

Data Sharing for Sustainability

SciDataCon2014, the International Conference on Data Sharing and Integration for Global Sustainability, took place on 2–5 November 2014, in New Delhi, India. It was motivated by the conviction that the most significant research challenges—and in particular the pressing issues relating to global sustainability in the face of ongoing natural and human-induced changes to the planetary system—cannot be properly addressed without paying attention to issues relating to equitable access to quality-assured and interoperable datasets and their long-term management and preservation.

We live in a data-rich world, and this provides the opportunity to investigate societally relevant issues in new ways and to develop evidence-based approaches for planetary management and the formulation of policy. However, managing the vast amounts of data currently being generated poses significant challenges. In particular: How do we assure the continuity of monitoring programmes? How do we assure the quality and reliability of the available data? How do we combine diverse datasets from different scientific disciplines? How can we maximise the use of datasets to answer new questions? How do we assure the long-term preservation of datasets? How do we ensure that data is available to all? By seeking to address these questions, SciDataCon 2014 represented a milestone in the discussions about the use of data management to address the issues of global change and global sustain-

ability. While SciDataCon2014 addressed many important issues, the data battle is not over. There are many areas of science where data sharing and data archiving is not the norm. There is a vast amount of data from the pre-digital era, which could be useful for providing the longer-term perspective on current monitoring programmes, that languishes in the archives of individual researchers and needs to be rescued and made available. There is still no clear model for how to support data archives and services into the future and despite the excitement surrounding 'big data', there is still much to do to develop the conceptual, analytic and management tools required to handle such datasets. The World Data System (WDS) will continue to engage with its members and the wider scientific and policy communities to address these issues, so that scientific data can play a role in transforming our world and moving toward greater equity and sustainability.

SciDataCon2014 was hosted by the Indian National Science Academy (INSA) and co-organized by two bodies of the International Council for Science (ICSU) with responsibilities for data management and policy: the World Data System (WDS) and the Committee on Data for Science and Technology (CODATA). This was the first time that WDS (ICSU-WDS.org) and CODATA (CODATA.org) have joined forces to sponsor an international meeting designed to confront data issues.

www.scidatacon2014.org

