

Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

March 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



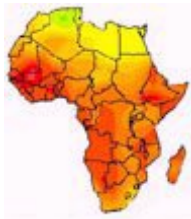
Input to this Issue

Thank you to Kate Lance, USRA/SERVIR-Africa (USA); Hussein Farah, RCMRD (Kenya); Ogunesan Damola, Nigerian Conservation Foundation (Nigeria); Birgit Aigner, GAF AF (Germany); Agebremariam UNECA (Ethiopia); Alex Tindimubona, UNECA (Ethiopia); Ziad Moussa, ESDU (Lebanon); Christina Lakatos, IFPRI (USA); Maria Theresa Tenorio, IFPRI (USA) and Diane Davies, University of Maryland (UK) for their contributions to this issue of the newsletter.

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.



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[Kenyan Atlas of Our Changing Environment launched](#), 13 February 2009



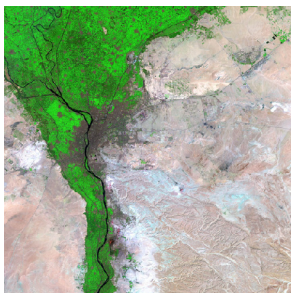
Kenya's chances of realizing its 2030 vision will depend increasingly on the way the country manages its natural or nature-based assets, a new satellite-based atlas concludes. Many of these economic assets are coming under rising pressure: from shrinking tea-growing areas to disappearing lakes, increasing loss of tree cover in water catchments and proliferating mosquito breeding grounds, environmental degradation is taking its toll on Kenya's present and future development opportunities. Thus improved and more creative management is urgently needed to translate the aspiration, to the realizing of Vision 2030. These are among the key conclusions of the new 168-page Atlas

produced by the United Nations Environment Programme (UNEP) at the request of the Government of Kenya. The Kenyan Atlas of Our Changing Environment was launched by the Environment Minister John Michuki and UN Under-Secretary-General and UNEP Executive Director Achim Steiner. It is the first-ever publication of its kind to document environmental change in an individual country, through the use of dozens of satellite images spanning the last three decades. The request for the Atlas, funded by Norway and supported by the United States Geological Survey, follows the launch last June in Johannesburg of Africa: Atlas of Our Changing Environment at a meeting of the African Ministerial Conference on the Environment. According to the data presented in the Atlas, Kenya has made some important strides towards achieving some of the Millennium Development Goals (MDGs) - with notable headway in the fight against poverty, the provision of universal education and the fight against HIV/AIDS, malaria and other diseases. Yet challenges remain on the road to achieving environmental sustainability, notably limited government capacity for environmental management and insufficient institutional and legal frameworks for enforcement and coordination. For more Information, contact Nick Nuttall: nick.nuttall@unep.org or Anne-France White: anne-france.white@unep.org or Xenya Scanlon: xenya.scanlon@unep.org.

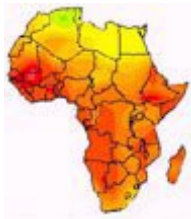
[Green Belt Movement wins Geospatial Excellence Award](#)

The Geospatial Excellence Award is granted to meritorious projects which have made significant and measurable contributions towards the development of new geospatial applications or innovative modification of existing geospatial technology practices to substantially reduce project costs. Prof. Wangari Maathai is the founder of the Green Belt Movement, an environmentalist, a civil society and women's rights activist, and a parliamentarian. She and the Green Belt Movement have received numerous awards, most notably the 2004 Nobel Peace Prize. One of the categories of the award is for the usage of Geospatial Technology for Environment Management. Green Belt Movement is using Geospatial Technology for change detection which is critical for understanding what is happening with Kenya's forests and forests across Africa. Green Belt Movement has extensively used Geospatial technology to monitor the growth of the trees and the change in forest cover over time after plantation. GPS units have been used to find out the right locations during replanting projects.

[Development of Kamal Ewida Earth Observatory in Cairo, Egypt](#)



A facility modeled after [Purdue University's Terrestrial Observatory](#) that will be used to provide early warning and mitigate the effects of disasters such as epidemics, famine and flooding will be built in Egypt as part of a NATO-funded effort. NATO is funding the project through its Science for Peace and Security program, which creates partnerships among alliance countries and Eastern European or so-called Mediterranean Dialogue nations-a forum of cooperation between seven countries centered in North Africa. Development of the Kamal Ewida Earth Observatory is being supported this year by about \$78,000 from NATO. The project will receive another \$315,000 in NATO funding over the next three years. Magdy Abdel Wahab, chair of the meteorology and astronomy department at Cairo University, will be the partner-country director. The project will largely recreate the Purdue Terrestrial Observatory, part of Purdue's Rosen Center for Advanced Computing, and its remote sensing and analysis capabilities in Cairo, Egypt, to help identify and track natural and human-caused disasters. In cases like earthquakes and terrorism, it might be used to assess vulnerability and assist postdisaster reconstruction. Rochon, chief scientist for the Rosen Center, said the system also might be useful for sustainable development efforts, identifying from a vantage point in space, for instance, the spread of crop-damaging locusts and helping to better focus efforts to halt it in an environmentally friendly manner.



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Alsat-1 still going **strong**



Alsat-1, the first SSTL satellite of the Disaster Monitoring Constellation (DMC) and the catalyst of Algeria's fledgling space programme, remains healthy and fully operational after its sixth year in orbit. Alsat-1 image of Tunisia, having exceeded its original 5 year schedule ([5th birthday in November 2007](#)), Alsat-1 is more than 12 months into extended mission. The satellite engineers say that this remarkable extension was mainly accomplished through careful battery management. Alsat-1 was not only the first DMC satellite, but also the first spacecraft to carry a Line Scan Imager. As such, SSTL is particularly delighted about this recent achievement. Its tasks have included responding to forest fires in Algeria and contributing to worldwide disaster response under

the International Charter: Space and Major Disasters. The Earth-Observation (EO) satellite is still providing imagery to the Algerian CNTS team ([Centre National des Techniques Spatiales of Algeria](#)) on a regular basis, although at a reduced capacity in order to further extend the battery life. Alsat-1 carries an optical imaging payload developed by SSTL to provide 32m ground resolution with an exceptionally wide swath width of over 640 km allowing it to image an unparalleled area in each pass. CNTS is distributing the data to other Algerian institutions, which are using it for pollution monitoring, cartography and petrology applications.

[Alsat-2B coming 2009](#)

In August 2008, Antrix Corp. Ltd, the commercial arm of India's space agency was awarded by the Algerian space agency to launch Alsat-2A, a 200kg earth observation satellite, next year (2009). The contract from Algeria is the first won by Antrix from an African nation. The Algerian agency has the option to launch a second satellite as well. The satellite will collect high-quality images for agricultural resource mapping, forestry, locating minerals and oil resources, monitoring locust swarms and managing natural disasters. A base for receiving the images is being established in Arzew, near Oran, 420km west of Algiers. At this location, all of the images will be analyzed and the satellites controlled. The Alsat-2 system is comprised of two satellites, the Alsat-2A and Alsat-2B. In 2006, 30 Algerian researchers were trained in Toulouse, France, and they will be assisted by a French team to launch the Alsat-2A satellite. The plan is to have the Alsat-2B assembled by a satellite development center in Algeria and in orbit by 2009 without French assistance. The country's first satellite, Alsat-1, was launched in 2002. The total cost of the project, could reach US\$16 to \$17 million. Each Alsat-2 satellite will have a mass of some 130 kg, and be equipped with a 2.5m x 2.5m resolution panchromatic imager and a 10m x 10m resolution multispectral (green, red, and near- infrared) imager. The swathe covered will be 17.5 km, and each will pass over any given point on earth once every three days. [Source: [SERVIR-Africa community news](#)]

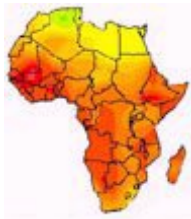
[Geological Mapping and GIS project for the Ministry of Energy and Mineral Development Uganda](#)



GAF AG in a consortium led by the Geological Survey of Finland (GTK) and partners has started a geological mapping project in the southern part of Uganda for the Ministry of Energy and Mineral Development (Uganda). The work area with a size of approx 85000 km² consists of the whole of Uganda from 1° North to Uganda's national borders to the south. The predominant geology in the area consists of the Ugandan Archean Craton, Neoproterozoic greenstone belts in the south-east and Proterozoic metamorphics in the west. In the eastern part of East African Rift System's Phanerozoic volcanics will be investigated. The geological mapping will be performed at various scales of 1: 50 000 to 1:250 000. In a first phase all existing

information will be compiled, satellite imagery and geophysical data interpreted and geological draft maps will be prepared. All compiled data will be used in the field mapping campaign and for the organisation of the field work schedules. Geological field work and sampling will be performed by a team of experienced geologists in Spring and Summer 2009. A mobile mapping technique based on the use of GPS-linked PDA's and the quick GIS visualisation and interpretation with GAF's GeoRover™ - software will be used by GAF's geologists in the field. By using this technology, first geological maps will be generated already during the field campaign and a geological, growing GIS data base can be prepared.

The overall aim of the project is to prepare an updated geological knowledge base for the Department of Geological Survey and Mines (DGSM) in Entebbe, providing much needed information to attract resources exploration and development activities in an area with high mineral potential. The project is carried out by



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GTK consortium with partners GAF AG, the Council for Geoscience (CGS), the International Institute for Geoinformation and Earth Observation (ITC) as well as FELS and Westcourt as subconsultants. The project is initiated by the Ministry of Energy and Mineral Development Uganda and funded by the International Development Association (IDA) with a total duration of 30 months. For more information, contact Tilmann Jenett at info@gaf.de, Tel: +49 (0) 89 12 15 28 0 or Birgit Aigner at birgit.aigner@aigner-marketing.de

Nigeria: GIS capacity building training for the forestry officials, 26-31 January 2009

The Participatory Forest Management Project is funded by DFID, DARWIN INITIATIVE and Taraba State Government and implemented by the Nigerian Conservation Foundation (NCF) and Royal Society for the Protection of Birds (RSPB). The project organized Geographical Information Systems training for 10 officials of the forestry department in Taraba State. The program was part of the deliverables of the project. The aim of the capacity building exercise was to transfer Geo-information skills to the host department. The training was conducted by NCF GIS specialist Ogunesan Adedamola with support by a GIS consultant Adesope Gbenga. The training was centered on hands on the use of Arcview 3.3 and Garmin GPS for the forest management. As part of the objective for this training, participants will be agents of change in the departments by imparting this knowledge to other staff members and colleagues. This will be a good foundation for the department to infuse the use of GIS as a key tool to manage the forest resources of the state. For further information, contact: Ogunesan Damola at adedamola.ogunesan@ncfnigeria.org

Nigeria: Disaster management, what can NEMA offer?

The National Emergency Management Agency (NEMA) has embarked on a new initiative in disaster risk management aimed at containing any disaster or emergency through proactive deployment of resources and personnel. Over the years Nigerians have had to rely on share luck and providence to save them from disasters with little or no help comes from rescue agencies which lacks the capacity and wherewithal to intervene in such difficulty moments. Disasters derail socio-economic progress, and put millions of people into dire poverty or make the poor even poorer. The need to systematically reduce the increased impact of disaster is steadily gaining recognition and commitment of government's world wide. For Nigeria to effectively reduce the risk of disasters, she needs to incorporate her risk reduction policies into the national development effort.

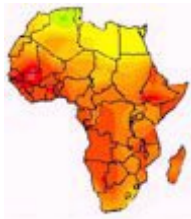
At a workshop held in Kaduna, the Director-General of NEMA, AVM Muhammed Audu-Bida said that the country required "political and legal commitment, public understanding, scientific knowledge, careful development planning, responsible enforcement of policies and legislation, early warning systems and effective disaster preparedness and response mechanisms" to have an effective disaster management. The workshop under the theme, "Mainstreaming Disaster Management into National Development" drew resource persons from various sectors of the economy including top public officers, para-military, academics and representatives of the media. Participants observed that:

- i. Disasters, either natural or human-induced bring distortion into the development landscape,
- ii. Occurrence of disasters and emergencies have increased in recent times, particularly due to communal conflicts, mechanical and technological malfunctions;
- iii. Traditional strategies for disaster management through relief measures have become ineffective because they are largely reactive instead of being proactive in reducing the risk;
- iv. Disasters not properly managed have contributed significantly to loss of skilled personnel, diversion of scarce resources, and destruction of infrastructure, negative investment; climate and political destabilization;
- v. The public are not adequately informed and educated by relevant information organs on potential areas of disasters, precautionary measures and expectations in case of disasters.

Based on the above observations, participants came up with the view that NEMA and other stakeholders in disaster management in the country should adopt new paradigm towards risk reduction aimed at pre-empting disaster and putting in place rehabilitation process that could rebuild resilience for future disaster.

Ghana project leverages GIS-based title registration and microfinance to alleviate poverty (part 2)

This article is Part Two of a three part series in ESRI's seasonal publication, ArcNews (see [part one](#)). This ArcNews issue features the challenges undergone in order to develop a land adjudication process from scratch in an area where neither titling nor cadastral mapping had ever been successful on a large scale.



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Senegal: Forecasting the future in an erratic climate



In the darkness after pre-dawn prayer a village elder would squint at the sky overhead, tilting his head back until his cap fell off, looking for a cluster of bright stars that signaled the middle of the rainy season. Now many traditional methods are becoming increasingly unreliable predictors of the weather due to [climate variability](#), and African farmers already facing fluctuations need scientific data to help them adapt, farmers and climate experts say. Farmers need scientific data on soil fertility levels and adaptive seed varieties in order to assure a good harvest, but

traditional cultivation methods and local perspectives on climate change are also vital to maintaining crop yields. Efforts to adapt to changing weather patterns must combine traditional and scientific knowledge. "Even though the [weather] shifts, the plants do not lie. When plants feel a certain amount of humidity they will bloom. So the indigenous approach is as valuable as the science involved". The International Development Research Centre (IDRC), a Canadian organisation supporting scientific research in developing countries, is working with other organisations to diffuse scientific and local knowledge to help Senegalese farmers adapt.

Africa has the world's lowest density of meteorological stations with only one-eighth of the minimum level recommended by the World Meteorological Organisation. For successful adaptation, vulnerable populations need accurate data on meteorological patterns, weather forecasts and risk assessment, according to the 2008 UN Human Development Report. But despite their precarious situation, Senegalese farmers have little access to such information. "We still have a long way to go to internalize the huge challenge that climate change poses to Africa." The UN's [Inter-governmental Panel on Climate Change](#) predicts that in some African countries rain-fed agriculture will be reduced by half in just over a decade and climate change will result in less cultivatable land, shorter seasons and lower yields. Possible consequences, according to the panel of experts, include sharper food scarcity, malnutrition, disease and instability.

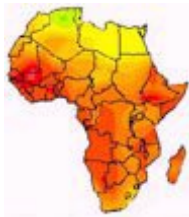
Angola: National Programme for climate adaptation in 2009

The Angolan Environment minister, Maria de Fatima Jardim, announced at a conference that brought together representatives from 166 countries to discuss measures in relation to global warming the approval of the National Adaptation Action Programme, which focused on the definition of "immediate" measures of mitigation and adaptation to the climate change effects in the country. The minister was addressing the opening of the Workshop on the Kyoto Protocol, held in Luanda, the country's capital and aimed at raising contributions for its enrichment. The document establishes the reduction of emissions of carbon dioxide (CO₂), which accounts for 76 percent of total emissions linked to global warming and the greenhouse effect gases in industrialized countries.

According to Fatima Jardim, the programme will direct all actions of the Government to address the issue. To this purpose the Angolan Executive is getting ready for meeting the commitments assumed under the UN Convention for Climate Change and the Kyoto Protocol. Angola has ratified the United Nations Framework Convention on Climate Change, in May 2000, and the Kyoto Protocol in March 2007, reaffirming its commitment to the implementation of measures and programmes aimed at stabilizing emissions of greenhouse gases. The Kyoto Protocol was the result of the third conference of the Parties to the UN Convention on Climate Change, held in Japan in 1997, after discussions conducted since 1990.

City of Johannesburg improving service delivery through improving management of street addresses

The City of Johannesburg (COJ) has partnered with location-based services company, AfriGIS, in a street address verification project to ensure reliable property information as a prerequisite for a credible billing process and service delivery to people living within the metropol. Phase 1 of the project was completed in April 2008 and included 680 townships in the Western Area of Johannesburg. Street addresses for approximately 80 000 stands were verified against the NAD and other datasets within the Council. Approximately 35 500 addresses were captured on GIS and 400 new addresses required implementation. Phase 2 of the project commenced in April 2008 and is expected to be completed by the end of May 2009. The area includes the rest of the City of Johannesburg, thus approximately 4200 townships (666 000 stands) were to be verified. A total of 1500 townships have already been verified and an additional 120 000 street addresses were captured by 30 September 2008. Before completion of the project, approximately 100 000 stands still require verification. [Source: GIS Development]



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[World Bank: Climate investment funds, countries identified](#)



Developed and developing country governments gave an important signal for action on adaptation in January 2009 by deciding which countries will be offered funding under a pilot program within the US\$6 billion Climate Investment Funds (CIF). Bangladesh, Bolivia, Cambodia, Mozambique, Nepal, Niger, Tajikistan and Zambia have been invited to participate in the Pilot Program for Climate Resilience (PPCR) which will provide about US\$500 million for scaled up action and transformational change in integrating climate resilience in national development planning. The PPCR is part of the CIF's Strategic Climate Fund. Members of the governing body,

the PPCR Sub-Committee, met in Washington and agreed on these countries on the basis of recommendations of an independent Expert Group. The criteria used to identify the countries include the level of vulnerability to climate change hazards and risks, country preparedness to move towards climate resilient development plans, and country distribution across regions and types of hazards.

One additional country from the Middle East and North Africa region, as well as two regional groupings of countries (Caribbean and Pacific), remain under consideration for PPCR pilot programs pending further inputs from the independent Expert Group. Robin Davies, Australian Co-Chair of the PPCR Sub-Committee said "There is no single blueprint for how countries will use these resources. The aim is to give the poorest and most vulnerable countries the opportunity to transform their development planning by integrating climate change considerations. It will be crucial that we share lessons learned on what works and what doesn't as quickly and widely as possible, together with the multilateral development banks and other partners." Pilot programs will be country-led and country-specific and build on National Adaptation Programmes of Action (NAPAs) and other relevant country studies, programs and pilots. The pilot program will also be strategically aligned with the Kyoto Protocol's Adaptation Fund and other funding.

Forest Investment Program (FIP) and Scaling Up Renewable Energy Program (SREP) also discussed two other programs under the Strategic Climate Fund (SCF). A Forest Investment Program is proposed to pilot and demonstrate investments to support the REDD (Reducing Emissions from Deforestation and Forest Degradation) efforts of developing countries, while taking into account opportunities to help countries adapt to the impacts of climate change on forests and to contribute to multiple benefits such as biodiversity conservation and rural livelihood enhancements. Discussions continue on a proposed program to pilot scaled up investments in low income countries for renewable energy, provisionally known as the Scaling Up Renewable Energy Program. For more information: www.worldbank.org/cif. Contacts: Robert Bisset at Rbisset@worldbank.org or Jeff Brez at Jbrez@worldbank.org

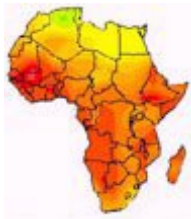
[African Geodetic Reference Frame \(AFREF\) - Newsletter No. 8, January 2009](#)

This issue reports on the approval of AU-EU AFREF project, International symposium on GNSS - Space-based and ground-based augmentation systems and applications held in Berlin, Workshop on development and application of Global Navigation Satellite Systems (GNSS) methodology for groundwater resource assessment held in South Africa and workshop on monitoring volcanic and seismic hazards in East Africa.

[Project Launch and Workshop Report - A Globally Integrated Africa Soil Information Service \(AfSIS\)](#),

held 12-16 January 2009, Nairobi, Kenya

Fifty-six scientists from 16 countries, Ambassadors and or their representatives, Kenya's Minister of Planning, National Development and Vision 2030, Donors, high ranking Kenya government officials, development partners, as well as local and international media met at ICRAF, Nairobi, Kenya to launch the African Soil Information Service (AfSIS) and conduct its first workshop. AfSIS is a pioneering tool that will address some of the pressing issues facing sub-Saharan Africa, such as food security, environmental degradation, and climate change by producing a web-based freely accessible digital soil map and an accompanying information system. AfSIS was launched with the Kenyan Minister of Planning, the secretary to the Minister of Agriculture, and other key actors affirming the project's significance. A day-long field trip to a severely degraded site in western Kenya examined massive soil erosion and sedimentation into a tributary of Lake Victoria, illustrating the importance of AfSIS to offer suggestions that could assist prevent the impact of soil degradation on the lake and the general environment. Constructive working group sessions on each objective outlined and progress to date. These include: decisions on appropriate data model to use for storage and retrieval of AfSIS data; development of the web-based dissemination as well as access applications; completing technical manuals for soil sampling, laboratory analysis, modeling scenarios and



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predicting soil properties; design of field management trials; and the development of strategic collaborations with international as well as local partners to disseminate and create impact from the project products. AfSIS operational committee comprising the Principal Investigators as well as the Project Director-agreed on a user-friendly software for managing and communicating between objectives and for reporting milestones to the Gates Foundation and AGRA. [Download the Report.](#)

[WhereCampAfrica 2009](#), 4 April 2009, Nairobi Kenya



WhereCamp is the free unconference for geographers, mobile location experts and social cartographers and all kinds of folks interested in place. An unconference is a conference planned by the participants. After a morning plenary to help frame the discussion, everyone convenes together, plans sessions, and has break-outs into sessions (i.e., the event is community driven and is what you make it). This will be a great opportunity in Nairobi to mix and mingle with movers/shakers/aficianados in the GeoWeb/mash up/mobile applications/Web 2.0 world. Topics might include: Mobile location, Remote Sensing, Geoinformatics, Mapping and Agriculture, Food Security and Location, Community Mapping, Local Search, Social cartography, Crisis Mapping, Iphones Androids and the way the web is falling into mobile. For further details, contact: Jubal Harpster, jharpster@wherecampfrica.org.

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

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



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

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



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

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

Cross-cutting issues includes poverty, rural development, urbanization, gender, health, land question, displacement and refugees, water and energy. Contact: info@africagis2009.org. Abstract deadline: 30 April 2009.

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



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

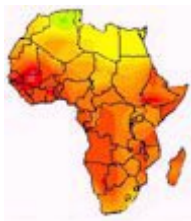
Practical SDI implementation materials from within and outside of Africa

[2008 FGDC Annual Report available](#)



Significant accomplishments including the following:

- Establishment of the National Geospatial Advisory Committee (NGAC), which has brought the academic community, the private sector, professional societies, and



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others into a more formal process to aid in building the NSDI

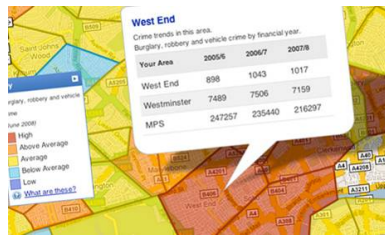
- Improved Federal practices and leveraging of resources through the Geospatial Line of Business
- Establishment of the FGDC Executive Committee to help make the FGDC more responsive and active
- Success in making Imagery for the Nation (IFTN) a priority
- Geospatial One-Stop continues to grow and improve

[USGS publishes Digital Cartographic Standard for Geologic Map Symbolization](#)

The Digital Cartographic Standard for Geologic Map Symbolization provides the Nation's producers and users of geologic map information a single modern standard for the digital cartographic representation of geologic features. Use of this standard will give maps and related products a consistent appearance. The standard provides descriptions, examples, cartographic specifications, and notes on usage for a wide variety of symbols that might be used on a digital geologic map or related product (for example, cross sections). It includes a CMYK color chart, a chart of commonly used geologic map patterns, a geologic age symbol font, bar scales, mean declination arrows, and quadrangle location maps.

The standard is designed for producers and users digital geologic map information. It applies to geologic map information published by the Federal government in both offset-print and plot-on-demand formats. It is also suitable for electronic publications (for example, in a Portable Document Format (PDF) file) and display on computer monitors. The standard is scale-independent, meaning that the symbols are appropriate for geologic maps at any scale. Non-Federal agencies and private companies that produce geologic-map information are urged to adopt this standard as well.

[Police launch online neighbourhood crime maps](#)



Crime maps detailing the number of offences committed in every neighbourhood have been published online by all 43 police forces in England and Wales. The [colour-coded maps](#) show the levels of burglary, car crime, robbery and other offences, and include charts showing whether crime is rising or falling. The project is part of the government's attempts to "empower" residents and give local communities more influence over police priorities. Individual forces have been compiling their own maps and posting them online since last summer, when the home

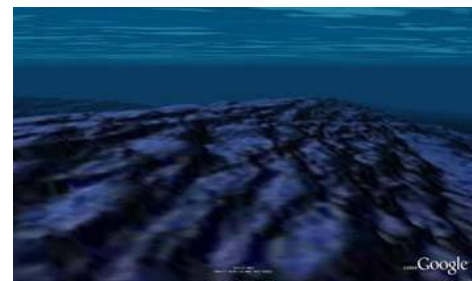
secretary, Jacqui Smith, announced the scheme. The Home Office has now put all the maps together to form an overview of crime in England and Wales, which is available through its website. The maps would increase public confidence and make the streets safer: "By rolling out up-to-date, interactive crime maps, you can better inform people about crime problems in their area and enable them to have much more of a say in what the local police focus on." For many years, all forces have mapped crimes and incidents to help them focus investigations, analyse hotspots and tackle crime vigorously. The information now on the forces' websites has a different, more community-focused perspective and means the public can now look at crime levels in their community simply by putting their postcode into their local police force's website."

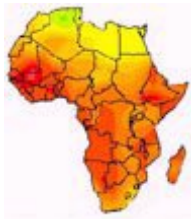
GIS Tools, Software, Data

[Google Earth 5.0 - Users can dive into the ocean, travel back in time and visit Mars](#)

Google Inc. (NASDAQ: GOOG) on February 2, 2009 announced the launch of ocean in Google Earth, a new feature that enables users to dive beneath the water surface, explore 3D underwater terrain and browse ocean-related content contributed by leaders in ocean science and advocacy ([full list of partners](#)). Google Earth 5.0 introduces historical Imagery, touring and Google Mars 3D.

- Ocean in Google Earth - combines sea floor terrain and expert content to provide users with an opportunity to explore some of the most difficult-to-reach parts of the world. As users zoom in on the ocean they will see a dynamic water surface, and once they dive beneath the surface they can navigate 3D sea floor terrain. The feature includes 20 content layers: An "Explore the Ocean" layer containing photos and videos about ocean hot spots around the world contributed by over 80 individuals and organizations; A National Geographic Magazine geo-quiz and overlays from their





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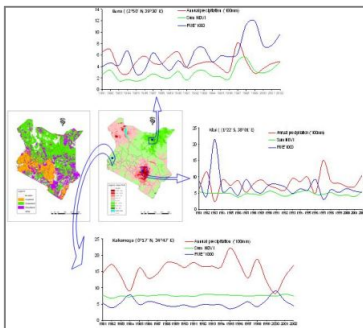
new Atlas of the Ocean; and Videos from the archives of Jacques Cousteau, featuring footage of historic ocean expeditions. Also launched were:

- Historical imagery is a feature that enables users to virtually travel back in time through archival satellite and aerial imagery. In the previous versions, users could only view only one set of imagery for a given location. Users can now activate a time slider to see both newer and older satellite imagery from around the globe, enabling them to observe a single location's development over time.
 - Touring - users can create narrated tours of imagery and content by simply pressing the "record" button, fly from place to place, zoom and click on content balloons, providing voiceover narration along the way.
 - Google Mars 3D - users can travel to Mars (virtual tour of the galaxy) and see high resolution imagery and 3D terrain of the red planet. They can fly to the top of Olympus Mons, the tallest volcano in our solar system, read geo-located excerpts about different locations on the planet from A Traveler's Guide to Mars, and observe where various Mars Rovers and Landers have touched down.
 - GPS Tracking - previously only available in the Plus and Pro versions of Google Earth, now all users can upload tracks from GPS devices (including many Garmin, Magellan, and NMEA-compatible devices).
- Google Earth 5.0 is available in 41 languages (previously 26): English (US), English (GB), French, Italian, German, Spanish (Spain), Spanish (Latin America), Dutch, Simplified Chinese, Traditional Chinese, Japanese, Korean, Portuguese (Brazil), Russian, Polish, Turkish, Thai, Arabic, Swedish, Finnish, Danish, Portuguese (Portugal), Romanian, Hungarian, Hebrew, Indonesian, Czech, Greek, Norwegian, Vietnamese, Bulgarian, Croatian, Lithuanian, Slovak, Filipino, Slovenian, Serbian, Catalan, Latvian, Ukrainian, and Hindi. See [product descriptions, visuals and more](#).

[Quantum GIS A complete free Desktop GIS software](#)

Quantum GIS is a widely used open source GIS Desktop software for viewing, editing and analyzing GIS data. For folks who couldn't afford the hefty licenses for GIS Desktop tools, Quantum GIS is really an option. With Quantum GIS you will be able to work with four different types of GIS data sources i.e. vector layer, Raster Layer, PostGIS Layer, WMS Layer. With the vector layer option you can add ESRI Shapefile (.shp), MapInfo, SDTS (Spatial Data Transfer Standard) and GML files. Raster layer option gives you the ability to add files that is of almost any raster type available.

[Global Assessment of Land Degradation and Improvement \(GLADA\)](#)



Soil and Terrain databases for Senegal and The Gambia, South Africa, and Tunisia, compiled in the framework programme of the Global Assessment of Land Degradation and Improvement (GLADA) now can be accessed online. Within the GEF-UNEP-FAO program [Land Degradation in Drylands](#), GLADA will identify: (1) the status and trends of land degradation. (2) Hotspots suffering extreme constraints or at severe risk and, also, areas where degradation has been arrested or reversed.

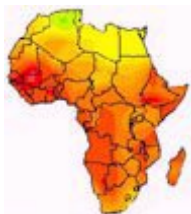
FAO has commissioned ISRIC to undertake pilot studies to:

- Elaborate the general approach to map global land degradation by analysis of the GIMMS dataset of 8km-resolution NDVI data;
- Analyse other global databases, in particular the Soil and Terrain

database (SOTER), in support of the general NDVI methodology;

- Illustrate the approach developed under 1 and 2 with case study in Kenya ([PDF](#)). ISRIC compares the results for Kenya with results from a high-resolution land cover change study produced by the Global Land Cover Network. Some of the outputs include:
 - Global Assessment of Land Degradation and Improvement. Report 2008/01 (GLADA Report 5), ISRIC – World Soil Information, Wageningen, 70p [PDF](#)
 - Land degradation and improvement in Tunisia. Report 2007/08 (GLADA Report 1f), ISRIC - World Soil Information, Wageningen, 47p [PDF](#)
 - Land degradation and improvement in Senegal. Report 2007/07 (GLADA Report 1e), ISRIC - World Soil Information, Wageningen, 48p [PDF](#)
 - Land degradation and improvement in South Africa. Report 2007/03 (GLADA Report 1a), ISRIC - World Soil Information, Wageningen, 54p [PDF](#)

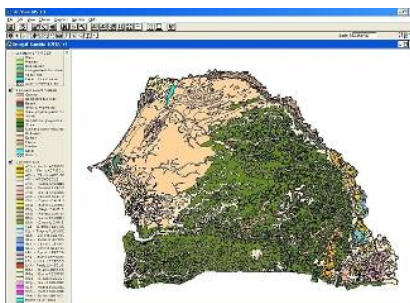
Other reports and news on the Land Degradation Assessment (LADA) Project are available from the [FAO LADA website](#).



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[Soil and Terrain Database \(SOTER ver. 1.0\) for Senegal and the Gambia](#)



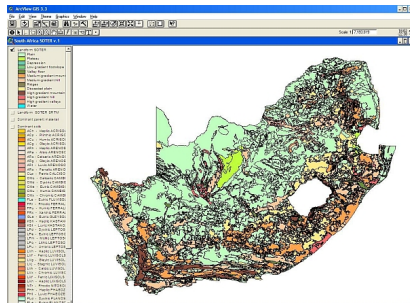
The Soil and Terrain database (SOTER) for Senegal and The Gambia, at scale 1:1 million, has been compiled in the framework of the Land Degradation Assessment in Drylands program ([LADA](#), [more](#)). The primary SOTER database was compiled by the 'Institut National de Pédologie' and ISRIC - World Soil Information using the [SOTER methodology](#). Discrimination and characterization of the SOTER units was based on the 90 m digital elevation model (DEM), derived from Shuttle Radar Topographic Mission (SRTM, [more](#)), and the 'Carte morphopédologique de la République du Sénégal'. The SOTER information is presented in ArcGIS9.2 and in ArcView 3.3 format, while the attribute database is in tabular MSAccess format.

Download [report](#) or dataset ([ArcGIS9.2](#) or [Arc View 3.3](#)). Further information: [Koos Dijkshoorn](#).

[Soil and terrain database \(SOTER ver. 1.0\) for Tunisia](#)

The Soil and Terrain database (SOTER) for Tunisia, at scale 1:1 million was compiled in the framework of the Land Degradation Assessment in Drylands program ([LADA](#), [more](#)). It was compiled at ISRIC according to the [SOTER methodology](#) using available resources maps and soil information for Tunisia. A 90 m digital elevation model (DEM), derived from Shuttle Radar Topographic Mission (SRTM), served to identify the landforms and improve the SOTER unit delineation ([more](#)). The SOTER information is presented in ArcGIS9.2 and in ArcView3.3 format, while the attribute database is in MSAccess format. Download [report](#) or dataset ([ArcGIS9.2](#) or [ArcView3.3](#)). Further information: [Koos Dijkshoorn](#).

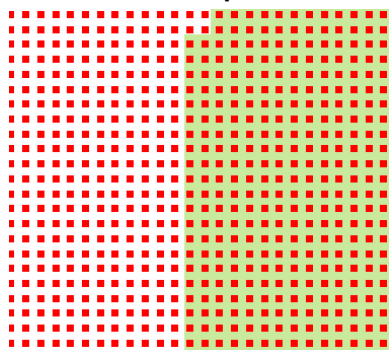
[Soil and terrain database \(SOTER ver. 1.0\) for South Africa](#)



The Soil and Terrain database (SOTER) for South Africa, at scale 1:1 million, was compiled from the SOTER database for Southern Africa ([SOTERSAF](#), 1:2 million) in the framework of the Land Degradation Assessment in Drylands ([LADA](#), [more](#)) a program. The initial dataset was compiled by the Institute of Soil, Climate and Water ([ISCW](#)), Pretoria, in 2003 using the [SOTER methodology](#). The SOTER database was restructured and the GIS files were slightly modified by ISRIC, using the 90 m digital elevation model (DEM) derived from Shuttle Radar Topographic Mission (SRTM, [more](#)). The spatial SOTER information is presented in ArcGIS9.2 and in ArcView 3.3 format, while the attribute data are given in tabular (MSAccess) format.

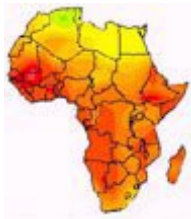
Download [report](#) or dataset ([ArcGIS9.2](#) or [ArcView3.3](#)). Further information: [Koos Dijkshoorn](#).

Create a random point or evenly-spaced point grid shapefile within a defined area



[fGIS \(Forestry GIS\)](#) is a decent freeware GIS developed by the Wisconsin Department of Natural Resources using the TatukGIS Developer Kernel. The last free version is still available including the "Generate Cruise Points" tool available from the utilities menu; this tool lets you create random and regularly-spaced point shapefiles for a defined area. Start up fGIS and the coordinate system will be defined by the first layer you add, either raster or vector, and whatever data layers you add to the program must be in the same coordinate system. The program supports many different formats, vector and raster, including shapefile and GeoTiff. You'll need to have the area you want gridded defined by a vector layer, either one you open or one you create using the program's vector editing functions; e.g. you could open a raster GeoTiff, then draw a polygon

defining the area you want gridded on top of the raster image. You also need to highlight the polygon area you want to have gridded using the "Pick" tool (the red arrow icon at the top), then select Utilities => Generate Cruise Points: Then choose either a random grid and the number of random points, or a systematic grid with the desired spacing and units. Click OK, and the grid shapefile will be created and added to the map view; if the area is large, and the spacing is small, this may take a while. With software like [DNRGarmin](#), you could upload such a grid to your GPS as a set of sampling points.



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Geospatial Research, Applications, Reference Material

[Online Access to Research in the Environment](#)

Online Access to Research in the Environment (OARE), an international public-private consortium coordinated by the United Nations Environment Programme (UNEP), Yale University, and leading [science and technology publishers](#), enables developing countries to gain access to one of the world's largest collections of environmental science research. Over 1,300 peer reviewed titles owned and published by over 340 prestigious publishing houses and scholarly societies are now available in more than 100 low income countries. Research is provided in a wide range of disciplines, including Biology; Biotechnology, Genetics & Genetically Modified Species; Botany & Plant Biodiversity; Climatology, Climate Change & Meteorology; Ecology & Wildlife Conservation; Energy Conservation & Renewable Energy; Environmental Chemistry; Environmental & Natural Resource Economics; Environmental Engineering; Environmental Law, Policy & Planning; Fish & Fisheries; Forests & Forestry; Geography, Population Studies & Migration; Geology & Earth Sciences; Natural Environmental Disasters; Oceanography & Marine Biology; Pollution & Environmental Toxicology; Satellite & Remote Sensing Technologies; Soil Sciences and Desertification; Waste Management; Water, Hydrology & Wetlands; and Zoology & Animal Biodiversity. To access the database/information, use the following steps:

1. Log on to www.oaresciences.org
2. Click on the LOGIN at the far top right of your screen when open.
3. Enter security information as follows: *User Name* - KEN525, *password* - 68320.
4. Browse Journals by title e.g. Remote Sensing and Satellite Technology
5. Click on a journal title and wait until all items are completely opened.
6. Select a preferred Volume and Issue No, say the current.
7. Select a specific article and click the PDF version and wait for it to open and read.

Some of the items are however not accessible and OARE has indicated.

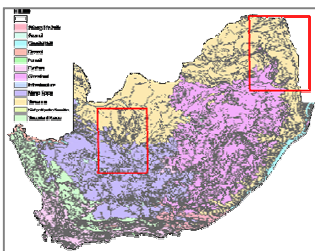
[A prototype Earth-gauging system integrating weather and health data to manage meningitis](#)



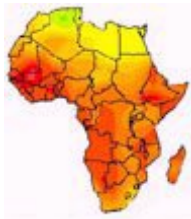
Overarching goal of the project was to describe efforts to save lives and enhance livelihoods in Ghana through integration of health and environmental data, and by using that data in service of health-related decision-making. Specifically, we aim to build and implement prototype decision-support system that integrates two- to 14-day weather forecasts and epidemiological data to provide actionable information that can be used to contain the spread of meningitis epidemics. By applying a preliminary economic evaluation of this decision support system, we will be able assess the potential benefit of using environmental data to improve public health outcomes, help prioritize continuing investment in meningitis management in Ghana and throughout the Meningitis Belt, and determine the appropriateness of extending the prototype to other diseases, nations, and continents.

This effort is a small piece of an overall Google.org effort to develop an /Earth-gauging System /that will integrate environmental, health and development data into products that stakeholders and researchers can use to monitor variables, analyze trends and identify relationships among different variables. The /Earth-gauging System/will support the prediction of emerging threats, and provide the basis for a robust early-warning system that will improve health, food security, and development and conservation outcomes.

[Observations of land quality](#)



Land cover and condition are fundamental inputs to sustainable development, prioritization of development interventions, conservation planning and environmental monitoring. The aim of this project is to assess land cover types and land cover condition in different vegetation and land use systems with greater accuracy and lower cost than current methods by combining remote sensing, in situ observations and models. Core research areas are the Kruger National Park (KNP) and adjacent areas in Mpumalanga and Northern Cape. The choice of these sites allows for analysis at savanna and grassland lowveld vegetation as well as observations at the savanna-Nama karoo ecotone.

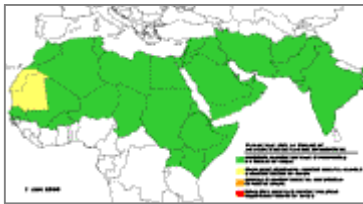


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This project is a co-operation between the following research CSIR groups: The [Processes and dynamics group](#) (contact: [Dr Graham von Maltitz](#)) contributes with extensive field data, such as field inventory vegetation data, locally measured biophysical parameters (Fraction of Photosynthetic Active Radiation FPAR, Leaf Area Index LAI) to assess land cover productivity and state of degradation in natural environments. A variety of contextual information and modelling approaches are also integrated in the project to provide accurate classification and attribute information. [The Meraka institute](#) (Contact: [Konrad Wessels](#)) focuses on the analysis of hypertemporal (1 to 10 days repetition) low spatial resolution (250m to 1km) remote sensing data (MODIS) to distinguish land cover types by phenological descriptors on a large spatial scale. The contribution of the [Earth observation group](#) (contact: [Dr Melanie Vogel](#)) is the assessment of savanna vegetation and vegetation state. As indicator for savanna condition the tree coverage will be assessed on different spatial and temporal scales. Very high resolution satellite imagery (IKONOS) will be used for accurate local tree cover assessment. The results will be used to train high resolution (SPOT5, Landsat TM) classifiers, which shall be used to validate the results of the MODIS derived classifications from the Meraka team. Additionally the Landsat data will be used to explore new methods for land cover classification and change analysis. The novel techniques involved are: the derivation of sensor-independent vegetation functional information from 'hypertemporal' (i.e. daily to 10 daily) remote sensing; the extraction of features from high-spatial resolution datasets using textural analysis; and the fusion of data sources with dissimilar spatial, spectral and temporal properties. The outcome will be improved procedures for land cover and land condition mapping for southern Africa. For more information, contact [Dr Melanie Vogel](#)).

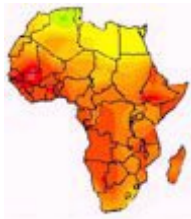
[Key Map and GIS Data for UN Food and Agriculture Organization Project](#)



The Food and Agriculture Organization of the United Nations (FAO) has chosen [East View Cartographic \(EVC\)](#) as the key map provider for its Desert Locust early warning system. The system, with its geographic focus on northern Africa, the Near East and Asia, tracks environmental conditions and locust infestations so that early actions can be taken to prevent plagues from developing. The Desert Locust is the most feared of all locust and grasshopper species because of its ability to increase rapidly under optimal conditions, form swarms and to migrate long distances. For example, swarms crossed the Atlantic Ocean from West Africa to the Caribbean in 1988. It is common for swarms to migrate from the Near East to Northwest Africa. In 2003 to 2005, numerous swarms invaded the Sahelian countries of West Africa, including Mauritania, Mali, Niger, Chad and Senegal, with devastating effects on crops, fruit trees, and vegetation. More recently, swarms invaded Kenya for the first time in 50 years. EVC was able to provide expansive source data, in-house GIS production services and critical georeferenced area coverage and metadata. Keith Cressman, FAO Senior Locust Forecaster, says, "These data help to analyze environmental conditions and locust populations in order to predict the scale, timing and location of breeding and migration. In turn, these forecasts and warnings help affected countries to plan survey and control operations, and alert the international community to assist." The most up-to-date information on the Desert Locust situation is available on the FAO Locust Watch website: www.fao.org/ag/locusts.

[Enhanced HarvestChoice website aims to help better target agricultural investments](#)

The HarvestChoice initiative has launched a comprehensive collection of data products designed to better inform strategic policy and investment decisions aimed at improving farm productivity and profitability, and market development. The website is intended to be the "go-to" resource for analysts and decision makers seeking integrated, consistent, and spatially-referenced information, provided in an interactive portal. The data collection focuses on factors relevant to crop production and marketing in Sub-Saharan African (SSA) agriculture, such as climate, soil and pest conditions and constraints, current and future cropping systems geography and performance, and access to markets. Recognizing the site-specific nature of many interventions designed to boost productivity, especially in the rainfed systems common throughout SSA, HarvestChoice takes a spatial approach, using interfaces built around open-source platforms such as Google Maps. By providing both public and private investors with an increasingly broad and in-depth understanding of major production and marketing challenges and opportunities, HarvestChoice hopes to shed light on the potential payoffs to productivity-enhancing innovations for smallholder farmers, as well as how to promote the commercialization of smallholder agriculture. To download the early data offerings, visit: <http://www.harvestchoice.org>. HarvestChoice was launched in October 2006 and is jointly led by the



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International Food Policy Research Institute ([IFPRI](#)) and the University of Minnesota's International Science and Technology Practice and Policy ([INSTePP](#)) program.

[New tool maps dengue's climate spread](#)



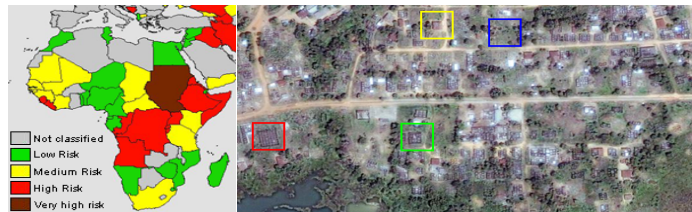
Scientists have developed a method to predict the spread of the dengue-carrying *Aedes aegypti* mosquito as the climate changes. Australian and US researchers identified the key factors that determine where *A. aegypti* mosquitoes can live. These include aspects of the mosquito's biology such as the ability of its eggs to tolerate drying out, environmental factors such as temperature, and factors that in part depend on human behaviour, such as the availability of standing water for the mosquito to lay its eggs in. By combining these factors with climate change projections, they found that suitable habitats for *A. aegypti* will increase in the next 40 years in Australia into areas that had previously been hostile to the mosquito.

The model can be used anywhere with *A. aegypti* populations, particularly the tropical and subtropical countries where dengue is a problem, the researchers say.

"The software which developed this prediction is called 'Niche Mapper'. This system is applicable to any geographical situation in the world, especially in developing countries still badly hit by dengue fever such as Indonesia," says Ary Hoffmann, a co-author of the study and a fellow in the genetics and zoology departments of the University of Melbourne, Australia. The model can also be used to predict the spread of any disease vector. It is simply a case of working out which parameters are appropriate to the insect you want to study. But the researchers are keen to emphasize that the predicted spread of dengue mosquitoes is not inevitable. See link to [abstract](#) in *Functional Ecology*.

[Maps and geospatial data: Crisis Response and Monitoring for Security](#)

There is a tremendous need for information during or after a conflict, violent events or after a natural disaster. Satellite images have started to be effectively used also by civilian institutions to provide situation assessments thus allowing for informed decision making. The synoptic view of satellite and their ability to observe in a discrete manner make satellite imagery a very effective monitoring tool. Human security as well as disputed and conflict resources have started to be addressed with this tool.



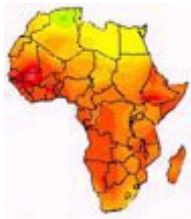
Relevant and reliable information is essential to all stages of a crisis or disaster (Risk assessment, crisis prevention and disaster preparedness, alerting, search and rescue, emergency response, rehabilitation and reconstruction, and development), and this is where geo-information technologies such as earth observation are playing a role of growing importance due to the increasing availability in the last five years of relevant earth observation satellites. In Crisis management - for both natural disasters and man-made conflicts - information gathering and reporting is critical for rapid and effective crisis response. Information is required for the decision makers of institutions, states and the donor community. It is also critical for emergency agencies and NGOs operating on the ground, and conflict resources and disputed territory.

[ESRI's Free Online GIS Bibliography Offers a Rich Information Resource about Geospatial Technology and Geographic Science and Research](#)

Top of Form

Bottom of Form

The [ESRI GIS Bibliography](#) available at no cost recently surpassed 75,000 entries, making it one of the world's largest online repositories for information about geographic information science (GIScience) and geographic information system (GIS) technology. The bibliography also serves as an excellent resource for scholars, scientists, geographers, cartographers, and professionals in a wide range of industries who want to learn about one or more aspects of GIS technology or geographic information science in their fields. The bibliography references more than 1,000 sources - mostly journals, magazines, conference proceedings, and books. Though mainly abstracts, the bibliography also includes some PDFs of articles, conference proceedings, book chapters, and theses. A vast array of fields and industries where the work involves



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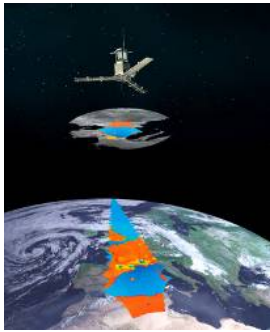


geospatial technology and GIScience are covered including marine sciences, health, the environment, defense, land-use planning, surveying, petroleum, and forestry.

The bibliography contains all the abstracts or PDFs to full papers for every year of the ESRI International User Conference going back to 1993. Many abstracts from the American Association of Geographers' annual meetings are also posted. Citations also come from hundreds of journals such as the International Journal of Geographic Information Science, Cartographica, and Applied Geography. The bibliography also contains a lot of "gray material" which means it's often unavailable anywhere else online.

Dr. Duane F. Marble, professor emeritus of geography at Ohio State University, began compiling the bibliography in the late 1980s. Because Marble and other academics were each creating individual GIS bibliographies, he saw the need for a more comprehensive public resource. When Marble retired from his academic position, ESRI became curator of the bibliography. The staff at the ESRI library in Redlands, California, working with Marble, continues to update the content and maintain the Web site as a free service to the GIS and GIScience community. The bibliography continues to grow with about 2,000 entries are added each month and it is expected to accomplish another milestone in 2009 by reaching 100,000 entries.

[Climate Change Satellite gets Green Light for Launch](#)



The European Space Agency's Soil Moisture and Ocean Salinity (SMOS) satellite has been cleared for takeoff next month, following nearly a year in limbo while the mission team awaited the go-ahead from a private launch company.

Originally expected to launch in 2008, SMOS has been in storage at Thales Alenia Space's facilities in Cannes, France since last May, awaiting a launch appointment at the Russian Plesetsk Cosmodrome, north of Moscow. If all goes according to plan, the craft will now launch between July and October, the second ESA mission in a series of six designed to observe Earth from space and bolster an understanding of climate change. The first of the satellites in its new Living Planet Program, The Gravity field and steady-state Ocean Circulation Explorer (GOCE), is scheduled to go up March 16.

Over its lifetime of about 20 months, GOCE will map global variations in the gravity field – crucial for deriving accurate measurements of ocean circulation and sea-level change, both of which are affected by climate change. SMOS, circulating at a low orbit of around 750 km (466 miles) above the Earth, will be the first mission dedicated to mapping soil moisture and ocean salinity. Salinity in the oceans has a significant impact on ocean circulation, which in turn helps drive the global climate. Among other applications, understanding the salinity and temperature of the seas will lead to easier predictions of the zones where hurricanes intensify. A specialized radiometer has been developed for the mission that is capable of observing both soil moisture and ocean salinity by capturing images of emitted microwave radiation around the frequency of 1.4 GHz (L-band). SMOS will carry the first-ever, polar-orbiting, space-borne, 2-D interferometric radiometer. The mission is designed to last three years.

[Call for Papers: IJGIS special issue on Temporal GIS](#)

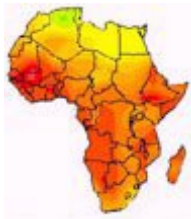
This special issue is intended to provide a compendium of synthesis of research developments in the last 20 years, recent research advances, and outlooks for the next 20 years in temporal GIS. Deadline for submissions: [April 15, 2009](#).

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

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. Deadline: [May 31, 2009](#).

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).



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- 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.

[Facilitating community managed disaster risk reduction course](#), 11-22 May 2009, Addis Ababa, Ethiopia

Over 40% of the population in the horn of Africa lives in drought prone arid and semi arid areas. Other widespread challenges in the continent such as; floods, conflict, HIVAIDS, disease epidemics, and environmental degradation continue to impoverish the different communities. In this course, you will learn:

- Apply the philosophy, concepts and principles of community managed disaster risk reduction;
- Analyze various disaster risk reduction frameworks and models with special focus on common hazards in the horn of Africa;
- Identify and analyze different types of hazards and examine community managed approaches to reduce disaster risks;
- Facilitate the process of participatory risk analysis and assess the impact of major hazards like drought, floods, disease epidemics, conflict, HIV/AIDS and other common hazards;
- Apply the community planning process in the context of disaster risk reduction efforts and adapt participatory tools for doing so;
- Develop an action plan to support community managed disaster risk reduction efforts taking into consideration the major hazards in the region.

[Facilitating community managed disaster risk reduction course](#), 19-30 September 2009, Kampala, Uganda

Contact [International Institute of Rural Reconstruction, Africa \(IIRR Africa\)](#) regional office or country offices for details.

[GLOWA-Volta Upcoming Trainings & Workshops](#)



The central objective of the GLOWA Volta Project (GVP) is the analysis of the physical and socio-economic determinants of the hydrological cycle in the Volta Basin in the face of global change. Based on this, the project aims at the establishment of a scientifically sound Decision Support System (DSS) for water resource management that has been adequately tested. The GVP is in its third phase (GVP III, June 2006 - May 2009), which is geared towards the synthesis of the research, capacity building, and the transfer of decision support tools, and knowledge.

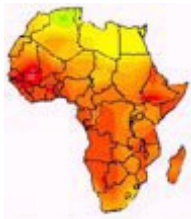
- March 17-18, 2009 (3 days), Volta Basin Water Allocation System (VB-WAS) & M3, Accra, Ghana.
- 2009 (3-5 days), Advanced MikeBasin/WEAP, Venue: yet to be decided.
- 2009 (5 days), Landuse Systems and Modelling (LUDAS), Venue: yet to be decided.
- 2009 (2 days), Geoportal and Database User Workshop (en français / in french), Venue: yet to be decided.

[Decision Support Systems, Experimental Design and Analysis of Data](#), 20-24 April 2009, Bamako, Mali

This training program will enable those engaged in agricultural research and extension services to improve their ability to use geographic information systems (GIS) and modeling tools to collect, analyze, and employ soil, weather, and market information in systems that generate site and crop specific soil nutrient recommendations. The course will improve participant skills in integrating field data with decision support tools (DST) and in disseminating and applying results that lead to better yields through Integrated Soil Fertility Management (ISFM). The course will cover all facets of fertilizer recommendation systems and an introduction to ISFM. The program fee for the 5-day training workshop is \$1,200. Program fee due by [March 20, 2009](#). [Source: [SERVIR-Africa community blog](#)]

[2nd Toponymy training course for Eastern Africa](#), Nairobi, Kena

Held prior to and organized in conjunction with the [25th United Nations Group of Experts on Geographical Names \(UNGEGN\)](#) session in Nairobi, May 5-12, 2009. Contact: toponymy@geo.uu.nl.



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[Advanced Seminar – Use of GIS for Fisheries and Aquaculture Planning and Management](#), 8-19 June 2009, Zaragoza, Spain

The seminar addresses the use of spatial tools, specifically GIS, remote sensing and mapping for fisheries and aquaculture planning and management. The seminar provides the foundation for understanding what GIS is, what it can do, and how others are using it. The basic functions of a GIS are addressed, as well as the reasons why a GIS database is powerful, what coordinate systems and map projections are and why they are important. Spatial information management is discussed with regards to data sources, geo-processing and map making. The seminar also provides guidance on how to select GIS software, and an overview on how to design and plan a GIS project. The seminar also examines some basic modelling techniques used in spatial analysis and introduces processes and tools that can be used to perform a variety of GIS analysis tasks. The final part of the seminar focuses on applications of GIS in fisheries and aquaculture in the Mediterranean in which participants are challenged to implement many of the tools taught throughout the seminar. North African countries (Algeria, Egypt, Mauritania, Morocco and Tunisia) and Senegal may apply for scholarships covering registration fees, and for scholarships covering the cost of travel, full board accommodation during the seminar and medical insurance. Deadline for the submission of applications: 16 March 2009. [Source: [SERVIR-Africa community blog](#)]

[Urban Transport 2009: Sida-Sponsored International Training Programme](#), 17 August - 10 September 2009, Lund, Sweden

The overall objective of the programme is to provide participants with knowledge of how to analyse traffic and transport problems in urban areas, how to formulate goals for the transport system, develop strategies and plans for solving problems and to evaluate proposed strategies. Applications are aimed at individuals working in certain countries for organisations such as: City Councils, Departments of Highway Ministry of Communications, Departments of Public Works and Highways, Departments of Public Works and Town & Country Planning, Institutes of Transport Technology, Local Government Transport Units, Metros System Companies, Ministries of Road and Transportation, Ministry of Works & Urban Development, Road Development Agencies, Transport Companies, Urban Development Authorities. Deadline for application: 1 April 2009.

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

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

[ESRI East Africa training schedule for January-June 2009](#)

Modules include:

- ArcGIS Desktop I, II and III
- Mobile Mapping using ArcPad & GPS
- Building Geodatabases
- Working with ArcGIS 3D Analyst
- Advanced Analysis using ArcGIS
- Introduction to ArcGIS Server
- Introduction to the Multi-user Geodatabase
- Working with ArcGIS Spatial Analyst
- Working with ArcGIS Network Analyst
- Working with ArcGIS 3D Analyst
- Advanced Analysis Using ArcGIS



[Advanced Application for GIS in Oil & Gas](#), 28 March - 1 April 2009, Manama, Bahrain

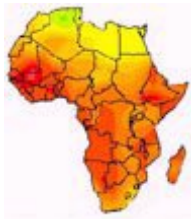


Advanced Applications
for GIS in Oil & Gas
28 March - 1 April 2009
Crowne Plaza Hotel, Manama, Bahrain

This five day conference offers an intensive and dynamic opportunity to refine your knowledge, catch up with key industry players and share best practice lessons with your peers on the latest technologies within GIS. The various

topics aim to offer informative debate and higher learning experience:

- Making the business case for the Enterprise-wide implementation of GIS
- Overcoming interoperability challenges by finding suitable data integration techniques
- Enhancing existing SOA's and web-enabled technology



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- Integrating your existing / legacy IT infrastructure with new GIS software to interoperate with other stakeholders across the entire production and supply food-chain
- Effective Geospatial data acquisition and data management
- Using GIS applications for managing your risk, pipeline integrity, downstream distribution and your other assets
- Maximizing the potential of GIS technology through education, training and change management
- Overcoming challenges that prevent data application and portability

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 thonteh@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.

- 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



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



Promotion 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.

GIMS course schedule for March 2009, Midrand, South Africa
GIMS is an ESRI accredited learning centre servicing Southern Africa.



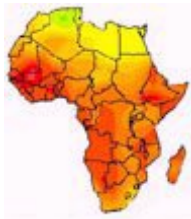
CGIS-NUR Training Program 2009, Rwanda



- Introduction to GIS
- Cartography & Mapping with ARCGIS (Basic)
- Cartography & Mapping with ARCGIS (Advanced)
- Geoprocessing using Model Builder and Python

ESRI Online Seminar - ArcGIS Server Image Services at 9.3, March 26, 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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[MSc degree or Postgraduate diploma course in Land Administration](#)



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

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

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

[Upcoming ITC distance education courses](#)

- 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.

[Upcoming ITC certificate courses](#)

- [Digital Photogrammetry and Remote Sensing](#) starting on 20 April 2009. 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.
- [Multi-Hazard Risk Assessment](#), starts on 18 May 2009 (6 weeks). Registration deadline: 4 May 2009.
- [Using Geographic Information Systems \(GIS\) in disease control programmes](#), starts on 22 June 2009 (2 weeks). Registration deadline: 11 May 2009.

[Diploma course](#)

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

[Workshops in Advanced Spatial Analysis](#), 21-26 June and 12-17 July, 2009, Pennsylvania State University, USA

The Population Research Institute (The Pennsylvania State University) and the Center for Spatially Integrated Social Science (University of California, Santa Barbara) are offering workshops in the NICHD-funded training program in Advanced Spatial Analysis. The primary audience for these advanced workshops is early-career population scientists (i.e., graduate students, post-docs, and junior faculty/researchers in demography-related disciplines) based at research institutions and population-related agencies in the United States. These workshops are for population scientists who already possess a working knowledge of geographic information systems (GIS) and spatial statistics, and who use these tools in their research.

- Spatial & Multilevel Modeling - State College, PA: The Population Research Institute (www.pop.psu.edu/) - Pennsylvania State University: 21-26 June, 2009.
- Spatial Regression Modeling - Santa Barbara, CA: The Center for Spatially Integrated Social Science (www.csiss.org) - University of California, Santa Barbara: 12-17 July, 2009

There are no fees for participating in the Advanced Spatial Analysis Workshops. Participants are encouraged to seek funding from their own institutions and advisors to cover transportation, lodging, meals, books, and access to a laptop computer. Scholarships (limited to \$500) will be available for all qualifying applicants, with priority given to graduate students and postdoctoral fellows. Federal employees and those in the private sector are not eligible for scholarships. See link for detailed information on [workshops and requirements](#). Apply [online](#). Deadline: March 31, 2009.

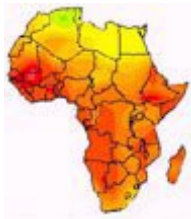
Funding Opportunities, Awards, Support

[Scholarship Opportunity: AfREA for Evaluation Practitioners from MENA](#)

The Environment and Sustainable Development Unit (ESDU) of the American University of Beirut (AUB) has announced the launch of a call for candidatures to participate in the 5th meeting of the African Evaluation Association which will be held in Cairo 28 March - 2 April 2008. The [Conference](#) is divided into two parts:

- Pre-conference Workshops: 29 March - 31 March, 2009 (15-18 workshops) and;
- Main Conference: 31 March - 2 April, 2009.

ESDU with technical and financial support from the Evaluation Unit of the International Development and Research Center of Canada (IDRC) intends to bring together a multi-disciplinary group of 12-15 researchers and development practitioners across MENA to participate in this event. Selected participants will receive a



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full scholarship which covers airfare, registration at AfREA, board and lodging while in Cairo and a small stipend to cover miscellaneous expenses. Participants are expected to attend the Pre-conference workshops and the conference, as well as a sharing and learning seminar which will take place at the end of the conference to capitalize on the insights gained by the participants during the conference and to assist ESDU in preparing a 3 years project on "Mainstreaming Evaluation Theory and Practice in the MENA Region using Outcome Mapping as an entry point". Interested candidates to send a letter of motivation and updated CV by 6 March 2009 to Ms. Loyal Dandash at ld11@aub.edu.lb. For further information, contact Ziad Moussa at ziadmoussa@yahoo.com.

Call for proposals: NRF/DFG Joint Science and Technology Research

This call for joint research project proposals between South African and German researchers is open to all local researchers residing in South Africa and affiliated with a recognized higher education or research institution such as a university, university of technology or science council. An application must designate two principal investigators, one in South Africa and one in Germany, who will bear the main responsibility for the project, including its technical and administrative coordination as well as scientific and financial reporting. The South African principal investigator must be in possession of a PhD and applicants may represent any recognized field of study, including the natural and social sciences, as well as engineering and the humanities. The NRF funding levels are not fixed, the total amount of funding requested should preferably not exceed R300 000. Funding will be made available for a maximum of three years, to be paid in annual installments. Note that a commitment to both scientific and financial reporting on the project following its completion is an obligatory condition of funding. According to the NRF/DFG agreement, funding will be made available for the following joint research activities:

- Preparatory visits for planning and formulating joint research projects and seminars at the final stage, such visits not generally to exceed a duration of three weeks;
- Consultative and research visits designed to link together complementary research carried out by colleagues in both countries, the duration of such visits not generally to exceed six months;
- Bilateral seminars, symposia and other scientific meetings;
- Consumables up to the value of 10% of the total requested budget (NRF supports only mobility (and small consumables). The South African scientist should discuss and agree upon with his/her German cooperation partner which activities/costs the joint project should involve.

Download the Application form: [PDF](#) | [Word](#) For further information, contact: Raven Jimmy raven@nrf.ac.za. All South African applications must be submitted by 31 March 2009.

2009 Knowledge Interchange and Collaboration Programme (KIC) Call

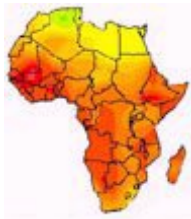
The KIC grants for local and international travel and sponsored scientific events in various forms and administered solely by GMSA are open from 1 January 2009 onwards. Applications will be accepted as per instructions in the [KIC 2009 Manual](#). Local travel - long stay (≥ 1 week) R10,000, International travel - short stay (≥ 1 week & ≤ 1 month) R25,000 and International travel - long stay (≥ 1 month & ≤ 3 months) R40,000. A proportion of the budget will be earmarked for young (within 5 years of obtaining their PhD) researchers and a portion for established researchers. In the latter group rating will be an advantage. Science councils and student applications will not be considered.

The investment in the discretionary support for travel and scientific events will be focused on three areas:

1. Travel Grants: This investment area is to be divided into two categories:
 - a. Travel by researchers, employed by institutions as defined below, to conferences, workshops, etc. locally;
 - b. Travel by researchers, employed by institutions as defined below, to conferences, workshops, etc. abroad; and
 - c. Invited foreign researchers.
2. Block Travel Grants: Block grants to be used for rapid deployment by HEIs, Museums and National Research Facilities. (Not applicable in 2009).
3. Events support: The support of research orientated meetings, such as conferences.

All researchers who are full-time employees or on a full-time contract to any of the following organizations are eligible to apply:

- South African universities;
- National research institutions such as National Research Facilities, and other government funded laboratories including research hospitals; and



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- Museums.

Applications should be submitted to: KICgrants@nrf.ac.za. KIC 2009 Travel Grants Application [Word], KIC 2009 Scientific Events Grants Application [Word]. For further information, contact supportdesk@nrf.ac.za. KIC website: <http://www.nrf.ac.za/kic/>.

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

The [Research Fellowship Program \(RFP\)](#) is administered by WCS-Global Conservation's Training & Capacity Building Program and jointly funded by the Conservation Leadership Programme (CLP). The RFP is a small grants program (grants of up to \$25,000, the average grants is \$10,500) designed to build capacity for the next generation of conservationists through supporting individual field research projects that have a clear application to the conservation of threatened wildlife and wildlife habitat. We seek projects that are based on sound and innovative conservation science and that encourage practices in conservation that can contribute to sustainable development. Most of the grantees are professional conservationists from the country of research and/or post-graduates pursuing a higher degree. The RFP supports marine or terrestrial field research in Africa, Asia, and Latin America regardless of the nationality of the applicant. While all applications to work in Asian, African, and Latin American countries are considered, CLP funding is restricted to nationals from the following countries: Algeria, Angola, Argentina, Azerbaijan, Bolivia, Brazil, China, Colombia, Egypt, Georgia, India, Indonesia, Libya, Malaysia, Mexico, Pakistan, Russia, Trinidad & Tobago, Turkey and Venezuela.

The RFP supports projects for only one year, so preference is given to discrete, short-term projects. Projects extending beyond one year must highlight achievable goals at the end of the year for which the funding is requested. Proposals are submitted in a standard format for two annual cycles with deadlines on March 15 and September 15 with funding becoming available in July and January.

[Commonwealth Scholarships tenable in South Africa for Doctoral Studies at the University of Pretoria, South Africa](#)

The University of Pretoria has made funds available for two doctoral scholarships for students coming from Commonwealth Countries (excluding South African students). This scholarship will be known as the University of Pretoria Commonwealth Doctoral Scholarship and will be awarded on a competitive basis.

Eligibility:

- The Doctoral Scholarship will be awarded to applicants who are citizens of Commonwealth Countries.
- Applicants must conduct their studies at the University of Pretoria.
- Applicants must have completed the degree that will give them admission to a doctoral programme a maximum of three years prior to their application for the University of Pretoria Commonwealth Doctoral Scholarship.
- Applicants must not be older than 35 years of age at time of application.
- Masters students currently registered at the University of Pretoria are not eligible for the Doctoral Scholarship.

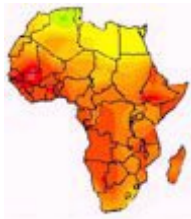
The value of this Doctoral Scholarship will be R 100 000 per annum. The holder of this scholarship may hold supplementary bursaries/grants/scholarships. The scholarship will be for a maximum period of support of three academic years. Required documentation should be submitted together with the International Postgraduate Application Form to one of the Specialist Consultants at the Client Service Centre and to the proposed supervisor: Mrs Mpho Maithufi Mr Ruan Dippenaar: mpho.maithufi@up.ac.za or ruan.dippenaar@up.ac.za. Deadline for the 2009 Academic year: 31 March 2009.

[Commonwealth Foundation Civil Society Responsive Grants](#)

The Foundation's responsive grants enable people from developing Commonwealth countries to participate in activities involving international or intercultural exchange, such as: short training courses, workshops, seminars, conferences, cultural festivals, exchanges and study visits in other Commonwealth countries. In particular, the Foundation targets activities that strengthen the capacity of civil society organisations and that relate to the Foundation's mission and programme areas. Deadline: 31 March 2009.

[Ghent University \(Belgium\) Master grants for candidates from developing countries 2009-2010](#)

Grants are available for all master's programmes offered at Ghent University. Each year, a maximum of 10 scholarships can be awarded. Deadline: 30 April 2009 at 5 p.m.



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[Ebbe Nielsen Prize](#)

The Ebbe Nielsen Prize will be awarded for the eighth time in 2009 to a person or small team that is demonstrating excellence in combining biodiversity informatics and biosystematic research. The Science Committee of the GBIF Governing Board seeks nominations for the Prize, which are due by 31 March 2009.

[ECA-backed initiative offers African scientists training in US](#)

To strengthen the foundations of science and business development in Africa, the [Economic Commission for Africa \(ECA\)](#) and the US-based Research Triangle Institute (RTI) have set up a program to help promising research undertaken by African scientists, reach the commercial market place. The initiative, African Science to Business Challenge, will solicit proposals from researchers who are interested in receiving additional training in the United States in order to be able to market their proposals. The 2009 inaugural Challenge focuses on two categories: biomedical engineering, which integrates physical, chemical, mathematical, and computational sciences and engineering principles for the study of biology, medicine, behavior and health; and water quality, which is central to the human rights and personal dignity of every person. Deadline for submitting entries: 31 May, 2009. [Online application form](#). For further information, contact: dondieki@uneca.org.

[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 Winter Internship (December-March) is October 31, 2009.

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

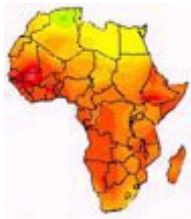
The International Foundation for Science (IFS) is currently accepting research grant proposals from young researchers from developing countries. Each year IFS awards around 250 research grants with a value of up to USD 12000 for research projects that will be carried out in developing countries. Eligible research proposals will address issues that fit within the broad topic of sustainable management, use or conservation of biological or water resources. IFS support researchers from both social science and natural science disciplines. Researchers with IFS support usually have a Masters degree or a PhD, or they are currently enrolled in a PhD programme. See [IFS website](#) for application forms and detailed eligibility criteria. For administrative purposes, IFS has two application deadlines, 30 June and 31 December 2009.

[Short Stay Scholarships for Young Africans](#)

The [Coimbra Group](#) Scholarship Programme for young African researchers aims to enable scholars to undertake research for a short research period (generally 1 to maximum 3 months) in which they are engaged in their home institution, at a selected Coimbra Group university, and to help them establish academic and research contacts. The following Coimbra Group universities are participating in the 2009-2010 edition of the scheme: [University of Aarhus \(Denmark\)](#); [University of Barcelona \(Spain\)](#); [University of Coimbra \(Portugal\)](#); [University of Geneva \(Switzerland\)](#); [University of Göttingen \(Germany\)](#); [University of Granada \(Spain\)](#); [University of Groningen \(The Netherlands\)](#); [University of Leuven \(Belgium\)](#); [University of Padova \(Italy\)](#); [University of Siena \(Italy\)](#); [University of Thessaloniki \(Greece\)](#); [University of Turku \(Finland\)](#). The scheme is intended for young academics (normally those under the age of 45). Applicants should be current staff members of a university or an equivalent higher education institution, and, in most cases, should be of postdoctoral or equivalent status. Deadline: 15 March 2009. Source: [SERVIR-Africa community news](#).

Employment Opportunities

[Expert National en Bases de données et SIG](#), Libreville, Gabon



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Le projet TRIDOM (Conservation de la biodiversité transfrontalière dans l'interzone de Dja-Odzala-Minkébé au Cameroun, Congo et Gabon), vise à maintenir les fonctions et la connectivité écologiques dans la zone TRIDOM et à assurer la conservation à long terme de son système d'aires protégées. Il sera géré par une Unité Régionale de Gestion du Projet (URGP) apportant un appui technique aux trois Equipes de Projet Nationales (EPN). L'Expert National en Bases de données et SIG travaille sous la supervision du Coordinateur National. Il/elle est responsable pour la création d'une base de données, qui comprend des informations utiles concernant la biodiversité transfrontalière dans la zone TRIDOM. Ces informations servent d'une part pour le suivi des indicateurs d'impact du projet et d'autre part pour nourrir un Système d'Information Géographique (SIG). Avec l'aide du SIG, l'Expert prépare des cartes thématiques en appui au processus d'élaboration des plans d'attribution de terre. Code du poste vacant: UNOPS/AFO/SNOC/016/2009 - (Republication du VA/UNOPS/AFO/SNOC/031/2008). Date de clôture: 6 March 2009.

Expert en Aires Protégées, Ouagadougou, Burkina Faso

L'Expert Régional en Aires Protégées est chargé de fournir un soutien technique global au coordonnateur régional et aux équipes nationales de mise en oeuvre dans les domaines se rapportant à la gestion des aires protégées du Complexe d'AP transfrontalier du WAP. Il contribuera aux actions de sauvegarde de l'écosystème, aux activités du projet, axées sur l'objectif de gestion durable des aires protégées du Complexe transfrontalier du WAP. Il est placé sous la responsabilité du Coordonnateur Régional. Code du poste vacant: UNOPS/AFO/SNOC/019/09. Date de clôture: 4 Mars 2009.

Associate for Programme Management & Impact, Data Collection and Analysis, Dakar, Senegal

Under the overall supervision of the Climate Change Impact, Data Collection and in close collaboration with the Associate for Programme Management and Innovative Financing and Associate for Programme Finance and Delivery, the Associate will undertake the following major responsibilities: Administrative support, Travel arrangements, Meetings, Climate change impact, data collection and analysis, Programme finance and delivery, Information management. The applicant should have:

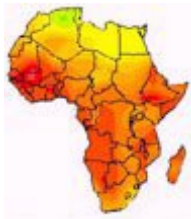
- Completed secondary education. Bachelor's degree desirable,
- 3 to 5 years of progressively responsible administration experience at the national or international level,
- Experience in the usage of computers and office software packages,
- Advanced knowledge of spreadsheet (Excel) and database packages (Access),
- Experience in handling web-based management systems,\
- Experience working within the UN system an asset,
- Excellent knowledge of English, including writing and communication skills, and fluency in French is an asset.

Qualified candidates should submit their application, including a letter of interest, complete Curriculum Vitae and an updated United Nations Personal History Form (P.11) (available on website) to www.unops.org, via e-mail to afosnoc.vacancies@unops.org.

Climate Change Impact, Data Collection and Analysis Expert, Dakar, Senegal

The Climate Change Impact, Data Collection and Analysis Expert is responsible for leading strategic thinking on climate change impact, data collection, analysis and application, and providing strategic guidance to participating countries. S/he will assume the following key responsibilities: (1) Strategic Guidance; (2) Development and Application of Tools; (3) Technical Support to Participating Countries; and (4) Knowledge Management. The applicant should have:

- Highly advanced technical knowledge of the science of climate change and its impacts.
- Demonstrates competence in accessing, analyzing and modeling climate change impacts.
- Demonstrates ability to inform and advise developing countries on strategic policy making and planning in regard to climate change and its impacts.
- Sound knowledge and experience in how organizations and individuals learn and change.
- Demonstrates ability to research, analyze, synthesize and generate quality tools and methodologies.
- Demonstrates intellectual leadership and ability to integrate knowledge with broader policy and operational objectives.
- Master's degree (or preferably PhD) in climate science, environmental modelling, GIS or closely related field.
- A minimum of 7 years of progressive relevant experience in the field of climate change impact analysis, including the provision of policy advice, technical support, guidance and training to developing countries.



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- Experience with analysis and information technology for data and information management.
- Strong knowledge of computer-based analysis and databases.
- Experience in working and collaborating with governments and excellent knowledge of English, including writing, presentation, and communication skills as well as fluency in French are assets.

Qualified candidates may submit their application, including a letter of interest, complete Curriculum Vitae and an updated UN Personal History Form (P.11) (available on website), to www.unops.org, via e-mail to afosnoc.vacancies@unops.org. Deadline: March 10, 2009.

Project Manager, Kinshasa, DRC

OSFAC ([Observatoire Satellital des Forêts d'Afrique Centrale](#)) is the headquarters for the regional GOF-C-GOLD network based in Kinshasa, DRC. OSFAC's long term objectives is to produce reliable information on forest cover and forest cover change across Central Africa using satellite data and to build regional capacity to use remotely sensed data and products. OSFAC seeks a Project Manager to expand its activities and plan for its long term sustainability. The Manager will be responsible for the employees, logistics and day-to-day operations as well as:

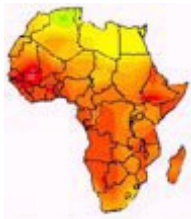
- Foster partnerships with the appropriate national, regional and international institutions, agencies and NGOs to promote the use of remote sensing data and GIS for the sustainable management of Congo Basin forests.
- Further develop OSFAC's capacity for monitoring land use and land cover change using remote sensing data and GIS. This includes assuring that the infrastructure, technical expertise and data access are in place to deliver land cover monitoring products derived from remote sensing data.
- Update and maintain the OSFAC/GOF-C-GOLD remote sensing data archive, network and distribution functions.
- Manage a variety of GIS/RS projects and contracts.
- Negotiate contracts, including creation of proposals, work plans, budgets, and assure timely delivery of products.
- Oversee accounting and finances, manage agreements with donors, deliver quarterly and annual reports to donors, and respond to donor requests for specific products and information as well as look for additional opportunities.
- Maintain existing and initiate new training programs and workshops in GIS and RS.
- Work with and report to the OSFAC Board of Directors.

The incumbent should have an undergraduate or graduate degree in Environmental Science/Natural Resources/Agronomy or a related field, three to four years of proven project management experience, fluency/spoken and written English and French, and experience in GIS or Remote Sensing is highly desirable. Submit a letter of application and CV to Alice Alstatt at: aalstatt@iluci.org. Deadline: Not given.

Space Geodesy, HartRA, South Africa

The development of the Lunar Laser Ranger (LLR) will be based partially on post-graduate student projects. Several projects are available for suitably qualified applicants.

1. LLR Telescope control and pointing (digital control systems, software development, hardware interfacing, pointing model and system characterisation)
2. LLR Timing subsystem development (software development, hardware interfacing, subsystem slaving, time synchronisation, GPS control of Cesium clock, time distribution amplifiers, time system characterisation and monitoring).
3. LLR subsystem integration (digital control systems, control computer interfacing, control computer software, realtime components, automated housekeeping scripts)
4. Additional LLR subsystem component development/integration
 - LASER
 - detection
 - filtering (spectral, temporal, spatial, amplitude)
 - pulse conditioning
 - event timing
 - telescope (optics and mount)
5. Documentation and design library
6. Analysis software and scientific products



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Students who are interested should have a background in subjects such as physics, electronics, mathematics, computer science, photonics, optics, astronomy, geodesy, digital control systems, hardware architectures, software development and related fields. Contact: Dr Ludwig Combrinck, ludwig@hartrao.ac.za. Further information on this one of its kind in the southern hemisphere could be obtained from <http://www.hartrao.ac.za/spacegeodesy>.

WATER-AID Head of Region (West Africa), Abuja, Nigeria.

As Head of Region, you will provide strategic and operational leadership across the WATER-AID West Africa region and also engage in global initiatives and planning. A strategic thinker with significant and diverse experience at the senior management level, a sound understanding of international development especially in Africa, you are also an inspiring leader who models our values of being collaborative, inclusive, accountable and always learning. Skilled in managing and developing a high-performing team, you have the ability to represent the organisation effectively at various levels and forums. For candidates who are currently from the West Africa region, the post may be located in one of our country programmes. Submit application to jobs@wateraid.org Deadline: 4 March 2009.

Project Manager, Boma-Jonglei Landscape Protected Areas, Boma, Southern Sudan

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

The applicant shall have a PhD or Master's degree in conservation, natural resource management, or related field, at least 3 years of experience working on conservation and protected areas management issues in Africa, proven ability to work well in a team in multi-cultural situations and under difficult field conditions. Fluency in written and spoken English required and familiarity with languages and culture of Southern Sudan will be an advantage. Contact: Sarah Elkan, selkan@wcs.org with a copy to recruitment@wcs.org. For more information about [WCI and its Southern Sudan Program](#). Deadline: March 30 2009.

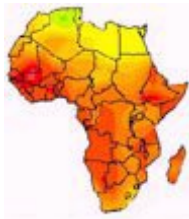
Data Systems Manager, (KP3 or KP4), Nairobi, Kenya

The Food and Agriculture Organization of the United Nations (FAO) Managed Food Security and Nutrition Analysis Unit for Somalia (FSNAU) seek to hire National Project Personnel for the position of Data Systems Manager. The Data Systems Manager will be responsible for managing and supervising the activities and deliverables of the data systems team. The team consists of 9 data analysts and database programmers. Professional Vacancy Announcement No: FSNAUA/1/2009/001. Deadline: 6 March 2009.

Pan Africa Livelihoods Policy Advisor, Nairobi, Kenya

[ACORD \(Agency for Cooperation and Research in Development\)](#) is a Pan-African Organization working for Social Justice and Development in Africa. ACORD works in partnership with local civil society and communities and in alliance with other organizations in Africa and the rest of the world. The ACORD Programming Strategy is organized around 4 themes: i) Livelihoods with emphasis on Food Sovereignty, ii) Conflict, iii) Gender & other forms of discrimination and iv) HIV/AIDS.

Under the supervision of the Pan Africa Livelihood Thematic Manager and as part of the pan Africa program team, the Pan Africa Livelihoods policy advisor will play a role of advisor on research and livelihoods & food sovereignty related policy at pan Africa and global levels and provide support to area programs and other themes. Candidates should have a Masters in Social Sciences, Sustainable Development or Agricultural Sciences; international relation or law or related science; minimum of 4 years of experience in Research and policy work in the INGO sector at Pan-African and International level; strong experience in research and policy analysis in area of economic justice, trade and agriculture; very good understanding of food sovereignty and economic justice issues specifically at the level of Policy influence in the Pan-Africa scene; highly conversant with Civil Society and Social Movement approaches on food sovereignty work at Pan-African level. Deadline: March 11, 2009.



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Research Officer, African Technology Policy Studies Network (ATPS), Nairobi, Kenya

The [African Technology Policy Studies Network \(ATPS\)](#) is a multi-disciplinary network of researchers, private sector actors and policy makers promoting innovative science and technology policy making through research, dialogue and advocacy in 23 African countries. ATPS supports research, training and related activities on topical and emerging science and technology policy on biotechnology, information and communication technologies, technology transfer, science policy, among others. ATPS is seeking to recruit a dynamic individual to fill the position of Research officer to be based at its secretariat in Nairobi, Kenya. Reporting to the Research, Training and Communication Leader, he/she will undertake research work and provide research support to the Research team. Qualified candidates should send a detailed letter of interest and curriculum vitae to [hr @ atpsnet.org](mailto:hr@atpsnet.org). Deadline: March 14, 2009.

Policy Analyst - Eastern Africa Team Member, Nairobi, Kenya

CIAT is seeking to fill the position of a Policy Analyst for the African Soils Information Service ([AfSIS](#)) Project of [CIAT-TSBF](#). The Policy Analyst will report to the CIAT-TSBF Director through the Leader of AfSIS Objective 5. The aim of Objective 5 is to build capacity, serve end users, monitoring and evaluation, and management support. AfSIS will interact intensively with national programs and a range of end user groups (in Tanzania, Mali, and Malawi where regional laboratories will be developed as well as Kenya and Nigeria). The incumbent should have:

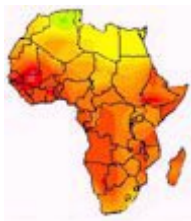
- A PhD Degree in policy or related subjects and demonstrated written and oral communication skills. Familiarity with technical writing and ability to interpret technical material for general audiences. Confident and motivating communicator.
- Practical knowledge and understanding of legal issues, public policy development process, and socio-economic analysis.
- Strong project management skills-can balance reactive daily tasks with planning and stewarding longer-term projects.
- Well-developed influencing, negotiating, and sales skills; the ability to empower and motivate the public, volunteers, and others in carrying out campaign tactics.
- Ability to manage own workload without close supervision and works independently, making decisions and solving problems on routine and complex problems.
- Ability to work effectively in a dynamic team environment, in a flexible office environment with periods of high pressure activity.
- Excellent networking skills, alliance-building experience.
- Ability to work independently, under pressure and manage time effectively is essential.

Applicants should apply by e-mail, sending a cover letter summarizing their relevance to this position, a full C.V. and the names and contact information of three referees knowledgeable about the candidate's professional qualifications and work experience. Applications should be sent to the Human Resources Office at CIAT (a.i.restrepo@cgiar.org) with copies to m.sambo@cgiar.org. Deadline: until a suitable candidate is identified.

Senior Programme Specialist (Water Sciences), Nairobi, Kenya

Under the authority of the Assistant Director-General for Science and the overall supervision of the Director of UNESCO Office in Nairobi, in close collaboration with the Division of Water Sciences at UNESCO Headquarters, and in coordination with other UNESCO water resources specialists in the region (such as in Accra and Harare), the incumbent will be responsible for planning, programming, coordination and implementation of all the activities in the field of water sciences within the Africa region. In particular, he/she will be required to carry out the following duties and tasks:

- i. Execute or coordinate the implementation of activities of the International Hydrology Programme (IHP) in the region: identify activities for inclusion in workplans for African region, monitor those activities once launched and prepare reports on their progress.
- ii. Coordinate the implementation of FRIEND (Flow Regimes from International Experimental and Network Data Sets) and other IHP cross-cutting programmes in Africa.



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- iii. Coordinate IHP and water sciences activities in the Cluster Offices: guide the implementation of activities and their relevance to the IHP; identify strategic issues in water sciences in collaboration with the other UNESCO programme specialist dealing with freshwater issues in the region.
- iv. Carry out activities aimed at enhancing capacity building in the field of water sciences in close cooperation with the UNESCO-IHE Institute for Water Education.
- v. Organize or participate in the organization of conferences, symposia, seminars and training and refresher courses at regional level, and in the follow-up activities of such meetings, the selection of fellowship-holders and the preparation of reports and publications.
- vi. Develop and manage project proposals connected with extra-budgetary funding.
- vii. Contribute to the assessment of the prevailing water situation in Africa within the context of existing UN-Water programmes, primarily the UNESCO led WWAP, and the UN Commission on Sustainable Development.
- viii. Contribute to the enhanced water governance and cooperation issues at the regional level, setting water policy and strategy in Africa and promote the implementation mechanisms and partnerships.
- ix. Ensure that UNESCO's programme in water sciences feature adequately in the "one UN" or UNDAF programmes of Member States. The incumbent should have:
 - Advanced University degree (preferably at Doctorate level) in the field of hydrology, water resources engineering or closely related water or environmental sciences.
 - At least 10-15 years of progressively responsible relevant experience in the field of water sciences, of which preferably 5-7 years acquired at international level.
 - Experience in research and teaching at university level in the related to the post fields.
 - Experience in developing, implementing and developing projects as well as in fund-raising and resources mobilization.
 - Relevant experience in Africa as well as in an organisation for international technical cooperation would be an advantage.
 - Proven capacity to organize training courses; excellent analytical and organizational skills. Strong managerial skills and ability to lead a team.
 - Excellent IT skills.

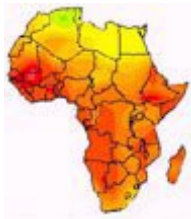
Apply using on-line recruitment system at www.unesco.org/employment. Candidates without access to Internet may send a paper application by completing the official UNESCO CV form (available at Headquarters, UNESCO Offices, National Commissions in Member States, or any office of a United Nations Resident Representative). Contact: Recrutweb@unesco.org. Deadline: 19 March 2009.

Resource Economist/Rural Sociologist, Arusha, Tanzania

CIAT is seeking to fill the position of a Resource Economist/Rural Sociologist for the African Soils Information Service ([AFSIS](#)) Project of [CIAT-TSBF](#). The Resource Economist/Rural Sociologist will report to the CIAT-TSBF Director through the Leader of AfsIS Objective 4. The aim of Objective 4 is to provide evidence-based, spatially explicit soil management recommendations to national research and extension providers and services of the countries involved. This will be accomplished by the development of norms and standards for locally appropriate soil management practices; protocols for demonstrations and testing best-bet soil management practices at sentinel sites; collection and meta-analysis of literature and case-based soil management practices; installing and monitoring additional field trials at sentinel sites, modeling all of the above, including expert systems to assist the development of soil management recommendations by national institutes. The incumbent should have:

- PhD in Resource Economics or Rural Sociology.
- At least 3 years of experience in Africa with conducting farm or household surveys, or conducting socio-economic surveys for site characterization, or conducting rural diagnostic studies.
- Some proven experience in market analyses and or production chain analyses.
- Preferably experience with CBOs Farmer Field Schools or other farmer organizations.
- Proven analytical skills in handling socio-economic data and proficiency with qualitative and quantitative methods for sociological studies.

Applicants should apply by e-mail, sending a cover letter summarizing their relevance, a full C.V. and the names and contact information of three referees. Applications should be sent to the Human Resources Office at CIAT (a.i.restrepo@cgiar.org) with copies to m.sambo@cgiar.org. Deadline: until a suitable candidate is identified.



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Soil Scientist/Ecologist, Arusha, Tanzania

CIAT is seeking to fill the position of a Soil Scientist/Ecologist for the African Soils Information Service (AfSIS) Project of [CIAT-TSBF](#). The Ecologist will report to the CIAT-TSBF Director through the Leader of AfSIS Objective 3. The aim of Objective 3 is to develop digital soil maps and establish soil health surveillance system in Sub-Saharan Africa (SSA), by setting-up data, metadata, case definitions, spatial sampling and interpretation standards, acquiring, digitizing, and spectrally characterizing soil legacy data; assembling, processing, and interpreting remote sensing data and existing national soil maps, collecting and analyzing soil health data from (at least) 60 continentally representative sentinel sites, and generate high resolution digital maps of soil functional properties for 18.1 million km² of SSA, including soil degradation status and biophysical and socioeconomic risk factors. The incumbent should have:

- PhD in Soil Science, ecology or related field, post-doctoral experience strongly preferred with at least 5 years working experience in Africa. Whilst the intention is to appoint a person of outstanding scientific reputation, particular emphasis will be placed on proven qualities for leadership.
- Experience of managing networks and/or multi-institutional and multi-cultural collaborative projects will be an advantage.
- Proven analytical skills in GIS, remote sensing, and spatial statistics.
- Willingness to conduct fieldwork in remote areas for extended periods of time.
- Valid driving license.

Applicants should apply by e-mail, sending a cover letter summarizing their relevance, a full C.V. and the names and contact information of three referees. Applications should be sent to the Human Resources Office at CIAT (a.l.restrepo@cgiar.org) with copies to m.sambo@cgiar.org. Deadline: None. The position is open until a suitable candidate is identified.

Soil Scientist/Dryland Ecologist, Bamako

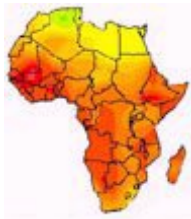
CIAT is seeking to fill the position of a Soil Scientist/Dryland Ecologist for the African Soils Information Service (AfSIS) Project of [CIAT-TSBF](#). The Dryland Ecologist will report to the CIAT-TSBF Director through the Leader of AfSIS Objective 3. The aim of Objective 3 is to develop digital soil maps and establish soil health surveillance system in Sub-Saharan Africa (SSA), by setting-up data, metadata, case definitions, spatial sampling and interpretation standards, acquiring, digitizing and spectrally characterizing soil legacy data; assembling, processing and interpreting remote sensing data and existing national soil maps, collecting and analyzing soil health data from (at least) 60 continentally representative sentinel sites, and generate high resolution digital maps of soil functional properties for 18.1 million km² of SSA, including soil degradation status and biophysical and socioeconomic risk factors. The incumbent should have:

- PhD in Soil Science, Hydrology, or related field, post-doctoral experience strongly preferred with at least 5 years working experience in Africa. Whilst the intention is to appoint a person of outstanding scientific reputation, particular emphasis will be placed on proven qualities for leadership.
- Experience of managing networks and/or multi-institutional and multi-cultural collaborative projects will be an advantage.
- Proven analytical skills in GIS, remote sensing, and spatial statistics.
- Willingness to conduct fieldwork in remote areas for extended periods of time.
- Valid driving license.

Applicants should apply by e-mail, sending a cover letter summarizing their relevance to, a full C.V. and the names and contact information of three referees. Applications should be sent to the Human Resources Office at CIAT (a.l.restrepo@cgiar.org) with copies to m.sambo@cgiar.org. Deadline: until a suitable candidate is identified.

Soil Legacy Data Officer, Wageningen, The Netherlands

Soil Information is seeking applications for a soil legacy data officer to be based at ISRIC, Wageningen, The Netherlands. The period of contract will be 2 years, renewable with good performance and availability of funds. Specific responsibilities include: Coordinate the collection, compilation and digitisation of all African soil maps and soil data to be incorporated in the African Soil Information Service; Oversight of legacy data used in the African Soil information Service including data rescue, data model and database development and quality control; Liaison with legacy data officers in the other continental nodes of GlobalSoilMap.net; Thinking on soil legacy data for the use of digital soil mapping; Monitoring the completion of legacy data assembly, quality control and input to other components of the international program on time, on budget, and to specifications; and writing of technical manuals. The incumbent should have:



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- Degree in soil science, professional international experience in soil survey and GIS or digital soil mapping, excellent oral and written communications;
- Capacity to communicate with all staff in the project, and with international node leaders;
- Ability to conceptualize, develop, and communicate policies, procedures, and guidelines;
- Analytical skills for problem solving, digital mapping process and systems design, attention for details;
- Demonstrated international or cross cultural experience, understanding of international environment and development issues.

Applications, including Curriculum vitae and the names and contact details of three referees (including telephone, and e-mail address), should be sent to The Director, ISRIC - World Soil Information (isric@wur.nl), copied to Dr Alfred Hartemink (alfred.hartemink@wur.nl) who may be contacted for questions and further information about this position. Application deadline: March 5, 2009 or until a suitable candidate is identified.

Science Coordinator, Wageningen, The Netherlands

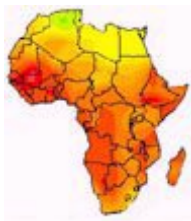
GlobalSoilMap.net is a new global program to map the world soil resources at high resolution, coordinated by ISRIC - World Soil Information and bringing together centres of soil science excellence in every continent. The program started in 2009 and ISRIC - World Soil Information is appointing a Science Coordinator, to be based in Wageningen, The Netherlands. The incumbent will be responsible for scientific coordination, management and planning; Project management, monitoring the completion of the various program components on time, on budget, and up to specification; Liaison with all scientists in the nodes of *GlobalSoilMap.net* and with the sister project developing an *African Soil Information Service*, to ensure compatibility of methods and approaches; Scientific leadership in technical developments necessary to achieve the mapping goals; and Coordinate the writing of technical manuals. The period of contract will be 3 years with a 6 month period of notice; there is a likelihood that the position will be made permanent. Incumbent should have:

- Advanced degree or professional equivalent in soil science or a related field;
- Ten years of professional experience in soil survey, including digital soil mapping and/or pedometrics;
- Experience with international collaborative projects and proven team building ability;
- Excellent oral and written communications; proven capacity to communicate within a team, between partner teams in different institutions in different countries, heads of partner institutions, donors, government representatives, and project consultants;
- Demonstrated ability to supervise staff, providing direction, delegation, and empowerment within a team to achieve coordination and efficiency in meeting project objectives;
- Innovative thinking; strong analytical and problem solving skills applicable to digital mapping process and systems improvements, attention for detail;
- Demonstrated international or cross cultural experience, and understanding of international development issues;
- Fluency in English is essential; command of other international languages (French, Portuguese) is an advantage

Applications, including Curriculum vitae and the names and contact details of three referees (including telephone, and e-mail address), should be sent to The Director, ISRIC - World Soil Information (isric@wur.nl), copied to Dr Alfred Hartemink (alfred.hartemink@wur.nl) who may also be contacted for questions or further information. Application deadline: March 5, 2009 or until a suitable candidate is identified.

Executive Director, International Human Dimensions Programme (IHDP), Bonn, Germany

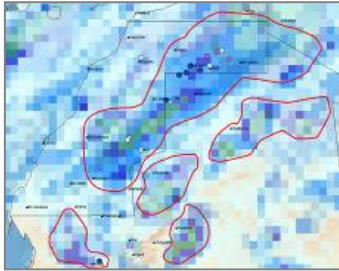
Candidates should have experience and knowledge of the socio-economic, cultural, behavioural, and institutional dimensions of the global environmental change research effort; excellent skills in staff development, office management, and financial management skills; experience in international scientific collaboration including, if possible, both governmental and non-governmental organizations; excellent command of written and spoken English; knowledge of other UN languages desirable; awareness of the relevant state-of-the-art research in the natural sciences, engineering, and applied sciences; and capacity for extensive international travel. Applications are to be sent to the United Nations University in Tokyo, email: IHDPED@hq.unu.edu. Application deadline: 31 March 2009.



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Unusually heavy rains in Western Sahara (September 2008)



Unusually heavy rains fell in the Western Sahara, spilling over into neighboring areas of Morocco, Mauritania and Algeria during the second half of September 2008. The rains were associated with two storms that originated in the Atlantic Ocean on 16-19 September and 25-27 September. The heaviest rain fell from Aousserd and Bir Anzarane (in the south) to Guelta Zemmur and Bir Moghreïn (in the centre) to Zag and Tindouf (in the north). The size of this area is roughly 800 km long by 200 km wide. Good rains also fell in N Mauritania between Akjoujt and Tichla, near Ouadane and Zouerate, and between Ghallaman and El Hank. The colour squares on the map indicate estimated rainfall (the darker the colour, the more rain). The circles indicate confirmed field reports (light blue = low rainfall, dark blue = moderate, violet = heavy). The distribution of significant rains is outlined in red.

Desertification reversed in northern Ethiopia

Some of the most severe cases of land degradation in semi-desert areas could be reversed with the right policies, researchers in Ethiopia have concluded. A study of a dry region in the north of the country, whose population had increased ten-fold and whose land had become highly degraded, found that local people have nevertheless managed to coax it back into recovery. Key to the study was a collection of sepia photographs taken during Great Britain's military expedition to Abyssinia in 1868, which researchers were able to compare with more recent images - building up a story of the semi-arid landscape spanning 140 years. The scientists, from Belgium and Ethiopia, used the photographs, which covered a 10,000 km² area of the Tigray region in northern Ethiopia in the dry seasons of 1868 and 2008 - to compare levels of vegetation and other indicators of land health. They combined this information with field research and ratings from land management experts.

Starting in the 1980s, the government terraced the steep slopes with 'stone bunds', built stone walls that follow the contours of hills to prevent erosion and flooding; closed extremely degraded areas to grazing, crop cultivation and tree-felling; and replanted forests. Crucially, while the recovery began as a top-down approach initiated by the government, local communities came to recognize the value of such conservation work because they could see for themselves its benefits - such as reduced flooding. Researchers have concluded that, with the right policies in place, coaxing a severely degraded region back into recovery is possible.

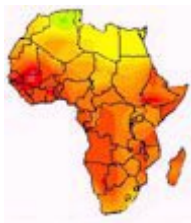


African forests prove valuable carbon sink



African forests are adding to their mass each year by an amount equivalent to a small car per hectare, researchers have found. The finding has surprised researchers and confirms the forests' status as one of the world's substantial carbon sinks. Researchers used data collected between 1968 and 2007 to calculate that 0.6 tonnes of carbon per hectare are added to African forests each year. While this has been shown in the Amazon, this is the first demonstration that African forests are taking in carbon.

There are two possible explanations. One is that the forests might not be in equilibrium, as was previously thought. All forests take in carbon as they grow. In the absence of disturbances they then reach equilibrium, when tree death and growth occur at the same rate. It could be that the seemingly undisturbed African forests are actually still recovering from past disturbances such as fires or mass logging and therefore still growing. Alternatively, changes in the global climate and atmosphere could have disturbed the forests' previous equilibrium. Increased carbon dioxide could be increasing tropical tree growth for example. It is likely that both theories have a role to play, but scientists need a better understanding of carbon dynamics in tropical forests to know the answer, writes Helene C. Muller-Landau of the Smithsonian Tropical Research Institute in Panama. The research also highlights the need to protect African forests, write the authors. "With adequate protection these forests are likely to remain large carbon stores in the longer term. Securing this service will probably require formalizing and enforcing



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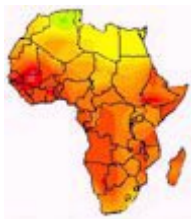


land rights for forest dwellers, alongside payments for ecosystem services to those living near forested areas." See link to [full paper](#) in *Nature*.

Conferences, Events

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

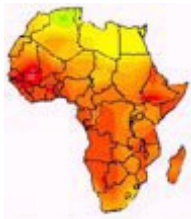
Date	Location	Event
March 2009		
3-5 March 2009	Kigali, Rwanda	Developing an Equitable Information Society in Africa: The role of African Parliaments
12-15 March 2009	Hurghada, Egypt	13th International Water Technology Conference
15-18 March 2009	Hurghada, Egypt	11th International Conference on Energy and Environment Contact: asharkawy@eeca.eg .
16-20 March 2009 * NEW *	Windhoek, Namibia	Geoscience Information in Africa (GIRAF) 2009 Contact: Dr. Kristine Asch at GIRAF2009@bgr.de , http://www.GIRAF2009.org
16-22 March 2009	Istanbul, Turkey	5th World Water Forum : Preparatory process is ongoing
19-22 March 2009 * NEW *	Cairo, Egypt	4th International Conference on Intelligent Computing and Information Systems
22-27 March 2009	Las Vegas, NV, USA	Association of American Geographers Annual Meeting Abstract deadline: October 16, 2008.
23 March - 9 April 2009	Trieste, Italy	Satellite Navigation Science and Technology for Africa Contact: smr2025@ictp.it .
27-29 March 2009	Austin, TX, USA	2009 Africa Conference - Science, Technology, and the Environment in Africa Contact: Dr. Toyin Falola or Emily Brownell . Deadline for paper submission: November 1, 2008.
April 2009		
1-2 April 2009	Maputo, Mozambique	Digital World Forum Workshop: Role of Mobile Technologies for Development Deadline for expressions of interest: February 12, 2009.
1-3 April 2009	Accra, Ghana	WATER AFRICA 2009 , International Exhibition & Seminar Contact: ACE Event Management, info@ace-events.com .
4 April 2009 * NEW *	Nairobi, Kenya	WhereCampAfrica 2009
6-9 April 2009 * NEW *	Johannesburg, South Africa	SatCom Africa 2009
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 .
27 April 2009	Addis Ababa, Ethiopia	CODIST Pre-Conference Workshop
28 April - 1 May 2009	Addis Ababa, Ethiopia	1st Session of the Committee on Development Information, Science and Technology (CODIST-I)
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: 31 October 2008.



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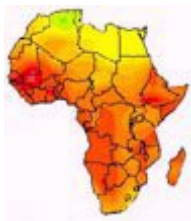
4-8 May 2009	Stresa, Italy	33rd International Symposium on Remote Sensing of Environment “Sustaining the Millenium Development Goals” (ISRSE33) Contact: ISRSE33, isrse33@symposia.org .
4-8 May 2009	Berlin, Germany	7th IAA Symposium on Small Satellites for Earth Observation Contact: Ute Dombrowski, Ute.Dombrowski@dlr.de .
5-12 May 2009	Nairobi, Kenya	25th Session of the United Nations Group of Experts on Geographical Names (UNGEGN)
6-8 May 2009	Gauteng, South Africa	2009 SA PhD Project Conference In addition to plenary sessions, the conference programme will also include a welcome cocktail, conference dinner and the PhD Project Fair at which universities, research institutions, facilities, companies and funding agencies will market their training, funding and employment opportunities. Contact: wendy.lambert@nrf.ac.za .
6-8 May 2009	Kampala, Uganda	IST-Africa 2009 Conference & Exhibition Online submission deadline for full paper or workshop proposal: 9 November 2008 .
19-21 May 2009 * NEW *	San Jose, CA, USA	2009 Where 2.0 Conference: Becoming Location Aware
23-29 May 2009	Accra, Ghana	IAIA09: Impact Assessment and Human Well Being Abstract deadline: 15 January 2009 .
25-29 May 2009	Molde, Norway	ISO/TC 211 28th Plenary – with WGs and ECs prior to plenary.
25-29 May 2009	Chengdu, China	2nd International Conference on Earth Observation for Global Changes (EOGC2009) Contact: Conference Secretariat, xfzhang@pku.edu.cn .
June 2009		
2-5 June 2009 * NEW *	Cologne, Germany	Global Change in Africa: Projections, Mitigation and Adaption Send abstracts in French or English to africa-conference@uni-koeln.de . Abstract deadline: 31 March 2009 . For further information: www.impetus.uni-koeln.de/africa
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.
22 June 2009	Nottingham, UK	1st Open Source Gis UK Conference 2009 Abstract submission deadline: 15 February 2009 .
24-26 June 2009	Paris, France	ICGIS 2009: "International Conference on Geographic Information Systems" Paper deadline: February 28, 2009 .
24-26 June 2009	Ljubljana, Slovenija	27th Urban Data Management Symposium Full paper submission deadline: September 29, 2008 .
3-6 July 2009	Perm, Russia	INTERCARTO-INTERGIS 15 Abstract deadline: February 2, 2009 .
July 2009		
Second half of 2009	Addis Ababa, Ethiopia	UN-SPIDER Regional Workshop “Building Upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa”
3-6 July 2009	Ghent, Belgium	INTERCARTO-INTERGIS 15 Abstract deadline: February 2, 2009 .
5-8 July 2009	Newfoundland, Canada	6th International Symposium on Spatial Data Quality (ISSDQ 2009) “Quality: From Process to Decisions” Contact: Rodolphe Devillers, issdq2009@mun.ca .
7-9 July 2009	South Africa	Geospatial Africa 2009
7-10 July 2009	Salzburg, Austria	Geoinformatics Forum Salzburg (GI Forum2009) Contact: GI_Forum Team, office@gi-forum.org .



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11-14 July 2009	San Diego, California	ESRI Survey & Engineering GIS Summit Contact: seqsummit@esri.com .
13-14 July 2009	Oxford, United Kingdom	The 3rd International Conference on Geosensor Networks Deadline for paper submission: April 3, 2009 .
13-17 July 2009	Cape Town, South Africa	IEEE IGARSS'09 Abstract deadline: 4 January 2009 . Contact: Dr. Harold Annegarn, han@rau.ac.za . On the conference and exhibitions, contact Bryan Stewart, bstewart@cmsworldwide.com .
13-17 July 2009	San Diego, USA	29th ESRI International User Conference 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	Big Bear Lake, CA, USA	Society for Conservation GIS (SCGIS) Annual Conference
27-31 July 2009 * NEW *	Vancouver, BC, Canada	GeoWeb 2009
August 2009		
2-7 August 2009 * NEW *	Accra, Ghana	2nd Regional Workshop of the Global Earth Observing System of Systems (GEOSS) Support for Decision-Making in the Coastal Zone: "Strengthening Observing Systems Capacity for Managing and Mitigating the Impacts of Human Activities and Coastal Inundation in the African Region"
10-14 August 2009	Trieste, Italy	Conference on high resolution climate modeling: The impact of SST changes and the MJO on tropical cyclones Contact: smr2051@ictp.it .
12-14 August 2009	Fairfax, VA, USA	17th International Conference on Geoinformatics 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: msmr2048@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	Dresden, Germany	1st International Conference on 3D Maps: ICA Symposium "True-3D in Cartography" Contact: Mrs. Steffi Sharma, info@conwerk.net .
September 2009		
September 2009	Johannesburg, South Africa	Map Africa 2009
3-4 September 2009	Paris, France	WG III/4+5 Workshop on Object Extraction for 3D City Models, Road Databases & Traffic Monitoring - Concepts, Algorithms & Evaluation (CMRT09) Contact: Franz Rottensteiner: rottensteiner@ipi.uni-hannover.de or Uwe Stilla: stilla@bv.tum.de .
6-12 September 2009	Hyderabad, India	8th IAHS Scientific Assembly and 37th IAH Congress APFM will organise a special session on Integrated Flood Management.
7-25 September 2009	Trieste, Italy	Open Source and Internet Technology for Scientific Environment Contact: smr2057@ictp.it .
10-11 September 2009	Cape Town, South Africa	Royal Institution of Chartered Surveyors' (RICS) International Legal Research Symposium 2009 Abstract deadline: 3 April 2009 . Contact: p.chynoweth@salford.ac.uk .
21-25 September 2009	Brittany, France	The Ninth International Conference on Spatial Information Theory (COSIT 2009)



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21-25 September 2009	Bath, UK	2009 EUMETSAT Meteorological Satellite Conference
24-25 September 2009 * NEW *	Addis Ababa, Ethiopia	ESRI Eastern Africa User Conference
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	Sydney, Australia	FOSS4G 2009 Conference
20-23 October 2009 * NEW *	Alpine Heath, Northern Drakensberg, South Africa	2009 GIMS User Conference
26-29 October 2009	Kampala, Uganda	AfricaGIS 2009 Conference . Theme: Geo-spatial information and sustainable development in Africa: Facing challenges of global change. Abstract deadline: <u>30 April 2009</u> . Contact: info@africagis2009.org or Shuaib Lwasa, S.Lwasa@cgiar.org .
November 2009		
9-12 November 2009 * NEW *	Manama, Bahrain	2009 ESRI Middle East and North Africa User Conference (MEAUC) Contact meauc2009@esri.com .
15-22 November 2009	Santiago, Chile	XXVI International Cartographic Conference Contact: Conference Secretariat at info@icc2009.cl . See also The World's Geospatial Solutions
17- 21 November 2009	Sydney, Australia	FOSS4G, Annual Conference
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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