



Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

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Spatial Data Infrastructure - Africa (SDI-Africa) is a free, electronic newsletter for people interested in GIS, remote sensing, and data management in Africa. Published monthly since May 2002, it raises awareness and provides useful information to strengthen SDI efforts and support synchronization of regional activities. [ECA/CODIST-Geo](#), [RCMRD/SERVIR](#), [RECTAS](#), [AARSE](#), [EIS-AFRICA](#), [SDI-EA](#), and [MadMappers](#) are some of the other regional groups promoting SDI development.

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Please mention SDI-Africa as a source of information in correspondence you may have about items in this issue.



The SDI-Africa newsletter is prepared for the GSDI Association by the [Regional Centre for Mapping of Resources for Development \(RCMRD\)](#) in Nairobi, Kenya. RCMRD builds capacity in surveying and mapping, remote sensing, geographic information systems, and natural resources assessment and management. RCMRD has been active in SDI in Africa through its contributions to the [African Geodetic Reference Frame \(AFREF\)](#) and [SERVIR-Africa](#), a regional visualization and monitoring system initiative. RCMRD also implements projects on behalf of its member States and development partners.



If you have news or information related to GIS, remote sensing, and spatial data infrastructure that you would like to highlight (e.g., workshop announcements, publications, reports, websites of interest, etc.), kindly send them in by the 25th of each month. I'd be happy to include your news in the newsletter.

PLEASE share this newsletter with colleagues who may find the information useful and suggest that they subscribe themselves.

Back issues of the newsletter are at the GSDI website: <http://www.gsdi.org/newsletters.php>
Best regards, Gordon Ojwang, Editor, [SDI-Africa AT gsdi.org](mailto:SDI-Africa_AT_gsdi.org) or sdiafrica@rcmrd.org or gojwang@rcmrd.org



Input to this Issue

Thank you to Hussein Farah, RCMRD (Kenya); Kate Lance, NASA/SERVIR-Africa (USA), Aster Gebremariam, ECA (Ethiopia); Pierrick Imhof, International Rainwater Harvesting Alliance IRHA (Switzerland); Karen Levoleger, Kadaster (Netherlands) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

Call for proposals: GSDI Small Grants Program



The [Global Spatial Data Infrastructure \(GSDI\) Association](#) has announced its [Small Grants Program](#) for the year 2010-11. The Small Grants Program awards spatial data infrastructure or Earth Observations Systems (EOS)-related activities in economically disadvantaged nations. The GSDI Association, along with partners and participants,

has allocated resources from the [U.S. Federal Geographic Data Committee](#) and the [GISCorps](#) of The Urban and Regional Infrastructure Systems Association (URISA), to fund a small grants program to support national or sub-national activities that foster partnerships, develop in-country technical capacity, improve data compatibility and access, and increase political support for spatial data infrastructure and earth observations application development. These resources will be used to offer two types of grants this year.

- Cash up to 2,500 USD
- Professional Services up to the value of 2,500 USD



Spatial Data Infrastructure – Africa Newsletter



The GSDI Association anticipates funding up to 14 grants in cash and up to 4 grants in *professional services*. Professional Services will be coordinated by the GISCorps, an international initiative that offers volunteer GIS services. Support may be used for technical or institutional projects, as long as tangible outputs are achieved and several institutions collaborate on the effort. Please clearly indicate the staffing expected to perform the work and whether additional expertise from GISCorps may be useful. A list of typical projects follows - but this list is not exhaustive (see for example [past sponsored projects](#)):

- Convening of national or sub-national seminars or workshops related to SDI,
- Producing SDI- and EOS-related training manuals and modules (these materials must not duplicate existing materials),
- Establishing metadata and clearinghouse nodes, Establishing web mapping services and applications, Accomplishing Geodata and/or SDI surveys or inventories,
- Producing and disseminating newsletters and awareness-raising materials about SDI,
- Drafting policy and legislation related to SDI,

Priority will be given to projects in developing nations and countries with economies in transition. Grants can be awarded to SDI coordinating bodies (councils, committees) and GIS user groups, but the GSDI Association asks that one institution take responsibility for receiving/depositing the funds. Grants cannot be used to cover organization overhead expenses. For questions about this request for proposals, please contact grants@godi.org. The application deadline is 31 October 2010, and applications should be no more than 4000 words maximum.

[Commission for Africa finds science support lacking](#)



Donor support for science and technology (S&T) in Africa has been "disappointing", according to a report from the Commission for Africa published on 12 September 2010. Some US\$3 billion, which the commission had urged donors to spend on building centres of excellence in S&T, has not been spent. And the state of external support for African S&T in general is "unclear". The commission was set up in 2004 under the leadership of then British Prime Minister Tony Blair. It aimed to push the developed world to make and honour commitments to Africa. Most of its 17-member board members are African heads of state.

The first report, 'Our Common Interest' - published in 2005 made recommendations ranging from debt relief to the dismantling of trade disadvantages. Last month's report, 'Still Our Common Interest', gave a mixed verdict on progress over the last five years. It praised the African Union's (AU) 2005 Science and Technology Consolidated Plan of Action for Science and Technology (CPA) as well as annual meetings of the African Ministerial Conference on Science and Technology (AMCOST), which is leading several initiatives. But it said that despite new funding from the European Commission and others there has been little progress overall and no coordination of donor funding. "Consultations on the creation of an African Science and Innovation Facility (ASIF) were held in 2006 but there appears to have been no further action towards creating this facility since then," the report says. "It is essential that AMCOST makes progress on developing priorities for funding to science and technology, while donors need to set up and provide funds to ASIF." Aggrey Ambali, acting director of the Office of Science and Technology of the New Partnership for Africa's Development (NEPAD), said: " 'Disappointing progress' is rather a qualitative position. Remarkable progress has been made in the implementation of the CPA. "There has been no benchmark against which progress in science and technology is measured on the continent. That's why the NEPAD Agency [established the African Science, Technology and Innovation Indicators \(ASTII\) Initiative](#)." John Mugabe, from the University of Pretoria in South Africa, a former science and technology advisor to NEPAD, said: "The report has not really been read and used by African leaders and even by regional institutions such as the AU and NEPAD." "There was a false assumption that African countries and their leaders owned or genuinely endorsed the commission's process and would take the recommendations seriously."

[African countries to set up wildlife research body](#)

African environment ministers pledged to set up an international research body to study and protect the continent's wildlife, aiming to reverse the loss of its biodiversity. Africa is famed for the lions, elephants, rhinos and leopards that attract millions of tourists each year, but its wildlife is threatened by population pressure, poaching and deforestation. A declaration at a week-long conference on biodiversity in Gabon's capital Libreville said the proposed body would draw on scientists from around Africa. It would "gather knowledge about biodiversity and its protection ... research into the migration routes of key wildlife species



Spatial Data Infrastructure – Africa Newsletter



and their habitats and areas vulnerable to climate change ...and set up regional biodiversity centers." They also pledged to improve cooperation across borders.

The United Nations environment program says Africa houses 1,229 species of mammal, a quarter of all mammals on earth, and about 2,000 bird species, a fifth of the world total. The Congo basin is the world's second largest rainforest, after the Amazon. Since taking power in Gabon after his father died last year, President Ali Ben Bongo has cast himself as a staunch environmentalist, banning raw wood exports, expanding protected zones and creating 13 new national parks.

[Conference endorsed as a “standing regional platform” to advance civil registration and vital statistics policies in Africa](#)



Over 40 Ministers responsible for civil registration concluded a 2-day Conference on 14th August in Addis Ababa, Ethiopia with a Ministerial Declaration that resolves to advance the development of civil registration and vital statistics (CRVS) systems in Africa in recognition of their importance to Africa's development and improvement of public policy delivery. Held on the theme: Improved Civil Status Information for Efficient Public Administration and Generation of Vital Statistics for National Development and MDGs Monitoring in Africa, the Conference was preceded by a 3-day meeting of technical experts

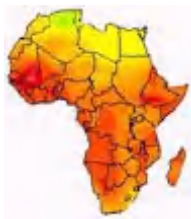
whose recommendations to the Ministers focused on: adopting policy measures; intensifying awareness-raising and revising laws and legislation in line with international and regional guidelines.

During a session chaired by Ethiopia's Minister of Justice, Mr. Berhan Hailu, the Ministers adopted a declaration in which they agreed to take appropriate policy measures that would facilitate the implementation of national plans, programmes and initiatives to reform and improve CRVS including the achievement of universal coverage. They also agreed that the Conference would be institutionalized as a regional platform for discussion on political and policy issues related to CVRS in Africa. In this regard, the Ministers resolved "to mainstream CRVS into national statistical development strategies and national plans and programmes" and agree to strengthen coordination of activities among various departments and ministries. The Ministers committed to revise and update laws, policies and statistical legislation for "timely and compulsory registration of vital events, which they said must "guarantee equal access to the systems for all persons." They noted that these revisions must be in line with international and regional guidelines and recommendations and should be accompanied by the allocation of adequate human and financial resources. Emphasizing the importance of support for these efforts at the national level, the Ministers called on partners, including the United Nations Economic Commission for Africa (ECA), the African Development Bank (AfDB) and the African Union Commission (AUC) to assist member states with resource mobilization and capacity-building. The Ministers also agreed on a number of other fundamental shifts in current CVRS practices, including aligning health systems with CRVS systems to improve sharing data on births, deaths and causes of deaths with national statistical offices and CRVS authorities. They also called on the African Symposium for Statistical Development (ASSD) to mobilize Africa to improve CRVS systems, in the same vein as its focus on getting Africa to participate in the 2010 round of population and housing census. For more information on the conference and documents on civil registration: <http://www.uneca.org/cr-ministerial-conference/>.

[Coy to link Africa to America with submarine cable](#)

Alcatel-Lucent has been selected by eFive Telecoms, a South African telecommunications company, to build a new submarine cable network linking the west coast of Africa to South America. The system, according to a statement signed by Alcatel's Peter Benedict, will be composed of two trunks - the first one connecting South Africa to Angola and Nigeria and the second trunk linking Angola to Brazil. The company did not disclose the cost of the project but a source close to it told Daily Trust it is in the region of \$700 million.

The end-to-end project will further increase connectivity in Africa, deliver additional capacity for wholesale and will also enhance service and traffic protection by providing critical cable route diversity to South America. "We believe that high-growth areas such as the African continent require the development of new projects," said Lawrence Mulaudzi, managing director of eFive Telecoms. "The planned submarine network will also provide cable route diversity to South America, making the most economical and operational sense in the current landscape," he added. "Growth in Africa's internet and mobile telephony is driving service providers' demand for more connectivity options to ensure higher reliability as well as increased widespread



Spatial Data Infrastructure – Africa Newsletter



access to bandwidth. This project will further position Africa as a major hub for broadband connectivity," Philippe Dumont, head of Alcatel-Lucent's submarine network activity said.

[Predictive analytics could save endangered zebras](#)

Conservation charity Marwell Wildlife is using business analytics software to help conserve the endangered Grévy's Zebra. The organisation is using predictive analytics to help identify patterns and analyse data which will help inform decisions on conservation measures for the species. The 15-year-old charity has a focus on protecting the rare breed of zebra. It has been monitoring the species using aerial and ground surveys. In February 2010, Marwell Wildlife led a collaborative effort to survey the region of Kenya inhabited by the zebra. They talked to local people, because the area inhabited by the zebra is very remote and the communities in that part of Kenya are nomadic. They decided the best way to get information about the species was to set up a questionnaire survey and did 220 interviews in total, as well as collecting background information, explained Dr Guy Parker, head of biodiversity management at Marwell Wildlife. They came back with a lot of data and that is where IBM's predictive analytics comes in. They used software from IBM subsidiary SPSS to analyse this quite complex data set and the software was able to see patterns and relationships in different variants and got some nice results from the questions, he added. Marwell Wildlife now has a more detailed understanding of the issues surrounding the zebra and is better able to understand the threats facing the species. The charity would allow limited conservation resources to be focused on these areas.

[NASA Administrator Charles F. Bolden Visits RCMRD](#)



The administrator of The National Aeronautic and Space Agency (NASA) Charles Bolden held discussions with the Management of RCMRD to identify areas of cooperation during a one-day visit to the Centre in July 22, 2010. He met the staff of RCMRD and government representatives from Ethiopia, Uganda and Kenya. Some of the dignitaries present during this event were the chairperson of RCMRD's Governing Council (David Gabindadde), Director of Department of Resource Survey and Remote Sensing, Kenya (Jaspatt Agatsiva), Secretary to the Kenya National Space Secretariat (Njoroge Kimani), Director of the Ethiopian Mapping Agency (Sultan Mohammed) and the Chief Secretary at the National Council for Science and Technology of Kenya (Margaret Maimba). This was an occasion through which the NASA Administrator was able to familiarize himself with the activities, products and services offered by RCMRD.

He toured the facilities of RCMRD including the SERVIR's East Africa Regional node - a facility to enhance the use of Earth observations and predictive models for improved decision making.

In identifying the mutual interest in the area of remote sensing applications and research activities, NASA and RCMRD signed a Joint Statement of Intent for Cooperation in Remote Sensing Research and Applications. The primary aim of this communication is to identify additional cooperative activities related to Earth science and its applications for societal benefit and other areas of mutual interest.

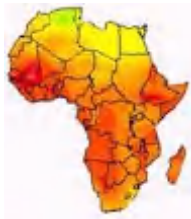
[CGIS-NUR \(Rwanda\) geoinformation science research policy workshop](#)



The [Centre for Geographic Information Systems and Remote Sensing of the National University of Rwanda \(CGIS-NUR\)](#), organized a workshop with the theme: Geo-information sciences (GISci.) policy review on 2nd September 2010 at Le petit prince hotel, Butare. The discussions centred on the use of GIS and Remote Sensing

technologies to develop and solving pressing societal problems. The workshop had two main objectives, namely: to give input to the NUR research policy that is being reviewed from a geo-information research perspective and secondly, to identify areas of GISci. research gaps in both government and non-governmental institutions using geo-technologies. Some of the current initiatives relate to spatial data infrastructure (SDI) in Rwanda whereby the Rwanda Metadata portal and Geospatial portals are being developed.

Guest speakers at the workshop were from different country institutions including the National land Centre (NLC) under the Ministry of Environment and Lands (MINELA), and NAFA under the Ministry of Forestry and Mines (MINIFOM). The role of GIS technologies in helping to define targets was highlighted in the presentations. For example, the National Forestry Authority (NAFA) demonstrated various aspects of forest management requiring geographic data and information, while the NLC pointed out the critical importance of GISci. in land registration as well as underlining the need for accurate geodata in developing land cadastre



Spatial Data Infrastructure – Africa Newsletter



for example. CGIS-NUR identified how it works with different faculties at NUR, delivering GIS, remote Sensing and Cartography courses according to their respective domains. Also, with stakeholders, the example of Agro marketing in the coffee sector using GIS to determine Rwanda coffee appellation regions was given. The current need to create synergy with the research thematic clusters at the NUR is evident within the context of multi-disciplinary research. The challenge to all workshop participants is to apply research to respond to existing knowledge gaps and to assist Rwandan institutions to better understand and respond to the challenges and possibilities presented. [Source: [Servir Community Blog](#)].

[Kigali City landlords urged to register land](#)

The Director General of Rwanda's National Land Centre, Emmanuel Nkurunziza has called upon Landowners in Kigali to prioritize timely registration of their land by respecting deadlines set in different areas. He said that unless the Land Tenure Regularization process is respected, landowners risk incurring costs for the service when the time limit for specific areas is has passed. The official noted that landlords in the city have been reluctant and not as accessible as those in other areas across the country.

"We have started registration within the city, but most people are tenants and owners are never available to give the necessary information for us to carry out demarcations," Nkurunziza said in an exclusive interview. "We have only managed to cover 192,527 plots yet only 141,209 have been cleared for Land Titles out of the expected estimated 329,020 plots in Kigali City." Some of the major setbacks to the process include pending land disputes. In Kigali City, Nyarugenge District has the highest number of unresolved land disputes with 133 cases registered. Meanwhile, the exercise that started in July last year has so far covered 2,184,149 plots which amounts to 30 percent of the 8 million plots estimated countrywide, official records say. Among the commended districts for the cooperation to speed up the exercise include Kirehe, Rubavu, Bugesera and Nyamagabe where at least 50 percent of the area has been covered.

[Starvation looms as Uganda's Namatala demarcation stalls](#)

The stalled demarcation of the boundary between Mbale and Budaka districts that was expected to resolve the Bagisu-Bagwere conflict over Namatala wetland has sparked off economic hardships among residents. An attack by the Bagwere rice farmers on surveyors from the lands ministry, barely a week after the demarcation started on July 26, put a premature end to the exercise. The Bagwere removed the control points that the surveyors had erected. Control points are areas from which the survey processes are coordinated. They accused the team, led by Jasper Kakooza, a senior surveyor, of bias in the course of demarcation. They also argued that the team was using a recent map to determine the boundary and not that of 1962 as had been promised.

To prevent subsequent clashes, the Police reinstated a directive deterring farmers from accessing the wetland. However, farmers argue that the move deprived them of their means of livelihood and is likely to cause starvation. "Rice growing is a commercial venture for most farmers in Namatala. We are not certain of how to survive," said Abas Musoba of Kibiniko village in Mbale. Namatala wetland, located between Budaka and Mbale districts, is the centre of a dispute between Bagwere and Bagisu farmers, each accusing the other of cultivating beyond the boundary. Seven people were hacked to death since the conflict began in 2007. Kakooza said the main setback to the demarcation was political interference from leaders in both districts. "Some leaders are using the conflict to gain political capital. They are misleading the people into believing that the boundary is located in the wetland," he said.

[Congo among nations advancing on forest carbon](#)

Nations including Democratic Republic of Congo are making surprise progress toward taking part in a \$200 million project for slowing deforestation from late 2010, World Bank experts said. They also said Latin America, with forested nations around the Amazon, had strong incentives to take part since most of the continent's greenhouse gas emissions came from deforestation and shifts in land use, rather than use of fossil fuels. Benoit Bosquet, lead carbon finance specialist at the World Bank, told Reuters of the Carbon Fund, part of a facility that involves 37 forested developing nations and 14 donors. The fund, a public-private project for which the World Bank is trustee, so far has pledges totaling \$50 million and aims for a total \$200 million. "Some unlikely countries are coming out of the starting blocks, for example in central Africa," Democratic Republic of Congo was making strong progress, for instance, in defining plans and consulting local communities and indigenous peoples, he said. Five million people died in a 1998-2003 war and the country is still plagued by insecurity.



Spatial Data Infrastructure – Africa Newsletter



Elsewhere in Africa, Ghana was among those advancing well. According to U.N. estimates, burning of forests accounts for up to a fifth of all greenhouse gas emissions from human sources blamed for stoking global warming. Trees soak up heat-trapping carbon dioxide as they grow. The world is trying to set up a mechanism to reward countries that slow deforestation as part of a future U.N. deal to slow global warming. The Carbon Fund project would not just focus on safeguarding forests but also related projects such as improving crop yields to reduce pressures to burn forests. Cash could also encourage a phase-out of some damaging farm subsidies. Ethel Sennhauser, the World Bank's sector manager for agriculture, Latin America and the Caribbean, said that 66 percent of emissions from the region were from deforestation and changes in land use, against a world average of 20 percent. A total of \$4 billion worldwide has been committed to projects to slow deforestation by nations led by Norway. At last year's U.N. Copenhagen climate summit, which disappointed many nations by failing to agree a U.N. treaty to slow global warming, developed nations promised "fast-start" climate aid for the poor approaching \$30 billion for 2010-12.

Zimbabwe farmers urged to follow weather updates

Zimbabwe's Meteorological Services Department has urged farmers to closely follow 10-day weather updates throughout the 2010/11 agricultural season to effectively plan their activities in line with the prevailing and forecasted conditions. The department argued that this would help enhance productivity. Acting Officer-in-Charge of the Agro-Meteorological Section, Mr John Mupuro made the remarks in an interview on the sidelines of the Zimbabwe Commercial Farmers Union (ZCFU) 16th Annual Congress in Harare. Weather updates were instrumental in farmers' planning of activities such as planting, spraying, fertiliser application, weeding and even hiring of casual labour. The Meteorological Services Department also produce seven-day and three-day agro-meteorological bulletins and farmers can acquire the latter through monthly subscriptions or can even make a subscription of US\$400, which will see them receiving the updates for six months. "Under these difficult economic conditions, farmers are advised to form groups and subscribe as a team to spread the costs. Farmers also need to work closely with Agritex on their choice of crop varieties so that they selected those varieties that are suitable for their different agro-ecological regions and the predicted rainfall patterns, while those with livestock should work with both Agritex and the Veterinary Services Department. "Those farmers with irrigation infrastructure should conserve water, which they can later use to irrigate their crops in the event of a mid-season drought - a phenomenon that has become common in recent seasons," advised Mr Mupuro.

Weather forecast results from the Meteorological Services Department indicate that Zimbabwe is likely to have a normal to above normal season. "All Mashonaland provinces and Manicaland are expected to have normal rains with a slight bias towards the above normal. In normal years Mashonaland Central records between 600 and 800mm of rain while places such as Nyanga and the Eastern Highlands have something in the region of 1 000 mm," added Mr Mupuro. The rest of the country is set to receive normal rains with a slight chance of going above normal. Normal seasons should have between 75 and 125 percent of the expected rainfall with a slight rise being considered above normal while a decline will be considered below normal. The average rainfall pattern of an area is calculated over a 30-year period.

ICT- technologies, equipment and know-how for integrated and sustainable land and farm management, 16-18 November 2010, Entebbe, Uganda

A group of European companies, highly dedicated to boost agricultural development, brought the elements of technology, integration, cooperation and better planning together with increased advisory service and will introduce an integrated model for land-, farm and forest management on 16-18 November 2010 in Entebbe, Uganda. Farmer, farm advisory groups, buyer of farm products, seller of machines, crops or chemicals to farmers, consultants, foresters, workers in the agro-finance sector (e.g. Micro-financing) or agro-insurance business, researchers, NGO's, experts, project developers, IT or communication expert, or governmental expert are invited personally and for the farm, company or group benefit from the presentations. The organizing companies are representing the following technologies:

- Microsoft: New images with 50cm resolution for agricultural and with 1m resolution for forest areas as basic planning element, provided for single countries or even for whole Africa
- Progis: ICT - technologies for farm- and forest management, advisory services, cooperative management, logistics, precision farming, forest inventory and land consolidation, provided for single farms, advisors handling several hundred farms, or cooperative groups of farms.
- Adcon: Weather stations and soil moisture sensors with expert models for reducing water or pesticide use provided as single stations or country-wide networks integrated into ICT- Technology



Spatial Data Infrastructure – Africa Newsletter



- Wabag: experts in water management also for rural areas
- forCERT: Consulting experts with a special focus in forestry, resource management and fighting against desertification

[Workshop on Communicating Digital Soil Information convenes at Lamont](#)

CIESIN and the Tropical Agriculture and Rural Environment Program program, of the Earth Institute of Columbia University, co-hosted a workshop September 21 and 22 at Lamont Campus in Palisades, New York, to explore new opportunities for improving the collection and distribution of digital soil information. The workshop, “Making Soil Information Widely Available: From the Satellite to the Mobile Phone,” brought together 25 scientists and information technologists from the Africa Soil Information Service ([AfSIS](#)), GlobalSoilMap.Net, the Earth Institute, Google, NASA, and others. The group identified strategies to integrate new NASA Earth observing missions, cloud computing, and crowd sourcing to improve the effectiveness of planned soil information services. Such services will support plans to increase crop yields in Africa and to dramatically increase the quality of global soil maps. See: [Africa Soil Information Service](#).

[Seventh African Development Forum on Climate Change and Development](#), 10-15 October 2010, Addis Ababa, Ethiopia

The Seventh African Development Forum (ADF VII) on Climate Change and Development is being convened by the UN Economic Commission for Africa (UNECA), the African Union Commission (AUC) and the African Development Bank (AfDB). The overall objective of the Forum is to raise awareness and mobilize effective commitment and actions on the part of all stakeholders and partners at all levels to effectively mainstream climate change concerns into development policies, strategies, programmes and practices in Africa. The Forum also aims to strengthen Africa’s participation in international climate change negotiations with a view to ensuring adequate reflection of the continent’s concerns and priorities in a post-2012 international climate change regime. Contact: Isatou Gaye, phone: +251-11 544 3089, fax: +251-11 551 4416, e-mail: igaye@uneca.org.

[Eighth International Conference of the African Association of Remote Sensing and the Environment](#), 25-29 October 2010, UN Conference Centre, Addis Ababa, Ethiopia

This Conference is organized by the UN Economic Commission for Africa (UNECA), together with the African Association of Remote Sensing of the Environment (AARSE), the Ethiopian Mapping Agency (EMA) and the GIS Society of Ethiopia (GSSE). It aims to bring together scholars and professionals from the African and international geo-spatial information science community to present latest achievements, discuss challenges and share experience. The Conference is organized around four themes: food and water security; energy resources; disaster risk reduction; and marine and coastal management. Contact: Aida Opoku-Mensah at aopoku-mensah@uneca.org.

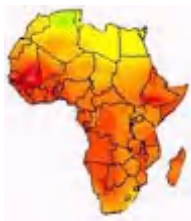
[Call for presentation: 2011 ESRI User Conference](#)

Whatever your field, position, or expertise with Esri technology, share and discuss your GIS experiences by [submitting an abstract](#) for the 2011 Esri UC. Participating in the conference lets you network with others who share your professional interests and helps make this event the ultimate resource for Esri users. View the presentation [tracks and descriptions](#).

It is not permissible for presenters to use the forum to advertise or promote a product, service, or company. Business Partners see guidelines below.

All presenters must register for the conference. Acceptance as a presenter does not register you, and registration fees are required. Registration will be available in December 2010.

- Only one abstract may be submitted per primary author.
- No more than four abstracts can be submitted by the same company or department within an organization.
- Abstracts and presentations must be in English.
- The title cannot exceed 10 words.
- The abstract cannot exceed 150 words.
- Do not use bullet points, numbering, or all capital letters; the information you enter is used for publishing purposes (e.g., Web site, agenda, CD-ROM).



Spatial Data Infrastructure – Africa Newsletter



Note: Because of the large number of submissions, a limited number of presentation slots is available.
Submission deadline: October 15, 2010.

[Call for Papers: Map Africa 2010 - 5th Annual African Conference on Geospatial Technologies and Applications](#), 23-25 November in Cape Town, South Africa

The African geospatial community is invited to participate in and showcase their work at Map Africa 2010, the 5th Annual African Conference on Geospatial Technologies and Applications, organized in partnership with the [Department of Rural Development](#), South Africa; the Regional Centre for Mapping of Resources for Development ([RCMRD](#)), Kenya; and UN Economic Commission for Africa ([UNECA](#)), Ethiopia. The theme of the conference is "Geospatial Readiness for Building Africa" which aims to highlight the significant role of geospatial technologies in the areas which are considered as the building blocks of a nation and contribute to its growth and development. The abstract (not exceed 250 words) should summarize and indicate the key research/points to be further presented and discussed in the Sessions of Map Africa. For queries related to paper submission, contact Akanksha Tyagi at papers.mapafrica@gisdevelopment.net or akanksha.tyagi@gisdevelopment.net.

Practical SDI implementation materials from within and outside of Africa

[Chilean data could help predict size of earthquakes](#)



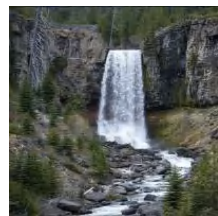
Closely monitoring land movement along fault lines could help scientists forecast earthquakes and how strong they are likely to be, according to a study that has analysed February's Chilean earthquake. Researchers used high-precision global positioning system (GPS) data of earth movements along the fault line where the oceanic Nazca tectonic plate is slipping beneath the continental South America plate. They estimated the amount of strain (the accumulated energy that builds up in rocks) that was released during the 8.8 magnitude earthquake when the fault slipped. They found that the greatest slippage happened in the areas with the most strain and, since this can be

measured by GPS, future earthquake-causing slippages could also be predicted. They reported their findings in [Nature](#) of 9 September 2010.

Until now it was unclear whether these patches of stress that build up along a fault line match the energy released during a later earthquake. Matthias Rosenau, co-author of the study and a researcher at the GFZ German Research Centre for Geosciences, told *SciDev.Net* that "the study corroborates [evidence that] the earthquake process, at least along plate boundaries, is a time-dependent process, some components of which could indeed be forecast". It was the combination of a decade of detailed GPS records and a well-recorded large earthquake - a rare occurrence that allowed scientists to make this discovery. The data was made available by a network of more than 200 GPS stations set up across Chile between 1996 and 2008.

According to Rosenau, these findings could help pin down where the source of the earthquake is likely to be and how strong an earthquake will result from the build-up of strain caused by plate movements. Mapping the strain in faults would be useful to prepare for a future event in the long-term, for example, by building earthquake-resistant houses and bridges, and safeguarding slopes in the most hazardous areas, he said. Jaime Campos, a seismologist at the University of Chile, said the study "confirms that satellite technologies set up in the 1990s in the area [for scientific purposes] captured valuable information about terrestrial deformation and seismicity in the region before the February earthquake".

[Geographic Information System \(GIS\) applications in Hydrology](#)



Hydrology is a complex fundamental science that encircles various fields such as geology, soil science, physical geography, cultural geography, global human interaction and resources, pollution, fisheries, wildlife, recreation, weather, floods, etc. In the present, thanks to technology improvements, we can predict likely amounts of flooding as well as flood paths, aquifer locations, trace element movements, nutrient requirements, ice-caps dimensions, etc all due to the advances of hydrology data analysis with Geographic Information Systems (GIS), models and remote sensing. The objective of this website is to present how GIS is use to analyze a serious of hydrology

problems, how GIS usage help on solving the problems, and which were the technology benefits and advantages. The interest of the author as a geologist and soil scientist, relay on increasing knowledge in GIS hydrology modeling (flow modeling using GIS), a field in which Geographic Information System have become



Spatial Data Infrastructure – Africa Newsletter



an important tool. The author focuses the website in current, practical applications of GIS to solve hydrology problems.

GIS Tools, Software, Data

[Global Atlas of Helminth infection](#)

In an attempt to provide open access to up-to-date information on schistosomiasis and STH infections, a project has been undertaken to develop a Global Atlas of Helminth Infection (GAHI). The overall goal of this project is to provide an open-access, global information resource on the distribution of STH and schistosomiasis, with the specific aims of 1) describing the global distribution and prevalence of infection of each species and 2) highlighting geographical areas for which further survey information is required. The maps are grounded in structured searches of the formal and grey literature for suitable survey data that are then collated into a single database, according to specified inclusion criteria. The eligible surveys are geopositioned using electronic sources and maps are then developed using GIS. To date, more than 10,000 prevalence surveys have been identified, catalogued, and mapped. The potential usefulness of the data to identify "at risk" populations for which data are scarce is enhanced by using Bayesian model-based geostatistics to predict the prevalence of infection with each species in as yet unsurveyed areas.

The GAHI Web site was launched on August 12, 2010. The Web site allows users to visualize the assembled data and models. Three types of maps are presented for every country where these infections occur: (i) a *Survey Data Map* showing the prevalence of infection based on survey data; (ii) a *Predictive Risk Map* showing the probability that infection prevalence warrants MDA, according to recommended WHO thresholds; and (iii) a *Control Planning Map* showing which districts require MDA treatment or where further surveys would be helpful in defining risk. [The Global Atlas of Helminth Infection: Mapping the way forward in neglected tropical disease control.](#)

[OpenDragon Geoinformatics software now free worldwide](#)

The Global Software Institute (GSI) has announced that, effective immediately, OpenDragon is available for free download by users anywhere in the world. OpenDragon offers a full suite of image analysis and raster GIS capabilities including image enhancement, supervised and unsupervised classification, geometric correction, measurement and statistics, vector capture and display, slope, aspect and buffer calculations and multi-criterion decision making. OpenDragon also includes the OpenDragon Toolkit, which allows users who can program in C to extend the software functionality. "Schools, colleges and universities need robust, high quality software for geoinformatics teaching and research," said Dr. Sally E. Goldin, President of GSI. "Commercial software is too expensive, especially for lesser developed countries, while 'home grown' software is frequently buggy or incomplete. OpenDragon fills the gap by providing a wide range of core geoinformatics functions in an integrated, easy-to-use package. The Toolkit is especially useful for faculty and graduate students who need to develop and evaluate their own algorithms." GSI will gladly cooperate with any organization wishing to translate the software into other languages. Users interested in downloading OpenDragon should visit http://www.open-dragon.org/software_dl.html for details. For more information: Contact Sally Goldin at seg@global-soft.org.

[TIGER Training Kit](#)



The training tool aims to contribute to the creation of EO-knowledge in Africa. To reinforce the capacity building actions dedicated to support the TIGER research teams, training and education tools have been produced and distributed to all the TIGER research teams. In particular, the TIGER Training Kit has been produced to provide African partners with a common baseline in terms of training, education and software tools to advance in the use of EO technology to support their water research projects and studies. The kit contains a general introduction to remote sensing, advanced modules dedicated to radar remote sensing, training datasets, exercises and handouts.

[Human Sensor Web](#)

The Human Sensor Web (HSW) was implemented in Zanzibar by the Zanzibar Water Authority (ZAWA) with two local partners: Zantel, the mobile telephone company partly owned by the Government of Zanzibar and Inet, a local Internet Service Provider. HSW is a part of the [h2.0 initiative](#) of Google.org and UN-Habitat. HSW objective is to provide continuous data on the quality of the service provision, thus water availability and water quality for selected water points. Data is collected primarily by the user and the water service



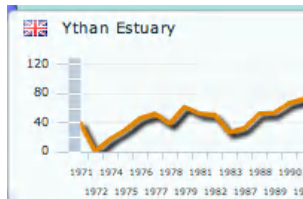
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provider. The traditional water related surveys like waterpoint inventories do not capture this type of information. Furthermore HSW will serve as a community and ZAWA driven information provider on the functionality of public water points. Zawa personel or dedicated community members can send a coded SMS, reporting the functionality status of the waterpoint that invokes a mass-SMS to registered community members.

Since all data is without restrictions available via the Internet, “key users” are not yet defined. In principle the data is meant for the end-user, local communities and civil society to advocate for better services, if deemed necessary. The service provider can use this data to analyse and improve the water service provision; whereas the Government can use the data for general planning and reporting on progress for the water related MDG targets. Go to [Human Sensor Web](#).

Critical site network tool



The Critical Site Network tool brings together data from a wide range of sources on the distribution and abundance of migratory birds within the Africa-Eurasian region. The main focus is on identifying the most important sites for migratory birds within the flyway populations. In addition, information on national and international protected areas is shown to help to understand the protection status of the most important or critical, sites. The distribution, abundance and time-series data comes from Birdlife International and Wetlands International. The protected area information comes from the UNEP World Conservation Monitoring Centre. The web application development was done by the UNEP World Conservation Monitoring Centre in Cambridge, UK.

Data on the mangroves of Africa



[Mangroves of West and Central Africa \(2007\)](#): This regional dataset shows the distribution of mangroves and was compiled by UNEP-WCMC through processing of Landsat TM 5 and Landsat 7 ETM+ images dating predominantly from 1999-2001. These data were published in association with the UNEP-Regional Seas Programme in the report: "Mangroves of Western and Central Africa"

[Mangroves of East Africa \(2003\)](#): This dataset shows the distribution of mangroves for the coast of East Africa. This is an update to the 1997 Mangrove layer, updated by UNEP-WCMC for the publication Taylor, M., Ravilious, C. and Green, E.P. (2003) "Mangroves of East Africa" UNEP-WCMC Biodiversity Series No. 13. Banson, Cambridge.

Harmonized World Soil Database v 1.0

This is the result of a collaboration between the FAO's [Land & Water Development Division](#), [IIASA](#), [ISRIC-World Soil Information](#), [Institute of Soil Science, Chinese Academy of Sciences](#) (ISSCAS), and the [Joint Research Centre of the European Commission \(JRC\)](#). The Harmonized World Soil Database is a 30 arc-second raster database with over 15000 different soil mapping units that combines existing regional and national updates of soil information worldwide (SOTER, ESD, Soil Map of China, WISE) with the information contained within the 1:5 000 000 scale FAO-UNESCO Soil Map of the World (FAO, 1971/1981). The resulting raster database consists of 21600 rows and 43200 columns, which are linked to harmonized soil property data. The use of a standardized structure allows for the linkage of the attribute data with the raster map to display or query the composition in terms of soil units and the characterization of selected soil parameters (organic Carbon, pH, water storage capacity, soil depth, cation exchange capacity of the soil and the clay fraction, total exchangeable nutrients, lime and gypsum contents, sodium exchange percentage, salinity, textural class and granulometry). The website has links to the *procedures manual* and the *digital database*.

Geospatial Research, Applications, Reference Material

Digital Earth's Nervous System for crisis events: real-time Sensor Web Enablement of Volunteered Geographic Information

Digital Earth (DE) is a powerful metaphor for the organisation and access to digital information through a multi-scale three-dimensional representation of the globe. Recent progress gave a concrete body to this vision. However, this body is not yet self-aware: further integration of the temporal and voluntary dimension



Spatial Data Infrastructure – Africa Newsletter



is needed to better portray the event-based nature of our world. We thus aim to extend DE vision with a Nervous System in order to provide decision makers with improved alerting mechanisms. Practical applications are foreseen for crisis management, where up-to-date situational awareness is needed. While it is traditionally built through trusted sources, citizens can play a complementary role by providing geo-referenced information known as Volunteered Geographic Information (VGI). Although workflows have been implemented to create, validate and distribute VGI datasets for various thematic domains, its exploitation in real time and its integration into existing concepts of DE, such as spatial data infrastructures, still needs to be further addressed. In this paper we suggest to bridge this gap through Sensor Web Enablement for VGI, where VGI sensing becomes a sense of the DE's Nervous System. We discuss this approach and its applicability in the context of a forest fire scenario.

[A Compendium of On-Line Soil Survey Information: Soil Geographic Databases](#)



The technological advances in remote sensing, computers, terrain analysis, geostatistics, GIS data integration, and instrumentation should make it possible to achieve unprecedented reliability and utility in digital soil maps. There is an increasing amount of digital data available on the Internet or as large datasets on CD-ROM, from straight digital conversions of paper maps and databases to direct-to-digital products. Unfortunately, there is also a lot of digital data that is not easily or freely available. These trends and issues are described in a paper to be published in *Soil Use & Management: [Digital soil resource inventories: status and prospects](#)*

[Using GIS to Map Diseases in Developing Countries](#)

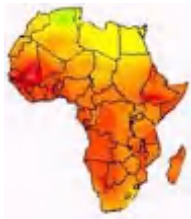
Geographic Information Science (GIS) has many applications in the field of Public Health. GIS has the ability to combine data from many sources for identification and mapping of environmental factors associated with disease factors which make it particularly useful for disease surveillance and monitoring. It can be a useful tool for analyzing the spread of diseases in both developed and developing countries as well as a management strategy for allocating resources and for understanding high risk areas of disease. This web page is intended to be a resource of useful articles for anybody wishing to learn more about the use of GIS in disease mapping.

[Geospatial Quality Data Acquisition Problems in Sub-Saharan Africa](#)

This paper discusses the problem of data acquisition in Sub-Saharan African countries. The purpose of any Geospatial research work is to provide information which will assist in quick decision making and effective management. For this reasons, effort is now in place to assess in quality of the data acquisition and derived information products in Sub-Saharan Africa. Meanwhile, in spite of these, there is no such thing as an “exact” measurement. All measurements being estimate of the true ‘point’ value. Many data, especially, rainfall data, therefore contain some degree of error and the extent of data accuracy or precision can only be specified in relative terms. Data acquisition, using some old equipment available in Sub-Saharan Africa, is samples in space and time which are subject to various errors, notably; observer error and instrumental error. The major aim of this paper, therefore, is to depict Geospatial quality data acquisition problems in Sub-Saharan Africa. Generally, the objectives of this paper are to: (1) examine the various aspects of spatial data acquisition problems in Sub-Saharan Africa; (2) discuss recent development in Geospatial data acquisition in Sub-Saharan Africa; and (3) explain the concept of metadata in data acquisition reform in Sub-Saharan Africa. Rainfall data acquisition was used as a case study for this region, which was part of the findings from our recent research work. It was observed that some organizations and research institutions are still employing traditional means of data acquisition despite recent innovation in Geoinformatics and Remote Sensing field.

[Globally distributed soil spectral library: Visible near infrared diffuse reflectance spectra](#)

The need to maintain the health of the soil resource base as an imperative for sustainable development is increasingly being recognized. Science and technological developments in remote sensing are providing new opportunities for low cost and efficient applications for characterizing and monitoring the health of the soil resource base. The spectral library of world soils will provide a valuable resource for research and applications for sensing soil quality both in the laboratory and from space. The product is a result of collaboration between ICRAF and ISRIC scientists and further development of this area of research is encouraged.



Spatial Data Infrastructure – Africa Newsletter



[Urban sprawl impact assessment on the fertile agricultural land of Egypt using remote sensing and digital soil database, case study: Qalubiya Governorate](#)

Urban sprawl is one of the main problems that threaten the limited highly fertile land in the Nile Delta of Egypt. In this research, satellite images Landsat TM 1993, ETM+ 2001 and Egypt - Sat-1, 2009 has been used to study the urban sprawl and its impact on agricultural land in Qalubiya Governorate. Maximum likelihood supervised classification and post-classification change detection techniques were applied to map land cover changes in the study area. Collected ground truth, during several field trips conducted between 2003 and 2008, and topographic map of 1991 were used to assess the accuracy of the classification results. Using ancillary data, visual interpretation and expert knowledge of the area through GIS further refined the classification results. Post-classification change detection technique was performed to produce change image through cross-tabulation.

Combining the soil and land capability maps, in one hand, and the urban thematic layers, in another hand, using GIS, made it possible to point out the risk of urban expansion on the expense of the highly capability soil class. During the study period, the high capable soils (Class I) decreased from 683.2 to 618.5 Km². The moderate capable soils decreased from 100.5 to 93.8 Km², while the marginally capable soils decreased from 209.1 Km² to 198.3 Km² during the same period. It is noticed that urban encroachment over the non capable soils are very limited, as their coverage was found stable during the period 1993 - 2009.

[Application of Geo-information for evaluation of land use change: Case study of Federal Capital Territory-Abuja](#)

The dearth of data for research in Nigeria has masked the clear understanding of the land cover alteration processes due to land use change and their consequences. This research is focused on the use of geo-information to monitor landscape transformation in space and time. Satellite imageries of two epochs, covering Abuja Federal Capital Territory (FCT) were acquired. Landsat TM and Nigeria Sat were enhanced to improve visualization in ILWIS. The imageries were characterized into five classes (Vegetation, Built-up, Rock-outcrop, Waterbody and Farmland). The classification was done with maximum likelihood algorithm, which resulted in classes of each land use. The two classified images were compared to identify change between 1987 and 2004. A spatio-temporal change in land use type was obtained in quantitative terms. Vegetation covers in 1987 reduced by 85.22% in 2004, while built up increased by 21.99%, in 2004. Farmland cover increased by 0.14% during the period. This methodology offers access to quality digital image data, which improves the poor data base situation in Nigeria for better appreciation and knowledge of the interactions between man and his environment to leverage informed decisions.

Training Opportunities

Have you signed up to receive [SDI-Africa Newsletter](#) notices? It only takes a minute, and then the GSDI Association can notify you when a new issue of the SDI-Africa newsletter is available, plus alert you to particular GSDI announcements (like a call for GSDI grants, or a call for papers for a GSDI conference).

The GSDI Association also hosts an [SDI-Africa E-mail Discussion List](#) with intermittent news and announcements of opportunities (this discussion list is separate from the SDI-Africa Newsletter list).

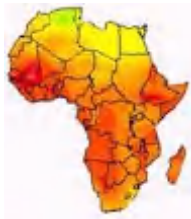
- The [SDI-Africa E-mail Discussion List](#) is open and available to anyone to read on the web. To submit messages or to receive submitted comments or notices by e-mail, one first must register.
- To see the collection of prior postings to the list, visit the [SDI-Africa E-mail Discussion List Archives](#).
- To post a message to the list, send an email to sdi-africa@lists.gsdi.org.

[UNESCO-Institute for Water Education Short Course on GIS Modelling 2010- Soil and Water Assessment Tool](#), 1-12 November 2010, Delft, Netherlands

[UNESCO-Institute for Water Education Short Course on GIS and Remote Sensing 2010](#), 1-12 November 2010, Delft, Netherlands

[Institute for Capacity Development \(ICD\) - Short Courses Registration, Victoria Falls & Windhoek](#) (October - December 2010)

The Institute for Capacity Development (ICD) is conducting capacity training short courses in the months of October - December, 2010. Registration is on and institutions are invited to nominate participants from



Spatial Data Infrastructure – Africa Newsletter



among their officers to attend these capacity enhancing courses. The Training Venues are Windhoek (Namibia), Pretoria (South Africa) and Victoria Falls (Zimbabwe).

The major objective of the courses is to develop and enhance staff effectiveness, sound management and Leadership skills for staff in the specific areas of training. The courses can also be conducted specifically for organizations and customised to specification requirements. Further information and [Registration Online](#), see website: www.icdtraining.com or [2010 Training Calendar](#). Contact: Clemence Chiduwa, Training coordinator at coordinator@icdtraining.com.

[Training Course: Climate change adaptation in agriculture and natural resources management](#), 28 February - 11 March 2011, in East Africa

The course is designed for mid-career professionals who are engaged at higher levels and deal with policy making either from the research side (as advisor), government side, or from civil society who aim to have a full understanding of climate change adaptation concepts, be able to effectively and meaningfully contribute to the debate on climate change adaptation, either in the policy process and/or in providing knowledge to the policy process. For details, contact: Terwisscha van Scheltinga (Catharien), Wageningen University at Catharien.Terwisscha@wur.nl or www.ess.wur.nl/UK/People/Catharien+Terwisscha+van+Scheltinga/, <http://portals.wi.wur.nl/climatechange/>, www.genderandwater.org.

[Training Workshops for PCSWMM/SWMM5, South Africa](#)

Every year Computational Hydraulics Int. (CHI) hosts a number of SWMM5 and PCSWMM Modeling Workshops in South Africa. At these professional workshops, attendees are trained in the use of both the latest US EPA Stormwater Management Model (SWMM), and the new PCSWMM 2009 graphical decision support system. By attending a workshop, participants become proficient in the use of the software and learn how its application can enrich stormwater drainage and sanitary system modeling and design.

- Cape Town, October 12, 2010
- Kimberley, October 19, 2010
- Kruger National Park, October 26, 2010
- Durban, November 02, 2010
- Gauteng, November 09, 2010

[Free ESRI Courses](#)

Free online course modules from ESRI's Virtual Campus site. Learn the basics of many of their software packages and extensions or take some concept courses such as a review of projections.

[ESRI Eastern Africa Hands-on Training for GIS Professionals](#)



The following courses are offered at the ESRI Authorized Learning Centre in Upper Hill, Nairobi, Kenya.

	Duration (Days)
Fundamentals of ArcGIS Desktop	
• ArcGIS Desktop 1: Getting Started with GIS	3
• ArcGIS Desktop 2: Tools and Functionality	4
• ArcGIS Desktop 3: Workflows and Analysis	3
• Data Production and Editing with ArcGIS	
• Field Data Collection Using ArcPad and ArcGIS Desktop	3
• Building Geodatabases	4
• Data Production and Editing Techniques	4
Analysis with ArcGIS	
• Performing Analysis with ArcGIS Desktop	4
Cartography with ArcGIS	
• Creating and Publishing Maps with ArcGIS	4
Enterprise GIS	
• Introduction to ArcGIS Server	3
• Introduction to the Multiuser Geodatabase	3
• Managing Editing Workflows in a Multiuser Geodatabase	4
Programming with ArcGIS	
• Introduction to Programming ArcObjects using .NET	4



Spatial Data Infrastructure – Africa Newsletter



- Introduction to Geo-processing using Python 3
 - **Added new courses focusing on ENVI:** the Image Processing Software for processing and analyzing geospatial imagery.
 - Introduction to Remote Sensing with ENVI 3
 - ENVI for GIS 3
 - Exploring ENVI 5
 - ENVI for Defense and Intelligence 4
- Contact: ESRI Eastern Africa at: training@esri.co.ke, telephone: +254 20 2713630/1/2 or fax: +254 20 2713633.

[ESRI South Africa course schedule for October – December 2010](#)

Contact: Midrand: Queen Mofokeng, qmofokeng@esri-southafrica.com; Durban: Patricia van Schalkwyk, pvanschalkwyk@esri-southafrica.com; Port Elizabeth: Queen Mofokeng, qmofokeng@esri-southafrica.com; Cape Town: Kathi Wöhl, kwohl@esri-southafrica.com.

[L'Ecole Régionale post-universitaire d'Aménagement et de gestion Intégrés des Forêts et Territoires tropicaux \(ERAIFT\) \[Regional School on Integrated Management of Tropical Forests and Territories\] – Promotion : inscriptions ouvertes](#), Kinshasa, République Démocratique du Congo. Le [cursus de l'ERAIFT](#) aboutit à l'obtention d'un Diplôme d'Etudes Supérieures Spécialisées (DESS). Ce diplôme est l'équivalent d'un Master du système « LMD » (Licence, Master, Doctorat) des Accords de Bologne. Il est reconnu par le Conseil Africain et Malgache pour l'Enseignement Supérieur (le CAMES). Le programme du DESS comprend 16 chaires dont l'enseignement s'étend sur une période de 12 mois. L'étudiant dispos ensuite de 6 mois pour rédiger son mémoire. Le contenu de ce dernier repose sur l'approche systémique, et s'inscrit dans le cadre de l'aménagement intégré du territoire, du développement humain, durable et écologiquement viable, de la lutte contre la pauvreté et de la gestion rationnelle de l'environnement. L'autre grade décerné par l'ERAIFT est le Diplôme de Philosophiae Doctor (Ph.D.) en Aménagement et gestion intégrés des forêts et territoires tropicaux. Bourses disponibles, mais limitées en nombre. Contact: info@eraift.org.

[Short-courses offered by RECTAS in 2010](#), Ile-Ife, Nigeria



The [Regional Centre for Training in Aerospace Surveys \(RECTAS\)](#) is offering a number of three-week courses. Also note that RECTAS is able to package and deliver customised training for interested organisations. These could be either advanced or other certificate programs. Contact: info@rectas.org or thontteh@rectas.org.

[ITC Education Brochure 2011-2012 online](#)

Read the new ITC Education brochure with all the degree, diploma and certificate programmes in geoinformation science and earth observation starting in 2011. More information will be available soon at www.itc.nl/Pub/Study/CourseFinder

[Programme de Formation au CRTS 2010](#), Maroc

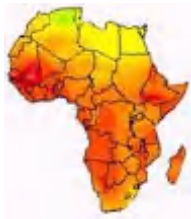
Le Centre Royal de Teledetection Spatiale est l'Institution Nationale responsable de l'utilisation, de la promotion et du développement de la teledetection spatiale au Maroc. Il est chargé de coordonner et de gérer les programmes nationaux de teledetection spatiale en partenariat avec les ministères, les universités et les opérateurs privés.

[Geoinformatics \(GFM.4\) joint education diploma course of ITC and ARU](#), September 2010 - June 2011 (9 months), Dar es Salaam, Tanzania

The course is run at [Ardhi University](#) (former UCLAS) campus in Dar es Salaam, Tanzania. The aim of the course is to provide participants with the theoretical education and practical training needed to contribute to the digital production of maps and geoinformation using appropriate, state-of-the-art technology with in-depth knowledge in one of the specific aspects of the production process. GFM4 Course [Application Form](#), Contact: Head Geomatics Department, Ardhi University at geomatics@aru.ac.tz.

Funding Opportunities, Awards, Support

[ASARECA - Research on Sorghum-Legume Cropping in East and Central Africa](#)



Spatial Data Infrastructure – Africa Newsletter



The Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) invites concept notes on research for the sustainable intensification of sorghum-legume staple crops in semi-arid regions of East and Central Africa. Partnerships of government organizations, private organizations, and international organizations (plus other entities) are eligible. The projects must be undertaken in at least three ASARECA member countries. Concept notes are due 15 October 2010.

[United Nations Environment Program - Champions of the Earth 2011](#)

UNEP invites nominations for the 2011 Champions of the Earth. Champions are from business, civil society, and government who are distinguished for visionary thinking, dedication, and action towards global green growth. UNEP will select laureates in four categories: policy leadership; science and innovation; entrepreneurial vision; and inspiration and action. Each laureate will receive a cash prize for US\$40 thousand and a commemorative trophy. Nominations are open until 31 October 2010.

[Schlumberger Foundation - Funding for Women in PhD and Post-Doctoral Studies 2011](#)

Schlumberger Foundation's Faculty of the Future program supports women in developing and emerging economies to pursue PhD and post-doctoral studies at the international level. Grants range from US\$25 thousand to US\$50 thousand per year, with a maximum of US\$40 thousand for postdoctoral studies. Grants are in the physical sciences, engineering, and related fields - including past grants in subjects such as ecology and environment. Deadline for submissions: 30 November 2010.

[Danish Development Research Network - December 2010](#)

The DDRN provides funding for workshops, seminars, and selected other activities to promote development research between Denmark and researchers in the global South. Applicants are members of DDRN (individuals and institutions), who may apply in partnerships with others. Themes include climate change and food security. Four application calls annually with deadlines in March, June, September, and December. The next deadline for the year is 1 December 2010.

[Ecosystem Services for Poverty Alleviation \(ESPA\) - Call for Expressions of Interest](#)

ESPA is a program of the UK government to ensure that ecosystems in developing countries contribute to poverty reduction and promote inclusive and sustainable growth. ESPA announces a call for research projects of between £500 thousand and £4 million (exceptionally larger) for project duration of three to five years. The geographical scope includes Amazonia, China, South Asia, and Sub-Saharan Africa. Themes are water, forests, coasts, ecosystem health services, biodiversity, and political economy. ESPA encourages applications from consortia of North-South and South-South partners. Expressions of interest are due 8 December 2010.

[German Government - International Climate Initiative 2011](#)

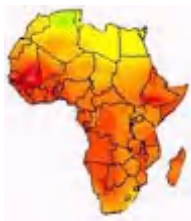
Germany's BMU (Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety) funds the International Climate Initiative (ICI) to support international projects on climate change mitigation, adaptation, and biodiversity projects with climate relevance. Funding in the ICI is €120 million per year, and the average multi-year grant is €2 million. Projects that target carbon sinks with high levels of biodiversity (e.g., Amazon region, Congo Basin and South-East Asia) will receive support. Project outlines are invited from implementing organizations of German development cooperation; non-governmental and governmental organizations; universities and research institutes; private-sector companies; multilateral development banks; and organizations and programs of the United Nations. Closing date for project outlines: 31 December 2010.

[Conservation Leadership Program \(CLP\) - 2011 Conservation Awards](#)

The CLP makes grants to young conservationists in Africa, Asia, Eastern and South-eastern Europe, the Middle East, the Pacific, Latin America, and the Caribbean. For the 2011 funding cycle, the CLP offers Future Conservationist Awards; Conservation Follow-Up Awards; and Conservation Leadership Awards. Application guidelines and forms will be posted in September. Deadline for applications: 15 November 2010.

[Alexander von Humboldt Foundation - Climate Change Research](#)

The Alexander von Humboldt Foundation supports International Climate Protection Fellowships for one-year research projects in Germany on climate protection and resource conservation. The program is open to prospective future leaders in academia, business, and administration in non-European threshold and



Spatial Data Infrastructure – Africa Newsletter



developing countries. The Foundation aims to make 20 grants per year. Deadline for applications in this current cycle: 15 December 2010.

[Danone - Proposals on "Wet Carbon"](#)

The Danone wet carbon partnership is an initiative of the Ramsar Secretariat, World Conservation Union (IUCN), and Danone Company. The partners seek "wet carbon" projects that can deliver large-scale carbon offsets. Projects should combine wetlands conservation or restoration, local socio-economic benefits, and carbon credits. Applicants send a project idea note to Danone, with guidelines from the link below. Closing date is 31 December 2010.

[Fondation Ensemble - Programs Fund 2011](#)

The Programs Fund supports projects in water and sanitation and sustainable development (e.g., renewable energies, sustainable agriculture, alternative waste management, biodiversity, and others). Grants are €50 thousand per year for at least two years. In 2010, the Fund defined the following priority countries: Benin, Burkina Faso, Malawi, Mali, Senegal, Cambodia, India, and Peru (*monitor for possible changes 2011*). Grants are to French and international NGOs. The next application deadline is 11 February 2011.

[Fondation Nature & Decouvertes - Grants 2011](#)

Fondation Nature & Decouvertes provides grants for projects on nature protection in France and Francophone Africa. Applications for small grants ("coup de main") can be submitted throughout the year. Application deadlines for major projects (from €3 thousand to €30 thousand) are 15 February and 14 August.

[New England Biolabs Foundation - Grassroots Projects](#)

The New England Biolabs Foundation provides grants to grassroots and charitable organizations to support conservation of biological diversity; ecosystem services; community food security; and marine environment. The Foundation makes grants in selected countries of the Gulf of Honduras; the Andean region; and West Africa (in addition to Papua New Guinea, Tanzania, Nicaragua, and El Salvador). Maximum grant size is US\$10 thousand. The Foundation requests preliminary inquiries before proposals are submitted. Application deadlines: 1 March and 24 August.

Employment Opportunities

[ICAO Regional Director](#), Dakar

The Regional Office is primarily responsible for maintaining continuous liaison with the States to which it is accredited and with appropriate organizations and regional civil aviation bodies to promote and follow up on the implementation of ICAO's policies, decisions, Standards and Recommended Practices (SARPs), regional and global safety and air navigation plans. It supports extensive meeting activities, disseminates information and encourages participation in ICAO activities. The Regional Office also provides technical assistance when requested to do so.

- Academic qualifications: Advanced university degree (Master's degree or equivalent, which should be substantiated by the applicant), preferably with specialization in an aviation-related, scientific or technical discipline.
- Professional experience and knowledge: 1. Extensive experience (15 years or more) rising to senior management level in a civil aviation administration, autonomous aviation authority, international airline, international airport, air navigation service provider or similar aviation-related organization. 2. Substantial practical experience in the planning and administration of civil aviation programmes, of which a minimum of five years should have been at the international level, dealing with matters that go beyond national boundaries, and including high-level negotiations with government authorities.
- Competencies: 1. Proven ability to take ownership of all responsibilities and to honour commitments, to exercise mature judgement, to recognize key issues and analyse relevant information, to make feasible recommendations, and to take sound decisions. 2. Ability to write clearly and concisely and to present articulate verbal reports. 3. Demonstrated ability to plan and guide the work of a technical team in a multinational environment, to develop clear goals that are consistent with agreed strategies, to identify priorities and adjust them as required, to motivate staff, and to establish accountabilities for the fulfilment of commitments and delivery of expected results. 4. Ability to conduct representative functions before governments and international organizations, requiring a high degree of negotiating skill and the



Spatial Data Infrastructure – Africa Newsletter



development of interpersonal relationships. Ability to develop and maintain partnerships with external collaborators, to work and advocate effectively in a consensus-based system, to establish shared objectives and mobilize resources to meet these expressed objectives, and to successfully manage and resolve conflict.

Interested candidates should download and complete the ICAO Application-for-Employment Form: <http://www.icao.int/employmentf> or contact: recruitment@icao.int. The application form is also available from the ICAO Regional Offices in Bangkok, Cairo, Dakar, Lima, Mexico City, Nairobi and Paris. Application deadline: 29 November 2010.

Senior Policy Officer (Economic Policies, Research and Statistics), Addis Ababa, Ethiopia

The candidate will be responsible for conducting research on rigorous economic analysis and making proposals on the policy to pursue in the area of macroeconomic, monetary and fiscal policies, development planning, creation of an African Common Currency, development of capital markets (trade policy, cooperation and sub regional economic integration etc.); conducting research on analysis of economic policies by the application of qualitative and quantitative methods and econometric models; collecting and analyzing data on economic and social researches; coordinating and supervising the work of economists placed under participating in studies conducted on the creation of the African Central Bank(ACB),the African Monetary Fund (AMF) and the African Investment Bank(AIB); preparing analyses at the international, regional, national or sectorial level, necessary to make recommendations to AU Member States; formulating proposals for the elaboration of strategies, policies and measures for development to be presented to regional and intergovernmental organs and participating in intergovernmental and interagency consultations, meetings, seminars and workshops on economic policies in Africa; coordinating, harmonizing and facilitating activities undertaken by officers in charge of policies and with regard to the Statistician, managing, giving orientations and directives and lending assistance to these persons. Candidates must:

- Have a Masters degree in Economic Science with specialization in development economy, monetary economy, international economy or public finance including at least six (6) years of professional experience; or a Doctorate degree in economic science with specialization in development economy, monetary economy, public finance or international economy including at least three (3) years of professional experience;
- Have an experience in the post of Director in the analysis of economic policies and manage current issues and economic problems;
- Have knowledge in research methodology and quantitative methods. A professional experience in the area of statistics would be an advantage;
- Have published articles in scientific and/or professional journals, particularly in the area of policy formulation and analysis;
- Have Professional experience in a national or international institution.

Candidates must preferably be between 35 and 50 years. Applications must be received not later than 11 November 2010 and should be addressed to: AU Commission, P. O. Box 3243, Addis-Ababa, Ethiopia, and Fax: (00251-1) 552 58 40/551 04 30. E-mail : au-recruits@africa-union.org.

Assistant Professor, Land Administration, Netherlands

The incumbent will support the professor in the development, acquisition and execution of research, including research planning and implementation, acquisition of external and internal research funds, coordination and supervision of PhD candidates and dissemination of findings via academic papers and other publications. You contribute to the educational activities, analysing the needs of society regarding land administration, development, preparation and execution of courses and education modules related to the field of expertise, development of new educational products (e.g. e-learning), evaluation of educational activities and supervision of MSc students. You contribute to the acquisition and execution of project services. You contribute to the work of the UNU School for Land Administration Studies and international academic partnership network that is being developed, as well as to general administrative duties as may be required by the department.

Requirements

- PhD on land administration, land tenure security, land information systems, land management or a similar topic, including elements of both institutional and information-technological aspects



Spatial Data Infrastructure – Africa Newsletter



- Proven research and practical experience in the field of land administration, both in institutional and information-technological aspects, shown by among others peer reviewed publications and participation in relevant international networks
- Experience in developing countries
- Didactic skills and experience in teaching at academic level, including supervision of MSc candidates
- Communication skills in cooperating and negotiating with external partners
- Affinity with a multi-cultural, post-graduate education environment
- Willingness and ability to undertake international travel

Additional information about this position can be obtained from Prof. Dr. J.A. (Jaap) Zevenbergen, Professor Land Administration Systems (phone +31 53 4874 351). Interested candidates are invited to apply on website www.utwente.nl/vacatures. Applications should arrive no later than 8 October 2010. Also visit: www.itc.nl/PUB/research/Research-themes/LA.

GIS Specialist for Sudan Consultancy

Management systems International (MSI) was awarded a three-year contract with USAID/Sudan on a project named SUPPORT (Services Under Program and Project Offices for Results Tracking), and tasked with the responsibility of executing functions normally associated with USAID's Program and Communications offices. As a part of the SUPPORT project, MSI is currently establishing an office compound suitable for USAID and partner meetings in Southern Sudan, hiring technical and support staff and facilitating VIP visits.

MSI is seeking one GIS consultant to complete the following activities and products while working with the Southern Sudan Ministry of Agriculture and Forestry.

1. Publish cartographic products, including developing a MAF map series with current spatial information in support of current strategy planning and policy development in MAF. Standard maps such as soil, seasonality, rainfall, agro-ecological zones, fire and growing seasons, markets, roads.
2. Analyze long-term vegetation indexes to provide detailed growing season statistics (start of growing season, inter-annual variation, length of season).
3. Develop ecological crop suitability map, including an assessment of available data (point 1 and 2) and products (FAO, etc.)
4. Map agricultural prioritization areas using spatial overlays of crop suitability, distance to roads, season accessibility, and distance to major markets, other land-use categories (forest concessions, national parks, etc.) to develop cartographic representation of opportunities and constraints throughout Southern Sudan.

The incumbent should possess:

- Masters degree in agriculture, natural resource management, environment or related field
- 2 or more years' overseas work experience on natural resource management issues in a developing country context. High degree of familiarity with southern Sudan's natural resource management issues and political environment.
- Advanced resource management computer skills including 2 or more years' experience with GIS and survey software, database management, and web design in relation to natural resource management.

This is a short-term position starting ASAP for 30 days. Only candidates who have been selected for an interview will be contacted. No phone calls.

Senior programme officer P-5, Geneva

This position is located in the Resource and Programme Branch. The Senior Programme Officer reports to the Deputy Director. The Senior Programme Officer will be responsible for the following duties:

1. Direct and oversee the resource mobilization strategy and donor relation team for UNISDR
2. Direct and oversee work-programming process and internal monitoring systems of UNISDR.
3. Direct and oversee the external evaluation strategy and monitoring of UNISDR and ISDR partnerships.
4. Supervise administration and support services.
5. Direct and oversee staff of the section, internal planning, budgeting and team building including the preparation of budgets, performance management and staff development.
6. Represent the Organization at inter-agency meetings, seminars, etc. on substantive-related issues, and participates in international, regional or national meetings to provide programmatic expertise on disaster risk reduction resource management issues.
7. May perform other duties as is required.



Spatial Data Infrastructure – Africa Newsletter



Requirement: advanced university degree (Master's degree or equivalent) in business or public administration, finance, international relations, environmental, economics, law or related area. A first-level university degree in combination with qualifying experience may be accepted in lieu of the advanced university degree. A minimum of ten years of progressively responsible experience in program management and development, resource mobilization, donor relations, design and development of reporting systems, development and maintenance of communications and evaluation or related field. Application deadline: 7 November 2010.

[International researchers at the International Water Management Institute \(IWMI\)](#), Ghana or Burkina Faso

The International Livestock Research Institute (ILRI) is looking for a PhD holder in Water Resources Management, Agro-ecology, or Ecosystem Sciences, and a sound knowledge of the interface between the livestock, crops and water resource management, with at least five years experience of agricultural/environmental research and development in developing countries. The research will focus on identifying solutions that enhance environmental and livelihood benefits of integrated water, livestock and crop management strategies and mitigate negative effects, such as land and water degradation and conflicts. This is an internationally recruited position for an initial appointment of three years with the possibility of renewal, contingent upon individual performance and the availability of funding. The incumbent must possess:

- PhD in Water Resources Management, Agro-ecology, or Ecosystem Sciences
- Sound knowledge of the interface between the livestock, crops and water resource management
- at least five years experience of agricultural/environmental research and development in developing countries
- a systems perspective especially related to issues of water productivity and sustainability in the context of agro-pastoral and mixed crop livestock systems
- quantitative applied research methods, and strong quantitative and analytical background: analyzing water productivity in agricultural systems, including field based application of water balance models, processes impacting on livestock systems evolution in Africa

Submit application on-line at: www.iwmi.org/About_IWMI/Vacancies/. Application deadline: 6 October 2010.

Other

[International conference adopts declaration on biodiversity conservation and use in an era of climate change](#)

The International Conference on Biodiversity in Relation to Food and Human Security in a Warming Planet convened in Chennai, India, from 15-17 February 2010, with support from the UN Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), the UN Environment Programme (UNEP) and a number of other intergovernmental organizations. The meeting was attended by 110 participants from 23 countries and included sessions on biodiversity's relationship with sustainable livelihoods, the Millennium Development Goals (MDGs), agriculture and climate change. At the conclusion of the event, participants adopted the Chennai Declaration, which highlights the importance of the Convention on Biodiversity (CBD), the role of women and farmers in the sustainable management of biodiversity, and biodiversity conservation.

The Declaration includes a nine-step plan of action for achieving the goals of biodiversity conservation and use in an era of climate change, including: deliver as one by recognizing in national development plans the importance of the use and conservation of biodiversity in agro-ecosystems, which necessitates integration of approaches across government departments confronting rural development, food security, poverty reduction, environment and climate change; strengthen the role of farming and tribal communities by establishing special gene banks for climate-resilient crops; refocus the research and development priorities to enhance the productivity of bio-diverse agriculture, for example by characterizing, evaluating and utilizing landraces and wild crop relatives in crop improvement programmes to transfer traits relevant to climate change; establish climate-resilient farming systems; adequately recognize the role of farmers and farming in the mitigation of climate change; accord economic value to ecosystem services such as land, water, biodiversity and climate change; and launch a climate care movement at all levels. [[Chennai Declaration](#)].

[Manafwa farmers in Uganda pay for environment sins](#)



Spatial Data Infrastructure – Africa Newsletter



Images taken in 1980s and 2010 shows that most hills in Manafwa District have lost their forest cover in the last two decades. When Patrick Wasonsi was a young man, he could stand in the garden of his father on a clear, cloudless morning and stare at the forests at a distance. But now, the 56-year-old said all the forests have disappeared and farming seasons have changed. "In the 1980s, all these hills were covered by forests. You could not see the soil because it was fully covered by tree branches," "But now when you look at the hills, they are all cleared and you cannot see a single tall tree." He says in the past, when temperatures rose, they knew that rain was about to fall but they no longer see it happen these days. According to the Ministry of Water and Environment, if nothing is done about deforestation, then the country is likely to experience more droughts. For farmers who depend on agriculture, the change in climate coupled with increase in population has adverse affects on their production. "This has forced some of the farmers to practice farming up on the hills because of the cool climate and fertile soils uphill." The yield is very low because the fertile soils have been washed away by rain. Mr Paul Isabirye, the principal meteorologist in the Ministry of Water and Environment says the rate at which trees are felled, accompanied with the increasing industrialization has increasing the amount of carbon dioxide and methane in atmosphere resulting into global warming. "There is increasing level of greenhouse gas into the atmosphere because of too much emission of carbon dioxide gas into the atmosphere," Uganda's temperatures which currently range between 15 and 30 degrees Celsius are likely to increase further. "The trees that act as carbon sink are being cut every day for farming, exposing land to erosion and emission of carbon dioxide gas into the atmosphere."

[African Union science awards to change name](#)



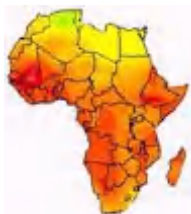
The African Union Scientific Awards, some of which were scheduled to be given on 9 September 2010, is to be officially renamed at the ceremony as the African Union Kwame Nkrumah Scientific Awards in order to increase the AU's international visibility. AU leaders reached their decision to change the prizes' name, which will be effective starting next year at their Kampala summit, earlier this summer. "[African Union] leaders wanted to celebrate the 100th anniversary of [Ghanaian leader] Kwame Nkrumah's birth," Jean Pierre Ezin, AU commissioner for Human Resources, Science and Technology told *SciDev.Net*. "The prizes will have a new name, nothing else will change."

The fact that AU leaders discussed the awards, which they want to become more prestigious, showed "recognition at the political level" for the work of the AU's science and technology division, said Hambani Masheleni, senior policy officer at the division. "What we are doing is building advocacy for science and technology through these individual awards so that they can contribute to pan-African development." The awards are currently funded by the European Union's institutional support to the AU Commission for Human Resources, Science and Technology. This totals around €2 million (US\$2.6 million), of which US\$500,000 is allocated to the awards programme. The awards were set up in 2007. They include the Young Scientists National Awards worth US\$5,000 each, funded separately by the AU and the Academy of Sciences for the Developing World (TWAS); the regional Woman Scientists awards, each worth US\$20,000; and continental Top Scientist awards - one for life and earth sciences and the other for basic science, technology and innovation - each worth US\$100,000 and open to "all outstanding scientists" in Africa.

Items newly added to this listing of events since the last SDI-Africa issue are marked *** NEW ***

Conferences, Events

Date	Location	Event
October 2010		
10-15 October 2010 * NEW *	Addis Ababa, Ethiopia	Seventh African Development Forum on Climate Change and Development
12-14 October 2010	Bonn, Germany	4th United Nations International UN-SPIDER Bonn Workshop on Disaster Management and Space Technology 2010 , The 4C - Challenge: Communication - Coordination - Cooperation - Capacity Development.



Spatial Data Infrastructure – Africa Newsletter



13-15 October 2010	Nairobi, Kenya	East African Project Management Conference - 'EAPMC 2010' , Deadline for abstracts/proposals: 15 September 2010.
13 - 15 October 2010	Nairobi, Kenya	Announcement and Call for Papers: 5th ESRI Eastern Africa user conference , Abstract submission deadline: 15 July 2010.
12-14 October 2010	Cape Town, South Africa	International Conference on Information and Communication Technology for Development (ICT4D 2010)
14-15 October 2010	Niamey, Niger	Capacity building, professional ethics and organization of the surveying profession in West Africa . Workshop for West African countries organised by FGF in collaboration with UN-Habitat and GLTN. Co-sponsored by FIG.
17-19 October 2010	Arizona State University, Arizona, USA	Global Land Project Open Science Meeting: Land Systems, Global Change and Sustainability
17-22 October 2010	Querétaro, Mexico	8th International Symposium on Land Subsidence (EISOLS 2010) - Land subsidence, associated hazards and the role of natural resources development.
19-22 October 2010	Singapore	GSDI-12 World Conference , Theme: Realizing Spatially Enabled Societies. In conjunction with the 16th PCGIAP Annual Meeting.
24-27 October 2010	Cape Town, South Africa	22nd CODATA International Conference - Scientific Information for Society: Scientific Data and Sustainable Development . Organised by the International Council for Science: Committee on Data for Science and Technology.
24-27 October 2010	Cape Town, South Africa	22nd International CODATA Conference Theme: Scientific Information for Society: Scientific Data and Sustainable Development
25-29 October 2010	Fez, Morocco	6th World FRIEND Conference (Flow Regimes from International Experimental and Network Data) Theme: Global Change: Facing Risks and Threats to Water Resources. Contact: friend2010@msem.univ-montp2.fr .
25-29 October 2010	Addis Ababa, Ethiopia	8th International Conference of the African Association of Remote Sensing of the Environment (AARSE2010) . Contact: dozie@ezigbalike.com , info@aarse-africa.org .
31 October - 5 November 2010 * NEW *	The Hague (Zuid-Holland), Netherlands	Global Conference on Agriculture, Food Security and Climate Change Contact: Ministry of Agriculture, Nature and Food Quality of the Netherlands at agriculture2010@minlnv.nl .
November 2010		
1-7 November 2010	Hamburg University	3rd worldwide online climate conference CLIMATE 2010/KLIMA 2010 Contact: info@klima2010.net .
2-3 November 2010 * NEW *	Cairo, Egypt	Fifth ITU Symposium on ICTs and the Environment and Climate Change Contact: Cristina Bueti at info@igf2010.it .
3-5 November 2010	Cape Town, South Africa	4th International Development Informatics Association Conference: IDIA 2010
8-11 November 2010	Sede Boqer Campus, Israel	3rd International Conference on Drylands, Deserts and Desertification Contact: Dorit Korine, desertification@bgu.ac.il .
8-11 November 2010	Anchorage, Alaska	Ecosystems 2010: Global Progress on Ecosystem-based Fisheries Management
8-11 November 2010 * NEW *	Sede Boqer Campus, Israel	Third International Conference on Drylands, Deserts and Desertification Contact: Dorit at desertification@bgu.ac.il .
8-12 November 2010	Hulshort, The Netherlands	Dynamic Interlinkages between Social and Ecosystem Changes: Towards a Europe Africa Partnership
10-12 November 2010	Wageningen, Netherlands	Scaling and Governance Conference 2010 "Towards a New Knowledge for Scale Sensitive Governance of Complex Systems.



Spatial Data Infrastructure – Africa Newsletter



11-12 November 2010	Mombasa, Kenya	FIG Africa Task Force Workshop . Organised by FIG Africa Task Force.
11-12 November 2010	Groningen, The Netherlands	1st International UrbanFlood Workshop on Dike Monitoring and Flood Safety 2010 - Safer dikes are not only stronger but also smarter dikes: Sensing; ICT; Modelling; Trials.
19-21 November 2010	Munyonyo, Kampala Uganda	2010 Pilot International Conference on Global Sustainable Development . Theme: Climate Change, A challenge to Businesses in the 21 st Century. Abstract deadline: <u>30 May 2010</u> .
22-25 November 2010	Djibouti, Republic of Djibouti	3rd East African Rift GeoThermal Conference (ARGE-C3 2010) - Exploring and Harnessing Renewable and Promising GeoThermal Energy.
23-25 November 2010	Cape Town, South Africa	Map Africa 2010
24 November 2010	Venice, Italy	ICGSE 2010: International Conference on Geological Sciences and Engineering
24-26 November 2010	London, UK,	Invitation: expressions of interest to attend the "Commonwealth Climate Change Communication Conference" (C5) .
29 November - 3 December 2010	Tunis, Tunisia	5th Session of the International Conference Geotunis 2010 Theme: The use of GIS and remote sensing for sustainable development. Contact: atigeo_num@yahoo.fr .
22-24 November 2010	Cape Town, South Africa	Leadership & Management Studies in Sub-Sahara Africa 2010 Conference
December 2010		
4-5 December 2010 * NEW *	Cancun (Quintana Roo), Mexico	World Climate Summit
5-7 December 2010	Riyadh, Saudi Arabia	4th International Conference on Water Resources and Arid Environments (ICWRAE 2010) - Water Resources; Water Conservation; Arid Environments; Utilization of New Technologies in the Study of Arid Environments and their Natural Resources.
5-9 December 2010	Bielefeld, Germany	Environmental Degradation and Conflict: From Vulnerabilities to Capabilities , Deadline for application: <u>15 August 2010</u> .
13-16 December 2010	Abu Dhabi	Eye on Earth Summit
14-16 December 2010	Benghazi, Libya	International Arab Conference on Information Technology (ACIT 2000) , Deadline for paper submission: <u>30 June 2010</u> .
2011		
1 January-31 December 2011 * NEW *	TBA	International Year of Forests, 2011
8-14 January 2011	Johannesburg, South Africa	23rd Colloquium of African Geology
10-14 January 2011	Hyderabad, India	International Forestry Resources and Institutions panels for the 13th Biennial Conference of the International Association for the Study of the Commons (IASC)
1 January - 31 December 2011	Worldwide	International Year of Forests 2011
18-21 January 2011	Hyderabad, India	Map World Forum 2011
21-25 February 2011	Nairobi, Kenya	26th Session of the UNEP Governing Council/Global Ministerial Environment Forum
26- 28 February 2011	Singapore, Singapore	2010 3rd IEEE International Conference on Signal Acquisition and Processing (ICSAP 2011)



Spatial Data Infrastructure – Africa Newsletter



6- 8 April 2011	Stellenbosch, South Africa	4th IUPAP International Conference on Women in Physics
10-15 April 2011	Sydney, Australia	34th International Symposium on Remote Sensing of Environment (ISRSE2011) Contact: Ian Dowman, idowman@cege.ucl.ac.uk .
18- 21 April 2011	Exeter, UK	8th International Symposium on Weather Radar and Hydrology (WRaH 2011) - User applications of weather radar for flood forecasting and water management
9-13 May 2011	Sun City, South Africa	5th International Wildland Fire Conference (WildFire 2011) Contact: info@wildfire2011.org .
18-22 May 2011	Marrakech, Morocco	FIG Working Week & XXXIV General Assembly Contact: FIG Office, fig@fig.net .
20 - 22 May 2011	Agadir	Climate Change, Agri-Food, Fisheries, and Ecosystems: Reinventing Research, Innovation, and Policy Agendas for an Environmentally and Socially-Balanced Growth , Deadline for abstract/proposal submission: October 15, 2010. Contact: Dr. Mohamed Behnassi at behnassi@gmail.com .
20- 25 March 2011	Cape Town, South Africa	2011 African Conference on Software Engineering and Applied Computing
18-22 May 2011	Marrakech, Morocco	Bridging the Gap between Cultures . FIG Working Week and General Assembly.
22- 26 May 2011	California, United States	World Environmental and Water Resources Congress , Deadline for abstracts/proposals: 7 September 2010.
3-8 July 2011	Paris, France	25th International Cartography Conference (ICC 2011)
22-26 August 2011	Wellington, New Zealand	5th International Symposium on GIS/Spatial Analyses in Fishery and Aquatic Sciences
4 - 8 September 2011	Cape Town, South Africa	The 6th Science Centre World Congress
10-21 October 2011 * NEW *	Changwon Center, Korea	UNCCD COP 10 , Contact: UNCCD Secretariat at secretariat@unccd.int
October 2011	Cairo, Egypt	AfricaGIS2011 Conference
28 November - 9 December 2011	South Africa	17th Conference of the Parties to the UNFCCC and 7th Meeting of the Parties to the Kyoto Protocol Contact: UNFCCC Secretariat, secretariat@unfccc.int .
8-12 July 2012	San Diego, California USA	ESRI User Conference
8-12 July 2013	San Diego, USA	ESRI International User Conference

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