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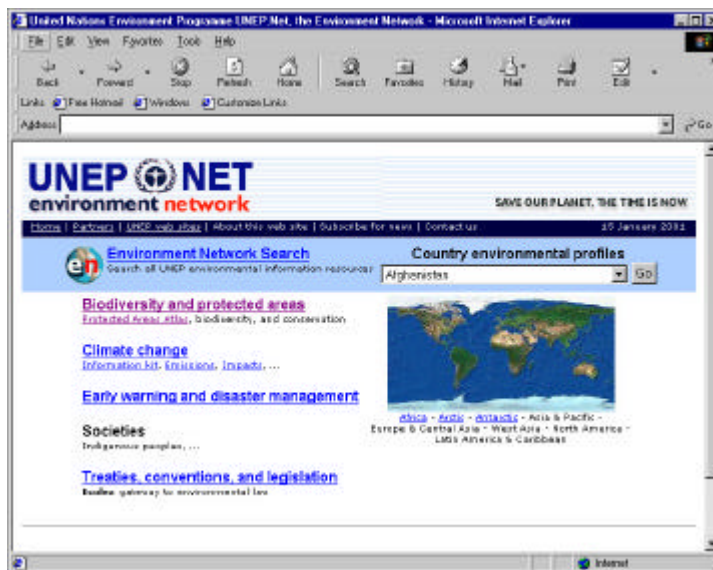
UNEP/Global Resource Information Database-Geneva

Improving Global Access to Environmental Information @ "UNEP dot Net"

The Division of Early Warning and Assessment (DEWA) is pioneering a global partnership under the banner UNEP.Net, that brings together a broad range of information providers in a joint scheme directed at servicing the growing environmental data needs of the global community. UNEP partners include world leaders in information management and dissemination such as the Environmental Systems Research Institute (ESRI), National Geographic, and Associated Press among others. The partnership uses the UNEP.Net environmental portal as the main channel of communication, which will be launched during UNEP's Governing Council-21 meeting in early February. The portal addresses the challenge of improving public access to environmental information, and does so instantly and effectively via the Internet, while respecting the intellectual property rights of

the data creators. The network has also developed tools that enable the consolidation of information from a variety of sources to provide users with

relevant environmental management solutions and applications. Through hyperlinks, comprehensive query and integrated reporting with information on



UNEP.org and other partner sites, these sites act in complementary fashion, yet remain developmentally independent. As one of UNEP's main centres for global assessment and information management, GRID-Geneva has been a major contributor to the development of the UNEP.Net portal.

In early October 2000, a start-up meeting was held in Redlands, California, at ESRI, which laid

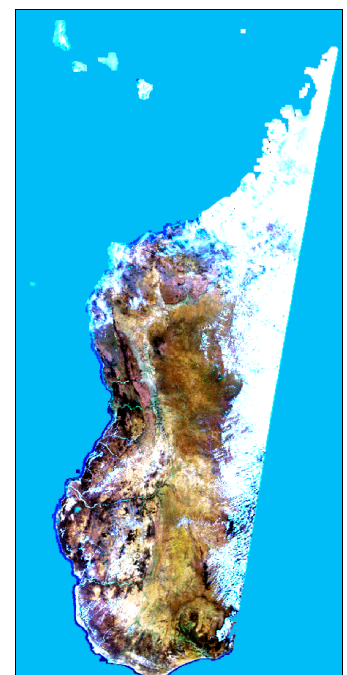
The UNEP.Net data portal is planned to be launched in time for UNEP's twenty-first Governing Council Session in early February 2001.

(Continued on page 3)

Field Study of Forest Fire Impacts in Madagascar

Monitoring of forest fires is one of the core early warning activities undertaken by GRID-Geneva. Least studied of all regions has been the situation in Africa, where information about fires' occurrence is meager. Consequently, GRID-Geneva decided to embark on a joint project in collaboration with the Joint Research Center of the European Union (EU/JRC) to address this knowledge gap and evaluate the significance of fire outbreaks in Africa. JRC is supporting the study in an important way by furnishing SPOT Vegetation images, while GRID-Geneva is carrying out the image analysis. At 1-km ground resolution, the recently launched SPOT Vegetation sensor is specifically designed to assess vegetation changes and is therefore an ideal means for monitoring fire events and their impacts. Given that Madagascar is one of the world's mega-biodiversity centres and the potential damage that uncontrolled fires could cause,

Spot Vegetation image of Madagascar shows a major part of the country under cloud cover.



Inside this issue:

Improving Global Access to Environmental Information @ UNEP.Net	1
Field Study of Forest Fire Impacts in Madagascar	1
European Regional Meetings Underpin GEO-3 Preparation	2
An Environmental Catalogue for Switzerland	3
GRID-Geneva Advisory Board Meeting	4
New Products	4
Calendar of Events/Missions	4

(Continued on page 2)

European Regional Meetings Underpin GEO-3 Preparation

During the last quarter of the year 2000, two meetings were held at the regional level to advance the European region's contributions to the Global Environment Outlook (GEO-3) process and focus on the production of certain aspects of the report. The first was held at the Central European University in Budapest, Hungary in early November under the title of "GEO-3 European Experts Consultation on Chapter 3". The meeting, which was chaired by the DEWA Regional Coordinator for Europe, sought to bring together experts on scenario development to discuss and expand on an initial set of regional "future outlooks" for Europe, to be included in Chapter 3. Four preliminary scenarios (known as Conventional Development, Policy Reform, Fortress World and Great Transition) were presented by their respective authors, and the merits and



UNEP/ROE in collaboration with DEWA Europe organised an exploratory meeting in early December in Tbilisi, Georgia, to discuss the development of a sub-regional GEO-3 report for the Caucasus.

shortcomings of each discussed by the participants. The latter included representatives of the European Collaborating Centres for GEO and recognised experts from the public and private sectors, research community and

youth.

The consultations in Budapest succeeded in eliciting significant and useful inputs laying down the basis for initial European scenario development work, and catalysed the preparation of

contributions to GEO-3's Chapter 3 on "future outlooks". The scenarios developed were also presented as prototypes at a global meeting held in Geneva in mid-December 2000, where representatives from each of

(Continued on page 4)

Forest Fire Impacts Study in Madagascar

(Continued from page 1)

it was selected for the pilot phase to test the fire detection methodology, which may be repeated in other African countries in the future.

In order to verify the accuracy of fire scars' detection using satellite imagery, 'ground truthing' is an important step in backing up the conclusions made, particularly in view of the low spatial resolution of SPOT Vegetation data. Fieldwork was conducted in November 2000 during the high fire season so as to identify precise positions of burned areas and to determine their key characteristics in terms of surface area, slope, aspect and vegetation type. Using a Ground Positioning System (GPS), the location of burnt areas were fixed along a West-East transect that maximizes vegetation cover differences in Madagascar, and which was drawn on the basis of fires observed using Along Track Scanner Radiometer (ATSR) data in 1997 and 1998 provided by the European



GRID-Geneva staff Pascal Peduzzi takes a GPS position fix of a burned area in Madagascar.

Space Agency's (ESA) World Fires Atlas program. Despite accessibility difficulties encountered, a sufficient number of fire incidences were located and documented. In addition, discussions were held with various organisations active at the local level, namely PACT, CARE International, and the World Wide Fund (WWF).

Fires and burned areas were sited in many areas along the transect, especially between Antsuhihy and Bealanana.

Protected areas have also been hard hit, with more than 7000 ha of forest burnt in the national park of Ankarafunkst in October 2000. Along the stretch from Sambava to Andapa, the deforestation rate has reached alarming levels and soil erosion, biodiversity loss and drought incidence are likely to intensify in the near future. In certain areas, vegetation loss has already led to a decrease in soil moisture content and substantial soil erosion.

Follow-up steps include analysis of SPOT Vegetation satellite images to determine area burnt in the 2000 fire season, and assess the resulting impact on biodiversity. Based on results obtained, the implementation of a fires monitoring system will be considered in collaboration with partner organisations..

For more information, please contact:
pascal.peduzzi@grid.unep.ch

An Environmental Catalogue for Switzerland

The Swiss Catalogue of Data Sources (CH CDS) provides reference information or meta-data on Swiss environmental organisations and data sets. Developed by the Swiss Agency for the Environment, Forests and Landscape (SAEFL) with support from GRID-Geneva, the catalogue is accessible via the Internet since 18 June 2000 (<http://www.ch-cds.ch>). In order to maintain the relevance and currency of the information held, the CH CDS is updated on a regular basis (the latest update was made in November 2000). Presently, the catalogue holds 2,551 addresses and descriptions of 3,690 data sets. The most frequently occurring themes deal with research, environmental policy, information, natural habitats, ecosystems and landscape. Sixteen cantons, two cities and 16 government agencies are currently participating in the development of the meta-

database on a voluntary basis. Government agencies and the Cantons of Geneva and Neuchâtel have been the most important data providers up to now.

A meeting organised by SAEFL on 13 December 2000 brought together all data providers, and provided an opportunity to report on the progress realised to date and to obtain the feedback of partners and their ideas about the project's future direction. The ability to directly update the CH CDS via the Internet was a central issue of discussion.

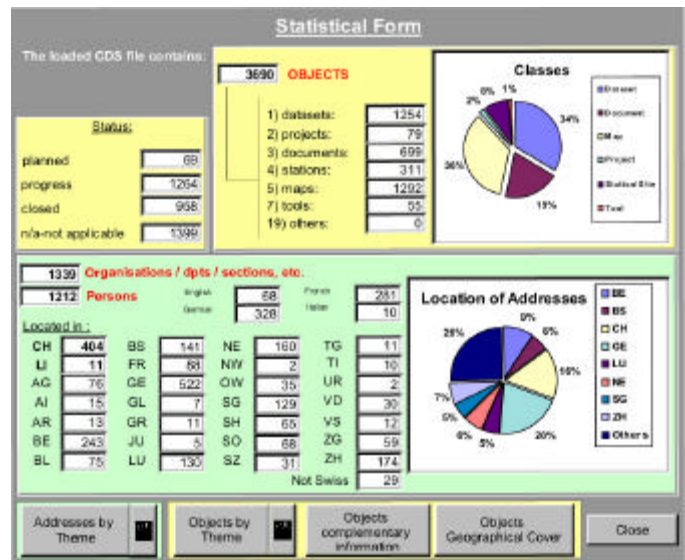
A new module called Java-CDS that provides an advanced search interface has been developed, and the host server should be installed and running in early 2001. This new tool will offer CH CDS users additional search functions including hierarchical querying, by

geographic location as well as using a thesaurus.

Development of the CH CDS is set to continue in 2001; the information contained in the

catalogue will be updated and new partners are likely to join the project. The possibility for 'online' updating of meta-data

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A detailed description of the contents of the CH CDS, obtained from its analytical tool.

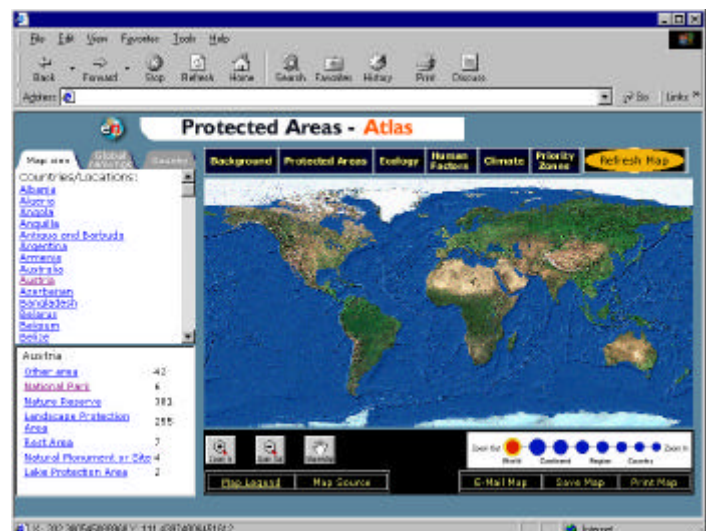
Launching of UNEP dot Net

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down the foundations of UNEP.net, and prepared a preliminary prototype for the proposed information system. A technical team comprised of staff from GRIDs Arendal, Geneva and Nairobi, as well as UNEP headquarters, was formed to develop the applications for the portal. Working intensively for a five-week period out of Redlands, the development team was backstopped by other GRID centres on a case-by-case basis. GRID-Geneva was responsible for the development of several Internet Mapping Solutions (IMS), allowing for the dynamic visualisation of environmental information. A main theme, "protected areas", was chosen to illustrate the application's functions and utility. Information on protected areas was compiled from a wide range of sources, including ESRI, GRID centres, IUCN, UNESCO, WCMC, and WWF, dealing with a variety of issues

including national parks, human pressure zones, fires' incidence, population density, ecoregions, endangered species and more. For the first time now, users are able to access protected areas-related information via a single website powered by this IMS tool. Other applications developed by GRID-Geneva deal with the location of nuclear power plants and population density and the relationship between WWF's priority ecoregions for conservation and indigenous peoples.

One of the major components of the portal is the UNEP.net Catalogue, which is a versatile reference tool for geospatial environmental information produced by UNEP and partner organisations. It provides key meta-data describing UNEP's data holdings that will be of use to decision-makers and scientists, as well as the general public. Along with other UNEP centres and partners, GRID-Geneva actively



The UNEP.Net portal aims to develop into a one-stop shop on environmental information. New features include the ability to access protected areas-related information from a variety of sources via a single website.

participated in documenting its data sets for input to the Catalogue.

For more information please contact: Schwarzr@grid.unep.ch

UNEP/Global Resource Information Database-Geneva

International Environment House (IEH), 11 chemin des Anémones, 1219 Châtelaine, Geneva, Switzerland
1st Floor, 'A' Block

Tel.: (+41-22) 917-8294

Fax: (+41-22) 917-8029

Email: hassan.partow@grid.unep.ch (Information Officer)

Visit the GRID-Geneva website at:
<http://www.grid.unep.ch/>

GRID-Geneva Advisory Board Meeting

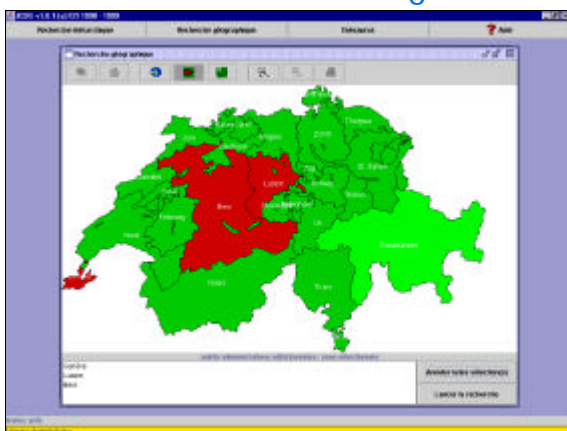


Members of the GRID-Geneva Advisory Board stand for a group photo, together with the DEWA Regional Coordinator.

The 6th Meeting of the GRID-Geneva Partnership Advisory Board was held at UNEP's International Environment House with the participation of the Swiss Federal Agency for Environment, Forests and Landscape (SFAEL), UNEP's DEIA&EW and Regional Office for Europe (ROE), and the University of Geneva on 3 November. GRID-Geneva activities in the realm of early

warning were presented and discussed with the Advisory Board members and external observers as part of the meeting. GRID-Geneva was congratulated by the Board members for its ever-broader and more in-depth programme of work and given the "green light" for several new project activities with additional partners proposed for 2001.

Swiss Environmental Catalogue



The Java-CDS allows users to perform a search of the meta-database via a map interface.

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is currently under trial and will be made available in due course. In this context, GRID-

Geneva will continue to actively participate in projects linked to the CH CDS, including the Geneva CDS and Alpine CDS. ?

GEO-3 Preparation

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UNEP's six global regions prepared the first rough draft of the overall Chapter 3.

Within the framework of the GEO-3 regional process, a second meeting was held in early December in Tbilisi, Georgia, to explore the development of a sub-regional GEO-3 report for the Caucasus. Led by UNEP/ROE's Deputy Director Ms. Françoise Belmont and DEWA's Regional Coordinator for Europe, discussions kicked off with a presentation of the GEO process to representatives from governments and NGOs from the Caucasus, and went on to consider the feasibility of preparing a sub-regional version of the report in 2001. The reaction from the participants was largely positive and, if adequate funding can be found from

within UNEP and donors, it seems quite likely that such a report will be under preparation in 2001.

Finally, as part of the capacity building component of the GEO process, DEWA/GRID-Geneva in collaboration with the United Nations Institute for Training and Research (UNITAR) organized a series of training sessions for collaborating centres in the last quarter of 2000. Training sessions, which were financially supported by the UN Fund for International Partnerships (UNFIP), were held in Bahrain, Budapest, Harare and San José (Costa Rica). GRID-Geneva was in charge of the training module dealing with "Data handling, management and integration of core data sets". Overall, the workshops were highly successful and the skills gained should considerably assist Collaborating Centres in producing the desired outputs for GEO-3.

Calendar of Events, Meetings & Missions Planned (January – March 2001)

22-24 January

Twenty-first session of the Inter-Agency Meeting on Outer Space Affairs, (UNOOSA), Vienna, Austria.

26 January

World Water Assessment Programme's (WWAP) Data and Database Workshop, at World Meteorological Organisation (WMO), Geneva, Switzerland

5-9 February

UNEP Governing Council Twenty-First Session (GC 21), Nairobi, Kenya.

5-7 March

UN Geographic Information Working Group (UNGIWG), Second Global Meeting, Rome, Italy.

6-8 March

Training on Remote Sensing for Secondary School Teachers, University of Geneva/GRID-Geneva, Geneva, Switzerland.

New Products

Posters

- ◆ Nuclear Facilities around the World

Maps

- ◆ Sites Identified as being Targeted by Ordnance Containing Depleted Uranium during the 1999 Kosovo Conflict
- ◆ UNEP Assessment Mission to Kosovo - Visited Sites
- ◆ Topographic Map of Madagascar (Scale: 1: 1,000,000)