

2003 Evian Final Compliance Report Information and Communication Technology

Commitment

2003-69: “Developing close co-ordination of global observation strategies to minimise data gaps by improving world-wide reporting and archiving of the data on atmosphere, land, fresh water, oceans and ecosystems and build on existing work to produce reliable data by spring’s Tokyo ministerial conference”.

Background

This commitment resulted because of the G8’s recognition of the need for more comprehensive sustainable development initiatives through the more efficient use of technology, and the belief that co-operation on global observation strategies offer the potential to improve the social infrastructure of developing countries. The fulfilment of this commitment would help achieve other objectives endorsed by the G8, namely the Millennium Development Goals (MDGs) as well as the objectives outlined at the most recent World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, through access to ICT and more reliable sources of information on environmental data. Successful compliance with this commitment could also increase initiatives for technological co-operation in other sectors, namely in the areas of economic competitiveness and global security issues.

Assessment

Score	Lack of Compliance -1	Work in Progress 0	Full Compliance +1
Canada			+1
France			+1
Germany			+1
Italy			+1
Japan			+1
Russia		0	
United Kingdom		0	
United States			+1
Overall			+0.75

Individual Country Compliance Breakdown

1. Canada: +1

The need to take further action on global observation strategies has been recognized by Canadian government officials. The Environment Canada *Report on Plans and Priorities for 2003-2004* states that Environment Canada’s mission is to further sustainable development initiatives in the areas of pollution, conserving of biodiversity and ecosystems the improvement of overall environmental quality. Furthermore, Environment Canada has implemented other programs including technology and reporting activities in order to better understand naturally-occurring environmental processes, evaluate and assess the effects of known and emerging stresses on the environment, and design and evaluate policy options. The Ministry has further accepted and

acknowledged the responsibility of monitoring the expanse of its atmospheric and water resources through observation stations, measurement programs and a range of technologies. It has also set forth plans to integrate new technologies for the purpose of monitoring and assessing in order to enhance its current observation capacity. Environment Canada has stated an agenda for the following seven years which prioritizes the following: 1) the reduction of environmental threats related to the atmosphere, water, toxic substances and contaminated sites; 2) continuing to promote the conservation of existing ecosystems through broader ecosystem strategies and preserve species through species strategies under the Species at Risk Act (SARA).⁵⁶

The 2004 Federal Budget makes significant contributions towards the cleaning of contaminated sites, the promotion of environmental technologies, and the development of indicators to incorporate environmental considerations into decision making. The budget provides \$3.5 billion (CAN) over the next 10 years towards the cleaning of Federal Contaminated Sites and another \$500 million over the next 10 years to Shared-Liability Contaminated Sites. The Canadian government has committed to investing \$1 billion in support of new environmental technologies. Over a period of two years, the government has stated that it will invest another \$200 million dollars in Sustainable Development Technology Canada. An additional \$800 million will be invested over the following five years towards environmental technologies as priorities are defined and as opportunities become available. This budget will also invest another \$15 million over the next two years to develop and report better indicators on clean air, clean water and gas emissions.⁵⁷ Overall, the Canadian government has illustrated its political dedication to increased global observation and coordination strategies through new legislation and increased budgetary allocation.

2. France: +1

France has taken a forward step in recognizing the importance of ICT and the benefits that can be gained from increased coordination efforts.

France has already completed the first phase of the goals of the World Summit of the Information Society held in Geneva from 10-12 December 2003. Its goal was to create a plan of action to be completed by 2005 that aims to reduce the digital divide and to make ICT increasingly available to developing countries. France plans on continuing to play an active role along with the EU to increase international access to ICT.⁵⁸

France also takes an active role in the Global Monitoring for Environment and Security (GMES). The GMES is a joint initiative of the European Commission and the European Space Agency. The system uses Earth Observation satellites to provide vital information on global environment and security. It should be in place and fully operational by 2008. It will enable France to better

⁵⁶ Minister of Environment's Report, Section 2. Environment Canada. www.tbs-sct.gc.ca/est-pre/20032004/ec-ec/ec-ecr34_e.asp?printable=True

⁵⁷ Budget 2004. Department of Finance. www.fin.gc.ca/budget04/bp/bpc4de.htm#environment

⁵⁸ French Foreign Ministry, France, "Statement by the French Foreign Ministry Spokesperson Paris, 9 December 2003." <www.france.diplomatie.fr>

coordinate environmental policies and improve crisis management capabilities. The system will also create a dependable database of information.⁵⁹

The European Environment Agency, based in Copenhagen, provides for the monitoring of the state of the environment and providing early warning of impending problems. The agency was set up by the EU, and membership now covers the whole of Europe. The agency provides policymakers with information on which to base their decisions, promotes best practice in environmental protection and technologies, and helps the European Commission disseminate the results of environmental research.

Research into problems affecting the environment or the natural habitat receives funding under the LIFE program. Financed primarily by the EU, including substantial contributions by France, LIFE has a budget of €640 million for 2000-2004. Besides the 25 member states, the main beneficiaries are Romania, Turkey, and countries in the Balkans and the eastern and southern Mediterranean. Funds from other EU research programs are also available to research environmental improvements or the impact of environmental factors on public health.

The EU has been keen to ensure that citizens and businesses benefit from the achievements of the information society. One priority is to prevent a “digital divide” opening up between the richer and poorer (often outlying) EU regions with less access to the internet or new digital services, or between the previous 15-nation EU and the ten newcomers who joined on 1 May 2004.

The eEurope initiative was launched by EU leaders at their summit in Lisbon in 2000 when they set the ambitious headline target of transforming the Union into the most competitive knowledge-based society in the world by 2010.

Information and communications technologies not only form a major sector of economic activity, generating about 7.5% of the EU’s wealth measured in terms of gross domestic product (GDP). They are an essential enabling technology as well, underpinning the efficiency and competitiveness of all manufacturing and services sectors. This is why the Lisbon agenda set the requirements that businesses and citizens must have access to an inexpensive, world-class communications infrastructure and a wide range of services; every citizen must be equipped with the skills needed to live and work in this new information society; a higher priority must be given to life-long learning as a basic component of the European social model.

The next deadline for the eEurope initiative is 2005, by which time the economies of the ten new members will be well integrated with the rest of the EU. The newcomers had already prepared themselves for membership by setting themselves a series of eEurope targets of their own prior to joining.

Broadband access to the internet, providing fast, cheap and permanent online communications, is seen as the key enabling technology in this time frame. All businesses, schools and universities of present Union members must have broadband access to the Internet by 2005. The EU will use

⁵⁹ GMES 6 January, 2004 <www.gmes.info/what_is/index.html>

existing structural funds (Regional and Social Funds, etc) to facilitate broadband access in remote and rural regions.

eEurope 2005 also calls for other technologies like third generation mobile telephony or interactive digital television to provide broadband access by 2005, in order to expand competition and reduce the current domination by fixed-line telephone operators, the primary providers of broadband services today.⁶⁰

3. Germany: +1

Germany has been an active participant in the EU's efforts towards addressing problems with energy and climate protection. In addition to the existing trade in CO₂ emissions, the option of so-called "green certificates" and "white certificates" could be used to assess the share of renewable energies in total energy generation and measures for saving energy and improving energy efficiency.⁶¹ Germany, along with the EU as a whole, has addressed the need to improve technological cooperation in this area while maintaining economic prosperity.

Furthermore, Germany has supported the independent European Program on Environment Monitoring and Observation, which would monitor environmental statistics and collect global environmental data. The project (GMES) is geared towards supporting a precautionary European environment policy, the prevention of disasters and the provision of disaster relief in crisis situations. Margareta Wolf, Parliamentary State Secretary at the Environment Ministry stated that "Global monitoring is a core element of international environment policy. We are establishing an effective instrument to recognize threats early on and help prevent potential damage to the environment. Within the project we are setting up a European-wide warning system which provides us with information on risks such as maritime pollution, floods, and forest fires." Under its 6th framework Program for Research the European Commission will make approx. 100 million Euro available for the establishment of GMES. Another 83 million Euro are provided by the European Space Agency (ESA), approx. 19 million Euro of which came from the German government. German industry is strongly involved in the establishment of GMES services in the framework of project consortia. After the Bonn GMES conference, landmark decisions are to be taken in the European Parliament in spring 2004 on the further development of this independent program.⁶²

In addition to Europe-wide programs on environmental cooperation and technology, Germany has also taken an interest in bilateral technology-sharing programs. The first ever German-

⁶⁰ europa.eu.int

⁶¹ Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Press Release, "Federal Environment Minister Jürgen Trittin meets EU Environment and Energy Ministers," available at www.bmu.de/en/800/js/news/pressrelease030718

⁶² Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Press Release, "German Government supports independent European Programme on Environment Monitoring and Observation," available at www.bmu.de/en/800/js/news/pressrelease031119/

Chinese environment forum opened in December 2003, with Germany emphasizing China's huge potential for increasing energy efficiency and developing renewable energies.⁶³

Federal Environment Minister Jürgen Trittin recently highlighted the three German-Turkish consultancy projects that have already been agreed on concerning nature conservation, waste management, and air pollution control. In addition, he invited the Turkish Environment Minister Osman Pepe to take part in the International Conference for Renewable Energies ("renewables2004") which Germany will be hosting in Bonn in June 2004.⁶⁴

4. Italy: +1

Mr. Altero Matteoli, Minister for the Environment and Territory of the Republic of Italy, is currently acting as President of the Environment Council of the European Union. Italy has supported the independent European Program on Environment Monitoring and Observation (GMES), which proposes to monitor environmental statistics and collect global environmental data. Italy hosted a recent United Nations conference on climate change, in which twenty industrialized countries (including the members of the EU) confirmed their intention to give \$410 million dollars (U.S.) a year starting in the year 2005 in order to help developing nations fight climate change and its repercussion through increased technological networks to facilitate monitoring efforts.⁶⁵ Out of these funds, \$80 million is to come directly from Italy.

At the second Asia Europe (ASEM) Environment Ministers' Meeting in Lecce in October 2003, ministers stressed the importance of the development of communication networks bearing in mind the Bonn guidelines of an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources. In addition, they committed to promote technology transfer and cooperation as a follow up to the World Summit on Sustainable Development that took place in Johannesburg in 2002.⁶⁶

5. Japan: +1

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) website outlines Japan's science and technology policies for the upcoming months. The promotion of research and development in Ocean Science, Earth Science, and Environmental Science figures prominently. MEXT "promotes research and development of integrated modeling based on the understanding of the interaction among the geosphere, atmosphere, hydrosphere, biosphere, and human sphere (process research) and research using the world's fastest computer "Earth Simulator."⁶⁷ Other projects include the Frontier Research System for Global Change, the Project

⁶³ Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety. Press Release, "First German-Chinese Environment forum opens in Beijing," available at www.bmu.de/en/800/js/news/pressrelease031219/

⁶⁴ Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. Press Release, "Turkey expresses interest in German environmental technology," available at www.bmu.de/en/800/js/news/pressrelease040203/

⁶⁵ Associated Foreign Press, "Severa; industrial countries will give 337 million Euros a year to poor nations to combat climate change," available at civitas.barcelona2004.org/news/newsdetail.cfm?NewsID=26243

⁶⁶ Second ASEM Environment Ministers' Meeting, Lecce, Italy, October 11-13, 2003 – Chairman's Summary, available at www.iias.nl/asem/asem2003/ASEMEnMM2Chairmans_Summary.pdf

⁶⁷ Ministry of Education, Culture, Sports, Science and Technology, "Science and Technology: Promotion of Research and Development," www.Mext.go.jp/English/org/science/37.htm.

for Sustainable Coexistence of Human, Nature, and Earth Project, and several oceanographic and atmospheric observation projects, particularly in the Polar Regions.⁶⁸

Japanese Senior Vice Minister of Education, Culture, Sports, Science and Technology, Kisaburo Tokai, addressed the Earth Observation Summit in Washington D.C. on 31 July 2003.⁶⁹ Tokai noted that Japan places a high priority on Earth observation to solve global environmental issues and that the Japanese government has “endeavoured in developing the Integrated Global Observation Strategy (IGOS).”⁷⁰ Tokai further outlined Japan’s recent major efforts in Earth observation. He noted the joint Japan-US Tropical Rainfall Measuring Mission (TRMM) produced the first ever global three-dimensional space based observations of precipitation. Tokai also remarked on the recent launch of the Midori II (ADEOS-II) advanced Earth observation satellite; the future development of a new satellite (GOSAT) to observe greenhouse gases; future plans for the marine research vessel Mirai to collect data on approximately 500 locations in the southern hemisphere; the launch of the Advanced Land Observing Satellite next year; and, Japan’s intention to join the International Charter on Space and Major Disasters were also mentioned.⁷¹ Finally, Tokai emphasized that the “fastest super-computer in the world,” the Earth Simulator, will strengthen international cooperation on Earth Observation, particularly through capacity-building and data-sharing in developing countries.⁷²

The Japanese Ministry of the Environment released a draft interim report entitled “Climate Regime Beyond 2012: Basic Considerations” in December 2003.⁷³ This report emphasizes the continued need to transfer technologies for environmental analysis to developing countries. Japan tends to focus on improved partnerships with Asian countries.

In addition, Japan is a co-chair of the Group on Earth Observation (GEO), and actively participated in GEO-1, 1-2 August 2003 in Washington D.C., GEO-2, which took place from 28-29 November 2003 in Baveno, Italy,⁷⁴ as well as GEO-3 which took place in Nairobi Kenya at the end of March 2004. Japan hosted the GEO-4 summit in Tokyo on 22-23 April 2004, as well as the Earth Observation Summit II in Tokyo on 25 April 2004.⁷⁵ The objectives of the GEOSS 10-Year Implementation Plan, presented at the summit, include the improved management of global energy resources, improving weather information, forecasting, and warning, improving the management and protection of terrestrial, coastal, and marine ecosystems, as well as

⁶⁸ Ibid.

⁶⁹ Earth Observation Summit, “Strengthening International Cooperation on Earth Observation, Address by Kisaburo Tokai, Senior Vice Minister, Ministry of Education, Culture, Sports, Science and Technology, Japan,” 31 July 2003, www.earthobservationsummit.gov/statement_japan.pdf.

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Ministry of the Environment, Japan, “Climate Regime Beyond 2012: Basic Considerations,” December 2003 www.env.go.jp/en/topic/cc/031126.pdf.

⁷⁴ Group on Earth Observations, “Public Documents,” earthobservations.org/documents.asp?sec=geo1.

⁷⁵ Group on Earth Observations, “Earth Observation Summit 2,” earthobservations.org/docs/geo-2/10%20-20%20tokyo%20eos%20ii%20summit.ppt.

understanding, monitoring, and conserving biodiversity with the intent of promoting sustainable development.⁷⁶

6. Russia: 0

The Russian Regional Environmental Centre has participated in numerous conferences that were held to address issues of land, atmosphere and water. The government of the Russian federation is reviewing technological prospects of regulating organic farming products. The Ministry of Agriculture of Russia has stated that chemical fertilizers are either not used or used in limited quantity. This means that the majority of land that is used for agriculture will, with the passing of the regulation regarding organic farming, be transformed to organic farming. The regulation or legislation will also adopt new technologies for the organic farming that will limit the waste and will utilize the land with productive efficiency and environmental stability.⁷⁷ The Government of the Russian Federation has also implemented a commission or project in conjunction with the Danish, the Joint Russian-Danish Commission on Environmental Protection. This project has three main components all focused on the protection and preservation of the atmosphere. The three components are: inventory of emissions and discharges of gases, joint projects, and system of trade in gas emission quotas. Research for the project has begun in Leningrad, Novgorod and Sverdlovsk and is expected to expand in other cities and regions within the Federation.⁷⁸ Furthermore, the Russian Federation has hosted the Conference on the EU Water Initiative in Moscow in February 2004. The conference covered issues including municipal water supply and sanitation, integrated management of water resources, trans-boundary water issues, and the financing of water sector activities.⁷⁹

Based on the actions taken by the Government of the Russian Federation, Russia has taken steps forward and has increased its activity in confronting issues while bettering its prospects. Though there have been no figures stated in relation to the programs that have been implemented to address the atmospheric, land and water issues, the implementation of such programs and the research currently being conducted have shown some progress on the commitments made at the summit. Despite this, however, the Russian Federation has not only lacked any financial commitments, it has also lacked the efforts to address the issues pertaining to ecosystems. While the issues of atmosphere, land and water have been addressed, the issues regarding ecosystems have not been addressed. Therefore, the level of compliance has been less than complete, and remains a work in progress.

7. United Kingdom: 0

The British Department of Environment, Food and Rural Affairs (DEFRA) has developed a Soil Action Plan whose goal is to encompass a total of 43 “actions” that are specific to soils but will

⁷⁶ GEOSS Implementation Task Team, “Draft Annotated Outline for the GEOSS 10-Year Implementation Plan,” available at [earthobservations.org/docs/GEO-4/4.5\(1\)%20IP%20Draft%20Outline.doc](http://earthobservations.org/docs/GEO-4/4.5(1)%20IP%20Draft%20Outline.doc).

⁷⁷ Russian Regional Environment Centre.
info.rusrec.ru/ns/modules.php?op=modload&name=News&file=article&sid=376

⁷⁸ Russian Regional Environment Centre.
info.rusrec.ru/ns/modules.php?op=modload&name=News&file=article&sid=381

⁷⁹ Russian Regional Environment Centre.
info.rusrec.ru/ns/modules.php?op=modload&name=News&file=article&sid=380

also affect other aspects of the environment. The 43 “actions” not only address soil protection issues, but also soils for agriculture and forestry; the interactions between soil, water and air; soils and biodiversity; and soils in mineral extraction, construction and the built environment. Further, it incorporates sustainable soil management and soil-friendly policy frameworks. Emphasis was also placed on the better understanding and information of soils, strategic planning for soil protection, the minimization of contamination, predicting the affects of soil on the atmosphere, and agricultural soil and forestry. The plan also puts forward implementation initiatives geared towards the betterment of the air, water and ecosystems.⁸⁰ The Action Plan addresses the need to draw different resources from different departments in order to identify and implement new programs that will make better not only the soil, but through it the air quality, water quality, and ecosystems.⁸¹

Although such efforts and issues have been addressed to deal with the commitments, no financial figures have been mentioned in regards to the 43 “actions” of the Soil Action Plan. The actions are a major step forward in establishing a greater understanding of issues but lack any sort of financial commitment. Furthermore, the other issues (atmosphere, water, and ecosystems) have been addressed in manners that relate to soil, however, the ecosystem, atmospheric, and water issues themselves have not been addressed directly. Furthermore, contaminated water sites, ecosystem preservations, and atmospheric issues have not been directly addressed by way of legislation or any other specific commitment. The efforts that have been made have been recognized and admired. However, the efforts that have lacked in the other issue areas have also been noted and mentioned. Therefore, the level of compliance has not been complete; rather, it remains a work in progress.

8. United States: +1

The United States has increased their co-ordination of global observation strategies and the sharing of information in order to support more sustainable development.

Through the Partnership for Science-based Decisionmaking, the Environmental Protection Agency (EPA) has provided \$260,000 and the American Chemistry Council (ACC) has provided \$65,000 towards a series of “science in decision-making workshops” held on key issues such as water and sanitation and how information systems, monitoring and data processing can aid in these matters.⁸² In addition, the Biologia Centrali-Americana initiative aims to strengthen the international museum community’s computer-based management of large-scale data on the biodiversity of Central America.⁸³

⁸⁰ Department of Environment, Food and Rural Affairs. “Soil Action Plan”.
www.defra.gov.uk/environment/landliability/soil/soilactionplan.pdf

⁸¹ Department of Environment, Food and Rural Affairs. “Soil Action Plan”.
www.defra.gov.uk/environment/landliability/soil/actionplan.htm

⁸² U.S. Department of State, United States, “Partnership for Science-based Decisionmaking” 5 January 2004.
<www.state.gov/g/oes/rls/fs/2003/19906.htm>

⁸³ U.S. Department of State, United States, “The Biologia Centrali-Americana” 5 January 2004.
<www.state.gov/g/oes/rls/fs/2003/19756.htm>

The United States government has established Bureau of Oceans and International Environmental and Scientific Affairs headed by Assistant Secretary John F. Turner.⁸⁴

In addition, it has also established the Environmental Technology Opportunities Portal (ETOP) which promotes programs that foster development of new cost-effective environmental technologies and relays existing EPA environmental technology information (such as best available technologies for air, water and waste treatment and control).⁸⁵

The United States will complete its work on the International Space Station by 2010, fulfilling its commitment to its 15 partner countries. The funding added will total \$12 billion dollars over the next five years. The U.S. is engaged in extensive international efforts on climate, both through multilateral and bilateral activities. The U.S. is the largest funder of the activities of the UN Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, and leads R & D projects through the Generation IV International Forum. Bilaterally, the U.S. has developed a number of agreements with major international partners to pursue research on global climate change and deploy climate observation systems, collaborate on energy and sequestration technologies, and explore methodologies for monitoring and measuring GHG emissions. Since June 2001, the United States has engaged in bilateral partnerships with Australia, Canada, China, seven Central American countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama), the European Union, India, Italy, Japan, New Zealand, Republic of Korea, the Russian Federation and South Africa on issues ranging from climate change science to energy and sequestration technologies to policy approaches.

Other initiatives include the Global Environmental Facility (GEF). As part of a \$2.2 billion international replenishment agreement, the Bush Administration has pledged \$500 million to the GEF over the next 4 years to help developing countries address environmental problems, including global climate change. The GEF is the financial mechanism under the United Nations Framework Convention on Climate Change and the United States' contribution is the largest of any country. This commitment, which will fund technology transfer and capacity building in developing countries, represents a 16 percent increase over the U.S. contribution in the previous replenishment.

Through the United States Agency for International Development, the Bush Administration intends to spend at least \$175 million in FY '04 for all USAID climate change programs including those that fund the transfer of more efficient, cleaner, advanced technologies to developing countries.⁸⁶

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⁸⁴ U.S. Department of State, United States. 5 January 2004. <www.state.gov/g/oes/sat/rm/>

⁸⁵ U.S. Environmental Protection Agency. 5 January 2004. <www.epa.gov/etop/about_etop/>

⁸⁶ www.whitehouse.gov