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# Geo:

**Geoconnexion International Magazine**



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# INTERVIEW WITH ROBERT CHEN

GEOCONNEXION INTERNATIONAL MAGAZINE MET HIM RECENTLY AT AN INTERNATIONAL EARTHQUAKE CONFERENCE FORUM, AND ASKED A FEW QUESTIONS.

Dr. Robert S. Chen is the Secretary General of the ICSU Committee on Data for Science and Technology (CODATA). He also serves as Acting Director of the Center for International Earth Science Information Network (CIESIN) at The Earth Institute at Columbia University in New York. Geoconnexion International Magazine met him in Berlin for a short interview session.

**GEO:** What brings you to Berlin?

**RSC:** On this trip I am attending the International Forum on Earthquake Prognostics in Berlin. My center is involved in studies related to earthquakes and other natural hazards. We are particularly interested in comparing the risks of different hazards and their impacts on people and society.

**GEO:** Does CODATA collect data?

**RSC:** No, CODATA doesn't collect data itself, but it addresses a wide range of data issues such as the long-term preservation of and access to data. We are interested in helping different disciplines improve their management of data and in increasing access to data in the developing world.

**GEO:** What else does CODATA do?

**RSC:** CODATA has become more involved in the legal issues associated with data and the policy issues surrounding data use. We

believe in the importance of open access to scientific data, not only for scientists but for society at large. We see the greatest potential for the information society when data are widely available and appropriately used.

**GEO:** Do you think people understand more data are needed?

**RSC:** Yes. I think they do on a number of different levels. Whether we realize it or not, 9/11 brought the issue of data to the forefront for both the average citizen and politicians. The rapid expansion of the Internet has greatly increased access to data, making it possible for people to accomplish many things much more efficiently and effectively.

**GEO:** How is CIESIN involved?

**RSC:** CIESIN specializes in both data and technology issues. We are interested in how information technology can improve data quality and data access in both the social and natural sciences. Our organization collaborates with scientists across the whole University to provide a multi-disciplinary approach.

**GEO:** How easy is it to collate data for international use? What are the issues?

**RSC:** It isn't simple, of course. Data vary a lot in terms of quality, scale, resolution, and coverage. Merging data from different scientific



disciplines is especially difficult. And some organizations are not always willing to share their data.

**GEO:** What would happen if SRTM 30 data were released around the world as compared to the current SRTM 90?

**RSC:** The 30-meter SRTM dataset could provide a more accurate and consistent global topographic dataset that would enable a range of applications such as the improved analysis of flood prone areas in many developing countries. This would have immense benefits.

**GEO:** In places like India, the free and open use of spatial data remains a problem for security reasons. Can this hinder relief efforts when natural disasters occur?

**RSC:** Yes, it can. Places like China and Indonesia are also affected in a similar way. Another problem is that rapid distribution of high resolution remote sensing imagery is often limited because of commercial restrictions.

**GEO:** What is your view on the U.S. Geospatial One-Stop?

**RSC:** I think it is a worthwhile and useful effort that should grow in value over time as more federal data resources become accessible through it.

**GEO:** In your talk you mentioned the term 'multi-hazard approach' – what does that mean?

**RSC:** Usually individual hazards like earthquakes, tropical storms, and drought are considered separately when relief efforts and planning strategies are developed. A multi-hazard approach involves integrating of data and information across different hazards and disciplines. For example, flood managers need to take into account the risks of earthquakes and landslides in designing flood control measures. Emergency managers should be aware of all of the hazards likely to affect their area of concern and to respond in a consistent manner to specific events.

**GEO:** We hear about huge needs for relief supplies and the issues involved to resolve needs. How does one go about making these efforts more successful?

**RSC:** Our work with the United Nations and World Bank indicates that understanding of the risks posed by different hazards can help in advance planning. It is also important to have a core set of data and tools such as GIS. These agencies have started to build capacity for using these tools and they do make a difference.

**GEO:** How can we proceed and resolve issues surrounding privacy for certain types of data?

**RSC:** Data privacy issues are difficult to deal with because the legal system is involved and people's rights do need to be protected. Having said that, there are new techniques for aggregating and sharing spatial information so that individuals cannot be identified.

**GEO:** A growing issue pertains to openness of scientific data. How can we deal with this?

**RSC:** There are two main approaches under way. First, there is the issue of publicly funded scientific data. Since taxpayers have paid for the cost of developing these data, it seems clear that the data should be made available openly and at little or no cost. A second approach has been pioneered by the Creative Commons. This utilizes simple, standardized licenses to allow data developers to make their data openly available, but protected by copyright law.

**GEO:** Where do you see the issue of data heading?

**RSC:** I think we are moving towards a world where we are swamped with too much data and need help in finding the most relevant and useful data to address our specific questions. For many problems, we now have to sift through huge volumes of data in order to understand overall trends or to find some crucial bit of information. This is not only changing science, but the information society as a whole.



## The latest news in one location

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