

Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

July 2009

Vol. 8, No. 7

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



Input to this Issue

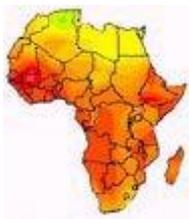
Thank you to Hussein Farah, RCMRD (Kenya); Erick Khamala, RCMRD (Kenya); Kate Lance, USRA/SERVIR-Africa (USA); Aster Gebremariam, ECA (Ethiopia); Alex de Sherbinin, CIESIN (USA); Anamika Das, GIS Development (India) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

[GSDI 11 World Conference: Spatial Data Infrastructure Convergence: Building SDI Bridges to Address Global Challenges](#), 15-19 June 2009, Rotterdam, The Netherlands.

The 11th Edition of the GSDI Conference successfully took place on 15-19 June 2009 in Rotterdam, the Netherlands. Partners in organizing the conference include the GSDI Association, Geonovum, Joint Research Center (JRC) of the European Commission, EUROGI, Space for Geoinformation Innovation Program (RGI), Kadaster and Delft University of Technology. Three major components of the conference include: The Eleventh International Conference of the GSDI Association, the [Third INSPIRE Conference](#), and the National conference on Dutch SDI Results and Challenges. Large amount of excellent papers were presented and high level keynote speeches in plenary sessions reflected perfectly the conference ambition. Conversion, bridge building and the creation of new dynamics for the future were the main elements for GSDI 11 conference. See [Conference Welcome Address](#).

Geographic information technology and spatial data infrastructure play critical role in allowing governments, local communities, non-governmental organizations, the commercial sector, the academic community and



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common people to make progress in addressing many of the world's most pressing problems. The approaches in building spatial data infrastructure within and among nations are in many respects converging. The GSDI 11 conference explored the convergence towards best standards, practices and processes among nations while at the same time explored the ever evolving and exciting new approaches to the offering to geographic data and services in meeting real world needs. All abstracts, papers and presentations are available at <http://www.gsdi.org/gsdi11>.

[Getting Geoinformation and SDI to work for Africa: the rationale behind AESI-ALIGN](#)

African countries have been involved in various SDI activities for more than a decade. However, recent studies have indicated that SDI implementation (as defined by the GSDI) has largely been a failure in Africa. This conclusion can be drawn from presentations made at the AfricaGIS and AARSE conferences as well as from the study that has emanated from research done by the University of Cape Town together with results of the Catalogue of Fundamental Geospatial Datasets projects undertaken by EIS-AFRICA and the HSRC for the Mapping Africa for Africa (MAfA) initiative of the United Nations Economic Commission for Africa (UNECA). What the latter study has also shown is that although there are many gaps in fundamental geospatial datasets in African countries there is much geospatial information available within member states but the quality of this data and fitness of use is questionable. With this said, a positive development on the continent is that the geo-information institutions and practitioners in consultation with one another have defined what they believe to be the fundamental geospatial datasets for Africa.

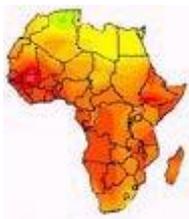
Regional organizations (e.g. UNECA, EIS-AFRICA, AARSE) and sub-regional organizations (e.g. RCMRD, RECTAS, CEDARE, SADC RRSU) have the expertise but require further knowledge, capacity and financial support to ensure the implementation of a needs driven and development focused SDI. It is for these reasons that African institutions have engaged with EUROGI and have put forward the concept of the Africa-European Spatial Infrastructure Alignment (AESI-Align). The main principle behind this initiative is that lessons learnt through INSPIRE will be transferred to African intuitions. At the same time, lessons learnt in Africa will also be communicated to institutions in Europe. Other key areas where there can be collaboration are in the implementation of development and business orientated GI initiatives. We as representatives of Africa's GI community must pursue with our European partners the Framework Programme (FP) channel to seek funding to get alignment of European and African SDI initiatives. [Source: Paper presented at the GSDI 11 Conference]

[SDI and Governance: Prospects and Challenges for Federal State Developing Countries \(Case of Nigeria\)](#)

Implementation of SDI's in inherently complex, tension arises from various sources including the need for consensus on standards for example between federal and local agencies (Georgiadou et al., 2007). Despite the numerous benefits of SDI, there are still several failures (Georgiadou and Harvey, 2007) mostly in the developing countries. Lack of technology to handle enormous data, financial constrains and many other socio-economic constraints are some of the factors responsible for such failures. One of such underlying factors is the system and structure of governance in the country. Decentralized systems bring services closer to communities and also devolve the control resource availability and use to local level. This has vital implications on SDI implementation and service delivery. Nigeria, being a developing country and taking into consideration its present unitary system of government is faced with numerous challenges in the implementation of NSDI. Challenges of SDI's in the context of decentralization system of governance in Nigeria can help proper planning and proper implementation of SDIs at all levels of governance, and boost its chance of success not only in the country, but also in other developing nations operating under decentralization policy. [Source: Paper presented at the GSDI 11 Conference]

Global Roads Open Access Data Set (gROADS) solicits improved roads data

The current lack of high quality public domain roads data in Africa has seriously hampered disaster response by humanitarian agencies and resulted in many inefficiencies as organizations have had to obtain proprietary data or build their own roads data to suit specific applications (e.g. for development research, regional planning, etc.). The Global Roads Open Access Data Set (gROADS) is an initiative of the International Council of Science's [CODATA](#) Global Roads Working Group that seeks to fill this gap. gROADS has been endorsed by the Global Spatial Data Infrastructure Association ([GSDI](#)), GISCorps of the Urban and Regional Information Systems Association (URISA), and the United Nations Global Alliance on Information and Communication Technology for Development ([UN-GAID](#)). The aim is to create a global dataset that is:



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- Globally consistent (using the [UNSDI-Transport](#) data model);
- Spatially accurate (~50m positional accuracy);
- Topologically integrated;
- Up-to-date;
- Well documented; and
- Freely distributed but with acknowledgement to those who have contributed to its creation.

As a first step in creating this data set, gROADS is soliciting spatially accurate data with at least minimal attribute information (e.g., specification of road type or quality) for inclusion in gROADS. For more information, or to contribute data, contact Alex de Sherbinin at adesherbinin@ciesin.columbia.edu or visit <http://www.groads.org>.

[Official launch of the IFM HelpDesk at Global Platform for Disaster Risk Reduction 2009](#)



The "HelpDesk for Integrated Flood Management" (IFM HelpDesk) was officially launched on 17 June 2009 at the Centre International de Conférences de Genève during the Global Platform for Disaster Risk Reduction in Geneva. The IFM HelpDesk is a facility that will provide guidance on flood management policy, strategy, and institutional development related to flood issues to countries that want to adopt the Integrated Flood Management concept, which will be hosted within WMO headquarters and will be supported by a decentralized multi-disciplinary network of specialized institutions with required expertise in various facets of Integrated Flood Management.

The Hyogo Framework for Action highlighted the importance of integrated flood management approaches in incorporating the underlying risk factors of flood prone communities into natural resources and environmental management strategies. With strong climate change impacts expected in the water cycle, in particular in the intensity and frequency of hydrological extremes, flood and

drought management strategies become a central element of adaptation strategies. WMO through its Associated Programme on Flood Management and some 20 partner organizations from Government, Academia, International Bodies, etc, are now launching a facility to assist countries in implementing an integrated approach on the ground: the IFM HelpDesk.

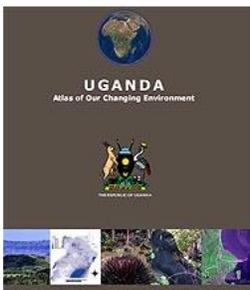
[East Africa gets broadband: It may make life easier and cheaper](#)



The Horn of Africa is one of the last populated bits of the planet without a proper connection to the World Wide Web. Instead of fibre-optic cable, which provides for cheap phone calls and YouTube-friendly surfing, its 200m or so people have had to rely on satellite links. This has kept international phone calls horribly overpriced and internet access equally extortionate and maddeningly slow.

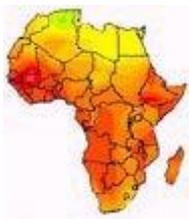
In early June, 2009, in the Kenyan port of Mombasa, a regional communications revolution belatedly got under way when Kenya's president, Mwai Kibaki, plugged in the first of three fibre-optic submarine cables due to make landfall in Kenya in the next few months. They should speed up the connection of [Burundi](#) , [Rwanda](#) , [Tanzania](#) and [Uganda](#) , as well as bits of [Somalia](#) , [Ethiopia](#) and [Sudan](#) , to the online world. Laying the cable cost \$130m, mostly at the Kenyan government's expense; Mr Kibaki hailed the event for bringing "digital citizenship" to his countrymen. See also [Servir Community Blog](#).

[New Atlas illustrates evidence of Uganda's changing environment](#)



The Uganda Atlas of Our Changing Environment, prepared by the National Environmental Management Authority of Uganda, provides extensive scientific evidence of Uganda's changing environment. Modeled after Africa: Atlas of our Changing Environment previously published by UNEP, the Uganda Atlas seeks to safeguard the country's environment and inspire decision makers to action. Key findings include:

- Mabira forest and Budongo forest reserves have shown recovery over the last 30 years due to the increased enforcement by the responsible institutions.
- The melting of ice on Mount Rwenzori due to global warming has caused increased water flow in the Semliki, eroding its banks and silting Lake Albert.



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- The loss of woody biomass in Nakaseke and Nakasongola is alarming and undermines Uganda's development path.
- The consumption of forest and woody biomass resources in both natural and planted forest is unsustainable.
- Although there is increase in agricultural areas in the Karamoja region the problem of food insecurity will persist because of inadequate water.
- Siltation from river Kagera is a threat to Lake Victoria and needs immediate action.
- Building in water ways of Nsooba- Lubigi and Nakivubo channel in Kampala City is the main cause of flooding in the low lying areas. The situation is bound to become worse with the current variability in weather patterns due to climate change and variability.
- Expansion of Kampala City and reduction in green belts has increased the concrete surface leading to increased runoff silting Lake Victoria through Nakivubo channel.
- Degradation of wetlands especially in the mountainous areas of Kabale and Kisoro will have far reaching impacts on the food security of these areas. These wetlands sustain the weather even during droughts and should be restored if prosperity is to be achieved.
- The flooding of the Teso region in 2007 occurred in areas that are seasonal wetlands which have been degraded because of overgrazing.
- Encroachment of the Benet people on the Mount Elgon National park is part of the problem causing increased run-off resulting in water logging and flooding in the low-lying areas of Ngenge and Lake Bisina.
- Although bush burning is illegal most parts of the country are in flames during the months of January and February. The areas most affected are Kooki hills in Rakai, the Ngenge plains in the east, the areas surrounding Budongo forest and Pader District in the North.
- Civil strife and unrest resulting in IDP's increases the vulnerability of Uganda as a country from achieving MDG's target.
- In 2002, the percentage of households that used electricity was 80%, tadooba 76% and lantern 11%. Households using electricity in urban areas was 41% and only 4% in rural areas. Kampala had 61% of households using electricity, central 15%, north only 1%.

Recommendations:

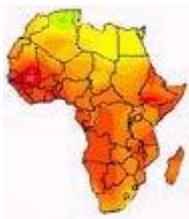
1. Efforts to reduce siltation of lakes Albert and Victoria should be stepped up. These lakes are likely to die if the situation is left to continue.
2. The Tree planting Act should be enforced if the country is to be maintained as one of the green belts of Africa.
3. Protection of Mount Elgon National Park should be a key priority for government. This park is not only protected for animals but also as a water catchment area. Degradation of this area will have far reaching impacts to both the communities in the Mt. Elgon area and the Teso plains.
4. Development in Kampala City should be carefully planned otherwise the risk of disasters will continue to rise.
5. Building in waterways and channels should stop.
6. Wetlands should be jealously protected as important ecosystems if we are to sustain the country's water regime and improve on people lives.
7. Bush burning has to stop. It is recommended that if one is to burn it should only be done once in five years.

See also [Servir Community Blog](#).

[African Geodetic Reference Frame \(AFREF\) Newsletter](#), No. 9, May 2009

The ninth edition of the AFREF newsletter provide report on the AFREF workshop held in Addis Ababa during CODIST1 meeting, some information on GNSS Augmentations Systems available in Africa and the GNSS systems under development among others.

- AFREF workshop held at CODIST meeting
- [AFREF and GNSS data processing training](#) to be held between 24 August and 4 September 2009 at RCMRD, Kenya;
- Augmentation System Services available in Africa
- Star Fire DGPS service
- OmniSTAR
- New GNSS Systems under Development: Galileo GNSS and Compass GNSS



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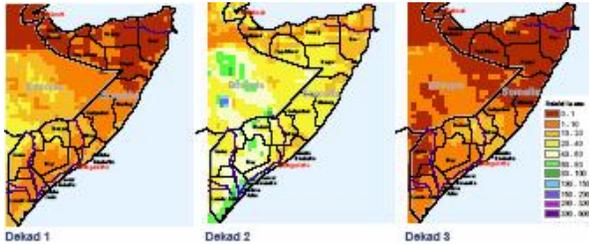
- Kinematics GNSS survey for evaluation of TANDEM-X Digital Elevation Model.

For further information, contact: AFREF Secretariat, RCMRD at afref@rcmrd.org, farah@rcmrd.org or muyack@rcmrd.org

Survey on use of Remote Sensing for agricultural monitoring

The Regional Centre for Mapping of Resources for Development ([RCMRD](http://rcmrd.org)), an inter-governmental organization situated in Nairobi, Kenya is currently engaged in carrying out a survey on the use of Remote Sensing (RS) for Agricultural Monitoring in Africa. A list of interviewees from the large network of geoscientist undertaking activities in this line is currently being compiled for further interaction during the survey phase. The interviewees will be drawn from International Organizations (including any agencies based outside Africa but working in Africa), Government Agencies, Private Companies and Consultants, Universities and Research Organizations, and Individuals, among others. Key elements of the survey will touch on knowing how they are using RS in agricultural monitoring, their experiences and shortcomings. For further information, contact: Erick Khamala at ekhamala@rcmrd.org or banangwe@rcmrd.org or ckunyiha@rcmrd.org.

Partial crop recovery in Southern Somalia thanks to late Gu rainfall, while dry conditions prevail for pastoral areas



Good rainfall during May is helping many agricultural areas in Southern Somalia to recover from below normal rainfall during April. Riverine areas in the Shabelle regions are also greener than usual indicating good water availability for irrigated area. However, total Gu 2009 rainfall remains below average and especially marginal areas could experience below normal yields as for example in Hiran. Vegetation performance is below average also in the sorghum areas of Awdal

Galbeed.

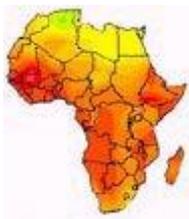
Pastoral regions in central and northern Somalia seem to be more seriously affected by below normal Gu rainfall than agricultural ones. The deterioration of rangeland conditions due to prolonged and recurring droughts has a very negative impact on the already critical food security situation of the predominantly pastoral livelihoods (680.000 people in Humanitarian Emergency and another 535.000 in Acute Food and Livelihood Crisis according to the January – June 2009 IPC map).

Rainfall in May was mainly concentrated in the second dekad and was above average for parts of Bay and Bakool and below average in Juba, Shabelle, Mudug and Sanag. However, from comparison of the cumulated Gu rainfall with the 10 years average a clear deficit is visible for nearly the whole country and with an extreme situation in Lower Juba. [Source: MARS Bulletin Somalia, Vol. 5, 11 June 2009]

Community involvement in Flood Management, Kenya

Government of Kenya is working toward putting in place a National Flood Management Strategy based on Integrated Flood Management (IFM) approach. The "[Strategy for Flood Management for Lake Victoria Basin, Kenya](#)", was developed in 2004 by Kenyan Experts in close collaboration with WMO and APFM. To implement the strategy, the Japan International Cooperation Agency (JICA) launched the study on the Integrated Flood Management for Nyando River Basin, a part of Lake Victoria Basin, in August 2005.

Since the initial stage of the study, APFM provided technical advices on the IFM plan and training for capacity building through reviewing the draft of the plan and taking part in the stakeholders' workshop held in the region. The study was finalized in December 2008 and the final Regional Workshop was held on 11 December 2008. A Master plan formulated in 2008 covers both structural and non-structural measures from short-term (by 2012) to long-term (after 2021). The essential elements include the relationships between indigenous knowledge for flood damage and community based measures; the process of capacity development through participation "learning by doing"; and establishment of community-driven flood management organization (CFMO) for sustainability of activities. The flood sign is one of the tools for community-based activities. Under support of JICA, the five pilot projects were completed in 2008 and further 24 community projects to implement the plan for IFM are to be initiated from spring of 2009. These projects emphasize community participation and transparency of decision making. APFM will participate in the proposed workshop to be organized by JICA to support the practical phase of their flood management



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through disseminating IFM tools and IFM HelpDesk, which are planned to adopt the IFM principles applicable to each field. Other related strategy paper: Kafue Basin, a sub basin of the Zambezi River - [Strategy for Flood Management for Kafue River Basin, Zambia](#). [Source: [19th Newsletter of Associated Programme on Flood Management](#) (APFM)]

[Collaborative Project Maps a Geospatial Strategy for Senegal](#)

A \$6-million joint project - the National Geomatics Plan (NGP of Senegal) - is helping the African nation of Senegal develop its Geographic Information Systems (GIS) Implementation strategy. Supported by the Canadian International Development Agency (CIDA) and coordinated by the Earth Sciences Sector of Natural Resources Canada (NRCan), the project will help address key local and national issues, such as environmental challenges, natural disaster responses, and sustainable development of natural resources.

The GIS Implementation strategy will be developed in collaboration with the Government of Senegal to serve as a guidebook for achieving the country's goals in terms of geospatial information, aiming to build capacity for the retrieval, processing, analysis and dissemination of information.

The NGP of Senegal has four main components:

1. Policies: developing uniform standards for spatial data, as well as for how costs, data and responsibilities are to be shared
2. Data: expanding the existing geospatial data infrastructure and the technologies for collecting the data to establish a topographic database
3. Training: providing training - especially for youth - on the use and implementation of geomatics technologies
4. Professional development: promoting awareness among the Senegalese private sector and operational management on the capabilities and applications of geospatial information and models

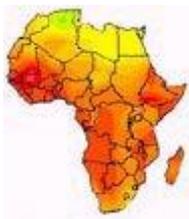
The Canadian private sector will receive approximately \$4 million to develop the initial projects for creating the NGP. Says Denis Haché, Deputy Director of the International Division, and Earth Sciences Sector for NRCan, "We want to promote what Canada can offer and open the markets for Canadian companies in Western Africa." NRCan's Earth Sciences Sector will also be directly involved with the creation of a series of program materials demonstrating how geospatial data can be developed into useful tools, such as customizable models for tracking outbreaks of malaria or for providing a standardized address system to assist emergency crews. Read: [Collaborative Project Maps a Geospatial Strategy for Senegal Full Story](#). [Source: [Servir Community Blog](#)]

[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 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>.



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2009 IEEE International Geoscience & Remote Sensing Symposium (IGARSS) - [List of accepted papers](#), [Short courses](#), 13-17 July 2009, Cape Town, South Africa.

- [SC-2: Operational Monitoring of the African Savannas based on the MOD13Q1 Product](#)
- [SC-3: Processing of Reflected and Occulted Global Navigation Satellite System \(GNSS\) Signals for Earth Remote Sensing](#): 7-10 July, 8:30 - 17:30
- [SC-4: MODIS direct broadcast data for enhanced forecasting and real-time environmental decision making](#): 7-10 July, 8:30 - 17:30
- [SC-5: Terrain Height Data Generation](#)
- [SC-6: Polarimetric radar \(SAR\) image processing course](#)
- [SC-7: SAR and Interferometric processing for land applications](#)
- [SC-8: Optical and Thermal Field Methods in Terrestrial Remote Sensing](#)
- [SC-9: Advanced Satellite Techniques for Environmental Monitoring \(ASTEM\)](#)

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.

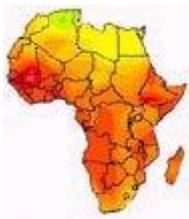
Practical SDI implementation materials from within and outside of Africa

[Ohio researcher tracks movement of H1N1 influenza virus with the aid of supercomputer, mapping software](#)



Evolutionary and geographic history of current H1N1 epidemic strains viewed via neuraminidase, the viral protein target of Tamiflu. See more maps at supramap.osu.edu

An Ohio State University Medical Centre biomedical informatics researcher is tapping the power of the Ohio Supercomputer Centre to monitor the spread of the H1N1 influenza virus. Associate professor Daniel Janies synthesizes large, diverse datasets to understand the spread of infectious diseases over hosts and geography. The resulting maps can be viewed with Google Earth. Janies will project the evolutionary tree of the virus' mutations and host shifts onto the globe using web application, Supramap. "Currently, we are investigating H1N1 cases from around the world - and Ohio - by building evolutionary trees that discover how this strain came to be assembled and jumped from animals to humans. We are also monitoring viral genomes for mutations that could confer resistance to drugs" Janies



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said. “Using parallel programming on OSC’s high performance computing systems greatly improves the efficiency of our work.” With his findings, Janies will project the evolutionary tree of the virus’ mutations and host shifts onto the globe using Supramap, an easy-to-use, web application. He and his colleagues created Supramap in 2007 to track avian influenza. However the underlying technology is applicable to any infectious disease.

“The supercomputer enables us to make comprehensive sets of background data comprised of genomes of viral isolates from all over the world. Large datasets are vitally important to properly understand the host and national origins of each gene in the H1N1 virus causing the outbreak and map its evolution and spread,” Janies said. “Our ultimate goal is to help predict where the next outbreak of the virus is likely to occur,” he said. “When we’re done, we will be able to tell you where each viral gene came from in the world and what mutations are specific to the outbreak lineage. We then share these tools and maps so that diseases can be diagnosed and treated rapidly.” To see interactive visualizations of Janies’ work or make your own maps, go to <http://supramap.osu.edu>. Contact Susan Mantey, susan@osc.edu for electronic images of Daniel Janies or the Supramap screen shot pictured above.

[Developing states make it in time for the last redistribution of territory since colonial times](#)

May 13th 2009 is the date for one of the major milestones in defining the new world ocean political map. It was until yesterday that most of the states signatories of the United Nations Convention on the Law of the Sea (UNCLOS) had time to submit their dossiers with information on the limits of the continental shelf, the outermost maritime zone in which coastal states have sovereign rights over the seabed and its precious resources (i.e. oil, gas and mineral deposits) and its environmental richness (i.e. unique ecosystems and biodiversity). Out of a total of 43 states that managed to submit their dossiers 31 are developing countries and 18 of them received assistance from the UNEP Shelf Programme, which is managed by the Norwegian foundation GRID-Arendal based in Southern Norway. The assistance was mostly related to the intricate technical work that needs to be done in order to figure out the position of the outer limits of the continental shelf according to Article 76 of the UNCLOS. Their technical dossiers will be evaluated by a UN body, the Commission on the Limits of the Continental Shelf (CLCS), in order to become definitive.

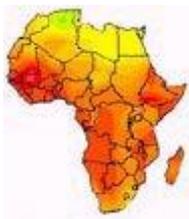
Furthermore 37 states, 27 of them developing, submitted preliminary information on the position of those limits in order to be granted more time to finish the complete dossier. Their final analysis of the position of the limits of the continental shelf once evaluated by the CLCS, will secure their sovereign rights and obligations over vast extensions of the sea bottom. 21 out of the 27 developing states that submitted preliminary information received also assistance from the UNEP Shelf Programme which is mostly funded by the Norwegian Ministry of Foreign Affairs. This successful marathonian international cooperation effort to beat the clock ticking towards 13 of May 2009 reinforces the principles of the UNCLOS, dubbed the “Constitution of the Oceans”. The UNCLOS is the reference legal framework for maritime activities established towards the maintenance of peace and security, optimum utilization and sharing of living and non-living resources and preservation of the marine environment from human pressures.

GIS Tools, Software, Data

[A new on-line system to view and study the world’s marine protected areas](#)

At a time when the world’s oceans are facing unprecedented pressures from human impacts in the marine environment, a new decision-making tool was launched on 8 June 2009 to provide the most current and relevant information about marine and coastal biodiversity and its protection status. This marine protected areas tool (www.wdpa-marine.org), created by the United Nations Environment Programme’s World Conservation Monitoring Centre (UNEP-WCMC) with the International Union for the Conservation of Nature (IUCN), is part of the recently redeveloped World Database on Protected Areas (WDPA) – the authoritative and most globally comprehensive list of marine and terrestrial protected areas.

“Marine protected areas are critical to the future of the oceans and they will ensure that the ecosystem services on which millions of people around the world rely for their livelihoods and existence will be maintained,” explained Kristian Teleki, Head of the One Ocean Programme and Director of the International Coral Reef Action Network (ICRAN) at UNEP-WCMC. “Without Marine Protected Areas and the efforts of governments, conservation organizations and communities around the world to manage and conserve the marine environment, the future of the oceans and the diversity of life contained within them will be jeopardized.” “Marine protected areas are critical to the future of the oceans and they will ensure the ecosystem services on which millions of people around the world rely for their livelihoods and existence will

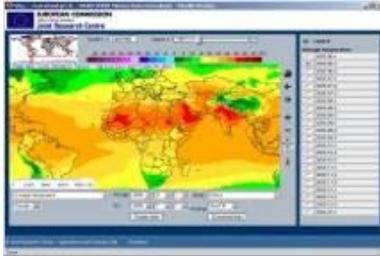


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be maintained,” UNEP’s International Coral Reef Action Network director Kristian Teleki said in a statement. For further information, contact: The United Nations Environment Programme - World Conservation Monitoring Centre: protectedareas@unep-wcmc.org on Tel: +44 1223 277 314 or Nick Nuttall at nick.nuttall@unep.org.

[Download meteo data derived from global atmospherical model](#)



MARS FOOD regularly receives daily, 10-daily and monthly outputs from the ECMWF (European Centre for Medium-Range Weather Forecast) atmospherical model. The original global data at a 1 degree resolution are preprocessed by Meteoconsult (NI) and finally transformed into 0.5 degree grids. A time series for more than 40 years is now available thanks to the ERA40 reanalysis project. In the prototype version only 10-daily data from January 1989 until now are available. All the data can be downloaded as floating point GeoTIFF or ASCII Grid files. A tool to convert the Ascii Grid files to IDA format (Windisp, AMS, etc) can be [downloaded](#) for showing [several parameters](#) for a single date or [one parameter](#) for a time series.

[Web 2.0, GIS, and the integration of geographic knowledge with human action - Realizing spatial intelligence on the GeoWeb](#)

At the Where 2.0 Conference in San Jose, California, ESRI president Jack Dangermond talked about [Realizing Spatial Intelligence on the GeoWeb](#). The central point in his talk was that geographic knowledge created in GIS environments is increasingly being made available to new communities through data and Web services. This sharing of geographic knowledge is bringing spatially integrated thinking to a broader society, and leverages the billions of dollars invested by the GIS community in developing basemap, thematic datasets, and other spatial assets. [Watch the Video](#).

[GIS Software Download Finder](#)

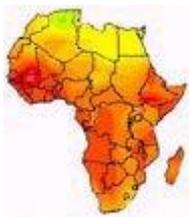
GIM International offers guide for GIS software which is available to download for free. You find it in the link 'Downloads' in the left hand navigation bar of the website. Mostly, the [software](#) is leading to free viewers, trial versions or open-source [software](#). Have a look at the guide yourself and see what [software](#) is available. As [software](#) is developing fast, not all available software is yet included.

[Next ESA SAR Toolbox \(NEST\) 2C Available for Free](#)

NEST is an ESA toolbox with an integrated viewer for reading, post-processing and analyzing ESA and 3rd party SAR data starting from Level 1. Distributed as fully open source, NEST allows users to easily develop new readers and post-processors for SAR data by means of a Java Application Programming Interface (API). NEST 2C is a stable release adding the following features:

- Orthorectification for Envisat ASAR, ERS, and Radarsat2(not fully validated) products
- Radiometric terrain correction for Envisat ASAR products
- Retrocalibration with a DEM for Envisat ASAR products
- Automatic import of 90m SRTM DEM
- ASAR Wave-Mode product support
- Layer Management
- Vector Shape layers
- Web Map Service (WMS) layers
- NASA WorldWind integration
- Map Projection & Subset operators
- Ingestion and utilisation of external orbit files - DORIS VOR, POR and DELFT Precise Orbits are supported
- Bug fixes and performance enhancements

Supported product formats include: ENVISAT ASAR, ERS AMI 1 & 2 (CEOS & Envisat format from PGS and VMP), JERS SAR, ALOS PALSAR, TerraSarX (except SSC), Radarsat 2, BEAM DIMAP, GeoTIFF, HDF, NetCDF, ENVI, PolSarPro, GETASSE30 DEM, ACE DEM, SRTM DEM. NEST 2C is available for download and install for Windows, Linux and Mac. The developers are still looking for new functionality that a SAR Toolbox must have to continue and to add new functionality to NEST.



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[Latest Marine life data launched](#)

A new website to provide the latest data on marine and coastal biodiversity has been launched. The site is part of the recently redeveloped world database on protected areas. It was co-created by the United Nations Environment Programme's World Conservation Monitoring Centre and the International Union for the Conservation of Nature. "Marine protected areas are critical to the future of the oceans and they will ensure the ecosystem services on which millions of people around the world rely for their livelihoods and existence will be maintained," Unep's International Coral Reef Action Network director Kristian Teleki said in a statement. [Source: Daily Nation, June 6, 2009].

Geospatial Research, Applications, Reference Material

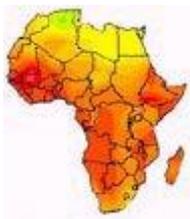
[Global Positioning System: Significant challenges in sustaining and upgrading widely used capabilities](#)

The Global Positioning System (GPS), which provides position, navigation, and timing data to users worldwide, has become essential to U.S. national security and a key tool in an expanding array of public service and commercial applications at home and abroad. The United States provides GPS data free of charge. The Air Force, which is responsible for GPS acquisition, is in the process of modernizing GPS. In light of the importance of GPS, the modernization effort, and international efforts to develop new systems, GAO was asked to undertake a broad review of GPS. Specifically, GAO assessed progress in (1) acquiring GPS satellites, (2) acquiring the ground control and user equipment necessary to leverage GPS satellite capabilities, and evaluated (3) coordination among federal agencies and other organizations to ensure GPS missions can be accomplished. To carry out this assessment, GAO's efforts included reviewing and analyzing program documentation, conducting its own analysis of Air Force satellite data, and interviewing key officials.

It is uncertain whether the Air Force will be able to acquire new satellites in time to maintain current GPS service without interruption. If not, some military operations and some civilian users could be adversely affected. (1) In recent years, the Air Force has struggled to successfully build GPS satellites within cost and schedule goals; it encountered significant technical problems that still threaten its delivery schedule; and it struggled with a different contractor. As a result, the current IIF satellite program has overrun its original cost estimate by about \$870 million and the launch of its first satellite has been delayed to November 2009--almost 3 years late. (2) Further, while the Air Force is structuring the new GPS IIIA program to prevent mistakes made on the IIF program, the Air Force is aiming to deploy the next generation of GPS satellites 3 years faster than the IIF satellites. GAO's analysis found that this schedule is optimistic, given the program's late start, past trends in space acquisitions, and challenges facing the new contractor. Of particular concern is leadership for GPS acquisition, as GAO and other studies have found the lack of a single point of authority for space programs and frequent turnover in program managers have hampered requirements setting, funding stability, and resource allocation. (3) If the Air Force does not meet its schedule goals for development of GPS IIIA satellites, there will be an increased likelihood that in 2010, as old satellites begin to fail, the overall GPS constellation will fall below the number of satellites required to provide the level of GPS service that the U.S. government commits to. Such a gap in capability could have wide-ranging impacts on all GPS users, though there are measures the Air Force and others can take to plan for and minimize these impacts. [Full Report](#) (PDF, 15 pages). [Source: US GAO, May 7, 2009 - <http://gao.gov>]

[WFP Spatial Data Infrastructure \(SDI\) implementation in support of emergency management](#)

Short-term emergency response capacities, long-term risk reduction, development and environmental protection activities are sector where a Spatial Data Infrastructure (SDI) may strongly improve efficiency, facilitating access to geographically-related information using a minimum set of standard practices, protocols, and specifications. The production and use of geospatial information within the United Nations has been accomplished historically by its component organizations in accordance with their individual needs and expertise. This has resulted in multiple efforts, reduced opportunities for sharing and reuse of data, and an unnecessary cost burden for the United Nations as a whole. The ITHACA association is supporting UN World Food Programme (WFP) in developing and implementing an SDI solution based on UNGIWG (UN Geographic Information Working Group) recommendations that can be resumed by the following keywords: decentralized geospatial information framework, interoperability between spatial data infrastructures, to avoid duplication in data collection and management, to enhance decision-making, re-use and sharing. A geo-database conceptual schema has been developed using a general purpose modeling language (UML, Unified Modeling Language) in order to be as far as possible interoperable and independent of any particular



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database management system (DBMS). Following the same principles, the geo-database schema is maintained in XML format, allowing structured data sharing possible. A two level architecture has been defined in order to efficiently combine complex management and administration activities with interoperable and open source based applications and services, dedicated to the broader humanitarian community of users.

Report on ECA's Activities in the Area of Geoinformation since the Fifth Session of the Committee on Development Information: First Session of the Committee on Development Information, Science and Technology (CODIST-I), 28 April - 1 May 2009, Addis Ababa, Ethiopia

The ECA Secretariat has submitted its report on activities carried out by the Commission in the area of Geoinformation since the fifth meeting of the Committee on Development Information. The report includes actions taken as a follow-up to resolutions adopted by CODI.5 and other activities considered as being of interest to member States and partners. The implementation of the work programme was to a great extent focussed on promoting and facilitating the realization of the major aspects of the issues recommended during the CODI.5 Meeting. The activities focused on: (i) Policy issues, (ii) Technical issues, (iii) Capacity building, and (iv) International Cooperation and liaison.

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.

Five (5) PhD and One (1) Post Doctoral Positions Available for Nationals from East Africa (Deadline Extended)

These scholarships are offered under the research project "EOIA: An Earth Observation and Integrated Assessment approach to the Governance of Lake Naivasha" is funded by the Netherlands Organisation for Scientific Research under the WOTRO Global Science for Development Programme. In the framework of this project, 5 PhD candidates will be recruited for the following projects: Quantifying the effect of land use change in upper catchments of Lake Naivasha on water quantity and quality of the Lake; Impact of exogenous and endogenous changes on limnology, fisheries and piscivorous birds; Hydrological impacts on terrestrial fringe biodiversity; Water governance; and Socio-economic linkages.

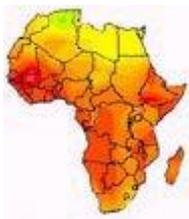
Likely due to slow internet connectivity many people had problems with the registration, which in many cases was incomplete, often unclear for which PhD position you were applying. Many PhD proposals were received. Not necessary!! The outline of research is in the project document: http://www.itc.nl/research/themes/gisa/projects/docs/EOIA_Lake_Naivasha.pdf.

The registration period has been extended until 15 July 2009 in order to allow an objective choice of all potential candidates, considering that for many we did not submit all relevant information (e.g. transcripts). To (again) give you an idea what we are looking for:

- Ideal candidates are East African, younger than 38 years and have a MSc degree "with distinction"/ 1 class honors, or close to that, in a relevant field.
- Especially for the first 3 PhD, candidates with a strong background in physics, mathematics, and chemistry may be considered. Experience in advanced Earth Observation, programming skills, or strong in science (math, physics, chemistry) is an asset.

If you you are qualify, contact becht@itc.nl and research@itc.nl, and indicate the number of your PhD.

Finally, relatively few applications for "water governance" were received. If you know candidates with a suitable background (social or political sciences, law), please advert this position since all research is interrelated and all will benefit from a strong team. Deadline for applications extended: 15 July 2009.



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[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>. Deadline for application: 25 July, 2009.

[Two GEONETCast short courses prior to IGARSS '09](#)

Prior to the 2009 IEEE International Symposium on Geoscience and Remote Sensing (Earth observation - origins and applications from 13-17 July 2009 in Cape Town, South Africa), two GEONETCAST short courses will be taught:

[GEONETCast and the monitoring of African marine ecosystems](#)

Presenters: V. Byfield, National Oceanography Centre, Southampton, United Kingdom and S. Bernard, CSIR, Stellenbosch, South Africa

[GEONETCast and Water Security](#)

Presenters: T. Woldai, B. Maathuis, C. Mannaerts, Department of Water Resources and Earth Systems Analysis, ITC, The Netherlands

For more information: Download the [flyer](#) (433 kB). Visit the [IGARSS'09](#) website. [Source: SERVIR-Africa community news]

[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, 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 build 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.

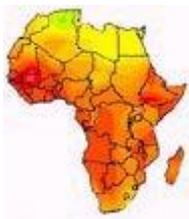
[UNESCO-IHE Regular Short Course: GIS and Remote Sensing](#), 2-13 November 2009, UNESCO-IHE Institute for Water Education, Delft, The Netherlands

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.

[UNISA Short Learning Programme in GIS](#), online & Pretoria, South Africa

Explore GIS a [two module semester course](#) offered by the Department of Geography in the College of Agriculture and Environmental Sciences at the University of South Africa. The course is offered through



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distance education, but students need to attend a compulsory workshop (maximum three days - probably in Pretoria) for module EGIS02K. Both modules can be completed in one semester. Deadline for registration (second semester): 16 July 2009.

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

- Statistics in Applied Climatology (SIAC) - start date: 1 Aug 2009 (1 month)
- Eumetsat Satellite Application Course (ESAC-V) - start date: 1 August 2009 (2 weeks)
- 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 July, 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



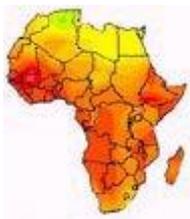
The [Regional Centre for Training in Aerospace Surveys \(RECTAS\)](#) is offering a number of three-week courses. Also note that RECTAS is able to package and deliver customised training for interested organisations. These could be either advanced or other certificate programs. Contact: info@rectas.org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

[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.



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[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](#).

[Upcoming ITC distance education courses](#)

[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
- [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). Twenty-five places are available for this course, with a matching number of NFP fellowships for eligible candidates. These fellowships cover costs related to travelling, accommodation, insurance, excursions and course fees. Application deadline: July 15, 2009.

[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

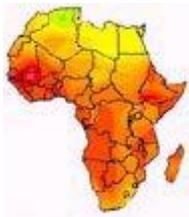
[Opportunity to apply for Travel Grant to attend AfricaGIS 2009](#), Kampala, Uganda, from 26 to 30 October 2009 and [Pre-conference GEOSS Workshop on Disaster Management and Humanitarian Assistance for GEOSS](#), 23 – 25 October 2008

The ISPRS Foundation is seeking applications from individuals wishing to obtain travel assistance from the "Trust Fund Amsterdam 2000" (administered by the ISPRS Foundation) to participate in the AfricaGIS International Conference, which will be held in Kampala, Uganda, from 26 to 30 October 2009. Deadline for receipt of applications: 10 July 2009. Applicants should complete the downloadable [form](#) and read the preamble.

[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 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.



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- 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:

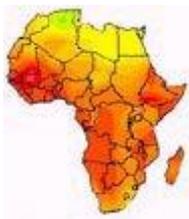
- African Union Scientific Award targeting outstanding African Scientists in the African Union and valued each at USD 100,000. The awards are for African Union Scientific Award Life and Earth Sciences and the African Union Scientific Award for Basic Science, Technology and Innovation.

Application deadline: 9 September 2009.

[International Foundation for Science \(IFS\) - "Green Water" Grants](#)

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



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- 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

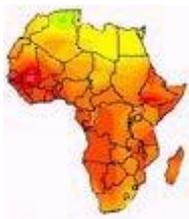
[Geologists and GIS Specialists](#), Sudan

Geologists at all levels with some experience in mining are required. Degree and registration with a professional body is an advantage. Must have experience in mining and exposure to various commodities in an underground or open cast mining environment. Deadline: 12 July 2009.

Wash consultant, South Sudan

Purpose under the general supervision of the WASH Section Head in North Darfur state, the consultant supports the emergency WASH interventions in the state mainly in El Salam, Abu Shouk, Kebkebiya, Shangili Tobai and other camps through monitoring and reporting of emergency WASH activities in the state including field supervision, data establishment, data analysis, progress reporting, updating of emergency matrices and capacity building of WASH Partners on monitoring and reporting. Interested & qualified candidates should submit their updated CVs and UN personal history form to sudanhrvacancies@unicef.org, or hand deliver to UNICEF Office House 74, Street 47 Khartoum 2.

[Senior Human Settlement Officer, P5](#), Geneva and Kenya



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The above vacancy is currently available for qualified applicants in UNIFAD. The incumbent should have advanced university degree in International Management, Economics or Social Sciences, relevant to development and management of human settlements; or a first degree with relevant combination of academic and professional qualifications.

- Seven years of experience in the implementation of technical cooperation programmes and projects in the human settlements sector, of which, preferably, at least five at the international level. Practical experience in at least two or more continents (Africa and the Arab States, Latin America and Caribbean and/or Asia and the Pacific) is required.
- Fluency in spoken and written English or French; knowledge of a second official UN language an advantage and sometimes a requirement. Fluency in the local language may be essential.

Applicants should send their applications to: The Recruitment Officer at recruitment@unifad-site.org.
Deadline for Application: 11 July 2009.

Environmental Affairs Officer, P4, New York; Geneva; Kenya and Paris

The above vacancy is currently available for qualified applicants in UNIFAD. The incumbent shall develop and implement programmes and projects to promote regional and sub-regional environmental cooperation in the Asia-Pacific region that support global and other internationally-agreed environmental initiatives and programmes, and promotes the integration of environmental concerns into national planning processes to achieve sustainable development. The incumbent should have:

- Sound analytical and research skills combined with substantive experience in project management and implementation; Familiarity with scientific/technical backgrounds of multilateral environmental conventions on air and water pollution, climate change, and waste management; Ability to apply sound theory and concepts to work; Ability to determine suitability, validity and accuracy of data provided by others and make assessments of research documentation and studies.
- Advanced university degree in environment or related fields. Candidate with first level university degree with a minimum of eight years of progressively responsible professional experience in the relevant fields would be acceptable
- A minimum of five years of professional experience including two years of international experience in the field of environmental policies, sustainable development and technical cooperation

Applicants should send their applications to: The Recruitment Officer at recruitment@unifad-site.org.
Deadline for Application: 11 July 2009.

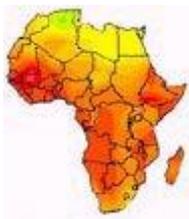
Chief Engineer, P5, New York; Addis Ababa

The above vacancy is currently available for qualified applicants in UNIFAD. The Chief Engineer shall be responsible for overall management of engineering, building management and maintenance within the mission; Preparation and maintenance of long-term and medium-term engineering/construction plans, including the Force Accommodation/Development Plan; Develop scales of accommodation/standards for the mission and maintain the Force Facilities catalogue. High degree of personal initiative and willingness to accept wide responsibilities; demonstrated effectiveness in developing engineering plans, policies, procedures and new programs; demonstrated fiscal awareness; good knowledge of UN rules.

- Ability to manage and mentor a technical team by demonstrating leadership; demonstrated ability to provide leadership and take responsibility for incorporating gender perspectives into substantive work; commitment to the goal of achieving gender balance in staffing.
- Advanced university Degree (Masters Degree or equivalent) in Civil Engineering, Electrical Engineering, Mechanical Engineering, Architecture, or related fields. A first level university degree with a relevant combination of academic qualifications and experience may be accepted in lieu of the advanced university degree.
- At least 7 years of progressively responsible experience in Civil Engineering. Experience in planning and designing of engineering projects and facilities in positions with national administrations, or large engineering or construction firms. At least two years of experience at the international level in project evaluation and management or the development of facilities for peacekeeping forces, United Nations, or other field operations.

Applicants should send their applications to: The Recruitment Officer at recruitment@unifad-site.org.
Deadline for Application: 11 July 2009.

Director of Finance, Burundi



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Vacant position is currently available at OCHA's Office for the Coordination of Humanitarian Affairs. The Director of Finance oversees the creation and implementation of internal controls, policies and procedures for all financial activities of the OCHA Office. S/he provides capacity building support to all Mozambique accounting staff and management engaged in making decisions affecting the fiscal health of the OCHA Office. The incumbent should have:

- A four-year degree in Accounting, Finance or equivalent with 10 or more years of accounting management experience in a medium or large NGO; or a Masters degree, Certified Public Accountant (CPA), Certified Accountant (CA) or equivalent with 6 or more years of accounting management experience in a medium or large NGO.
- At least three years working experience in the developing world.
- Experience with U.N regulations.
- Solid experience with Microsoft Outlook, Word, Excel, and PowerPoint; Peachtree accounting software; and Microsoft Dynamics (Navision) or other major accounting software package.
- Proven experience with International organisations is preferred. Experience with other government, bilateral or multilateral donor systems is acceptable.
- Thorough and transparent communication skills combined with strong experience in professional mentoring, team building and organized collaboration.
- Exceptional ability to prioritize, plan and adapt within a complex and rapidly changing environment.

Submit a one-page cover letter and updated curriculum vitae (CV) together with contact details of three references. Contact: recruitmentcompany670@gmail.com. Deadline: 18 July 2009.

Emergency Programme Officer - P4, Burundi

Vacant position is currently available at OCHA's Office for the Coordination of Humanitarian Affairs to manage OCHA day-to-day activities in the Country, ensuring an efficient humanitarian response and effective, accountable use of OCHA funds.

The incumbent should have:

- Advanced university degree (Masters and equivalent) in related field. A combination of relevant academic qualifications and extensive experience may be accepted in lieu of the advanced university degree.
- At least 7 years of progressively responsible professional experience at national and international levels including project management.

Submit a one-page cover letter and updated curriculum vitae (CV) together with contact details of three references. CVs should be in English. The Recruitment Section, Human Resources Management Unit, United Nations Office for the Coordination of Humanitarian Affairs, 8-14 Palais de Nations, 1211, Geneva 10, Switzerland. Contact: recruitmentcompany670@gmail.com. Deadline: 18 July 2009.

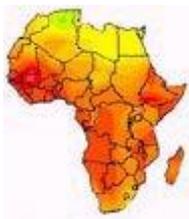
Monitoring & Evaluation Expert - P5, Burundi

Vacant position is currently available at OCHA's Office for the Coordination of Humanitarian Affairs for an accomplished professional with significant M&E experience and accomplishments applied in international development work, e.g., measuring project progress accurately in order to adjust strategies and enhance project cost-efficiency and effectiveness. The successful candidate will be based at OCHA office and work via remote communications and traveling to project sites as required. This position reports to the Senior M&E Expert and supports all members of the M&E Team, including strengthening team member skills and practices. The incumbent should have:

- Ph.D. preferred or Master's Degree in a social science.
- 8-10 years' experience working in M&E in international development, including significant M&E field experience in low resource countries or in conflict or fragile states
- Technical M&E skills, including several of the following: design and implementation of program M&E systems; M&E training design and implementation; development and field-testing of data collection instruments for M&E indicators; data collection design and implementation (routine or survey); data analysis, synthesis, and communication of results; applied evaluation or research skills, including statistical analysis; M&E-related information and communication technologies

Submit a one-page cover letter and updated curriculum vitae (CV) together with contact details of three references. Contact: recruitmentcompany670@gmail.com. Deadline: 18 July 2009.

Senior Public Health Officer - P5, Burundi



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The Senior Public Health Officer is a senior position in the office that functions under direct supervision of the OCHA Representative and technical guidance of the concerned Units in OCHA HQs. He/She is expected have an expert knowledge on various aspects of Public health care and management of communicable diseases in large population with minimum hygienic conditions.

The incumbent should have:

- Advanced university degree (Post graduate level) in Medical science or Public Health or Epidemiology with focus on Reproductive health and HIV/AIDS related communicable diseases.
- Minimum of 6 years progressively responsible functions in HIV/AIDS and Public Health or Reproductive health in tropical countries dealing with development of comprehensive public health care programmes of the 6 years, at least 4 years of experience should be in an international humanitarian organization dealing with HIV/Public health in large scale emergencies or displaced/refugee situations.
- Experience, advance training, balance and combined knowledge in different subjects: HIV and AIDS, Public Health, Reproductive health, Epidemiology and Tropical medicine.

Submit a one-page cover letter and updated curriculum vitae (CV) together with contact details of three references. Contact: recruitmentcompany670@gmail.com. Deadline: 18 July 2009.

Senior Technical Advisor - P5, Burundi

The Senior Technical Advisor will be responsible for the following duties: Work closely with the Country Program Manager to organize staff and manage technical activities. Coordination with Country Program Manager, the Ministry of Health and other in-country partners, develop country proposals, plans and budgets for OCHA technical assistance. Collaborate with country Program Manager to update the work plans and budgets on a quarterly basis. Submit a one-page cover letter and updated curriculum vitae (CV) together with contact details of three professional references. Contact: recruitmentcompany670@gmail.com. Deadline: 18 July 2009.

Other

G8's record on climate wanting

With only five months to go until a new global pact on climate change, none of the Group of Eight nations is doing enough to curb global warming, with Canada and the US ranking bottom, a study said today (1 July 2009). The "G8 Climate Scorecards", compiled by environmental group WWF, said even the greenest members of the rich nations' club - Germany, Britain and France were not on track to meet a "danger threshold" of limiting temperature rises to below two degrees Celsius.

Temperatures have already risen by 0.7 per cent since the start of the industrial era. "In order to avoid or reduce the risk of catastrophic climate change, G8 leaders must agree to do everything they can to stay below 2 degrees," said Kim Carstensen, leader of the WWF's Global Climate Initiative. Top of the G8 rankings is Germany, followed by Britain. The WWF praised Berlin for promoting renewable energy and an ambitious target of cutting greenhouse gases by 40 per cent by 2020, though said this lacked clear plans for implementation. "There is no reason to celebrate," said Regine Guenther, director for climate change, WWF Germany, adding that emissions needed to be cut by 95 per cent by 2050. "This would be essential to keep global temperature rises well below two degrees." Britain has already more than achieved its Kyoto pact targets due to a transition from coal to gas-fired power stations in the 1990s. (Reuters).

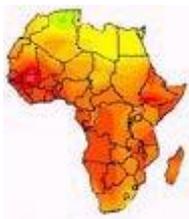
Putting agriculture on the agenda for climate talks



More research is needed on how and where climate change will impact agriculture. This policy brief, published by the International Food Policy Research Institute (IFPRI), makes nine recommendations for including agriculture in the international climate negotiations set to take place December 2009 in Copenhagen. The author says that climate negotiations must take agriculture into account to meet mitigation and adaptation goals. The recommendations support climate change goals but also improve the well-being of people who manage and depend on agriculture in the developing world. They are based on three premises:

- Much uncertainty remains about how and where climate change will impact

agriculture. The author recommends funding research to create assessments more useful for policymakers.



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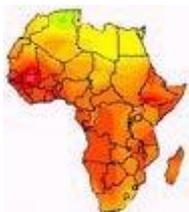


- Agriculture can mitigate greenhouse gas emissions. The author recommends funding and researching cost-effective technologies and management systems, as well as funding low-cost carbon monitoring systems such as micro-satellites.
- Poor farmers will need to be helped in adapting to climate change. The author recommends a 'pro-growth, pro-poor' development agenda that includes more investment in agricultural research and extension, rural infrastructure and access to markets for small farmers..[Source: IFPRI].

Conferences, Events

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

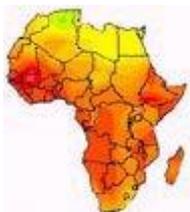
Date	Location	Event
July 2009		
3-6 July 2009	Perm, Russia	INTERCARTO-INTERGIS 15
5-8 July 2009 *NEW*	Vienna, Austria	15th International Symposium on Society and Resource Management - Indigenous Peoples, Community Mapping and Social Impact Assessment: New Directions in Land Use Planning
5-8 July 2009	Newfoundland, Canada	6th International Symposium on Spatial Data Quality (ISSDQ 2009) "Quality: From Process to Decisions" Contact: Rodolphe Devillers, issdq2009@mun.ca .
6-8 July 2009	St. John's, Newfoundland, Canada	6th International Symposium on Spatial Data Quality (ISSDQ 2009) Contact: Dr. Rodolphe Devillers
5-8 July 2009	Utrecht, The Netherlands	15th Annual International Sustainable Development Research Conference
7-9 July 2009 *UPDATED*	Midrand, South Africa	Geospatial Africa 2009
7-10 July 2009	Salzburg, Austria	Geoinformatics Forum Salzburg (GI Forum2009) Contact: GI_Forum Team, office@gi-forum.org .
11-14 July 2009	San Diego, California	ESRI Survey & Engineering GIS Summit Contact: segsummit@esri.com .
13-14 July 2009	Oxford, United Kingdom	The 3rd International Conference on Geosensor Networks
13-17 July 2009	Cape Town, South Africa	IEEE IGARSS'09 Contact: Dr. Harold Annegarn, han@rau.ac.za . On the conference and exhibitions, contact Bryan Stewart, bstewart@cmsworldwide.com .
13-17 July 2009	San Diego, USA	29th ESRI International User Conference
13-17 July 2009	Accra, Ghana	2nd International Association of Agriculture Information Specialists (IAALD) Africa Chapter Conference
13-17 July 2009	Big Bear Lake, CA, USA	Society for Conservation GIS (SCGIS) Annual Conference
24-26 July 2009	Hyderabad, India	3rd International Conference on healthGIS 2009 Contact: Dr. Nitin K Tripathi
27-31 July 2009	Vancouver, BC, Canada	GeoWeb 2009
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 .



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12-14 August 2009	Fairfax, VA, USA	17th International Conference on Geoinformatics Contact: Liping Di at ldi@gmu.edu .
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 * NEW *	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 * NEW *	Beijing, China	6th International Symposium on Digital Earth (ISDE6)
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 * NEW *	Buenos Aires, Argentina	XIII World Forestry Congress
20-23 October 2009	Sydney, Australia	FOSS4G 2009 Conference



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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> .
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
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 .
16-20 December 2009 * NEW *	Tunis, Tunisia	The Fourth Session of the International Congress Geo Tunisia 2009
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"

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