



# Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

September 2011

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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 25<sup>th</sup> 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>  
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## Input to this Issue

Thank you to Kate Lance, NASA/SERVIR-Africa (USA); Hussein Farah, RCMRD (Kenya); R T Wonnacott, National Geo-spatial Information (South Africa); Agebremariam, UNECA (Ethiopia); Richard Munang, United Nations Environment Programme (Kenya); David Stevens, UN-SPIDER (Vienna), Karen Levoleger, Kadaster (Netherlands); John Njenga, ESRI EA (Kenya) and Ken Sanderson, Miistakis Institute (Canada) for their contributions to this issue of the newsletter.

## SDI News, Links, Papers, Presentations

### [2011-2012 GSDI Small Grants Program](#)

The [Global Spatial Data Infrastructure \(GSDI\) Association](#), the [FGDC](#), and [GISCorps](#) have announced the Small Grants Program for the year 2011-12. The Small Grants Program provides awards of \$2500 USD in cash and/or contributed volunteer professional services for technical or institutional projects. A list of typical projects follows - but this list is not exhaustive:

- 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 (catalog services),
- Establishing standards-based web mapping and data access services,
- Accomplishing geospatial data and/or SDI surveys or inventories,



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- 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. Project proposals should have a maximum of 4000 words. Application deadline: 31 October 2011. Additional information: Overview of GSDI - [http://memberservices.gsdi.org/files/?artifact\\_id=844](http://memberservices.gsdi.org/files/?artifact_id=844) (MS PowerPoint), GSDI Strategic Plan - [http://portal.gsdi.org/files/?artifact\\_id=544](http://portal.gsdi.org/files/?artifact_id=544) (PDF), Global Earth Observation System of Systems (GEOSS) and the Group on Earth Observations (GEO) - <http://www.earthobservations.org/>. The GSDI Association also hosts an [SDI-Africa E-mail Discussion List](#) with intermittent news.

### [Global geospatial group to promote equitable data access](#)



A high-level global group promoting geospatial information could help developing countries gain better access to data to help tackle issues such as climate change, conservation and disaster management. The UN has set up an expert committee and a programme on global geospatial information management under its Economic and Social Council to encourage international cooperation and establish best practice on the use of geographic data, collected by technologies such as remote sensing and the global positioning system (GPS).

The decision, announced on 27 July was triggered by a report earlier this year by the UN secretary-general that concluded that many developing countries have a "serious lack of institutional capacity to harness the enormous potential of geospatial information technologies and to build a sustainable national infrastructure". There have been several efforts to manage such information, including the Permanent Committee for Geospatial Data Infrastructure of the Americas (PC-IDEA) and the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP). "But these discussions have been regional in focus," said Paul Cheung, director of the new initiative and head of the UN's statistics division in New York. "There is a need for a global platform, for all countries to come together and focus on all of the issues. A key task will be to standardize geospatial information and applications to enable the sharing of data and services across borders. Geospatial data is increasingly owned by multinational corporations, which sell software and platforms to developing countries that may not have the capacity to know what the best products are or how best to use them. The new committee could help represent developing countries and advise them on building up their national institutions. "Spatial information and analysis lie at the heart of nearly all major international peace, global health and economic development problems,"

The first UN high-level forum on geospatial information management is scheduled to take place in Seoul, Korea, in October to bring together countries, international organisations and the private sector. Read more... [Link to UN secretary-general's 'Global geospatial information management' report](#).

### [A better climate for disaster risk management](#)

This report highlights advances in the use of climate information to predict and prepare for climate-related natural disasters. It draws together 17 case studies that capture the current state of knowledge within the humanitarian community, and identifies research innovations. It presents the challenges and opportunities that disaster risk managers face in using climate science with a three step approach: identifying the problem, developing tools, and taking action.

The results show that effective partnerships are crucial and can help to build the information needed for effective response. They also suggest how the use of this information can be improved - for example by focusing on immediate opportunities for action in countries and regions more likely to benefit. Recommendations also include developing realistic expectations, in order to maintain trust in the information and those who provide it, and encouraging national meteorological services to tailor their information to the problem at hand. [Source: The International Research Institute for Climate and Society (IRI), the Earth Institute at Columbia University - 2011].

### [Barriers to equitable access to quality health information with emphasis on developing countries](#)

This article, published for The Rockefeller Foundation's conference series 'Making the eHealth Connection', assesses the barriers to quality health information in developing countries, which hamper the development of health systems and services. While the Internet has improved access to health information in developed



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countries, obstacles remain in developing nations — the most common being unreliable connectivity and expensive Internet access, especially in rural areas.

Other barriers include a lack of medical writing skills; language diversity; copyright issues; economic constraints; poor visibility of scientific outputs from developing countries; low levels of information technology literacy; cultural and lifestyle hurdles and a lack of appropriate public policies and funding. The authors assess the current status of such barriers and explain how training, open access publishing and recent innovations in Internet access can help. They argue that the digital divide, and its consequent disparities, also exists in pockets within developed countries.

### [El Niño linked to civil conflict in tropical countries](#)

The risk of civil conflict doubles in tropical countries during El Niño years, and around one-fifth of all civil wars between 1950 and 2004 may have been influenced by its weather patterns, according to a study. The El Niño climate cycle, which periodically warms up the Pacific Ocean and affects weather patterns in many countries, has influenced 21 per cent of civil wars around the world and almost 30 per cent in the countries where El Niño has a high impact - the tropical parts of Africa, Asia-Pacific and South America.

The findings were reported by a team from Columbia and Princeton universities, United States, in Nature on 24 August. "We find that it is the poorest countries that respond to El Niño with violence," said Solomon Hsiang, lead author and a researcher at Columbia University. Countries that have been particularly affected are Angola, Congo, El Salvador, Eritrea, Haiti, Indonesia, Myanmar, Peru, the Philippines, Rwanda, Sudan and Uganda. Hsiang and colleagues analysed more than 230 civil conflicts that took place globally between 1950 and 2004.

El Niño occurs every two to seven years, but Hsiang noted that it is now possible to forecast it up to two years in advance, allowing for preventative measures. Nick Nuttall, a spokesperson for the UN Environment Programme, told SciDev.Net: "Governments should take this study as a red flag in terms of co-operating on climate policy and coming up with some decisive trajectories for reducing emissions". Halvard Buhaug, a conflict researcher at the Peace Research Institute Oslo, in Norway, said: "The reported correlation between El Niño cycles and conflict risk in El Niño-sensitive countries is remarkably strong". He said of the new study: "The statistical analysis is quite comprehensive and the results appear robust". But he added: "Until we can establish the causal links that might be at play I find it advisable to exercise restraint in embracing the notion that El Niño drives civil wars in the tropics".

Although the study did not reveal how or why changing weather affects outbreaks of violence, El Niño is known to be correlated with crop losses, natural disasters and the spread of infectious diseases. So the team hypothesises that income inequality, declining employment, governments incapable of enforcing law, or even the physiological effects of heat could tip volatile situations over the edge. Although climate change may also make weather patterns more extreme, the study did not look at its effects. But Mark Cane, one of the co-authors and professor of earth and climate sciences at Columbia University, said the pattern they found may also apply to a world disrupted by [global warming](#). [Link to full article in Nature](#).

### [Africa preparatory GGIM meeting adopts the Addis Ababa declaration](#)

The African preparatory meeting on the Global Geospatial Information Management (GGIM) closed in Addis Ababa, Ethiopia on Wednesday 10 August with the adoption of the Addis Ababa declaration on geospatial information management in Africa. The three-day meeting recommended that African countries, the Economic Commission for Africa (ECA) and the African Union Commission should finalize and implement the African Action Plan on Geospatial Information Management. [Press Release](#) and [Addis Ababa Declaration](#).

### [Nigeria launches first satellite built by Africans](#)



Nigeria successfully launched NigeriaSat-X, the first satellite to be designed and built by Africans, into orbit on 17 August. NigeriaSat-X was launched along with another small satellite, NigeriaSat-2, from Yasny in southern Russia. The satellite is the result of a transfer training agreement between Nigeria's National Space Research and Development Agency (NASRDA) and Surrey Satellite Technology Ltd, a satellite developer based in the United Kingdom. It brought 26 young scientists from NASRDA to work on the satellite for 18 months, under the supervision of experts in Surrey. NigeriaSat-X will be used for resource management, and for mapping of the country



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that will feed into food security through crop monitoring, urban planning and disaster management. It will also facilitate the development of Nigeria's space capability and engineering skills for new technologies.

In a national broadcast, President Goodluck Jonathan praised "the resourceful Nigerians who made this history possible". Jonathan, a scientist by training, said: "Today marks another milestone in our nation's effort to solve national problems through space technologies." Nigeria's national space policy was approved in 2001 and culminated in the launch of the country's first satellite, NigeriaSat-1, in 2003. Imagery is captured for specific areas and application needs. NigeriaSat-2 can provide data to meet data requirements for the following: Urban mapping (2.5m panchromatic), Oil spills: detection, extent and location (2.5m or 5m), Land use change in rural/urban areas (5m), Hydrology (irrigation, fadama projects), Crop production and forest monitoring, Security monitoring (2.5m panchromatic), Structure mapping and terrain analysis, Road/railway development and maintenance, Pipeline monitoring, Detection of such things as illegal mining, fire, etc

Its 25-year space mission roadmap, approved by the government in 2006, aims to produce a Nigerian astronaut by 2015; launch a satellite built in Nigeria between 2018 and 2030; and be part of the moon mission by 2030. Oye Ibidapo-Obe, president of the Nigerian Academy of Science, toldSciDev.Net: "This is a remarkable feat that puts our nation in the well-deserved rank of scientifically capable countries. It is a glorious day for our country." But he added that the country now needs to develop capacity to build satellites locally. Seidu Mohammed, director-general of NASRDA, said: "This [achievement] showcases the importance of capacity building as it is vigorously being pursued by NASRDA. In light of this, having the required environment, our engineers and scientists can handle any design with little or no supervision." Ajayi Boroffice, founding director-general of NASRDA, said: "Capacity building is central to the implementation of Nigeria's space programme."Africa's scientists and engineers need to rise up to the challenge of developing and applying invaluable space technology to tackle [their] countries' problems."

### [Nigerian-built satellite acquires first image just days after launch](#)

The Nigerian-built satellite, NigeriaSat-X, has acquired its first satellite image just three days after the successful launch on 17th August. Revealing buildings and the landscape surrounding the city of Auckland, New Zealand, this image demonstrates that the satellite's enhanced 22m wide-area multi-spectral imagery for mapping, agricultural monitoring and disaster relief programmes works well. A high resolution 1.5 mb satellite image is available from the PR contacts - Press Contact: Robin Wolstenholme, bcm public relations, Tel: +44 (0)1306 882288; Email: [r.wolstenholme@bcmpublicrelations.com](mailto:r.wolstenholme@bcmpublicrelations.com) upon request in JPEG format. Image caption: 22m multispectral image of Auckland, New Zealand acquired [date]. Image credit: Image acquired by NigeriaSat-X, copyright NASRDA, supplied by DMCii.

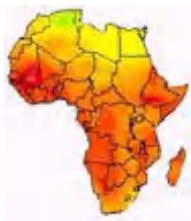
### [How climate data is bringing benefits to Senegal's farmers](#)



Smallholder farmers have years of experience in assessing how climatic conditions, particularly rainfall, affect their crops. But as the climate changes, that knowledge - often gathered over a lifetime - may no longer be valid. As a result, vulnerable farmers need help to adapt or fine-tune their practices. But as climate monitoring and research become more sophisticated, the gap between the technology and farming communities is getting wider. A project in Senegal is now helping to bridge that gap.

The InfoClim project collects climate information and shares it with vulnerable populations, particularly farmers, to help them adjust their sowing, cultivation and other dates to suit the current climate. The project's advisors begin by analysing data from the Centre for Ecological Monitoring (CSE) in Dakar and its partners to assess the probability of climatic events. These partners include Senegal's National Meteorological Agency, which collects seasonal forecasts, and the Senegalese Agricultural Research Institute (ISRA), which contributes information on adapted crops. The Laboratory for Atmospheric Physics at the Cheikh Anta Diop University of Dakar provides local climate models and scenarios. The scientific data are then shared with communities through four well-equipped regional 'observatories'. Local people trained by the project use community radio stations and meetings to pass the climate information to farmers. Innocent Butare of the Senegal office of Canada's International Development Research Centre, which funded the InfoClim project, said the pilot project was intended to understand how to disseminate scientific information on adaptation to climate change to rural communities and local decision-makers. The project provides farmers and local communities with climate data and soil statistics, and helps them share their knowledge to improve planting practices and ensure better yields.

Members of community-based organisations, non-governmental organisations (NGOs) and local decision-makers have learnt how to use agro-meteorological data to assess different options for adapting to climate



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change. These include changing planting dates, using drought-resistant seeds, diversifying crops and planting perennial crops, improving water and soil management, fighting soil erosion, developing agro-forestry, integrating crops, livestock and trees, and finding alternative sources of income.

The three-year research project, which started in 2008, was due to end in December 2010 but was extended by six months, spreading across four communities: Fandène, Notto Diobass, Taiba Ndiaye and Thiès. Other regions of Senegal are now asking for similar projects to help them. Butare added that the project, funded to the tune of more than US\$443,000, is a good example of how local decision-makers can use scientific information to integrate climate-change concerns into local development plans. "Apart from the know-how, which the project inculcated in the partners, it scores a major point in securing the commitment of scientists and technicians to provide answers to farmers whenever they have questions about climate change as it relates to their work." "It built the confidence of farmers by enhancing their knowledge and equipped them with the skills to be able to translate scientific and technical information into simple and understandable messages. Farmers want accurate information about the climate events that affect their crops," said Thiao.

### **4.4 Million 'Fake Handsets' subscribers to be switched off**

About 4.4 million mobile phone subscribers may lose their lines following a directive by the Communications Commission of Kenya to the operators to block handsets that are "unknown" on their networks in a bid to fight the sale of counterfeits. Such handsets do not have an International Mobile Equipment Identity (IMEI), the unique number used to identify original GSM devices. Following the directive, the mobile phone operators have asked for more time to weigh their options and propose other solutions to the counterfeiting problem. A meeting between them and the CCK is scheduled for September 9. Counterfeiting of mobile phones and their accessories has risen over the last seven years. It is estimated that one in every five mobile phones sold in the global market is a counterfeit.

According to the CCK statistics there are about 22 million mobile subscribers. This translates theoretically to 4.4 million counterfeit phones in circulation in the country. "Consumers, who believe they are buying a genuine phone, when in fact it is a counterfeit, will likely blame the manufacturer of the genuine product if they do not get value for money resulting in loss of good will," said John Akoten, Deputy Director Research & Awareness at the Anti-Counterfeiting Agency. Consumers go for the fake phones as they are much cheaper than the genuine brands. The ACA estimates that the economy loses up to Sh3.2 billion in tax revenues as a result of counterfeit mobile phones. In March this year, the ACA seized counterfeit mobile phone batteries in Nairobi worth Sh2.4 million and has so far filed 38 intellectual property right cases.

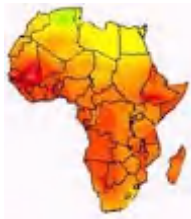
If the CCK directive is implemented after next month's meeting, Safaricom will be the most affected as it says there are already nearly one million devices with non-recognized IMEI on its network. On the handset IMEI is identified by dialing \*#06#. Without it the phone is counterfeit, but having one does not mean it is genuine as it could be duplicated. "What is required is a regulator that would not affect the customers who are already victims of the counterfeiters," said Nzioka Waita, the Director of Legal and Corporate Affairs. On the one hand, the operators could lose billions in revenue while on the other the use of these handsets is ruining the reputation of their networks as the counterfeits offer substandard services.

Studies have shown that counterfeit phones emit radio frequency radiation higher than what is internationally stipulated as safe for human exposure and therefore harmful to those who use them. Counterfeit phones also have a negative effect on the environment. The IT Consumers Rights chairman, Alex Gakuru, commended the CCK directive. "But CCK should first create a facility database for the genuine phones in the market that way suppliers would know counterfeits will be traced back to them. There will be pain initially for those who have already invested, but it is for the benefit of all," he said. More...

### **AfricaGIS 2011: A geospatial technology revolution in Africa**, 7-11 November 2011, Abuja, Nigeria



The AfricaGIS 2011 will be held between 7th -11th November at the Sheraton Hotels and Towers Abuja, Nigeria. The sub-themes are: Partially-enabled Governance; Enterprise GIS and Land Administration: the building blocks of sustainable development; New Trends: crowd-sourcing, volunteered geographic information (VGI), and web services in the cloud; and Business Geographic's: the geospatial advantage. This invitation has been made, with GEOSON (The Geo-information Society of Nigeria) as one of the organizers of this conference provides the backing and identity under which AfricaGISTM2011 is being set up and structured. The programme includes scientific sessions, field trips and a technical exhibition, alongside social events. Researchers, academics, students and the general public are expected to converge on this major event of great scientific relevance.



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Please keep visiting the website [www.africaGIS2011.org](http://www.africaGIS2011.org), as this is the permanent means of communication up to the start of the conference. Download the registration form at <http://www.africagis2011.org/images/form.pdf>. Contact: Dr. Aminu Usman, Chairman, Local Organizing Committee, AfricaGISTM2011 - Abuja-Nigeria at [e-mail-aminu.usman@afriagis.org](mailto:e-mail-aminu.usman@afriagis.org).

## 7th Annual AfricaArray Workshop, 17-22 November 2011, Johannesburg, South Africa

The 7th Annual AfricaArray Workshop will be held in Johannesburg, South Africa, during 17 - 22 November 2011. Please note that this year's conference will comprise an extended program over six days instead of the usual two days. Days 4 and 5 (Sunday 20 November and Monday 21 November) will follow the more traditional AfricaArray Workshop format (oral and poster presentations) of previous years.

- The first three days will be devoted to the GPS Data Processing Short Course, for which separate registration is required. The short course will be led by Dr. Bob King from MIT and Dr. Henry Berglund from UNAVCO, and will include lectures and one-on-one tutoring in static processing of both continuous and survey-mode measurements; defining, global, regional, and local reference frames; temporal and spatial filtering of time series; modeling tropospheric, antenna, and loading effects in height estimates; combining solutions to estimate post-seismic and long-term crustal deformation; handling step-displacements due to earthquakes and instrument changes; and developing an error model for velocity estimates. Tutoring will be based on data sets participants bring on their own laptops or else provided by the instructors. Participants will be expected to have installed and exercised with the software prior to arriving.
- The [IGCP565 Workshop](#) will take place on days 5 and 6, and also requires separate registration. This workshop will focus on the integration of geodetic observations and products in models of the hydrological cycle. For more information see <http://www.igcp.org/workshops/johannesburg2011>. Delegates wishing to obtain sponsorship to attend this workshop will be required to submit a separate motivation to Dr Hans-Peter Plag at [hpplag@unr.edu](mailto:hpplag@unr.edu).

Delegates may wish to register for the entire 6 days or for a shorter stay. The registration form is available online at <http://www.africaarray.psu.edu/>. For further information, contact Sharon Ellis, Africa Array Programme at [sharon.ellis@wits.ac.za](mailto:sharon.ellis@wits.ac.za).

## 2nd UN-SPIDER International Expert Meeting: Crowdsourcing Mapping for Preparedness and Emergency Response - Geneva, Switzerland, 16th November 2011

This Expert Meeting will be held back-to-back with the International Conference on Crisis Mapping (ICCM 2011) (<http://crisismappers.net/page/iccm-geneva-2011>). The meeting will focus on exploring possible ways of contributing to better coordination of the crowdsourcing communities with the space technology community and on overall improvement of its involvement to facilitate the preparation and processing of space-based products used by the disaster risk reduction and emergency response community.

The discussions will target opportunities that make space-based information available for disaster risk reduction and emergency response, including their access and use, as well as the further involvement of existing mechanisms to ensure increased coordination and cooperation of all three communities. If you would like to join in Geneva please do apply on-line by the 30 September 2011. Please note that funding support is not available for this meeting and number of participants will be strictly limited to 70.

**Other events** - there are several other planned UN-SPIDER regional and national events including the technical advisory missions to Sri Lanka (17 - 21 October 2011), Chile (17-21 October 2011) and Tonga (January 2012), regional capacity building activities in Burkina Faso (26-30 September 2011) and Mexico (24-28 October 2011), and the Regional Meeting in Russia (Krasnoyarsk) (7-8 September 2011). If you are interested in receiving information about any one of these activities please send an e-mail to [un-spider@unoosa.org](mailto:un-spider@unoosa.org).

## Call for candidatures to the Project Team of the High Level Panel of Experts (study on Climate Change and Food Security)

The High Level Panel of Experts (HLPE) on food security and nutrition has been created as part of the reform of the international governance of food security to advise the UN Committee on World Food Security (CFS) which is the foremost intergovernmental and international platform dealing with food security and nutrition. The HLPE is now calling for motivated high level experts to form a Project Team to write, according to the HLPE Rules and procedures, its draft report on Climate change and food security (see <http://www.fao.org/cfs/cfs-hlpe/next-steps> for the mandates given by the CFS).



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The Project Team will be appointed by the Steering Committee and work from October 2011 until June 2012, under the Oversight of the Steering Committee of the HLPE. The report of the HLPE, requested by the Committee on World Food Security (CFS), will be sent to the CFS end June 2012, and presented at CFS Plenary by October 2012. As in other expert panels (IPCC, IAASTD), reimbursement of previously agreed support expenses, such as internal meetings of the HLPE, will be provided.

To apply, please download the form available at [www.fao.org/cfs/cfs-hlpe](http://www.fao.org/cfs/cfs-hlpe) and send it back by e-mail to [cfs-hlpe@fao.org](mailto:cfs-hlpe@fao.org) before 16 September 2011. More information on the HLPE and the CFS is found online at [www.fao.org/cfs/cfs-hlpe](http://www.fao.org/cfs/cfs-hlpe).

### **Participation in a Hydrologic Forecasting Interoperability Experiment (IE)**

The Open Geospatial Consortium (OGC) invites participation in a Hydrologic Forecasting Interoperability Experiment (IE). This activity, which will begin on September 22, 2011, is designed to advance the development of WaterML 2.0 and test its use in a forecasting context with various OGC service interface standards.

The objectives for the Hydrologic Forecasting IE are to implement and test WaterML 2.0 and OGC services within a real-time forecasting context. This will address the time and ensemble dimensions of a forecast, as well as the ability of the services to facilitate incremental data updates, and notifications to trigger data exchange capabilities. The work will focus on testing information models and service delivery mechanisms, and in addition, participants are expected to use new and upgraded web services. The ultimate goal is to improve the overall availability of water data and the interoperability of water information systems for hydrologic research and water resource management.

The OGC members that are acting as initiators of the Interoperability Experiment are:

- US National Weather Service (NOAA/NWS)
- Deltares USA Inc.
- US Geological Survey (USGS)
- Commonwealth Scientific and Industrial Research Organisation
- (CSIRO) (Australia)
- KISTERS Environmental and Resource Management Software Solutions
- (KISTERS) (Germany)

Summary of activity plan, requirements for participation, schedule, and kick-off meeting details are available [http://external.opengeospatial.org/wiki\\_public/HydrologyDWG/HydrologicForecastingInteroperabilityExperiment](http://external.opengeospatial.org/wiki_public/HydrologyDWG/HydrologicForecastingInteroperabilityExperiment). Expressions of interest for participation are due by 22 September 2011. Contact [John.Halquist@noaa.gov](mailto:John.Halquist@noaa.gov) for further details or to register as a participant.

### **Practical SDI implementation materials from within and outside of Africa**

#### **Biodiversity conservation in the Eastern Arc Mountain forests of Tanzania**

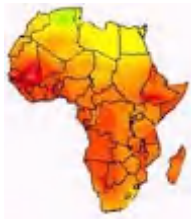
The Global Environment Facility (GEF) has presented the results of a project implemented by the UN Development Programme (UNDP) to conserve biodiversity in the Eastern Arc Mountain forests of Tanzania, which, over seven years (2003-2010), increased protected area coverage by over 500,000 hectares and supported the creation of protected forest corridors in sensitive areas, including in the Derema area and Bunduki Gap in the Ulugurus. [More...](#)

#### **GIS mapping of rice fields in Ghana**



The Agricultural Development and Value Chain Enhancement Programme is to carry out a Geographic Information Systems (GIS) mapping exercise of rice, soya and maize fields in Ghana's Northern, Upper East and Upper West regions. The programme funded by the United States Agency for International Development (USAID) is scheduled to begin from July to August this year with the aim of increasing the competitiveness of the food crops through better use of improved technologies. A Communications Specialist of the programme, Adwoa Mensima Sey, said the programme is to help farmers to calculate their plot sizes for production, planning and resource allocation. It will also involve 53 students who will be trained as Geographic Information System surveyors, from the University of Ghana, Cape Coast University, University of Development Studies and the Kwame Nkrumah University of Science and Technology.

### **GIS Tools, Software, Data**



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### [Wildlife Observation Mapping Tool](#)

The Miistakis Institute has released the Wildlife Observation Mapping Tool. Built on experiences with "Road Watch in the Pass" (<http://www.rockies.ca/roadwatch>), this prepackaged web mapping application is designed for rapid deployment of local citizen science projects to capture user observations of wildlife related events on a highway, trail, within communities or any landscape where a group wants to monitor wildlife.

The mapping application uses OpenLayers as a front end with Google Services providing the default base map data. The application can be setup on most web servers, with no special requirements, with the exception of needing PHP and the ability to set file permissions for write/execute. Basic setup is fairly easy with the provided setup guide. Organization specific customization is unlimited, but would require some technical effort.

The Wildlife Observation Mapping Tool is provided free of charge in an 'as is' state with permission to edit and change for your own personal or organizational needs. It may not be used to generate revenue or re-distributed without permission.

### [Rapid Land Cover Mapping \(RLCM\) Tool](#)

While a large amount of raw remotely sensed data (satellite imagery) are available globally, there is currently a shortage of routinely updated land cover data that is systematic, integrated, and comparable at the local, national and regional levels. To address this limitation, the [U.S. Geological Survey \(USGS\) Center for Earth Resources Observation and Science \(EROS\)](#) developed the [Rapid Land Cover Mapping \(RLCM\) Tool](#). [Read more...](#)

### [SERVIR-Viz 3-D Visualization Tool](#)

SERVIR-Viz is a customized version of NASA's free, open-source, web-enabled, 3D earth exploration tool known as WorldWind. As with other mapping browsers such as Google Earth, SERVIR-Viz allows users to zoom to any place on Earth and tilt the viewing angle so that they can "fly" across a 3-D terrain. The software taps into remotely-hosted framework data layers, maps, and satellite images and other SERVIR products in an interactive, 3D globe environment. [Read more...](#)

### [Climate Mapper Plug-in for SERVIR-Viz](#)

The Climate Mapper, developed by [IAGT](#) for [SERVIR-Viz](#), project designers access to historical weather data as well as projections of climate change. Users can zoom into specific areas and view summarized data in the form of charts and graphs. The data also can be exported to a spreadsheet application. The Climate Mapper grew out of USAID's effort to develop its [Climate Change Adaptation Guidance Manual](#). The Climate Mapper now serves the entire globe, excluding the Polar Regions. [Read more...](#)

### [TerraLook](#)

TerraLook consists of three parts. The first is a tool to select and order (for free) images of interest, and this is done using the [USGS GloVis website](#). The images include recent high-resolution ASTER images, plus Landsat images from several historical periods going back to the early '70s. Such historical data supports change analysis. The second TerraLook component is the Image collections themselves, which use standard image (and vector file - for the image footprints) formats. The third is the software tool that is used to interact with the images and shapefiles. TerraLook software, which is open source, was created to provide an easy path to the collections for all users, especially those with no prior experience with remote sensing or GIS. [Read more...](#)

## Geospatial Research, Applications, Reference Material

### [The urban face of climate change resilience: ICT Perspectives](#)

The complexity of urban contexts poses new challenges and opportunities to processes of resilience building, evidencing the need for innovative tools and strategies. This post explores the linkages between urban climate change resilience and the role of Information and Communication Technologies (ICTs). It identifies a series of key areas where ICT tools -such as mobile phones, Internet applications or community radio- can strengthen the capacity of vulnerable urban populations to better withstand, recover and adapt to the impacts of climate change and variability. To read more about how ICTs can contribute to dynamic, flexible and innovative approaches that foster urban resilience, please visit: <http://niccd.wordpress.com/>.





# Spatial Data Infrastructure – Africa Newsletter



## [The De-identification of Longitudinal and Geospatial Data Webinar presentation posted](#)

The recording and reference materials from our recent webinar on "The de-identification of longitudinal and geospatial data" are now available. This presentation provided an overview of novel methods for de-identifying increasingly common and complex health data sets with information about multiple visits for each patient and detailed location information. We have been applying these methods with the organizations we are working with to disclose data for research and public health purposes for some time now. The webinar went over some background, and then walked through a number of real de-identification examples using the latest release of the PARAT de-identification tool, which implements these new de-identification techniques. You can view the recording and download the materials from here:

<https://www.ehealthinformation.ca/survey/webinarjuly202011.aspx>.

## [Earthquake Early Warning System for Railways](#)

In this paper, the authors have developed an earthquake early warning system for railbound transportation, called EWS TRANSPORT. In addition to the early warning of endangered trains before and during an earthquake, EWS TRANSPORT generates a fast damage map after the event. In the early warning phase, earthquake parameters are quickly and accurately calculated using a neural network algorithm. Predicted ground accelerations are combined with railway network data to identify and warn endangered trains. In the damage assessment phase, actual ground accelerations are combined with railway infrastructure data, and potential damages to various railway infrastructure elements are predicted and visualized in the form of a damage map. The latter supports the planning of prioritized repair measures and thus contributes to a faster resumption of train operations. A Web-based simulation of the early warning system has been implemented for the test area of Baden-Württemberg in Germany (see [www.ews-transport.de](http://www.ews-transport.de)). The modular, geo-standard based architecture of EWS TRANSPORT guarantees its portability to other natural hazards and infrastructures. We have also investigated the potential of implementing a large number of sensors directly at the track. A dense network of sensors could be used, not only for reliable damage assessment after an earthquake, but also for permanently monitoring the structural health of the infrastructure. Furthermore, it may be used to detect other hazards, e.g., objects, animals, and humans interfering with safe train operation.

## 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](mailto:sdi-africa@lists.gsdi.org).

## [African Regional Centre for Space Science and Technology Education in English \(ARCSSTE-E\)](#)

The African Regional Centre for Space Science and Technology Education in English (ARCSSTE-E) is established in Nigeria at Obafemi Awolowo University Campus, Ile-Ife. Within the frame work of its mandate to build capacity in core areas of Remote Sensing and GIS, Satellite Communication, Satellite Meteorology and Global Climate and Basic Space and Atmospheric Sciences Applications.

The Space Education courses comprise a 9-month Post Graduate Diploma programme (January to September) every year; and an optional 12 months MSc degree programme. The list of courses:

- [Satellite Communication \(SATCOM\)](#)
- [Satellite Meteorology \(SATMET\)](#)
- [Remote Sensing/Geo Information System \(RS/GIS\)](#)
- [Basic Space](#)

The Center trains participants mostly from English speaking African countries: Angola, Botswana, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mozambique, Namibia, Nigeria, Sierra Leone, South Africa, Sudan, Swaziland Tanzania, The Gambia, Uganda and Zimbabwe. Deadline for applications: 30 September of each year.



# Spatial Data Infrastructure – Africa Newsletter



## ESRI Technical Certification

Beginning in January 2011, users will be able to test for five certifications. The remaining eight are still in development and will be available later in the year. Establishing an industry recognized benchmark of expertise in using ESRI software will:

- Improve success with GIS by creating a community of professionals proficient in using ESRI software.
- Help organizations maximize their investment in ESRI products by employing a workforce certified in using best practices.
- Create professional development opportunities.
- Provide an opportunity for individuals, partners, consultants, and other organizations to distinguish themselves among their peers.
- Assist hiring organizations in assessing candidate skills and abilities.

Workplace experience, combined with GIS education and ESRI training courses, is the best preparation. The ESRI Technical Certification Web site lists specific skills that will be assessed in each exam, as well as training courses that aid in acquiring and improving these skills. Advice on the best training and preparation for a particular certification is available. [Read more.](#)

## ESRI South Africa presents a full spectrum of GIS courses: September 2011



- The course covers GIS theory and functionality: The desktop products (ArcView, ArcEditor, and ArcInfo; Server products (ArcGIS server and ArcSDE); Programming to enable customization of the product, ArcGIS extensions, as well as Introductory and advanced courses in ERDAS Imagine Remote Sensing Software'

Various training venues are available at Esri South Africa, for further information contact: 011 238 6300 [Email the training team](#)

## 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.

## GIS and Remote Sensing Courses at Esri Eastern Africa

ESRI Eastern Africa is now offering update courses to conform to improvements in ArcGIS 10 and ENVI 4.8, conducted with skilled and experienced instructors together with conducive and state-of-the-art training facilities. Courses in the following tracks are offered:

- Fundamentals of ArcGIS Desktop
- Data and Map Production
- Geoprocessing and Analysis
- Enterprise GIS
- Multi-user Geodatabases
- Remote Sensing

Make plans and take advantage of the courses offered at the Authorized Learning Centre in Nairobi, Kenya. Arrangements can also be made for client's site training on request for 12-16 students. Download our course catalogue and current class schedule at <http://www.esriea.co.ke/index.php/instructor-led-training>. To register, visit <http://esrietraining.cloudapp.net/>. For more information, contact by email: [training@esriea.co.ke](mailto:training@esriea.co.ke), telephone: +254 20 2713630/1/2 or visit the offices located on 3rd floor, KUSCCO Centre, Kilimanjaro Avenue, Upper Hill, Nairobi, Kenya.

## Training at Oakar Services

Oakar Services continues to building capacity for geospatial solutions within Eastern Africa. The following courses are available in 2011, which are offered at Oakar's Training Centre or client's site.

<b>GIS based courses</b>	Duration (Days)
• Introduction to GIS	2
• Fundamentals of ArcGIS	5
• Managing Water Utilities Using ArcGIS	3
• Introduction to Web Mapping	3
• GIS for Natural Resources Management	3
• Using GIS for Resource Planning and Management	3



# Spatial Data Infrastructure – Africa Newsletter



- Working with ArcGIS 3D Analyst 2
- GPS based courses**
- Data Collection Using GPS 2
- Mobile Mapping Using MobileMapper Field software 2
- Mobile Mapping Using ArcPad 2
- Remote Sensing based**
- Introduction to Remote Sensing 2
- Image Processing with ERDAS Imagine 3
- Fundamentals of ERDAS IMAGINE I 4
- Fundamentals of ERDAS IMAGINE II 3
- Introduction to Leica Photogrammetry Suite (LPS) 4
- Stereo Analyst for ArcGIS 3
- Specialist Course**
- ArcFM UT (Utilities Solution) 5
- Introduction to Cellular Expert and Implementation 5

You can register for [Focused Training Events](#) on GIS, GPS and Remote Sensing. Further information and enrollment - [www.osl.co.ke](http://www.osl.co.ke) or email at [training@osl.co.ke](mailto:training@osl.co.ke) or call Catherine or Teddy on Tel: +254-20-2718321 / 2715276 | Mobile: 0721-244785 / 0733-448255.

## University of Twente - ITC Faculty of Geo-Information and Earth Observation: Registration for courses (2012-2013)



Faculty of Geo-Information Science and Earth Observation

UNIVERSITY OF TWENTE

Apply online for courses starting in the academic year 2012-2013. Browse by programme (degree, diploma, and certificate), course domain (disaster management, earth sciences, geoinformatics, governance, land administration, natural resources, urban planning, water resources) or location in the course finder at [www.itc.nl/CourseFinder](http://www.itc.nl/CourseFinder). For printed copy of the study brochure, email: [alumni@itc.nl](mailto:alumni@itc.nl).

### ITC Short Course: Remote Sensing and GIS for Geological and Mineral Exploration (2 weeks)

The course will start on 7 November 2011 at the SEAMIC premises in Dar es Salaam, Tanzania. Registration deadline: 1 November 2011.

The course provides an introduction into the application of GIS, remote sensing and airborne geophysics to geologic mapping and mineral resources exploration. The course contents include:

- Analysis and interpretation of geological data sets, such as ASTER satellite imagery, aeromagnetism and gamma-ray spectrometry and geochemistry,
- Integration of different data sets to enhance geologic interpretations, and
- Mineral prospectivity modelling with GIS to generate exploration targets.

Concepts and theories are explained in interactive lectures and their application will be practiced in hand-on exercises of East-African and other case studies. Target group: Geologists working in the field of geological mapping and/or mineral resources exploration who want to deepen their knowledge of the use of digital data sets in a GIS environment to increase the efficiency of geologic mapping and exploration campaigns. Further information and registration: [www.itc.nl/Pub/study/Courses/C11-ESA-TM-05.html](http://www.itc.nl/Pub/study/Courses/C11-ESA-TM-05.html).

### [NFP Course List 2011-2012](#)

Short courses in agriculture, forestry and fishery, fellowship provided. Application deadlines: 1 October 2011.

### [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](#)] –

l'ÉRAIFT est une école d'avant-garde au service du développement humain et durable de l'Afrique.

Elle a pour vocation de former des Spécialistes (DESS & Ph.D) de l'Aménagement et de la Gestion des Forêts et Territoires Tropicaux, par une Approche Interdisciplinaire, Globale et Intégrée, autrement dit Systémique. Contact: [info@eraift.org](mailto:info@eraift.org).

### [Short-courses offered by RECTAS in 2011](#), 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](mailto:info@rectas.org) or [thontteh@rectas.org](mailto:thontteh@rectas.org).



# Spatial Data Infrastructure – Africa Newsletter



## RCMRD - Courses offered by the department of Remote Sensing, GIS and Mapping



The Centre offers the following courses in geo-information. The courses last between one week to three months, and offered through out the year.

- Introduction to Remote Sensing & Image Processing
- Introduction to Geographic Information Systems (GIS)
- Introduction to Global Positioning Systems (GPS)
- Application of Remote Sensing & GIS in natural resources management.
- Application of Remote Sensing & GIS in Early Warning Systems for Food Security
- Application of RS & GIS in Disaster Risk Management
- Geospatial database development and management for use in planning process and decision making
- Principles of Digital Cartography
- Application of GPS technology in resource surveys and mapping
- Integrated Water Management
- Application of GIS in poverty mapping, health care & good governance
- Land Information Management Systems
- Service and Repair of Survey equipment

## Funding Opportunities, Awards, Support

### 2nd edition of the 'Water for Life' UN-Water Best Practices Award' - Focus on 'Water for Food Security'

UN-Water invites you to nominate your best practice for the 2nd edition of the 'Water for Life' UN-Water Best Practices Award. Application period: 30 June-30 September 2011. Focus on 'Water for Food Security'. The United Nations Office to Support the International Decade for Action "Water for Life" 2005-2015, which implements the UN-Water Decade Programme on Advocacy and Communication (UNW-DPAC), and the UN World Water Assessment Programme (WWAP) are pleased to invite you to nominate your best practice for the 2nd edition of the "Water for Life" UN-Water Best Practices Award.

The purpose of the Award is to promote efforts to fulfill international commitments made on water and water-related issues by 2015 through recognition of outstanding best practices that can ensure the long-term sustainable management of water resources and contribute to the achievement of internationally agreed goals and targets contained in the Millennium Development Goals (MDGs), Agenda 21 and the Johannesburg Plan of Implementation.

The application period is open from 30 June to 30 September 2011. The prize is awarded yearly in two categories, one in best water management practices and another one in best participatory, communication, awareness-raising and education practices.

Every year, special emphasis is being put on the theme selected for next World Water Day. World Water Day is held annually on 22 March as a means of focusing attention on the importance of water and advocating for the sustainable management of water resources. Each year, UN-Water agrees to highlight a specific aspect. In 2012, special focus is given to the topic "Water for Food Security". The prize will be awarded at a special ceremony on World Water Day, 22 March 2012.

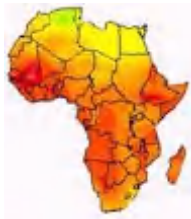
### Call for nominations for the Equator Prize 2012

The Equator Initiative recently announced its call for nominations for the Equator Prize 2012, which will be awarded to 25 outstanding local initiatives that are working to advance sustainable development solutions for people, nature and resilient communities.

One change of note to the Equator Prize 2012 is a thematic emphasis on Community-based Adaptation to Climate Change. Nominations are invited on innovative community-based initiatives working in this area. Information on selection criteria and how to nominate for the Equator Prize 2012 is available at [www.equatorinitiative.org](http://www.equatorinitiative.org). Nomination forms are available in 16 languages and may be completed online. The deadline for nominations is 31 October 2011. For questions and for more information on the Equator Prize 2012 process, please contact Joseph Corcoran at [joseph.corcoran@undp.org](mailto:joseph.corcoran@undp.org).

### Dutch Govt Fellowships for Short Courses for International Students

Sometime it is difficult to get full scholarship for a degree program.. [\[Read Full Scholarship Detail\]](#)



# Spatial Data Infrastructure – Africa Newsletter



## **[2012 Call for Vavilov-Frankel Fellowship in Developing Countries](#)**

Bioversity International announces Fellowships in the field of biophysical, economic and social themes related to the conservation and use of. [\[Read Full Scholarship Detail\]](#)

## **[Global Monitoring for Environment and Security \(GMES\) Masters Competition](#)**

The Global Monitoring for Environment and Security (GMES) has opened this year's competition for the best new ideas and services for the best use of Earth observation data from Europe's Global Monitoring for Environment and Security program. The competition is launched in a collaborative effort by ESA, the Bavarian Ministry of Economic Affairs, the German Aerospace Center DLR, T-Systems and Anwendungszentrum Oberpfaffenhofen.

The competition is open to students, researchers, entrepreneurs, start-up companies and small and medium enterprises to develop new applications for data from the GMES initiative. The categories include:

- Best Service,
- Ideas,
- ESA App,
- DLR Environmental,
- T-Systems Cloud Computing.

Prizes will be awarded for the winners of each category. In addition, an overall winner will be awarded the GMES Master which comes with an additional cash prize of 20,000 Euros. The competition is open until 15 September 2011.

## **[Global Development Alliance 2011](#)**

USAID invites applications for public-private partnerships in its programs for agriculture, climate change, water management, disaster preparedness, and others. Partners are businesses and NGOs in countries where USAID has field missions, with exceptions for multi-country initiatives. Partners contribute resources (in the form of personnel, facilities, materials, and money) in a 1:1 match with USAID. Past awards range from US\$50 thousand to US\$10 million. Reference M/OAA/GRO/EGAS – 11-002011. TVG Note: "Funds for NGOs" provides a convenient summary of how to apply. Concept notes are accepted through 30 September 2011.

## **[PhD fellowship: Call for applications open](#)**

For the application deadline 1 November 2011, the following research topics are available within the two scientific fields of the FONASO programme (i) economics and policy, and (ii) ecology and silviculture. The FONASO topics fall within the following 4 categories:

- [Economics and Socio-Economics of Forest and Nature](#)
- [Governance, Policy and Sociology of Forests](#)
- [Forest Ecosystems and Ecosystem Services](#)
- [Silviculture and Sustainable Forest Management](#)

FONASO doctoral candidates will be part of research groups at two or more of the twelve partner institutions. All applicants must choose one of the described topics as base for their doctoral study synopsis.

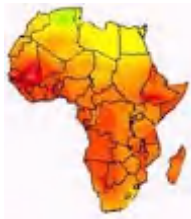
## **[Stockholm International Water Institute - Stockholm Water Prize 2012](#)**

The Stockholm Water Prize is awarded annually for outstanding achievements supporting the availability, conservation, and protection of the world's water resources. The award is open to individuals and organizations of any nationality whose work contributes broadly to the conservation and protection of water resources. The Prize is US\$150 thousand and a crystal sculpture. Deadline for nominations: 15 September 2011.

## **[TWAS - Grants for International Meetings 2011](#)**

The Academy of Sciences for the Developing World (TWAS) makes grants to support the organization of high-level international and regional scientific activities in developing countries by offering financial assistance for conferences, workshops, symposia, and special meetings held in these countries. Application deadline: 1 December each year.

### **Employment Opportunities**



## Spatial Data Infrastructure – Africa Newsletter



### Mapping, Defense and Public Safety Industry Manager, Nairobi, Kenya

Esri Eastern Africa is seeking a talented individual with relevant industry experience who combines a broad understanding of GIS technology with commercial skills to fill the position of Mapping, Defense & Public Safety Industry Manager and Education & Health Industry Manager. The incumbent should be able to use his/her industry experience and relationship skills to increase Esri Eastern Africa's footprint in the mapping, defense and public safety industry with prominent solutions for national mapping & charting, security & intelligence and public safety & law enforcement.

- Directly and indirectly sell geospatial solutions to the mapping, defense and public safety industry in Eastern Africa.
- Engage the national mapping & charting, defense & intelligence, and public safety agencies on the appropriate use of geospatial technologies.
- Develop and implement annual sales and marketing plans and account sales plans.
- Promote the development of a multi-purpose cadastre for effective land management.
- Acquire authoritative content for Esri's online world topographic base map program.
- Work with relevant business partners and resellers on delivering a superior solution offering.
- Build communities of uses within the mapping, defense and public safety industry.
- Attend conference, trade shows and other events to stay abreast with technology developments and industry requirements.

#### Requirements

- Master's Degree in GIS, Geomatics or a land-related discipline from a reputed university.
- Minimum of 5 years work experience in a commercial or project management position.
- Comprehensive understanding of modern concepts and workflows for mapping and charting.
- Good exposure to the mapping, defense and public safety industries with strong existing networks.
- Proficiency in the use of ArcGIS, Microsoft Office and business intelligence software.
- Knowledge of principles of land administration and multi-purpose cadastre is very desirable.
- Work experience in the government within the mapping, defense or public safety industry will offer a distinct advantage.

To apply send your cover letter and CV to [careers@esri.co.ke](mailto:careers@esri.co.ke). Application deadline: 30 September, 2011.

### Education and Health Industry Manager, Nairobi, Kenya

Esri Eastern Africa is seeking a talented individual with relevant industry experience who combines a broad understanding of GIS technology with commercial skills to fill the position of Education & Health Industry Manager. The incumbent should be able to use his/her industry experience and relationship skills to increase Esri Eastern Africa's footprint in the Education and Health industry with prominent solutions for schools, communities, higher education and public health.

- Directly and indirectly sell geospatial solutions to the education and health industry in Eastern Africa.
- Engage schools & communities, colleges & universities, and health & human services organizations on the appropriate use of geospatial technologies.
- Develop and implement annual industry sales and marketing plans and account sales plans.
- Engage schools, colleges and universities to promote GIS for Education through existing Esri education programs.
- Promote ArcGIS Online as a platform for sharing and discovering geospatial content to enable research and collaboration.
- Promote use of GIS in disease surveillance and analysis using online mapping and spatial statistics.
- Work with relevant business partners and resellers on delivering a superior solution offering.
- Build communities of users within the education and health industry.
- Attend conferences, trade shows and other events to stay abreast with technology developments and industry requirements.

#### Requirements

- Master's Degree in GIS, Geomatics, Geography, Public Health or a health-related discipline from a reputed university.
- Minimum of 5 years work experience in a commercial, project management or faculty position.
- Comprehensive understanding of modern concepts and workflows for pedagogy and/or epidemiology.
- Good exposure to the education and/or health industry with strong existing networks.
- Proficiency in the use of ArcGIS, Microsoft Office and business intelligence software.
- Work experience in the higher education or public health industry will offer a distinct advantage.



# Spatial Data Infrastructure – Africa Newsletter



To apply send your cover letter and CV to [careers@esriea.co.ke](mailto:careers@esriea.co.ke). Application deadline: 30 September, 2011.

## Other

### [New Guide on "Mainstreaming climate change adaptation into development planning: A Guide for Practitioners", 2011](#)

UNDP-UNEP Poverty-Environment Initiative releases new Guide on "Mainstreaming Climate Change Adaptation into Development Planning: A Guide for Practitioners", 2011. Climate change adaptation is an area of growing concern and engagement for many developing countries. The myriad and uncertain effects of a changing climate pose significant risks for development and achievement of the Millennium Development Goals. Numerous initiatives and financing mechanisms aimed at assisting countries with climate change adaptation have been rolled out and are being implemented. Efforts tend to concentrate on developing specific adaptation measures, with a focus on the ones that correspond to countries' most urgent and immediate needs. Increasingly, countries are coming to realize that, in the long term, climate change adaptation needs to be supported by an integrated, cross-cutting policy approach.

This guide provides practical, step-by-step guidance on how governments and other national actors can mainstream climate change adaptation into national development planning as part of broader mainstreaming efforts. It is aimed at public decision makers and practitioners in developing countries dealing with climate change adaptation.

In more detail, the Guide: describes key concepts related to mainstreaming adaptation to climate change; presents an operating model to mainstreaming climate adaptation; provides guidance on finding the right entry points into national development planning and making the case to decision-makers; outlines how to integrate climate adaptation into policy processes, including collecting country-specific evidence; offers guidance on meeting the implementation challenge from strengthening national monitoring systems to budgeting processes and policy measures at national, sector and subnational levels to strengthening institutions and capacities

The guide draws on substantial experience and lessons learned by the UNDP-UNEP Poverty-Environment Initiative in working with governments to integrate environmental management for pro-poor economic growth and development into national development planning and decision-making.

### [Sustaining forests: investing in our common future](#)

In this issue the focus is on the role of forests in a green economy and climate change . The paper discusses opportunities for innovative solutions to forest management that take into account economic values of forests to human well-being. The paper also stresses that degraded forests and insecure flows of forest ecosystem services can make communities and sectors more vulnerable to climate variability and change and lead to increased adaptation costs.

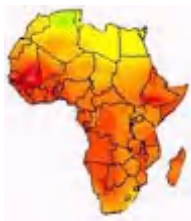
Over 410 million people directly depend on forests for subsistence and income. Another estimated 1.6 billion people indirectly depend on forest goods and services. It is estimated that the annual value of internationally traded forest products is between \$150 billion and \$200 billion. Also, standing forests are vital in the fight against climate change due to their potential carbon sequestration rate of between 1.1 to 1.6 Gt per year.

The complexity of the current threats to forests notwithstanding, the use of innovative market and policy mechanisms can internalize the true economic value of forests as productive natural assets that generate goods and services at different levels to promote investment. Mechanisms that combine social, economic and environmental benefits are necessary to encourage sustained investment in forests for the success of a green economy.

Forests have the potential to reduce the vulnerability of communities to climate change impacts by protecting settlements from natural hazards and supply interruptions and enhancing livelihoods and food security, while also playing an important role in the adaptation of national economic sectors. Full paper: [http://www.unep.org/ecosystemmanagement/Portals/7/Documents/unep\\_policy\\_series/5thUNEPPolicySeries.pdf](http://www.unep.org/ecosystemmanagement/Portals/7/Documents/unep_policy_series/5thUNEPPolicySeries.pdf).

### [Egypt ready for talks on Nile water sharing](#)

Egypt is willing to negotiate with other countries sharing the Nile River on the water use. The Egyptian ambassador to Tanzania, Dr Magdy Hefny, said that trading blame on the use of the river's water would not solve the problem. His remarks show Egypt's policy shift since it has maintained that it had a "historic right" to use the water uninterrupted under an agreement signed during the colonial era. Sudan has also been



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holding a similar position. Other Nile Basin states have wanted to draw the river water for their projects, sparking disagreements. Dr Hefny said upstream countries feared that they might jeopardise their development potential by conceding the freedom to the use of water without encumbrance while those downstream perceived that their "historic rights and livelihoods" were being compromised.

He was presenting a paper on complexities of water challenges in the Nile Basin at a workshop organised by the University of Dar es Salaam's Department of Water Resources Engineering as part of the university's 50th anniversary. "Ten years of Nile negotiations are mired down in a near zero-sum game. It seems that whatever the outcome, somebody feels defeated." Egypt and Sudan rejected a proposed Nile Basin agreement while the other seven members resolved to move forward on a regional water usage treaty without the support of the two countries. The Cooperative Framework Agreement was supposed to be signed in July last year, but disagreements over the wording and scope of the document caused delays. One point of contention is article 14(b), which addresses water security. Egypt and Sudan want the article's language to be changed to protect their "historic rights".

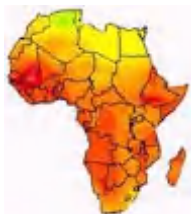
"There are still open questions which need prior notification and consultation, natural and historic right as Egypt is vulnerable for its almost total dependency on the Nile water and the operationalisation of the principle of equitable utilisation," said Dr Henfy. Kenya's vice chair of Commission for Higher Education, Prof Makau Mutua, said it was important for African countries to start sharing resources. He warned that next century's wars would be about water. Meanwhile, the acting director for Sewerage and Urban Water Supply, Mr William Uronu, said there are high fluoride content and salinity along the Rift Valley, making water drawn there unfit for human consumption. "The government is investing heavily in ground water drilling but it is forced to abandon many water wells due to poor quality," he said.

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

## Conferences, Events

Date	Location	Event
<b>September 2011</b>		
4-8 September 2011	Cape Town, South Africa	<a href="#">The 6th Science Centre World Congress</a>
6-8 September 2011	Nairobi, Kenya	<a href="#">Africa Geospatial Forum (AGF)</a>
12-16 September 2011	Denver, USA	<a href="#">Call for presentations for FOSS4G 2011</a>
12-16 September 2011	Ticino, Switzerland	<a href="#">3rd Symposium on Environmental Weeds &amp; Invasive Plants (Intractable Weeds and Plant Invaders)</a>
13-15 September 2011	Livingstone, Zambia	<a href="#">10th IEEE AFRICON 2011</a> The top-event of IEEE in Africa
19 - 23 September 2011	Cape Town South Africa	<a href="#">2011 ACSEAC</a> 2011 African Conference on Software Engineering & Applied Computing (ACSEAC)
26-28 September 2011	Mombasa, Kenya	<a href="#">4th African Leadership Conference on Space Science and Technology for Sustainable Development (ALC2011)</a> : Building a shared vision for space in Africa,
27-30 September 2011	Nairobi, Kenya	<a href="#">6th Annual Internet Governance Forum</a>
26-30 September 2011	Aberdeen, Scotland	<a href="#">World Conference on Marine Biodiversity</a>
<b>October 2011</b>		
3-7 October 2011	Cape Town, South Africa	<a href="#">International Astronautical Congress 2011</a> Contact: <a href="mailto:enquiries@iac2011.com">enquiries@iac2011.com</a> . Contact: <a href="mailto:enquiries@iac2011.com">enquiries@iac2011.com</a>
4- 6 October 2011	Saly, Senegal	<a href="#">Scientific Symposium on "Contribution of ocean data and information to sustainable development in Africa"</a>
5-6 October 2011	Port Harcourt, Nigeria	<a href="#">Seventh International Conference on Sustainable Development</a>

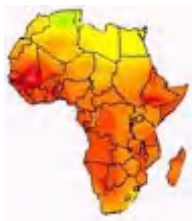




# Spatial Data Infrastructure – Africa Newsletter



5-7 October 2011	Beach Resort, Zanzibar	<a href="#">6th ESRI Eastern Africa User Conference</a> Contact: <a href="mailto:events@esria.co.ke">events@esria.co.ke</a> .
11-14 October 2011 <b>* UPDATED *</b>	Rabat, Morocco	<a href="#">E-AGRI training workshop - crop yield forecasting based on remote sensing</a> Contacts: <a href="mailto:riad.balaghi@gmail.com">riad.balaghi@gmail.com</a> , <a href="mailto:qinghan.dong@vito.be">qinghan.dong@vito.be</a> .
10-14 October 2011	Kimberley, South Africa	<a href="#">International Wildlife Ranching Symposium</a>
10-21 October 2011	Changwon, Korea	<a href="#">UNCCD COP 10</a> , Contact: UNCCD Secretariat at <a href="mailto:secretariat@unccd.int">secretariat@unccd.int</a>
12-14 October 2011	Coimbra, Portugal	<a href="#">WG II/4 &amp; ICWG II/IV 7<sup>th</sup> International Symposium of Spatial Data Quality</a>
19-21 October 2011	Bloemfontein, South Africa	<a href="#">1st International Conference on Clays and Clay Minerals in Africa and 2nd International Conference on Geophagia in southern Africa</a>
31 October - 4 November 2011	Amsterdam, Netherlands	<a href="#">Call for papers: Young Scientist Workshop, International Water Week</a> Contact: <a href="mailto:ysw(at)waternetwerk.nl">ysw(at)waternetwerk.nl</a> or <a href="http://www.internationalwaterweek.com">www.internationalwaterweek.com</a> .
<b>November 2011</b>		
1-3 November 2011	Beirut, Lebanon	<a href="#">Esri Europe, Middle East and Africa User Conference</a>
1-4 November 2011 <b>* NEW *</b>	Central Drakensberg, South Africa	<a href="#">Esri South Africa User Conference</a>
7-11 November 2011 <b>* UPDATED *</b>	Abuja, Nigeria	<a href="#">AfricaGIS 2011 Conference</a> Contact: Dr. Aminu Usman, Chairman, Local Organizing Committee, AfricaGISTM2011 - <a href="mailto:email-aminu.usman@africagis.org">e-mail-aminu.usman@africagis.org</a>
7-12 November 2011	Worldwide	<a href="#">1st Call for Papers: Worldwide Online Climate Conference (CLIMATE 2011/KLIMA 2011)</a>
14-15 November 2011	Cape Town, South Africa	<a href="#">4th Euro-Africa Cooperation Forum on ICT Research</a>
16 November 2011	Nairobi, Kenya	<a href="#">GIS Day</a>
16 November 2011 <b>* NEW *</b>	Geneva, Switzerland	<a href="#">2nd UN-SPIDER International Expert Meeting: Crowdsourcing Mapping for Preparedness and Emergency Response</a>
16 - 18 November 2011	Delft, Netherlands	<a href="#">2nd International Workshop on 3D Cadastres</a> , Contact: <a href="mailto:P.J.M.vanOosterom@tudelft.nl">P.J.M.vanOosterom@tudelft.nl</a>
17-22 November 2011 <b>* NEW *</b>	Johannesburg, South Africa	<a href="#">7th Annual AfricaArray Workshop</a> , Contact Sharon Ellis, Africa Array Programme at <a href="mailto:sharon.ellis@wits.ac.za">sharon.ellis@wits.ac.za</a> .
21-23 November 2011	Mbale, Uganda	<a href="#">International Conference on East Africa Mountains (ICEAM) 2011</a> , Theme: Reconciling Resource Demands, Climate Change and Conservation. Submit abstract online. Contact: <a href="mailto:info@iceam2011.org">info@iceam2011.org</a> .
22-25 November 2011	Beijing, China	<a href="#">United Nations International Conference on Space-based Technologies for Disaster Risk Management</a>
28 November- 9 December 2011	South Africa	<a href="#">17<sup>th</sup> Conference of the Parties to the UNFCCC and 7th Meeting of the Parties to the Kyoto Protocol</a> Contact: UNFCCC Secretariat, <a href="mailto:secretariat@unfccc.int">secretariat@unfccc.int</a> .
<b>December 2011</b>		
13-15 December 2011	Shah Alam, Malaysia	<a href="#">Third International Conference on Management of Natural Resources, Sustainable Development and Ecological Hazards</a>
<b>2012</b>		
21-27 May 2012	Vilnius, Lithuania	<a href="#">12th World Congress on Environmental Health: New Technologies, Healthy Human Being and Environment</a>
2-6 July 2012	Galle, Sri Lanka	<a href="#">MMM3 : Meeting on mangrove ecology, functioning and management</a>



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<b>8-12 July 2012</b>	San Diego, California USA	<a href="#">ESRI User Conference</a>
<b>8-12 July 2013</b>	San Diego, USA	<a href="#">ESRI International User Conference</a>
<b>5-10 August 2012</b>	Brisbane, Australia	<a href="#">34th Session of the International Geological Congress (IGC 34)</a> Enquiries: <a href="mailto:info@34igc.org">info@34igc.org</a> .
<b>2015</b>	Durban, South Africa	<a href="#">14th World Forestry Congress for SA</a>
<b>1-31 August 2016</b>	Cape Town, South Africa	<a href="#">35th International Geological Congress</a> Registration deadline: 30 June 2016.

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