

Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

January 2009

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

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



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



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

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

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

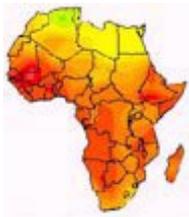


Input to this Issue

Thank you to Kate Lance, USRA/SERVIR-Africa (USA); Andiswa Mlisa, Umvoto Africa (Pty) Ltd (South Africa); Tammie Hall, Canadian Ape Alliance (Canada); Changshan Wu, University of Wisconsin-Milwaukee (USA); Gregory Pedersen, EADS Astrium SAS (France); Grant Slater, OSGeo Africa (South Africa); Arno van Lieshout, ITC, (The Netherlands); Craig von Hagen, IMMap (Kenya); Andre Nonguierma, UNECA (Ethiopia); Dozie Ezigbalike, UNECA (Ethiopia); Andrew Nelson, EC Joint Research Center (Italy); Garba Sambo, Lake Chad Basin Commission (Chad) and Ganiy Agbaje, National Space Research and Development Agency (Nigeria) for their contributions to this issue of the newsletter.

Message from the Editor

Best wishes to all our esteemed readers for 2009. And thank you to everyone who contributed news items in 2008. For the year 2009, I request everyone who appreciates the content of the SDI-Africa newsletters to take a little time to share news items with the geo-spatial community, especially the concerns of Africa for upcoming issues. You just need a few minutes to send a useful URL, workshop summary, announcement of an upcoming event, or an article on research or practical implementation of GIS and remote sensing applications within your profession, organization or country. This will go along way in enhancing the gains already achieved through the application of geospatial technology and research for sustainable development in our continent. Thank you, Gordon Ojwang'.



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SDI News, Links, Papers, Presentations

[11th International Conference on Global Spatial Data Infrastructure \(GSDI 11\)](#), 15-19 June 2009, Rotterdam, The Netherlands

Theme: Spatial Data Infrastructure Convergence: Building SDI Bridges to Address Global Challenges. Partners in organizing this conference include the GSDI Association, Joint Research Center (JRC) of the European Commission, EUROGI, Geonovum, Space for Geoinformation Innovation Program (RGI) and Delft University of Technology. The plenary and paper sessions of three major geospatial conferences are being integrated into a single program and held in the same venue. These combined conferences include the Eleventh GSDI Conference, the Third Inspire Conference and the Dutch National Conference reporting on Dutch SDI Results and Challenges. The organizers have invited presentations covering [suggested conference topics](#) on full range of practice, development and research experiences that advance the practice and theory of spatial data infrastructure development.

Kenya's District borders to be reviewed: New boundaries to be determined by population size after census in 2009

According to a UN Population Fund (UNFPA) document (www.unfpa.org), Kenya's population is projected to reach 37.4 million in 2010. "[Plans for the official census](#), which is due on 25 August 2009 is on track," said Chris Omolo, the census manager at the [Kenya National Bureau of Statistics \(KNBS\)](#).

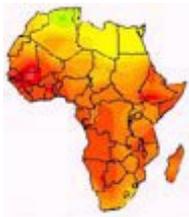
"The review of district and constituency boundaries will be based on the results of the national population census to be held in 2009", said the Prime Minister Raila Odinga. Mr. Odinga noted that "the current constituency boundaries are still those which were used during the colonial days, while some have remained the same over the years, inspite of the population growing, leading to poor service delivery". There was need to revise these boundaries depending on the population and other criteria to be determined by the outcome of the 2009 population census. [Source: Daily Nation, December 29, 2008].

[Current trends in Nigeria's Space Development Programme to facilitate geospatial information sharing and implementation of the NGDI](#) (2008)

This paper discusses the current trends in Nigeria's space programme (satellites development); and examine the institutional arrangements in place to facilitate geospatial information (GI) sharing among organisations in Nigeria as contained in the National Geoinformation Policy, and examines the progress made so far in the implementation of the NGDI. Barely seven (7) years to the deadline for the attainment of the Millennium Development Goals (MDGs), which is meant to haul the world's 2 billion poorest out of misery; promote human dignity and equality; and achieve peace, democracy and environmental stability; it is becoming clear that a number of developing countries especially in Africa will fail to achieve the MDGs. The root cause of this emanated from a number of factors which include poor quality data collection, organization and management practices including lack of adequate infrastructure and skilled human capacity to develop the natural resources and manage the environment in a sustainable manner. Recognizing the significant role of space technology for the attainment of rapid sustainable socio-economic development, the Federal Government of Nigeria embarked on satellite system development which resulted in the launch of the NigeriaSat-1 in September 2003 and Nigcomsat-1 in May 2007 while NigeriaSat-2 is expected for launch in 2009. Nigeria is also committed to the building of the African Resources & environmental Management Satellite Constellation (ARMS). All these activities will serve as catalyst to the development of the country's national geospatial data infrastructure (NGDI). When fully operational, the NGDI will serve as the fuel for the effective implementation and attainment of the Millennium Development Goals by 2015. Author: gagbaje@nasrda.net, Website: <http://www.nasrda.net>.

[Nigeria Geological Survey Agency releases country's geo-physical survey](#)

[Nigeria Geological Survey Agency](#) in Abuja released the first phase of the Air-borne Geophysical Survey of the country in August 2008. The survey, which covered 44 per cent of the country, comprised digital data on various mineral types in the areas and their life span. Director-General of the Agency, Professor Siyan Malomo, said at the survey's presentation, that the phase covered 24 states of the federation, among which are Sokoto, Kebbi, Zamfara, Kano, Jigawa, Yobe, Katsina, Niger, Benue and Kaduna. Others are Taraba, Adamawa, Kogi, Kwara, Oyo, Osun, Ekiti, Ondo, Edo, Akwa Ibom, Ebonyi, Cross River, Abia and the FCT. Selection of the areas was based on the likelihood of identifying metallic minerals that could be of immediate



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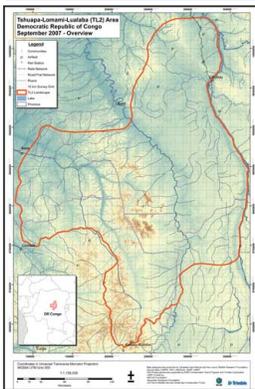
interest to investors. The first phase of the survey was solely sponsored by the Federal Government, while the second phase, which was in progress and would cover the remaining 56 per cent of the country, will be executed under a World Bank-assisted project. In his remarks, Minister of Mines and Steel Development, Chief Sarafa Isola, said availability of the survey was critical to the stimulation of investment by private entrepreneurs. [Source: allafrica.com; This Day, 20 August 2008]

[Lake Chad Basin Commission procurement of VSAT equipment: steps towards realisation of Geospatial Data Infrastructure \(LCBSDI\)](#)

The Lake Chad Basin Commission (LCBC) had acquired assistance from the Global Environment Facility (GEF) through UNDP and World Bank to move forward the programme of “Reversal of Land and Water Degradation Trends in the Lake Chad Ecosystem”. Together with the Lake Chad Basin Commission, the United Nations Office for Project Services (UNOPS) executed the project through the International Waters Unit of its Europe Regional Office (EUO) at Copenhagen, Denmark. The project cost was \$9.6 million, and started in January 2004 up to December 2008.

Amongst the project achievements were procurement of historical satellite imageries through UNOSAT (Geneva); creation of geospatial database; establishment of regional coordination mechanism; developed Transboundary Diagnostic Analysis (TDA) towards the Strategic Action Programme; five demonstration pilot projects and micro grant initiatives; and capacity building, among others. While considering the huge investment made in procurement of EO and ancillary data collected from this and other past projects, the risk for waste/misuse of the data after the project, and in view of the fact that history has shown past projects in the Basin stored data/information in a fragmented manner, in different format and using obsolete methods, and taking into account that most of policies formulated and management decisions had been based on segmented information, and couple with the fact that Lake Chad Basin lacks a platform and/or clearinghouse to disseminate data and information to its member States and Stakeholders, a strategy was devised to procure VSAT equipments from the remaining funds to develop one of the crucial components of SDI for the Lake Chad Basin member States. As AfDB considers LCBC with \$30million counterpart funds for new projects come March/April 2009 and ESA willing to sustain the supply of remotely sensed data, the VSAT communication network is invaluable for service delivery to the stakeholders in the Basin. The LCBC/GEF Project outputs, core datasets and GIS products are right in place.

[Jungle training: GIS technology taught in deep Africa \(Democratic Republic of Congo\)](#)



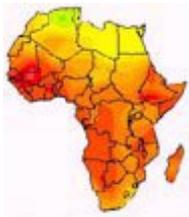
In the hope of eventually protecting one of the last uncharted wilderness regions on the planet, a Canadian conservation organization brought "state-of-the-art" geospatial mapping technology into the heart of the African forest in February 2008 to teach, train and help organize the creation of an accurate, comprehensive base map for the Tshuapa-Lomami-Lualaba (TL2) region in the Democratic Republic of Congo (DRC). Immediate plans to incorporate GIS technology in the TL2 region include the following:

- Develop detailed survey grids (30- by 30-kilometer grids) and related maps/imagery for field data survey teams to help survey planning and basic orientation.
 - Incorporate detailed digital elevation models derived from high-resolution imagery.
 - Further develop detailed temporal hydrographic data to aid survey design and identify specific areas of interest.
- Use GIS and GPS technology from Phase Two Exploration and Phase One Inventory (2008).
 - Further develop field data collection methodology to maximize GIS for spatial data analysis, storage, maintenance, and report generation.

Web-based mapping and Google Earth technology now are being evaluated as potential resources to deliver issues concerning TL2 and wildlife conservation to the general public. [Source: Geoplace.com - August 2008]

[Rwanda: MINEDUC to reap big from GIS rollout](#)

During a speech in early December 2008, the State Minister for Primary and Secondary Education, Theoneste Mutsindashyaka, underscored that there are many potential benefits the education sector is set to get from GIS. "The GIS infrastructure is one of those innovations we really need in our sector. It's both an education and development tool which if sufficiently adopted will even step up our ICT programme since it's

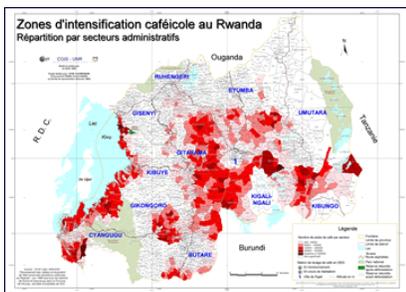


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also digitally packaged," said Mutsindashyaka. The minister added that the ministry is planning to spread this system to all the 800 secondary schools in the country. "There are many GIS projects coming up soon in our schools through our workings with RITA, and we have already trained one hundred teachers in this system, through the teachers-training-teachers approach," noted the minister. He added that on top of planning to start up a Master's degree in surveying, due to the overwhelming need for the programme, they are planning to incorporate GIS into the one laptop per child, so that primary pupils can also learn it. The Minister spoke during the closing session of a one-week training of 15 students in mapping and analysing land use, electricity consumption and water distribution in Kinyinya village. The training was organized by ESRI. The training was conducted in partnership with the National Land Centre, which promised to offer jobs to the trained students in case they need any manpower in the covered areas. [Source: [SERVIR-Africa community blog](#); allafrica.com, The New Times, 7 December 2008]

[Rwanda: CGIS-NUR delivers maps and data on the web](#)



There is compelling evidence that GIS-enabled geography is making a difference in governments, business, health, education, science, research, homeland security, and many more application. Web-mapping is about publishing maps and data on the Web. The CGIS, using the ERSI ArcIMS platform, delivers maps and data on the web that allows users to visualize, create and query their own thematic maps and thus extract relevant information to help them in their decision making processes. Thematic maps are available for Rwanda in different categories for your own map making:

- Administration - [Rwanda General Map & Administrative boundaries](#)
- Education - [Secondary schools by province in 2002](#)
- [Secondary schools access in 2002](#)
- Population - [Rwandan Population density by district in 2002](#)
- Agriculture - [Rwandan Coffee sector](#)
- Environment - [Road Network](#)

Other [thematic maps](#) produced by the CGIS-NUR Mapping Unit in printouts (format A4, A3 or A0) or digital format (image format or eps) can be ordered at info@cgisnur.org or directly at the Centre in Butare. These include localization of health centres and types of actions against HIV/AIDS, 24 days in Rwandan genocide - event sequence in space and time, HIV-AIDS related activities by health centers in Rwanda - 2003, and Virunga volcano conservation area vegetation classification - 2003.

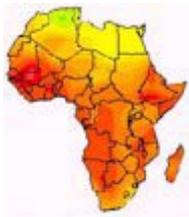
[University Buea \(Cameroon\) Remote Sensing Centre goes operational](#)



This scientific and academic jewel is the fruit of cooperation project and collaboration between the University of Buea (UB) and University of Gent, Belgium. Volcanologist and Researcher, Dr. Gerald Ernst of the Department of Geology and Soil Science, University of Gent, the brain behind the Remote Sensing Centre in UB explained what it is all about. "We shall be doing satellite observations of the environment of the volcano and monitor changes on the volcano so that we can be better prepared for the next eruption, by concerting with the local population, especially in a town like Buea with a volcanic mountain." According to the researcher, the scientists at the centre have specific responsibilities; "They will be acquiring observations from satellite such as showing where we have lava flows, understand past lava flows have gone and also build an understanding of where it is for possible lava flows to go, how far they may reach and to observe areas that might be susceptible to landslides. It is a combination of field work." Though Dr. Ernst described the UB Remote Sensing Centre as a modest project, he also sees its tremendous importance to Cameroon. "UB has been working very hard to see this project come to reality and make it available for the community. Cameroonians will be happy to know more about the environment in which they live in, to show that research in Cameroon can bring pride to the country and that African scientists can make a difference by setting up a very unique volcanic monitoring centre in the continent. This will help the local community with information that the local council(s) can exploit and the university," he said.

[Angola: Drafting of Territory Organisation Plan recommended](#)

The participants to the 12nd Techno-scientific events of the Eduardo dos Santos Foundation (FESA) recommended the earliest elaboration of a National Territory Organisation Plan. The recommendation is



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contained in a communique from the events that took place since November 18, in Luanda, under the motto "Cities: training, planning, management and urban networks". For four days, local and foreign (Brazil, Chile, Spain, England, Italy, and Portugal) specialists spoke of such topics as planning and management of cities, cities management instruments, problematic of cities planning, urban growth and use of clean energy and others. During the presentation of the communique, FESA's trustee, Francisco Fortunato, said the National Plan is intended to support the various provincial and district steering plans as main instruments for a responsible urban and rural management. Another recommendation from the meeting has to do with the need for the promotion of land management policies that guarantee a harmonious and sustainable urban and rural development with the target communities. The need for the creation of a national institution that deals with the country's geographic information, introduction to the Information and Communication Technologies (ICTs) in the urban and rural management, are part of the recommendations from the more than 500 participants. [Source: allafrica.com; Angola Press, 21 November 2008]

[Earth-observation benefits to Africa](#)

The SERVIR-Africa team welcomes the opportunity to explore ways in which SERVIR-Africa can serve your organization's needs. Once [registered](#), you will receive updates from the SERVIR-Africa team as the content and functionality of the website/portal changes. In the coming months, the team will be enabling access to data and services, as well as augmenting the registry of useful resource, reports and training materials. If you're registered, you also can submit comments/questions via the [SERVIR-Africa Community Blog](#). Further information, contact: servir@rcmrd.org.

[Equipping Africa's farmers with location-specific information to reduce uncertainty and increase returns](#)

Recognizing the importance of geospatial information to agriculture decision making and the inadequate access to data, tools, and analyses, especially in Africa, the Bill and Melinda Gates Foundation initiated a geospatial technology program focusing on small holder farmers. The AGCommons Program is under the administrative oversight of the Consultative Group on International Agricultural Research (CGIAR). CGIAR, in partnership with CH2M HILL and ITC, will design and develop a comprehensive program to provide smallholder farmers in sub-Saharan Africa and other agricultural stakeholders with access to geospatial data, services, tools, and methodologies to help them make more informed decisions. The program is guided by a steering committee of stakeholder representatives and subject matter experts, who lend their expertise to the program team and guide decision making. The steering committee kicked off design in November 2008, and open workshops will be held in sub-Saharan Africa into early 2009.

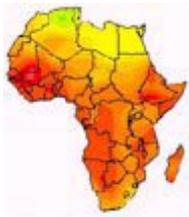
Access to higher-quality, location-specific information is crucial to making better decisions. Farmers can use this information to decide which crops to raise and when to harvest; receive pest and disease information via cell phone; and apply changing technologies to boost productivity. Developing countries will benefit from collection and dissemination of agricultural data; analysis and communication of geospatial information; and monitoring and evaluation of agricultural development efforts. CGIAR, CH2M HILL, and ITC are committed to providing accessible, helpful, and effective geospatial solutions to farmers as one step toward alleviating poverty and avoiding famine.

[10th issue of the TIGER Newsletter](#) (December 2008)

Launched in 2002, the [TIGER initiative](#) is aimed at "assisting African countries to overcome problems faced in the collection, analysis and dissemination of water related geo-information by exploiting the advantages of Earth Observation (EO) technology.

[Regional and zone forage maps](#)

The Livestock Early Warning System (LEWS) has 9 zones in the IGAD region and each zone has over 30 monitored points. For each geo-referenced monitoring point, a multiple species rangeland plant growth model (PHYGROW) is parameterized with data (soils, plants and grazers). The model is then run with current satellite weather data (<http://cnrit.tamu.edu/rsg/rainfall/rainfall.cgi>) to determine standing crop of the forage available (kg/ha) to grazing animals. The model output is then compiled for each dekad (10-day intervals) and processed to produce spatially-explicit forage maps for the IGAD region and for each individual zone. To develop surface maps, the model output (forage kg/ha) data is coupled with the Normalized Difference Vegetation Index (NDVI) and put into a geostatistical package (GS+) where an interpolation technique called



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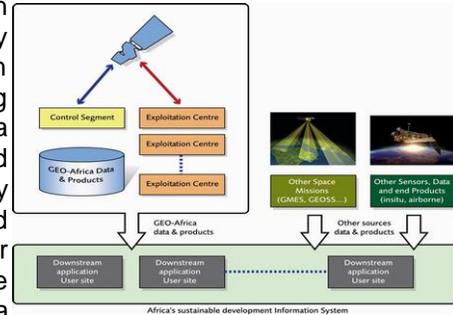


co-kriging is used. If a good correlation exists between the forage output from PHYGROW and the NDVI, then co-kriging allows a better estimation of forage production in areas between the monitored points. Ground truthing to verify accuracy of maps is carried out by zonal monitors cutting, clipping, oven-drying and weighing of vegetation at the monitoring points, visual estimations from photo-guides and comparison with model results. For more information on LEWS technology, information and analysis design: [The Livestock Early Warning System \(LEWS\): Blending technology and the human dimension to support grazing decisions.](#)

GEO-Africa: A dedicated African Space Observatory to serve African applications



GEO-Africa is the name of a dedicated African Space Observatory new mission, conceived by EADS Astrium, to be proposed to African authorities as a new dedicated satellite sensing source to be owned and operated by African authorities. GEO-Africa is a top level sensing capacity imaging from geostationary orbit and permitting the sensing of up to 100 scenes of 300*300 km per day with a possible total coverage of Africa every 4 days, land and coastal. It offers a flexible daily sensing programming, following user requests, with a routine coverage of programmed areas and the capacity to sense with fast and multiple accesses any area in Africa (emergency crisis, cloud free opportunity...).



GEO-Africa is designed to serve a wide range of applications using medium high optical resolution and contributing to the sustainable development in Africa: water management, land use-land change, soil erosion-desertification, forest monitoring, risk management, food security, environmental and risk hazards, biodiversity...with an unequalled spectral bands wealth (11 bands) and temporal resolution. It offers a ground resolution of 25m at nadir.

GEO-Africa is a complete system from satellite to products dissemination with one satellite positioned over Africa and a complete ground infrastructure also located in Africa. GEO-Africa operational delivery can be achieved by 2014. It is conceived to be compatible with existing forthcoming achievements in Africa and will be built as a component of the GEOSS System of system:

- Directly pluggable to existing - planned downstream applications (Lake Victoria - Lake Chad water quality mapping, GeoSFM, TIGER, AMESD...),
- Making maximum reuse of existing infrastructure (GEONETCast, CBERS Reception stations, optical fibres network...),
- Fully compatible with other EO data sources (National African missions, African Resources Management Constellation, GMES, CBERS, Spot...), interoperable with other missions: meteo MSG missions (cloud coverage notation...), altimetry...
- consistent with GEOSS data formats and sharing principles

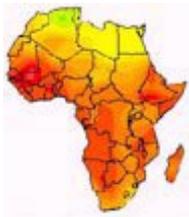
For further information, contact: gregory.pedersen@astrium.eads.net.

Weapons of Mass Collaboration - people power is changing mapping

It has major corporations frothing at the mouth. It has Bill Gates in a tizzy. Top executives worldwide are stomping their feet and denouncing its promoters as 'newfangled Communists in various guises'. In the bestselling Wikinomics, Don Tapscott and Anthony Williams call them 'weapons of mass collaboration'. From skype and open-source software, to 'wiki' sites and creative commons, new technology has tapped into the recesses of the global brain as never before. And location, it would seem, is smack bang in the middle of it. 'While hierarchies are not vanishing, profound changes in the nature of technology, demographics, and the global economy are giving rise to powerful new models of production based on community, collaboration, and self-organisation, rather than on hierarchy and control,' write Tapscott and Williams. But have spatial professionals embraced mass collaboration? It doesn't look like it. But we need to.

Putting Africa on the map

According to the Economist issue 'The World in 2009', 2009 "will be the year of the map in Africa. Not just street directions uploaded to mobile phones for the befuddled, although that will be a blessing on a continent where often the only address is a post-office box, but internet maps galore, most of them available to the public. This will do more than any political initiative in 2009 to determine exactly where money should best be spent in Africa." [Source: [SERVIR-Africa community blog](#); The Economist, November 19, 2008]



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Resolutions from the ISO/TC 211 27th Plenary, held in Tsukuba, Japan, 2008-12-04/05



International
Organization for
Standardization

The ISO Technical Committee 211 – Advisory Group on Outreach met recently in Japan. A resolution was passed to form an ad hoc working group on SDI. The wording of resolution 446 included:

- ISO/TC 211 recognizes the importance of standards for SDI and

resolves to establish an ad hoc group to prepare a workshop.

- ISO/TC 211 welcomes and accepts the chairperson nomination from Saudi Arabia.
- ISO/TC 211 welcomes the offer from other countries and members to participate.
- ISO/TC 211 instructs the secretariat to circulate a call immediately for further nominations and confirmation of nominated persons with a deadline of January 31, 2009.

For more information: [ISO/TC 211 resolution 446](#). The next ISO plenary – the 28th ISO/TC 211 Plenary - will be held 25-29 May 2009 in Molde, Norway.

1st Session of the Committee on Development Information, Science and Technology (CODIST-I), 28

April - 1 May 2009, Addis Ababa, Ethiopia

Theme: Scientific Development, Innovation and the Knowledge Economy. The Committee for Development Information, Science and Technology ([CODIST](#)) has replaced CODI and the first session will be convened in April 2009. CODIST is one of the seven subsidiary bodies of the [Economic Commission for Africa \(ECA\)](#) composed of senior officials and experts from member States that meet on a biennial basis. The role of CODIST is to review challenges and issues pertaining to the ICT, Geoinformation, Science and Technology sectors, formulate policies and strategies to address Africa's development challenges and determine priorities to be reflected in the work programme of the ICT, Science and Technology Division of ECA.

The main objectives of CODIST-I are:

- To review and share best practices on the progress achieved by member States in building an inclusive, people-centred knowledge societies through their national, regional and international initiatives and cooperation;
- To review and share best practices on the progress achieved in building national and regional science, technology and innovation systems, policies and mechanisms for socioeconomic development of the continent;
- To create opportunities for benchmarking Africa's development on innovation against key pillars of the knowledge economy - education/capacity building, ICT infrastructure/ infostructures, regulatory and economic/institutional regimes etc;
- To review progress achieved on the recommendations and actions of CODI V; and
- To provide a roadmap (policy directions) for member States to enhance African scientific development, innovation and the knowledge economy.

Although several countries in Africa have successfully embarked on National Information and Communication Infrastructure (NICI) and National Spatial Data Infrastructure (NSDI) processes that articulate long-term policy, infrastructure, content and application strategies as an integral part of their overall national development goals, implementation still remains a major challenge. Concerted efforts are still required to enable countries to build efficient innovation systems, through investment in R&D, education and ICTs infrastructure. See also CODIST [overview](#) and [concept note](#) (rationale, conceptual framework and sub-themes).

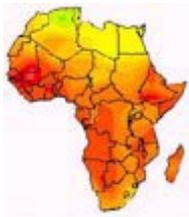
25th Session of the United Nations Group of Experts on Geographical Names (UNGEGN), 5-12 May 2009, Nairobi, Kenya

On this occasion, it is suggested that African countries should have the opportunity to show their material ... any work on names in connection with mapping or cultural heritage, for example: field collection of names; names and maps; gazetteers and/or databases, etc. Please email Yacob Zewoldi (zewoldi@un.org) if you have particular ideas to offer at this time.

Water resources in developing countries: Planning and management in a climate change scenario, 27

April -8 May 2009 at the [International Center for Theoretical Physics](#) in Trieste, Italy

The purpose of this conference is to bring together the world's leading experts in hydrology and climate science to provide lectures on the state-of-the-art science on this topic, with the goal of transferring knowledge of hydrological modeling from humid regions to semi-arid regions. We will explore how to use



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these techniques in developing countries that may be data-sparse environments, and where fast communication using digital data may be hard to obtain. Topics include:

- Present skill of climate models in semi-arid regions
- State-of-the-art of hydrological modeling and applications: case studies from humid and arid and semi-arid areas
- Observational data set resources and alternative methods to improve the quality of available data (e.g., remote sensing techniques)
- Different modeling approaches and methods to characterize model uncertainties
- Strengths and weaknesses of alternative modeling approaches
- Climate change in semi-arid regions: observations and model scenarios

The one-week conference will be followed by a week of laboratory sessions where participants will learn to use some of the models illustrated during the conference. The goal of these sessions is to provide the participants with enough training in order to use the models in their home institutes. See further [information related to this activity](#). The [application form](#) is available on-line. Limited funds are available for some participants (for accommodation or airfare), who are nationals of, and working in, a developing country, and who are not more than 40 years old. Deadline for requesting participation: 15 January 2009.

[1st Workshop of “Development and Application of Global Navigational Satellite Systems \(GNSS\) Methodology for Groundwater Resource Assessment” project](#), 16 January 2009, Hermanus, South Africa

Umvoto Africa, in collaboration with Overstrand Municipality and Department of Land Affairs, South Africa will hold its first workshop of the project on “Development and Application of Global Navigational Satellite Systems (GNSS) Methodology for Groundwater Resource Assessment” on 16 January 2009 at the Hermanus Magnetic Observatory (HMO), South Africa. The theme of this workshop is science of geodetic monitoring of the hydrological cycle. The workshop will provide an overview of the state of the art in Global Navigational Satellite Systems (GNSS), the TrigNet Global Positioning System (GPS) infrastructure in South Africa, the application of GNSS and other space-geodetic techniques to the measurement of a deforming Earth, and their application also to the understanding of the Earth’s hydrosphere, atmosphere and ionosphere. It will also serve as an introduction to new scientific and technological developments and other recent or planned developments in the application of space geodesy within South Africa. The series of three workshops is aimed at building capacity in methodology development and applications of GNSS. There is no charge to participants. For further information, contact: Ms Andiswa Mlisa (andiswa@umvoto.com).

[IST-Africa 2009 Conference](#), 6-8 May, 2009, Kampala, Uganda

IST-Africa 2009 Conference & Exhibition will be hosted by Government of Uganda through the Ministry of ICT. Part of the IST-Africa Initiative, which is supported by the European Commission under the ICT Theme of Framework Programme 7 (FP7), IST-Africa 2009 is the fourth in an Annual Conference Series which brings together senior representatives from leading commercial, government & research organisations across Africa and from Europe, to bridge the Digital Divide by sharing knowledge, experience, lessons learnt and good practice and discussing policy related issues.

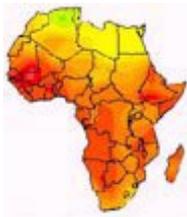
Core Thematic Priorities:

- eHealth - Health Information Systems
- Technology Enhanced Learning & ICT Skills
- Digital Libraries and Content
- Open Source Software Applications
- ICT for eInclusion and eAccessibility
- eInfrastructures
- ICT for Environmental Sustainability
- Networked Enterprise/Software & Services
- eGovernment - Secure Services to Citizens & Business

For more information: www.ist-africa.eu/Conference2009/

[IAIA 09 – Impact Assessment and Human Well-Being](#), 23-29 May 2009, Accra, Ghana

Human well-being depends on ecosystem services, and a healthy environment is essential for improving development and human wellbeing. Impact assessment aims at ensuring a healthy environment, ultimately leading to improved human well-being. This conference will assess the relevance of human well-being in



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impact assessments. IAIA09 will involve discussions with experts from around the globe focusing on how impact assessment assures: healthy environment, human well-being, sustainable development, protected ecosystems, and quality of life. IAIA09 participants are encouraged to highlight how the various instruments of impact assessment can assist in the fields of:

- Climate change and human well-being.
- Environment and human well-being.
- Globalization and human well-being.
- Environmental assessment administration in Africa.
- Extractive industry.
- Tourism.
- Land use planning.
- Coastal zone management.
- Environmental governance in Africa.
- Sustainable production and consumption.
- Environmental compliance and enforcement.
- Environmental liability and funding

Paper and poster abstract submissions deadline: 15 January 2009. Registration deadline for organizers and presenters: 28 February 2009. Contact: impact@iaia.org.

5th International Conference on Environmental, Cultural, Economic and Social Sustainability, 5-7 January 2009, University of Technology, Mauritius

The conference will work in a multidisciplinary way across the various fields and perspectives through which the fundamental and related questions of sustainability can be addressed. [Plenary speakers](#) include some of the leading thinkers in these areas, as well as numerous paper, colloquium and workshop [presentations](#).

22nd Greater Horn of Africa Climate Outlook Forum



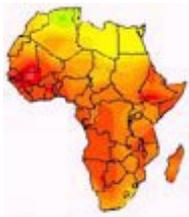
The Climate Change Adaptation - CCAA network is led by a core group (CG) of managing institutions (ENDA-TM, FARA, ICPAC and IDS). The IGAD [Climate Prediction and Applications Centre](#) (ICPAC) and other partners organized the Twenty Second Greater Horn of Africa Climate Outlook Forum (GHACOF 22) in Nairobi, Kenya from 28 to 29 August 2008. It was convened by the IGADs ICPAC in collaboration with the National Meteorological and Hydrological Services (NMHSs) and partners to formulate consensus climate outlook for the September to December 2008 rainfall season over the Greater

Horn of Africa (GHA).

The forum reviewed the state of the global climate system and its implications on the seasonal climate of the sub-region. Among the principal factors taken into account were the observed and predicted SSTs in the tropical Pacific Ocean and over much of the tropical Atlantic and Indian Oceans. Users from Agriculture and food security, disaster management, health, livestock, water resources and media among other sectors were active participants in the forum. The users formulated the potential implications of the [outlook for the September to December 2008 season](#) and developed mitigation strategies for the respective countries and sectors. The forum was supported by the USAID/OFDA funded project "Climate Prediction and Applications for Disaster Risk Reduction in the Greater Horn of Africa (GHA)", which is being coordinated by the World Meteorological Organization (WMO).

23rd Greater Horn of Africa Climate Outlook Forum (GHACOF 23), 25-27 February 2009, Mombasa, Kenya

The IGAD Climate Prediction and Applications Centre (ICPAC) in collaboration with other partners are organizing the Twenty Third Greater Horn of Africa Climate Outlook Forum (GHACOF 23) to be held within the framework of the USAID/OFDA supported project on "Climate Prediction and Applications for Disaster Risk Reduction in the Greater Horn of Africa (GHA)" that is coordinated by the World Meteorological Organization (WMO). The forum will bring together climate scientists involved in seasonal climate prediction, the user community and decision-makers. Due to the prevailing climate challenges in the Greater Horn of Africa (GHA) region, the theme of the forum will be "The role of seasonal climate prediction in integrated disaster risk management for sustainable development in GHA". The main objectives of the forum are to develop regional consensus climate outlook for the March to May 2009 rainfall season and to formulate mitigation strategies for various sectors. In addition, the forum will review experiences and lessons learned



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from the use of the consensus outlook provided at the Twenty Second Greater Horn of Africa Climate Outlook Forum (GHACOF22) held in Nairobi, Kenya from 28 to 29 August 2008. Participants will include climate scientists from the National Meteorological and Hydrological Services (NMHSs) within the Greater Horn of Africa (GHA), universities, research institutions as well as regional and international organizations engaged in climate modeling, prediction and applications. Users of climate information from various socio-economic sectors such as Agriculture, Livestock, Food security, Water resources, Hydropower generation, Health, Conflict early warning and Disaster management as well as various regional, intergovernmental, Non-Governmental organizations and development partners are also expected to attend the forum. Participating organizations are expected to sponsor their nominees. However, needy participants may requests for consideration in case we get some resources from our development partners. Those interested in attending the forum are kindly requested to fill the appended registration form and return it to ICPAC as soon as possible.

1st UK Open Source GIS Conference in 2009, 22 June 2009, University of Nottingham, UK

The Centre for Geospatial Science of University of Nottingham, Open Source Geospatial Foundation (UK Chapter), ICA Working Group on Open Source Geospatial Technologies, SOSoRNET and Open Knowledge Foundation are organizing the First Open Source GIS UK Conference on 22 June, 2009 at the University of Nottingham. The conference has very much international focus and holistic outlook bringing together speakers and delegates from government, academic, industry, software developers, open source communities, geospatial researchers, etc. High profile speakers from USA, Canada and all across EU will be giving presentations and hands on workshops for the conference. The key aims of this conference are:

- 1) Hear presentations from government, academic, industry and policy makers on open source geospatial technologies;
- 2) Provide platform to network and develop ideas for future collaborative work in open source GIS; and
- 3) Understand the current developments in open source GIS.

Contributions are invited but are not limited to the following topic areas:

- State of the Art developments in Open Source GIS;
- Open Source GIS in Education;
- Interoperability and standards - OGC, ISO/TC 211;
- Open Source GIS application use cases : Government, Participatory GIS, Location based services, Health, Energy, Water, Climate change etc;
- Web processing services;
- Open architectures, open content;
- Case studies of open source implementations;
- Open Source GIS internationalization and localization;
- Using Open Source GIS with proprietary software;
- Transition to Open Source GIS;
- Open Source GIS business models;
- Open Source GIS implementation and deployment case studies;
- Sensor Web enablement; and
- Hands-on workshops on using and developing open source GIS tools.

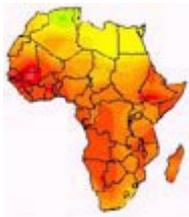
Abstracts (max 500 words) submission deadline: 15 February 2009. Final papers deadline: 15 May 2009 and OSGEO UK Live Software demo deadline: 30 April 2009. Open source software demos to Suchith.Anand@nottingham.ac.uk.

GI Forum 2009 - Call for papers, July 7-10, 2009, Salzburg, Austria

The Geoinformatics Forum Salzburg (GI_Forum) is scheduled for July 7-10, 2009, at Salzburg University, Austria. This [Call for Papers](#) aims at researchers who design, develop and apply advanced methods and techniques of Geoinformatics to a broad range of application domains. We solicit papers on emerging and established topics and research outcomes related to Geoinformatics methodology. By no means exhaustive, the list of symposium topics includes advanced geospatial data acquisition; advanced spatial analysis and knowledge extraction; advanced visualisation and cartography, geontologies; distributed and mobile services; and dynamic modelling and simulation.

GI_Forum 2009 would also like to attract contributions pertaining to these specific topics:

- Digital Cities
- Sustainable Environments



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- Global Monitoring - Observing, Understanding and Visualizing Planet Earth
- Learning with Geoinformation

GI_Forum 2009 gives authors choices about the type of submission they want to make in order to accommodate a variety of interdisciplinary contributions. Deadline for submission of full papers for oral presentation and publication in the conference proceedings; and extended abstracts for discussion sessions: February 2, 2009. For more information: www.gi-forum.org.

Practical SDI implementation materials from within and outside of Africa

[Observing weather and climate from the ground up: a nationwide network of networks](#)

Detailed weather observations on local and regional levels are essential to a range of needs from forecasting tornadoes to making decisions that affect energy security, public health and safety, transportation, agriculture and all of our economic interests. As technological capabilities have become increasingly affordable, businesses, state and local governments, and individual weather enthusiasts have set up observing systems throughout the United States. However, because there is no national network tying many of these systems together, data collection methods are inconsistent and public accessibility is limited. This report identifies short-term and long-term goals for federal government sponsors and other public and private partners in establishing a coordinated nationwide “network of networks” of weather and climate observations. See [Report in brief](#) and [Executive summary](#).

[New and improved Data Licensing Best Practices Guide \(from Canada\)](#)

The Data Licensing Guide Working Group, on behalf of GeoConnections, has issued version two of [The Dissemination of Government Geographic Data-Best Practices Guide](#). This updated version of the Best Practices Guide enhances the initial version in several ways. First, it expands the types of licensing templates commonly used in Canada. As with the first version, you'll find licensing templates for the end-user model, the reseller model, and the value-added reseller model. But you now get an unrestricted-use model template as well.

Second, the new guide reflects the rapid development and technological advances in web-based services, distributed computing, and other user applications. In other words, the revised guide is more internet friendly and intuitive. It also accommodates changes in government data dissemination policy.

And finally, the new version offers standard legal clauses that allow you to customize your data-licensing agreements, should you want. These clauses deal with topics such as intellectual property rights, source protection and acknowledgment, fees, royalties, reporting, representations, warranties, and indemnities.

These additions make it easier for you to design solid agreements that reflect your special circumstances.

A Collaborative and Ongoing Process

Version 2 of the Guide was developed based on consultations with government departments and agencies involved in producing, using, and licensing government geographic data, as well as input from the Canadian geomatics industry.

In addition, the Working Group capitalized on input from Version 1 readers to refine the document. That's why you'll find a feedback form in the guide to propose changes to subsequent versions. With your help, the guide will remain a valuable information asset for the geospatial data-licensing community.

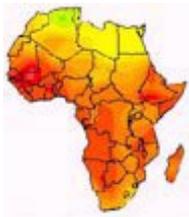
GIS Tools, Software, Data

[Available CBERS data from on-board data recorder](#)

As a complement to plans underway for direct downlink of CBERS data to ground stations in Africa, Brazilian National Institute for Space Research (INPE) also is collecting images using the on-board data recorder. These images are available free of charge from INPE's Remote Sensing Data Centre:

- (1) Go to [website](#) and choose the English menu;
- (2) Read instructions on how to obtain data;
- (3) Select CBERS-2B and CCD sensor at the top menu;
- (4) Use the "Navigate" option (bottom menu), chose a place in Africa (e.g, Lat= -10, Long= 25), and see the images available (i.e., blue stars in graphic to the left).

INPE plans to continue collecting data for Africa as much as possible and make it available. [Source: [SERVIR-Africa community resource registry](#)]

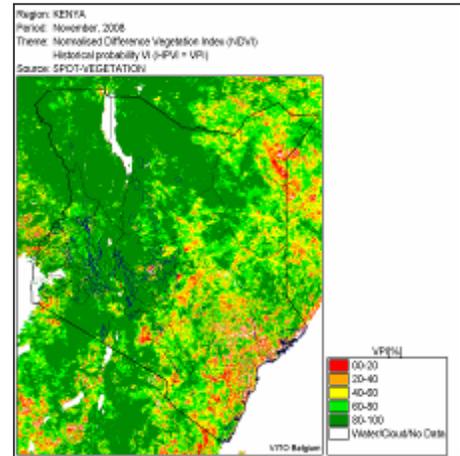


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[ENDELEO project distributes the indicators derived from SPOT-VGT imagery](#)

The ENDELEO project distributes remote sensing data and derived products, specifically geared towards Kenyan end-users, but based on already existing programs, executed by VITO, that process these datasets and disseminate the data to other end-users. For the indicators distributed, the projects are MARSOP (<http://www.marsop.info/>), GMFS (<http://www.gmfs.info/>). The data is derived from the SPOT-VEGETATION (VGT) and the Terra-MODIS (MODIS) sensors. Indicators derived from VGT imagery are also distributed through the project VGT4Africa (<http://www.vgt4africa.org/>). VGT4Africa is a data dissemination system that makes use of the technology of the PUMA stations. VGT4Africa has an agreement with MARS-FOOD (MARSOP) and ESA (GMFS) to distribute these same indicators, calculated on VGT imagery, in near real time to African end-users. In addition, other indicators, like LAI, fCover and albedo, originating from other research projects are also distributed.



This system, which is potentially interesting for the ENDELEO users for data access works as follows: Each 10 days (decadal), a new set of products is produced. These products are placed on the web-site and on the ftp-site of the ENDELEO-project. If you [register](#), you will be notified through e-mail on the availability of the product registered. This e-mail also contains a quicklook of the concerning image. Image downloads from the FTP-site are available for [registered](#) users. Any further information: else.swinnen@vito.be.

[GIS Maps of Africa - Arcview Shapefile & MapInfo Format](#)

[Africa](#) - Mapinfo and Arcview GIS data of boundaries, hydrology, cities, population and more.

- [Arid Africa](#) - Atlas of Cultural and Environmental.
- [Nambia](#) - digital atlas in shapefile format.
- [Swaziland](#) - Geographic information is important for managing and planning emergency preparedness and response, as well as various other challenges facing societies in southern Africa. The SAHIMS GIS Data server offers easily accessible standardized data provided by various United Nations, non-governmental organizations and government bodies. Datasets in this catalogue are downloadable free. It can be viewed and manipulated by using the most popular GIS software such as ArcView, ArcGIS or MapInfo. Metadata is attached to help the user have a better understanding of data resources, applications and copywrites. Several related South African GIS websites include [Tanzania](#), [Namibia](#) and [Zambia](#).
- [Lesotho](#) - WFP and the DMA surveyed 1,520 villages in the Southern lowlands and Senqu River Valley areas of Lesotho in 2005. The survey found that 39,000 households were considered to be vulnerable to hunger and poverty, representing approximately 195,000 people. Constituency GIS data was produced during this exercise and can be downloaded for free from SAHIMS together with the metadata.

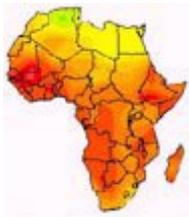
[OpenStreetMap Africa Shapefiles](#)

At the [CloudMade downloads](#) site, you can find extracts of maps from different countries of Africa and download:

- OSM XML extracts by country
- Garmin Map Files (OSM.err edition)
- Osmosis country bounding polygon
- Shapefile extracts by country
- Navit maps by country
- GPX POI by country
- TomTom POI by country
- OSM XML feature extracts by country



Weekly exports of OpenStreetMap Africa as shapefiles (and Garmin) are now available. Good coverage in South Africa, Nambia, Malawi, Uganda and Democratic Republic Congo (DRC) especially for Kinshasa. Improving coverage in Zimbabwe (especially Harare), Morocco, Algeria, Egypt and Sudan. All of the files at downloads.cloudmade.com are based on data from [OpenStreetMap](#) and are licensed under the terms of the Creative Commons Attribution Share-Alike 2.0 license. If you use these files please make sure you attribute the OpenStreetMap community by including a link to www.openstreetmap.org. If you alter, transform, or build



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upon this work, you may distribute the resulting work only under the same or similar license to this one. You can find out more about Creative Commons licenses [here](#). [Source: OSGeo-Africa list]

[Tele Atlas and CADTECH deliver first navigable digital maps of Morocco](#)

Tele Atlas, a leading global provider of digital maps and dynamic content for navigation and location based solutions (LBS), and CADTECH, a Moroccan company specializing in geographical information systems and geolocalization applications, announced the availability of the first fully navigable digital databases of Morocco for personal navigation, wireless, Internet, automotive and enterprise navigation solutions companies worldwide. The maps, which enable navigation both within the country and from any point between Europe and Morocco, feature street-level coverage for Casablanca Fez, Marrakesh, Rabat and Tangier as well as the entire road and highway network for the country.

[Global accessibility map \(travel-time map\) available from JRC/World Bank](#)

A new global map released in December 2008 by the Joint Research Centre and published in the World Bank's World Development Report 2009 measures urbanisation in the new perspective of Travel Time to 8,500 Major Cities. The map fills an important gap in our understanding of economic, physical and even social connectivity.

In the absence of agreement on the meaning of "urbanisation", the European Commission and the World Bank are proposing a new definition based on a unique mapping of "Accessibility" called the Agglomeration Index. In this context, the new map, developed at the JRC's Institute for Environment and Sustainability (IES), uses travel-time as a unit of measurement, representing accessibility through the easily understood concept of "how long will it take to get there?" Accessibility links people with places, goods with markets and communities to vital services. Accessibility - whether it is to markets, schools, hospitals or water - is a precondition for the satisfaction of almost any economic need. Furthermore, accessibility is relevant at all levels, from local development to global trade. For [map & poster online](#) and [EC Press Release](#). [Source: [SERVIR-Africa community blog](#)]

Geospatial Research, Applications, Reference Material

[Seminar on Earth Observation for Improving Water Management in Africa](#)

In September 2008, a successful seminar was held on Earth Observation for Improving Water Management in Africa with 25 mainly African scientists. [Download](#) all presentations, abstracts and the full report.

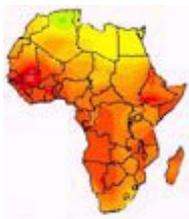
[Information key to climate change adaptation, say small farmers](#)



One of the first studies to explore what persuades small farmers to adapt to climate change has found that access to information and technical institutions are the most important factors. A survey of 1,000 Ethiopian cereal crop farmers, carried out by the International Food Policy Research Institute (IFPRI) in the Nile River basin, Ethiopia, found that poor access to technology and weak informal networks are also hampering farmers' ability to adapt. The [results](#) were presented at a conference entitled 'How can African agriculture adapt to climate change? Results and Conclusions for Ethiopia and Beyond' held in Nazareth, 11-13 December 2008. See: [Analyzing the Determinants of Farmers' Choice of Adaptation Methods and Perceptions of Climate Change in the Nile Basin of Ethiopia](#)

This study identifies the major methods used by farmers to adapt to climate change in the Nile Basin of Ethiopia, the factors that affect their choice of method, and the barriers to adaptation. The methods identified include use of different crop varieties, tree planting, soil conservation, early and late planting, and irrigation. Results from the discrete choice model employed indicate that the level of education, gender, age, and wealth of the head of household; access to extension and credit; information on climate, social capital, agroecological settings, and temperature all influence farmers' choices. The main barriers include lack of information on adaptation methods and financial constraints. Moreover, the analysis reveals that age of the household head, wealth, information on climate change, social capital, and agroecological settings have significant effects on farmers' perceptions of climate change. See also:

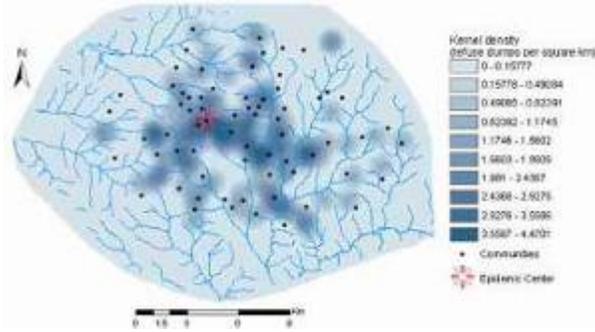
- [How can African Agriculture Adapt to Climate Change?: Insights from Ethiopia and South Africa](#)
- [The Impact of Climate Change and Adaptation on Food Production in Low-Income Countries](#)
- [The Impact of Climate Variability and Climate Change on Water and Food Outcomes](#)
- [Measuring Ethiopian Farmers' Vulnerability to Climate Change Across Regional States](#)
- [Vulnerability and the Impact of Climate Change in South Africa's Limpopo River Basin](#)



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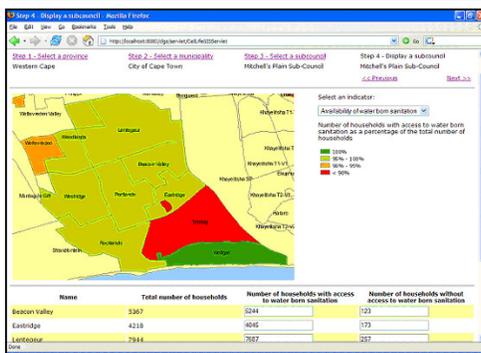
Spatial dependency of V. cholera prevalence on open space refuse dumps in Kumasi, Ghana: a spatial statistical modeling



A spatial statistical modelling carried out to determine the spatial dependency of cholera prevalence on refuse dumps show that, there is a direct spatial relationship between cholera prevalence and density of refuse dumps, and an inverse spatial relationship between cholera prevalence and distance to refuse dumps. A spatial scan statistics also identified four significant spatial clusters of cholera; a primary cluster with greater than expected cholera prevalence, and three secondary clusters with lower than expected cholera prevalence. A GIS based buffer analysis and a quantitative assessment of distance discrimination of the buffer

zones around refuse dumps show that the optimum spatial discrimination of cholera occurs at 500m from refuse dumps. This indicates that the minimum distance within which refuse dumps should not be sited within community centres is 500m. In conclusion, the results suggest that proximity and density of open space refuse dumps play a contributory role in cholera infection in Kumasi. [Source: *International Journal of Health Geographics* 7:62 (2008)]

Open source GIS for HIV/AIDS management

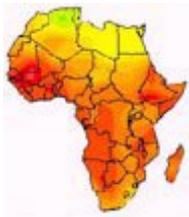


The design and development of a prototype system illustrated that it is possible to develop an open source GIS system that can be used within the context of local information management. Usability tests show a high degree of usability for the system, which is important considering the heavy workload and high staff turnover that characterizes local government in South Africa. Local infrastructure management stakeholders interviewed in a case study of a South African municipality see the potential for the use of GIS as a communication tool and are generally positive about the use of GIS for these purposes. They note security issues that may arise through the sharing of information, lack of skills and resource constraints as the major barriers to adoption.

In conclusion, the case study shows that spatial information is an identified need at local level. Open source GIS software can be used to develop a system to provide local-level stakeholders with spatial information. However, the suitability of the technology is only a part of the system – there are wider information and management issues which need to be addressed before the implementation of a local-level GIS for infrastructure management can be successful. [Source: *International Journal of Health Geographics* 7:53 (2008)]

Hybrid classification of Landsat data and GIS for land use/cover change analysis of the Bindura district, Zimbabwe

Rapid land use/cover changes have taken place in many parts of Zimbabwe, including the Bindura district, mainly due to unequal land distribution during the colonial period, demographic pressure, agricultural expansion, government policies and environmental factors such as drought. This study monitored and analysed land use/cover changes in the Bindura district using Landsat data for 1973, 1989 and 2000 and discussed socioeconomic backgrounds for changes. A hybrid supervised/unsupervised classification approach coupled with geographical information systems (GIS) analyses was employed to generate land use/cover maps with six classes; agriculture, woodland, mixed rangeland, settlement, bare land and water. A post-classification comparison change detection technique revealed different trends in land use/cover changes over the two periods (1973-1989 and 1989-2000). During the colonial and pre-economic structural adjustment program (ESAP) independent period (1973-1989), the rates of agriculture and bare land changes were greater in the communal areas (CAs) than in the large-scale commercial farms (LSCF), with 'woodland to agriculture' and 'mixed rangeland to agriculture' conversions dominating. In contrast, land use/cover changes in the LSCF increased more than the CAs during the post-ESAP independent period (1989-2000),



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as 'woodland to agriculture', 'mixed rangeland to agriculture' and 'woodland to mixed rangeland' conversions dominated. The major land use/cover changes in the study area as derived from Landsat data are mainly due to the dynamic nature of agriculture practice such as extension of crop fields on one hand and the abandonment of croplands on the other hand, with additional factors such as wildfires and droughts. Observed trends in land use/cover changes indicate that deforestation and the encroachment of cultivation in woodland areas is a continuous trend in all the land tenure systems. Our results, therefore, suggest that an efficient and sustainable land use plan is required to reduce the rapid land use/cover changes, particularly the loss of woodland areas. [Source: *International Journal of Remote Sensing* 30(1): 97-115 (2008), not an open access journal]

[Rapid Assessment of Land Use Change in and around Protected Areas \(RALUCIAPA\) featured on Google Earth Outreach Gallery](#)

The Rapid Assessment of Land Use Change in and around Protected Areas (RALUCIAPA) is a collaborative endeavor between KCL and UNEP-WCMC (the United Nations Environment Programme World Conservation Monitoring Centre). It is a tool to assist in conservation monitoring and prioritization, and shows protected areas in green. In red it shows areas deforested between 2000 (when most of the NASA imagery used in Google Earth/Maps was taken) and 2005, based on the MODIS VCF data. RALUCIAPA works best for large scale forest loss in areas of previously full forest cover (especially tropical forests) - it does not work so well in scrubland or in human dominated landscapes outside the tropics. It shows clearly the value of protected areas in preventing large scale forest loss but also where protected areas may be under threat. The Earth and Earth-Plugin versions also provide a great deal of information on protected areas from the World Database on Protected Areas (2007, web download): particularly outlines, names and characteristics. In the next version, with the launch of the new UNEP-WCMC IUCN WCPA [World Database on Protected Areas](#), there will be links to tiled downloadable GIS data. Publish it in Earth (all layers), Earth Plugin (all layers), Maps (some layers) and also VE (some layers): http://earth.google.com/outreach/env_science.html.

[Call for Papers: International Journal of Remote Sensing - Special Issue on "Population Estimation Using Remote Sensing and GIS Technologies"](#)

The estimation (projection) of population in an inter-censal year is essential, in particularly in rapid growth areas, for public and private section planning. Traditionally, population in a non-censal year is estimated through demographic approaches, such as the housing unit method. Recent developments in remote sensing, GIS, and spatial analytical techniques, however, have demonstrated the potential of improving the accuracy of population estimation. This special issue of *International Journal of Remote Sensing* (IJRS) invites submissions of original research contributions that focus on recent developments in population estimation using innovative remote sensing and GIS technologies. Contributions may be theoretical, methodological, or applied in nature. Potential research topics for population estimation include, but are not limited to, the following:

- Medium and High spatial resolution remote sensing technologies
- LiDAR remote sensing technologies
- Hyperspectral remote sensing technologies
- Integration of GIS and/or remote sensing
- Spectral and spatial analytical technologies

Guest editors contact: Dr. Le Wang, lewang@buffalo.edu, and Dr. Changshan Wu, cswu@uwm.edu. Submission deadline: 31 May 2009, Editors decision: 30 September 2009 and submission of final version: 30 November 2009.

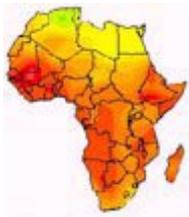
[Journal of Maps special issue: Cognitive Mapping and Participatory Research](#)

Contributions are invited to a special edition of the *Journal of Maps* devoted to cognitive (mental) maps and their application. The broad theme is participatory mapping and more specifically:

- How cognitive maps have developed as a research method;
- Application areas of cognitive maps;
- Wider development of participatory mapping.

This may incorporate or develop the following issues within the presentation of the accompanying map:

- Measurement issues for assessing cognitive maps (e.g. "accuracy")
- Techniques for collecting cognitive maps;
- Role of new technologies (GPS, tablet PCs, PDAs, Google Maps etc);



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- Cognitive maps of local environments vs global;
- Cognitive mapping in virtual or simulated or cyberspace environments;
- Differences in spatial cognition (age, gender, disability, socio-economic, access to maps etc.);
- Empowerment through participatory mapping;
- Online vs offline ("on the ground") participatory mapping;
- Participatory mapping generating change

The [Journal of Maps](#) is an open-access electronic journal that aims to provide a forum for researchers to publish maps and spatial diagrams. It provides a unique outlet for graphical material that may otherwise be expensive or difficult to publish in a conventional paper-based journal. Submit a short draft (500 word limit) outlining the key themes and scope of the paper by 30 February 2009, a completed paper (2500 word limit) by 31 May 2009. The special edition will be published in January 2010. Contact: Dan Jacobson at dan.jacobson@ucalgary.ca.

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.

[2nd Toponymy training course for Eastern Africa](#), to be organised prior to the [25th United Nations Group of Experts on Geographical Names \(UNGEGN\)](#) session in Nairobi, will be held May 5-12, 2009. Contact: toponymy@geo.uu.nl.

[4th Munich Re Foundation Summer Academy on Social Vulnerability - Tipping Points in Humanitarian Crises](#), Hohenkammer Castle, outside Munich, Germany, 26 July - 1 August 2009

As in the previous years, around 20 international PhD candidates will get the opportunity to take part in the academy to present and discuss their research on social vulnerability with senior scientists and experts. Most participants are expected to be PhD students with an interdisciplinary focus who are working on dissertations related to environment, social vulnerability, disaster risk reduction, resilience and institutional management and change, ideally in their second or third year. However, a few places will be reserved for practitioners who wish to take a step back from their operational work to engage with young researchers on this strategic issue. Participants are expected to cover their travel. Accommodation and meals during the academy will be generously sponsored by the Munich Re Foundation. There are only limited funds available for travel support for applicants from developing countries. Applications (see [call for applications](#)) submitted online, are accepted until 15 January 2009.

[Grants for Geospatial Technologies Masters Program - Call for Application \(Study Program 2009-2011\)](#)

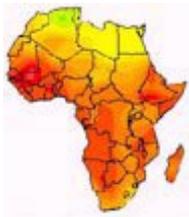
Full grants (more than Euro 35000 each) are available for non-Europeans to study in the MSc. in Geospatial Technologies. The European Commission will provide

- 17 scholarships for non-EU students and
- 3-4 scholarships for non-EU scholars (visiting teachers, post-graduates or PhD).

Scholarships for non-EU students and scholars target "third country applicants" (meaning other nationalities than from the EU Member states, EEA-EFTA states and candidate countries for accession to the EU). Students may NOT apply for more than 3 Erasmus Mundus Masters Programs at a time. Please also find the [Mundus Flyer 2008](#) as well as [application form](#).

First you have to register as a student or scholar applying for an Erasmus Mundus grant. Deadline for applications (including proof of English language test results): 15 January 2009.

[UNU International Courses](#), 11 May -19 June 2009, Tokyo, Japan



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The UNU International Courses (UNU/IC) are organized annually for a select group of postgraduate students and professionals in various occupations (with a college or university degree) in Japan and abroad who wish to pursue careers in international fields in public-service or private organizations, including the United Nations, multinational corporations and non-governmental organizations, as well as national foreign service organizations. The courses are designed to provide analyses of global issues from both theoretical and empirical perspectives.

Core Course:

- UN System: Pressing Issues and Sustainable Solutions

Optional Courses:

- Peace and Human Rights
- Global Change and Sustainability
- International Development and Cooperation

Participants from developing countries who take two courses and can demonstrate a need for financial assistance are invited to apply for a limited number of UNU fellowships. Deadline: 31 January 2009.

[Distance Learning Programme in GIS, University of South Africa](#)

Explore Geographical Information Systems (GIS), through 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 distance education, but you need to attend a 5 day workshop (probably in Pretoria) for module 2. The course is targeted at individuals who have an interest in spatial data and employees of institutions that deal with and need spatial information in their daily activities. In particular, individuals credited with this course are able to think geographically, apply methods of spatial enquiry and use a Geographical Information System (GIS) as a tool for solving spatial problems and making informed decisions in the real-world based on viewing, querying, analysing and communicating spatial data. One can complete both modules in six months. You can register in either the first or the second semester. 1st registration period: January 2009; 2nd registration period: June 2009. Contact: steenhe@unisa.ac.za.



[Technician diploma \(18 months\) and Technologist diploma \(18 months\)](#), both run in English and French and starting first Monday in March 2009, Ile-Ife, Nigeria

[Short-courses offered by RECTAS in 2008/2009](#), 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.

[Southern and East African Mineral Centre \(SEAMIC\) 2009 courses](#), [Geoinformation Department](#), Dar Es Salaam, Tanzania. The Geo-information department's main function is to promote the standardisation of all geo-science information available in the sub-region and its conversion into an accessible format for dissemination, with a view to improving accessibility to geo-science data to the public. Mr. Mesfin W. Gebremichael, mesfin@seamic.org, seamic@seamic.org.

- January 19-30, 2009: Web Mapping
- February 16-27, 2009: Geological Map Making Using GIS
- March 16-20, 2009: GIS Database Development
- April 27-May 8, 2009: Principles and Applications of Remote Sensing
- May 18-29, 2009: GIS Principles and Applications
- June 8-19, 2009: Geophysical and Geochemical Data Processing

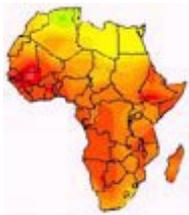


[GIMS course schedule for December 2008 and January 2009](#) - GIMS is an ESRI accredited learning centre servicing Southern Africa.



[Introduction to ArcGIS Server Mobile ADF](#), 27 February 2009, 09:00 – 11:00am. Midrand, South Africa

Hosted by GIMS, this seminar will provide an Introduction to ArcGIS Server Mobile ADF, also known as ArcGIS Mobile, specifically looking at the out-of-the-box functionalities and additional customisation options.



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[L'École 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 V \(2008/2009\) : 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.

[Upcoming ITC distance education courses](#)



- Principles of Databases, starting 9 February 2009 (6 weeks). Registration deadline: [January 19, 2009](#).
- Principles of Remote Sensing, starting 18 May 2009 (6 weeks). Registration deadline: [April 20, 2009](#).
- Environmental Impact Assessment and Strategic Environmental Assessment with spatial decision support tools, starting 8 June 2009 (6 weeks). Registration deadline: [May 11, 2009](#).
- [Hyperspectral Remote Sensing](#). Registration deadline: [19 January 2009](#).

[Upcoming ITC certificate courses](#)

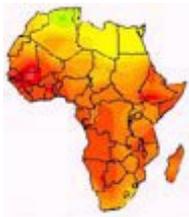
- [Advanced Earth Observation and Quantified Modelling in Applied Earth Sciences](#) starting 9 March 2009. Registration deadline: [1 February 2009](#).
- [Land Policy and Supporting Information Infrastructures](#) starting on 9 Mar 2009. Registration deadline: [1 February 2009](#).
- [Spatial Interventions in Urban Planning and Management](#) starting on 9 Mar 2009. Registration deadline: [1 February 2009](#).
- [Digital Photogrammetry and Remote Sensing](#) starting on 20 April 2009. Registration deadline: [15 March 2009](#).
- [GIS Operations](#) starting on 20 April 2009. Registration deadline: [15 March 2009](#).
- [Cartography and Geo-Visualisation](#) starting on 20 April 2009. Registration deadline: [15 March 2009](#).

[ESRI Online Class for Working with CAD Data in ArcGIS Desktop](#), January 21–23, 2009, from 8:30 a.m. to 11:30 a.m. (Pacific standard time)

A new class from ESRI will teach geographic information system (GIS) professionals the fundamentals of using computer-aided design (CAD) data in ArcGIS Desktop. CAD files, which range from simple 2D drawings to sophisticated 3D models, can be first-rate sources for geographic information system (GIS) content. Students will learn the concepts of how CAD data can be integrated within ArcGIS, the methods and best practices for working with native CAD data in ArcGIS, and how to convert CAD data to GIS data. They also will be taught options available in ArcGIS Desktop for converting GIS data to CAD formats. This course is designed for experienced ArcGIS users who need to integrate CAD data within ArcGIS. Experienced CAD users who have basic ArcGIS skills will also find the course beneficial. Students should have completed the course ArcGIS Desktop II: Tools and Functionality or Learning ArcGIS Desktop or have equivalent knowledge. For more information, visit [ESRI Virtual Classroom](#). Price: \$575.00.

[ESRI Online Seminar - Introduction to ArcGIS API for Flex](#), January 29, 2009 (12 PM, 2 PM, & 6 PM - New York time).

ESRI live training seminars are designed for those who want GIS training on a focused topic presented live by an ESRI technical expert. The Live Training Seminars are free - no purchase is necessary. If you miss the live training seminar, typically ESRI records the seminars, so you can [download](#) and view it at a later time, at your convenience.



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Funding Opportunities, Awards, Support

[UNGEEN Toponymy Contest 2009 – Africa](#)

On the occasion of the [25th United Nations Group of Experts on Geographical Names \(UNGEEN\) Session](#), the first to be held in Africa, a contest has been organized for African countries, to promote awareness of the importance of geographical names, the role they play in our relationship with the environment and in our spatial understanding. Geographical names form an essential component of a nation's geospatial data infrastructure, but will only function well if the written forms have been standardized, and that is what [UNGEEN](#) promotes. The contest is to write an essay or poem about a particular geographical name or group of names (also referred to as toponyms or sometimes place names - names of settlements, rivers, mountains, areas, etc). For example, how the geographical feature got its name, what special relationship the author or his/her family has with the named feature, any specific problems in finding or collecting the name, the influence of the specific toponym on the author's life, the impact of a name change, or specific issues when a place has different names. The contest is open to citizens of all African countries, who are interested in toponymy, either from the viewpoint of preservation of cultural heritage, map production, working with GIS, or other endeavours related to toponymy. The materials have to be submitted digitally to the UNGEEN Secretariat in New York on or before [1 February 2009](#). Contact: UNGEEN Secretariat, zewoldi@un.org.

[Compton Foundation/PRB International Fellowship in Population, Environment, and Human Security](#)

The Compton Foundation/ Population Reference Bureau Fellowship provides highly motivated individuals with a unique opportunity through internships and dissertation research to examine the interactions linking population dynamics/family planning/reproductive health with environmental and/or human security issues. PRB is accepting applications from citizens of developing countries who are from sub-Saharan Africa and Latin America, currently enrolled full-time in Master's or Ph.D. programs in academic institutions in the U.S. or Canada, and who plan to return to their home countries upon completion of their studies. Candidates accepted into the Fellowship will receive a generous one-year grant to help them carry out field work. Deadline: [January 23, 2009](#).

[World Bank Summer Internship Program](#)

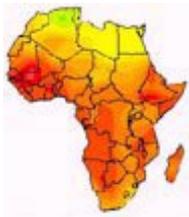
The Internship Program is open to students who are nationals of the Bank's member countries and attracts a large number of highly qualified candidates. The goal of this Internship Program is to offer successful candidates an opportunity to improve their skills as well as the experience of working in an international environment. Interns generally find the experience to be rewarding and interesting. To be eligible for the Internship Program, candidates must possess an undergraduate degree and already be enrolled in a full-time graduate study program (pursuing a Master's degree or PhD with plans to return to school in a full-time capacity). Deadline for Summer Internship (June-September): [January 31, 2009](#). For the Winter Internship (December-March), the deadline is October 31.

[Sustainable Tropical Forestry Erasmus Mundus Masters Course Scholarships](#)

The European Union provides Sustainable Tropical Forestry Erasmus Mundus Masters Course Scholarships to students from outside the European Union. This two-year Master's Course in Sustainable Tropical Forestry (SUTROFOR) is a top-level programme aimed at preparing qualified graduates to deal with contemporary tropical forestry. It provides students with direct access to the best tropical forestry teaching in Europe. The programme is offered by a five university consortium from Denmark, France, Germany, Italy and Wales. Students applying for a scholarship must submit their application no later than [16 January 2009](#).

[IDRC Doctoral Research Awards](#)

Applications will be accepted for research at the doctoral level in areas corresponding to IDRC's research priorities. IDRC's research activities focus on four program areas: 1) Social and Economic Policy, 2) Environment and Natural Resource Management, 3) Information and Communication Technologies (ICTs) for Development, and 4) Innovation, Policy and Science. Applicants must hold Canadian citizenship or permanent residency status in Canada, or hold a citizenship of a developing country and be enrolled in a doctoral program at a Canadian university. Deadline: [April 1, 2009](#).



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Flemish Interuniversity Council (VLIR) Scholarships

VLIR finances [International Courses \(ICPs\)](#), organised by the Flemish universities. These courses are Master programmes, taking up one or two academic years, all of which lead to a Masters degree (except one). These courses focus on specific problems of developing countries. The main target group for the courses are students from developing countries, although the courses can also be attended by Belgian students or students from other countries. VLIR also finances International Training Programmes (ITPs) organised by Flemish universities and one non-university institution for higher education. ITPs are short-term training programmes whose main focus is transferring skills rather than knowledge. The International Training Programmes are designed for people from developing countries with a certain professional experience. Knowledge and skills are transferred through the ITPs, and the possibility for cooperation and networking created. See [2009-2010 courses](#). Deadline: February 1, 2009. Contact: scholarships@vlir.be.

Le Programme Bourses 2009-2010 du CIUF

Dans le cadre du [programme des cours et stages internationaux 2009-2010](#), le Conseil interuniversitaire de la Communauté française (CIUF) accorde 150 bourses d'études et 70 bourses de stage. Des bourses de stages et cours sont ouverts à la candidature par le Conseil interuniversitaire de la Communauté française de Belgique Commission universitaire pour le Développement (CUD). Soit originaire d'un pays en développement, conformément à la liste établie par l'OCDE. Pour être éligibles, les candidats doivent résider et travailler dans leur pays au moment de l'introduction du dossier. Priorité sera accordée aux ressortissants des pays suivants : Afrique du Sud, Algérie, Bangladesh, Bénin, Bolivie, Brésil, Burkina Faso, Burundi, Cambodge, Cameroun, Chine, Colombie, Côte d'Ivoire, Cuba, Equateur, Ethiopie, Guatemala, Guinée, Haïti, Inde, Indonésie, Kenya, Madagascar, Mali, Maroc, Mozambique, Nicaragua, Niger, Ouganda, Pérou, Philippines, RD Congo, Rwanda, Salvador, Sénégal, Tanzanie, Territoires Palestiniens, Vietnam, Zambie, Zimbabwe. Soit âgé de moins de 40 ans pour les cours, et de moins de 45 ans pour les stages, et ce au moment du début de la formation. Date limite: 13 février 2009 (23 janvier 2009 pour le [Stage en Système d'Information Géographique](#)). Le formulaire de demande de bourse sera soigneusement complété et envoyé à la CUD, uniquement par courrier postal ou courrier express.

[Stage en Système d'Information Géographique](#), du 12 avril 2009 au 12 août 2009 (4 mois). Il y a 14 bourses disponibles. Contact: M. Moritz Lennert, moritz.lennert@ulb.ac.be. Date limite: 23 janvier 2009.

<http://www.cud.be/content/view/339/208/lang/>

<http://www.cud.be/content/view/343/212/lang/>

Within the programme for international courses and training programmes 2009-2010, CIUF grants 150 scholarships for participation into the courses and 70 for participation into the training programmes.

UNESCO / Keizo Obuchi Fellowships

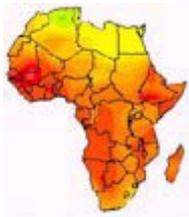
UNESCO invites young postgraduate researchers in developing countries with a master's degree (or equivalent) to apply for fellowships, each worth US\$6,000 to US\$10,000, through the UNESCO / Keizo Obuchi Research Fellowship Programme. The program offers a total of 20 fellowships to researchers active in one of four fields: the environment, inter-cultural dialogue, information and communication technology, and peaceful conflict resolution. Applications must reach UNESCO Headquarters in Paris before 9 January 2009. Researchers under 40 years of age may submit their applications to their country's National Commission for UNESCO (check with your UNESCO's country office), which will select a maximum of two candidates.

2009 Green Star Award



The [Green Star Award](#) is a collaborative initiative among the UN Environment Programme, UN Office for the Coordination of Humanitarian Affairs and the Green Cross International to recognize those who have made remarkable efforts to prevent, prepare for, and respond to environmental emergencies around the world. Selection of nominees and awardees will be based on demonstration of one or more of the following criteria:

- Marked improvement in performance based on lessons learned
- Innovative dissemination and communication of lessons learned, including the development of education and training courses based on these
- Development of sources of information on disasters which are readily available to key stakeholders



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- Willingness to provide assistance and efforts to support international response missions on environmental emergencies
- International capacity-building missions aimed at helping countries prepare for environmental emergencies
- Major improvements in internal capacity and preparedness to deal with environmental emergencies
- Dedication to respond to environmental emergencies in a professional, collaborative and transparent manner

Fill out an easy online [application form](#) to nominate yourself or someone else. Deadline: January 30, 2009.

Bourses d'études supérieures Russell E. Train Pour la République Démocratique du Congo et le Gabon Formulaire de candidature 2008 - 2009

Le programme EFN (Education pour la nature) est dédié à Russell E. Train, fondateur administrateur, ancien président, ancien président du Conseil d'administration et actuellement président émérite. Qu'il s'agisse du College of African Wildlife Management qu'il a créé en Tanzanie ou de son parrainage de nombreux promoteurs de la protection de la nature dans le monde, la carrière de M. Train représente le véritable esprit du programme Education for Nature. La date limite du dépôt des formulaires pour la bourse Russell E. Train est fixée au 28 Février 2009 le cachet de la poste faisant foi. Les formulaires de demande remplis devront être envoyés par courriel à Judith.Mashinya@wwfus.org. Par la poste à: EFN, World Wildlife Fund, 1250 Twenty-Fourth Street, NW, Washington, DC 20037, USA.

L'Agence Universitaire de la Francophonie - manifestations scientifiques

L'action d'appui de l'AUF aux manifestations scientifiques a pour finalité de promouvoir la science en français et d'apporter un soutien aux réseaux universitaires et scientifiques qui démultiplient la coopération universitaire francophone, contribuent à son rayonnement international et renforcent la solidarité et le partage des savoirs entre les établissements universitaires. Dans le cadre de cette mission spécifique, le soutien de l'AUF se traduit par un appui aux manifestations scientifiques en s'attachant prioritairement à promouvoir :

- la participation de scientifiques du Sud et de l'Est apportant une contribution à la manifestation (communication en français qui donnera lieu à une publication dans les Actes de la manifestation),
- l'édition et la diffusion des actes en français (de préférence sur support électronique, CD-Rom ou Internet),
- la promotion de la langue française dans des manifestations scientifiques multilingues (traduction, interprétariat, etc.).

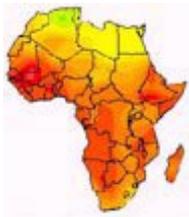
Le dossier doit être rempli et déposé, daté, signé et revêtu du cachet du représentant habilité de l'Université ou de l'organisme d'accueil de la manifestation, au plus tard trois mois avant le début de la manifestation au Bureau régional de l'AUF du lieu du déroulement de la manifestation.

Fellowships with Sustainability Science Program at Harvard University's Center for International Development

The Sustainability Science Program at Harvard University's Center for International Development invites applications for resident fellowships in sustainability science for the University's academic year beginning in September 2009. This year some preference will be given to applicants who address the challenges related to meeting human needs for water or food/agriculture/land use in the context of sustainable development. In addition to general funds available to support this fellowship offering, special funding for the Giorgio Ruffolo Fellowships in Sustainability Science is available to support citizens of Italy or developing countries who are therefore especially encouraged to apply. Deadline: January 15, 2009.

Commonwealth Shared Scholarship Scheme 2009

The Shared Scholarship Scheme is a joint initiative between the UK Department for International Development (DFID) and UK universities, to support scholarships for students from developing Commonwealth countries who would not otherwise be able to study in the United Kingdom. Awards are for taught postgraduate courses only. All candidates' home country and a list of the eligible courses at each institution is available in the [booklet](#) (pdf) for the 2009 Scheme. Individual universities will handle advertising and recruitment directly and applications should therefore be addressed to the participating university direct.



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[British Academy Visiting Fellowship 2008-2009](#)

The British Academy Visiting Fellowship scheme is intended to enable overseas postdoctoral academics to come to the UK for two to six months in order to carry out research in a British institution, in conjunction with a UK academic. A number of places are being reserved specifically for candidates from Africa. The scheme is open to application by any scholar from outside the UK. Applicants should normally have obtained a PhD after January 2003, or be able to demonstrate equivalent status. Application must be made in tandem with a UK-based academic sponsor whose home institution is willing to host the visit. The closing date for applications is 12 January 2009, for visits to take place after 1 May 2009. Results of the competition will be announced in late March 2009. Contact: vf@britac.ac.uk.

[Planning Grant Competition for the Africa-U.S. Higher Education Initiative](#)

[Higher Education for Development \(HED\)](#) has launched an open competition for 20 capacity-building partnership awards of \$50,000 each to be funded by the U.S. Agency for International Development (USAID). Applications must be received by February 2, 2009. The award competition is open to all types of U.S. higher education institutions to collaborate with African institutions. The Initiative supports improved instruction and problem-solving capacities of African higher education institutions, so they can address regional and national economic development priorities. These awards will increase the engagement of U.S. higher education institutions in Africa and support planning for long-term partnerships to strengthen the capacity of African higher education institutions. Focus areas include (1) agriculture, environment and natural resources, (2) health, (3) science and technology, (4) engineering, (5) education and teacher training/preparation, and (6) business, management and economics. Only institutions from the following African countries are eligible: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Cape Verde, Chad, Comoros, Congo, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao tome and Principe, Seychelles, Somalia, Senegal, Sierra Leone, South Africa, Sudan*, Swaziland, Tanzania, Togo, Uganda, and Zambia. See details about the Africa-U.S. Higher Education Initiative and the e-consultation can be found at www.africa-initiative.org. For clarification or questions regarding this RFA, contact program officer Dr. Teshome Y. Alemneh, talemneh@HEDprogram.org.

[The Ann Stroud Memorial Scholarship Fund](#)

The Ann Stroud Memorial Scholarship Fund is being established to support young African researchers in stepping beyond disciplinary boundaries or professional standards that limit the ability of research to serve rural African communities. The launch of the Fund is a bit closer to reality thanks to large donations recently made by her friends and family. Once a reasonable-sized endowment is established, applications will be solicited periodically from young African scientists interested in doing an MSc or PhD. One applicant will be selected whose topic best suits the requirements of the call-namely, impact-oriented research that is holistic in nature and linked to action. Further Scholarship Information: [The Ann Stroud Memorial Scholarship Fund](#) (pdf). No deadline.

[e8 Scholarship Programme](#)

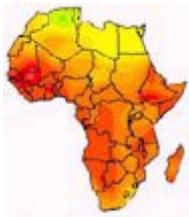
The purpose of the e8 scholarship is to support outstanding students pursuing advanced studies in sustainable energy development and to encourage meaningful contributions to the collective body of knowledge about this subject. Deadline for the Masters programme: 20 March 2009.

Employment Opportunities

[Land Use Officer](#), Inyonga-Mpanda, Tanzania

The Association for Development of Protected Area (ADAP) seeks to employ a land use Officer on contract/temporary terms.

- Holders of a Degree or Advanced Diploma in Land Use planning or related field
- Good knowledge of land use procedures and ability to oversee different stages of PLUM
- At least two years working experience
- Experience of working in rural settings and ability to communicate with rural communities
- Good command of writing and speaking English and Kiswahili languages



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- Honesty, disciplined and a self starter with interpersonal skills necessary to work in a multidisciplinary environment
 - Willingness to live in rural settings with limited infrastructure •Ability to understand pre-occupations and interests of different development
 - Support the conception of the management rules regarding natural resource management
 - Ability to understand pre-occupations and interests of different development actors such as programme beneficiaries, state agencies and hunting Companies.
- Contact: Programme Coordinator, ADAP. Deadline: 15 January 2009.

[Technical Adviser on Population and Economic Development, Population and Development Branch, UN Population Fund \(UNFPA\)](#), New York, NY, USA

Post-graduate University Degree or equivalent (preferably Ph. D.) in economics or in demography, statistics, population studies, or other related, with demonstrable experience in the economics of development and/or sectoral policies. Applicants should have:

- 10 years of increasingly responsible and relevant professional experience on linkages between population and economic development, of which seven years at the international level;
- An acknowledged expert and recognized authority in the technical area;
- Strong track record of technical leadership, publications, and proven ability to produce demonstrable results;
- Experience of linkages between population and economic development, including poverty and/or health economics, changing age structures, climate change, is essential;
- Experience in population related policy development and understanding of Direct Budget Support an asset;
- Understanding of economic modeling such as CGE an asset as well as Human Rights dimensions of Population and Development;
- Extensive network within the academic and development community;
- Fluency in English is required; however, working knowledge of another official UN language is desirable.

UNFPA has established an electronic application management system. Download the Step by Step Guide to Applying in the [E-Recruit System](#) of UNFPA. Deadline: 15 January 2009.

[Postdoctoral Scientist in Natural Resource Management in crop-livestock systems](#), ILRI's India with significant time spent in East Africa

[ILRI](#)'s People, Livestock and the Environment theme seeks to recruit a postdoctoral scientist to conduct research on natural resource management in intensifying crop livestock systems. This position will in particular contribute to research on livestock water and related natural resource management dimensions of crop livestock systems in the Indo Gangetic and in the Nile Basins. Specifically, the successful applicant will be expected: To lead the development of studies to investigate the application of livestock water productivity assessments at different levels of scale in the Indo Gangetic Basin; conduct studies on livestock water productivity in diverse farming systems in the IGB and in East Africa; participate in research aimed to assess trade offs in use of crop biomass in intensifying crop livestock systems; and contribute to studies evaluating the natural resource demands of livestock feed production scenarios in south Asia and East Africa

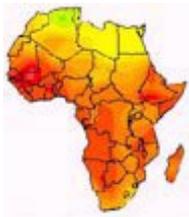
- A PhD degree obtained no more than 5 years ago in an aspect related to natural resource management.
- Proven success in livestock related field based research, especially livestock/water, and having experience in collection of primary data and survey design in developing countries.
- Demonstrated skills in quantitative and qualitative data analysis.
- Ability to work in multi-disciplinary and multi-cultural teams in developing country.
- Demonstrated ability to lead and manage technical teams at research sites.
- Good publications record with strong written and oral communication skills in English

Application submitted to the Human Resources Manager on: recruit-ilri@cgiar.org.

Deadline: 5 January 2009.

[Livestock-Environment Scientists](#), ILRI's West or East Africa, or South Asia

[ILRI](#)'s People, Livestock and Environment (PLE) research theme seeks applications from scientists with skills related to topical livestock-environment issues in developing countries. We encourage applications from early career researchers through to more experienced senior applicants. Scientists will be expected to lead or participate in research relevant to improving smallholder livelihood opportunities in a sustainable way, and



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the related environmental challenges in market led intensifying livestock systems. This research will play a crucial role in bringing environmental sustainability dimensions into livestock development and focus on intensifying crop-livestock systems in Africa, South and South-east Asia. Applicants should have a sound livestock research background, and the ability to engage with environmental research groups, as well as to contextualize research in relation to dynamic livelihood issues. Successful candidates will be expected to initiate, foster and maintain partnerships with diverse stakeholders, especially those concerned with livestock research. Successful applicants would be expected to join one of ILRI's research teams working on sustainable intensification of crop-livestock systems in West or East Africa, or South Asia with responsibilities for research in the other regions. Applicants should have a PhD in Livestock or Environmental Sciences (for postdoctoral level) with a minimum of three years experience (for scientist levels) in livestock research and development in developing countries. Applications should be submitted to the Human Resources Manager at: recruit-ilri@cgiar.org. Deadline: 5 January 2009.

Regional Coordinator, P-5, UNEP Division of Early Warning and Assessment, Nairobi, Kenya

At least 10 years of progressively responsible experience in fields associated with the post, of which 5 years should be at the international level and 2 years in a supervisory capacity. Demonstrated ability to supervise and direct multidisciplinary and multinational teams. Experience of results-based, client oriented project formulation, management and implementation. Proven track record of external resource mobilization and knowledge of global and regional environmental issues acquired through extensive work with both governmental and expert institutions in Africa. Knowledge of UN and UNEP would be an advantage. E-mail: Recruitment@unon.org. Deadline: January 13, 2009.

Senior Researcher/Principal Investigator, Malaria Control, Nairobi, Kenya

PSI Research & Metrics seeks a senior researcher/principal investigator to increase the use of population and market evidence in malaria control decision making at field and international levels using quantitative and qualitative research strategies relevant to intervention development, monitoring and evaluation. Specific methodologies and analyses for this position may include: behavioral studies, multivariate analysis, GIS, tracking surveys, mapping studies, multi-item scaling. Deadline: 24 January 2009.

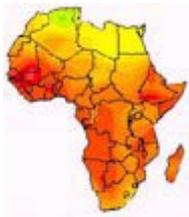
Geographic Information Officer, P-4, New York, NY, USA

Manage and provide cartographic and geographic information services in support of the decision-making and operational needs to the Secretariat as well as the Security Council dealing dynamically with the life cycle of geographic information development - from the initial information request to collection, analysis, compilation, presentation and dissemination of the geographic information to the substantive offices of the Secretariat and the Security Council; Manage the provision of cartographic and geographic information services to the Security Council; Produce country profile maps, peacekeeping force deployment maps, situation briefing maps, maps for UN publication, etc.; Provide clearance of all maps published under UN Secretariat and all UN agencies; Provide and maintain geographic information databases (geodatabase) including satellite imagery and gazetteers; Conduct international boundary related studies, maintain international boundary geodatabase and provide technical assistance on international boundary issues; Coordinate the access and sharing of geographic information with other departments and offices in the Secretariat, and UN agencies that play an active role in various United Nations operations; Develop cartographic and geographic information policies, standards and guidelines; Perform other functions as required. Deadline: January 12, 2009.

Other

African scientists gain access to developed earth systems

Earth system scientists in South Africa and the rest of Africa can now make use of the newly-launched Africa Centre for Climate and Earth System Science (ACCESS) to hone their talent and expand their skills. ACCESS is the soon-to-be 8th Centre of Excellence (CoE) funded by the National Research Foundation and hosted at the CSIR. The Centre was launched initially as a community network in 2007 to promote understanding of climate change in Africa and contribute to the global earth systems science. The centre is supported by advanced high speed computing facilities at the Centre for High Performance Computing (CHPC) and provides young South African scientists with a platform for development. ACCESS research will



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stimulate and implement a series of research projects that will focus on understanding the southern African (earth) system in order to reduce the uncertainties of regional climate change projection.

[Climate Monitoring - special challenges for remote sensing](#)

Monitoring climate is amongst the toughest challenges faced by remote sensing. It places severe constraints on the data being collected, from precision to continuity to the duration of datasets. An excellent description is contained in a [1995 paper in the journal Climatic Change](#) (or see a [blog summary](#)) by Tom Karl (director of the NOAA National Climatic Data Center) and associates. Though we have extensive data sets from the world's satellite systems, most do not achieve the quality needed for monitoring climate. This gap has led to calls for a US national climate service, and we now have pending legislation to establish that service within NOAA ([S.2307](#) sponsored by Sen. Kerry (D-MA) and supported by the administration).

The importance of remote sensing in supporting both mitigation and adaptation efforts is likely to be central to a major upcoming National Research Council (NRC) [climate change study](#) (to be accompanied by a high-profile international summit). Reliable climate data will ultimately have enormous political and commercial value. The private sector is gradually grasping the importance of these data for the increasingly lucrative carbon offset market and other uses. [Source: *The Quarterly Newsletter of the IEEE Geoscience and Remote Sensing Society (GRSS) Private Sector Liaison Group*].

[The Online Centre for Global Geographic Education](#)

The AAG Center for Global Geography Education (CGGE) provides open access to an online collection of undergraduate course modules examining important social, economic, and environmental issues. CGGE modules are designed to improve the learning and appreciation of geography by connecting students worldwide and engaging them in international collaboration and dialogue - all through the Internet.

CGGE Phase 2 will revise the library of instructional modules created under the first phase (*Nationalism, Global Economy, and Population*) while also developing three new titles: *Water Resources, Migration, and Global Climate Change*. In Phase 2, the CGGE modules will be redesigned to provide greater flexibility for undergraduate instruction. Each will include a 5,000-word Conceptual Framework that establishes the global geographic significance of the issue explored by the module; several Case Studies illustrating regional and national dimensions of the issue; and a set of Activities that use the Moodle e-learning platform to support international learning collaborations among undergraduate geography students. To preview the Moodle sites for the Phase 2 modules, sign in as a guest at <http://courses.aag.org>. Contact: Michael Solem, msolem@aag.org.

[Ecological Impacts of Climate Change](#)

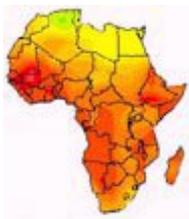
The world's climate is changing, and it will continue to change throughout the 21st century and beyond. Rising temperatures, new precipitation patterns, and other changes are already affecting many aspects of human society and the natural world. In this book, the National Research Council provides a broad overview of the ecological impacts of climate change, and a series of examples of impacts of different kinds. The book was written as a basis for a forthcoming illustrated booklet, designed to provide the public with accurate scientific information on this important subject.

[Linking international agricultural research knowledge with action for sustainable poverty alleviation: what works?](#)

This working paper reviews the experience of the International Livestock Research Institute in Kenya in implementing five agricultural projects in Africa and Asia, to identify institutional arrangements and procedures that are more likely to strengthen the links between research and development. The authors develop a seven-point framework for establishing better links between knowledge generated through research with actions that help people. [Source: Center for International Development, Harvard University, 2008]

[Survival of the fittest: Pastoralism and climate change in East Africa](#)

Climate change is having a destructive impact on many groups around the world. Pastoralists in East Africa have been adapting to climate variability for millennia and their adaptability ought to enable them to cope with this growing challenge. This paper explains the policies required to enable sustainable and productive pastoralist communities to cope with the impact of climate change and generate sustainable livelihoods.



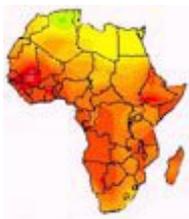
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Conferences, Events

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

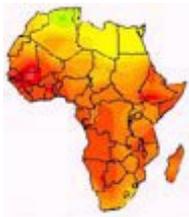
Date	Location	Event
January 2009		
5-8 January 2009 *NEW*	Harbin, China	1st International Conference on LiDAR Technology & Image Processing (LiDAR 2009) Contact: Dr David Tien, dtien@csu.edu.au
6-8 January 2009 *NEW*	Tunis, Tunisia	1st African Water Cycle Symposium About 100 participants, including researchers, policy makers, and operators from Africa, Asia, Europe, Japan and Tunisia will address issues related to the Water Cycle in Africa. Contact: secretary@geoss-awcs.com .
5-9 January 2009	Pointe-aux-Sables, Mauritius	5th International Conference on Environmental, Cultural and Social Sustainability Papers will be peer-refereed and published in print and electronic formats in the International Journal of Environmental, Cultural, Economic and Social Sustainability .
9-11 January 2009 *NEW*	Pune, India	International Conference on Climate Change: Impacts and Responses
12-16 January 2009	Cape Town, South Africa	5th EGU Alexander von Humboldt International Conference Iphakade - Climate Changes and African Earth Systems - past, present and future. Contact: humboldt@africacimatescience.org .
19-22 January 2009 *UPDATED*	London, U.K.	DGI 2009-The 5th Annual European Geospatial Intelligence Conference . Conference Agenda and http://www.wbresearch.com/DGIEurope/full.asp .
19-22 January 2008	Prague, Czech Republic	Cartography and Geoinformatics for Early Warning and Emergency Management: Towards Better Solutions Joint Symposium of ICA Working Group on Cartography in Early Warning and Crises Management (CEWaCM) and JBGIS Geoinformation for Disaster Management (Gi4DM). Contact: c4c@geogr.muni.cz .
20-22 January 2009	Cape Town, South Africa	Policy Forum: Scaling Up Conservation Practices for Natural Resource Commons in Africa . A Regional Meeting of the International Association for the Study of the Commons Abstract deadline: 15 September 2008. Contact: i.malasha@cgiar.org .
21-22 January 2008	Arusha, Tanzania	Symposium on Data Demand and Information Use Register for meeting updates . Contact: Scott Moreland .
26-28 January 2009	Anaheim, CA, USA	2009 Institute of Navigation (ION) International Technical Meeting Includes a Special Session on GNSS Technology: A Path to Sustainable Economic and Social Benefits for Developing Countries.
27-28 January 2009	Tipaza, Algeria	Colloque International Gestion des Ressources en Eau / International Conference on Water Management
28-30 January 2009	Accra, Ghana	African Regional Conservation Conference Abstract deadline: November 4, 2008. Contact: scafrica2009@conbio.org .
February 2009		
1-6 February 2009	Cancun, Mexico	The International Conference on Advanced Geographic Information Systems & Web Services GEOWS 2009 Contact: petre@iaria.org .
9-11 February 2009	Pretoria, South Africa	International Workshop of Experts on Global Environmental Change (including Climate Change and Adaptation) in sub-Saharan Africa Abstract deadline: 19 December 2008.
9-12 February 2009	Trieste, Italy	Workshop on High-Impact Weather Predictability and Information System for Africa



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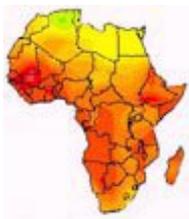
10-13 February 2009	Hyderabad, India	Geospatial Science Forum 2009 Held in conjunction with Map World Forum 2009. Paper submission deadline: <u>15 August 2008</u> .
10-13 February 2009	Hyderabad, India	Map World Forum 2009 Contact: info@mapworldforum.org Abstract deadline extended to <u>15 September 2008</u> .
11-13 February 2009	Hyderabad, India	1st Global Summit on positioning and Navigation – Location Summit 2.0 Contact: anamika.das@GISdevelopment.net .
11-13 February 2009	New York, NY, USA	5th Web for Development (W4D) Conference Contact: Ms. Marina Krawczyk, mkrawczyk@unog.ch .
12-13 February 2009 * NEW *	Hyderabad, India	Location Summit 2.0 “1st Global Summit on Positioning & Navigation” Contact: Anamika Das, info@location.net.in .
16-20 February 2009 * NEW *	Bissau, Guinea-Bissau	IVème Forum Régional Côtier et Marin en Afrique de l’Ouest Contact: prcm@iucn.org . For Programme or Fiche d’inscription .
16 February - 6 March 2009	Trieste, Italy	Workshop on wireless ICT in developing countries and 2nd awareness workshop on the relevance of wireless ICT solutions (Application Form). Contact: smr2020@ictp.it . Deadline: <u>3 November 2008</u> .
18-21 February 2009	Gauteng, South Africa	2nd African Science Communication Conference: Shaping Africa’s future
23-26 February 2009	Port Elizabeth, South Africa	International Conference on Implementing Environmental Water Allocations
March 2009		
March 2009	Addis Ababa, Ethiopia	UN-SPIDER Regional Workshop Building Upon Regional Space-based Solutions for Disaster Management & Emergency Response for Africa Contact: ooosa@unvienna.org .
22-27 March 2009	Las Vegas, NV, USA	Association of American Geographers Annual Meeting Abstract deadline: <u>October 16, 2008</u> .
23 March - 9 April 2009	Trieste, Italy	Satellite Navigation Science and Technology for Africa Contact: smr2025@ictp.it .
27-29 March 2009	University of Texas, Austin	2009 Africa Conference - Science, Technology, and the Environment in Africa Contact: Dr. Toyin Falola or Emily Brownell . Deadline for paper submission: <u>November 1, 2008</u> .
April 2009		
1-3 April 2009 * NEW *	Accra, Ghana	WATER AFRICA 2009 , International Exhibition & Seminar Contact: ACE Event Management, info@ace-events.com .
14-16 April 2009	Dubai, UAE	Map Middle East 2009 Contact: info@mapmiddleeast.org .
27 April - 8 May 2009	Trieste, Italy	Water Resources in Developing Countries: Planning and Management in a Climate Change Scenario Contact: smr2029@ictp.it .
May 2009		
3-8 May 2009	Eilat, Israel	FIG XXXII General Assembly and Working Week Theme: New Horizons across the Red Sea - Surveyors Key Role in Accelerated Development. Contact: fig@fig.net .
4-5 May 2009	Berlin, Germany	7th IAA Symposium on Small Satellites for Earth Observation Abstract deadline: <u>31 October 2008</u> .
4-8 May 2009 * UPDATED *	Stresa, Italy	33rd International Symposium on Remote Sensing of Environment “Sustaining the Millenium Development Goals” (ISRSE33) Contact: ISRSE33, isrse33@symposia.org .
4-8 May 2009 * NEW *	Berlin, Germany	7th IAA Symposium on Small Satellites for Earth Observation Contact: Ute Dombrowski, Ute.Dombrowski@dlr.de .
5-12 May 2009 * NEW *	Nairobi, Kenya	25th Session of the United Nations Group of Experts on Geographical Names (UNGEGN)



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6-8 May 2009	Kampala, Uganda	IST-Africa 2009 Conference & Exhibition Online submission deadline for full paper or workshop proposal: 9 November 2008.
23-29 May 2009 * NEW *	Accra, Ghana	IAIA09: Impact Assessment and Human Well Being Abstract deadline: 15 January 2009.
25-29 May 2009 * NEW *	Molde, Norway	ISO/TC 211 28th Plenary – with WGs and ECs prior to plenary.
25-29 May 2009 * NEW *	Chengdu, China	2nd International Conference on Earth Observation for Global Changes (EOGC2009) Contact: xfzhang@pku.edu.cn .
June 2009		
5-9 June 2009	Providence, RI, USA	Conference on putting health in place with GIS Abstract submission deadline: 31 October 2008.
15-18 June 2009	Washington D.C, USA	Intergraph 2009
15-19 June 2009	Rotterdam, The Netherlands	11th International Conference on Global Spatial Data Infrastructure (GSDI 11) Theme: Spatial Data Infrastructure Convergence: Building SDI Bridges to Address Global Challenges.
24-26 June 2009	Ljubljana, Slovenija	27th Urban Data Management Symposium Full paper submission deadline: September 29, 2008.
July 2009		
5-8 July 2009 * NEW *	Newfoundland, Canada	6th International Symposium on Spatial Data Quality (ISSDQ 2009) "Quality: From Process to Decisions" Contact: Rodolphe Devillers, issdq2009@mun.ca .
7-10 July 2009 * NEW *	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: seqsummit@esri.com .
13-17 July 2009 * UPDATED *	Cape Town, South Africa	IEEE IGARSS'09 Abstract deadline: 4 January 2009. Contact: Dr. Harold Annegarn, han@rau.ac.za . On the conference and opportunities to exhibit, contact Bryan Stewart, bstewart@cmsworldwide.com .
13-17 July 2009	San Diego, USA	29th ESRI International User Conference Abstract deadline: 14 November 2008.
13-17 July 2009	Accra, Ghana	2nd International Association of Agriculture Information Specialists (IAALD) Africa Chapter Conference
13-17 July 2009 * NEW *	Big Bear Lake, California	Society for Conservation GIS (SCGIS) Annual Conference
August 2009		
10-14 August 2009	Trieste, Italy	Conference on high resolution climate modeling: The impact of SST changes and the MJO on tropical cyclones Contact: smr2051@ictp.it .
12-14 August 2009 * NEW *	Fairfax, VA, USA	17th International Conference on Geoinformatics Theme: The ways to advance GIScience researches and applications. Abstract deadline: February 15, 2009. Contact: Liping Di at ldi@gmu.edu . Updates: http://www.geoinformatics2009.org .
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 Application deadline: April 30, 2009. Contact: mmsr2048@ictp.it .
23-28 August 2009	Nairobi, Kenya	2nd World Congress on Agroforestry - The Future of Global Land Use Contact: WCA2009 Organizing Committee, wca2009@cgiar.org .
24-28 August 2009 * NEW *	Dresden, Germany	1st International Conference on 3D Maps: ICA Symposium "True-3D in Cartography" Contact: Mrs. Steffi Sharma, info@conwerk.net .



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September 2009		
September 2009	Johannesburg, South Africa	Map Africa 2009
3-4 September 2009 * NEW *	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 * NEW *	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 .
21-25 September 2009 * NEW *	Bath, UK	2009 EUMETSAT Meteorological Satellite Conference Abstract deadline: <u>23 January 2009</u> .
27 September - 2 October 2009	Marrakech, Morocco	XXVI IUSSP International Population Conference Application deadline: <u>15 September 2008</u> .
October 2009		
13-16 October 2009	Cape Town, South Africa	2nd DIVERSITAS Open Science Conference: Biodiversity and society: understanding connections, adapting to change Abstract deadline: <u>Deadline 31 March 2009</u> .
20-23 October 2009 *UPDATED*	Sydney, Australia	FOSS4G 2009 Conference
26-29 October 2009 *UPDATED*	Kampala, Uganda	AfricaGIS 2009 Conference . Theme: Geo-spatial information and sustainable development in Africa: Facing challenges of global change. Abstract deadline: <u>30 April 2009</u> . Contact: info@africagis2009.org or Shuaib Lwasa, S.Lwasa@cgjar.org .
November 2009		
15-22 November 2009	Santiago, Chile	XXVI International Cartographic Conference Contact: Conference Secretariat at info@icc2009.cl .
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 .
2010		
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 .

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