



Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

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




Input to this Issue

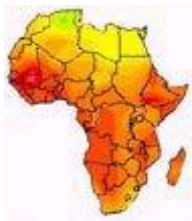
Thank you to Kate Lance, NASA/SERVIR-Africa (USA); Hussein Farah, RCMRD (Kenya); Dozie Ezigbalike, UNECA (Ethiopia); Melkamu Ayalew (Ethiopia); and Carmelle J.Terborgh, ESRI (USA) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

[Google to monitor deforestation](#)

 USA: Google is joining forces with space agencies around the world and the conservation organization Group on Earth Observations (GEO) to monitor deforestation rates using satellite imagery. Among the space agencies working on the program are NASA, the ESA, and the national space agencies of Japan, Germany, Italy, India, and Brazil. The GEO is a global partnership of 80 governments and more than 50 organizations. Internet Company Google currently collects satellite images for use in its Google Earth application, and will be providing satellite images to the project.

Annual monitoring via satellite images will help identify changes in areas of forest more accurately than ever before. The data will be important in helping support programs in which governments, environmental groups, and investors pay to protect certain forests. The seven countries would act as pilot programs including Australia, Brazil, Cameroon, Guyana, Indonesia, Mexico, and Tanzania. All of these locations have had satellite images taken in the last few months. The U.S. has satellite images from Landsat going all the way back to 1972 to use for comparisons.

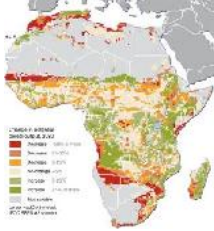


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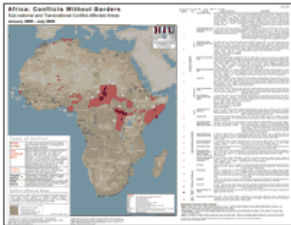


Projected changes in cereal productivity in Africa, due to climate change – current climate to 2080

Water is essential not only to survival but is also equally or even more important than nutrients in food production. Agriculture accounts for nearly 70% of the water consumption, with some estimates as high as 85% (Hanasaki et al., 2008a,b). Water scarcity will affect over 1.8 billion people by 2025 (WHO, 2007). This could have major impacts on health, particularly in rural areas, and thus also major impacts on farmer productivity. Although of great significance, such indirect effects are not considered here. Current projections suggest that water demand is likely to double by 2050 (Figure 20). Estimates project water withdrawals to increase by 22– 32% by 2025 (De Fraiture et al., 2003) and nearly double by 2050, for all SRES scenarios (Shen et al., 2008). For poor countries with rapid population growth and depletion of groundwater, water-deficit induced food insecurity is a growing problem (Rosegrant and Cai, 2002; Yang et al., 2003). One major factor beyond agricultural, industrial and urban consumption of water is the destruction of watersheds and natural water towers, such as forests in watersheds and wetlands, which also serve as flood buffers (UNEP, 2005). For more additional information and downloads, see: [The Environmental Food Crisis - the environment's role in averting future food crises](#).



Africa: Conflicts without borders - Sub-national and transnational conflict-affected areas (January - July 2009)



This map from the US Department of State's Humanitarian Information Unit visualizes conflict in Africa as sub-national and transnational areas of armed conflict, inter-communal strife, and political violence that occurred in the first six months of 2009. Areas of conflict were drawn around locations of reported conflict incidents in 2009, as well as around concentrations of internally displaced persons inside affected countries and cross-border rebel bases and refugee camps in neighboring countries.

- This depiction of areas of conflict more accurately displays where conflict has been occurring in Africa--demonstrating visually that (1) conflicts are usually not nationwide and (2) often cross borders into other countries.
- More than one conflict can affect the same area and population, as is the case in the intersecting conflict areas colored in dark red.
- Environmental pressures have exacerbated short term, recurring conflicts over water, land, and livestock between rival tribes, clans, and ethnic groups in east Africa. This localized inter-communal strife has resulted in killings and temporary displacement of affected populations, sometimes across borders.
- Locations of piracy incidents and targeted attacks in 2009 have also been depicted on the map.

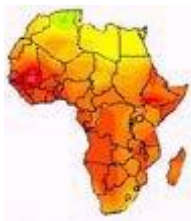
This is the first update of it Africa: Conflicts without borders poster map, covering the period January to June 2009. As new sub-national and transnational conflicts break out (northern Nigeria inter-communal strife July 2009) the GIS product will be updated every six months (July - January) to show the changing status and affected areas of conflicts in Africa.

AfSIS Workshop in Arusha, Tanzania

The Africa Soil Information Service (AfSIS) workshop on norms and standards for spatially explicit and evidence based soil management recommendations was arranged in Arusha, Tanzania, between September 23rd and 25th. Participants at the workshop included the AfSIS core team and national partners from project countries. As part of the workshop, field demonstrations were conducted in one of the sentinel landscapes in Kisongo, near Arusha.

Micro-satellites MicroGEM offer improved earth monitoring

A combination of small satellites can, with innovative methods, use the signals of the navigation satellite systems GPS and Galileo to significantly improve remote sensing of Earth. MicroGEM (Microsatellites for GNSS Earth Monitoring) represents satellites with a mass of approx.100 kilograms for monitoring of the Earth. Such small satellites represent a relatively cost effective platform for scientific instruments, bringing together proven technique with innovation in a way which allows for new scientific results to be obtained at minimum technological risk. The Global Navigation Satellite System (GNSS) is a compendium of the satellite navigation system GPS and, in future, Galileo. With the GFZ-satellite missions CHAMP (CHALLENGING



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Minisatellite Payload) and GRACE (Gravity Recovery And Climate Experiment) such, satellite-based innovative remote sensing technologies have been successfully employed during the past years. MicroGEM links in with these missions and will, for the first time, use the signals from the future Galileo-satellites for the GNSS-supported atmospheric and ionospheric remote sensing on a global scale. Thus, significant improvements in his method can be expected. In addition GNSS-signals for the remote sensing of ocean and ice surface will be employed for the first time.

The particular technological challenge of MicroGEM lies in the fact that this small satellite mission shall serve as a predecessor for future multi-satellite systems with scientific GNSS-receivers as satellite payload. With such constellations the number of measurements can be considerable increased and an improved global coverage can be achieved.

[Farmers to benefit from agricultural radio broadcasts](#)

Farmers in Sub-Saharan Africa will benefit from agriculture-related radio broadcasts with help from a US\$10 million Gates Foundation grant. The 'Farmer Voice Radio' project which will provide farmers with information such as new farming techniques is expected to start in Kenya and Malawi before expanding to Ghana, Mali, Tanzania and Uganda.

In Africa, 200 million people (33 percent) of the population are undernourished, and hunger is expected to increase exponentially over the next 20 years unless sustainable steps are taken to meet domestic food needs. Currently, small farmers account for 60 percent of all farmers in sub-Saharan Africa, making them a critical component for establishing economic growth and food security on the continent. Radio is the most far-reaching, low-cost, and ubiquitous mass-medium in Africa. Farmer Voice Radio will use this medium to deliver vibrant, relevant agricultural programming to help small farmers find the best soil and seed varieties, conserve natural resources, increase crop yields, and gain access to lucrative markets. With easy access to this range of valuable information, small farmers can measurably improve their productivity, livelihoods, and well-being.

Farmer Voice Radio aims to build the capacity of radio stations across Africa to serve as an informational resource for small farmers. It also seeks to encourage the participation of farmers through the use of other technologies, such as mobile phones, SMS, and MP3 recorders, so they can obtain the information they need while sharing their concerns and experiences. Programming topics will range from general farming practices to individually focused techniques based on the needs of a small community. Initially, the project will begin in Kenya and Malawi before expanding to Uganda, Mali, Ghana and Tanzania.

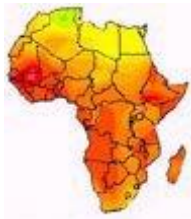
[Africa experiments with climate insurance](#)

Insurance is increasingly being seen as a tool for climate adaptation. As natural catastrophes rise globally, supporters say pre-event policies can be used to encourage people and governments to build safer homes, establish early warning systems and pursue other damage-reducing measures. It can also speed up the delivery of aid. Right now, international donors and governments often wait until people are already starving before stepping in. Insurance payments can come more quickly.

The experiment is designed to protect about 200 farmers in the village of Adi Ha in Ethiopia from dry spells that can wither small fields of teff, a grass with grain seeds, about once every five years. A hunger crisis can follow. The insurance policies are as tiny as the fields, often about an acre. Each farmer pays the equivalent of about \$5 a year, many of them promising to work for about 10 days on irrigation trenches or other projects in return. The policy will pay up to \$25 in claims. Without it, a family can go into debt for years, reducing future harvests. The risk might become more acute as atmospheric greenhouse gases threaten to make Ethiopia's rainy season more erratic, possibly causing periodic drought or disrupting traditional growing seasons.

[NASRDA now UN satellite support centre for West Africa](#)

The United Nations has appointed Nigeria's National Space Research and Development Agency (NASRDA) as the Regional Support Centre for Outer Space Affairs for West Africa. The mandate of the Center is to anchor a new United Nations programme known as the United Nations' platform for Space-Based Information for Disaster Management and Emergency Response (UN -SPIDER). The Director General of NASRDA Dr. Seidu O. Mohammed said in an acceptance speech in September that the Agency would serve as a gateway for space based solutions to disaster management, and also serve as a link between the disaster community and the geospatial community. Dr Mohammed said the centre would also serve as a tool for capacity development, adding that Nigeria is the pioneer earth observation satellite data provider in Africa



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and is a member of the Disaster Monitoring Constellation along with UK, China and Algeria. He said NASDA has assisted in providing information on several disasters such as Hurricane Katrina, Tsunamis and Australian Fire Disaster among other. He added that the centre therefore has become imperative due to increase in cases of disaster directly or indirectly related to incidents of climate change.

Uganda's GPS stock-take



Over 900 Ugandan census enumerators who have put down their measuring tapes and compasses, and are gathering data using handheld Global Positioning System (GPS) devices. Over a twelve-month period and spanning two planting seasons, more than 36,000 farmers are being surveyed in Uganda's latest agricultural census. The use of the GPS devices in Uganda has provoked mixed reactions. In some areas, there has been suspicion about the purpose of the data collection, and fears that the government might be planning to seize land. But Shaban Muyinda, one of Chandiru's farmers from Mukono district close to Kampala, is more optimistic: "We hope the government will now give us help, because now we have given them information about our needs," he says. His hope reflects the government's own view: lack of reliable estimates for crop production is often quoted as a significant challenge to effective agricultural planning and policy development.

In using GPS technology for collecting agricultural data, Uganda is following the example of a number of African countries including Mozambique; now it is sharing its experience with others. In November 2008 a delegation from Botswana came to observe Uganda's use of the technology, in preparation for its own agricultural census. "We took them through how we are doing it and they visited some farms, to see how the area measurement is undertaken," says Seth Mayinza, who leads the census for the Uganda Bureau of Statistics (UBOS).

Uganda Telecom puts customers on Seacom

Uganda Telecoms Ltd. launched its customers onto the Seacom fibre optic cable following a partnership agreement signed between the two companies on July 23, 2009. According to a report in the Independent, UTL provides 75% of the internet services on the local market and has all along been offering internet bandwidth via satellite which is twice as expensive compared to the fibre optic based bandwidth. In spite of investing into the Eassy fibre optic cable that is expected to land at Mombasa mid- next year, UTL has gone ahead to acquire bandwidth on the Seacom fibre optic cable to cut on the price of internet. Seacom now links UTL customers to Southern and Eastern Africa, Europe and South Asia. With their launch onto the Seacom fibre optic cable, UTL has increased customer bandwidth at the existing price. Customers who had 64kbps at US\$ 90 now have 128kbps at the same price.

Uganda stops construction of national fibre backbone over project cost

Uganda has suspended the construction of the national backbone fibre cable after intervention of parliament, which accuses the ICT Ministry of inflating the costs. Parliament has since 2008 been complaining of irregularities in the procurement of the contractor and inflated costs in the construction of the cable. In the first phase whose cost is \$30 million, about \$17 million was spent on gadgets to link communication between different departments. At a cost of \$106 million, financed under a loan from the China EXIM Bank, the cable is supposed to be completed by financial year 2011/12. However, already the second phase is behind schedule.

It is argued that although Rwanda is carrying out a similar project of laying 2,300km (more than what Uganda is doing) connecting 35 main nodes and 350 sites, the cost is just \$38 million, and yet it is scheduled to end in just a year. In addition, Kenya's fibre backbone, which is similar to phase one of Uganda, cost \$6 million.

The government has revisited the cable's construction just days after lawmakers overseeing the ICT sector demanded its suspension due to unsatisfactory performance of phase one of the backbone fibre, effectively jeopardising phase two and phase three, until the Auditor-General, concludes investigations into the multimillion dollar project. Even then, parliament wants to first debate the Auditor-General's findings before they can approve further laying of the cable or altogether terminate the contract signed between government and the Chinese technology giants, Huawei Technologies, which was contracted to construct the 2,130km-long fibre cable. Parliament claims the costs for the Uganda cable compared to that of Rwanda and Kenya is exaggerated. For instance, they say that in Rwanda, one kilometre cable laid cost 16,522 pounds; MTN's cost 10,000 pounds whereas that of Uganda cost 30,800 pounds. "And yet the quality of cables used is of greater core as opposed to lower core cables used in Uganda.



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Forest community monitoring in Cameroon



The forest areas of Cameroon are mainly inhabited by the indigenous Pygmy hunter-gatherer populations, Bantu and Ubangian speaking farmers, fishers and merchants. The forests are an especially important source of livelihood for the Pygmies providing most of their food, medicine & craft materials and are especially important in the religious and ritual life of these people.

In 2008, an initiative was launched aimed at enabling local forest communities to map their forest use and resources as well monitor logging activities in their local area. The main goal of the project was to set up a monitoring system whereby local indigenous communities could gather and record data relating to resource use on their community's land. A particular focus of this project has been in supporting the Forest Law Enforcement Governance and Trade (FLEGT) and AFLEG (African Forest Law Enforcement Governance and Trade processes, to provide a platform to aid in forest monitoring and remote verification of forest management activities in over 15 sites across Cameroon. The project builds on almost a decade of work in Cameroon by FPP and CED to support forest communities to map their lands, as part of a series of projects aiming to help communities protect their rights and resources. The Forest Community Monitoring System deployed in Cameroon has been implemented by Forest Peoples Programme (FPP), University College London (UCL), Centre pour L'Environnement et Le Developpement (CED) and Helveta with local and indigenous forest communities across the southern forest zone of Cameroon. Helveta's CI Earth software platform, which has been used for similar mapping projects in both Congo Brazzaville and Nigeria, allows users with low literacy levels to record GPS referenced information using 'touch-screen' HHC's (Held Computers). An existing database of icon images was enhanced in collaboration with the selected communities in Cameroon to represent the data for collection.

Conference of Vice-Chancellors and Deans of Science, Engineering and Technology (COVIDSET 2009), November 23-25, 2009, Kampala, Uganda

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

The conference will consider the following questions:

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

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



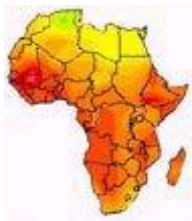
2009 ESRI Middle East and North Africa User Conference (MEAUC), November 9-12, 2009, Manama, Bahrain

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.

Future ESRI International User Conferences in San Diego, California, USA

July 12-16, 2010 July 11-15, 2011

July 23-27, 2012



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July 8-12, 2013
July 14-18, 2014

July 2024, 2015

25th Annual Conference of the Soil Science Society of East Africa, 5-9 December 2009, Moshi, Tanzania

The event will draw scientists from Research Organizations, Universities, Non-Governmental Organizations, Community-based Organizations, Farmer Association groups and International Soil-related Organizations operating in Eastern Africa. Papers will be presented in the conference according to the following disciplines: Fertilizer Use Efficiency and Food Security challenges, Climate change challenges to Small scale farming, Combating desertification in Eastern Africa, Land resources data bases in Eastern Africa, Water resources Utilization & Food Security, Effective communication of Soil and Water Research findings, Socio-economics and gender aspects of land management, Organic agriculture. Contact: M. Kilasara, Chairman, SSSEA mmkilasara@yahoo.com.

Practical SDI implementation materials from within and outside of Africa

[Community Knowledge Worker \(CKW\) initiative provides vital information link to improve agriculture](#)

As the international community prepared to celebrate World Food Day, Grameen Foundation announced that it will expand its Community Knowledge Worker (CKW) initiative in Uganda, supported by a \$4.7 million grant from the Bill & Melinda Gates Foundation. The initiative is building a self-sustaining, scalable network of rural information providers who use cell phones to help close critical information gaps facing poor, smallholder farmers. They will strengthen the information link to poor farmers by disseminating and collecting relevant information in these underserved communities.

During a successful nine-month pilot, which was concluded in August 2009, 40 CKWs in Uganda's Mbale and Bushyeni districts had more than 14,000 interactions with smallholder farmers. They conducted 6,000 surveys to help organizations such as the World Food Program and IITA (www.iita.org) better understand farmer needs. IITA also created Geographic Information Survey (GIS) maps showing crop disease outbreaks, the impact of farmers adopting recommended disease control methods, and other important information for farmers and scientists. Throughout the pilot, farmers routinely sought out CKWs to obtain information to help them treat pests, get accurate weather forecasts for planting, and earn more for their crops. For example, a farmer who had lost his groundnut crop because the rains came late and his seeds died contacted his local CKW to access regular weather forecasts so that he could plan the rest of his planting season and preserve his livelihood.

In this next phase of the initiative, Grameen Foundation is building on its experience in the pilot to develop a self-sustaining national network capable of reaching more than 200,000 farmers. The CKW initiative advances Grameen Foundation's efforts to develop innovative and sustainable approaches to use technology for the benefit of the world's poor. It also leverages the extensive knowledge and expertise from its successful Application Laboratory (AppLab) Program in Uganda (www.applab.org). The Community Knowledge Worker initiative is part of the Information and Communications Technology (ICT) Innovation program which is directed by Grameen Foundation's Grameen Technology Center in Seattle. For more information, visit www.grameenfoundation.org.

[OSGIS UK Webcasts now available](#)

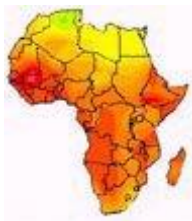


Webcasts of the presentations at the First Open Source GIS UK Conference are now available. The event was held at Centre for Geospatial Science and the presentations from Stream 1 are available for the benefit of the wider GIS community. The key aims of OSGIS conference series is to:

- Act as a focus for open source GIS research ;
- Provide platform to network and develop ideas for future collaborative work in open source GIS;
- Hear presentations from government, academic, industry and policy makers on open source geospatial technologies
- Understand current developments in open source GIS

[GRASS 6.4.0 module synopsis published](#)

A list of all modules with GUI menu locations has been published. Commonly referred to as GRASS, this is free Geographic Information System (GIS) software used for geospatial data management and analysis,



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image processing, graphics/maps production, spatial modeling, and visualization. GRASS is currently used in academic and commercial settings around the world, as well as by many governmental agencies and environmental consulting companies. GRASS is an official project of the [Open Source Geospatial Foundation](#).

Map of the future revealed



Ordnance Survey has been trialing the use of incredibly accurate lasers to create a spectacularly detailed map that could change the way the national mapping agency works and transform the way we think of maps forever.

The trials have been carried out in Bournemouth, with the town centre captured in startling detail. Experts say the technology could revolutionize the future of personal navigation, tourism and the planning process as well as aiding architects, and the emergency and security services.

The map was created as part of a trial spanning three years, with every square metre of Bournemouth captured using a combination of land-based and aerial survey with high-accuracy lasers. “We started by collecting the terrain, then vegetation before adding individual buildings, the road network and aerial imagery. “Given the level of detail that we’ve achieved, I think Bournemouth can confidently lay claim to being the best mapped place on the planet.” Ordnance Survey maintains the master map of Britain through a combination of GPS ground survey and high-quality aerial photography. It makes on average 5,000 changes a day to that database, which is relied on by government and business, but it remains a two-dimensional representation, with quality three-dimensional mapping remaining the cartographic Holy Grail. The mapping agency has also been in consultation with businesses that want to view buildings in 3D and calculate heat loss from individual floors and walls in order to improve energy efficiency and drive down carbon emissions. Ordnance Survey says that it will be continuing with trials to help perfect the technology, but expects detailed mapping in three dimensions to be a reality within the next five years.

Geospatial Revolution Project

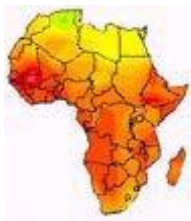
Penn State Public Broadcasting is developing the Geospatial Revolution Project, an integrated public media and outreach initiative about the world of digital mapping and how it is changing the way we think, behave, and interact. The project will feature a web-based serial release of eight video episodes each telling an intriguing geospatial story. Overarching themes woven throughout the episodes will tie them together, and the episodes will culminate in a 60-minute documentary. The project also will include an outreach initiative in collaboration with our educational partners, a chaptered program DVD, and downloadable outreach materials. Geospatial information influences nearly everything. Seamless layers of satellites, surveillance, and location-based technologies create a worldwide geographic knowledge base vital to solving myriad social and environmental problems in the interconnected global community. These technologies will help in.

- Fight climate change;
- Map populations across continents, countries, and communities;
- Track disease;
- Strengthen bonds between cultures;
- Defend the nation;
- Assist first responders in protecting safety;
- Enable democracy;
- Navigate our personal lives.

The sweeping application of these technologies requires public education to understand both the application of these technologies and the issues of privacy and security that they raise.

GIS forestry tool lowers cost of forest management

Forestry Development Centre Tapio of Finland is using ESRI's ArcGIS software and a solution designed by Tieto, an ESRI business partner, to meet Forestry Centres' goal to decrease forest inventory costs by 40 percent. The solution is designed to improve productivity, cost efficiency, and cooperation between organizations, including data procurement and two-way dataflow. It will also increase Forestry Centres' customer use of Forestry Centre services and advice. Working with Finland's Ministry of Agriculture and Forestry, Tapio supports forest management planning for the country's 13 regional Forestry Centres by providing them with information systems. To make operative planning more effective, Tapio deployed Tieto's



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solution, which is built on ArcGIS 9.3, ESRI's geographic information system (GIS) software. ArcGIS has been used to support forest management solutions for decades. The system enables Forestry Centres to maintain an up-to-date, high-quality forest resource database for the entire country. "GIS makes geographic information easier to use and increases the value of the data produced by Forestry Centres and other organizations," says Kirsi Valanne, geographic information specialist at Tapio. "Eventually, we will expand the system to support other operations performed by Forestry Centres."

In the initial phase to be completed by 2010, Tapio anticipates that 400 users will interact with the data. Eventually it hopes to expand the user group to 850 people who will access GIS for forestry law supervision, forest extension service (through public funding), forest management planning, and forest improvement projects. The client application is built on ArcGIS Desktop 9.3 tools. An Oracle database is connected by ArcGIS Server using SQL*Net (or Net8) protocol. GIS interfaces with Tapio's PDA field data collection program, forest data calculation application, customer relationship management (CRM) system, financial management applications, and data transfer service. Users will be able to connect to map servers via the Internet.

GIS Tools, Software, Data

[Projections and Coordinate Systems](#)

Tutorials that will help you understand the various projections and coordinate systems. Also find conversion tools to convert datasets from one system to another.

- [Latitude and Longitude](#) - Find the latitude and longitude of places around the world and learn more about this most popular coordinate system.
- [Map Projections](#) - All flat maps have to use a projection to display the spherical earth. Learn all about map projections and how they're used.

[MapServer 5.6.0-beta4 is released!](#)

The MapServer Team is pleased to announce the release of the fourth beta for the 5.6.0 release. We need your help to ensure a high quality product so please help out by testing your applications with this new code base. See [the release announcement](#) for more details and head to [Download](#) to obtain a copy.

[ASTER Global Digital Elevation Model \(GDEM\)](#)



NASA and Japan's Ministry of Economy, Trade and Industry (METI) released the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Global Digital Elevation Model (GDEM) to the worldwide public on June 29, 2009. The GDEM was created by processing and stereo-correlating the 1.3 million-scene ASTER archive of optical images, covering Earth's land surface between 83 degrees North and 83 degrees South latitudes. The GDEM is produced with 30-meter (98-

feet) postings, and is formatted as 23,000 one-by-one-degree tiles. The GDEM is available for download from NASA's EOS data archive and Japan's Ground Data System. In this colorized version, low elevations are purple, medium elevations are greens and yellows, and high elevations are orange, red and white. The GDEM is available for download from NASA's EOS data archive at <https://wist.echo.nasa.gov/~wist/api/imswelcome>. More information about ASTER data is available on the NASA website at <http://www.nasa.gov/topics/earth/features/20090629.html>.

[South African Risk and Vulnerability Atlas \(Sarva\)](#)

The South African Risk and Vulnerability Atlas (Sarva), an online climate database aims at promoting public access to scientific information of local risk and vulnerability in the context of global environmental change, will be offered in SA in January 2010. The Sarva project was initiated by the Department of Science and Technology and the online atlas is being developed by the Council for Scientific and Industrial Research (CSIR).

This Internet atlas will have similar features to Google Earth, which allows users to zoom in on specific locations in SA and get information about the future climate. This is aimed at equipping decision-makers with information on the impact and risk associated with global change in the region. Dr Bob Scholes, CSIR systems ecologist and principal investigator in the southern African Millennium Assessment, says: "The atlas will not only contain continually updated maps, it will be an easy-to-navigate, interactive spatial product at many scales, and will include case studies as well as other narratives to inform global change adaptation

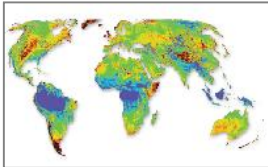


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responses and planning”. He explains that the atlas will provide an electronic geographical information system and will involve SA researchers from various disciplines to continuously update the content with new research. The atlas is being designed as a 'distributed' system, linking to outlying databases, to build a community engaged in spatial data provision in global change, risk and vulnerability. The CSIR has promised to provide easily understood global change sensitivity and vulnerability information at regional, national, provincial and municipal levels. It will also help support national initiatives such as the National Disaster Management Framework, says the CSIR. The atlas will become a one-stop shop for relevant climate change findings, which would inform projections of global change, land cover change and biogeochemical change for SA, states the organisation. [Source: SERVIR-Africa Community Blog]

[FirstLook global wind dataset: Africa validation](#)



The FirstLook global wind dataset is the first high resolution, methodologically consistent wind resource assessment of global extent. Computer simulations using a mesoscale numerical weather prediction model form the basis of the dataset. The dataset contains hourly values over a 10-year period, on a 2-arcminute (approximately 5 km) resolution grid covering all continental and near-shore areas between 60°S and 70°N. This white paper describes a validation study of the

FirstLook global wind dataset over a large area from 35°S to 37.5°N and from 30°W to 60°E. This area covers all of continental Africa and Madagascar.

This dataset can be used for prospecting and initial site assessments at locations where no direct wind observations are available. Depending on the size of a planned wind project, more detailed and expensive studies may still be needed to determine whether sites have sufficient wind energy potential. The dataset is not meant to replace measurements, except for projects that are too small to warrant the expense of a measurement campaign and where no measurements are available nearby. As the first seamless, high-resolution global wind dataset, this information shortens the prospecting cycle and allows developers to allocate their resources to the most promising locations. Regardless of the high resolution of the dataset, small spatial features are not well resolved. As a consequence, isolated bluffs and hills or large clearings in forests likely will have higher wind speeds than estimated in the dataset for that location. Similarly, local depressions and sheltered locations will likely have lower wind speeds. Such differences between FirstLook and observed wind speeds are expected to be larger in regions of rough terrain, or regions with large variations of surface roughness.

[ESRI launches “Mapping for Everyone” site](#)

ESRI has announced the launch of their “Mapping for Everyone” site. The Make a Map feature includes a simple interactive Web map showing seven different U.S. demographic layers. Visitors can zoom in to an area of interest, select a demographic layer, and then embed the map into their own Web pages simply by copying and pasting the automatically generated HTML.

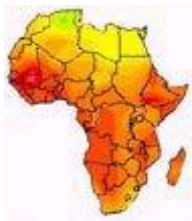
- Web Mapping APIs - visitors can access or download ArcGIS Web Mapping APIs to make their maps. Web Mapping APIs allow users to develop rich, interactive applications using JavaScript, Flex, and/or Silverlight. The page includes step-by-step instructions for installing the APIs, samples to help visitors get started, free map layers, and a gallery of live user sites where visitors can get ideas from applications other people have built. Web Mapping APIs are free for noncommercial use.
- Virtual Globe Viewer - a third mapping option is ArcGIS Explorer, ESRI's free virtual globe viewer. Using ArcGIS Explorer, users can explore the world in 2D and 3D using both their own data and free available data from the ESRI Web site. In addition to the ArcGIS Explorer download, the virtual globe page gives visitors easy access to map layers that they can add to ArcGIS Explorer, such as topographic maps, shaded relief, and world transportation. Once visitors become familiar with ArcGIS Explorer, they can also visit this page to find free add-ins that extend the software's capabilities.

Mapping for Everyone also includes a Community section where visitors can ask questions and collaborate with others. This section also provides access to ESRI's ArcGIS Explorer and Web Mapping API blogs.

[BIOTA AFRICA data portal](#)

A new data portal about available BIOTA AFRICA data is online. Starting from this portal, the access to various BIOTA AFRICA data like metadata, weather data, vegetation ecology data, animal diversity data and much more is available.

[BIOTA East Africa – GIS Geodata Service](#)



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- More than 30 new ready-to-use-maps entries
- Biodiversity observatories include BDOs for Budongo and Mabira
- Several new and updated geodatasets for the levels of Kenya, Kakamega-Nandi, Budongo and Mabira
- [Geo-Spatial Data](#) - This link brings you to a growing pool of geospatial data of use for BIOTA East Africa. For every dataset you will find meta information (in form of a PDF file), a quick look image as well as a download button.
- [Ready-to-Use Maps](#) - In certain cases downloading data and their subsequent handling in a GIS might be too much effort. Therefore, we provide here ready-to-use maps (i.e. already formatted maps) for presentations, etc.
- [WebGIS](#) - The WebGIS applications serve the purpose both of a browsing and viewing tool supporting users looking for suitable data, and of a presentation tool putting additional information (e.g. photographs) into a spatial context.

[Convert any image into an interactive map with uMapper](#)

UMapper now supports Custom Maps. That means that you can upload any image file to UMapper and convert it into an interactive map within minutes. Custom maps can also be used in [GeoDart games](#) and [Map Wiki's](#). Similar to standard maps, custom maps can be tracked with [UMapper Map Analytics](#), indexed by search engines and embedded pretty much anywhere on the internet. Ideally, a user will create a uMapper account, then they can start building custom maps using a variety of base maps including Bing maps, Google, OpenStreetMap, CloudMade, Yahoo! and CloudMade Stamen. [Create your first Custom Map](#).

[New UDIG3D alpha release](#)



The uDIG3D alpha version 0.1 with support for 3D spherical (WGS84) maps and 3D projected maps has been released. A new 3D Map is integrated within udig to be managed as a simple map but with the advantage of 3D representation. It makes use of OSGVirtualPlanets (osgVP) version 2.2.0. osgVP is a library developed in the Instituto de Automática e Informática Industrial(AI2) of the Universidad Politécnica de Valencia(UPV). If you want to test this release you can download a complete uDIG with the necessary

plugins and native libraries from here:

- Linux Version: - <http://www2.ai2.upv.es/difusion/uDIG/udig-linux-i386-alpha-v0.1.tar.gz>
- Windows Version: - <http://www2.ai2.upv.es/difusion/uDIG/udig-win-i386-alpha-v0.1.zip>
- Some video demonstrations can be found at <http://www2.ai2.upv.es/difusion/uDIG/demo-uDig1.swf>; <http://www2.ai2.upv.es/difusion/uDIG/demo-uDig2.swf>;
- User guide: <https://svn-gis.ai2.upv.es/svn/gis-projects/udig-extensions/trunk/Documentation/UserGuide.pdf>.

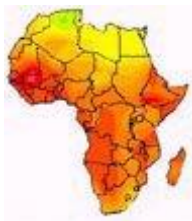
[Alqolab Raster to Vector Conversion CAD/GIS SDK 2.55](#)



Software development kit for CAD/CAM/GIS and graphic software developers. Converts from raster to vector and refines architect, mechanical, tech drawing, maps, math graphs, graphics for books and journals and more. ActiveX and Com Component are also available. Refines vector graphics, creates fine lines and shapes. Output formats DXF (AutoCAD), AI (Adobe Illustrator), EMF, WMF and ASCII XY (Excel).

[JERS-1 SAR Global Boreal Forest Mapping Project data sets](#)

Global Rain Forest Mapping Project (GRFM) / Global Boreal Forest Mapping Project (GBFM) CD-ROM and DVD-ROM data sets contain JERS-1 SAR mosaics of South-East Asia, Boreal North America, Central America & Pantanal, South America (Amazon Basin), and Africa. The ground resolutions of these data are 100m, 500m and 2km. The Japanese Earth Resources Satellite-1(JERS-1) is an Earth Observation Satellite to cover the global land area for national land survey, agriculture, forestry, and fishery, environmental protection, disaster protection, and coastal monitoring, etc. focusing on observation around the world and resource exploitation. It was launched into a solar-synchronous sub-recurrent orbit at an altitude of 568 km with a recurrent period of 44 days by the H-I launch vehicle on February 11, 1992 from National Space Development Agency of Japan (NASDA) Tanegashima Space Center. JERS-1 had carried two instruments, the Synthetic Aperture Radar (SAR) and the Optical Sensor (OPS) to collect the observation data. The



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JERS-1 SAR is L-band (23cm wavelength) imaging radar which has a full-resolution of about 20 meters. Although its design life is 2 years, JERS-1 continued its operation until 1998.

[GeoNetwork Opensource Version 2.4.0 released](#)



GeoNetwork opensource, the standards based, Free and Open Source catalog application to manage spatially referenced resources through the web, has announced the release of version 2.4.0. GeoNetwork opensource is a standards based geospatial catalog application that helps people and organizations to organize and publish their geospatial data through the web. It is currently used in numerous Spatial Data Infrastructure initiatives across

- Current stable version: [v2.4.2 \(12 October 2009\) \(also the manuals\)](#)
- Previous stable version: [v2.2.0 \(4 April 2008\)](#)

The software is released under the [GPL](#) license and can be used and modified free of charge.

[Mapnik 0.6.1 released](#)



Mapnik team has announced the 0.6.1 release of Mapnik. Mapnik is an OpenSource C++/Python toolkit for developing mapping applications. At the core is a C++ shared library providing algorithms/patterns for spatial data access and visualization. High-level Python bindings (boost.python) facilitate rapid application development targeting Zope3, Django, and other frameworks. It can comfortably be used for both desktop and web development.

[FreeGIS](#)

Web site dedicated to highlighting GIS software, tools and data that is available for free. For a nominal fee, you can also order their FreeGIS CD containing Free GIS software and data.

Geospatial Research, Applications, Reference Material

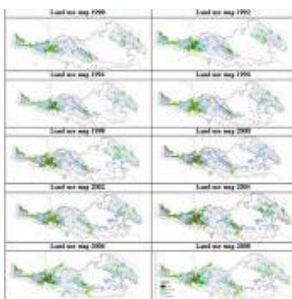
[New study shows about half of farmlands worldwide have significant tree cover](#)



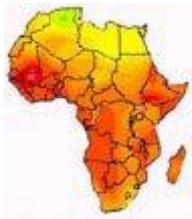
Although agriculture, particularly in the developing world, is often associated with massive deforestation, scientists from the World Agroforestry Centre has demonstrated, in a study using detailed satellite imagery, that almost half of all farmed landscapes worldwide include significant tree cover. The findings were announced at the opening of the 2nd World Congress of Agroforestry held in Nairobi, Kenya. The World Agroforestry Centre is one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR).

This is the first study to quantify the extent to which trees are a vital part of agricultural production in all regions of the world. It reveals that on more than 1 billion hectares - which make up 46 percent of the world's farmlands and are home to more than half a billion people - tree cover exceeds 10 percent. "The area revealed in this study is twice the size of the Amazon, and shows that farmers are protecting and planting trees spontaneously," said Dennis Garrity, the Centre's Director General. "The problem is that policymakers and planners have been slow to recognize this phenomenon and take advantage of the beneficial effect of planting trees on farms. Trees are providing farmers with everything from carbon sequestration, to nuts and fruits, to windbreaks and erosion control, to fuel for heating and timber for housing. Unless such practices are brought to scale in farming communities worldwide, we will not benefit from the full value trees can bring to livelihoods and landscapes."

[Desertification impact on Siwa Oasis: present and future challenges](#)



Siwa Oasis is a natural depression about 23m below sea level in Egypt. It covers an area of about (250,000 Feddans); of which about 87.95 km² (20940 Feddans) are currently cultivated. The total numbers of inhabitants in Siwa were 21482 residents in 2006 (Siwa Information Center, 2009). The main activity in Siwa oasis is agriculture which depends on the groundwater that outflows from about 1199 wells and springs (Ministry of irrigation, 2008), giving a total annual discharge of about 255 million cubic meters. From this, about 222 million cubic meters are lost as evaporation and evapotranspiration, while the remainder goes to the natural lakes of Siwa Oasis. Thus, the annual surplus groundwater – based on monitoring in 1997 and under present conditions – reaches 33 million cubic meters (Gad,



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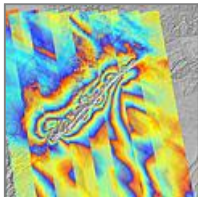
2000). This has led to a continuous rise in the water table level (4.5 cm/ year) causing water logging, soil salinization as a result of improper management and uncontrolled water flow from wells and springs and inefficiencies in the system of drainage water (Al-Kadi, 2003), and consequently, deterioration in land productivity, which in turn results in lowering Agriculture income (Abo-Ragab, 2008). Agriculture represents the basis of the Siwan economy (International Union for Conservation of Nature, (IUCN), 2000); The present study focuses on investigating the economic impact of the environmental problem in the present and future; using the Autoregressive Integrated Moving Average models (ARIMA) and geographic information systems that will lead to the quantitative assessment of desertification processes, its impact on agriculture to identify priorities for development beginning with areas of high development potential and less vulnerable to desertification processes.

Satellites could help prevent famines amid widespread droughts and crop failures

The Normalized Difference Vegetation Index (NDVI) is an innovative combination of two satellite measurements that allows scientists to analyze changes in the "greenness" of Earth as viewed from space. The system itself goes back to the 1980's, however, its association with new satellite-based technology nowadays is proving to be particularly useful in some of the world's most contentious hotspots. In 2008, the U.S. Agency for International Development's Famine Early Warning Systems Network (FEWS NET) and a number of other partners used NDVI to monitor wheat yields in Iraq and Afghanistan through a persistent drought that led to the worst yields in a decade.

Satellite data alone cannot cure the world of famine, Brown notes, but systems like FEWS NET can buy critical time for governments and relief organizations to react when droughts, wars, and infestations strike the food supply. Currently the best data for NDVI measurements come from the Moderate Resolution Imaging Spectroradiometer (MODIS) instruments on NASA's Terra and Aqua satellites; earlier data came from the Advanced Very High Resolution Radiometer (AVHRR) instruments deployed on NOAA polar orbiting meteorological satellites. On Tucker's maps, the sparsely vegetated areas of the Sahara and the Sahel region have NDVI values near zero. The dense jungles of Central Africa have an NDVI closer to 1, the highest value.

Satellite data look behind the scenes of deadly earthquake

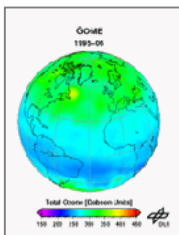


Using satellite radar data and GPS measurements, Chinese researchers have explained the exceptional geological events leading to the 2008 Wenchuan Earthquake that killed nearly 90,000 people in China's Sichuan Province. "One of the very fundamental issues for understanding an earthquake is to know how the rupture is distributed on the fault plane, which is directly related to the amount of ground shaking and the damage it could cause at the surface," said Dr Jianbao Sun of the Institute of Geology, China Earthquake Administration (IGCEA). To learn this, Sun and Prof. Zhengkang Shen of IGCEA and

Peking University's Department of Geophysics, and collaborators acquired two kinds of satellite radar data: Advanced Synthetic Aperture Radar (ASAR) data in C-band from ESA's Envisat satellite and Phased Array type L-band Synthetic Aperture Radar (PALSAR) data from Japan's ALOS satellite.

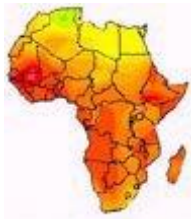
Applying a technique called SAR Interferometry (InSAR) on the data, the researchers produced a set of 'interferogram' images covering the entire coseismic rupture region and its vicinity. This interferometric map revealed the amount and scope of surface deformation produced by the earthquake. "This is perhaps the very first time people have seen the complete deformation field produced by an earthquake on such a large scale," Sun said. InSAR involves combining two or more radar images of the same ground location in such a way that very precise measurements – down to a scale of a few centimetres - can be made of any ground motion taking place between image acquisitions. Coloured interferograms usually appear as rainbow fringe patterns.

The researchers combined these SAR satellite data with GPS measurements and developed a model that shows fault geometry and rupture distribution of the Longmen Shan fault zone, a series of parallel faults that run for about 400 km from southwest to northeast in the region. The earthquake that struck on 12 May last year produced a 240-km-long rupture along the Beichuan fault and a 72-km-long rupture along part of the Pengguan fault.



Satellites show ozone layer depletion levelling off

Scientists merged monthly total ozone data derived from the vertically downward-looking measurements of the GOME instrument on ESA's ERS-2 satellite, SCIAMACHY on ESA's



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Envisat and GOME-2 on EUMETSAT's MetOp-A. Ozone is a protective layer found about 25 km above us mostly in the stratospheric layer of the atmosphere that acts as a sunlight filter shielding life on Earth from harmful ultraviolet rays. The thinning of this layer increases the risk of skin cancer, cataracts and harm to marine life. The ozone layer is not distributed evenly, with more changes occurring in the upper stratosphere. The thinning of the ozone layer is caused by chemicals such as human-produced bromine and chlorine gases that have long lifetimes in the atmosphere. The Montreal Protocol (1987) was introduced to regulate and phase out the production of these substances. Its effect can clearly be seen in the satellite observations of ozone and these chemicals. By collecting data while looking sideways (limb viewing) rather than vertically downwards, instruments are able to provide highly accurate measurements of the stratosphere. A team of scientists around Ashley Jones and Jo Urban from Sweden's Chalmers University of Technology combined the limb measurements of US instruments SBUV, SAGE I+II and HALOE with data from OSIRIS, SMR and SCIAMACHY on the European satellites Odin and Envisat to analyse the long-term evolution of stratospheric ozone from 1979 to the present. These data show a decrease in ozone from 1979 until 1997, and a small increase since then. "Our analysis shows that upper stratospheric ozone declines at northern and southern mid-latitudes at roughly 7% per decade during 1979–97, consistent with earlier studies based on data from satellites and ground networks. A clear statistically significant change of trend can be seen around 1997. The small increase (of 0.8–1.4% per decade) observed thereafter, from 1997 to 2008, is however not yet statistically different from a zero trend. We hope to see a significant recovery of (upper stratospheric) ozone in the next years using longer, extended satellite time-series," Urban said.

[GISRUK conference in 2010- call for papers](#), 14-16 April 2010, University College London (UCL), UK

The Programme Committee for the GIS Research UK (GISRUK) conference in 2010 is pleased to open the call for papers. The overarching theme this year will be "Global Challenges". Papers across the range of contemporary GIS research are welcomed but will particularly focus on papers in the following themes:

- Crime and Place
- Environmental Change
- Migration and Identity
- Intelligent Transport
- Public Health and Epidemiology
- Simulation and Modelling
- London as a global city
- The geoweb and neo-geography
- Open GIS and Volunteered Geographic Information

The closing date for abstracts: 27 November 2009.

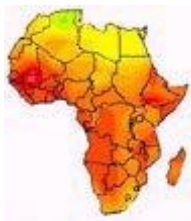
[Remote Sensing Journal special issues - call for papers](#)

Remote Sensing (ISSN 2072-4292) is an international journal on remote sensing and its applications. It is published online quarterly starting 2009. It calls for papers for special issue: Feature Papers Submission Deadline: 31 December 2009.

[IJAGR call for papers: special issue on trends in service chaining for GEOSS themes](#)

The [International Journal of Applied Geospatial Research \(IJAGR\)](#) is a quarterly, peer-reviewed journal specializing in studies from applied geography that interface with geographic information science and technology. Including both regular and special themed issues, this journal presents policy analysts, geospatial practitioners, and academicians with high-quality articles exemplifying various application domains within applied geospatial research. This journal is an official publication of the Information Resources Management Association. The Global Earth Observation System of Systems (GEOSS) is an international initiative that provides decision-support tools and operational access to Earth observation data and geospatial content, serving a wide variety of users. Papers of interest for this special issue should discuss different models, techniques and tools addressing the above issues to improve service chaining and integration, as well as highlight relevant practical project experiences and applications applied to Earth Observation to improve decision making in any theme of GEOSS (disasters, health, energy, climate, water, weather, ecosystems, agriculture, and biodiversity). This special issue shall cover interdisciplinary topics among service chaining, Semantic Web, and the geospatial domain. These include, but are not limited to:

- Service integration
- Geoprocessing



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- Web Services for Grids
- Services for data model integration/schema mapping
- Methodologies for scalable service chaining
- Methodologies for reusing service chains
- Frameworks for Building Web Service-Based Applications
- Service orchestration
- Semantic service chaining
- Service applications in GEOSS themes

Researchers and practitioners are invited to submit papers between 5000 and 8000 words for this special theme issue on or before 15 November 2009.

[Special Issue of Remote Sensing "Ecological Status and Change by Remote Sensing"](#)

Evaluating ecological patterns and processes is crucial for ecosystem conservation. In this view, remote sensing is a powerful tool for monitoring ecosystem status and change, involving several tasks like biodiversity estimate, landscape ecology, species distribution modeling. The aim of this special issue of Remote Sensing, <http://www.mdpi.com/journal/remotesensing>, is to publish straightforward research or review papers on the matter in order to stimulate further discussion on the potential of remote sensing in the ecological framework. Deadline for manuscript submissions: 30 November 2009.

[Call for Participation: ICT and Development - Research voices from Africa](#), 22-23 March 2010, Makerere University, Kampala, Uganda

The International Federation for Information Processing (IFIP), Technical Commission 9, Faculty of Computing and IT, Makerere University and ITC has organized a workshop intended to provide a forum for discussion of ICT research approaches and findings that emerged from and relevant to the African contexts. The organizers are particularly interested in receiving written submissions from African researchers in ICT for development, and from African intellectuals outside the mainstream ICT-based approach to economic growth and social improvements. Explanatory papers aiming at analysis and understanding of ICT in actual African contexts are welcomed. More precisely, the workshop invites short papers in the following focal areas:

- Discontinuities between the African context and dominant ICT paradigm
- Role of information, and ICT, within Africa and between Africa and the rest of the world
- Barriers against Africa's adoption, appropriation and autonomous use of ICT
- Cultural issues that may shape ICT adoption in unexpected ways
- Alternative strategies of ICT implementation and sustainability in Africa
- Uncertainty, unpredictability, risk and serendipity related to ICT initiatives
- Role of ICT in empowerment, illiteracy, poverty eradication, and human development in Africa.

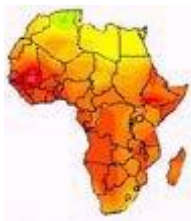
The workshop is intended to be informal and inclusive in order to provide a "bigger picture" of ICT in Africa. Participants from academic institutions engaged in similar research, governmental and non-governmental organizations, public and private sector representatives, entrepreneurs and grass-root movements, civil society and ICT practitioners are welcomed. Submit short papers, in the form of long abstracts (2000 words) to: african-voices@googlegroups.com. For further information contact: Walter De Vries at devries@itc.nl or Gianluca Miscione at miscione@itc.nl or Jude Lubega at jlubega@cit.mak.ac.ug or Walter Brown at walbrown@mail.ngo.za or Deadline for submissions of short papers: 30 November 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).

- 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.

[Free ESRI Courses](#)



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Free online course modules from ESRI's Virtual Campus site. Learn the basics of many of their software packages and extensions or take some concept courses such as a review of projections.

Virtual seminar series - Dynamic Modeling in a GIS Environment, October-December 2009

Dynamic spatial modeling is not a scientific discipline in itself; instead spatial modeling techniques are used in many fields such as ecology and transport research. In these separate domains spatial modeling methods are applied and developed, often on an ad hoc basis. How can we make sure that these efforts lead to an accumulation of knowledge and avoid missing important developments in parallel worlds? Can we promote spatial modeling as a domain in itself by seeking common ground in concepts, methods and software? Can we share out knowledge? The series will make a start on these agendas. Each seminar will commence at 1700 GMT. To participate in a seminar, you need to establish a broadband link and then visit the specified web URL. Although you can listen in without any further equipment, to participate actively requires that you have a decent quality microphone and speaker headset. Upcoming dates, presenters and topics are as follows:

- 4 November 2009: GENeSIS: Generative simulation for the spatial and social sciences
- 11 November 2009: Agent-based modelling of UK crime
- 18 November 2009: What's so spatial about Agent-Based Models?
- 25 November 2009: Integrating spatio-temporal GIS data with spatio-temporal models.
- 2 December 2009: Validation and calibration of spatial simulation models

See guide at: http://www.wun.ac.uk/ggisa/documents/pdfs/Seminar_user_guide.pdf.

Course on Demographic and Health Surveys, November 9-13, 2009, June 21-25, 2010, Nairobi, Kenya

University of Nairobi Enterprises and Services Ltd is offering professional short course on Demographic and Health Surveys. The course provides an overview of the DHS surveys and how to use DHS data to improve health programs. Demographic and Health Surveys (DHS) are nationally-representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition. Demographic and Health Surveys provide countries with a standardized tool to obtain indicators for the effective monitoring of national programs such as those on HIV/AIDS, health and family planning services available in a country. Contact: Prof. Mwanthi, mmwanthi@uonbi.ac.ke.

Bahir Dar University undergraduate and graduate programs in disaster management

Bahir Dar University in Ethiopia is running undergraduate program in Disaster Risk Management and Sustainable Management, and Disaster Management at MSc level in collaboration with Arizona University. Contact: Dr. Zeleke Mekuriaw, Dean, College of agriculture and Environmental Sciences, Bahir Dar University, zeleke_mekuriaw@yahoo.co.uk.

CIRAD training session: "GIS for local development", February 2010, Dakar, Senegal

Systèmes d'information géographique pour le développement local La formation est structurée en 4 modules qui s'enchaînent logiquement mais peuvent être suivis indépendamment. Module 1. Le rôle du SIG dans le projet territorial. Le dessous des cartes (3 jours). Le rôle des SIG utilisés dans le cadre de projet territorial: production de cartes (diagnostic, planification, document de discussion et de négociation ...).

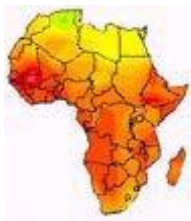
- La cartographie : sémiologie et étapes de conception de la carte.
- Planification et gestion de projet de SI.
- Atelier critique sur le dessous des cartes à partir d'exemples pris dans des projets territoriaux et des atlas.

Module 2. Conception d'un système d'information avec UML, initiation à la mise en oeuvre et à l'utilisation des bases de données (5 jours).

- Introduction aux systèmes d'information, aux bases de données, et aux activités de modélisation (UML).
- Modèle relationnel: opérateurs et langage SQL, construction de requêtes.
- Initiation à Access: notions de tables, de formulaires et d'états de sortie.
- Micro projet : Développement local, projet d'agence régionale de développement (ARD) de Louga (Windesign, Access).

Module 3. Conception et mise en oeuvre d'un SIG (5 jours).

- Introduction aux SIG (géoréférencement, projections et mise en page).
- Initiation à l'utilisation du logiciel Arcgis 9.



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- Acquisition de données géoréférencées, cartographie thématique, mise en page de cartes, analyse spatiale.
- Micro projet : Développement local, projet d'agence régionale de développement (ARD) de Louga (Arcgis 9, Access).

Module 4. Initiation à l'interprétation d'images satellitaires (3 jours).

- Notions de bases en télédétection.
- Classification d'images, interprétation sous SIG.
- Micro-projet : Classification sous ERDAS Imagine.

Apply by end of December, 2009. Contact: ccornu@cirad.fr.

National University of Rwanda Postgraduate Short Course Certificate/Diploma Programme in Applied Geo-Information Science

Candidates from any field of science, engineering, agronomy, social science, economics or similar disciplines are eligible. Deadline for application is December 1, 2009. Contact: training@cgisnur.org.

GIMS course schedule for October and December 2009, South Africa

GIMS is an ESRI accredited learning centre servicing Southern Africa. Contact:

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

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



Promotion : inscriptions ouvertes, Kinshasa, République Démocratique du Congo. Le cursus de l'ERAIFT aboutit à l'obtention d'un Diplôme d'Etudes Supérieures Spécialisées (DESS). Ce diplôme est l'équivalent d'un Master du système « LMD » (Licence, Master, Doctorat) des Accords de Bologne. Il est reconnu par le Conseil Africain et Malgache pour l'Enseignement Supérieur (le CAMES). Le programme du DESS comprend 16 chaires dont l'enseignement s'étend sur une période de 12 mois. L'étudiant dispose ensuite de 6 mois pour rédiger son mémoire. Le contenu de ce dernier repose sur l'approche systémique, et s'inscrit dans le cadre de l'aménagement intégré du territoire, du développement humain, durable et écologiquement viable, de la lutte contre la pauvreté et de la gestion rationnelle de l'environnement. L'autre grade décerné par l'ERAIFT est le Diplôme de Philosophiae Doctor (Ph.D.) en Aménagement et gestion intégrés des forêts et territoires tropicaux. Bourses disponibles, mais limitées en nombre. Contact: info@eraift.org.

Short-courses offered by RECTAS in 2009, Ile-Ife, Nigeria



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

LUMA-GIS, Lund University GIS Centre (Sweden) Master's program in GIS

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



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Distance Learning - Certificate



- [Principles of Databases](#) (8 weeks). Starting date: 8 February 2010. Deadline for application: 18 January 2010. [Register](#).
- [GIS Data Quality](#) (6 weeks). Starting date: 15 Mar 2010. Deadline for application: -. [Register](#).
- [Multi-Hazard Risk Assessment](#) (6 weeks), Starting date: 17 May 2010. Deadline for application: 26 April 2010. [Register](#).
- [Principles of Remote Sensing](#) (8 weeks). Starting date: 17 May 2010. Deadline for application: 26 April 2010. [Register](#).
- [Environmental Impact Assessment and Strategic Environmental Assessment using spatial decision support tools](#) (6 weeks). Starting date: 7 Jun 2010. Deadline for application: 17 May 2010. [Register](#).
- [Principles of Geographical Information Systems](#) (7 weeks). Starting date: 6 Sep 2010. Deadline for application: 16 August 2010. [Register](#).
- [Spatial Decision Support Systems](#) (8 weeks). Starting date: 11 October 2010. Deadline for application: 20 September 2010. [Register](#).
- [Learning IDL for Building Expert Applications in ENVI](#). Starting date: 25 Oct 2010. Deadline for application: 4 October 2010.
- [Digital Terrain Model extraction, processing and parameterization for Hydrology](#) (3 + 3 weeks). Starting date: 29 November 2010. Deadline for application: 8 November 2010. [Register](#).
- [Principles and Applications of Remote Sensing and GIS in Natural Resources Management, at KNUST, Kumasi, Ghana](#) (12 weeks). Starting date: 20 Sep 2010. [Register](#).

MSc and PG Diploma

- [Water Resources and Environmental Management](#) (Mc degree -18 months), Netherlands. Starting date: 13 Sep 2010. Deadline for application: 1 July 2010. [Register](#).
- [Water Resources and Environmental Management](#) (PG Diploma - 9 months), Netherlands. Starting date: 13 September 2010. Deadline for application: 1 July 2010. [Register](#).

Funding Opportunities, Awards, Support

FONASO call for PhD applications

The FONASO consortium of a number of EU universities with PhD programs in the forestry/agro forestry sphere has issued a competitive call for proposals for 10 PhD fellowships. FONASO doctoral candidates will be part of research groups at two or more of the twelve FONASO partner institutions. Below is a list of PhD topics proposed by the research groups; all applicants must build their doctoral study synopsis around one of these topics. Applicants can only submit one application focusing on one of the below topics. The topics are divided in the two main subject fields, within forest and nature management, addressed by FONASO:

- Economics and policy,
- Ecology and silviculture.

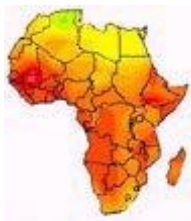
Note that some topics may cut across these fields. Use the working title and description as the basis for developing your doctoral study synopsis. The call for application is open with a deadline of 16 November 2009 for Non-EU and EU applicants. Study start from summer/autumn 2010. Download the [FONASO Application Form](#) and the [FONASO PhD Topic Catalogue](#).

Scholarship on Biology Research

Within the framework of the ABIC project (African Biodiversity Information Centre), the Royal Museum for Central Africa in Tervuren (Belgium) organizes this year a call for proposal aimed at biology researched from Africa, in order to grant scholarships for study visits in its collections. The visits would take place during the 2nd semester of 2010. The motivation letters and registration form must be sent by email to the Museum before December 14, 2009, for a first pre-selection after which a research project must be proposed before February 26 2010.

A new competition offered by the Journal of maps

The Journal of Maps is having a competition to develop the best Google Maps mashup. Use JoM GeorSS feed (<http://journalofmaps.com/about.php?helpfile=smartyRSS.xml>) and GoogleMaps API. The contest runs from now until 11:59pm on Thursday, 31 December 2009. Entry is straightforward: just email



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googlemap@journalofmaps.com giving a brief description of the project and a link to the code or project home page. For the winner there is £200 payable via PayPal.

Appel international à candidatures 2010-2011 : Bourses de doctorat

Le nouvel appel international à candidatures aux mobilités pour l'année universitaire 2010/2011 vient d'être lancé. Cet appel concerne les bourses de doctorat. Les mobilités de doctorat s'effectuent au sein du réseau des établissements membres de l'AUF. Elles conduisent les étudiants et/ou enseignants-chercheurs francophones à l'extérieur de leur pays et leur permettent de préparer une thèse de doctorat. Ces mobilités doivent :

- être utiles au développement des universités et des pays du Sud,
- faire l'objet, chaque année, de recherches menées alternativement dans le pays de l'établissement d'accueil et dans le pays de l'établissement d'origine.
- la co-tutelle ou la co-direction seront favorisées.

Le dossier de candidature doit obligatoirement et UNIQUEMENT être complété et validé via le lien ci-dessous (ouvert jusqu'au 18 décembre 2009, minuit heure de Paris). Aucune candidature ne sera prise en compte passé ce délai de rigueur. Les résultats de la sélection par le Conseil scientifique de l'AUF seront rendus publics via le portail de l'AUF et par les bureaux régionaux.

Projets de coopération scientifique inter-universitaire

Le Bureau Afrique Centrale de l'Agence universitaire de la Francophonie lance un appel d'offre pour des Projets de coopération scientifique inter-universitaires – PCSI, projets multilatéraux de coopération en matière de formation et de recherche dont l'objectif principal est d'impulser une logique de structuration durable à la coopération scientifique, académique et institutionnelle.

Les Projets de coopération scientifique inter-universitaire (PCSI) peuvent être de trois types :

- Projets partagés de recherche (et/ou de formation à la recherche) ;
- Projets partagés de formation ;
- Projets partagés de gouvernance universitaire.

La date limite de dépôt des candidatures est fixée au 22 décembre 2009. Prière de consulter attentivement le [dossier de présentation](#) avant de remplir le [formulaire](#).

Organiser une manifestation scientifique : dépôt d'une demande

L'appui de l'Agence à des [manifestations scientifiques](#) est ouvert de façon permanente dans le cadre des appels régionaux permanents, mis en oeuvre à l'initiative de chacun des neuf bureaux régionaux de l'AUF.

Les dossiers de candidatures doivent être déposés auprès du bureau régional dans le ressort géographique duquel se tiendra la manifestation. Ainsi, nous vous invitons à consulter le [site du bureau régional concerné](#). Ce bureau est en effet l'interlocuteur principal au service des institutions scientifiques et universitaires situées dans cette aire géographique.

La sélection des demandes est effectuée selon une procédure qui prévoit :

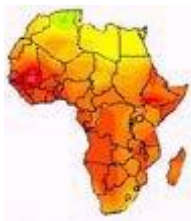
- un examen de leur recevabilité et de leur opportunité régionale par le Directeur régional de l'AUF compétent,
- une évaluation scientifique.

Les résultats des sélections seront portés à la connaissance des demandeurs par les directeurs des bureaux régionaux. Date limite: 3 mois avant le début de la manifestation.

WARC Travel Grant 2009-2010

The WARC Travel Grant program promotes intra-African cooperation and exchange among researchers and institutions by providing support to African scholars and graduate students for research visits to other institutions on the continent. The West African Research Center in Dakar, Senegal offers travel costs up to \$1250 and a stipend of \$1250 to selected scholars. This competition is open only to West African nationals affiliated with institutions of higher education. Travel grant funds may be used to 1) attend and present papers at academic conferences relevant to the applicant's field of research; 2) Visit libraries or archives that contain resources necessary to the applicant's current Academic work; 3) engage in collaborative work with colleagues at another institution; 4) Travel to a research site. A complete application must include the following (one original and two copies of all materials):

- A WARA grant application cover sheet
- A brief (50-80 word) abstract of the activity to be funded, beginning with a clear statement of purpose



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- A description (6 double-spaced pages maximum) of the applicant's research and how the proposed travel is relevant to this work. This should be presented in a language understandable to non-specialist readers
- A curriculum vitae with research and teaching record when relevant
- If attending a conference, an abstract of the paper to be read and a letter of acceptance to the conference
- If visiting another institution, an invitation from host institution
- If travel is to consult archives or other materials, a description of the collections to be consulted and their significance to the applicant's research.

This competition is open only to West African nationals eligible for non-immigrant visas to the U.S.). Deadline: not earlier than January 1, 2010 and later than March 15, 2010 for travel to take place between July 1, 2010 and December 31, 2010.

[Consultative Group on International Agricultural Research \(CGIAR\) Science Awards 2009](#)

The Consultative Group on International Agricultural Research (CGIAR) Chair's Science Awards recognize and reward excellence in science. The 2009 Award categories: Awards for Promising Young Scientist, Outstanding Scientist, and Outstanding Scientific Article will each carry a cash prize of \$5,000. Awards for Outstanding Scientific Support Team and Outstanding Partnership will each carry a cash prize of \$10,000. Awards for Outstanding Communications and Outstanding Agricultural Journalism will each carry a cash prize of \$5000. Nominees for all awards - aside from the Journalism Award - must be from CGIAR Centers or other groups/organizations (such as NARS, advanced research institutions, civil society, private sector) who are collaborators in the implementation of a program with a CGIAR Center. Nominations close 30 November 2009.

[Trust Fund for Statistical Capacity Building](#)

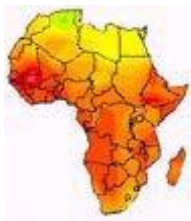
The Trust Fund for Statistical Capacity Building (TFSCB), a multi-donor trust fund set up to improve the effectiveness and efficiency of national statistical systems in developing countries, is now accepting applications for its Fall window. The objective is to strengthen national statistical systems in support of poverty reduction strategies and other national and international development goals as a part of the coordinated international effort to improve statistics globally. The statistical capacity building projects must be based on a formal assessment of the statistical system and must demonstrate how they will address the main identified capacity weaknesses. All proposals must be submitted using the web-based GFR application. All prospective TTLs are encouraged to send an email to Naoko Watanabe and Mustafa Dinc to inform them that a submission is forthcoming along with the GFR number of the draft proposal for a quick review. All applications must be endorsed by the appropriate Country or Sector Management Unit. See the Guidelines and Procedures (<http://siteresources.worldbank.org/SCBINTRANET/Resources/guidelines.doc>) or contact Mustafa Dinc, mdinc@worldbank.org, or Naoko Watanabe, nwatanabe@worldbank.org. Deadline for the submission of completed applications: November 10, 2009.

[AAUW International Fellowships](#)

International Fellowships are awarded for full-time study or research in the United States to women who are not United States citizens or permanent residents. Both graduate and postgraduate studies at accredited institutions are supported. Deadline: December 1, 2009.

[Conservation Leadership Program \(CLP\)](#)

The CLP (co-sponsored by BirdLife International, Wildlife Conservation Society, Conservation International, Fauna and Flora International, and BP) is soliciting applications for its 2010 Conservation Awards for young conservationists. The CLP has been helping young conservationists to achieve their goals and move into positions of influence within the conservation sector, and 2010 marks the 25th Anniversary of this highly successful program! Successful applicants will: 1.) Develop the knowledge, skills and abilities of team members; 2.) Implement high-priority conservation projects combining research and action; and 3.) Contribute to the long-term success of local conservation efforts. This year's awards include: Future Conservationist Awards: Approximately 20 awards of up to \$12,500 each Conservation Follow-up Awards: Approximately 5 awards of up to \$25,000 each Conservation Leadership Awards: 2 awards of up to \$50,000 each. Deadline: 6 November 2009.



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[European Commission call for proposals dedicated to research for Africa](#)

This call for proposals is the first one entirely dedicated to research initiatives for Africa under the EU's Framework Programme for research (FP7). It brings together several funding Themes under FP7: Health (€39 million), Environment (€17.5 million) and Food, Agriculture, Fisheries and Biotechnology (€6.5 million). The projects selected will involve these various scientific and technological research fields and will also take into account broader socio-economic factors such as migration and resettlement, urbanisation, health care systems, variation of food and energy prices, etc. The "Africa Call" is structured around two major issues: "Water and Food Security" and "Better Health for Africa". Deadline: 14 January 2010.

[Sustainability Science Fellowship Program at Harvard University](#)

The Sustainability Science Program at Harvard University's Center for International Development offers doctoral, post-doctoral, and mid-career fellowships in Sustainability Science. The fellowships are tenable at the Center for International Development during Harvard's academic year beginning in September 2010. Fellowships are available for 10 months (September 2010-May 2011), 12 months (September 2010-August 2011), the fall semester (September-December 2010), the spring semester (February-May 2011), or for two academic years (post-doctoral fellows only) (September 2010-August 2012). Deadline: 1 December 2009.

[Gita Wirjawan MSc Scholarship 2010-2011 in Environmental Change and Management at the University of Oxford](#)

The one-year course, one of Oxford's most competitive and popular graduate science programs, is by coursework with assessment by assignments and written examinations. It aims to produce students with a broad appreciation of all aspects of the management of people and institutions in relation to environmental change. Successful applicants develop an in-depth understanding of not only the causes and consequences of environmental change, but also an awareness of the legal, economic and ethical underpinnings of remedial action or management. The central theme of this course is the development of a truly interdisciplinary approach to the management of the environment.

Applicants should have:

- Confirmed acceptance at the Environmental Change Institute, Oxford University
- Excellent academic record with a first degree equivalent to a good Second Class (Upper) Honors or a GPA of at least 3.5;
- Very good command of the English language;
- Commercial or industrial background and a deep interest in the environment
- Assessed to have outstanding potential for leadership in government, business, or civil society after graduation.

Application for 2010-11 is received on a batch by batch basis, and will be considered in two rounds. The deadlines are 21 November 2009 and 23 January 2010.

[Schlumberger Foundation 2010: Faculty for the Future Fellowships](#)



[Faculty for the Future fellowships](#) are awarded to women from developing and emerging economies who are preparing for PhD or postdoctoral study in the physical sciences, engineering and related disciplines to pursue advanced graduate study at top universities in their disciplines abroad. Launched by the Schlumberger Foundation in 2004, Faculty for the Future has grown to become a community of 110 women from 35 countries.

Faculty for the Future grants are in the range of USD 25,000 to 50,000 per year, and may be renewed through to completion of studies subject to performance, self-evaluation, and recommendations from supervisors. The amount of the grant depends on the actual costs of study and living in the chosen location. Candidates should be enrolled or applying to their selected graduate schools when submitting their Faculty for the Future grant request. Candidates must have a proven track record of teaching experience, demonstrate active participation in faculty life and outreach to encourage young women into the sciences and hold an excellent academic record. Sample versions of new forms are now available for consultation so candidates can start preparing their application content: [New Grant Application Process](#), [Renewal Grant Application Process](#). Deadline updated to 30 November 2009.

[Right Sharing of World Resources \(RSWR\) Grant Program](#)



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Right Sharing of World Resources (RSWR) is a Quaker-organization, which primarily works with newly established and small organizations in the developing world. RSWR's grants support for innovative income-generating projects and environmental regeneration (reforestation, agro-forestry, alternative energy sources). Project grants may be used for: revolving loan for seed money, start-up supplies and equipment essential for the project, training, and salary for persons needed to oversee the project, travel expenses, administrative expenses such as the cost of preparing and mailing reports to RSWR. RSWR has two funding cycles. Deadline: 31 December 2009. For more information contact: rswr@rswr.org.

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

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

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

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

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

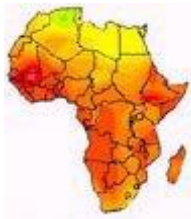
The International Foundation for Science (IFS) is currently accepting research grant proposals from young researchers from developing countries. Each year IFS awards around 250 research grants with a value of up to USD 12000 for research projects that will be carried out in developing countries. Eligible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

Employment Opportunities

[Geo-information Officer](#), Addis Ababa, Ethiopia

This post is located in the African Climate Policy Centre (ACPC) at the Economic Commission for Africa (ECA). Under the overall guidance of the Director of the Food Security and Sustainable Development Division (FSSDD) and the direct supervision of the Coordinator of ACPC, the incumbent performs the following duties:

- Provides technical support for the incorporation of geo-information technologies to facilitate better analysis and presentation of data and information for climate policy formulation, analysis and advocacy;
- Provides technical support to the discipline specialists of ACPC to obtain, process, manage and use geo-information technologies, products, tools and techniques in the analysis and presentation of socio-economic and thematic data to facilitate climate change policy analysis and formulation;
- Provides technical assistance to member States and partners to develop spatial databases on fundamental and thematic datasets relevant to climate change that are consistent, comparable and compatible at the local, national, regional, and global levels;
- Creates and maintains geospatial databases, together with relevant metadata systems, on socio-economic and natural resources themes for use by member States, sub-regional and regional institutions in Africa for climate policy formulation, analysis and advocacy; Contributes to the development of taxonomy of data sets relevant to analyzing and formulating climate change-related policies;
- Contributes to the implementation of a geo-spatial portal to integrate climate-related datasets into the ECA's node of the African Regional Geospatial Data Infrastructure; Organizes or participates in the



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organization of conferences, workshops and training activities relevant to the work of ACPC; Performs other duties as required.

The incumbent should have advanced university degree (Master's degree or equivalent) in geomantic, remote sensing, cartography, environmental and earth sciences, climate studies, information sciences, computer sciences, or related field, with specialization in a major area of geospatial science and spatial analysis is required. A first level university degree with a relevant combination of academic qualifications and experience may be accepted in lieu of the advanced university degree. At least five (5) years of progressively responsible experience in geographic information processing, spatial analysis, image processing, mapping, global navigation satellite systems, or related fields is required. Practical experience in/on Africa is highly desirable. Deadline: 27 November 2009.

Geographic Information Systems Officer, Addis Ababa, Ethiopia

This post is located in the ICT, Science and Technology Division (ISTD) in Addis Ababa. Under the overall guidance of the Director of ISTD, and direct supervision of the Chief of the Section, the incumbent is responsible for:

- Collection, treatment of information and charting geoinformation activities in Africa; compilation work for maps and charts published by the secretariat and the supervision of geographic information system assistants;
- Assessment of geoinformation activities, capabilities and infrastructure on the continent and providing expert advise to member States on geoinformation issues;
- Providing guidance to UN experts for preparation of geoinformation products they may need;
- Conducting specific studies relating to geoinformation in Africa, with emphasis on geographic databases and GIS applications; performing other related technical and administrative duties as required by the Secretariat.

Specifically the incumbent contributes to the preparation of policy guidelines for the establishment of local, national and regional spatial data infrastructures and their integration into national/regional information infrastructures;

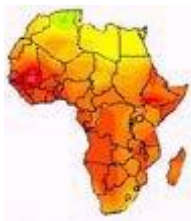
- Provides technical support to ECA for the incorporation of GIS and other geoinformation tools and techniques in the analysis and presentation of socio-economic data to facilitate ECA's own research work;
- Provides technical assistance to ECA for the incorporation and management of spatially referenced data and information via electronic networks, including: sourcing geodata (images, vector/raster databases, metadata) from the Internet and elsewhere for ECA researchers and decision makers;
- Maintaining a clearinghouse on Africa related geodata resources; working on mechanisms to link to institutions responsible for geographic information and identify tools for data exchange to facilitate access to relevant data and disseminate geodata.

Advanced university degree in geomatics, geography, cartography, environmental and earth sciences, information sciences, computer sciences, or related field, with specialization in a major area of Geographic Information Management is required. A first level university degree with a relevant combination of academic qualifications and experience may be accepted in lieu of the advanced university degree. Deadline: 27 November 2009.

Communications Officer, Addis Ababa, Ethiopia

This post is located in the African Climate Policy Centre (ACPC) at the Economic Commission for Africa (ECA). The incumbent should have strong communication and analytical skills and ability to rapidly analyse and integrate diverse information from various sources; up-to-date knowledge of current topics and issues and ability to identify public opportunities and risks in an international environment; proven ability in news gathering, writing and editing to very tight deadlines; thorough knowledge of the UN system and keen awareness of political sensitivities of inter governmental processes; understanding of, and experience in dealing with the media; understanding of the publications cycle, including dissemination through the use of new media tools; commitment to implementing the goal of gender equality by ensuring the equal participation and full involvement of women and men in all aspects of programmatic activities.

- Advanced university degree (Master's degree or equivalent) in mass communications, journalism, marketing, public relations, news management, the social sciences or related field is required. A first-level university degree in combination with qualifying experience may be accepted in lieu of the advanced university degree.



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- A minimum of five years of progressively responsible experience in communications, media management, strategic communications, public relations, journalism or related area is required. Highly desirable if this experience is in the context of Africa. Work experience in a research/scientific outfit is an advantage.

Deadline: 27 November 2009.

Director, African Center for Statistics, Addis Ababa, Ethiopia

This post is located in the African Centre for Statistics (ACS) of the Economic Commission for Africa (ECA). Within delegated authority, the Director, ACS, will lead the ECA African Centre for Statistics; plan and develop the statistical database for the use of the Commission, member States, regional organizations and other bodies; formulate the objectives and define the desired outcomes of the subprogramme; and provide support and advice on statistical matters. - Design and implement the substantive work programme of the ECA in the statistics area and manage the resources of the Centre; provide overall technical guidance to the team and supervise the preparation of methodological and technical publications in statistics and to collaborate with ECA divisions and the Subregional Offices (SROs) in meeting their special data requirements.

- Advanced university degree (Master's degree or equivalent) in econometrics, mathematics, demography or other social sciences combined with statistics. A first-level university degree with a relevant combination of academic qualifications and experience in statistics may be accepted in lieu of the advanced university degree (PhD is preferable).
- At least 15 years of progressively responsible experience in the area of statistical development at the national, regional, and international levels, including a minimum of ten years in handling complex organizational issues at the international level and five years in policy and technical development of statistical programmes, as well as programme and project planning and analyses, and budgeting is also required. Proven track record of excellent management and technical skills is required.

Deadline: 9 November 2009.

Research Assistant, Nairobi, Kenya

CIMMYT is seeking applications from innovative, self-motivated, outstanding Kenyan nationals for the position of Research Assistant to provide scientific and managerial support to the Program Director in implementing various socioeconomics research projects. The position will be based in Nairobi, Kenya reporting to the Program Director, Socioeconomic Program (SEP).

Manage existing socioeconomic databases on changing livelihood strategies, poverty, markets, and maize and wheat productivity in different regions

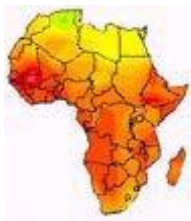
The incumbent shall:

- Locate, assemble and analyze secondary data relevant for socioeconomic and policy research in maize and wheat systems;
- Conduct econometric analysis of survey and other data using STATA or other standard statistical software;
- Assist in developing research reports, articles and policy briefs;
- Mac. in agricultural economics, economics, statistics or other related field;
- Strong quantitative skills in econometrics and production economics;
- Proven experience in data collection, field surveys, and data analysis, in particular household data and farm surveys;
- Strong and demonstrated skills and experience in using STATA or any other standard econometric software package;
- Work experience and good understanding of agriculture and rural development, markets and value chains, and agricultural policy in Africa and other regions.

Applicants should send a cover letter, detailed curriculum vitae, including names and addresses of three referees. Contact: Human Resources Unit, World Agroforestry Centre (ICRAF), Box 30677, Nairobi, Kenya or email: icrafhr@cgiar.org. Deadline: 15 November, 2009.

Biodiversity Superintendent - Simandou Project, Simandou, Guinea

Le Projet Simandou, www.riotintosimandou.com, situé dans le sud-est de la Guinée est un important projet de développement qui fait partie du portefeuille de Rio Tinto Iron Ore. Il s'agit de développer un port en eaux profondes, une large infrastructure ferroviaire ainsi qu'une grande mine. Le projet se trouve actuellement en



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phase de pré-faisabilité et l'objectif est de faire avancer les études en 2010. Rio Tinto recherche un Responsable de la Biodiversité qui rejoindra notre équipe à Canga East, en Guinée. Le poste inclut le conseil en meilleures pratiques et la recherche de solutions dans le domaine de la gestion de la biodiversité, dans le cadre du projet. Shortlisting has already begun, but the position will remain open until filled.

[Project Director, Nouabalé-Ndoki Park Project](#), Congo

Assist Project team leaders in the development, design, organization and implementation of their work plans. Collaborate with MEFE Conservator to assist with design and implementation of law enforcement program. Collaborate with the Project Scientific Coordinator to design, organize and implement ongoing biological and socioeconomic monitoring programs in the NNNP, to provide monitoring data that will allow for adaptive management of the Park. Masters degree, preferably in a conservation-related field (PhD considered a plus); 'Written and spoken fluency in French and English; At least three years of experience in protected area/project management, preferably in Africa. An emphasis on working with local communities and some knowledge of forestry is desirable. Interested candidates should send cover letter and CV and/or requests for detailed terms of reference to Paul Telfer, ptelfer@wcs.org, with copies to Pamela Watim, pwatim@wcs.org. Deadline: 24 December 2009.

[Post-doc positions, Earth Observation and Integrated Assessment Approach to Governance of Lake Naivasha](#), Enschede, The Netherlands

The ITC Department of Urban and Regional Planning and Geo-information Management invites qualified persons to apply for the following position at ITC in the research project: 'EOIA: an Earth Observation- and Integrated Assessment approach to the Governance of Lake Naivasha'. The research aims at enhancing sustainability in management of water resources and the environment using Lake Naivasha as a pilot case and adopting Integrated Assessment approach to generate lessons and best practices which can be replicated in other catchments in Kenya and in the East Africa region. Major inputs to the assessment include participatory processes and physical and economic models combined with data derived from remote sensing techniques. In the framework of this project 5 PhD researchers in the following projects will be involved:

- Quantifying the effect of land use change in upper catchments of Lake Naivasha on water quantity and quality of the Lake
- Impact of exogenous and endogenous changes on limnology, fisheries and piscivorous birds
- Hydrological impacts on terrestrial fringe biodiversity
- Water governance
- Socio-economic linkages

For a detailed description of the project please be invited to consult the project document at www.itc.nl/EOIA. The postdoctoral scientists will take-up the challenge to integrate the results from the five sub-projects and build the Integrated Assessment framework. The candidate will work in a team of researchers and is expected to integrate their work with that of the other researchers. Application deadline: 13 November, 2009.

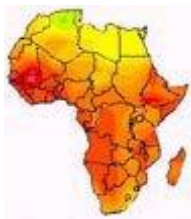
Other

[Kenya building biggest wind farm in Africa](#)



Kenya is building Africa's biggest wind farm on the edge of Lake Turkana. A wind farm consisting of 365 giant wind turbines is going to be installed in Northwest Kenya near Lake Turkana. Backed by the African Development Bank and the Kenyan government, this US\$870 million project will potentially supply 300MW when completed in 2012, which amounts to 30 per cent of Kenya's current energy needs. A 99 year lease has been granted to the Lake Turkana Wind Power (LTWP) consortium for 150,000 acres on the edge of the Lake.

Although the wind farm in Turkana will be the biggest, it is not Kenya's first. On the Ngong Hills, outside Nairobi, six wind turbines have already been erected, with another 12 planned. And with demand for electricity increasing by about eight per cent a year, 14 other sites are currently being tested for their suitability by the state power company KenGen. The *Guardian* newspaper reports that with nearly three-quarters of KenGen's capacity already coming from hydropower and another 11 per cent from geothermal plants, Kenya's electricity is already very green by global standards.



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Land tenure and violent conflict in Kenya



The violence which followed the disputed results of Kenya's December 27th general elections surprised many observers due to the speed at which it spread across many parts of the country. However, the economic and social tensions underpinning the violence have been evident for decades. Kenya is a society characterized by deeply embedded structural violence. According to Galtung, "violence is present when human beings are influenced so that their actual somatic and mental realizations are below their potential realizations". Structural violence in Kenya manifests itself in anomalous legal, political, social and economic structures. These structures prevent many Kenyans from achieving their full potential. Structural violence if not addressed for prolonged periods of time may eventually

lead to physical violence as life in the structure becomes unbearable. Land issues are a fundamental aspect of structural conflicts in Kenya but they have also often degenerated into physical violence. The country has witnessed killings before previous elections in both 1992 and 1997, when alleged enemies of the Moi regime became victims of violence, using arguments over the contrasting land rights of 'immigrants' and 'local communities'.

Central to land conflicts in Kenya are issues of ownership, access and use. Land has been the crux of economic, cultural and socio-economic change in Kenya. Following years of an inappropriate land tenure system, a large segment of the population continues to have difficulties not only in adapting to the modern agrarian economy but also in coping with the increasingly fragile and marginal environment, land degradation, low agricultural output and intensifying conflicts over access to and control of land.⁴ Inadequate resolution of the land question is also a major cause of poverty in Kenya. Violence over land conflicts has occurred sporadically in different parts of the country, and doubts over the worthiness of land titles almost caused a major economic instability a few years ago. [Download report](#) or [download publication](#).

Kenya launches multimillion dollar appeal to restore vital Mau forest



A multimillion dollar appeal to save the Mau Forests Complex has been launched by the Government of Kenya at a Partners Forum hosted by the United Nations Environment Programme (UNEP). The appeal aims to mobilize resources for the rehabilitation of the Mau, the largest closed-canopy forest ecosystem in Kenya covering over 400,000 hectares - the size of Mount Kenya and the Aberdares combined.

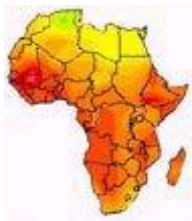
The strategic importance of the Mau Forest lies in the ecosystem services it provides to Kenya and the region, including river flow regulation, flood mitigation, water storage, reduced soil erosion, biodiversity, carbon sequestration, carbon reservoir and microclimate regulation.

The Mau Complex is the largest of the five "water towers" of Kenya, forming the upper catchments of all main rivers in the Western part of Kenya. These rivers are the lifeline of major lakes in Kenya and transboundary lakes such as Lake Victoria in the Nile River Basin; Lake Turkana in Kenya and Ethiopia, and lake Natron in Tanzania and Kenya. The restoration of the Mau is a strategic priority that requires substantial resources and political will. A ten-point intervention plan has been identified by the Interim Coordinating Secretariat to implement the recommendations of the Mau Forest Task Force for immediate and medium-term action. Key interventions include:

- Creation of Effective Institutional Frameworks
- Strategic Management Plan for the Mau Forest Complex
- Public Awareness and Community Sensitization
- Boundary surveys and Issuance of Title Deeds for Forest Blocks
- Monitoring and Enforcement
- Relocation and Resettlement
- Livelihood Support and Development
- Restoration and Replanting of degraded Sites
- Private Sector Investment
- Resource Mobilization

Looking forward, environmental stability and secured provision of ecological goods and services will remain essential to attain sustainable development in Kenya. They are cross-cutting, underlying requirements to achieve vision 2030 - Kenya's development blueprint.

Climate change could worsen displacement - UN



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With increasing natural disasters, including floods, storms and droughts, hitting the continent, more people in Africa are likely to be displaced, creating a challenge for governments, the UN warns. Displacement caused by natural disasters, said John Holmes, the UN Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, promised to be one of the greatest challenges African countries would face. "As many countries... know from recent painful experiences, climate change is already increasing the frequency and intensity of

extreme hazard events, particularly floods, storms and droughts," Holmes told an African Union (AU) summit in the Ugandan capital, Kampala, on 22 October.

In 2008, Africa reported 104 natural disasters, of which 99 percent were climate-related, according to the UN Office for the Coordination of Humanitarian Affairs (OCHA). Over the past 20 years, the population of Africans affected by natural disasters doubled from nine million in 1989 to 16.7 million in 2008. Of all the disasters on the continent, 75 percent were a result of drought. "By 2020, rain-fed agriculture is expected to have reduced by half because of shifting rainfall patterns, scattering millions of people across the continent in search [of] new livelihoods," Holmes said.

The meeting is discussing a draft convention for the protection and assistance of internally displaced persons and a declaration on refugees, returnees and the internally displaced. The convention is the first such global document that aims to comprehensively address the problems of Africa's 12 million IDPs. At least 15 countries need to ratify the proposed convention for it to come into force, and diplomats at the summit are confident the signatures will be raised soon. Preparatory work, they added, had shown broad support across the continent. "It is the responsibility of member states that the convention becomes a binding instrument," Jean Ping, AU Commission chairman, told the meeting. "It is an achievement, but not an end in itself. It is a beginning.

[Indian Ocean countries take part in tsunami early warning drill](#)



Eighteen countries bordering the Indian Ocean including Kenya, Madagascar, Mozambique and Tanzania have participated in a drill to test the Indian Ocean Tsunami Warning and Mitigation System, set up after the 2004 Indian Ocean tsunami hit the region. The UN, which organized the exercise, will produce an assessment "within days". The UN-backed drill simulated the 2004 quake off the coast of Sumatra which killed more than 200,000 people, half of them in Indonesia's Aceh province. The exercise comes two weeks after a tsunami in the Pacific Ocean killed almost 200 people in Samoa, American Samoa and

Tonga. Exercise Indian Ocean Wave 09 tested warning systems and preparedness in nations in Asia, Australasia, the Middle East and Africa.

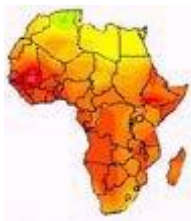
[Uganda to plant new forest](#)

Trees will return to vast eroded grassland in Uganda as Africa's first Clean Development Mechanism forestry project evolves. An area of 2,137 hectares of grassland within Uganda's Rwoho Central Forest Reserve, an upper watershed of Lake Victoria, will again become covered by trees after years of deforestation and erosion. This is ensured by The Nile Basin Reforestation Project. The tree planting is implemented by Uganda's National Forestry Authority in association with local community organizations, using funds provided by the World Bank's BioCarbon Fund. The project is Africa's first forest project under the Kyoto Protocol's Clean Development Mechanism that allows industrialized countries to purchase emissions reductions in developing countries to meet part of their targets. In this case, it will become reductions created by The Nile Basin Reforestation Project that will sequest 0.29 million tons of carbon dioxide in 2017. "This is a milestone for Uganda, especially considering the difficulty associated with bringing reforestation projects to this stage of final approval. I am happy that apart from providing physical financial resources, the project will also generate up to 700 jobs for the local population," says Kundhavi Kadiresan, World Bank Country Manager for Uganda, according to Environmental News Service.

[Long-term economic health of insurance industry hinges on management of sustainability & climate risks](#)



Global insurers controlling assets worth trillions of US dollars have joined with the world's leading academics in a United Nations-backed survey putting the industry's approach to sustainability and climate risks under forensic examination.



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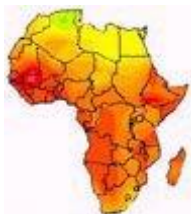
Coming just six weeks before the pivotal United Nations climate summit in Copenhagen, Denmark, the report has been welcomed by the UN's environmental head and HRH Prince Charles.

The report highlighting the first-ever such global survey of the powerful insurance sector, and backed by the United Nations Environment Programme (UNEP), says that the industry has a fundamental role to play to speed the transition to a clean, green, low carbon global economy that supports sustainable development and tackles the threat of global warming head on.

The document, to launched on 22 October at a major UN gathering of financial service companies in Cape Town, South Africa (www.unepfi.org), reveals that senior executives from the powerful sector are convinced that in order to sustain their industry's long-term economic health, they must systematically integrate key environmental, social and governance (ESG) factors into insurance company underwriting guidelines and product development, and other core operations such as investment management, claims management, and sales and marketing. The report, entitled, "The Global State of Sustainable Insurance?: Understanding and integrating environmental, social and governance factors in insurance", summarizes the key findings of the UNEP Finance Initiative global survey conducted this year, the nature and scope of which made it the first of its kind ever.

Conferences, Events		
Date	Location	Event
November 2009		
1-3 November 2009	Accra, Ghana	Open Access 2009 - 7th International Conference on Open Access Identification of Open ICT Access Solutions for Socio-Economic Development.
4 November 2009 * NEW *	London, U.K.	Mapping software and systems in health and academic research
1-5 November 2009	Marsa Matruh and Siwa, Egypt	2nd International Symposium & Field Workshop on Living with Landscapes "Adaptation with Coasts and Arid Lands" Abstract deadline extended to <u>August 20, 2009</u> . Contact: Prof. Magdy Torab, magdytorab@hotmail.com .
4-6 November 2009	Seattle, WA, USA	17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS 2009)
2-6 November 2009 * NEW *	Nairobi, Kenya	5th Multilateral Initiative on Malaria (MIM) Pan-African Malaria Conference
8-11 Novembre 2009		Journées d'Animation Scientifique de l'AUF (JAS'09) "Imagerie Satellitaire Multisources: Approches Méthodologiques et Applications" Alger, Algeria.
9-12 November 2009 * NEW *	Niamey, Niger	3rd Meningitis Environmental Risk Information Technologies (MERIT) Technical Meeting and National Workshop
9-12 November 2009	Manama, Bahrain	2009 ESRI Middle East and North Africa User Conference (MEAUC) Contact meauc2009@esri.com .
10-11 November 2009	Ismailia, Egypt	4th International Conference on Impacts of Climate Change on Natural Resources Organized by Egyptian Society for Environmental Sciences.
10-12 November 2009	Cape Town, South Africa	HYDRO 9 - International Federation of Hydrographic Societies Contact: admin@hydro9.co.za .
12-14 November 2009	Agadir, Morocco	International Conference on the Integration of Sustainable Agriculture and Rural Development in the Context of Climate Change, the Energy Crisis and Food Insecurity
12-24 November 2009	Adama University, Ethiopia	5th International Conference on Ethiopian Development Studies

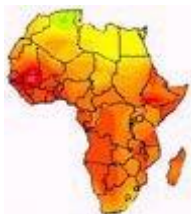
Items newly added to this listing of events since the last SDI-Africa issue are marked ***NEW***



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15 November 2009	Kampala, Uganda	Building African Leadership on Population and Climate Change Contact: slandi@prb.org .
15-22 November 2009	Santiago, Chile	XXVI International Cartographic Conference Contact: Conference Secretariat at info@icc2009.cl . See also The World's Geospatial Solutions .
16-18 November 2009 * NEW *	Dakar, Senegal	PARIS21 Consortium Meeting
17-18 November 2009	Washington, DC, USA	4th GEO Plenary Session (GEO-VI)
17- 21 November 2009	Sydney, Australia	FOSS4G Annual Conference
19-21 November 2009 * NEW *	Dakar, Senegal	5th Africa Symposium on Statistical Development
22-28 November 2009	Yaoundé, Cameroon	Africa Soil Science Society (ASSS) 5th International Conferences
24-26 November 2009	Abuja, Nigeria	3rd IAA Regional Conference Space for Africa . Contact: jajayi@nasrda.net or jakinyede@yahoo.com .
22-28 November 2009 * NEW *	Yaounde, Cameroon	Fifth Conference of the African Soil Science Society ,
December 2009		
1-4 December 2009 * NEW *	Kinshasa, Congo	1st Forum of African Monitoring of Environment for Sustainable Development (AMESD)
5-9 December 2009 * NEW *	Moshi, Tanzania	25th Annual Conference of the Soil Science Society of East Africa Contact: M. Kilasara, Chairman, SSSEA, mmkilasara@yahoo.com .
7-9 December 2009 * NEW *	Algiers, Algeria	3rd African Leadership Conference on Space Science and Technology for Sustainable Development ALC-2009 Application deadline: 6 November 2009. A limited amount of funding is available to enable a number of participants from African countries to attend ALC-2009. Contact: alc2009@asal.dz
14-16 December 2009	Accra, Ghana	2nd IEEE International Conference on Adaptive Science & Technology Contact: icast@edicttech.com .
15-17 December 2009	Cape Town, South Africa	2nd International Conference on Management of Natural Resources, Sustainable Development and Ecological Hazards
16-20 December 2009	Tunis, Tunisia	4th Session of the International Congress Geo Tunisia 2009 Contact: atigeo_num@yahoo.fr .
29 November - 3 December 2009 * NEW *	Marrakech, Morocco	5th International Conference on Signal Image Technology and Internet Based Systems (SITIS'09)
30 November - 1 December 2009 * NEW *	Stellenbosch, South Africa	20th Annual Symposium of the Pattern Recognition Association of South Africa (PRASA 2009) Contact: karin.vanwyk@uct.ac.za .
2010		
27-29 January 2010	Cape Town, South Africa	Winter Congress on Science, Engineering and Technology (WCSET 2009) Paper deadline: October 31, 2009.
1-5 February 2010	Maun, Botswana	International symposium: Wetlands in a flood pulsing environment - effects on biodiversity, ecosystem function and human society Deadline for abstracts: 1 October 2009.
1-3 March 2010 * NEW *	Stellenbosch, South Africa	Precision Forestry Symposium Abstract deadline: 30 November 2009.



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6-10 March 2010	Alexandria, Egypt	International Conference on Coastal Zone Management of River Deltas and Low Land Coastlines . Abstract deadline: 31 October 2008. Contact: Professor Nabil Ismail, nicoastmarine@gmail.com .
22-23 March 2010	Kampala, Uganda	ICT and Development - Research voices from Africa
25-26 March 2010	Cape Town, South Africa	ICIME 2010 - International Conference on Information Management and Evaluation Organized by University of Cape Town, Department of Information Systems.
25-28 March 2010 * NEW *	Yaounde, Cameroon	International Conference on ICT for Africa 2010 (ICIA 2010) Theme: ICT for Development - Contributions of the South. Deadline for full papers: December 1, 2009.
April 2010	Addis Ababa, Ethiopia	UN-SPIDER Regional Workshop “Building Upon Regional Space-based Solutions for Disaster Management and Emergency Response for Africa”
9-16 April 2010	Sydney, Australia	International Federation of Surveyors (FIG) 2010
11-15 April 2010	Cape Town, South Africa	INORMS 2010 - Organisation for Research Management Societies
11-16 April 2010	Sydney, Australia	XXIV FIG International Congress 2010 Abstract deadline: 22 September 2009.
14-16 April 2010	Zahedan, Iran	4th International Congress of the Islamic World Geographers (ICIWG2010) Contact: M_A_Daraei@yahoo.com . Abstract deadline: 22 October 2009.
28 June – 2 July 2010 * NEW *	Bergen, Norway	Living Planet Symposium Abstract deadline: 15 November 2009.
14-16 April 2010 * NEW *	University College London (UCL), UK	GISRUK conference in 2010- call for papers
21-24 June 2010 * NEW *	Yogyakarta, Indonesia	9th GISDECO Conference Theme: Applying Remote Sensing and GIS in Disaster Management Abstract deadline : 15 January 2010. Contact: sliuzas@itc.nl .
5-7 July 2010	Vienna, Austria	ISPRS TC VII Symposium, “100 Years ISPRS - Advancing Remote Sensing Science”
12-16 July 2010	San Diego, CA, USA	2010 ESRI International User Conference Deadline for abstract submission: October 16, 2009.
25-29 October 2010	Fez, Morocco	6th World FRIEND Conference (Flow Regimes from International Experimental and Network Data) Abstract deadline: September 30, 2009. Contact: friend2010@msem.univ-montp2.fr .

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Gordon Ojwang', Editor, SDI-Africa AT gsdi.org or sdiafrica@rcmrd.org or gojwang@rcmrd.org

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