

# 5th African Association of Remote Sensing of the Environment (AARSE) Conference

Nairobi, Kenya

Sunday 17 to Friday 22 October 2004

## Workshop on geo-spatial data standards

The 5th African Association of Remote Sensing of the Environment (AARSE) Conference included five pre-conference workshops, held at the offices of the Regional Centre for Mapping of Resources for Development (RCMRD), in Nairobi, Kenya, on Sunday 17 October 2004. All five workshops were well attended, with about 80 participating on the workshop on standards, including a good cross section of leaders in geo-spatial information from across Africa.

The workshop was chaired by Hans Knoop, Co-Chair of the ISO/TC 211 Advisory Group on Outreach, and consisted of the following presentations:

- *Opening Remarks*, Wilber Ottichilo, RCMRD and AARSE Conference Director
- *Status of ISO Standards*, Hans Knoop
- *Status of the Standardisation of Geographical Information in Africa*, Antony Cooper, CSIR
- *Land Cover Classification System: Introduction*, John Latham, FAO
- *Land Cover Classification System: Technical Overview*, Antonio Di Gregorio, FAO

Thereafter, the floor was opened for a discussion on the African standardisation roadmap: the way forward for geographical information. The outputs of the USAID-sponsored USGS/EDC, EIS-AFRICA, CSIR project, *Guidelines for data content standards for Africa*, proved most useful in answering some questions from the floor concerning the status and future of specific standards.

The key standardisation activities in Africa were identified as being:

- AFREF – the idea is to aim at having documented datums for all African data, if not actually having one datum for Africa. AFREF deals with both horizontal and vertical datums.
- SDI for Africa – many organisations around the continent are working towards the same initiative, namely an SDI for Africa. Key aspects of this are:
  - Metadata
  - Training facilities for educating people about metadata and making metadata available
  - Africa is getting large amounts of free or cheap spatial data from various countries and international organisations, and the challenge now is creating the capacity to store and make available the data – for this, common standards are needed.

Other issues raised include the following:

- Nigeria's National Spatial Data Infrastructure Committee (established a few weeks ago) has a sub-committee on standards, which has been tasked to liaise with the Nigerian standards body.
- CODI Geo set up an Executive Working Group earlier this year that identified several issues that needed to be investigated by working groups. One of the issues is standards, which will have a working group coordinated by EIS-AFRICA.

- UN ECA has organised some regional workshops on metadata standards for people working on water resource management (called Geo-water) using software from Ethiopia that supports ISO 19115.
- We need to find means for providing training on standards, particularly on the details of implementing them, such as collection criteria for developing feature catalogues.
- The Global Land Cover Network (GLCN) is a facilitating mechanism for harmonization. Unfortunately, it is not a funding mechanism. They are aiming at regional incubators to achieve regional harmonization. They will help with writing proposals to approach donors for funding.

The workshop concluded by drafting a resolution, providing suggestions to CODI-Geo's new working group on standards. The following is the draft version of the resolution completed at the workshop (the final version is not available at the moment):

*Resolutions and recommendations of meeting:*

1. *The development of Geo-spatial Standards on the continent should be demand driven.*
2. *The need for standardisation for Africa is recognised by this forum and we call for the establishment of a dedicated Working Group. The forum noted that the Executive Working Group of CODI-GEO has a working group on Geospatial data standards, which is being coordinated by EIS-AFRICA. This meeting resolves to work closely to support this WG in achieving its objectives.*
3. *We recommend to the WG that the TOR should include:*
  - a. *Access to funding*
  - b. *Building critical mass of human capacity and institutional capacity.*
  - c. *Standards should not be limited to data alone.*
  - d. *Recognise standards of supporting technologies (ICT etc.)*
  - e. *Identify and encourage pilot projects*
  - f. *Education and awareness vital*
  - g. *ISO Geo-information Standards as component in GIS/EIS tertiary syllabus must be considered. (Education in Geoinformation Science must include the fundamentals and not just the application of Geographic Information Systems!)*
  - h. *We recognise, the global system GLCN as a facilitating mechanism to support capacity development and the implementation and LC mapping standards at the national and regional level in Africa.*
  - i. *The LCCS is recognised as an evolving ISO standard and common tool for LC harmonisation in Africa.*
  - j. *LC is a core layer of the development of SDI globally.*
  - k. *The implementation of LCCS can be used as an example for improved situation in Standardisation and other GIS related fields.*
  - l. *Workshops combing LCCS/GLCN and Geo-information Standards (such as ISO/TC 211) are an optimal method for introducing these concepts.*
  - m. *We encourage the CODI-Geo WG for Standards to use the outputs of other initiatives such as the USGS/EDC, EIS-AFRICA, CSIR project drawing up Guidelines for Data Content Standards for Africa.*
  - n. *This WG is encouraged to report back at GSDI 8 2005 Conference in Egypt, AfricaGIS 2005 in South Africa, etc.*
  - o. *This WG is encouraged to apply for Class A Liaison status to ISO/TC 211.*

- p. *The forum thanks AARSE and RCMRD for facilitating and hosting this ISO/TC 211 outreach workshop.*

## **Plenary session: Spatial data standards and specifications**

On Thursday, 21 October 2004, a plenary session was held during the AARSE Conference itself, on *Spatial data standards and specifications*, chaired by Jide Kufoniyi, Executive Director of RECTAS. This consisted of shorter versions of several of the presentations from the workshop, together with a presentation of the workshop's proposed resolution and some discussion on it:

- *Status of ISO Standards*, Hans Knoop
- *Status of the Standardisation of Geographical Information in Africa*, Antony Cooper, CSIR
- *Land Cover Classification System: Introduction*, John Latham, FAO

It was pleasing to note that during the conference itself, there was also a presentation on standards: *Building geospatial data for multiple applications: the role of standards*, by Galcano Mulaku and David Siriba of the University of Nairobi.

In conclusion, it would appear that the importance of standards for geographical information is now widely recognised in Africa, and that such standards are starting to be implemented in several African countries.