

# Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

November 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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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>  
Best regards, Gordon Ojwang, Editor, [SDI-Africa AT gsdi.org](mailto:SDI-Africa_AT_gsdi.org) or [sdiafrica@rcmrld.org](mailto:sdiafrica@rcmrld.org) or [gojwang@rcmrld.org](mailto:gojwang@rcmrld.org)



## Input to this Issue

Thank you to Kate Lance, NASA/SERVIR-Africa (USA) and Hussein Farah, RCMRD (Kenya) for their contributions to this issue of the newsletter.

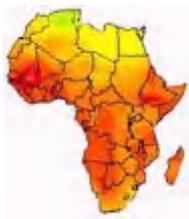
## SDI News, Links, Papers, Presentations

### Free membership by the GSDI Association

The GSDI Association is offering free organisation memberships to government agencies in developing nations. Benefits of membership are available at [http://memberservices.gsdi.org/files/?artifact\\_id=846](http://memberservices.gsdi.org/files/?artifact_id=846). Qualifications for the GSDI Association free full membership include:

- Determine whether the national mapping, land administration, natural resource, or similar agency that is developing SDI capabilities is in a low or very-low income nation (<http://www.gsdi.org/RankingTable>).
- An authorised individual for the agency should register in the Geographic Information Knowledge Network at <http://giknet.org>.

After establishing an account, login and create an agency profile (See My Submissions and click on Enter Profile for Government Agency) After the agency profile exists, click Report SDI Implementation Experience and answer the questions. After completing the forms, fill out the GSDI Full Membership Application for the agency at <http://www.gsdi.org/fullmemshp#D>. Upon acceptance, the agency will be listed at [http://www.gsdi.org/Mbrs\\_Spnrs](http://www.gsdi.org/Mbrs_Spnrs) and formal membership voted upon at the next GSDI World Conference (May 2012 in Quebec City, Canada).



## Spatial Data Infrastructure – Africa Newsletter



### [Free membership by the International Geospatial Society \(IGS\)](#)

The IGS is offering free memberships to individuals in developing nations. One can know about benefits of membership at <http://www.igeoss.org/benefits> and detailed qualifications and instructions are available at <http://www.igeoss.org/freemembership>.

Qualifications for IGS free membership include:

- Must reside in and be a citizen of a low or very-low income nation (<http://www.gsdi.org/RankingTable>), Register as an individual in the Geographic Information Knowledge Network at <http://giknet.org>. Fill out online the International Geospatial Society Membership Application at <http://www.igeoss.org/join>. Upon acceptance, applicants will be listed on the online IGS membership roster and profile automatically linked.

### [Space tech, a veritable tool to solving Africa's socio-economic problems](#)

Nigeria successfully launched into orbit two new satellites in the United Kingdom recently, and so far their image resolution has been very impressive. In an interview with Emeka Anuforo, the Chairman of Survey Space Technology (SSTL), Martin Sweeting, enumerated the various ways space technology can be used to solve Africa's socio-economic problems. In the excerpts some of these questions have been addressed:

- WHY should Africa go into space when it has so many problems to solve? –
- Why Africa? The question is why not? - The sort of problems that we face in terms of climate, environment, food security, water security, urban development, and all these sort of issues affect everybody and they are not limited by borders. The problems that Africa has are a little bit different from the problems, say Europe or America has. Africa has the same problems. You have desertification. You have either too much water or too little water. You have locust plaques; you want to make better use of the arable land, to plan urban development and what effect that has on biodiversity. Many of the problems are common, but you have some very specific ones.
- How can the continent solve its problems from space? - African can use space to solve its problems in the same way as many other countries that are using space. For example, one of the easiest things for people to relate with is agriculture, water resources, and urban development. From space, we can have a look at wide regions; we can look at health, crops, deforestation, carbon monitoring, carbon accounting and carbon trading, the whole carbon issue is going to be very important in the future and individual countries are going to be asked to reduce their carbon emissions and plant trees and so on.
- What is the capacity of some of these African countries to analysis data from satellites? - In South Africa, because of their long history for example, they have quite a well-developed chain. If you then look in the northern countries in Africa: Algeria, Tunisia, Morocco, Egypt, Algeria, Tunisia have varying degree. Emphasis has been quite heavy on communications, which is not unreasonable, and the ability to build up the data analysis training and observation has been happening over the last 4-5 years. They are building up.
- Don't you think that Africa should learn to build its own satellites, instead of buying them "off the shelf?"
- Apart from the individual countries, does Africa as a continent really need a space agency?
- What was your experience with the Nigerian engineers and technicians who built the NigeriaSat-X?
- Beyond the pride of going to space and some of these associated benefits, to what level can space activity be treated as commercial venture?

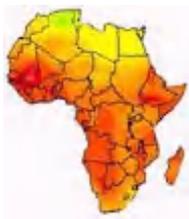
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### [Genes and GPS used to map spread of typhoid](#)



A combination of geographic and genetic data is showing how typhoid fever spreads, and could be used for mapping other disease patterns, a study has reported. Researchers used DNA sequencing, global positioning system (GPS) and Google Earth technologies to track typhoid transmission in Kathmandu, the rapidly growing capital city of Nepal, where thousands fall ill with typhoid fever each year.

They found disease clusters around public water spouts - pipes that tap into natural water sources - which suggests that the main transmission route is environmental, rather than between people. "This is the first time that bacterial genotyping techniques have been associated with patient location to map the spread of infectious disease," said Amit Arjyal, co-author and a clinician at the Oxford University Clinical Research Unit–Nepal (OUCRU-NP). "We know that typhoid is a water-borne disease, but how exactly it spreads is not well understood - is it from close contact, dirty food at home, unboiled or unfiltered water at school, or street food?" The researchers isolated bacterial strains of Salmonella Typhi and



## Spatial Data Infrastructure – Africa Newsletter



Salmonella Paratyphi A from blood samples of more than 700 typhoid outpatients at a Kathmandu hospital between 2005 and 2009. They then visited the patients' homes and used GPS devices to map each genotype, uploading the data to Google Earth.

The results, published in Open Biology last month (16 October), show that most cases were seen in people living near water spouts, and those who lived at lower elevations, where water spouts are more common. The source was probably groundwater contaminated with faecal matter during the monsoon, the authors say. "[When Nepal was blamed for the cholera](#) outbreak in Haiti earlier this year, genotyping would have helped to clearly identify whether the disease was really coming from Nepal," he added.

But he said: "The techniques used in the study are quite sophisticated and costly. The question is whether we should invest in high-tech methods when basic research methods, such as statistical analysis, are not widely used." [Link to full paper in Open Biology](#) [2.14MB].

### [Solar-powered internet school set to benefit children in rural Africa](#)



Their days of sitting in a ramshackle, sweltering school building, or taking lessons under the shade of a tree, could be about to change. Children in the farthest corners of rural Africa are the target of a mobile, solar-powered classroom that was launched in Johannesburg last month. The classroom, built inside a 12-metre-long shipping container by electronics firm Samsung, has an array of gadgets including laptops, a video camera and a 50-inch e-board in place of a blackboard.

According to the manufacturers, the "solar powered internet school" can easily be carried by truck to remote areas, survive harsh weather conditions and, crucially, operate where there is no electricity supply.

Foldaway solar panels provide enough energy to power the classroom's equipment for up to nine hours a day, and for one and a half days without any sunlight at all. The panels are made from rubber instead of glass to ensure they are hardy enough to survive long journeys across the continent. Samsung said: "Electricity remains Africa's largest economic challenge with the level of penetration lower than 25% in most rural areas." This lack of power isolates communities, and limits their access to education and information, both of which are key to fast-tracking a nation's development." The classroom has space for 21 pupils and a teacher, and includes a ventilation system designed to maintain a "temperate environment". It is fitted with a variety of computers including solar-powered laptops and tablets. It also has an energy-efficient fridge, a file server loaded with educational content, a router, a video camera and a "world first" Wi-Fi camera, all of which communicate via 3G. This allows a central location, such as the department of education, to monitor classes and deliver curriculum-based content directly to the laptops of both pupils and staff. If the best-laid plans are struck by a computer glitch, teachers can still use a regular built-in whiteboard and chalkboard.

The prototype is being piloted at the Samsung Electronics Engineering Academy in Boksburg, east of Johannesburg. It will then be sent to Qunu in the Eastern Cape to undergo further testing. President and chief executive of Samsung Electronics Africa, KK Park, said: "We have set an ambitious goal for ourselves in Africa: to positively impact 5 million lives by 2015."

### [AU-IBAR hosts spatial epidemiology training for livestock disease control](#)

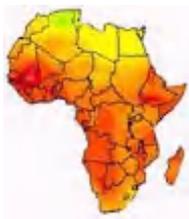


From 26 to 30 September 2011, 30 participants from Ethiopia, Kenya, Uganda, Tanzania, AU-IBAR, the Common Market for Eastern and Southern Africa (COMESA), the Centre for Disease Control (CDC), the International Livestock Research Institute (ILRI), the Sheikh Technical Veterinary School (STVS) and Makerere University learned about the concepts and application of the Geographic Global Positioning System (GPS) and Geographic Information System (GIS) used in spatial epidemiology. The training was implemented by AU-IBAR in partnership with

the United States Department of Agriculture (USDA), the United States Agency for International Development (USAID) and ILRI.

The objectives of the workshop were to (1) increase awareness and understanding of geospatial methods for data analysis, (2) stimulate spatial thinking in planning and conducting health studies, (3) share geospatial experiences with others having similar interests, (4) get basic knowledge and skills on the use of geospatial methods and application in disease surveillance, emergency preparedness and response, as well as the assessment and spatial analysis of disease risk factors.

At the opening of the training the Director of AU-IBAR Professor El-Sawalhy emphasized that geospatial technologies using GPS and GIS are becoming increasingly important tools for providing base of evidence



## Spatial Data Infrastructure – Africa Newsletter



for decision making in animal disease control. The participants reported that they had gained substantial knowledge, which they will use at their respective duty stations. At the end of the workshop the trainees received certificates of participation. The Department of Veterinary Services of Uganda, Ethiopia, Kenya, and Tanzania and the Sheikh Technical Veterinary School and Makerere University also received GPS receivers for use in spatial epidemiology work.

In his closing remarks, the AU-IBAR Director urged participants to put into use the knowledge and skills they had acquired during the training. He indicated that AU-IBAR will keenly follow and support the application of the acquired skills in the Member States.

### No data on climate change – experts



Experts attending the third Nile Basin Development Forum have expressed concerns over lack of climate change statistics. They noted that the shortage of the data has a great impact on financing since donors normally base on country data to release finances.

The Coordinator of Africa Water Facility, Dr. Akissa Bahri, said that regional approaches to food and water security are affected by climate change noting that the only way to address it was to know exactly how the region is affected. "Most of the climate change financing initiatives are ending in 2012 and need to be extended, which is why there is need to have concrete data," she said. Dr. Bahri added that; "climate change adaptation must be rooted in a country's development initiatives and aligned with climate change mitigation."

Experts further observed that rapid population growth and natural resource degradation in the Nile River Basin pose the risk of intensified hunger and poverty in the region. They observed that these require better, more forward-looking development planning as a pre-emptive measure. According to the manager of Nile Basin Capacity Building Network, Eng. Amel Azab, Nile Basin countries need to develop standard research proposals that would interest donors to release funds in case a country lacks statistical data.

### Ministry of Lands, Housing and Human Settlement Development and RCMRD hold workshop in Dar-es-salaam,



The Permanent Secretary Ministry of Lands, Housing and Human Settlement Development, Patrick Rutabanzibwa officially opened Stakeholders Workshop on Use of Spatial Technologies for National Development which was held at the Ministry Headquarters Conference Room on September 14 with participants drawn from several Ministries of Government. This is an exercise carried out yearly in at least two Member States.

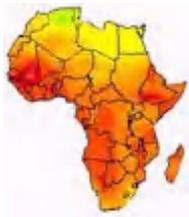
### **Regional training activity on the use of Remote Sensing and GIS for disaster management in Ouagadougou, Burkina Faso**

With funding support provided by the Government of Austria the UN-SPIDER Programme supported from 26 to 30 September 2011 a Regional Training Activity on the use of Remote Sensing and GIS for Disaster Management in Ouagadougou, Burkina Faso, together with the Regional Center for Training in Aerospace Surveys (RECTAS) from Ile-Ife, Nigeria, under the auspices of the Ministère de l'Environnement et du Développement Durable/Direction du Suivi Ecologique et des Statistique.

Upon official invitation of the Government of Burkina Faso this event was conducted as a follow-up activity of the Technical Advisory Mission to Burkina Faso carried out in November 2008. The main goal of this capacity building and capacity development activity was to train a network of professionals from different institutions and countries as well as to establish an inter-institutional technical group as a way to institutionalize further the use of space-based information for disaster management. The training started with a half-day high-level awareness raising event in Ouagadougou organised by the local committee and attended by around 60 participants from national and international organisations and institutions.

Subsequently, the course programme for the 20 participants from Burkina Faso, Cameroon and Togo extended over four training days covering main topics of physical principles of Remote Sensing, spatial data acquisition, image processing procedures, spatial data analysis and case studies displaying the utilisation of those techniques in the frame of risk and disaster management and emergency response.

The training included theoretical lectures and practical hands-on exercises on spatial data application. Lectures concerning existing international mechanisms for disaster management, such as the International Charter Space and Major Disasters and the European GMES Services and Applications for Emergency



## Spatial Data Infrastructure – Africa Newsletter



Response (SAFER) initiative were presented as well. Additionally, the group of trainees visited the National Meteorological Service where the Director provided a detailed introduction to the EUMETSAT receiving station that was installed in the framework of the European funded AMESD Project. For further information contact Lorant Czarán at [czaran@unoosa.org](mailto:czaran@unoosa.org). Source: [UN SPIDER]

### [NIMET sensitizes farmers on climate change](#)

In an attempt to educate Nigerian farmers on the use of climate change in bumper agricultural harvest, the Nigerian Meteorological agency (NIMET) is currently running a series of seminars on weather, climate and agriculture for farmers in Nigeria. NIMET Director General Dr. Anthony Anuforom said the 'roving seminars are being funded by the Spanish State Agency for Meteorological Services (AEMET). He said the project aims at reinforcing capacities of the National Meteorological and Hydrological Services (NMHSs) such as NIMET, in their provision of Agro-Climate Information Services (AIS), as well as increasing interactions between the NMHSs, the farmers and the agriculture community in the North and West African region.

"The overall objective of these Seminars therefore is to bring weather and climate information to the rural farming communities in order to create further awareness on the importance and advantages of utilizing NIMET's Weather and Climate Information Services. These services provide the necessary guidance in making operational decisions on their farming activities for increased agricultural yield," he said.

Nigeria, Ghana, Côte d'Ivoire, Liberia and Sierra Leone are beneficiaries of this segment of the project. An earlier segment that covers more drought-prone countries like Burkina Faso, Mauritania, Mali, Niger and Senegal took place before the present one. Each of the countries is mandated to conduct 10 roving seminars for 20 rural farmers per location. In Nigeria, NIMET had earlier conducted the series of the seminars in the South-West zone, the South-East zone and the North-West zone where a total of 190 farmers participated at the 6 (six) Seminars, out of which 50 were female farmers.

Resource-persons were drawn from NIMET's Agro-Meteorologists and other relevant officials. There were also agricultural research personnel from the Universities and agric extension workers from the agric development programmes (ADPs) at the various locations. All Farmers' Association of Nigeria (AFAN) and the ADPs of the respective states assisted in identifying and assembling the rural farmers for the Seminars.

The NIMET boss said the participatory and cross-disciplinary approach is to ensure more effective delivery of climate and weather information to the farmers, who are being recognized by the project as equal partners in reaping the benefits from weather and climate knowledge. The lectures were conducted in English and the local Yoruba, Igbo and Hausa of the various communities where the seminars took place. They took an interactive format and dwelt on the weather and climate of the different locations, observed variability's and changes in the climate, impacts of the changes on agriculture and NIMET's climate Information that addresses the impacts. More...

### [Algeria receives maps of areas sensitive to desertification](#)

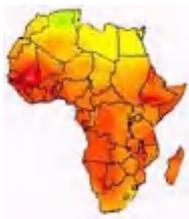
In the framework of the preparations for the 10th session of the Conference of the State Parties to the United Nations Convention to Combat Desertification (UNCCD) held in October 2011 in the Republic of Korea, the Algerian Space Agency, the UN-SPIDER RSO in Algeria, took part in the Regional Preparatory Meeting conducted in September 2011 at Algiers. The Regional Preparatory Meeting was co-organized by the executive Secretariat of the UNCCD and the Ministry of Agriculture and Rural Development.

The Algerian Space Agency, in cooperation with the General Directorate of Water and Forest Administration, helped launch the implementation of an action plan to combat desertification which will be led by the Ministry of Agriculture and Rural Development. For this purpose, it provided maps of areas sensitive to desertification based on satellite data. Moreover, the Algerian Space Agency took part in an exhibition presenting key elements such as used methodology and different data that served to elaborate the above mentioned maps.

At the end of the meeting, it was concluded that awareness of national and regional decision-makers regarding the issue of desertification needs to be raised. Also, a framework for better regional cooperation should be established so as to facilitate sharing of space-based data and related expertise.

### [Uganda plans early warning ICT system](#)

Telecoms regulator, the Uganda Communications Commission in collaboration with the International Telecommunications Union are jointly developing an early warning system that will provide public alerts to people in case of disaster prediction, detection and mitigation. According to the UCC executive director Mr. Godfrey Mutabazi, in light of the recent natural and man-made disasters in Uganda, great attention and effort has been directed towards the application of ICTs, hence the need to develop an early warning system.



## Spatial Data Infrastructure – Africa Newsletter



Mutabazi said this last week while handing over 10 satellite phones to the ministry of Disaster Preparedness and Refugees to ease communication as evacuation efforts are still going on in Uganda's Bulambuli district that was affected by mudslide early in the month.

UCC contacted the International Telecommunications Union (ITU) for the emergency communications equipment to assist in the management of relief services. "The ITU through its division of emergency telecommunications has offered Uganda four inmarsat broadband global area network terminals, four iridium satellite telephones and two thuraya satellite telephones with their accessories," said Mutabazi. Uganda's eastern districts do experience massive landslides and floods. The latest were in Bulambuli district where 40 people died and many others were left homeless. Mutabazi indicated the equipment have capacity to use both satellite and GSM (Global System for Mobile Communications) networks, provide accurate Global Positioning System to aid relief. "In some cases, can be used for high speed data in coordinating relief services in the affected districts," he added. Disaster Preparedness Minister Stephen Mallinga said the equipment will provide a huge boost in the evacuation services.

### [Uganda Government starts Gorilla census to boost tourism sustainability](#)



The Ugandan government together with the ministry of Tourism, Wildlife and Heritage has laid out plans of conducting a census for gorillas to find out their actual numbers. The previous census carried out in Bwindi National Park in western Uganda in 1997 showed that there were 300 gorillas by then. The number increased to about 320 five years and 340 in the last census conducted in 2006.

According to Mr. Pontius Ezuma, the Bwindi Mgahinga Conservation Trust manager, this census is going to help the tourism sector know whether the number of animals have lowered and to find a lasting solution to stop the disease which usually attack them. The exercise estimated to cost Shs280 million (\$100,000), is to also help the Uganda Wildlife

Authority establish the numbers of other animals and extent of human activities in the park for conservation purposes.

The tests for bacteria that cause diseases to the animals will be done at Makerere University laboratories. Mr Ezuma said the exercise, which is implemented by the International Gorilla Conservation Programme, started last month and would end this Saturday. He said 75 enumerators have been trained to carry out the exercise that involves counting nests where the gorillas sleep, collecting their faecal matter for genetic analysis and placing geographical positioning system points to avoid double counting.

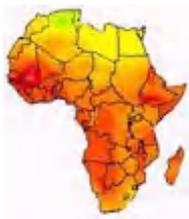
The samples will be taken to Germany for DNA tests for genetic identity of different animals to provide accurate results. "The 2006 census showed 340 gorillas from counting nests, but the genetic analysis showed 302 and it is considered more accurate. This time around we are applying both methods," said Dr Martha Robbins of Max-Planck Institute in Germany, who is heading the census team. "Results of the census will be tallied to the 480 gorillas counted from Virunga Conservation Area last year," she added. The area consists of three national parks: Virunga National Park in DR Congo; Volcanoes National Park in Rwanda and Mgahinga in Uganda. Uganda currently receives more than 2,400 gorilla-tracking tourists per year but the figure went down in the late nineties due to rebel insurgencies in western Uganda.

### [Government of Kenya seeks to take over land from foreigners](#)



Foreigners owning huge tracts of land, whose lease is about to expire, are likely to lose their prized assets as the government starts to enforce the law on land ownership. The move will affect multinationals and individuals with tea, sisal and coffee estates in some of the most arable lands in the country on 99-year leases. Lands Minister James Orengo said they were working on a law that would allow the government to review the expiring leases, especially those held for speculative purposes. "There are some leases of 99 years, which are expiring, and some more are to expire. We will interrogate them afresh, and if we find that they have been held for speculation purposes, we will not renew them," he said on phone from his Ugenya constituency.

Article 65 of the Constitution states that a person who is not a citizen or a company with at least one shareholder who is not a citizen may only hold land for at most a period of 99-year lease tenure. The Sixth Schedule of the Transitional Clauses says: "On the effective date (promulgation of the new Constitution), any freehold interest in land in Kenya held by a person who is not a citizen shall revert to the Republic of Kenya to be held on behalf of the people of Kenya, and the State shall grant to the person a ninety-nine year lease at a peppercorn rent." Peppercorn rent is the lowest or minimal fee a person will be required to pay for the



## Spatial Data Infrastructure – Africa Newsletter



lease. The Constitution also requires that any other leases, which are beyond 99 years, be reduced to the former. However, foreigners who would have successfully applied for dual citizenship, as allowed under the new Constitution, will be spared.

Mr Orengo said the changes were meant to ensure efficient land use and correct anomalies that saw foreigners being awarded thousands of hectares of land as Kenyans were reduced to squatters. Between 1900 and the 1940s, most Kenyans living in Rift Valley and parts of Central Province Highlands were kicked out of their fertile land, which was given to white farmers on leases of 999 years by the colonialists. The locals were settled in what was called reserves - which have bred the present squatter problem in Kenya. After independence in 1963, the government through the Million Acre Scheme begun to resettle Africans in the former White highlands at the same time reducing most of the leases to 99 years. Lands Commissioner Zablon Mabea said the affected parcels include tea and coffee estates in Nandi, Uasin Gishu, Kiambu, Naivasha and Nakuru counties. Others are in Nyandarua and Thika. This means that some of the tea and coffee companies listed on the Nairobi Stock Exchange could be affected by the move. Mr Mabea said the ministry was compiling a list of land on 999-year leases.

### Rwanda Meteorological Centre issues lightning alert

The National Meteorological Service (RMS) has issued precautionary measures to the public to help mitigate risks associated with lightening. Speaking to The New Times yesterday, Didace Musoni, a Senior Meteorologist at RBC said that due to the rampant lightening strikes that occurred recently, RMS deemed it necessary to alert the public. Heavy downpours in Nyabihu District, Western Province, characterised by lightning struck one student dead, leaving 16 others critically injured last month. The area has become one of the most heavily affected in the country. "This area is prone to lightning because whenever it rains, we experience grave cases of this nature. We call upon the government to institute a team to study the causes and come up with a solution," said Abdul Latiff Twahirwa, the district Mayor.

The districts of Rubavu and Nyabihu experience heavy rains around this time of the year and the devastation they cause are mostly due to poor drainage systems. Two months ago, in the same district, three students were struck dead by lightning while several others were admitted to hospitals. "People inside a building during thunderstorms should unplug and switch off their television and radio sets, avoid standing at the entrance of the house and if there is a leak in the roof, they shouldn't stand near it," Musoni stated. Musoni also called upon the public to avoid touching electrical conductors, and always avoid any connection with them, because lightening always seeks a quick and easy way to reach the ground.

"The public should be vigilant and consider the precautionary measures in order to prevent themselves from being stuck by lightening," he noted. He also advised that when members of the public are caught up by rain and seek for shelter outside buildings, they should avoid large open spaces where they are taller than anything else around them. He further notified them to stay away from isolated objects such as trees and seek shelter in buildings fitted with a lightning conductor or a car but avoid touching doors.

Musoni advised cattle-keepers to move their animals down a valley when there are signs of rain. "If you are in a boat or swimming in a lake, get to the shore immediately if a storm is approaching. Water is the most dangerous place to be in during thunderstorms," he warned. He pointed out that as a long-term pre-emptive measure; people should consider fitting a lightning conductor to their buildings - especially if it is the highest point in the area noting that this does not necessitate the services of an expert.

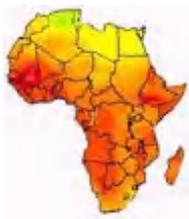
### Angola geology minister welcomes use of satellite

The Minister of Industry, Geology and Mining, Joaquim David, recognised on Tuesday in Luanda that the use of satellite contributes to a better knowledge of the country's territory and its geological potentials. According to the minister, this special technique also enables better control of borders and sea waters. Joaquim David said so to Angop during the presentation of the satellite projects by a Japanese delegation. He said that some African countries such as South Africa, Nigeria and Morocco have already their own satellites.

Regarding the proposal of Japan in supporting the country in installing a satellite in Angola, the official said that the Southern African nation has not made any decision yet. The minister said that he will share what was heard in the presentation with his colleagues and chiefs to make a decision.

In addition, the official said that he hopes that this decision may enable Angola to use this technology to better master its natural resources. He said that the presentation did not have enough details so that the country may already make a decision on the matter.

[AfricaGIS 2011: A geospatial technology revolution in Africa](#), 7-11 November 2011, Abuja, Nigeria



## Spatial Data Infrastructure – Africa Newsletter



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.

Please keep visiting the conference website [www.africaGIS2011.org](http://www.africaGIS2011.org) for updates. Download registration form at <http://www.africagis2011.org/images/form.pdf>. For further information, contact: Dr. Aminu Usman at [aminu.usman@afriagis.org](mailto:aminu.usman@afriagis.org).

**[International Conference on East African Mountains \(ICEAM 2011\)](#)**, 21-23 November 2011, Kampala, Uganda

Mountains of East Africa including highlands are complex ecosystems, which cover largely the volcanic, fault or horst formations in Uganda, Kenya, Tanzania and Rwanda. They have a multitude of rivers, varied soil types, vegetation and favourable climate conditions that have attracted high population density. Recent observations, however, reveal decline in the resource capacity to sustain increasing demands. There is evidence of land pressure which coupled with climate change threatens sustainable use of these mountain ecosystem complex.

This conference, the first of its kind on East African Mountains, is being organized to bring together scientists, practitioners, policy makers, and social workers to deliberate on the varied biophysical and socio-economic aspects that may be crucial in formulating and influencing policy/management of these ecosystems in East Africa region.

Conference Themes:

- Ecosystem services and livelihoods
- Climate change, impacts and adaptation
- Conservation and sustainable use of Biodiversity
- Disasters and risk reduction
- Urban-rural interactions and impacts
- Cultural heritage and traditional knowledge
- Decentralization and natural resource management

Organizers: Makerere University, Department of Geography / Mount Resource Center, UG. E-mail: [info@iceam2011.org](mailto:info@iceam2011.org).

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

#### **[Improved internet access brings better mapping and spatial data to Kenya](#)**



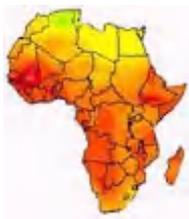
Spatial information - including where different populations live and where natural resources are located - is essential for sound development planning and decision-making. A new website launched in June, [Virtual Kenya](#), opens up a wealth of maps and spatial data about the country for citizens and students to use.

In 2007, the World Resources Institute published [Nature's Benefits in Kenya: An Atlas of Ecosystems and Human Well-Being](#) in partnership with the Department of Resource Surveys and Remote Sensing, the Central Bureau of Statistics, and the International Livestock Research Institute. Through a series of maps and geo-spatial analyses, the

Atlas explains the relationships between Kenyans' daily lives and the environmental resources they rely on most, such as soil, water, forest, rangeland, livestock, and wildlife.

This publication has already been used to promote better management of Kenya's natural resources and to shape Kenya's Draft National Environment Policy. The National Environmental Management Authority also used the Atlas' underlying data to set up its first Geographic Information System (GIS) unit, established to support the mapping and analysis of spatial data on Kenya's environment.

However, users with little GIS expertise previously had limited access to the extensive data used to produce the Atlas, and Kenya's low Internet connectivity made it difficult even for advanced GIS users to download



## Spatial Data Infrastructure – Africa Newsletter



data and charts from the Atlas. By making public data sets more accessible, Virtual Kenya provides planners and policy makers with the spatial information they need to make evidence-based decisions for improved environment and development planning.

Since the Atlas was released in 2007, Kenya's access to telecommunications technology has grown rapidly. Between 2007 and 2008, [the number of Internet users in Kenya nearly doubled](#), from just over 1 million to 3 million users. As of 2009, nearly 4 million Kenyans were online, and this number has likely grown significantly since East Africa's first fiber optic cable reached Mombasa that same year, bringing with it previously unimaginable opportunities for sharing information with even the most remote parts of the region. Kenyan entrepreneurs have been among the first in East Africa to realize the potential this new connectivity offers for increased spatial data sharing.

As Hon. Dr. Wilbur Ottichilo, Member of Parliament and former Director General of the Nairobi-based Regional Center for Mapping of Resources for Development (RCMRD), explained in an interview with Upande: You can't talk of planning without information. This country has failed for the last forty years in our endeavor to develop because planning has not been based on information, but on political whims. I want planning to be objective, and to be able to do that, you need information. A lack of access to spatial information has been a chronic problem in Kenya. Hon. Dr. Ottichilo noted, "We have so much information stuck in government offices, in our universities, in our research institutions, but all this information is with individuals and is not always accessible to the public." Without the necessary contacts and permissions, most Kenyans are unable to take advantage of these valuable data.

[Virtual Kenya](#) offers features for many different users, including high school and university teachers and students, government planners, GIS professionals, and local government officials. These tools include:

[Virtual Kenya Tours](#) using Google Earth with 2D and 3D maps, images, graphs and voiceovers to explain data from the Atlas in an entertaining format

[Interactive Map Viewer](#) using World Map – open source software developed by a Harvard-led partnership – that allows users to view, create, and download maps of Kenya (see box)

[Baseline Data](#) on Kenya's environment and geography in multiple open source and commercial file formats

[Social Networking Community](#) to share GIS and mapping experiences among Virtual Kenya users

[Learning Resources](#), including a teachers' guide and student activity booklets, to help educators use maps and data from the Atlas in their classrooms even without access to the Internet or computers

[Tutorials](#) to help users take advantage of all the tools and resources featured on Virtual Kenya

### GIS Tools, Software, Data

#### **International Charter develops geographic tool to provide information about satellite data used for activations**

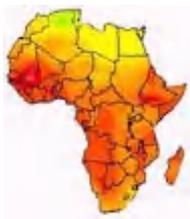
The International Charter for Space and Major Disasters has developed a geographic tool to display footprints and characteristics of satellite data provided in the frame of each activation. This catalogue contains no data but rather metadata describing the images acquired by a range of satellites during Charter activations. The catalogue brings together the metadata from the images used in each activation and provides a user-friendly which allows discovery and browsing of these metadata. For further information see website: <http://www.disasterschartercatalog.org/cecec/ie/index.html>.

#### **[RCMRD Data Centre](#)**

The RCMRD Data Centre has a large LandSat Data Archive, dating back to 1972, for all African Countries. It is also a Reseller Agent in Africa for Digital Globe for QuickBird and WorldView 1/2 High-Resolution Satellite imagery. The Centre also supplies data from GeoEye (GeoEye 1/2, Ikonos & Orbview Imagery), SPOT Image (SPOT 2.5m, SPOT 5m & SPOT 10m), USGS (Landsat MSS, Landsat TM & Landsat ETM+) amongst other active and passive satellite imagery products. Datasets for Africa archived at the Centre are available at subsidized rates. Other low resolution imagery datasets (90m SRTM, NOAA, MERIS, MODIS), scanned maps and vector data for Africa are also available.

The center in collaboration with European Space Agency (ESA) and EUMESAT has established a facility for direct satellite reception for MERIS, MODIS, NOAA and EUMESAT Second Generation Meteosat data. These datasets amongst others can be accessed online via: <http://www.rcmr.org/geonetwork> or via email to [remote\\_sensing\(at\)rcmr.org](mailto:remote_sensing(at)rcmr.org).

### Geospatial Research, Applications, Reference Material



# Spatial Data Infrastructure – Africa Newsletter



## [New Mapping Tool for the Momentum 94.7 Cycle Challenge](#)

A new interactive mapping tool has been developed to improve the experience of both participants and spectators in the Momentum 94.7 Cycle Challenge, which will be held in Joburg on 20 November 2011. The new web map features unique interactive tools, as well as a user-friendly design and layout allowing visitors to navigate around the map with greater ease. A detailed route profile has also been provided to assist cyclists in preparing for the race and planning their strategies.

In addition, social media application Twitter has been integrated into the map, allowing users to "Tweet" #cyclechallenge and interact with friends while on the site. Other important features include accurate street-level zooming, automated routing function to plan and navigate around road closures, medical and water point locations and a 360-degree interactive street view of selected sections of the route.

According to the event organisers, one of the most important features of the mapping site is the road closure routing tool, which utilises a "where are you, where do you want to go" principle to devise alternate routes. "Users simply type in an address and then enter a destination," explained Ettienne Louw, MD of MapIT. "The routing function will then automatically calculate an alternative route around road closures. In addition, users can also email and print the detailed route instructions and navigate to where they want to go on the day of the race. This has a huge impact on traffic congestion levels in the city." The map's updated route profile function allows cyclists to visualise the route in pre-race orientation and planning, as it depicts the "hill and valley" aspects of the route (elevation details) in graphic format, showing inclines and declines measured in metres against distance in kilometres.

## 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).

## [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.

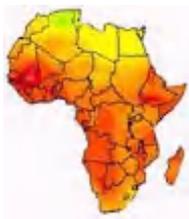
Workplace experience, combined with GIS education and ESRI training courses, is the best preparation. The ESRI Technical Certification Web site lists specific skills that will be assessed in each exam, as well as training courses that aid in acquiring and improving these skills. Advice on the best training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

## [ESRI South Africa presents a full spectrum of GIS courses: November 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](#)



# Spatial Data Infrastructure – Africa Newsletter



## 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.

### **GIS based courses**

	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
• 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.

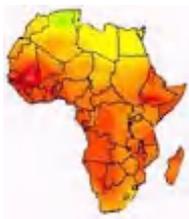
## **University of Twente - ITC Faculty of Geo-Information and Earth Observation: Registration for courses (2012-2013)**



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



## Spatial Data Infrastructure – Africa Newsletter



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)).

**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 \(RECTAS\)](http://www.rectas.org) 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).

### **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

### **U.S - IALE Foreign Scholar Travel Award**

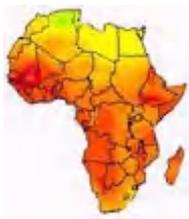
27th Annual Symposium - Informing Decisions in a Changing World, 8-12 April, 2012, Newport, Rhode Island.

The United States Regional Association of the International Association for Landscape Ecology (US-IALE) has a program to support attendance at the annual meeting by landscape ecologists from foreign countries and to foster international exchange about advances in landscape ecology. The award recipients will receive US \$1,200 at the Annual Meeting. It is the recipients' responsibility to make all transportation arrangements and cover all transportation and lodging costs associated with participating in the meeting.

1. Applicants are NOT eligible if:

- A citizen or current resident of the United States or Canada.
- A citizen of a G7 country (France, US, Britain, Germany, Japan, Italy).
- (Of any nationality) is currently studying in the United States or Canada.
- (Of any nationality) received a Master's or Doctorate at an institution in the United States or Canada.
- Previous recipients are also ineligible.

Applicants must submit an abstract for a paper or poster presentation at the 2012 conference. Submit your abstract to the conference organizers by 16 December 2011 at the conference website. Submit your FSTA application materials by email to: [ddonnerwright@fs.fed.us](mailto:ddonnerwright@fs.fed.us) or by post (please include electronic copy) to Deahn Donner, Northern Research Station, Institute for Applied Ecosystem Studies, 5985 County K, Rhinelander, WI 54501. Awards will be announced on or before 13 January 2012.



## Spatial Data Infrastructure – Africa Newsletter



### [AstroMundus 2012 – Erasmus Mundus Masters Course in Astronomy and Astrophysics for International Students](#)

Scholarship applications are now accepted for AstroMundus, a 2-years international Masters Course in Astronomy and Astrophysics offered by a partnership of 5 universities. Study Subject(s): Astronomy and Astrophysics. The scholarship is provided by Erasmus Mundus and can be taken at: Austria, Italy, Germany and Serbia. The course is open to students of all nationalities. Eligible students have a certified good knowledge of the English Language and hold a Bachelor's Degree in Astronomy, Astrophysics, Physics, or Mathematics, or an equivalent amount of certified learning (3 years of previous studies corresponding to at least 180 ECTS credits) in the same field(s).

A number of Erasmus Mundus scholarships are available both for non-European and European students. The admission to the Masters Course and assignment of scholarships are based on excellence. Admitted students will study in at least 2 and up to 4 of the partner Universities and, upon successful completion of their studies, they will be awarded a Joint Master Degree by all partner universities where they studied during the Masters Course. The course is held in the English language, however students will have the possibility to learn the language of the host countries through courses offered by the host universities.

Apply online, scholarship application deadline: 30 November 2011 for both Non-European and European students.

### [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

### **Land administration specialist, land tenure and decentralization, Rwanda**

Tetra Tech ARD (<http://www.ardinc.com>) is accepting expressions of interest from well-qualified Land Administration Specialists for the Land Tenure and Decentralization program (LTD). LTD's major deliverables include assisting Rwanda with decentralizing the roles of land use planning, land dispute resolution, and land administration by building capacity within the public and private land, governance and judicial sectors to achieve long-term tenure security.

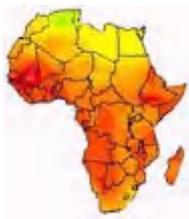
The incumbent will:

- Support establishment of title registration and land rights inventories;
- Support indexing, computerization, automation, and publication of land registration transactions;
- Collaborate on development of land-use plans, charters, and by-laws for managing land-use plans;
- Train and mentor shareholders in public and private land titling, inventory, and administration;
- Maintain productive and positive relationships with USAID, international government officials, multilateral and donor organizations, and local partners.

Qualifications:

- Educational requirements include at least a Master's degree in natural resource management, environmental science, or related field of study, PhD preferred;
- A minimum of ten (10) years experience in administration of large USAID land tenure or governance projects;
- Significant experience in land administration, with the implementation of procedural regulations and the translation of such regulations into operational procedures, and public sector capacity building, decentralized local government, customary governance systems, land administration, and design and implementation of training programs for national and local public officials;
- Notable experience supervising complex field operations in closed and/or transitional or developing countries;
- Experience in the Great Lakes Region and Rwandan candidates preferred;
- English fluency required and advanced proficiency in French desirable.

Please email full, current CV in reverse chronological format to [lindsay.reid@tetrattech.com](mailto:lindsay.reid@tetrattech.com) referring to Rwanda Administration in the subject line or fax to L. Reid at 1-802-658-4247. Application deadline: 6 November 2011.



## Spatial Data Infrastructure – Africa Newsletter



### **Assistant Land-use Planning Coordinator**, Southern Sudan

This is a full-time position responsible for assisting in coordinating land use planning activities with stakeholders, State and Government of South Sudan authorities, Wildlife Conservation Society (WCS) scientists, and other partners in the process of integrating conservation concerns in overall land-use planning and zoning. He/she will have practical experience in developing land and resource management plans in rural settings; knowledge and experience with enterprise economics; skills in use of GIS in land use planning; experience with conservation oriented planning in the context of corridors and protected area buffer zones; social science and land and resource tenure experience; knowledge of various methods and approaches for developing shared visions for land and resource management involving multiple stakeholders. The position will be based in Juba with frequent travel to field sites in the landscape. The Assistant Land-use Planning Coordinator reports to the WCS South Sudan Deputy Director.

Qualifications: The desired qualifications for this position are a Master's degree or higher in land use planning, natural resource management, land tenure, or related field, at least 3 years of experience working on land management, conservation, and natural resource management issues in Africa. Experience and ability to work with national and local organizations required. Proven ability to work well in a team in multi-cultural situations and under difficult field conditions is essential. Fluency in written and spoken English required.

Apply by sending an application letter and CV together with the names and contact information of three referees to [jkilonzi@wcs.org](mailto:jkilonzi@wcs.org) not later than 26 November 2011.

The file size should be limited to under 500kb.

For more information about Wildlife Conservation Society and its Southern Sudan Program visit: <http://www.wcs.org/international/Africa/sudanprogram>.

### **Policy Economist**, Cotonou, Benin Republic

The Africa Rice Center (AfricaRice, ex-WARDA) is seeking for a highly qualified Policy Economist to be based at its current Headquarters in Cotonou, Benin Republic, West Africa.

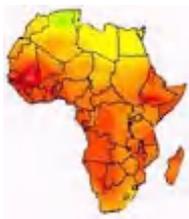
The Policy Economist will take the lead in policy research and support activities aimed at providing a better understanding of price and market dynamics and generating new knowledge and insights on institutional constraints and options for the development of local rice value chain. Particular emphasis will be placed on the effects of sectorial, trade and macroeconomic policies on the competitiveness of domestic rice value chains, as well as the generation of analytical tools for national agricultural policy analysis and for better explaining the performance of domestic rice value chains. The Policy Economist will contribute to the improvement of policy analysis capacities in national programs and within AfricaRice.

S/he is expected to develop research project proposals, annual workplans and budgets; coordinate the implementation of policy-oriented research including the allocation of resources; prepare presentations and publications of research results; to provide evidence-based information for policy communication and briefs; contribute to AfricaRice's resource mobilization efforts; participate as appropriate in the design, the implementation and the assessment of other relevant AfricaRice projects; support the conduct of economic analyses and related policy research by national researchers and policy analysts in West Africa through collaboration, networking, provision of technical assistance and training; and undertake any other duties as required.

The incumbent should have:

- A PhD in agricultural economics with demonstrated capacity in agricultural policy analysis,
- Strong modeling and analytical skills;
- 5-10 years post-doctoral research experience in policy economics research or other relevant areas, preferably in a non-profit, international environment;
- Demonstrated ability to work in a multi-disciplinary, multi-cultural research environment; and strong communication skills in English or French, with working knowledge of the other.
- Prior experience with rice or cereals in Africa, computer literacy, and familiarity with the CGIAR would be an advantage.

Candidates should send an application (including date of availability and a statement of any special qualifications for the position). The application should include a cover letter together with a detailed CV with the following information: Name, surname, gender, date of birth, family status, nationality, higher diploma obtained, number of years of professional experience for the position, good knowledge or not of the Institution working languages (French/English) with the names and addresses (including telephone / fax / email) of three referees to:



## Spatial Data Infrastructure – Africa Newsletter



Human Resources Department, AfricaRice, 01 BP 2031 Cotonou, Benin, FAX: + (229) 21 35 05 56; T: (229) 21 35 01 88, Email: [africarice-hr@cgiar.org](mailto:africarice-hr@cgiar.org).

Applications will be considered up to November 15, 2011 or until the position is filled.

### [Project manager, Boma-Jonglei landscape protected areas](#), South Sudan

This is a full-time field based position responsible for managing WCS's day to day protected area management and conservation activities in cooperation with the Ministry of Wildlife Conservation and Tourism. Duties include training and management of field teams in wildlife law enforcement, community outreach and education, and research, representation in meetings with local communities and national authorities, training and mentoring of personnel, communications and development of collaboration with local partners, and ensuring sound project implementation and basic financial administration. The position will be based in the field, with travel to other sites in the landscape on occasion. The Project Manager reports to the WCS South Sudan Program Director.

Qualifications: The desired qualifications for this position are a Master's degree in conservation, natural resource management, or related field, at least 3 years of experience working on conservation and protected areas management issues in Africa, proven ability to work well in a team in multi-cultural situations and under difficult field conditions. Fluency in written and spoken English required.

Apply by sending an application letter and CV together with the names and contact information of three referees to [jkilonzi@wcs.org](mailto:jkilonzi@wcs.org) (file size should be limited to under 500kb) not later than November 26th 2011.

For more information about Wildlife Conservation Society and its Southern Sudan Program visit our website at: <http://www.wcs.org/international/Africa/sudanprogram>.

### [Wildlife protection coordinator](#), Juba, South Sudan

This is a full-time field based position responsible for supporting WCS's day to day protected area management and conservation activities in cooperation with the Ministry of Wildlife Conservation and Tourism. Duties include training and mentoring of wildlife law enforcement teams, representation at meetings with law enforcement authorities, communications and development of collaboration with local partners. The position will be based in Juba, with regular travel to field sites. The Wildlife Protection Coordinator reports to the WCS South Sudan Program Director.

Qualifications: The desired qualifications for this position are a Master's degree or equivalent experience in conservation and wildlife protection, or related field, at least 3 years of experience working on conservation and protected areas management issues in Africa, proven ability to work well in a team in multi-cultural situations and under difficult field conditions. Fluency in written and spoken English required.

Apply by sending an application letter and CV together with the names and contact information of three referees to [jkilonzi@wcs.org](mailto:jkilonzi@wcs.org) (file size should be limited to under 500kb) not later than November 26th 2011.

For more information about Wildlife Conservation Society and its Southern Sudan Program visit our website at: <http://www.wcs.org/international/Africa/sudanprogram>.

## Other

### [Rising sea levels threaten Ghana's coastal communities](#)

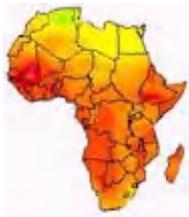


Ghana will experience increased flooding brought on by rising sea levels caused by global warming, a modelling study has predicted. The study, published in Remote Sensing on 7 September, says that about 650,000 people and almost 1,000 buildings in the three communities in the Dansoman area of Accra will be vulnerable to permanent flooding by 2100, as the shoreline recedes by more than 200 metres.

The study says natural and industrial sites will be submerged, and buildings made of commonly used sandcrete - building material made of cement and sand - will be destroyed by flooding. This will cause disease outbreaks, population displacements, loss

of land and biodiversity, and decreased fishing catch and earnings, it says.

Based on a SimClim - a computer model system for examining the effects of climate variability and change over time and space - it says this scenario is likely to affect negatively the nearby Densu Ramsar wetland zone, a multi-million dollar salt industry, and local fisheries and farms. The study also revealed that local communities have no systems in place to help them adapt to the problem.



## Spatial Data Infrastructure – Africa Newsletter



Kwasi Appeaning-Addo, the lead author from the University of Ghana, toldSciDev.Net that the study was mainly motivated by a public outcry over perennial high tides. His team wanted to contribute to knowledge about providing sustainable management and development strategies that deal with the problem.

According to Ghana's Hydrological Services Department, the ocean claims 1.5 – 2 metres of Ghana's 539 kilometre coastline annually, with the most risky areas recording four metres. Kwabena Kankam-Yeboah, the principal research scientist at the Water Research Institute, in Ghana, said that the main way of dealing with surges of the sea predicted in the study is to adhere strictly to land-use policy and scientific engineering.

But he added the model used in the study was designed elsewhere for climatic conditions different from those in Ghana, which raises questions about its applicability. Carl Fiati, officer in-charge of marine resources and coastlines in the Ghana Environmental Protection Agency, said that, although climate change is real, studies have not yet proved that rising sea levels and high tidal waves experienced in Ghana are caused by rising temperatures and changing climate. [Link to full paper in Remote Sensing](#) [2.02MB].

### [DRC set to launch first science journal](#)

The government of the Democratic Republic of Congo (DRC) has agreed to launch the country's first scientific journal, which they expect to attain international standards and become a reference point within central Africa. The multidisciplinary scientific journal is aimed at giving the country's researchers a common platform to share ideas and communicate their research results. The government created the quarterly peer-reviewed journal, *Revue Congolaise de la Science et Technologie* (Congoese Review of Science and Technology) on 5 September by ministerial order. The first issue is expected by early 2012.

Jean Pierre Bokole Ompoka, the Congoese minister of scientific research, said the creation of the journal was motivated by the lack of a central means of expression and ideas sharing for scientists in the country - a situation that seriously hinders the transmission of research results and denies scientists the recognition of publishing in scientific journals.

"Researchers must make this magazine their own. Its existence will depend on their ability to bring it to life with their articles. They should work hard for it so that future generations of researchers can be grateful to the previous ones," said Bokole Ompoka.

The journal will be financed and managed by the National Scientific Board, which coordinates scientific research and advises the government on science issues, and will be supervised by the Ministry of Scientific Research. The board is currently putting together the editorial board for the journal.

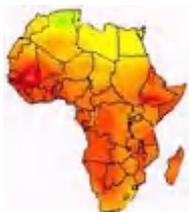
Kondodi Kale Kolo, the president of the National Scientific Board, said the creation of the journal was a good initiative. But all contributors must strive to make it a credible journal by sticking to their deadlines, he added. "The credit of a scientific journal is not only seen through the quality of its articles but also in regular publication."

DRC has just over 10,000 researchers and spends around 0.5 per cent of its gross domestic product (GDP) on science according to a 2010 report by UNESCO (the UN Educational, Scientific and Cultural Organization). Scientific productivity is "negligible", with just 30 publications registered in Thomson Reuters' Science Citation Index in 2008, the report says, adding that language barriers might be partly responsible.

### **Africa and China step up cooperation on drought risk**

From 24 to 26 September 2011 over 40 officials from China, African countries and the United Nations took part in a three-day "Sino-African High-Level Seminar on Drought Risk Reduction" which is calling for drought risk reduction to be on the agenda of the next year's Sino-African Summit for Development Cooperation. Delegates at the seminar also included heads of national meteorological services, disaster managers, national DRR (disaster risk reduction) coordinators and academics and scientists from China and 11 African countries, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Nigeria, Sudan, Tanzania, Uganda and Zimbabwe.

Participants shared knowledge and scientific approaches, practical methods in drought monitoring, early warning and management of agricultural drought. For further information contact Shirish Ravan at [shirish.ravan@unoosa.org](mailto:shirish.ravan@unoosa.org).



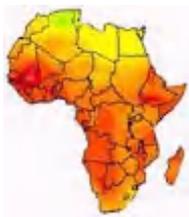
# Spatial Data Infrastructure – Africa Newsletter



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

## Conferences, Events

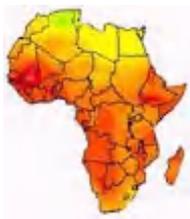
Date	Location	Event
<b>November 2011</b>		
1-3 November 2011	Beirut, Lebanon	<a href="#">Esri Europe, Middle East and Africa User Conference</a>
1-4 November 2011	Drakensberg, South Africa	<a href="#">Esri South Africa User Conference</a>
7-11 November 2011	Abuja, Nigeria	<a href="#">AfricaGIS 2011 Conference</a> Contact: Dr. Aminu Usman, AfricaGISTM2011 - <a href="mailto:e-mail-aminu.usman@afriacagis.org">e-mail-aminu.usman@afriacagis.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	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	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. 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="#">17th 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>		
3-4 December, 2011	University of Kwa-Zulu Natal, Durban	<a href="#">International conference on 'Climate Law &amp; Governance in the Global South'</a> Draft version of the <a href="#">Conference program</a> is available, Contact <a href="mailto:secretariat@cisdl.org">secretariat@cisdl.org</a> .
13-15 December 2011	Shah Alam, Malaysia	<a href="#">Third International Conference on Management of Natural Resources, Sustainable Development and Ecological Hazards</a>
<b>January 2012</b>		
<b>February 2012</b>		
<b>March 2012</b>		
5-7 March 2012 <b>*NEW*</b>	Valencia, Spain	<a href="#">INTED2012 (6th International Technology, Education and Development Conference)</a>
26-29 March 2012 <b>*NEW*</b>	London, UK	<a href="#">Global-Change Open Science Conference</a> : Planet Under Pressure: New knowledge towards solutions
26-30 March 2012 <b>*NEW*</b>	Tunis, Tunisia	<a href="#">GeoTunis, The International Congress Geotunis 2012</a> , "The use and the applications of GIS, remote sensing and digital modeling in the field of environment and in the management of natural resources and hazards"
<b>April 2012</b>		
16-18 April 2012 <b>*NEW*</b>	Hohenheim University, Germany	<a href="#">International conference on Sustainable Land Use and Rural Development in Mountain Areas</a>
24-27 April 2012 <b>*NEW*</b>	Avignon France	<a href="#">AGILE 2012: Bridging the Geographic Information Sciences</a>



# Spatial Data Infrastructure – Africa Newsletter



<b>May 2012</b>		
7-9 May 2012 * NEW *	Rio de Janeiro, Brazil	<a href="#">4th International Conference on GEographic Object Based Image Analysis (GEOBIA) 2012</a>
14-17 May 2012 * NEW *	Québec City, Canada	<a href="#">Call for Papers: Global Geospatial Conference 2012</a> (GSDI World Conference (GSDI 13), 14th GEOIDE Annual Scientific Conference, Canadian Geomatics Conference (CGC) 2012 and the 7th 3D GeoInfo Conference).
21-23 May 2012 * NEW *	Boston, Massachusetts	<a href="#">Global Conference on Oceans, Climate and Security</a> Call for Abstracts: Deadline 15 October 2011.
21-27 May 2012 * NEW *	Vilnius, Lithuania	<a href="#">12th World Congress on Environmental Health: New Technologies, Healthy Human Being and Environment</a>
13-18 May 2012 * NEW *	Dublin, Ireland	<a href="#">IWA World Congress on Water, Climate &amp; Energy 2012</a>
14-16 May 2012 * NEW *	Rio de Janeiro	<a href="#">UN Conference on Sustainable Development (INCSD), Rio+20</a>
21 to 23 May 2012 * NEW *	Boston, USA	<a href="#">Global Conference on Oceans, Climate and Security</a>
28-30 May 2012		<a href="#">International Conference on Green Technology &amp; Ecosystems for Global Sustainable Development</a>
<b>June 2012</b>		
13-15 June 2012 * NEW *	Columbia University, New York	<a href="#">ICELW 2012 - The Fifth Annual International Conference on E-learning in the Workplace</a>
<b>July 2012</b>		
2-6 July 2012 * NEW *	Galle, Sri Lanka	<a href="#">MMM3: Meeting on mangrove ecology, functioning and management</a>
3-6 July 2012 * NEW *	Salzburg, Austria	<a href="#">Geomatics Forum, Linking GEovisualisation, Society and Learning</a>
8-12 July 2012 * NEW *	San Diego, California USA	<a href="#">ESRI User Conference</a>
16-21 July 2012 * NEW *	Obergurgl, Austria	<a href="#">ESF research conference: Energy Landscapes</a> , - grants to attend
<b>August 2012</b>		
5-10 August 2012 * NEW *	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> .
22-25 August 2012 * NEW *	Freiburg Germany	<a href="#">Experience-based Geography Learning, IGU-CGE Precongress</a>
26-30 Aug 2012 * NEW *	Köln, Germany	<a href="#">32nd IGU International Congress</a> , University of Cologne, Theme: 'Down to Earth'
29-31 August 2012 * NEW *	University of Basel, Switzerland	<a href="#">Third International Sustainability Conference ISC 2012</a> , Theme "Strategies for Sustainability: Institutional and Organisational Challenges"
<b>September 2012</b>		
5-7 September 2012 * NEW *	Gaborone, Botswana	<a href="#">International Conference on Water Resources Management</a>
16-18 September 2012 * NEW *	Columbus, Ohio, USA	<a href="#">AutoCarto 2012, an international research symposium on computer-based cartography</a>
30 September–5 October 2012	Columbus, Ohio, USA	<a href="#">EcoSummit 2012, Ecological Sustainability: Restoring the Planet's Ecosystem Services</a> . Abstract submission deadline, <u>20 January 2012</u>
<b>October 2012</b>		



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<b>15-19 October 2012</b> <b>* NEW *</b>	Chengdu, China	<a href="#"><u>International Conference on Mountain Environment and Development</u></a>
<b>November 2012</b>		
<b>December 2012</b>		
<b>2013</b>		
<b>8-12 July 2013</b> <b>* NEW *</b>	San Diego, USA	<a href="#"><u>ESRI International User Conference</u></a>
<b>2015</b>	Durban, South Africa	<a href="#"><u>14th World Forestry Congress for SA</u></a>
<b>1-31 August 2016</b> <b>* NEW *</b>	Cape Town, South Africa	<a href="#"><u>35th International Geological Congress</u></a> . Registration deadline: 30 June 2016.

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