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## The Ramsar Wetland Data Gateway

 This paper provides background information in support of the presentation on the development of the Ramsar Wetland Data Gateway in COP8 Technical Session 3 (21 November 2002). The paper has been prepared by Alex de Sherbinin of the Center for International Earth Science Information Network (CIESIN) of Columbia University, USA, and the Ramsar Bureau.

## Background and purpose

- 2. The Ramsar Wetland Data Gateway was conceived in recognition of the value and need for increasing the versatility of access to information about the global network of Ramsar's Wetlands of International Importance, which forms an increasingly important mechanism for the conservation and sustainable use of wetland ecosystems worldwide.
- 3. The *Gateway* is being developed by the Center for International Earth Science Information Network (CIESIN) of Columbia University, USA, through a Memorandum of Understanding signed in March 2000 between the Ramsar Bureau, CIESIN, and Wetlands International. The Memorandum agrees to establish a joint effort to create an on-line mechanism for accessing Ramsar site information in relation to other relevant spatial datasets.
- 4. This joint initiative is designed to encourage innovation in information dissemination and decision-making, through the sharing of expertise on information technologies including interactive, on-line tools so as to encourage dialogue and participation amongst diverse user groups with interest in, or responsibility for, wetlands and sustainable use.
- 5. It is anticipated that the *Gateway* will be of value to a range of user groups including the Contracting Parties to the Ramsar Convention, wetland scientists and managers, local stakeholders, national and international non-governmental organizations, state and local government agencies, and educators and students.
- 6. The Ramsar Wetland Data Gateway will provide Web-based access to multi-level, multidisciplinary resources, including spatial, tabular, and graphic data, through a common search and visualization interface.

- 7. This approach is designed to provide added value to the official information on each Ramsar site held in the Ramsar Sites Database, managed by Wetlands International on behalf of the Convention. Value is added through placing this Ramsar site information in the context of other relevant data on key issues such as environmental pollution, biodiversity, and human land use change, which are critical to the sustainable management of wetlands.
- 8. Users will be able to:
  - i) search for Ramsar sites that meet specified criteria;
  - ii) access and link disparate data on different sites; and
  - iii) create maps and subsets of selected data.

## Progress in the development of the Gateway

- 9. The cornerstone of the Ramsar Wetland Data Gateway is the Ramsar Sites Database, maintained by Wetlands International (see http://www.wetlands.org/RDB/quick.html). Currently, the *Gateway* is periodically updated with information from the Ramsar Sites Database provided to CIESIN by Wetlands International acting as the custodians of the database. Capitalising on the current redevelopment of the Ramsar sites database (see COP8 DOC. 33), as well as other recent developments in information management technology, a priority for future development will be to establish a mechanism for keeping the *Gateway* fully up to date with the latest data and information available from Wetlands International on all Ramsar sites.
- 10. In addition to the data held in the Ramsar Site Database, the *Gateway* has incorporated, with the agreement of the World Conservation Monitoring Centre (UNEP-WCMC), a global database of digital boundaries of designated Ramsar sites. However, it should be noted that at present this boundary database is incomplete and not fully up to date. Discussions are underway to develop ways and means of establishing and keeping updated a fully verified database of digital Ramsar site boundaries, which can be made available for use in the *Gateway*, by the Ramsar Convention, Wetlands International, UNEP-WCMC, and others.
- 11. In addition, other relevant databases and links are being incorporated into the Gateway. To date, these are:
  - Global scale land use/land cover data, from the United States Geological Survey (USGS);
  - Landsat 7 footprints and a direct link to the USGS Landsat viewer;
  - Global scale population densities, from CIESIN;
  - Global scale hydrologic basins, from USGS;
  - Direct links to the Ramsar Sites Directory summary sheets, prepared by Wetlands International for each Ramsar site. These sheets are summarized from the information provided by Contracting Parties in the Information Sheet for Ramsar Wetlands (RIS) when a Ramsar site is designated or its information updated; and

- Direct links to the *Annotated Ramsar List*, which is prepared by the Ramsar Bureau and which provides a one-paragraph profile of each Ramsar site.
- 12. A prototype of the *Ramsar Wetland Data Gateway* was presented to, and discussed by, the 10th meeting of the Convention's Scientific and Technical Review Panel (June 2001).
- 13. Following further development, a "Beta test" version was launched in spring 2002. This was evaluated by the Ramsar Bureau, Wetlands International and others, and further improvements to the functionality of the *Gateway* have subsequently been made.
- 14. The prototype test version of the *Ramsar Wetland Data Gateway* can be accessed on http://sedac.ciesin.columbia.edu/ramsardg.
- 15. Users should note that this version of the *Gateway* is undergoing further development and are encouraged to provide comments and advice concerning its future development so that it can better meet their needs.
- 16. CIESIN, the Ramsar Bureau, and Wetlands International are now reviewing the outcomes of this three-year pilot phase of the development of the *Gateway* as the basis for proposing further work needed for developing the functionality of the system, and for streamlining its maintenance and topical updating.
- 17. The Ramsar Bureau, Wetlands International, and CIESIN are grateful to the Socioeconomic Data and Applications Center (SEDAC), one of eight Distributed Active Archive Centers in the Earth Observing System Data and Information System (EOSDIS) of the U.S. National Aeronautics and Space Administration (NASA), for providing technical support for the development of the Gateway. CIESIN operates SEDAC under NASA Contract NAS5-98162. For more information, please visit http://sedac.ciesin.columbia.edu or http://www.ciesin.columbia.edu or contact CIESIN User Services at P.O. Box 1000, 61 Route 9W, Palisades, New York 10964 USA, tel +1 845 365 8920, fax +1 845 365 8922, e-mail ciesin.info@ciesin.columbia.edu.