 Philippe Rekacewicz Ph.D. Polar	 Julien Rouaud M.Sc. Polar	 Ieva Rucevska M.Sc. CEE/NIS
 Petter Sevaldsen Polar	 Otto Simonett Ph.D. <i>Geneva Office</i>	 Janet Fernandez Skaalvik M.A. CEE/NIS	 Ole-Gunnar Støen M.Sc. Polar
 Morten Sørensen M.Sc. <i>Manager,</i> Global	 Thore-Andre Thorsen M.A. <i>Manager,</i> Administration	 Svein Tveitdal M.Sc. <i>Managing Director</i>	 Marjo Kristiina Vierros Ph.D. <i>Consultant,</i> Web & Info
 Morten Wasstøl M.Sc. Global	 Angie Woo B.Sc. Global		

Report of GRID-Arendal's Board of Directors

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During 2000 the Board of Directors of GRID-Arendal focused considerable attention on the formulation of an operational strategy for the period up to year 2005, and establishing performance indicators which would allow systematic monitoring of the strategy. It sought to strengthen the management capacities of the foundation, and carried out an intensive and constructive assessment of the Managing Director. It also conducted a self-assessment of the Board's own performance. Other key Board agenda items the expansion of institution's educational activities, a new vision statement, a significantly improved compensation system for GRID-Arendal staff, and, the implementation of GRID-Arendal's policy on sponsorships which will safeguard our institutional integrity as a non-profit foundation.

The strategy sets forth how GRID-Arendal can provide environmental information, communications, and capacity building services for information management and assessment related to the UN system, particularly the United Nations Environment Programme. While most of GRID-Arendal's activities are operated from its headquarters in Arendal, it has also been conducting some activities from office locations in Stockholm, Sweden, and in Geneva, Switzerland.

The Board has received confirmation that the staff of GRID-Arendal considers the working conditions to be good. The sick leave in 2000 was less than 2 % of total working days. There were no serious injuries to the staff in 2000 and there were no significant damages to the equipment of the foundation. The staff salary system was revised in cooperation with the staff during the year 2000. There are regular meetings between staff and management, where discussions include issues concerning staff working conditions.

Consistent with its overall institutional objective we are pleased to report that the foundation does not conduct activities that damage the environment. It uses environmentally friendly materials whenever possible. GRID-Arendal conducts activities that traditionally involve extensive international travel. The foundation has two video-conferencing studios and these are used on a regular basis and help reduce staff travel.

The foundation has a sound financial structure. The project portfolio has been solid throughout 2000 and the cash flow has been good. The financial result for the year was NOK 2 114 661, compared with NOK 1 779 998 during the previous year.

It is the Board's view that the annual accounts give a fair view of the foundation's position as of the end of 2000. As a non-profit foundation its main financial goal is to have an equity level about half of the fixed operational cost. With the financial result achieved this year we note that the above goal has been reached and is now 59%. The Board has concluded that the result for the year of NOK 2 114 661 will be added to the retained earnings. These earnings will be used solely to support the mission statement and long-term goals of the foundation.

The Board is confident that the foundation has a sound basis for continuing operations and for undertaking strategy-relevant operational activities for UNEP.

GRID-Arendal Values

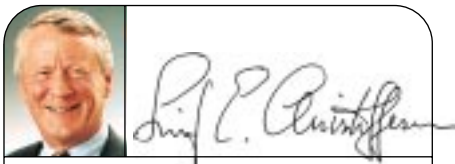
GRID-Arendal adopts the United Nations Core Values as the shared principles underpinning GRID-Arendal's work and guiding the daily actions and behaviours of its staff, the Core Values being:

Integrity

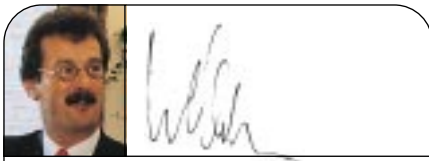
- Demonstrates the values of the United Nations in daily activities and behaviours;
- Acts without consideration of personal gain;
- Resists undue political pressure in decision-making;
- Does not abuse power or authority;
- Stands by decisions that are in the Organisation's interest, even if they are unpopular;
- Takes prompt action in cases of unprofessional or unethical behaviour.

Professionalism

- Shows pride in work and in achievements;
- Demonstrates professional competence and mastery of subject matter;
- Is conscientious and efficient in meeting commitments, observing deadlines and achieving results;
- Is motivated by professional rather than personal concerns;
- Shows persistence when faced with difficult problems or challenges;
- Remains calm in stressful situations



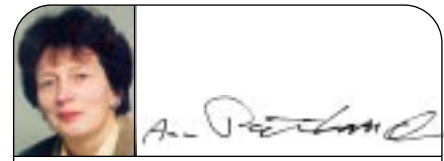
Leif E. Christoffersen
Chairman of the GRID-Arendal Board
Norway



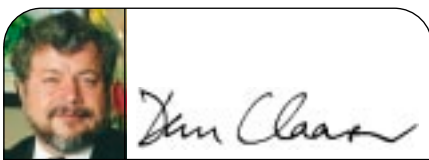
Hans Alders
Commissioner of the Queen
Province of Groningen
The Netherlands



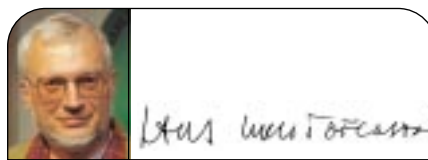
Kari Elisabeth Fagernæs
Head
Section of Environmental Assessment
Norwegian Pollution Control Authority
Norway



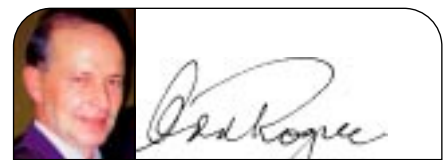
Anu Pärnänen-Landtman
First Secretary
Unit for Evaluation and Internal Auditing
Ministry of Foreign Affairs
Finland



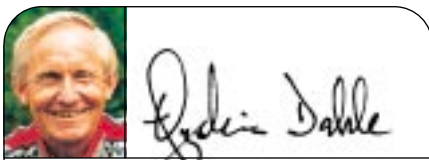
Daniel van R. Claasen
Officer-in-Charge
EIN/DEIA, UNEP HQ
Kenya



Lars Kristoferson
Secretary-General
World Wide Fund for Nature (WWF)
Sweden



Odd Rogne
Executive Secretary
International Arctic Science Committee
Norway



Øystein Dahle
Board Chairman of the
World Watch Institute Norden
Norway



Hanne Kathrine Petersen
Director
Department of Arctic Environment
National Environmental Research Institute
Denmark



Eva Thörnclöf
Head
Department for Coastal and Freshwater Resources
National Board of Fisheries
Sweden

In addition to these three UN core values, GRID-Arendal adopts a fourth value reflecting its affiliation with the United Nations Environment Programme (UNEP):

Respect for Diversity

- Works effectively with people from all backgrounds;
- Treats all people with dignity and respect;
- Treats men and women equally;
- Shows respect for and understanding of diverse points of view and demonstrates this understanding in daily work and decision-making;
- Examines own biases and behaviours to avoid stereotypical responses;
- Does not discriminate against any individual or group

Environmental Commitment

- Actively disseminates information on the environment based on scientific knowledge of high quality;
- Promotes environmental awareness by agenda-setting "green" thinking and innovation among staff and within projects with partners and stakeholders;
- Practices environmentally friendly office routines;
- Funds an internal project on a continual basis dedicated to promoting internal and external environmental knowledge and commitment.

Polar

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During year 2000 GRID-Arendal's Polar Programme focused on giving content to our new role as UNEP's Key Polar Centre for environmental information, assessment and early warning. We have progressed in improving the availability of polar environmental information, and in ensuring high-quality contributions from the Polar regions to UNEP's Global Environment Outlook Report. The Polar Programme cooperates with other UN agencies, the Arctic Council, the Arctic Indigenous Peoples, Arctic Parliamentarians and the Arctic scientific community.

ECORA

Integrated Ecosystem Approach to Conserve Biodiversity and Minimise Habitat Fragmentation in the Russian Arctic

The ECORA project is a Global Environment Facility (GEF) funded project aiming on developing and implementing integrated ecosystem management strategies in the Russian Arctic. The project will strengthen the capacity of all involved stakeholders to participate in the design and implementation of integrated management plans in three model areas for replication in other areas of the Russian Arctic. The project is a joint cooperation between the Russian Ministry of Natural Resources, the Conservation of Arctic Flora and Fauna (CAFF) and GRID-Arendal. The project is funded by GEF, CAFF, UNEP, the World Wide Fund for Nature (WWF), the Nordic Council, Canada, Finland, Netherlands, Norway, Russia, Sweden and USA.

www.grida.no/ecora



Health and Environment Arctic Indigenous Peoples

This project was established by GRID-Arendal in cooperation with the World Health Organization (WHO) to support the Arctic Indigenous Peoples in developing an overview of health and environment issues. The first activity, an assessment of national and subnational health policies with special focus on implications for indigenous peoples, was carried out in 2000 in Russia and Scandinavia.



GLOBIO

Global Methodology for Mapping Human Impacts on the Biosphere

The GLOBIO project gives a scientific overview of the cumulated impacts of human activities on the environment at various scales. It provides a quality assurance tool for present and future policy planning by generating scenarios for sustainable development.

The development of the GLOBIO concept has been done by the Norwegian Institute for Nature Research (NINA) and GRID-Arendal, with considerable input also from the Arctic Centre (Finland), the Institute of Arctic Studies (USA), the Institute of Plant and Animal Ecology (Russia), the Centre for World Indigenous Studies (Canada) and the World Conservation Monitoring Centre (UK).

During 2000 the methodology has been applied to the impact of infrastructure development on reindeers. The probability of impact on wildlife, vegetation and ecosystems is related to the distance to different types of infrastructure. The distance zones of impact are lowest in forest and highest in open tundra. The extent of the zones are based upon several hundred field studies. Impacts include reduced abundance of wildlife, reduced accessibility to important grazing habitats, and changes in predator-prey relationships as a result of infrastructure and associated human activity.

www.grida.no/prog/polar/globio

GEO-3

UNEP's Global Environmental Outlook, 3rd Series

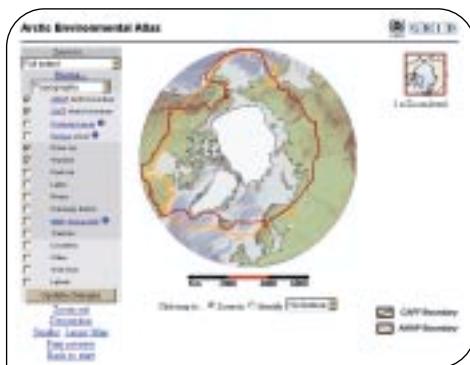
During 2000, GRID-Arendal produced inputs for the Arctic and the Antarctic sections to this global UNEP assessment report. GEO-3 is planned to be launched in 2002.



RAIPON

Capacity building and participation of Russia's indigenous peoples in the sustainable development of the Arctic

The Russian Association of Indigenous Peoples of the North (RAIPON), received support to develop and produce their internal newsletters and their web page. The project worked further with partners to develop project activities in the fields of telecommunications, independent environmental impact assessments, legal frameworks, environmental information and reporting, and potentials for small sustainable traditional business development. The main funding is provided by the Government of Norway. The Saami Council is a key partner.



Arctic Environmental Atlas

This interactive map application, launched in December 2000, displays a number of environment-related themes, such as population density, WWF ecoregions and protected areas from a polar view. The datasets are primarily global datasets that have been formatted to fit the Arctic view.

maps.grida.no/arctic



Promoting Arctic Information on the Internet

GRID-Arendal actively promoted access to Arctic information on the Internet during 2000, and hosted the web pages of a number of Arctic organisations.

The Arctic Council

One of GRID-Arendal's major partners is the Arctic Council. In an agreement with the Arctic Council, GRID-Arendal supported their web site: www.arctic-council.org. This serves and facilitates all future Arctic Secretariat geographic locations by securing the domain name which will remain the same.



AMAP

The Arctic Monitoring and Assessment Programme (AMAP)

www.amap.no

CAFF

Conservation of Arctic Flora and Fauna (CAFF).

caff.arctic-council.org

PAME

Protection of the Arctic Marine Environment (PAME)

pame.arctic-council.org

Parliamentary Cooperation in the Arctic

The web site of the Standing Committee of Parliamentarians of the Arctic Region

www.grida.no/parl



Arctic NGOs

World Wide Fund for Nature (WWF) Arctic Programme

www.ngo.grida.no/wwfap

Circumpolar Conservation Union

www.circumpolar.org

Russian Association of Indigenous Peoples (RAIPON)

www.raipon.org

Europe and Central Asia

10

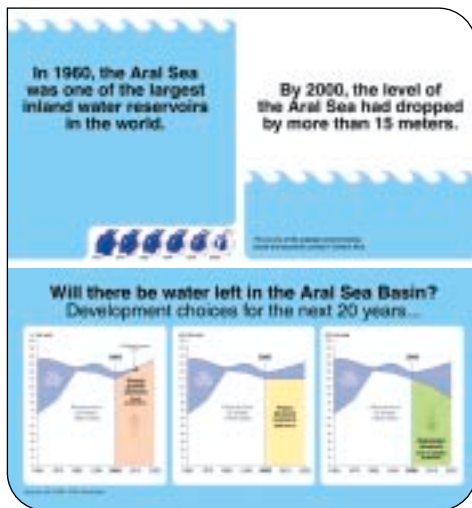
In Central and Eastern Europe (CEE) and the Newly Independent States (NIS), GRID-Arendal has continued to develop the capacities of national governments for producing and disseminating environmental information. In the Baltic region and Western Europe GRID-Arendal cooperated with environmental and research organizations in environmental assessment methodology and improving access to vital environmental knowledge.



Central Asia

All Central Asian states updated their national electronic state-of-the-environment reports. These and a regional report on the state of the environment in the Aral Sea Basin countries were discussed and analysed at a workshop held in Arendal. A CD-ROM containing these reports as well as other environmental information on Central Asia from other international projects and organizations was launched at the "Ministerial Consultation between Economic/Finance and Environment Ministers on Water Management and Investments in the NIS" in Almaty.

www.grida.no/aral



Cities' SoE reports

As part of the CEROI programme, GRID-Arendal continued to facilitate electronic environmental reports by cities in CEE and the NIS. Two new cities reporting on-line in 2000 were Kiev and Tbilisi. A comprehensive bilingual environmental atlas of Tbilisi was also developed by GRID-Tbilisi with GRID-Arendal's technical support.

www.ceroi.net

Environmental Performance Reviews (EPRs)

As a supplement to the Environmental Performance Reviews by the UN/Economic Commission of Europe (UN/ECE), GRID-Arendal facilitated the publication of CD-ROMs containing updated electronic state-of-the-environment reports by the environmental ministries of Armenia, Kazakhstan and Kyrgyzstan.

www.grida.no/enrin/soe

Balkans

GRID-Arendal supported several of the UNEP/Balkans unit activities in Macedonia and Albania by providing an expert for the post-conflict assessment, producing maps for the assessment reports and conducting training in indicator-based state-of-the-environment reporting.

balkans.unep.ch



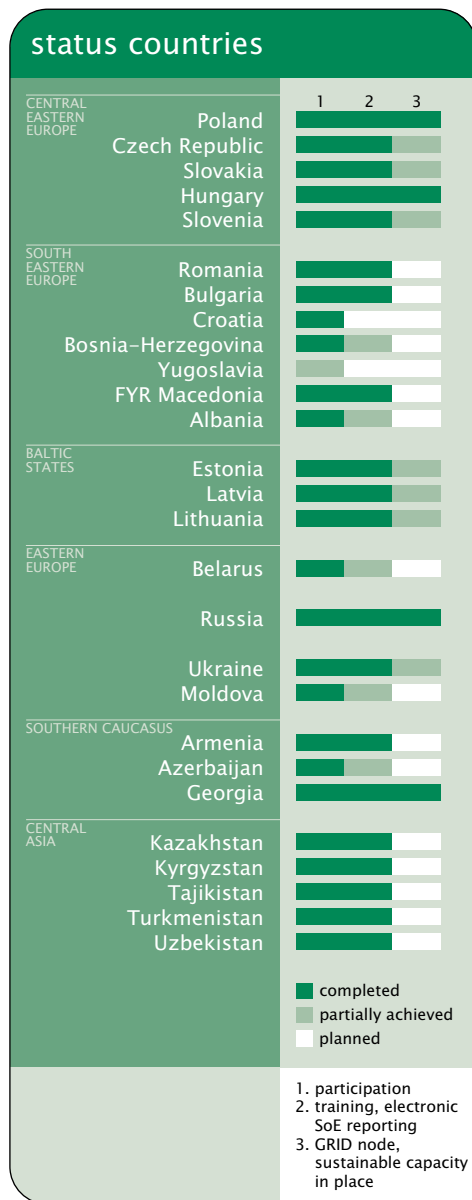
SoE Cookbook

A Russian-language edition of GRID-Arendal's "Cookbook for State-of-the-Environment Reporting on the Internet" was published with funds from the Swedish Environment Protection Agency (EPA) and the "Princes' Award for the Best Audiovisuals on Europe's Environment" won by GRID-Arendal in 1999.

www.grida.no/soe/cookbook



Progress in building capacities for managing and reporting environmental information in Central and Eastern Europe and the Newly Independent States



BOING (Baltic On-Line Interactive Geographical and Environmental Information Service)

The BOING project is a two-year project financed through the EU-INFO2000 programme. The aim is to create a comprehensive information service on eutrophication in the Baltic Sea, together with our partners, the Stockholm University's Department of Systems Ecology and the Finnish Institute of Marine Research. The web-based service will feature indicator-based presentations, an encyclopaedia, a glossary and interactive services as well as data. A significant part of the project is devoted to conducting user consultations and workshops.

www.grida.no/boing

Baltic Environmental Atlas

Since the original GRID-Arendal Baltic GIS repository opened in 1995, the environmental datasets have been available for downloads and as map graphics. In September 2000, the Baltic Environmental Atlas was launched. This interactive map makes it possible to browse and explore these datasets, and also to easily compare and relate them. The map service has been developed within the BOING project to be publicly launched in the summer of 2001.

maps.grida.no/baltic



The Baltic Drainage Basin GIS, Maps and Statistics web site was nominated finalist in the Environment Category of the Stockholm Challenge Award, June 2000.

www.grida.no/baltic



Global

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GRID-Arendal's Global Programme supports UNEP's global monitoring and assessment activities. CEROI (Cities Environment Reports on the Internet) has developed to include additional cities, and the concept has been expanded and used for other applications.



Cities Environment Reports on the Internet (CEROI) Programme extends its services

CEROI launched an on-line Gateway to urban environmental information and resources to member cities (www.cerol.net). The Gateway services were strengthened by the establishment of discussion forums for the exchange of experiences, as well as the continual addition of urban State of the Environment reports from around the world.

Special emphases were given to the use of environmental indicators and to the presentation of data. CEROI launched an Indicators Encyclopaedia that provides resources and inspiration to cities making use of indicators in environmental reporting. A core set of indicators was also established, and an on-line database was developed for facilitating data entry and presentation.

CEROI in Europe

CEROI agreed to co-operate with the European Environment Agency (EEA) in adapting the CEROI Programme to European reporting needs. A group of Western European cities have been invited to produce urban environmental reports focusing on the European Common Indicators, measuring progress towards sustainability.



CEROI extension

The CEROI concept of template-based reporting was further developed during 2000. The concept was extended to apply to areas other than urban reporting. A county template was developed for the Norwegian Pollution Control Authority (SFT). All counties in Norway are now in the process of producing county SoE reports based on this template.



GRID-Arendal and the Nordic World Heritage Office are developing a reporting system for the World Heritage Periodic Reporting. Special templates were made to assist the World Heritage Centre in streamlined reporting.

Global support to UNEP

During 2000 support was given to China resulting in the launch of an updated edition of SoE China. The establishment of a National Centre for Environmental Information and Statistics in South Africa was also facilitated. In addition, GRID-Arendal supported the Global International Waters Assessment (GIWA) with GIS work, web development, and reporting obligations.



Communications

The UNEPnet Implementation Centre at GRID-Arendal

UNEPnet/Mercure is a satellite system which interfaces to public networks. The system provides a unique combination of cost-effective, standard-based telecommunications (Mercure) and Internet services, targeted environmental information applications and maintenance management tools (UNEPnet), in one single integrated package.

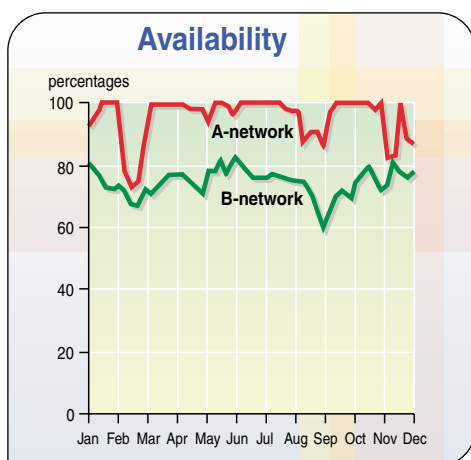
Operation of the network

In order to ensure an optimal operation of the telecommunication network, the UNEPnet Implementation Centre (UIC) and contracted partners agreed to carry out preventive maintenance at each site in the network once a year. This resulted in faster responses to failures, a shortening of time the station is down, improved availability, and up-to-date knowledge of maintenance staff. During 2000, UIC visited and assisted sites in Nairobi, La Paz, Bahrain, Niamey, Havana, Costa Rica, Bangkok, and Kathmandu.

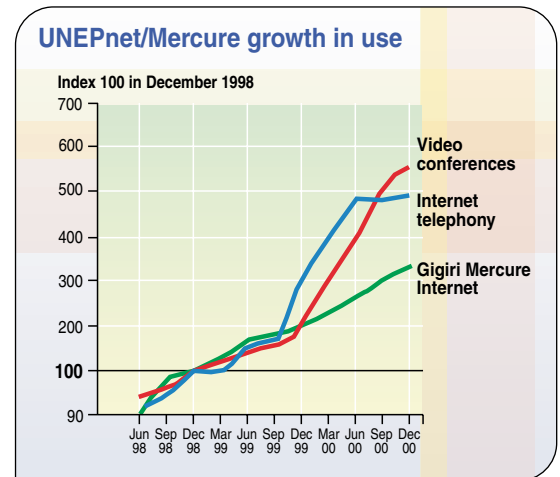


In September all antennas in the Indian Ocean Region were re-directed to a new satellite, as the NewSkies Satellite (NSS) lease in the region expired. UIC prepared transmission plans for the migration of the lease to an INTELSAT satellite for submission to INTELSAT through the UN.

A new 7,3 meter antenna was set up in Arendal. This strengthened the growing need for more capacity to support Nairobi.



The availability of the A-network (industrial and developing countries) was satisfactory throughout the year. B-site (developing countries only) availability is being developed further to secure improvements.



Traffic statistics were monitored daily on all the A-links. The Internet usage grew tremendously during the year.

New services for UNEP

A solution for sending faxes and making phone calls over the UNEPnet/Mercure satellite link between Nairobi and Arendal was implemented on behalf of the UN office in Nairobi. The solution involved converting voice and fax calls to Internet signals before they were sent out of Nairobi. The current system is capable of handling 30 simultaneous fax or voice calls, expandable to a maximum of 120 simultaneous calls.

Based on the results of the Satellite Access to Web Applications (SAWA) project, a software package can now provide optimised utilisation of the UNEPnet/Mercure satellite network for web traffic, and enhance the replication of web contents.

Video conference units were successfully installed at all regional and outposted offices of UNEP. A Multipoint Conference Unit at UIC connects a maximum of eight simultaneous participants. The usage is growing.

Bridging the "Digital Divide"

Aiming to enhance the computer/internet capacities of the developing world, the Swiss Ministry of Foreign Affairs funded a UNEPnet applications project. The goal of this project was to "bridge the gap" (the digital divide) by supporting and training staff at UNEPnet/Mercure sites to make efficient use of the Internet and assist them in implementing Internet applications such as web sites. This programme also supported UNEP-Headquarters in the development and implementation of their environmental information systems. Good working relationships were established with many sites within the UNEPnet/Mercure network.

Support to Conventions

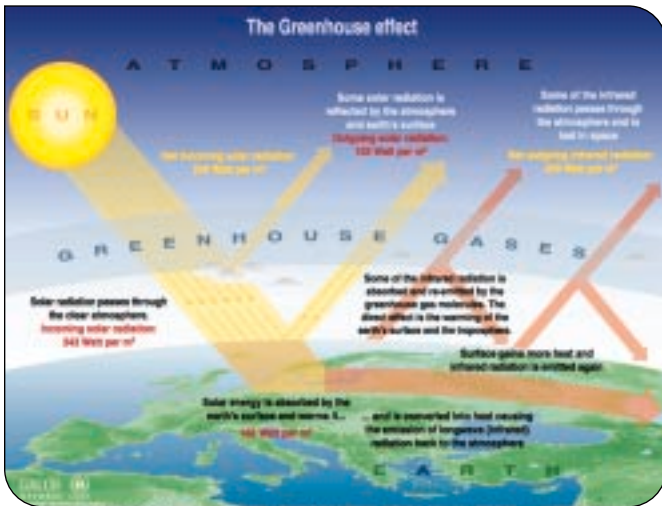
14

During year 2000 GRID-Arendal focused attention and expertise on support to international environmental conventions.

The Sixth Conference of the Parties under the UN Climate Change Convention (COP6)



"Fortunately, a good deal of the evidence and information we have about climate change lends itself to graphical presentation. The visual information contained in Vital Climate Graphics makes it possible to grasp complex facts more quickly and fully than would be possible through simple text."
 Klaus Töpfer,
 UNEP Executive Director

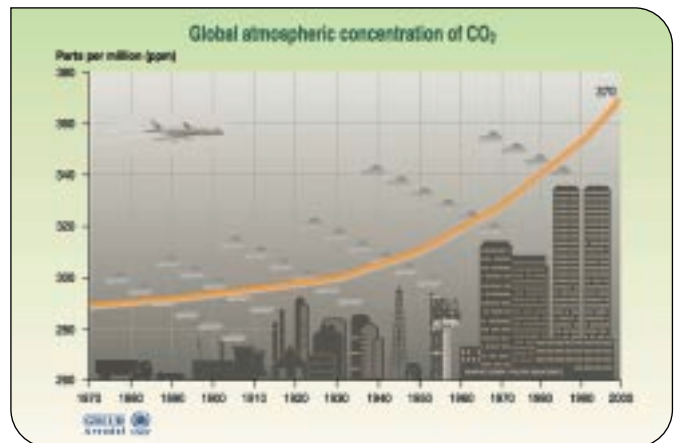


The Intergovernmental Panel on Climate Change (IPCC), established in 1988 by UNEP and the World Meteorological Organization (WMO), is the world's most authoritative scientific and technical source of climate change information. Its assessments provided an essential basis for the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. In cooperation with the UNFCCC secretariat, UNEP actively implemented Article 6 of the Convention, addressing public awareness, education and training. As part of this effort, GRID-Arendal developed and produced an information package called Vital Climate Graphics.

Potential Impacts of Climate Change

- 18. Potential climate change impacts:** If greenhouse gas concentrations keep rising, climate changes are likely to result. These changes will potentially have wide-ranging effects on the environment and socio-economic sectors.
- 19. The six IPCC scenarios:** The projection of future climate change depends partly on the assumptions made about future emissions of greenhouse gases and aerosol production and the properties of aerosols remaining in the atmosphere.
- 20. Projected changes in CO₂ and climate: summary of assumptions in the IPCC 1992 alternative scenarios:** Projected anthropogenic CO₂ emissions from fossil fuel use, deforestation and cement production for the six IPCC scenario scenarios.
- 21. Projected Changes in Global Temperature:** Climate models calculate that the global mean surface temperature could rise by about 1 to 4.5 degrees by 2100.
- 22. Escalation of sea level rise:** Sea-level project to increase a global mean sea level of between 11 and 34 cm by the year 2100.
- 23. Resilience, Adaptability and Vulnerability:** The potential impacts of climate change on the environment and socio-economic systems can be understood in terms of resilience, adaptability and vulnerability of the system.
- 24. The great weather and flood catastrophes over the last forty years:** Some reports suggest that increases in climate variability or extremes has taken place in recent decades.

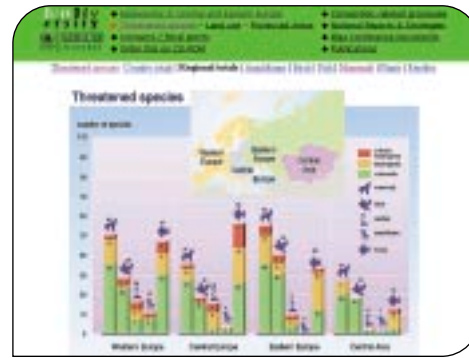
This information package focuses on the environmental and socio-economic impacts of climate change. The graphics are based primarily on the IPCC's Second Assessment Report (SAR), especially the contribution of Working Group II on Impacts, Adaptation and Mitigation of Climate Change and on the IPCC Special Report on Regional Impacts of Climate Change. www.grida.no/climate



A CD-ROM and web site were created for the IPCC Special Reports on Climate Change

This Web/CD contains the full text and graphics of five special reports from the IPCC's Working Groups, released for the 6th Conference of the Parties to the United Nations Framework Convention on Climate Change, in The Hague, The Netherlands, 13-24 November 2000.

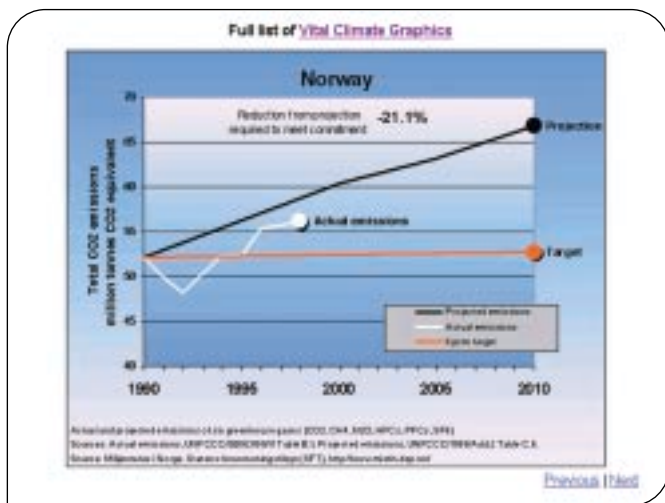
www.grida.no/climate/ipcc



Convention on Biological Diversity

For the Conference of Parties (COP) of the Convention on Biological Diversity, GRID-Arendal made use of its network of experts in Central and Eastern Europe and Central Asia to compile a collection of national state-of-biodiversity reports. A CD-ROM with 22 reports and additional text and graphic material was published in English and Russian and distributed to all participants at the COP. A survey was carried out to identify how the CD-ROM was used.

www.grida.no/enrin/biodiv



Greenhouse Gas Emissions Graphics

The Kyoto Protocol requires signatories to achieve specific targets for reducing greenhouse gas emissions, but projections indicate that few countries are likely to meet their commitments. These graphics comparing actual emissions, projected emissions, and national commitments are produced annually by GRID-Arendal in co-operation with the UNFCCC secretariat to show the progress of countries towards their goals. This year, an on-line interactive map was also produced to illustrate the data.

www.grida.no/db/maps/collection/climate6



The Aarhus Convention

As a part of the regional workshops on the implementation of the Aarhus Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters, held in Ashgabad and Tbilisi, GRID-Arendal provided training on the 'information pillar' of the Convention. GRID-Arendal is actively involved in the conventions Task Force on Electronic Tools, and the next Task Force workshop will be held in Arendal in 2001.

www.grida.no/enrin/aarhus

Environmental Information Web Activities

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GRID-Arendal is continuously improving the structure, quality and content of its web site. Innovative products are being developed to best meet user needs.



New GRID-Arendal Homepage

After extensive feedback and input from GRID-Arendal staff, the information unit redesigned, and launched a new homepage for the GRID-Arendal web site. The new homepage features easier access to specific regional information, better overall navigation, improved categorising of information products, and an improved graphical interface. A new feature allows users to log in their e-mail address, which automatically signs them up to receive announcements of new products and information from the GRID-Arendal web site.

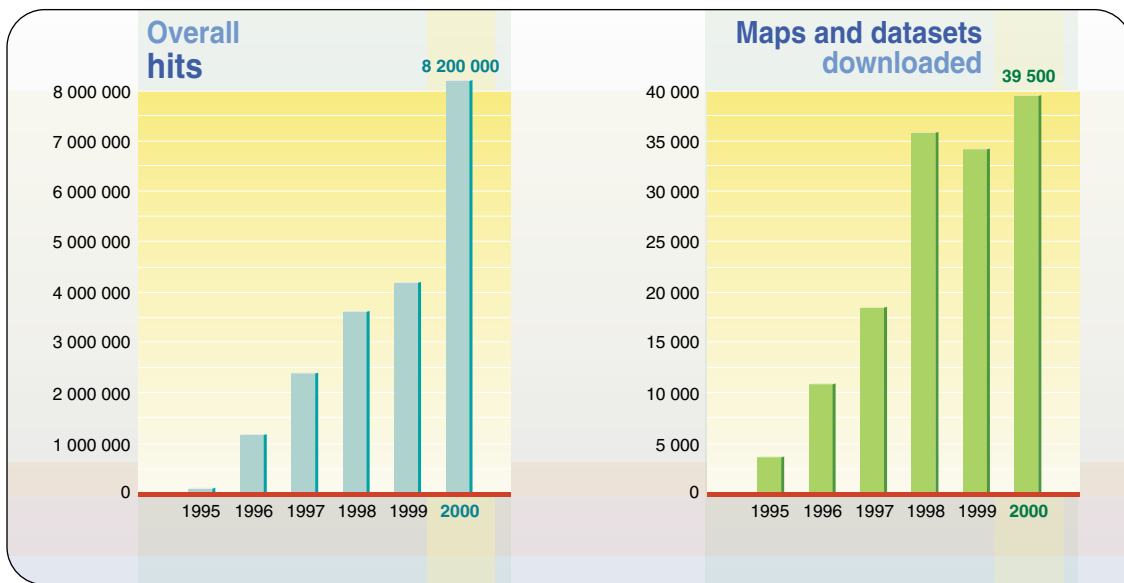
www.grida.no

Earthprint

UNEP's online environment bookshop, maintained by GRID-Arendal, expanded to include five new international organisations' environmental publications to be purchased directly over the Internet:

- The World Health Organization
- Organisation for Economic Co-operation and Development
- United Nations University
- Tata Energy Research Institute
- International Commission on Non-Ionizing Radiation Protection
- Asian Development Bank
- International Centre for Integrated Mountain Development
- Food and Agriculture Organization

www.earthprint.com





UNEP.Net

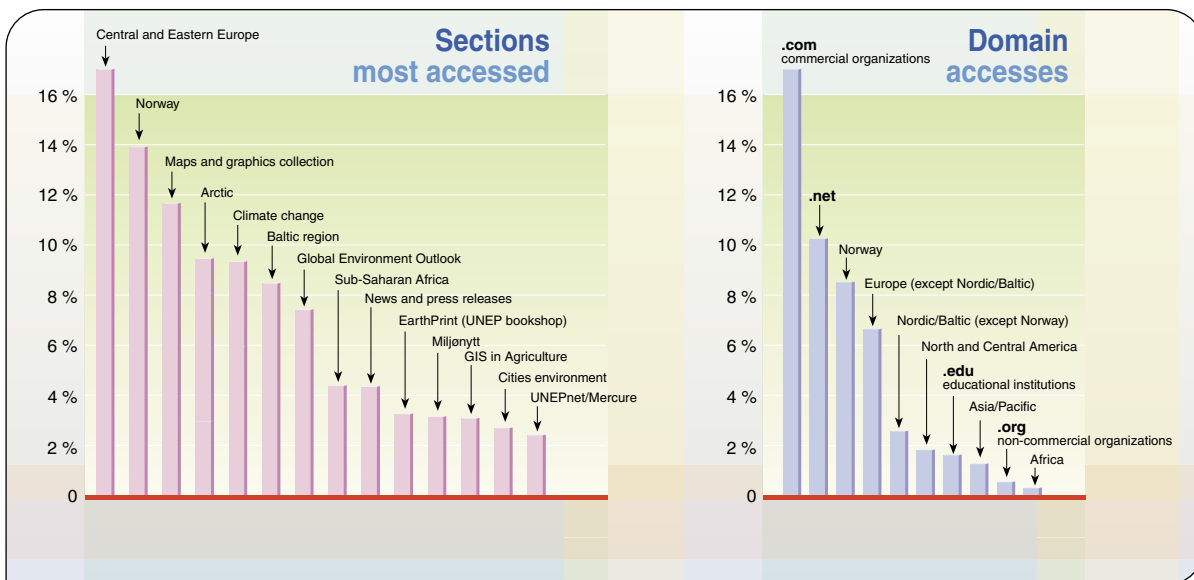
GRID-Arendal, in conjunction with the entire DEWA division and the Environmental Systems Research Institute (ESRI), had extensive meetings to kick off the production of UNEP's new web portal to environmental information. UNEP.Net was launched at the UNEP's 21st Governing Council 2001 and is a decentralized and distributed system that allows Internet-based applications to query and generate reports from remote environmental databases and servers. The UNEP.Net portal adds value to UNEP's existing network of environmental web sites and complements them in informing world citizens about how their actions impact the environment, and what practices should be emulated. It also provides a snapshot of current and anticipated environmental challenges.

www.unep.net

Climate Change Issues

A special web site highlighting the causes and impacts of climate change was created to showcase the best available electronic information on this critical topic. The new site features a spinning 'Global Greenhouse Gas Emissions Meter', access to UNEP's 'Vital Climate Graphics package', a series of Greenhouse Gas Emission Graphics from annex 1 countries (made in conjunction with UNFCCC), and the full text and graphics of five special reports from the IPCC's Working Groups.

www.grida.no/climate



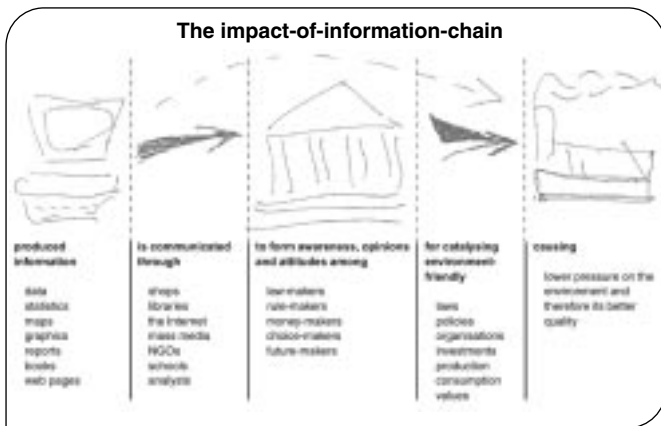
Impact of Information

18

Since its inception, GRID-Arendal has focused its efforts on bridging the gap between science and decision-making processes. We have tried to do this by making easily understandable environmental information available to decision-makers and the public. A key objective is to provide information that would improve awareness and decision-making, and ultimately have a positive impact on the environment.

Understanding the impact of environmental information

After ten years of producing information products, supporting forty governments in preparing national state-of-the-environment reports, and producing one of Europe's leading environmental information web sites, we realised that we still know little about the impact of this huge amount of information on the environment.



To improve our understanding we launched in 2000 an internal programme to research the impact of environmental information on decision-making processes and the environment. The programme involved GRID-Arendal Board members, staff and external experts. An Advisory Panel was appointed to advise us in this process. In parallel we launched several case studies to better understand how environmental information is utilised. These included forward-looking and retrospective user surveys, and an in-depth analysis of web usage statistics.



GRID-Arendal's Advisory Panel on Impact

Early in 2000 GRID-Arendal's Board of Directors established an Advisory Panel as a supplement to the Board to provide expertise and guidance in the further development of GRID-Arendal. The main purpose of the Advisory Panel is to provide professional advice to the Board and to the Managing Director on topics related to GRID-Arendal's strategy and work programmes.



Three Panel members were appointed for a three-year period to support our focus on the impact of information: Domingo Jiménez-Beltrán, Director of the European Environment Agency (EEA), Copenhagen, Nigel Cross, Director of the International Institute for Environment and Development (IIED), London, and Olav Høgetveit, a leading Norwegian TV journalist working on popular research programmes.



The first task of the Advisory Panel in 2000 was to address the impact of environmental information on decision-making processes and the environment. The first Panel meeting took place in Arendal on May 21-22. Experts from UNEP participated, together with GRID-Arendal Board members and senior staff.

One of the meeting's conclusions was focused on the importance of GRID-Arendal's interaction with the users of its products, and the need to identify different target audiences for each information product. Based on the conclusions of the Advisory Panel meeting, the findings of the case studies, and the analysis of the literature, a GRID-Arendal Occasional Paper entitled "Impact of Environmental Information on Decision-Making Processes and the Environment" was prepared, and will be released in 2001.

www.grida.no/impact

When GRID-Arendal Meets The Media

GRID-Arendal has increasingly focused on the information dissemination channel represented by the media. We have invested in training ourselves to better meet the needs of the media by focusing on identifying news and learning methods to best convey our messages.

"Miljønytt"



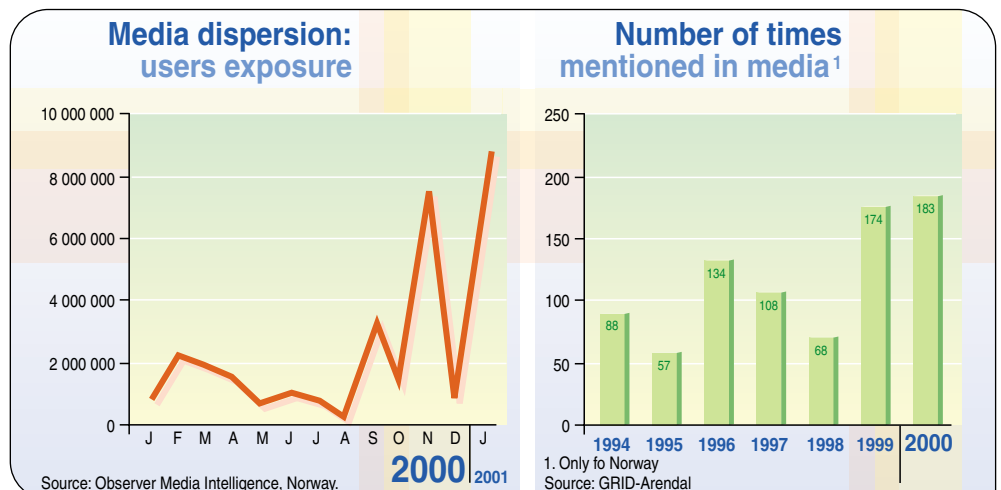
"Miljønytt" takes the daily "temperature" of environmental activities in Norway. "Miljønytt" is an environmental information market place on the internet for researchers, journalists, NGO activists, politicians and anyone generally interested in environmental issues. The service is free of charge and is updated daily. Every morning more than 25 Norwegian newspapers on the Internet are scanned, and links are made to articles focusing on nature, environment and natural resources. In addition "Miljønytt" provides press releases and news from UNEP and GRID-Arendal, Norwegian research institutions, the Norwegian environmental authorities and NGOs. "Miljønytt" offers an archive which is thematically organised in chronological order. The archive dates back to March 1999. "Miljønytt" has been financed by contributions from three Norwegian corporations: Norwegian Railroads, Telenor, and Norske skog.

www.grida.no/miljonytt



Technical Review

The use of GRID-Arendal's environmental information products in the Norwegian national, regional and local media has increased. Teknisk Ukeblad, Norway's leading technical periodical, featured GRID-Arendal and the issue of climate change in its November issue, and has invited us to write a monthly environmental feature in 2001.



TV programme



Channel 5 Arte, the French-German TV channel, produced with inputs from GRID-Arendal staff, three 11 minute long programmes on environmental issues. The Journalist Jean Christophe Victor spent a week at GRID-Arendal interviewing staff and external partners to highlight environmental threats in the Barents region and the effect of pollution in the Arctic on indigenous peoples. The programmes were broadcast in February 2000.



Le Monde diplomatique

GRID-Arendal participated in the preparation of a two-page feature on environmental threats in Eastern Europe and the Newly Independent States (NIS) that was published in the French international newspaper "Le Monde Diplomatique". The feature contained maps and descriptive texts by GRID-Arendal together with UNEP's collaborating center in Budapest. The issue was translated and published in English, German, Spanish, Portuguese, Italian and Greek, and was printed in more than one million copies.

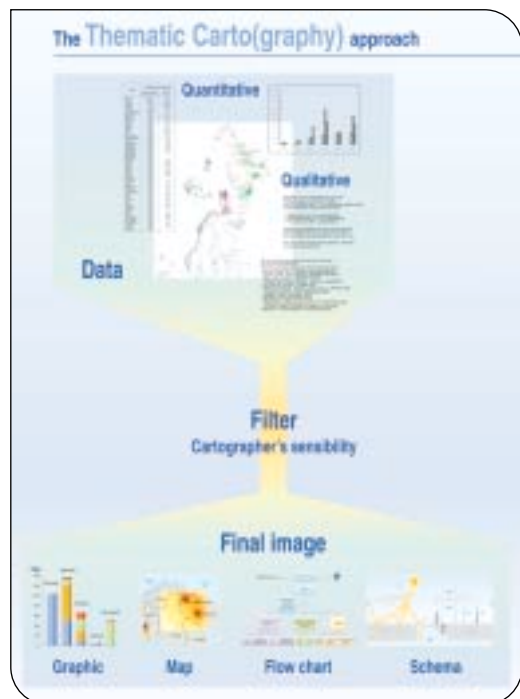
Teaching, Training, Capacity building

20

One of GRID-Arendal's key activities is training producers of environmental information in state-of-the-art techniques for the analysis, presentation and dissemination of environmental data and knowledge. This is done through the development of guidelines and training materials which are applied at various workshops organised or co-organised by GRID-Arendal.

Indicator-based electronic State of the Environment Report training courses were held by GRID-Arendal for representatives from the Chinese State Environment Protection Agency and GRID-Moscow. Geneva, Switzerland, 20-29/3; for representatives from environmental ministries, the UNDP and the World Bank in Central Asia. Arendal, Norway, 10-14/9; for the environmental agencies of 7 countries in the Caribbean region, 20-24, 11; for staff of the Macedonian Ministry of Environment. Skopje, 29/11-1/12; and for staff of the Albanian Environmental Protection Agency. Tirana, 2-5/12.

UNEP/GEO training courses on visualization of environmental data and the concept of vital graphics were held jointly by the United Nations Institute for Training and Research (UNITAR) and GRID-Arendal for GEO collaborating centres in Manamah, Bahrain, 20 - 23/9; Budapest, Hungary, 4 - 8/10; Harare, Zimbabwe, 16 - 18/11; San Jose, Costa Rica, 10 - 17/12.



UNEP/DEWA's Global Environment Information Network meeting and ArcIMS training course. GRID-Arendal contributed to the process of developing UNEP.Net, a web-based interactive catalogue and multifaceted portal offering access to environmentally relevant geographic, textual and pictorial information. Redlands, California, 25/9 - 6/10.

CEROI training course for eight European cities, held by GRID-Arendal in co-operation with the EEA. Copenhagen, Denmark 27-28/11.

SoE/Publikit training courses held by GRID-Arendal for Norwegian counties producing regional State of the Environment reports. Norwegian Pollution Control Authority, Oslo. 22/6, 18/10, 11/12.

During 2000, three Master degree candidates finalised their theses through trainee agreements, working on GRID-Arendal projects relevant to their academic work:

"Interactive environmental information on the Internet" by Hugo Ahlenius, "Using GIS to map wilderness areas in the Barents Region" by Maren Aschehoug, "Les espaces naturels encore vierges dans la région Euro-Arctique de Barents" by Julien Rouaud.



Cooperation with the United Nations University (UNU)

In 2000, in cooperation with GRID-Arendal and UNEP-Headquarters, UNU produced a prototype based on UNEP's GEO 2000 report as an interactive multimedia course on the Internet. This product is designed to be used as a template for other courses, making it possible to develop effective on-line courses in a module system.

Support to Publications

During 2000, GRID-Arendal supported UNEP and other cooperating partners by producing maps and graphics, assisting in design and layout, and facilitating publication production.



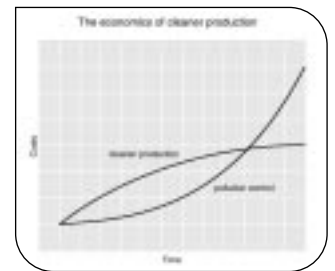
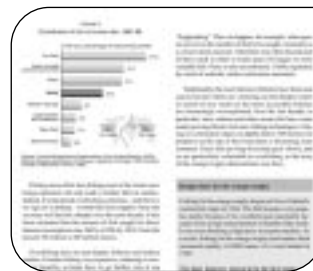
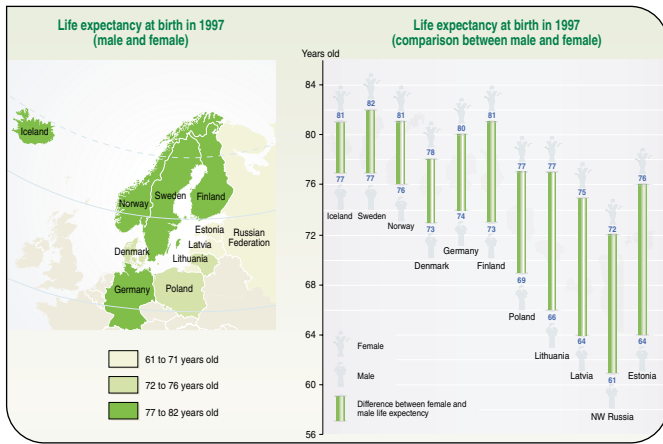
GPA Reports

GRID-Arendal worked closely with UNEP/GPA's (Global Programme of Action for the Protection of the Marine Environment from Land-based Activities) Coordination Office in The Hague in the production, design and publication of six Regional Overviews, two Regional Programmes of Action, and two global reports of the Joint Group of Experts in the Scientific Aspects of Marine Environmental Protection (GESAMP).

Baltic 21

To measure the goals set for Baltic Agenda 21 for sustainable development, two indicator-based assessment reports, "Biennial Report - 2000" and "Development in the Baltic Sea Region Towards the Baltic 21 Goals", were published with close co-operation between GRID-Arendal and the Baltic 21 Secretariat.

www.ee/baltic21



In addition to the above reports, the secretariat of the GPA commissioned GRID-Arendal to prepare an overview of reporting formats and procedures used by various international and regional organisations. This together with draft recommendations for national reporting on GPA was delivered to the expert group meeting that prepared the first intergovernmental review of GPA Implementation.

www.gpa.unep.org

Post Conflict Environmental Assessment in Albania and Macedonia

During 2000, UNEP continued its investigation (initiated in 1999 in Kosovo, Montenegro and Serbia) of the environmental consequences of the Kosovo conflict by making post-conflict environmental assessments in Albania and the Former Yugoslav Republic of Macedonia. GRID-Arendal supported the activities by producing a total of 30 maps and graphics, which made these new UNEP Balkans reports highly visual and user-friendly.

balkans.unep.ch



RAIPON

RAIPON, the organisation of Russian Arctic Indigenous Peoples, received support to develop and produce their internal newsletters.

www.raipon.org

Environmental Signals 2001

GRID-Arendal provided support to the EEA and EEA's European Topic Centres on the production of a European indicator-based state of the environment report to be released in 2001.

www.eea.eu.int



Workshops, Seminars and Conferences

Environmental information Workshops / Seminars

Strengthening Information Management and Reporting on the Environment and Sustainable Development for North West Russia and Belarus. A workshop on strengthening the production, dissemination and use of environmental information in the oblasts of North-West Russia and Belarus was held in Moscow. The aim of this workshop was to build environmental information capacities in the Russian oblasts. Moscow, Russia, 12-14/4.

www.grida.no/enrin/nwruusia



Multicasting over Mercure. UIC hosted a seminar on Multicasting. Lectures were given by six experts from The Netherlands and Belgium (ESA, University of Salzburg and National Space Laboratory). Representatives from the Arendal IT community attended the seminar. GRID-Arendal 27/9.

Global Environmental Information Network. GRID-Arendal participated in the UNEP/DEWA workshop to establish a prototype of UNEPNet, UNEP's Global Environmental Information Network. Redlands, California, 25/9 - 4/10.

www.unep.net

EuroGRID. The 4th EuroGRID meeting was held in conjunction with this workshop and arranged by GRID-Arendal. DEWA's director met with the directors of GRID centres from Arendal, Geneva, Poland and Tbilisi.



Environment and Industry Seminar. GRID-Arendal hosted a seminar on global challenges in climate change, environmental reporting and ethics. Among the participants were the Director of UNEP/Division of Technology, Industry and Economics (DTIE), Jacqueline Aloisi de Larderel, and the Managing Director of NHO (Confederation of Norwegian Business and Industry), Finn Bergesen. GRID-Arendal, 8/11.

www.grida.no/inf/news/news00/industry/industry

The sixth Conference of the Parties under the UN Climate Change Convention (COP6). GRID-Arendal presented the Vital Climate Graphics package at a side event on Training, Education and Public Awareness during the COP6 conference. The Hague, Netherlands, 15-19/11.

www.grida.no/climate/vital



An integrated ecosystem approach to conserve biodiversity and minimize habitat fragmentation in the Russian Arctic.

A workshop and Steering Committee Meeting for the UNEP/GEF/CAFF PDF-B Project. Representatives from Russia, Canada, Finland, Iceland, USA and Norway participated. GRID-Arendal, 11-13/12.

GRID-Arendal Exhibitions and Presentations

Exhibitions

"Managing, monitoring and evaluating sustainability"

The CEROI programme was presented in the conference titled "Managing, monitoring and evaluating sustainability" at the Third European Conference on Sustainable Cities & Towns Conference 2000. In addition, an exhibit featuring the CEROI Programme was set up at the market place of the Conference. Hannover, Germany, 9-10/2.



SoE Conference

GRID-Arendal represented the CEROI programme at the State of the Environment conference 2000, Coffs Harbour, Australia. CEROI was presented through exhibition stands, local TV and workshops. Coffs Harbour, Australia, 28/4 - 5/5.



Stockholm Challenge Award Ceremony

GRID-Arendal presented the "Baltic Drainage Basin GIS, maps and statistics" website at the "Stockholm Challenge Award" exhibition. Stockholm, Sweden, 4-5/6.

ICLEI World Congress

GRID-Arendal was presented at the Global Cities 21 ICLEI World Congress of Local Governments transformations for a sustainable future. Sachsen-Anhalt, Germany, 28/6 - 2/7.



SoE Presentation for Chinese Provinces

UNEP's and GRID-Arendal's SoE environmental information activities were presented for provinces in China. Guylin, China, 24-28/9.

Ministerial Consultation

The CD-ROM containing the Regional Environmental Report of the Aral Sea Basin Countries; national electronic environmental reports of Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan; health highlights and action plans; information about on-going activities of the International Fund for Saving the Aral Sea, UNDP, World Bank, WHO; maps, graphics and other information were presented at an exhibition at the Ministerial Consultation between Economic/Finance Ministers on Water Management and Investments in the NIS. Almaty, Kazakhstan, 16-17/10.



GEO Presented to Norwegian Royalty

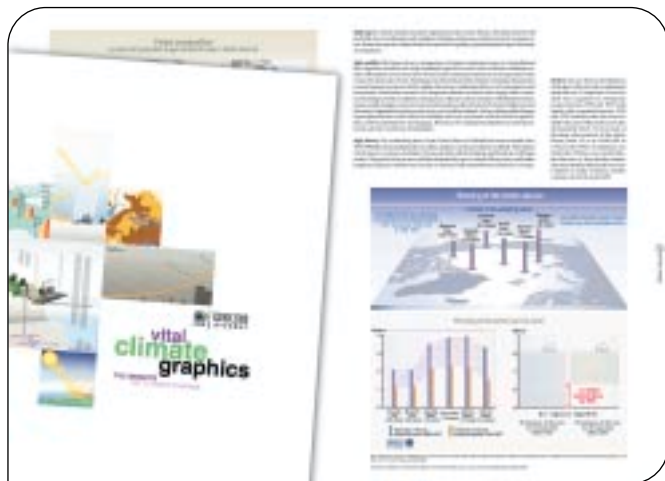
On the occasion of H.M. King Harald V and H.M. Queen Sonja's official visit to the city of Arendal, Svein Tveitdal presented the State of the Global Environment based on UNEP's GEO 2000 Report. In addition to the royal delegation, head county and municipal officials attended the presentation. Arendal, 19/06.

GRID-Arendal Selected Publications

24

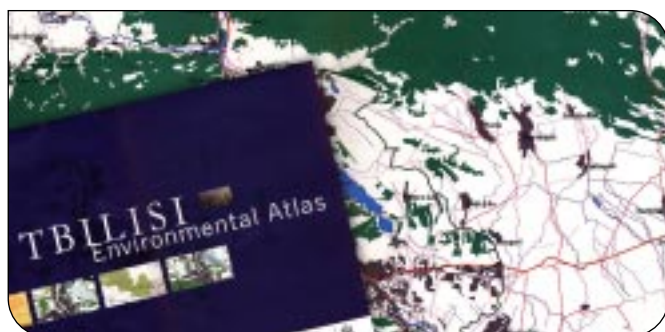
Publications/Co-publications

Cookbook for SoE Reporting on the Internet. (Russian edition) Denisov, N., Rekacewicz, P., Hislop, L., Simonett, O. April 2000. 35 pp. ISBN 82-7701-008-7

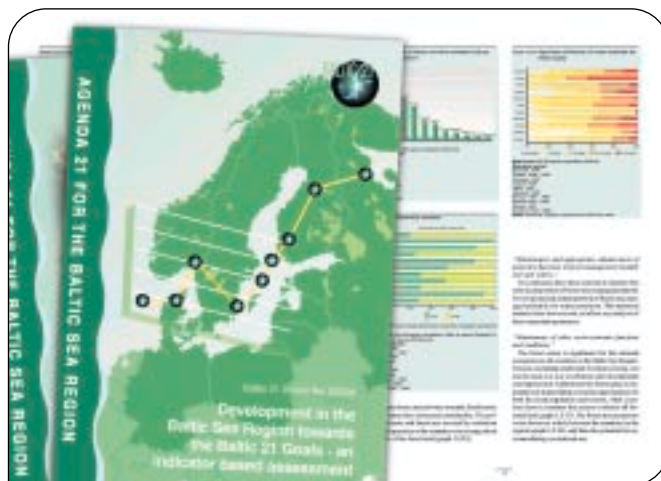


Vital Climate Graphics: The Impacts of Climate Change. CD-ROM, report and transparencies produced with the Intergovernmental Panel on Climate Change. Bjørke, Å., Seki, M., Rekacewicz, P., Simonett, O., Williams, M. November 2000.

Tbilisi Environmental Atlas. A co-production of GRID-Tbilisi and GRID-Arendal, in English and Georgian. Maps and graphics, text covering geography, climate, population, energy, transport, health, air pollution. Jintcharadze, Z., Bakuradze, T., Kurtubadze, M. February 2000. 18 pp.



Assessment of Land-based Sources and Activities Affecting the Marine, Coastal and Associated Freshwater Environment in the South-East Pacific. UNEP Regional Seas Reports and Studies No. 169. GPA, CPPS. Editing and production by GRID-Arendal. Folgen, K., Sevaldsen, P. January 2000. 73 pp. ISBN 92-807-1830-4.



Development in the Baltic Sea Region towards the Baltic 21 Goals - an indicator-based assessment. Baltic 21 Series No. 2/2000. A package of two reports and a CD-ROM. 44 pp. Denisov, N., Hägerhall, B., Rucevska, I., Rekacewicz, P. June 2000. ISSN: 1029-7790.

Environmental Threats in Eastern European Countries and the NIS. A double page supplement to six international newspapers, with text and maps. Rekacewicz, P., Simonett, O., Denisov, N. Le Monde diplomatique, July 2000.

Overview on Land-based Pollutant Sources and Activities Affecting the Marine, Coastal, and Freshwater Environment in the Pacific Islands Region. UNEP Regional Seas Reports and Studies No. 174, in co-operation with SPREP. Editing and production by GRID-Arendal. Folgen, K., Sevaldsen, P. May, 2000. 45 pp. ISBN 92-807-1831-2.

Overview on Land-based Sources and Activities Affecting the Marine Environment in the East Asian Seas. UNEP Regional Seas Report and Studies No. 173. Editing and production by GRID-Arendal. Folgen, K., Sevaldsen, P. August 2000. 74 pp. ISBN: 92-807-1931-9.

Recommended Format and Procedure for National Reporting on GPA Implementation. Prepared for the GPA (Global Plan of Action for Protecting the Marine Environment from Land-based Activities) Expert Meeting. Contribution from GRID-Arendal: Denisov, N., Rucevska, I., Woo, A. April 2000. 29 pp. UNEP/GPA/EG.1/INF.5.

Newsletters

BOING/Baltic On-Line Interactive Geographical and Environmental Information Service. One issue: September 2000. Editor: Woo, A.

CEROI / Cities Environment Reports on the Internet. Two issues: July and November 2000. Editors: Skaalvik, J., Woo, A.

Brochures/Pamphlets

Miljønyheter i norske aviser hver dag fra GRID-Arendal. Information sheet: GRID-Arendal Internet gateway to environmental news in the Norwegian media, Norwegian only. UNEP/GRID-Arendal. January 2000. 1 pp.

BOING - Baltic On-Line Interactive Geographical and Environmental Information Service. A shortcut to useful, easy-to-use information on the web on eutrophication in the Baltic Sea. Pamphlet. June 2000.

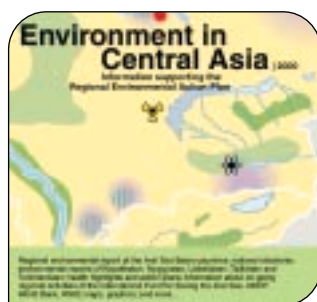
CEROI, A presentation brochure designed and prepared by GRID-Arendal and Uglund Publikit. February 2000. 4 pp.



CD-ROMs/Software

CEROI Package includes Publikit version 1.0 and 1.2, the CEROI template and manual, and other CEROI Programme related materials. February and November 2000.

Biodiversity in Central and Eastern Europe. National biodiversity status information from 22 countries in Central and Eastern Europe and the NIS, regional maps and graphics, and documents on international processes relevant to the convention on biodiversity. Lucas, B., Rucevska I., Heberlein, C., Skaalvik, J., Editors and reviewers. Rekacewicz, P. Graphics. First edition: March 2000. Second edition: May 2000.



Environment in Central Asia. Regional environmental report for the Aral Sea Basin with national state-of-the-environment reports, health highlights and action plans, and information about international organizations in the area. Denisov, N., Rucevska, I., Rekacewicz, P

Environment in Kyrgyzstan 2000. National state-of-the-environment report. Denisov, N., Rucevska, I.

Workshop reports and proceedings

Impact of Information on Decision-making Processes. GRID-Arendal Issues Paper. A conceptual framework for impact analysis and a proposal for essential issues. Christoffersen, L., Denisov, N., Folgen, K., Heberlein, C., Hislop, L., Holt, H., Simnett, O., Tveitdal, S. May 2000. 20 pp.

Impact of Information on Decision-making Processes. Case studies. Christoffersen, L., Denisov, N., Folgen, K, editors. May 2000. 23 pp.

The Impact of Environmental Information on Decision-making Processes. A summary note. Advisory Panel Meeting I. Christoffersen, L., Folgen, K. June 2000. 4 pp.

International Workshop on strengthening information management and reporting on the environment and sustainable development for North-West Russia and Belarus. Proceeding from Workshop held in Moscow 12-14 April 2000. GRID-Arendal, CIP and SEPA. 211 pp.



Integrated Ecosystem Approach to Conserve Biodiversity and Minimize Habitat Fragmentation in the Russian Arctic. GEF Project. Russian/English Workshop Report. Moscow, February 2000. Kuznetsov, E., Hindrum, R., Kullerud, L. October 2000. A PDF-A, A01. 29 pp. Appendix available separately: A02 Russian, A03 English.

Financial Statement in NOK (1 USD = 9 NOK)

26

Balance as of 31.12.2000	NOTE	31.12.00 (NOK)	31.12.99 (NOK)
FIXED ASSETS			
MACHINERY AND EQUIPMENT	(2)	453 378	286 045
SHARES, GEODATASENTERET A/S		100 000	100 000
PENSION FUNDS	(4)	425 536	322 623
TOTAL FIXED ASSETS		978 914	708 668
CURRENT ASSETS			
ACCOUNTS RECEIVABLE TRADE	(5)	4 849 829	2 504 048
OTHER RECEIVABLES		259 569	336 747
WORK IN PROGRESS	(6)	4 709 911	2 814 258
INVESTMENTS IN SHARES(GREEN FUNDS)	(7)	1 924 242	1 498 010
BONDS	(7)	629 174	999 174
PETTY CASH AND BANK ACCOUNTS	(8)	6 627 602	7 923 033
TOTAL CURRENT ASSETS		19 000 327	16 075 270
TOTAL ASSETS		19 979 241	16 783 938
EQUITY			
PAID IN CAPITAL			
FOUNDATION CAPITAL		500 000	500 000
TOTAL PAID IN CAPITAL		500 000	500 000
RETAINED EARNINGS		9 273 155	7 158 494
TOTAL RETAINED EARNINGS		9 273 155	7 158 494
TOTAL EQUITY		9 773 155	7 658 494
SHORT TERM LIABILITIES			
ACCOUNTS PAYABLE TRADE		902 471	453 825
EMPLOYEE TAXES WITHHOLD, PAYABLE			
SOCIAL SECURITY ETC.		896 045	840 988
ACCRUED SALARIES AND VACATION FEES		1 008 630	917 555
OTHER CURRENT LIABILITIES		536 450	90 000
ADVANCE	(9)	6 862 491	6 823 077
TOTAL SHORT TERM LIABILITIES		10 206 086	9 125 444
TOTAL EQUITY AND LIABILITIES		19 979 241	16 783 938

Profit and Loss Account	NOTE	2000 (NOK)	1999 (NOK)
OPERATING REVENUES			
OPERATING REVENUES		28 982 348	24 443 696
TOTAL OPERATING REVENUES		28 982 348	24 443 696
OPERATING EXPENSES			
PROJECT COSTS		11 640 567	8 361 601
PERSONNEL COSTS	(3)	10 865 765	9 841 991
DEPRECIATION	(2)	210 777	182 708
OTHER OPERATING EXPENSES		5 366 188	5 069 280
TOTAL OPERATING EXPENSES		28 083 297	23 455 579
OPERATING RESULT		899 051	988 117
FINANCIAL INCOME AND EXPENSES			
FINANCIAL INCOME		1 345 374	831 771
FINANCIAL EXPENSES	(7)	-129 764	-39 890
NET FINANCIAL ITEMS		1 215 610	791 881
RESULT FOR THE YEAR		2 114 661	1 779 998

NOTE 1

Basic principles - assessment and classification - other issues.

The financial statements, which have been presented in compliance with the Norwegian Companies Act, the Norwegian Accounting Act and Norwegian generally accepted accounting principles in effect as of 31 December 2000, consist of the profit and loss account, balance sheet, cash flow statement and notes to the accounts. In order to simplify the understanding of the balance sheet and the profit & loss account, they have been compressed. The necessary specific action has been provided in notes to the accounts, thus making the notes an integrated part of the financial statements.

The financial statements have been prepared based on the fundamental principles governing historical cost accounting, comparability, continued operations, congruence and caution. Transactions are recorded at their value at the time of the transaction. Income is recognised at the time goods are delivered or services sold. Costs are expensed in the same period as the income to which they relate is recognised. Costs that can not be directly related to income are expensed as incurred.

When applying the basic accounting principles and presentation of transactions and other issues, a "substance over form" view is taken. Contingent losses which are probable and quantifiable are taken to cost.

Accounting principles for materials items.

Revenue recognition.

Revenue is normally recognised at the time goods are delivered or services sold.

Cost recognition/matching.

Costs are expensed in the same period as the income to which they relate is recognised. Costs that cannot be directly related to income are expensed as incurred.

Fixed assets.

Fixed assets are entered in the accounts at original cost, with deductions for accumulated depreciation and write-down.

Assets are capitalised when the economic useful life is more than 3 years, and the cost is greater than 15.000 NOK. Operating lease costs are expensed as a regular leasing cost, and are classified as an operating cost.

Depreciation.

Based on the acquisition cost, straight line depreciation is applied over the economic lifespan of the fixed assets.

Accounts Receivables.

Trade receivables are accounted for at face value with deductions for expected loss.

Pension liability and pension costs.

The company has a pension plan that entitles its members to defined future benefits, called defined benefit plans.

Net pension cost, which consists of gross pension cost, less estimated return on plan assets adjusted for the impact of changes in estimates and pension plans, are classified as an operating cost, and is presented in the line item payroll and related cost.

Cash Flow Statement

	2000 (NOK)	1999 (NOK)
CASH FLOW FROM OPERATING ACTIVITIES		
RESULT OF THE YEAR	2 114 661	1 779 998
DEPRECIATION	210 777	182 708
WRITE-DOWN OF FIXED ASSETS	59 885	0
CHANGES IN INVENTORY, ACC RECEIVABLES AND ACC PAYABLE	-3 753 374	-1 854 663
EFFECTS OF CHANGES IN EXCHANGE RATES	0	0
AMOUNTS CLASSIFIED AS INVESTING-/FINANCING ACTIVITIES	0	-262 204
CHANGES IN OTHER BALANCE SHEET ITEMS	566 847	-13 026
NET CASH FLOW FROM OPERATING ACTIVITIES	-801 204	-167 187
CASH FLOW FROM INVESTING ACTIVITIES		
PURCHASE OF TANGIBLE FIXED ASSETS	-378 110	-118 326
PURCHASE OF OTHER INVESTMENTS	-116 117	-1 499 174
NET CASH FLOW FROM INVESTING ACTIVITIES	-494 227	-1 617 500
CASH FLOW FROM FINANCING ACTIVITIES		
NET CHANGES IN BANK DRAFT	-1 295 431	-1 784 687
NET CASH FLOW FROM FINANCING ACTIVITIES	-1 295 431	-1 784 687
NET CHANGES IN CASH AND CASH EQUIVALENTS		
CASH AND CASH EQUIVALENTS 01.01	7 923 033	9 707 721
CASH AND CASH EQUIVALENTS 31.12	6 627 602	7 923 033

NOTE 2

MACHINERY AND EQUIPMENT (in NOK)

Purchase Value 01.01.00	3 343 301,-
Added this year	378 110,-
Accumulated depreciation 31.12.00	3 268 033,-
Book Value 31.12.00	453 378,-

Depreciation this year: 210 777,-

NOTE 3

SALARY COSTS (in NOK)

	2000	1999
Salary and holiday pay	8 543 454,-	8 054 483,-
Employers contribution	1 272 727,-	1 050 549,-
Other personal costs	1 049 548,-	736 959,-
Total	10 865 765,-	9 841 991,-

Average no of employees 30 27

Salary of Managing Director in 2000	NOK 543.000,-
Fee to Chairman of the Board in 2000	NOK 31.000,-
Fee to other Board members in 2000	NOK 108.000,-

The audit fee for 2000 was NOK 39.000,-. The fees for other services provided by the auditor was NOK 8.500,-

NOTE 4

PENSION FUNDS

The premium for the year, NOK 559 516,- is charged to personnel costs. The yield from the pension premium fund of NOK 102 913,- is included under financial income.

Value 01.01.00	NOK 322 643,-
Yield	NOK 102 913,-
Value 31.12.00	NOK 425 536,-

NOTE 5

ACCOUNTS RECEIVABLE TRADE

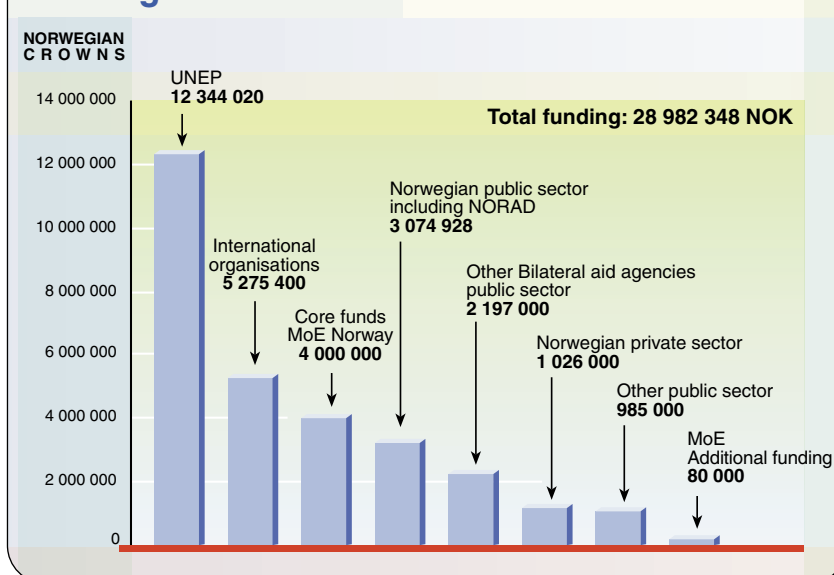
Accounts receivables are included in the accounts at face values. Unpaid accounts of NOK 29 953,- are debited during year to the profit and loss account.

NOTE 6

WORK IN PROGRESS

Work in progress carried out and costs incurred, not invoiced at the year end related, to 30 projects, and costs incurred amounted to a total of NOK 4 709 911,-

Funding Sources in 2000



NOTE 7

SHORT TERM INVESTMENTS

Unit trust	No. of units	Purchase cost	Market value
SKANDIA GRØNT NORDEN	1 525,22215	NOK 992 063,49,-	NOK 932 178,34,-
SKANDIA MILJØINVEST	24 265,6368	NOK 992 063,49,-	NOK 1 198 559,05,-

The Unit trust fund, Skandia Grønt Norden, is written down to its market value, and the loss of NOK 59 885,15, is included under financial expenses. Skandia Miljøinvest is valued at its purchase cost.

Bond

Buskerud Energi Market value NOK 629 174,-

NOTE 8

PETTY CASH AND BANK ACCOUNTS

NOK 364 360,- of the total cash at bank is restricted to meet the liability arising from payroll taxes withheld.

NOTE 9

ADVANCE

Work in progress invoiced on account and advances at the year end, related to 24 projects and amounted to a total of NOK 6 862 491,-



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To the Foundation GRID - Arendal

AUDITOR'S REPORT FOR 2000

Respective Responsibilities of Directors and Auditors

We have audited the annual financial statements of the Foundation GRID - Arendal on pages 26 - 27 as of 31 December 2000, showing a profit of NOK 2.114.661. We have also audited the information in the Board of Directors' report on pages 6 - 7 concerning the financial statements, the going concern assumption, and the proposal for the appropriation of the profit. The financial statements comprise the balance sheet, the statements of income, cash flows and the accompanying notes. These financial statements and the Board of Directors' report are the responsibility of the Foundations Board of Directors and Managing Director. Our responsibility is to express an opinion on these financial statements and other information according to the requirements of the Norwegian Act on Auditing and Auditors.

Basis of Opinion

We conducted our audit in accordance with the Norwegian Act on Auditing and Auditors and auditing standards and practices generally accepted in Norway. Those standards and practices require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant accounting estimates made by management, as well as evaluating the overall financial statement presentation. To the extent required by law and auditing standards and practices an audit also comprises a review of the management of the Foundations financial affairs and its accounting and internal control systems. We believe that our audit provides a reasonable basis for our opinion.

Opinion

In our opinion,

- the financial statements have been prepared in accordance with law and regulations and present the financial position of the Foundations as of December 31, 2000, and the results of its operations and its cash flows for the year then ended, in accordance with accounting standards, principles and practices generally accepted in Norway
- the Foundations management has fulfilled its obligation in respect of registration and documentation of accounting information as required by law and accounting standards, principles and practices generally accepted in Norway
- the information in the Board of Directors' report concerning the financial statements, the going concern assumption, and the proposal for the appropriation of the profit is consistent with the financial statements and comply with the law and regulations.

Arendal, 18 April 2001
KPMG AS

Terje H. Holst
State Authorised Public Accountant

Note: This translation of the Norwegian statutory Audit Report has been prepared for information purposes only



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Stattdokumentation er utarbejdet af Dan Holmskov Rasmussen

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Acronyms

AMAP	Arctic Monitoring Assessment Programme	IPCC	Intergovernmental Panel on Climate Change
BOING	Baltic On-Line Interactive Geographical and Environmental Information Service	ISA	Institute of Arctic Studies
CAFF	Conservation of Arctic Flora and Fauna	IT	Information Technology
CEE	Central and Eastern Europe	KTH	Royal Swedish Technical Academy
CEROI	Cities Environment Reports on the Internet	Mercure	Satellite-based telecommunications system
CIP	Centre for International Projects (Moscow)	NGO	Non-Governmental Organisation
COP	Conference of Parties	NHO	Confederation of Norwegian Business and Industry
DEWA	Division of Early Warning and Assessment	NINA-NIKU	Norwegian Institute of Nature Analysis-Norwegian Institute for Culture and Education
DN	The Norwegian Directorate for Nature Protection	NIS	Newly Independent States
DTIE	Division of Technology, Industry and Economics	NSS	NewSkies Satellite
ECORA	Integrated Ecosystem Approach to Conserve Biodiversity and Minimise Habitat Fragmentation in the Russian Arctic	OECD	Organisation for Economic Co-operation and Development
ECE	Economic Commission of Europe	PAME	Protection of the Arctic Marine Environment
EEA	European Environment Agency	RAIPON	Russian Association of Indigenous Peoples of the North
EPA	Environmental Protection Agency	ROLAC	Regional Office for Latin and Central America
EPRs	Environmental Performance Reviews	SAR	Second Assessment Report
ESA	European Space Agency	SAWA	Satellite Access to Web Applications
ESRI	Environmental Systems Research Institute	SEPA	Swedish Environmental Protection Agency
FYROM	Former Yugoslav Republic of Macedonia	SFT	Norwegian Pollution Control Authority
GEF	Global Environment Facility	SOE	State-of-Environment Report
GEO	Global Environment Outlook	SPREPTAR	South Pacific Regional Environment Programme Third Assessment Report
GESAMP	Joint Group of Experts in the Scientific Aspects of Marine Environmental Protection	UIC	UNEPnet Implementation Centre
GIS	Geographic Information Systems	UNDP	United Nations Development Programme
GIWA	Global International Waters Assessment	UNEP	United Nations Environment Programme
GLOBIO	Global Methodology for Mapping Human Impacts on the Biosphere	UNEPnet	UNEP's Global Environmental Internet
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities	UNEP.Net	UNEP's internet portal to environmental information
GRID	Global Resource Information Database	UNFCCC	United Nations Framework Convention on Climate Change
ICT	Internet Communications Technology	UNITAR	United Nations Institute for Training and Research
IIED	International Institute for Environment and Development	UNON	United Nations Office in Nairobi
IOR	Indian Ocean Region	UNU	United Nations University
		WHO	World Health Organisation
		WMO	World Meteorological Organisation
		WWF	World Wide Fund for Nature



GRID-Arendal Outlook 2001

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Our 2001 work programme is the second stepping stone in our 2000-2005 strategic plan. We are going to continue our support to UNEP within our three core competencies:


- **Environmental Information**
- **Communications**
- **Capacity Building and Tools**

Our geographic focus will continue to be the Polar and Baltic Regions, Eastern Europe and Central Asia, but increased focus will be given to support UNEP's global activities.

Our geographic focus will continue to be the Polar and Baltic Regions, Eastern Europe and Central Asia, but increased focus will be given to support UNEP's global activities.

Highlights in the 2001 work programme include:

- Technical support to UNEP's new global environmental information portal UNEP.net;
- Coordination of inputs to UNEP.net from Polar and Baltic regions, Eastern Europe and Central Asia;
- Expand the Cities Environment Report On the Internet (CEROI) programme to more cities;
- Prepare the Polar chapter for UNEP's new global state of the environment report - GEO 3;
- Expand UNEP's electronic bookshop Earthprint.com;
- Prepare an Information and Communication Technology (ICT) strategy for UNEP within the framework of UNEP-net/Mercure;
- Encourage harmonisation of tools, methods and capacity building in support to the UNEP/DEWA program;
- Continue our programme on better understanding of the impact of information on decision-making in co-operation with major user groups;
- Test new indicators to measure performance vis-a-vis our mission and increase management focus on staff development and team building.



Svein Tveitdal, Managing Director

Word from the Director of the Division of Early Warning and Assessment

Crossing the millennial divide has allowed us to pause and reflect upon the many changes facing humans at the beginning of the 21st century. Historic records will likely document the phenomenon of an international awareness-raising era at the beginning of this century regarding the changing climate patterns, the changing face of the landscape, and mankind's role in both these issues. GRID-Arendal's evolution has developed a special role supporting UNEP in raising awareness of these global change issues and enhancing the science basis needed to understand these changes. This support role is crucial in helping UNEP, with its global mandate and humble resources, in preparing coping strategies and actions for governments and citizens as we grapple with the challenges of living in dynamic times.

Challenges are many, and GRID-Arendal is poised to become a global leader in addressing these issues. Climate change appears to be leaving the polar regions with significant reductions in ice and permafrost, affecting fauna and flora alike with human-ecological consequences unknown at present. Harnessing polar experts and centres for assessment of these changes will remain a key growth area for GRID-Arendal. In addition to the ecologically oriented focus, GRID-Arendal faces the challenge of forging and maintaining the highest quality of experts for environmental information management and web-based communications of this information. Successes to date for UNEP.Net have been founded on a strong and active partnership between Nairobi and Arendal, as these two centres have led a globally distributed network of collaborators. These early successes place increased pressure on UNEP for the future performance and maintenance of this revolutionary environmental network.

It has been my privilege to help UNEP's Division of Early Warning and Assessment reinvent, restructure, and revitalise its strategic direction in co-ordination with our collection of global partners. GRID-Arendal has been a tremendous partner in the past and will be invaluable in helping UNEP organise and implement the new strategies including implementation of the global environmental network for tomorrow. During this transitional period, there is the requirement for thoughtful introspection of the current host agreements, memoranda of understanding, and work priorities as we attempt to see GRID-Arendal's future as both a strong UNEP Centre of Excellence and a paradigm for the growing network of partner centres. We can expect to see significant changes. Some of these changes will be associated with the possible requisite actions to migrate the existing Mercure/UIC activities out of UNEP into new incarnations. Other changes will be manifest as GRID-Arendal increases technical capacity for scientific visualisation, web-server inter-operable network functions, and killer applications for internet mapping of environmental hot topics. These technical capabilities are requisite for GRID-Arendal contributing to the international Digital Earth initiative.



UNEP will continue to benefit from GRID-Arendal's support with respect to restructuring DEWA, helping UNEP better understand its mission, improving business practices of UNEP, and upgrading the information and communication technology (ICT) capacity of UNEP and its UN partners in Nairobi. GRID-Arendal's catalytic role in developing UNEP's ICT strategy highlights the synergy of this relationship. But we must continue to seek improvements in this relationship as we seek to legitimise and understand the responsibilities associated with flying the UNEP flag over Arendal. A formal treatment of these issues will occupy much of this year's discussions regarding the responsibilities and liabilities associated with the UNEP-GRID-Arendal arrangement and the appropriate amendments to enhance this arrangement.

In conclusion, this past year has seen the best of GRID-Arendal with such highlights as the launch of Vital Graphics at the international climate change convention, assistance in State of the Environment reports with 27 countries in Central and Eastern Europe, co-operation with the evaluation of Mercure/UIC, and the launch of UNEP.Net.

What we now need to consider is how will GRID-Arendal be viewed from fifty years hence? How will the Arendal Centre be positioned to make the most impact in illuminating and communicating the omnipresent environmental challenges and our understanding of the ingredients for sustaining life on the planet? What more must we do to earn our mark in history?

Tim Foresman

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