



Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

August 2009

Vol. 8, No. 8

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

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



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



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

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

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



Input to this Issue

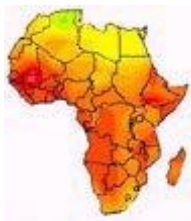
Thank you to Kate Lance, USRA/SERVIR-Africa (USA); Hussein Farah, RCMRD (Kenya); Erick Khamala, RCMRD (Kenya); Jeroen Ticheler, GeoCat (USA); Harsha Vardhan, GIS Development (India); Laura Eberly, International Food Policy Research Institute (USA) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

[Broadband opportunity calls in Africa](#)

Africa's paucity of fixed-line phone networks has created a huge opportunity for mobile operators to step in and fill the gap for broadband services in a market that could be worth 6bn by 2011. Calculations by telecoms advisory firm Delta Partners suggest that revenue from mobile broadband could boom from 1bn to hit 6bn in the Middle East and Africa, with Africa contributing most of that growth. The region was developing an insatiable appetite for connectivity, said Daniel Torras, a principal at Delta Partners in Johannesburg, but opportunities came with risks.

The Middle East and Africa is the world's fastest-growing region for mobile penetration, while the growth of fixed-line penetration has stagnated at 4% across Africa. That lack of connectivity and the high cost of rolling out fixed lines had severely hampered the development of broadband services, and many countries still got much of their connectivity via notoriously expensive satellites. Torras said the situation would change over time as improved international connectivity arrived through various submarine cables being laid around Africa's east and west coasts, promising enhanced bandwidth and lower prices.



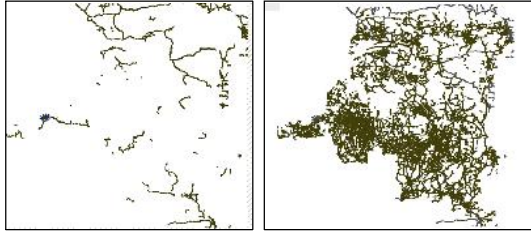
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The Seacom cable was switched on last month, hugely increasing the bandwidth supply. Yet the effect on pricing remains to be seen as operators buying its bandwidth will decide how much of the saving to pass on to clients. Nearly 70% of broadband services in the Middle East and Africa would be delivered by wireless by 2011, up from 38%. That would trigger a subscriber growth from 2.5-million to about 40-million in 2011. The risks come from the high capital expenditure required, particularly for late entrants who struggle to win enough customers to recoup their costs.

Source: Businessday/AllAfrica.com

140,000 miles of African roads added to Open Street Map



Almost 141,107.17 miles (67 MB) of road data for Congo, DRC, Tanzania, Sudan, Kenya, Burundi, and Rwanda from FAO's [Africover](#) project and the UN's [DEPHA](#) to [Open Street Map](#) has been uploaded. OSM will play a crucial role in some upcoming mapping projects and these additions make significant improvements to the coverage, especially in rural areas. Here is a look at the Congo DRC maps, before and after this work.

A special issue on Africa: July edition of GIS Development's Global Magazine

The content of the magazine include articles and interviews:

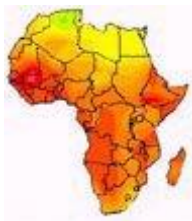
- Of road blocks and building blocks: <http://www.gisdevelopment.net/magazine/global/2009/july/18.htm>
- Mapping Africa for Africa: <http://www.gisdevelopment.net/magazine/global/2009/july/28.htm>.
- Together as one - RCMRD: <http://www.gisdevelopment.net/magazine/global/2009/july/34.htm>.
- Training to combat: <http://www.gisdevelopment.net/magazine/global/2009/july/38.htm>.
- AIDS, Collaborate to reach out: <http://www.gisdevelopment.net/magazine/global/2009/july/42.htm> .
- South Africa - on a growth path with GIS: <http://www.gisdevelopment.net/magazine/global/2009/july/46.htm>
- One for the road: <http://www.gisdevelopment.net/magazine/global/2009/july/22.htm>.
- Boy Scout to surveyor of world repute: <http://www.gisdevelopment.net/magazine/global/2009/july/52.htm>
- ECA driving all things geospatial: <http://www.gisdevelopment.net/magazine/global/2009/july/26.htm>. .
- Interview with Dr. Hussein O. Farah, Director General, RCMRD: <http://www.gisdevelopment.net/magazine/global/2009/july/35.htm>.
- Making GIS acceptable by increasing usability: <http://www.gisdevelopment.net/magazine/global/2009/july/50.htm>.

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS)

The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is an Africa-wide network established to provide readily available analysis, data, and tools of the highest quality to promote evidence-based decision making, improve awareness of the role of agriculture for development in Africa, fill knowledge gaps, promote dialogue, and facilitate the benchmarking and review processes associated with the [Comprehensive Africa Agriculture Development Programme \(CAADP\)](#) agenda of the [New Partnership for Africa's Development \(NEPAD\)](#) and [African Union \(AU\)](#) and other regional agricultural development initiatives in Africa. Three regional nodes have been established on the African continent, in collaboration with the [Common Market of Eastern and Southern Africa \(COMESA\)](#), the [Economic Community of West African States \(ECOWAS\)](#) and the [Southern African Development Community \(SADC\)](#) as part of the AU/NEPAD CAADP agenda. Five centers of the [Consultative Group on International Agricultural Research \(CGIAR\)](#) led by the [International Food Policy Research Institute \(IFPRI\)](#) are hosting and implementing the nodes through a network of partners in each region. In addition to IFPRI, the host CGIAR centers are:

1. [International Livestock Research Institute \(ILRI\)](#)
2. [International Institute of Tropical Agriculture \(IITA\)](#)
3. [International Water Management Institute \(IWMI\)](#)
4. [International Crops Research Institute for Semi-Arid Tropics \(ICRISAT\)](#)

The nodes are facilitating access by the regional economic communities (RECs) and their member states to policy-relevant analyses of the highest quality in order to improve policymaking, track progress, document success, and derive lessons that can feed into the review and learning processes associated with the implementation of the CAADP agenda. For further information, contact: Laura Eberly at leberly@cgiar.org.



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[Rainwatch: A prototype GIS for rainfall monitoring in West Africa](#)

This paper describes Rainwatch, a stand alone, prototype Geographic Information System (GIS) application that automates and streamlines key aspects of rainfall data management, processing, and visualization for West Africa. Rainwatch is an interactive Map Objects Visual Basic application that permits the tracking of critical rainfall attributes beneficial to farmers. Using the simple to understand concept of cumulative rainfall plots, the program allows users to compare rainfall for any year against six percentile thresholds for a historical reference period (1965–2000). These thresholds separate dry, normal, and wet conditions. Users also can compare rainfall data between stations for a given season or between seasons for a particular station, and spatially interpolate rainfall for a single event, defined period, or an entire season. The system is dynamic and automatically updates all charts and tables as new data are added to the database. Thus, for this poor and drought-prone region, Rainwatch can help reduce delay in rainfall data processing, facilitate communication between data collection agencies, and generally make rainfall data more accessible and meaningful. For further information, contact: Dr. Aondover Tarhule at atarhule@ou.edu.

[Uganda gets fibre optic cable](#)



The long-awaited 17,000km undersea fibre optic cable has finally landed in Uganda. The cheap high speed bandwidth provider SEACOM launched the cable's services in Kampala on last month. It will have the capability to maintain two million phone calls simultaneously, marking a revolutionary transformation in Internet access and affordability in Uganda.

The \$600 million (over sh1200 billion) investment will link Africa to Europe and Asia via the Middle East, providing one of the cheapest alternatives to sharing information across the globe. The market price of one megabyte per second of

broadband has been averaging \$2500-\$5,000 (about Sh5m - Sh10m) in East Africa. SEACOM's initial offer will be between \$50 and \$100 (about Sh 100,000 and Sh 200,000), depending on the volumes of bandwidth bought, according to the firm's director, Dr Kevin Karuiki.

The information and communications technology minister, Aggrey Awori, speaking at the launch at the Kampala Serena Hotel, described it as the 'advent of a new age'. "With a national policy on ICT and national ICT Act about to be passed, the people are being ushered into a new age. This will be one of the great leveling tools of our time," said Awori.

SEACOM was simultaneously switched on in South Africa, Kenya, Uganda, Mozambique and Tanzania. SEACOM is a privately funded venture with 76.25% of the stake owned by Africans. Source: New Vision.

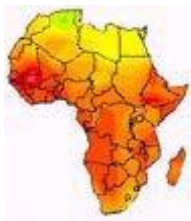
[Action research on smallholder tree planting at the Uluguru Mountains of Tanzania](#)



In recent years, several conservation projects have been initiated that aim to restore the natural resource base of the Ulugurus. However, not all have been equally successful. So the focus has shifted from subsidy based approaches to more direct conservation initiatives such as the payments for environmental services (PES) under which farmers receive economic incentives for providing valuable environmental services through their conservation efforts.

Some of the important PES initiatives in the area include CARE International's [Equitable Payments for Watershed Services \(EPWS\)](#) project that aims at compensating farmers for investing in land use practices that reduce the flow of silt into River Ruvu. A similar initiative is "Valuing the Arc" project that aims to identify and value the important environmental services provided by the region.

As part of payments for environmental service initiatives, the World Agroforestry Centre (ICRAF) launched its action research on farmers' willingness to invest in conservation practices. It is part of ICRAF's Africa-wide project called [Pro-poor Rewards for Environmental Services in Africa](#) (PRESA). The action research is conducted in collaboration with CARE to look at the feasibility of implementing pro-poor payments for environmental service schemes in the Ulugurus. The project began in September 2008 and to date, more than 400 local households have been contacted to respond to comprehensive questionnaire. More than 300 households participated in submitting their bids for tree planting contracts.



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Institutes move to save mangrove in the Kenyan coastline

The Kenya Marine and Fisheries Research Institute (KMFRI) in collaboration with the United Kingdom Natural Environment Research Council (NERC) are on a mission to save the mangrove forest, which is among the most threatened ecosystem in Kenya. Communities living along the coast will soon be able to assess the carbon value of mangroves for economic benefits as a measure against destruction of the forest for wood fuel and building materials.

The project is a partnership between KMFRI, the universities of Southampton and Bangor in the UK and Ecometrica, a UK company specializing in the quantification and analysis of ecosystems. The project is funded NERC for 150,000 Sterling pounds (about Sh15million) and will impart skills on geographic information system (GIS) and remote sensing to members of the community.

KEMRI has launched a training programme that will give skills to selected community groups to give value to their resource for the international market. The campaign through capacity building for mangrove assessment, restoration and valuation in East Africa (CAMARV) community groups are already being trained on how to use scientific methods to assess the carbon content of the aquatic trees and value it for commercial purposes.

Survey on status of remote sensing use for agriculture in Africa

The Regional Centre for Mapping of Resources for Development (RCMRD), an intergovernmental organization established under the auspices of UNECA and AU is carrying out a survey on remote sensing use for agriculture in Africa. The purpose of the survey is to gather information regarding past, present and future programs/projects that use remote sensing technology for agricultural monitoring in Africa with the desire to help improve Africa's agricultural monitoring statistics. Gathering a good understanding of the current role and future potential of remote sensing will help improve the development of cost effective, accurate, timely and sustainable agricultural production and crop statistics for the continent.

Fill online questionnaire at http://www.surveymonkey.com/s.aspx?sm=C41ovJbr1M5Ykhc64cCoFA_3d_3d by 15 August, 2009. For further information, contact: ekhamala@rcmrd.org, ckunyiha@rcmrd.org, banangwe@rcmrd.org.

Conference of Vice-Chancellors and Deans of Science, Engineering and Technology (COVIDSET 2009), November 2009, Kampala, Uganda

The third Conference of Vice-Chancellors and Deans of Science, Engineering and Technology (COVIDSET 2009), organised by the African Network of Scientific Institutions, will be held in Kampala, Uganda, in November 2009. The event will be hosted by Makerere University. The theme of COVIDSET 2009 is Revitalizing Science and Technology Research and Deployment for Sustainable Development in Africa: Strategic, Policy and Regulation Challenges and will build on discussions and outcomes of the first two conferences: the State of Science and Technology Training Institutions (COVIDSET 2005) and Science and Engineering Education for Sustainable Development (COVIDSET 2007).

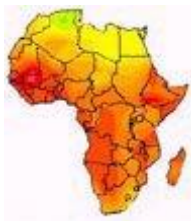
The conference will consider the following questions:

- What is the current status of SET research, development and deployment systems in African universities and research centers?
- Are prevailing policies, regulations and strategies conducive to vibrant R&D and deployment?
- What lessons can be drawn from successful R&D and Deployment (R&D&D) cases in Africa?
- What role can South-South and North-South partnerships play in revitalizing R&D&D? - Policy implications.
- What role can African scientists in the Diaspora play?
- Can African university and research centers design strategies that can make R&D more responsive to priority development needs on the continent?
- What strategies may be considered to increase investment from the public and private sector for R&D&D in Africa?

For more information, visit [COVIDSET 2009](#) or Download the [conference brochure](#).

Map Africa 2009, 16-18 September, 2009, Johannesburg, South Africa

The three days conference scheduled for 16 - 18 September, 2009 will take place at Birchwood Hotel, Johannesburg, South Africa. The conference aims to disseminate geospatial knowledge by facilitating interaction and discussion among the participants and provide a single platform to the speakers from end



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user organizations, industry and government at large. Map Africa shall also give an insight into the latest and advanced technology pertaining to the domain through the state-of-the-art exhibition. Highlights of the event:

- Pre Conference Event (On 16th September, Only by invitation) - National Mapping Organisation (NMO), Industry Exchange Forum, Geospatial Science Forum
- Plenary Sessions - Geospatial Technology Development and Trends, National Geospatial Enabling Policy Framework, Geospatial Applications at Enterprise Levels
- Symposia - Local Governance, Utility and Infrastructure, Agriculture and Environment Management

The conference has gained support from various government, corporate and surveying agencies. DigitalGlobe is the Platinum Sponsor; Trimble and DataWorld are the Gold Sponsors, Open Geospatial Consortium is the Supporting Organisation, various key surveying and mapping agencies like the Regional Centre for Mapping of Resources for Development (RCMRD), Kenya; Department of Surveys and Mapping, Botswana; The Department of Surveyor General, Zimbabwe; Ethiopian Mapping Agency, Ethiopia, CERGEC, Congo; and Directorate of Surveying and Mapping, Republic of Namibia are the Co Sponsors. The conference is also supported by Agricultural and Research Council as Institutional Partner; Geo Connexion as Media Partner and Department of Cooperative Governance and Traditional Affairs as Symposium Partner. Submit papers relevant to the symposiums of the conference. Deadline for paper submission: 15 July 2009. For more queries related to abstract submission, contact Akanksha Tyagi at papers.mapafrica@gisdevelopment.net and for more details, logon to <http://mapafrica.gisdevelopment.net>.

[ESRI Eastern Africa User Conference](#), 24-25 September 2009, Addis Ababa, Ethiopia



[2009 GIMS User Conference](#), 21-23 October 2009, Alpine Heath, Northern Drakensberg, South Africa

The User Conference (UC) is a three day conference which will reflect GIMS and ESRI's vision for the future, where GIS solutions will play an increasingly vital role on an everyday basis in a myriad of different ways. The UC 2009 agenda will include topics which cover how GIS is impacting across all industries and those making use of the growing technology - GIS Users, GIS Managers, Developers, System Architects and IT Professionals, technical software users and key decision makers. Delegates will represent a wide range of industries including Central Government, Local Government, Defence, Education, Environment, Health, Private Sector, Public Safety and Utilities organisations.



[AfricaGIS 2009 Conference](#), 26-29 October 2009, Kampala, Uganda

The AfricaGIS2009 is a premier, continental conference. The broad sub-themes include:

- Geospatial information for climate change, vulnerability and disaster risk reduction
- Spatial Data Infrastructure in Africa; enhancing science-policy interface
- Geospatial information science for communication and education
- Geospatial information for integrated environment and natural resources mgt

Cross-cutting issues includes poverty, rural development, urbanization, gender, health, land, displacement and refugees, water and energy. Contact: info@africagis2009.org.



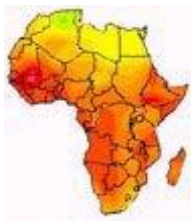
[2009 ESRI Middle East and North Africa User Conference \(MEAUC\)](#), November 9-12, 2009, Manama, Bahrain

Professionals across industries and at all levels of experience with geographic information system (GIS) technology are encouraged to attend this valuable forum. Join ESRI and your colleagues for the opportunity to explore your biggest project challenges and learn how to achieve more GIS-driven results in your organization or community. Contact meauc2009@esri.com.

Practical SDI implementation materials from within and outside of Africa

[UN GIS Project tracking system](#)

The major objective of this programme is to improve inter-agency collaboration by setting up a multi-agency Project Tracking System. This system will include project data of all UN, Non-UN and NGO agencies and will be designed as a tool for improved planning and programming of UN activities in Kenya by facilitating the use of experiences drawn from other projects and to improve interagency collaboration by sharing information amongst agencies.



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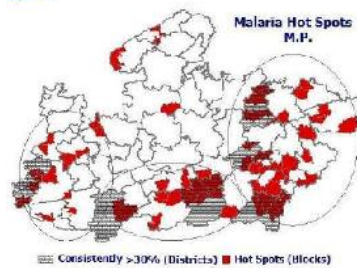
This project is a pilot project that will be promoted as a model after its termination to the regional offices and headquarters. Specifically it aims to:

- Undertake the inventory of all projects supported by the UN system covering the geographic location, agency (ies) involved, their funding size, focal points and addresses.
- Provide GIS-based maps showing the sectoral and geographic distribution of UN system assistance, which will be up-dated on a regular basis by the RCS.
- Provide training in the use of the system to all users.
- Promote the use of ICT as a key emerging area of focus by the UN.

UNEP-GRID is hosting the system on their server and providing technical assistance in building and implementing the system.

[Identification of malaria hot spots for focused intervention in tribal state of India: A GIS based approach](#)

Figure 5:



An information management system based on GIS using district and block wise malaria data, has been constructed for Madhya Pradesh in central India for quick retrieval of info and dynamic generation of maps to highlight hot spots of malaria for formulating prompt and focused malaria control strategy. Madhya Pradesh is a forested and tribal area, control of malaria is logistically difficult and outbreaks are frequently recorded, reasons for this being inadequate surveillance, poor reporting, a time lag in reporting to decision makers and a lack of geo referenced information to pin point the trouble spots for a timely preventive action. Out of total 48 districts consisting of 313 blocks, based on certain criteria GIS identified 58 blocks

falling in 25 districts as Hot Spots. Malaria flares up from these pockets whenever favorable conditions for transmission occur. It was suggested to National Vector Borne Disease Control Programme (NVBDCP) that focused malaria control in these hot pockets may be taken up on priority during the year 2007; it was implemented by State Health Authorities, M.P. under the directive of NVBDCP. Implementation of control measures were evaluated by NVBDCP.

GIS mapping would make it easy to update information instantly and to identify the trouble spots at the village level within the district which is the lowest unit equipped with computer facilities and the information can reach instantly to state and the policy makers to formulate focused and cost effective malaria control strategy. This is the first time when GIS has been used in national control programme for tribal malaria.

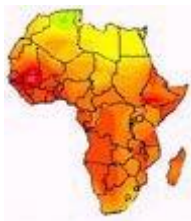
[GIS to keep an eye on govt land, industries](#)

To keep a tab on effective utilization of land allotted to industries, perhaps for the first time in India, all industrial sites in the state will come under GIS ambit. GIS mapping allows the department to keep constant vigil on industries, which even after many years of allotment of land are yet to start their ventures. The Karnataka Industrial Area Development Board (KIADB), a premier industrial area developer and nodal agency to monitor all industrial sites, along with Technical Consultancy Services Organization of Karnataka (TECSOK), have already prepared a blueprint for GIS mapping of KIADB's 126 industrial areas, spread over 40,000 acres in the state. "GIS is required to keep an account of the extent of land given to industries to set up their units. It would also give an idea of scientifically developing industries in future," large and medium industries minister Murugesh R Nirani told The Times of India. Besides having particulars on availability of water and its sources, power and other basic amenities, GIS mapping of industrial areas is a ready reckoner on the total extent of land, industrial area location-wise, category of industries, status of units and plots available for allotment.

As a first step, KIADB has served notice to nearly 200 companies, seeking an immediate reply for not establishing the units even several years after the government approved the land. KIADB chief executive officer T Sham Bhat said of the 40,000 acres, 37,000 acres have been developed for industrial purpose. "GIS will provide specialized maps with spatial data on occupancy status, facilities available, emergency services, environmental management, land use, infrastructure design and planning and vehicle navigation. This will enable us to have up-to-date and accurate information on all aspects of industrial areas," Bhat said.

GIS Tools, Software, Data

[Field guide to humanitarian mapping](#)



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MapAction has published a comprehensive (118 A5 pages, 3.1MB) manual to selecting and using free and open source GIS and other software for humanitarian operations. This field guide to humanitarian mapping was produced in response to requests from MapAction partner organizations who want to make use of the growing range of GIS and related tools in their work. This first edition contains:

- An introduction to spatial data collection and mapping methods both in vulnerability assessment and emergency response.
- How to use GPS to collect data.
- A tutorial on using Google Earth in field work.
- A step-by-step guide to a freely-available open-source GIS software package called MapWindow.
- Links to other free software tools and data sources.

Further information, contact: info@mapaction.org.

[Release of GeoNetwork opensource 2.4.0](#)

GeoNetwork opensource (<http://geonetwork-opensource.org>) is a standards based geospatial catalog application that helps people and organizations to organize and publish their geospatial data through the web. It is currently used in numerous Spatial Data Infrastructure initiatives across the world. The software provides:

- Easy to use web interface to search geospatial data across multiple catalogs, combine distributed map services in the embedded map viewer, send annotated interactive maps to friends by email, and publish geospatial data using online metadata editing tools and optionally the embedded GeoServer map server.
- Option to manage user and group accounts, configure the server through web based and desktop utilities and schedule metadata harvesting from other catalogs.
- Support for a number of metadata formats (ISO19115/19119 following ISO19139, FGDC and Dublin Core), a number of catalog interfaces (OGC-CSW2.0.2 ISO profile client and server, OAI-PMH client and server, GeorSS server, GEO OpenSearch server, WebDAV harvesting, GeoNetwork to GeoNetwork harvesting support).

GeoNetwork opensource is part of the OSGeo (<http://www.osgeo.org>).

[Data Basin: Expanding Access to Conservation Resources](#)

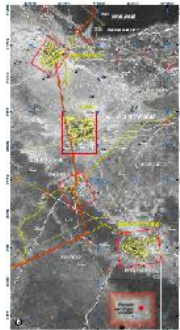


Currently, spatial data pertaining to conservation are widely scattered, difficult to locate, and often unavailable. Valuable time and resources are routinely wasted locating and gaining access to important datasets, reviewing data quality, modifying file formats, and then learning proprietary software.

Data Basin is an innovative web tool that connects users with conservation datasets, tool, and expertise. Individuals and organization can explore and download a vast library of conservation datasets, upload their own data, and produce customized maps and charts (coming soon) that can be easily shared. Data Basin is being organized, managed, and provided by the [Conservation Biology Institute](#), in partnership with [Rhiza Labs](#).

[Free UNOSAT maps](#)

- [Dadaab Refugee Camps Overview, Garissa, N.Eastern, Kenya](#)



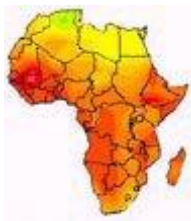
This map illustrates satellite-derived transportation data (roads, air field, bridges and potential road obstacles) over the complex of three refugee camps surrounding the village of Dadaab, North-Eastern, Kenya as identified from WorldView-1 satellite imagery recorded on 9 March 2009. Transportation data layers were created and attributed according to the UN Spatial Data Infrastructure for Transport (UNSDIT) database structure, and will continue to be updated by UNOSAT as new satellite imagery becomes available. Open the pdf and zoom in to view the details.

- [UNOSAT KEN Dadaab Camps Overview LR v1.pdf \(915.2Kb\)](#),
- [UNOSAT KEN Dadaab Camps Overview HR v1.pdf \(4.4MB\)](#).

Additional products including satellite images and thematic maps can be provided by UNOSAT on request.

- [Overview of potentially flood affected areas over Cotonou and Abomey-Calavi, Benin](#)

Flood analysis using radar satellite imagery (ENVISAT ASAR) that were recorded 13 July 2009 and 27 March 2007 and indicating potentially flooded areas along southern coastline of Cotonou and Abomey-Calavi. Potentially flooded areas within dense urban areas could not be assessed with the available imagery.



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Resolution: 30 meters, GIS data - NGA, UNITAR/UNOSAT, FAO, ESRI Map scale for A3 print-out is 1:100,000. Source: ESA, International Charter Space and Major Disasters.

- [Active fire detection over Atlas Cove Jetty petroleum facility, Lagos, Nigeria](#)

This map illustrates satellite-detected thermal anomalies (active fires) over the petroleum facility of Atlas Cove Jetty, Lagos, Nigeria. This fire location was detected by the MODIS Terra satellite sensor on 12 July 2009 at 22:22 GMT, approximately 50 minutes after the reported attack on the facility by the Movement for the Emancipation of the Niger Delta (MEND) at 21:30 GMT.

- [Crisis space map, Cunene province, Ombala-yo-Mungo, Angola](#)

This crisis product represents the situation on the ground in the flood hit area of Cunene the 13th of May 2009. The area has been hit in early 2009 by heavy rains which have caused floods in Angola's southern and central provinces of Moxico, Cunene, Cuando Cubango, Bie, Lunda Sul, Uige and Malange. Satellite: Spot 5, Landsat 7 ETM+, Pixel Size: 5 m, 14.25 m.

- [Impact map, Cunene province, Ombala-yo-Mungo, Angola](#)

This impact product represents the situation on the ground in the flood hit area of Cunene the 13th of May 2009. The area has been hit in early 2009 by heavy rains which have caused floods in Angola's southern and central provinces of Moxico, Cunene, Cuando Cubango, Bie, Lunda Sul, Uige and Malange. Satellite: Spot 5, Pixel Size: 5 m.

Ethiopia - Nationwide Data

- [Digital Chart of the World \(Disc Write Only\) **](#)
- [Admin/Political Boundaries - 1M - E00 Format](#)
- [Digital Terrain Elevation Data \(DTED\) Level 0](#)
- [Geologic - 1M - E00 Format](#)
- [Hydrography - 1M - E00 Format](#)
- [Hypsography - 1M - E00 Format](#)
- [Landsat Enhanced Thematic Mapper Mosaics - 2000](#)
- [Landsat Thematic Mapper Mosaics - 1990](#)
- [Landuse/Land Cover - 1M - E00 Format](#)
- [Place Name Gazetteer](#)
- [Transportation - 1M - E00 Format](#)
- [Utilities - 1M - E00 Format](#)

Geospatial Research, Applications, Reference Material

The art of predicting Rift Valley fever outbreaks



The National Aeronautics and Space Administration Agency (NASA) is devising remote sensing methods to monitor the environmental conditions that cause Rift Valley Fever. This episodic livestock disease, which occurs every five to ten years and can be transmitted to humans, was first identified by a British veterinary surgeon in Kenya more than 50 years ago. It has since been detected across the African continent and as far a field as the Indian Ocean islands of Comoros and Madagascar.

Researchers use a variety of remote sensing measurements, including sea surface temperatures, rainfall and vegetation, to predict when parts of Africa and the Middle East might become vulnerable to Rift Valley Fever, which is triggered by persistent, above-normal levels of rainfall in drought-prone areas. The issue is to be able to provide data with a turnaround of three to five [cloud-free] days as the whole point of

an early warning system is the timeliness of the data. The Horn of Africa experienced outbreaks in 1997-98 and 2006-07 when El Nino struck, bringing the atypical weather patterns associated with a rapid spread of the disease that killed nearly 3,000 people and thousands of livestock. A number of diseases that have either been neglected or not wholly understood are prevalent in Africa, and it is hoped that the use of remote sensing will also provide a greater understanding of these. One of them, Buruli ulcer, a treatable but neglected disease caused by the family of bacteria also responsible for tuberculosis and leprosy, is estimated by WHO to affect more than 40,000 people annually in West Africa alone.

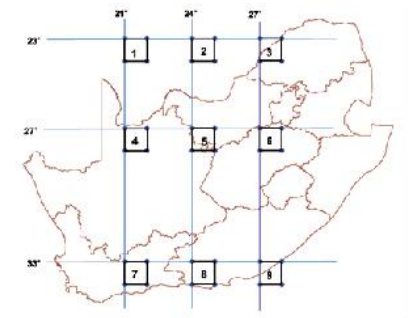
A drawback in remote sensing is the inability of satellites to penetrate cloud cover, but a pilot project by scientists from Denmark's University of Copenhagen to test new and improved optical systems is underway at weather stations in Senegal, Mali and Kenya. Source: IRIN.



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The effect of various map projections on surface area



This article investigates the error that can be expected when an area or region is projected from its “true” area i.e. that area calculated on the ellipsoid, to a projected area. This investigation was requested by the South African National Biodiversity Institute (SANBI), which has a number of divisions around the country which use spatial data. These comprise both raster and vector datasets. The extents of these datasets range from localized areas all the way up to national and including the Southern African region (SADC). However, the provincial and national datasets are the most frequently used.

The spatial accuracy of the datasets depends on their use and function. Some datasets have a spatial accuracy of 20 m and others over 1 km.

SANBI perform various manipulations and queries on their datasets and a variety of projections are utilized. These include Transverse Mercator, Albers Equal Area Conic, Lamberts Conform Conic as well as Universal Transverse Mercator (UTM) Projections. The problem presents itself when the same geographical region is represented on different projections, which are being used by the different divisions within SANBI. Therefore, when these datasets are combined and their physical area investigated, the differences are not necessarily a change in area, but a result of the errors induced by the projections. The main aim of this report was to quantify and summarize the extent of the error induced by those projections.

GPS for Emergencies v1 (0.5MB)

A short (4 page) guide, published by MapAction, for humanitarian professionals in the field. It covers how to set up your GPS, advice on how to use it and how to record coordinates and related information from assessment missions. Also includes a GPS data collection form.

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.

[African Reference Frame \(AFREF\) and GNSS Data Processing Training Course](#), 24 Aug - 4 Sept 2009, RCMRD, Nairobi.

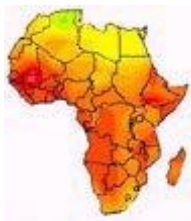
The course contents:

- Introduction to Global Navigation Satellite System (GNSS)
- Reference systems, datum and coordinate systems
- IGS data and products
- AFREF concepts and progress
- Establishment of Continuously Operating Reference GNSS Stations
- Practical field works on Static GNSS surveys
- GNSS data post processing
- On line GNSS data processing

For further information contact: Muya Kamamia at rcmrd@rcmrd.org or muyack@rcmrd.org. Website: <http://www.rcmrd.org>.

[GEONETcast for Natural & Water Resources Management - Pre-conference workshop Africa GIS2009](#), 22-24 October 2009, Makerere University, Department of Geography, Kampala, Uganda

This workshop will help to bring participants up to speed with recent developments with respect to the GEONETCast data dissemination and ground receiving system, freeware toolbox to import the data,



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associated (multi-temporal) modeling and GIS applications. Furthermore it will stimulate the applicants to further develop and strengthen educational and research activities and collaboration in these fields.

The workshop is built on the GEONETCast system and utilizes the various data sources provided which will contribute to a better understanding of the natural processes going on in relation to water and natural resources conditions (e.g. flood and drought phenomena) at a basin and continental scale. The workshop will equip the participants with up-to-date knowledge and skills (through computer practical) using (real-time) image and data disseminated via GEONETCast. Tools used are freeware and are at disposal of participants after termination of the workshop.

[UNESCO-IHE Regular Short Course: GIS and Remote Sensing](#), 2-13 November 2009, UNESCO-IHE Institute for Water Education, Delft, The Netherlands

There has been a rapid growth in the use of digital spatial and temporal data in many aspects of urban water systems management (for example urban planning, pipe-network systems analysis, river basin management, groundwater analysis and water pollution assessment). The aim of this course is to provide both a solid theoretical understanding and a comprehensive practical introduction to the use of geographic information systems and remote sensing technologies for the analysis and solution of different water and environmental problems. Contact: z.vojinovic@unesco-ihe.org.

[Facilitating community managed disaster risk reduction course](#), 19-30 September 2009, Kampala, Uganda. Contact [International Institute of Rural Reconstruction, Africa \(IIRR Africa\)](#) regional office or country offices for details.

[Institute for Meteorological Training and Research \(IMTR\) courses 2009](#), Nairobi, Kenya

- Specialised Course in Aeronautical Meteorology (AERO) - start date: 1 September 2009 (6 weeks)
- Advanced Forecasting Course (AFC) - start date: 1 October 2009 (3 months)

Contact: imtr@meteo.go.ke, aura@meteo.go.ke.

[GIMS course schedule for August and September 2009](#), South Africa. GIMS is an ESRI accredited learning centre servicing Southern Africa. Contact:

- Midrand and Port Elizabeth - Queen Mofokeng (011) 238 6300 (011) 238 6310 at qmofokeng@gims.com
- Durban - Patricia van Schalkwyk (031) 303 5356 (031) 303 5376 at pvenschalkwyk@gims.com
- Cape Town Kathi Wöhl (021) 422 4620 (021) 422 4628 at kathi@gims.com



[L'Ecole Régionale post-universitaire d'Aménagement et de gestion Intégrés des Forêts et Territoires tropicaux \(ERAIFT\)](#) [[Regional School on Integrated Management of Tropical Forests and Territories](#)] –



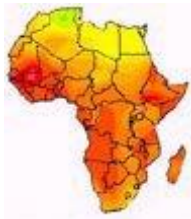
[Promotion : inscriptions ouvertes](#), Kinshasa, République Démocratique du Congo. Le [cursus de l'ERAIFT](#) aboutit à l'obtention d'un Diplôme d'Etudes Supérieures Spécialisées (DESS). Ce diplôme est l'équivalent d'un Master du système « LMD » (Licence, Master, Doctorat) des Accords de Bologne. Il est reconnu par le Conseil Africain et Malgache pour l'Enseignement Supérieur (le CAMES). Le programme du DESS comprend 16 chaires dont l'enseignement s'étend sur une période de 12 mois. L'étudiant dispose ensuite de 6 mois

pour rédiger son mémoire. Le contenu de ce dernier repose sur l'approche systémique, et s'inscrit dans le cadre de l'aménagement intégré du territoire, du développement humain, durable et écologiquement viable, de la lutte contre la pauvreté et de la gestion rationnelle de l'environnement. L'autre grade décerné par l'ERAIFT est le Diplôme de Philosophiae Doctor (Ph.D.) en Aménagement et gestion intégrés des forêts et territoires tropicaux. Bourses disponibles, mais limitées en nombre. Contact: info@eraift.org.

[Short-courses offered by RECTAS in 2009](#), Ile-Ife, Nigeria



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



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[ESRI Online Seminar - Getting Started with Map Templates,](#)

Getting Started with the ArcGIS API for Microsoft Silverlight, August 27, 2009 (12 PM, 2 PM, & 6 PM New York time)

[LUMA-GIS, Lund University GIS Centre \(Sweden\) Master's program in GIS](#)

Lund University Master's program in GIS is a free, distance-learning, 2-year program for full-time students. The entire program is given in English and is equivalent to 120 European ECTS credits (1.5 ECTS credits are approx. equivalent to 1 week full-time studies). All courses, given as "distance education", means that the teaching methods and course examinations are conducted over the Internet. The program is equivalent to a degree of Master in Sweden. It is the responsibility of international students to verify if the program is also recognized as a degree of Master in their country of origin. The entire program is free of charge for all students, meaning that there are no tuition fees. The students will be supplied with all required computer software and licenses, theoretical material (except course literature for some courses), practical exercises, and data. Course literature (books) may be required for some of the more advanced courses. In such cases, students will have to buy these themselves. Applications for program that starts in January 2010 opens in July 2009.

[MSc degree or Postgraduate diploma course in Land Administration](#)



ITC's MSc degree (18 months) and Postgraduate diploma (9 months) courses in Geo-information Science and Earth Observation for Land Administration starts on 14 September 2009 and comprises two components:

- Understanding the scientific concepts, models and methods of land administration
- Operational aspects of creating a land administration organisation.

See [fellowships](#) matters and on-line registration: [MSc degree course](#) and [Postgraduate diploma course](#).

[Use of low cost earth observation data in environmental and climate monitoring applications: taking further the African Union - AMESD initiative](#), Rwanda, starting 5 October 2009 (2 weeks). A number of fellowships are available for eligible candidates. Application deadline: 20 August 2009.

Postgraduate certificate course

[Applications of Earth Observation and GIS in Integrated Water Resources Management](#), 18 January - 7 May 2010 (16 weeks), Nairobi, Kenya

Each module can be taken separately

1. Principles of Earth Observation and GIS - RCMRD (5 weeks)
2. Principles of IWRM – RCMRD (1 week)
3. Advances in computational methods for WRM - Egerton Univ. (2 weeks)
4. GIS-based catchment modeling incl. DEM hydro-processing - Egerton Univ.(3 weeks)
5. Groundwater system analyses and modelling - Egerton Univ. (2 weeks)
6. Application of RS and GIS in Water Resources studies – RCMRD (3 weeks)

Co-funding arrangements can be made through the school for Disaster Geo-Information Management (ITC).
Deadline for applications: 1 October 2009. Deadline for NFP fellowship: 1 September 2009.

For further information contact: Ir. Arno van Lieshout, ITC (lieshout@itc.nl), Dr. Tesfay Korme, RCMRD (korme@rcmr.org), Prof. Japheth O. Onyando, Egerton (jonyando@yahoo.com).

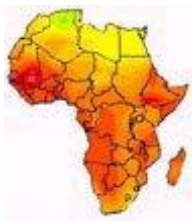
[Diploma course](#)

[Geoinformatics, with ARU, Dar es Salaam, Tanzania](#). Specialisation modules: Digital Photogrammetry & Remote Sensing, GIS Operation, Cartography and Geo-Visualisation.

ITC Refresher Courses 2009

Refresher courses, which are certificate of attendance courses (mostly of two-week duration) organised for alumni in their home countries or regions, are meant to increase the impact and prolong the effect on earlier training. In 2009 the following courses are available:

- [Impacts of infrastructure and transport - Modelling and mapping for sustainable infrastructure development in an urbanising landscape in West Africa](#) - Kumasi , Ghana , August 2009
- [Use of low cost earth observation data in environmental and climate monitoring applications: taking further the African Union - AMESD initiative](#) - Butare , Rwanda , October 2009



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- [Designing and utilizing geo-information infrastructures for effective electronic governance in Eastern Africa \(GEOGOV - EA\)](#) - Kampala, Uganda, October 2009.
- [Impacts of infrastructure and transport](#) - Modelling and mapping for sustainable infrastructure development in an urbanising landscape in West Africa, Kumasi, Ghana, starting 10 August 2009 (2 weeks).
- [Use of low cost earth observation data in environmental and climate monitoring applications](#): taking further the African Union - AMESD initiative, Butare, Rwanda, starting 5 October 2009 (2 weeks). A number of fellowships are available for eligible candidates. Application deadline: August 20, 2009.

Funding Opportunities, Awards, Support

[START Grants for Global Environmental Change Research in Africa](#)



[START](#), the global change SysTEM for Analysis, has announced a Call for Proposals for research and assessments of global environmental change (GEC) in Africa in the context of the Joint Projects of the Earth System Science Partnership ([ESSP](#)). Proposals must be relevant to one or more of the following four ESSP Joint Projects:

- [Global Carbon Project](#)
- [Global Environmental Change and Food Systems](#)
- [Global Water Systems Project](#)
- [Global Environmental Change and Human Health](#)

Eligible proposals must be collaboration among multiple investigators. Investigator teams must comprise either:

- 3 African scientists at the same institution with complementary skills and expertise, with one serving as the Principal Investigator + 2 co-Investigators, or
- 3 African scientists from different institutions, with one serving as the Principal Investigator + 2 co-Investigators.

[Download official announcement](#), [2010 START Application Form](#). Submit the completed CFP template electronically to: start-proposals@agu.org. For enquires, contact Charles S. Kauffman at cskauffman@agu.org. Deadline for submission of proposals: 30 August 2009.

[MMMF Educational Grants - South Africa, Academic Year 2010](#)

The Margaret McNamara Memorial Fund (MMMF) awards educational grants to women from developing countries whose graduate studies and future plans aim to benefit women and children in their respective regions. The online application for the academic year 2010 will be available from June 1, 2009. Deadline: August 31, 2009.

[TWAS-AAS-Microsoft Grant for Scientific Meetings](#)

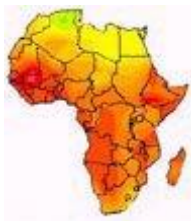
The TWAS-AAS-Microsoft Grant for Scientific Meetings aims to encourage the organization of international and regional scientific conferences and workshops in Africa. Microsoft will provide support in the form of travel grants for some principal speakers from abroad and/or participants from developing countries other than the country in which the event is held. Applicants, who may be of any nationality, must be involved in the organization of international or regional scientific meetings to be held in Africa in the field of computer science. Deadlines for receiving applications are: 1 April each year for meetings to be held during July to December of the same year, and 1 October each year for meetings to be held during January to June of the following year.

[TWAS Fellowships for Research and Advanced Training](#)

For young scientists in developing countries to spend time at a research institution in a developing country other than their own. The purpose of the programme is to enhance the research capacity of promising scientists, especially those at the beginning of their research career, helping them to foster linkages for further collaboration. The fellowship includes travel support and a contribution towards subsistence costs. Living expenses are borne by local sources. Deadline: October 1, 2009.

[Earth Journalism Award 2009](#) - Open for submission

[Internews](#), the Global Media Assistance Organisation, opened the Earth Journalism Awards on World Environment Day (5 June 2009) with a call to professional and citizen journalists around the world to enter their best reporting on climate change. Winners will be flown to the United Nations Climate Change



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Conference (COP15) in Copenhagen this December, where they will cover these pivotal negotiations and be honored at a high-profile awards ceremony. A total of 14 awards are now open for entry:

- Seven Regional Awards on current affairs and news reporting on climate change: Eurasia, South Asia, East Asia, Sub-Saharan Africa, Middle East & North Africa, Latin America & the Caribbean, and North America, Europe & Australia.
- Six Thematic Awards: The Negotiations Award, The Human Voices Award, The Energy Award, The Forests Award, The Climate Change and Nature Award, and The Climate Change Adaptation Award.
- The 14th award – the Global Public Award – will be chosen by the public, which will be invited to vote online for the best story drawn from the winning regional and thematic awards through a social networking campaign on platforms such as Facebook and Twitter.
- A 7th thematic award - The MTV Positive Change Award - will be open for entry from June 22 2009.

Details of the awards are [available](#) where journalists can register and upload their entries. Deadline for entries: 7 September 2009.

Carl Pulfrich Award - 2nd Announcement

Z/Imaging, an Intergraph company, welcomes nominations for the 2009 Carl Pulfrich Award. The award recognizes outstanding accomplishments in the field of photogrammetry and remote sensing. The Carl Pulfrich Award was established to promote outstanding scientific, application-oriented design and/or manufacturing activities in the field of photogrammetry and remote sensing, including earth imaging applications. The biennial award and donation honors the memory of Dr. Carl Pulfrich, a member of the scientific staff at Carl Zeiss from 1890 to 1927, during which time he directed the design of the first stereo photogrammetric and surveying instruments from Zeiss. Photogrammetry, remote sensing, and earth imaging professionals may nominate candidates for the Carl Pulfrich Award.

Application Criterion:

- A one- to three-page statement that justifies the nomination of the Carl Pulfrich Award candidate
- A curriculum vitae that includes the candidate's date of birth, significant work experience, academic degrees, copies of papers, research reports, or other items produced by the candidate that may support the candidate's capabilities in this field
- One or more independent letters of recommendation from fellow practitioners having knowledge of the candidate's capabilities (demonstrated or potential) as a technical leader in this field.

The award recipient(s) will receive a monetary gift of \$7,500 (U.S.) or an amount deemed suitable by the award council and will be presented the distinguished 2009 Carl Pulfrich Award plaque during the 52nd annual [Photogrammetric Week](#), Sept. 7-11, 2009, in Stuttgart, Germany. For additional information, contact Dr. Mostafa Madani at mostafa.madani@intergraph.com or phone: 1.256.730.1814.

Right Sharing of World Resources (RSWR) Grant Program

Right Sharing of World Resources (RSWR) is a Quaker-organization, which primarily works with newly established and small organizations in the developing world. RSWR's grants support for innovative income-generating projects and environmental regeneration (reforestation, agro-forestry, alternative energy sources). Project grants may be used for: revolving loan for seed money, start-up supplies and equipment essential for the project, training, and salary for persons needed to oversee the project, travel expenses, administrative expenses such as the cost of preparing and mailing reports to RSWR. RSWR has two funding cycles. Deadline: December 31. For more information contact: Right Sharing of World Resources at: rswr@rswr.org.

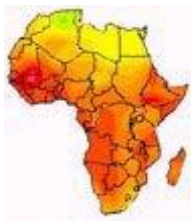
African Union Scientific Awards

The [African Union Scientific Awards](#) will be awarded to African scientists who have remarkable achievements, demonstrated by number of publications, number of research graduate students, applicability of the scientific work to Africa's challenges, and its patentability. Only nationals of the African Union (AU) Member States are eligible for this Award. The remaining award category is:

- African Union Scientific Award targeting outstanding African Scientists in the African Union and valued each at USD 100,000. The awards are for African Union Scientific Award Life and Earth Sciences and the African Union Scientific Award for Basic Science, Technology and Innovation.

Application deadline: 9 September 2009.

International Foundation for Science (IFS) - "Green Water" Grants



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The International Foundation for Science (IFS) invites young scientists to submit research proposals that address: Good management, conservation and use of green water for increased food and biological production through:

- Land management and soil water conservation
- Soil practices to reduce soil erosion and impact on rain water infiltration
- Increase of infiltration through agriculture, rain harvesting or water conservation practices
- Soil fertility management and efficiency of water use for increased production
- Plant management impact on efficiency of rain water use, effects of plant density on rain water use efficiency, relationship between intercropping and run off
- Use and development of drought resistant plants
- Socio-economic aspects of green water use and management

Candidates must be under the age of 40, hold at least an MSc degree, be citizens of developing countries and be carrying out their research in a developing country. Researchers in Sub-Saharan Africa up to 45 years of age may apply, providing they obtained their last higher degree within the last 5 years. Deadline: 31 December 2009.

[International Foundation for Science \(IFS\) Grants](#)

The International Foundation for Science (IFS) is currently accepting research grant proposals from young researchers from developing countries. Each year IFS awards around 250 research grants with a value of up to USD 12000 for research projects that will be carried out in developing countries. Eligible research proposals will address issues that fit within the broad topic of sustainable management, use or conservation of biological or water resources. Researchers with IFS support usually have a Masters degree or a PhD, or they are currently enrolled in a PhD programme. See [IFS website](#) for application forms and detailed eligibility criteria. Application deadline: 31 December 2009.

[The Zayed International Prize for the Environment](#)

The Zayed Prize, awarded on a biennial basis, recognises and promotes pioneering contributions in the field of environment and sustainable development. The Zayed Prize is classified into three award categories:

- Global leadership in environment and sustainable development: US\$500,000
- Scientific/ technological achievements in environment: US\$300,000
- Environmental action leading to positive change in society: US\$200,000

For further information, contact: [The Zayed International Prize website](#) or zayedprz@emirates.net.ae.
Deadline: September 1, 2009.

[Wildlife Conservation Society: Research Fellowship Program](#)

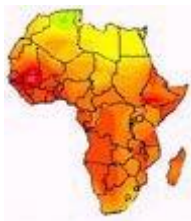
The [Research Fellowship Program \(RFP\)](#) is administered by WCS-Global Conservation's Training & Capacity Building Program and jointly funded by the Conservation Leadership Programme (CLP). The RFP is a small grants program (grants of up to \$25,000, the average grants is \$10,500) designed to build capacity for the next generation of conservationists through supporting individual field research projects that have a clear application to the conservation of threatened wildlife and wildlife habitat. The RFP supports marine or terrestrial field research in Africa, Asia, and Latin America regardless of the nationality of the applicant. CLP funding is restricted to nationals from Algeria, Angola, Argentina, Azerbaijan, Bolivia, Brazil, China, Colombia, Egypt, Georgia, India, Indonesia, Libya, Malaysia, Mexico, Pakistan, Russia, Trinidad & Tobago, Turkey and Venezuela. The RFP supports projects for only one year, so preference is given to discrete, short-term projects. Deadline: September 15.

Employment Opportunities

[Consultancy: International Training & Education Center on Health \(I-TECH\)](#), Gaborone, Botswana

This is a consultancy position seconded to the Botswana Ministry of Health, National TB Program, and based in Gaborone, Botswana. This position will assist with the collection and utilization of TB-related data of national scope for the purpose of effective, efficient, and harmonized health planning, monitoring, and evaluation to meet the national health goals and objectives. The general roles and responsibilities include:

- Under the leadership of the MOH BNTP Director, provides guidance and strategic direction for TB data systems to optimize collection and utilization procedures.



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- Conducts assessments of the health informatics environments, synthesizes pertinent information, and identifies implications for planning and development
- Contributes to the planning, development, and implementation of data systems, products and services to integrate national data collection systems and ensure data quality, security, utilization, and harmonization.
- Acts as a mentor to MOH staff and identifies relevant trainings to further build capacity with the BNTP.
- Ensures coordination in data systems planning, development, and implementation between the MOH Departments, units, and appropriate external organizations.
- Provides advice on appropriate research methods and procedures, conducts research, and assists BNTP to disseminate findings.
- Coordinates the preparation of progress and annual reports and ensures their timely distribution to stakeholders.

Required qualifications:

- Advanced degree in Epidemiology, Health Information Management, Public Health, or Medicine or related field (strong background in Epidemiology, Biostatistics, or M&E).
- At least 7 years working experience in any relevant field.
- Experience working in an international setting at the National-level on health programs with extensive knowledge of and experience with data collection and utilization.
- Experience working with TB programmes.
- Managerial experience in a setting involving the use of health information.
- Ability to analyze and assess needs related to health data systems and training.
- Excellent written and verbal communication skills.

Submit application to hr@itech.org.bw. Deadline: 10 August 2009.

[Consultants for land projects in Africa](#), Africa

Land Equity International Pty Ltd (LEI) is an innovative and internationally experienced consulting organization specializing in land administration, land management, titling and cadastre assistance programs. LEI is seeking experienced consultants to add to our database in preparation for a number of tenders coming up in Africa over the next 6-12 months. Specifically professionals with skills in the following areas:

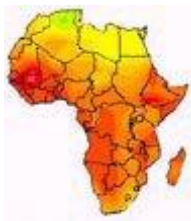
- Land Registration
- Land Policy
- Land Law
- Customary Tenure
- Cadastral Surveying
- GIS
- Land Information Systems
- Social Development and Gender
- Valuation
- Land Management
- Land Use Planning

Consultants are invited to forward a copy of their CV to Ciara Crowley at ccrowley@landequity.com.au or Tel: + 61 2 4227 6680. Deadline: 23 August 2009.

[Senior logistics coordinator](#), Juba, Southern Sudan

Wildlife Conservation Society (WCS) is seeking applicants for the position of Senior Logistics Coordinator for the Boma-Jonglei Landscape program. This is a full-time position responsible for procurement, logistical support to field operations and programs, and oversight of contractors and construction projects. The desired qualifications are:

- Extensive professional experience with logistical systems, procurement, contracting construction in Africa and/or other remote regions and post-conflict areas and proven ability to work with national and local organizations.
- Strong interest in wildlife conservation, natural resource management, or related fields is an advantage.
- 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 and familiarity with languages and culture of southern Sudan will be an advantage.



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To apply, visit: <http://www.wcs.org/about-us/careers.aspx>. For more information about WCS and its Southern Sudan Program: <http://www.wcs.org/international/Africa/sudanprogram>. Contact: Carolyn Gibson at cgibson@wcs.org. Deadline: Until filled.

[Team leader - East, Central and Southern Africa technical support Hub](#), Kampala, Uganda or Nairobi, Kenya

The mission of the International HIV/AIDS Alliance is to reduce the spread of HIV and meet the challenges of AIDS. The ideal candidate will be a dynamic individual with a broad-based technical background in HIV/AIDS, as well as strong management and negotiation skills to lead the team of TS providers. The individual should also bring well-honed team building, communication and interpersonal skills in order to work with internal and external stakeholders. Applicants must have:

- Relevant post-graduate degree in Social sciences, Public Health or Development, extensive experience, excellence and credibility as a technical support provider, and experience from working in more than one country in the region.
- Proven experience of working with civil society.

For further details see 'employment opportunities' section on the Alliance website www.aidsalliance.org. Deadline: 10 August 2009

[Consultants - United Nations Development Programme \(UNDP\)](#), Zambia

The Government of the Republic of Zambia through the Ministry of Tourism, Environment and Natural Resources in collaboration with the United Nations Development Programme and the Global Environment Facility is implementing the Zambian component of the Lake Tanganyika Integrated Management Project (LTIMP). The main purpose of the Project is to reduce sedimentation in the inflowing rivers of the Lake Tanganyika basin through cross-sectoral measures that help limit soil erosion and seek to halt and reverse deforestation. In the initial stages, the Project is being piloted in three sites in Mpulungu District and one site in Kaputa District with the expectation that positive experiences gained in these pilot sites will be transferred to other lakeshore villages in the lake basin. Two consultants required:

1. Establishment of the water quality monitoring and reporting system - The overall objective of the consultancy is to establish the water quality monitoring and reporting system of the Lake Tanganyika in Mpulungu and Kaputa Districts, considering that the water quality of the lake is an indicator of upstream activity and its impact on aquatic life.
 - Zambian individuals with relevant expertise.
 - At least a BSc degree in water chemistry, water management, natural sciences or any other relevant qualification in water science related discipline.
 - A proven track record of analytical research
 - Practical Knowledge in water quality monitoring.
 - Duration: 25 working days spread over a period of two months.
2. Development of an effective and efficient management information system - The overall objective of the consultancy is to develop an effective and efficient MIS for the LTIMP that will be a key administrative tool for the project's implementation. The MIS will require the timely acquisition, analysis and dissemination of relevant information to the project's staff and stakeholders.
 - Zambian individuals with relevant expertise.
 - A proven track record of developing effective and efficient Management Information Systems with strong components of Planning and Monitoring & Evaluation.
 - At least a Bachelor's degree in any one of the following fields: MIS, Development Studies, Economics, Monitoring and Evaluation.
 - Duration: 20 working days spread over a period of one month.

Applications submitted to the Deputy Resident Representative at registry.zm@undp.org. Deadline: 10 August 2009.

[Rural sociologist/agricultural economist](#), Harare, Zimbabwe

CIAT-TSBF is seeking to recruit a rural sociologist or agricultural economist for its regional office in Harare, Zimbabwe, to lead regional projects that have a strong socio-economic component and to provide support for other projects on the socio-economic aspects of the research. CIAT-TSBF has adopted the Integrated Agricultural Research for Development (IAR4D) concept and as such there is a strong emphasis on linking farmers to research, extension and markets, and strengthening the capacity of farmers and other



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stakeholders to participate effectively in such networks, apart from technology development and systems research.

- A PhD degree in rural sociology, agricultural economics or resource economics, or relevant social science discipline.
- Strong capabilities in both quantitative and qualitative analysis, with publishing record.
- Strong background in interdisciplinary research, especially linking agricultural and social sciences within innovation systems.
- At least 5 years' experience in Africa in relation to linking farmers to markets, improving adoption of alternative technologies and systems, the use of participatory approaches for M+E at various levels, primary data collection, survey design and farmer experimentation, gender-responsive impact analysis or other relevant experience.
- Experience in project management and coordination; personal qualities of leadership, creativity, innovation, adaptability, interpersonal and communication skills, demonstrated ability to work in a multicultural team-oriented environment including with partner organizations.
- Willingness to travel frequently to countries in the region.
- Fluency in English, and strong recommendation of Portuguese or willingness to learn.

The position is internationally recruited and requires frequent travel to collaborative research sites in Southern Africa (Mozambique, Zimbabwe, and Malawi). Applications submitted to Alice Kareri at a.kareri@cgiar.org. Tel. +254 20 7224766. Application deadline: 15 August 2009.

Emergency response manager, DRC

Merlin has been operational in eastern DRC since 1997 when it established emergency medical support to populations in Maniema Provinces. Merlin teams have been providing emergency medical care to the most vulnerable, accessible populations in Maniema Province, Kasai Oriental Province, North Kivu and Orientale Province, and in response to the Goma volcanic eruption of Jan 2002. Presently, emergency and transitional programming continues in North Kivu and Maniema Provinces. The purpose of the Emergency Response Coordinator role is to provide strategic guidance, leadership and if necessary implementation support for Merlin DRC's Emergency Response Team. The role is to strengthen Merlin's and the MOH's capacity to prevent, prepare and respond to emergencies, as well as to manage any ongoing responses. The Emergency Coordinator will work closely together with all members of the Country Management Team and all departments of the Merlin mission.

The position is 4 month duration to be occupied ASAP. The incumbent should have working experience in the region preferably Eastern DRC and advanced IT skills.

Download the application form from www.merlin.org.uk and email completed form to applications@merlin-uk.org. Deadline: 20 August 2009.

Other

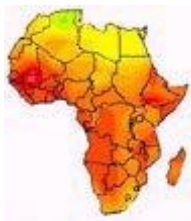
IPCC to help prepare for short-term climate extremes



In a significant move, the Intergovernmental Panel on Climate Change (IPCC), an international body of climate change experts, is set to produce a "how to" manual for policy-makers and disaster officials on managing the risks of extreme weather events and bolstering resilience, to promote adaptation to global warming. "Years of lobbying the IPCC have finally paid off," said Maarten van Aalst, leading climate specialist at the Climate Centre of the International Federation of the Red Cross and Red Crescent Societies (IFRC).

The IPCC has assessed the long-term impact of climate change. The panel has now acknowledged that measures and policies identified as adaptation in their previous reports had not taken into account the full range of activities that need to be undertaken to reduce the risks of extreme events and disasters.

The special IPCC report, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, will provide methods and tools to manage climate risks. It will also provide 25 case studies to show how extreme events and vulnerability interact to result in disasters, with lessons learnt from vulnerable countries such as Bangladesh in Southeast Asia, and others in Southern Africa. The report is expected to be released in 2011.



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The IPCC special report is a response to their calls for "enhanced action on risk management and risk reduction strategies, including risk transfer mechanisms such as insurance ... to lessen the impact of disasters on developing countries", said a scoping paper on the forthcoming report by IPCC officials. Source: IRIN.

Reducing forest emissions - supporting sustainable development and addressing climate change



Forests have long been accepted to play an important role in supporting livelihoods in developing countries, providing fuel, building materials, food and medicines. They also act as carbon sinks, the trees and soils absorbing carbon from the atmosphere and storing it, and therefore have an important role in offsetting carbon emissions and mitigating climate change. Deforestation results in the release of stored carbon into the atmosphere, thereby contributing to climate change. In a scheme to be finalized at the climate change negotiations in Copenhagen later this year, developing countries will be paid for reducing emissions from deforestation and forest degradation (REDD).

The latest Spotlight from SciDev.net, [Reducing forest emissions](#) focuses on the issues surrounding REDD, and stresses the importance of good science in developing a framework which will help to deliver support for sustainable development and also address climate change. The Spotlight features a series of articles and commentaries written by international experts:

- Getting REDD right for Africa
- What are the real costs of reducing forest emissions?
- Africa needs agroforestry to cut forest emissions
- Climate deals should reward wider forest management
- The promise and peril of REDD
- An eye in the sky watching forests disappear

Details are also given of 2 policy briefs from CIFOR and the Nature Conservancy, and links to key documents and organizations.

Croppers to livestock keepers: Livelihood transitions to 2050 in Africa due to climate change

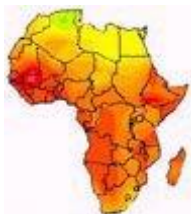


Camel farming could be an option for some 20 million to 35 million people living on semi-arid land in Africa, who will soon be unable to grow crops because of climate change, says the co-author of a new study. The study, *Croppers to Livestock Keepers: Livelihood Transitions to 2050 in Africa Due to Climate Change*, was published in a special edition of the journal, *Environmental Science and Policy*, to coincide with the Bonn Climate Change Talks on 1-12 June, 2009. The report states that camel farming could be an option for some 20 million to 35 million people living on semi-arid land in Sub-

Saharan Africa, who will soon be unable to grow crops because of climate change. By 2050, hotter conditions and less rainfall in an area covering 500,000 sq km to one million square km of marginal farmland would make it harder for people grow crops, said Philip Thornton, co-author of the report at the International Livestock Research Institute (ILRI). The report suggests that rethinking and planning now for agricultural systems that will be necessary in a few decades, like boosting production of the hardier types of livestock - goats, donkeys, camels and some types of cattle - could provide an alternate source of income.

About 10 percent of the population in sub-Saharan Africa - around 72 million people - lives in rangeland systems. The Samburu tribe in northern Kenya, traditionally cattle farmers, had begun keeping camels in the last two or three decades because droughts had diminished grazing, leading to diseases in the herds and cattle raiding by other groups, whereas the neighbouring tribes, who kept camels, fared better. "Any increase in livestock must be managed sustainably, but our research shows there are many areas in Africa where, over the next few decades, climate vulnerability, coupled with market demand for animal products, will prompt many farming communities to add more livestock to their agriculture systems and we should prepare now for this inevitability," said Carlos Seré, Director General of ILRI. The authors focused on the arid and semi-arid regions of West, East and southern Africa, where poor rainfall routinely causes crops to fail in one out of every six or even fewer growing seasons.

SUDAN: Malakal minefields still a challenge



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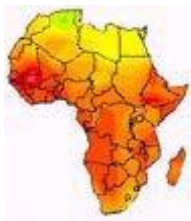
Hundreds of mines have been destroyed in Malakal, Upper Nile State of Southern Sudan, but more than half the town's minefields have yet to be cleared, says an official. "The town is in the minefield," Doep du Plessis, UN Mine Action (UNMAO) officer in Malakal, said. "We find mines inside the houses... many people are not aware that they have a mine on their doorstep." Two demining teams are working in the town and expect to complete the job by June 2010. About 1.3 million square meters of mined land has been cleared but another 1.5 million remain. A Cambodian team has just arrived to boost operations. "Malakal is the highest priority, especially the Malakal minefield," said Du Plessis.

At least 526 anti-personnel mines of 44 types have so far been destroyed in the town. The work is made more tedious because the mines are plastic and cannot be detected easily. Demining in Upper Nile is done for eight months, and then temporarily suspended during rainy season. While the rains restrict demining activity, they soften the soil and make it easy for the mines to be triggered. "In the dry season the soil is so compacted that you cannot activate a mine," the UNMAO official said. "During the wet season, you step on it and pop, it goes." Source: IRIN.

Conferences, Events

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

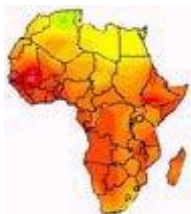
Date	Location	Event
August 2009		
2-5 August 2009	Kampala, Uganda	International Conference on Computing and ICT Research Contact: Jude Lubega
10-14 August 2009	Trieste, Italy	Conference on high resolution climate modeling: The impact of SST changes and the MJO on tropical cyclones Contact: smr2051@ictp.it .
12-14 August 2009	Fairfax, VA, USA	17th International Conference on Geoinformatics Contact: Liping Di at ldi@gmu.edu .
12-22 August 2009 *NEW*	Accra, Ghana	Climate Impact Summit I Contact: climpact2009@ug.edu.gh
16-22 August 2009	Durban, South Africa	57th Session of the International Statistical Institute (ISI 2009) See also: Baton of international leadership passes to Africa.
17-28 August 2009	Trieste, Italy	Advanced Workshop on Evaluating, Monitoring and Communicating Volcanic and Seismic Hazards in East Africa Contact: msmr2048@ictp.it .
23-28 August 2009	Nairobi, Kenya	2nd World Congress on Agroforestry - The Future of Global Land Use Contact: wca2009@cgiar.org .
24-28 August 2009	Dresden, Germany	1st International Conference on 3D Maps: ICA Symposium "True-3D in Cartography" Contact: Mrs. Steffi Sharma, info@conwerk.net .
September 2009		
2-4 September 2009	Nottingham, United Kingdom	6th International Symposium on LBS & TeleCartography
3-4 September 2009	Paris, France	WG III/4+5 Workshop on Object Extraction for 3D City Models, Road Databases & Traffic Monitoring - Concepts, Algorithms & Evaluation (CMRT09) Contact: Franz Rottensteiner: rottensteiner@ipi.uni-hannover.de or Uwe Stilla: stilla@bv.tum.de .
6-12 September 2009	Hyderabad, India	8th IAHS Scientific Assembly and 37th IAH Congress APFM will organise a special session on Integrated Flood Management.
7-25 September 2009	Trieste, Italy	Open Source and Internet Technology for Scientific Environment Contact: smr2057@ictp.it .
9-12 September 2009	Beijing, China	6th International Symposium on Digital Earth (ISDE6)



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10-11 September 2009	Cape Town, South Africa	Royal Institution of Chartered Surveyors' (RICS) International Legal Research Symposium 2009 Contact: p.chynoweth@salford.ac.uk .
16-18 September	Johannesburg, South Africa	MapAfrica 2009 Contact: info.mapafrica@gisdevelopment.net
21-25 September 2009	Brittany, France	The Ninth International Conference on Spatial Information Theory (COSIT 2009)
21-25 September 2009	Bath, UK	2009 EUMETSAT Meteorological Satellite Conference
24-25 September 2009	Addis Ababa, Ethiopia	ESRI Eastern Africa User Conference
27 September-2 October 2009	Marrakech, Morocco	XXVI IUSSP International Population Conference Application deadline: 15 September 2008.
30 September-2 October 2009	Itajai, Santa Catarina, Brazil	9th International Symposium on GIS and Computer Mapping for Coastal Management (CoastGIS'09) Website: http://www.coastgis.com.br .
October 2009		
9-11 October 2009	Singapore, Singapore	2009 IACSIT Autumn Conference
13-16 October 2009	Cape Town, South Africa	2nd DIVERSITAS Open Science Conference: Biodiversity and society: understanding connections, adapting to change
18-25 October 2009	Buenos Aires, Argentina	XIII World Forestry Congress
20-23 October 2009	Sydney, Australia	FOSS4G 2009 Conference
20-23 October 2009	Drakensberg, South Africa	2009 GIMS User Conference
26-29 October 2009	Kampala, Uganda	AfricaGIS 2009 Conference . Theme: Geo-spatial information and sustainable development in Africa: Facing challenges of global change. Contact: Shuaib Lwasa, S.Lwasa@cgiar.org .
November 2009		
4-6 November 2009	Seattle, WA, USA	17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS 2009)
9-12 November 2009	Manama, Bahrain	2009 ESRI Middle East and North Africa User Conference (MEAUC) Contact meauc2009@esri.com .
11-12 November 2009	Tanta, Gharbia Governorate, Egypt	Sixth International Symposium on Geophysics Contact: Prof. Abdelaziz L. Abdeldayem. Deadline for abstracts/proposals: <u>30 September 2009</u> .
12-24 November 2009 * NEW *	Adama University , Ethiopia	5th International Conference on Ethiopian Development Studies
15-22 November 2009	Santiago, Chile	XXVI International Cartographic Conference Contact: Conference Secretariat at info@icc2009.cl . See also The World's Geospatial Solutions
17- 21 November 2009	Sydney, Australia	FOSS4G Annual Conference
22-28 November 2009 * NEW *	Yaoundé, Cameroon	Africa Soil Science Society (ASSS) 5th International Conferences
24-25 November 2009 * NEW *	Abuja, Nigeria	2nd International Academy of Astronautics (IAA) Regional Conference Space for Africa



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24-26 November 2009	Abuja, Nigeria	3rd IAA Regional Conference Space for Africa . Contact: Jide Ajayi at jajayi@nasrda.net or Joseph O. Akinyede at jakinyede@yahoo.com .
December 2009		
14-16 December 2009	Accra, Ghana	2nd IEEE International Conference on Adaptive Science & Technology Abstract deadline: <u>14 May 2009</u> . Contact: icast@edicttech.com .
15-17 December 2009 * NEW *	Cape Town, South Africa	2nd International Conference on Management of Natural Resources, Sustainable Development and Ecological Hazards
16-20 December 2009	Tunis, Tunisia	The Fourth Session of the International Congress Geo Tunisia 2009 Contact: atigeo_num@yahoo.fr
2010		
1-5 February 2010	Maun, Botswana	International symposium: Wetlands in a flood pulsing environment - effects on biodiversity, ecosystem function and human society Deadline for abstracts: <u>1 October 2009</u>
6-10 March 2010	Alexandria, Egypt	International Conference on Coastal Zone Management of River Deltas and Low Land Coastlines . Abstract deadline: <u>31 October 2008</u> . Contact: Professor Nabil Ismail, nicoastmarine@gmail.com .
April 2010	Addis Ababa, Ethiopia	UN-SPIDER Regional Workshop “Building Upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa”
9-16 April 2010	Sydney, Australia	International Federation of Surveyors (FIG) 2010
5-7 July 2010	Vienna, Austria	ISPRS TC VII Symposium, “100 Years ISPRS - Advancing Remote Sensing Science”
25-29 October 2010	Fez, Morocco	6th World FRIEND Conference (Flow Regimes from International Experimental and Network Data) Abstract deadline: <u>September 30, 2009</u> . Contact: friend2010@msem.univ-montp2.fr This e-mail address is being protected from spam bots, you need JavaScript enabled to view it .

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Global Spatial Data Infrastructure Association

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