



# Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

October 2011

Vol. 10, No. 10

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 25<sup>th</sup> 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@rcmrld.org](mailto:sdiafrica@rcmrld.org) or [gojwang@rcmrld.org](mailto:gojwang@rcmrld.org)



## Input to this Issue

Thank you to Kate Lance, NASA/SERVIR-Africa (USA); Hussein Farah, RCMRD (Kenya); Steven Ramage, OGC (Norway); Karen Leveleger, Kadaster (Netherlands); Joergen Fenhann and Jacob Ipsen Hansen, UNEP Risoe Centre (Denmark); Kate Wilson, International Institute for Environment and Development (IIED), (United Kingdom); Anne Thiel, Forest Trends Association (USA) and Patrick Reynaud, Centre for International Sustainable Development Law (CISDL) (Canada) for their contributions to this issue of the newsletter.

## SDI News, Links, Papers, Presentations

### Free membership by the GSDI Association

The GSDI Association is offering free organisation memberships to government agencies in developing nations. Benefits of membership are available at [http://memberservices.gsdi.org/files/?artifact\\_id=846](http://memberservices.gsdi.org/files/?artifact_id=846). Qualifications for the GSDI Association free full membership include:

- Determine whether the national mapping, land administration, natural resource, or similar agency that is developing SDI capabilities is in a low or very-low income nation (<http://www.gsdi.org/RankingTable>).
- An authorised individual for the agency should register in the Geographic Information Knowledge Network at <http://giknet.org>.

After establishing an account, login and create an agency profile (See My Submissions and click on Enter Profile for Government Agency) After the agency profile exists, click Report SDI Implementation Experience



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and answer the questions. After completing the forms, fill out the GSDI Full Membership Application for the agency at <http://www.gsdi.org/fullmemshp#D>. Upon acceptance, the agency will be listed at [http://www.gsdi.org/Mbrs\\_Spnsrs](http://www.gsdi.org/Mbrs_Spnsrs) and formal membership voted upon at the next GSDI World Conference (May 2012 in Quebec City, Canada).

### Free membership by the International Geospatial Society (IGS)

The IGS is offering free memberships to individuals in developing nations. One can know about benefits of membership at <http://www.igeoss.org/benefits> and detailed qualifications and instructions are available at <http://www.igeoss.org/freemembership>.

Qualifications for IGS free membership include:

- Must reside in and be a citizen of a low or very-low income nation (<http://www.gsdi.org/RankingTable>), Register as an individual in the Geographic Information Knowledge Network at <http://giknet.org>. Fill out online the International Geospatial Society Membership Application at <http://www.igeoss.org/join>. Upon acceptance, applicants will be listed on the online IGS membership roster and profile automatically linked.

### Call for Papers: Global Geospatial Conference 2012

The GSDI World Conference (GSDI 13), 14th GEOIDE Annual Scientific Conference, Canadian Geomatics Conference (CGC) 2012 and the 7th 3D GeoInfo Conference will be jointly held as the Global Geospatial Conference 2012 to take place at the Québec City Convention Center from May 14-17, 2012. This joint conference offers numerous opportunities for oral presentations and refereed and non-refereed publication outlets. Presentations are invited covering the full range of practice, development and research experiences that advance the practice and theory of spatially enabling government, industry and citizens. This call supports three primary forms of publication:

- 1) A normal conference proceedings with abstracts and full non-refereed and refereed articles published on a USB drive or CD and archived on the web,
- 2) A pre-conference published book of fully refereed articles titled "Spatially Enabling Government, Industry and Citizens: Research and Development Perspectives" to be distributed to all conference participants and archived on the web, and,
- 3) A pre-conference selection of articles for publication in the International Journal of Spatial Data Infrastructures Research (IJS DIR) to be selected, refereed, revised and published prior to and in affiliation with the conference.

In addition, two separate calls arising from the joint conference are being issued for chapter submissions to two additional books:

1. "The Added Value of Scientific Networking: GEOIDE Network Experiences" to be distributed to all conference participants (Call for chapters at <http://www.geoide.ulaval.ca/call-for-chapters.aspx>), and
2. "3DGeo Info Conference Proceedings (Springer)" to be mailed after the conference to all 3DGeo Conference participants which will be a single track on Wednesday and Thursday (Call at [http://www.3dgeoinfo2012.ulaval.ca/?page\\_id=48](http://www.3dgeoinfo2012.ulaval.ca/?page_id=48)).

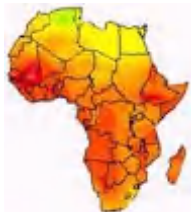
Deadline for submission of abstracts: 15 November 2011. Deadline for submission of full papers for Refereed Outlets: 15 November 2011.

Links: Joint Conference Call for Abstracts and Papers - <http://www.gsdi.org/gsdiconf/gsd13/papers.html>, Conference website - <http://www.gsdi.org/gsd13>, Past GSDI World Conference Proceedings: <http://www.gsdi.org/gsdiconferences>, Past open access books affiliated with the conference - <http://www.gsdi.org/openaccessbooks>, Other dates - <http://www.gsdi.org/gsdiconf/gsd13/dates.html>. Source The Joint Organizing Committee.

### 2011-2012 GSDI Small Grants Program

The [Global Spatial Data Infrastructure \(GSDI\) Association](#), the [FGDC](#), and [GISCorps](#) have announced the Small Grants Program for the year 2011-12. The Small Grants Program provides awards of \$2500 USD in cash and/or contributed volunteer professional services for technical or institutional projects. A list of typical projects follows - but this list is not exhaustive:

- Convening of national or sub-national seminars or workshops related to SDI,
- Producing SDI- and EOS-related training manuals and modules (these materials must not duplicate existing materials),
- Establishing metadata and clearinghouse nodes (catalog services),
- Establishing standards-based web mapping and data access services,



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- Accomplishing geospatial data and/or SDI surveys or inventories,
- Producing and disseminating newsletters and awareness-raising materials about SDI,
- Drafting policy and legislation related to SDI,

Priority will be given to projects in developing nations and countries with economies in transition. Grants can be awarded to SDI coordinating bodies (councils, committees) and GIS user groups, but the GSDI Association asks that one institution take responsibility for receiving/depositing the funds. Grants cannot be used to cover organization overhead expenses. Project proposals should have a maximum of 4000 words. Application deadline: 31 October 2011. Additional information: Overview of GSDI - [http://memberservices.gsdi.org/files/?artifact\\_id=844](http://memberservices.gsdi.org/files/?artifact_id=844) (MS PowerPoint), GSDI Strategic Plan - [http://portal.gsdi.org/files/?artifact\\_id=544](http://portal.gsdi.org/files/?artifact_id=544) (PDF), Global Earth Observation System of Systems (GEOSS) and the Group on Earth Observations (GEO) - <http://www.earthobservations.org/>. The GSDI Association also hosts an [SDI-Africa E-mail Discussion List](#) with intermittent news.

### [Open-source geo-spatial software initiative helps to produce global map of coral exposure to stress](#)



Marine researchers from the Wildlife Conservation Society (WCS) and spatial ecologists from the Faculty of Geo-Information Science and Earth Observation (ITC) have created a map of the world's corals and their exposure to stress factors, including high temperatures, ultra-violet radiation, weather systems, sedimentation, as well as stress-reducing factors such as temperature variability and tidal dynamics. The study, say the authors, will help to conserve some of the world's most important coral reefs by identifying reef systems where biodiversity is high and

stress is low, as well as ecosystems where management has the best chance of success. Supercomputing facilities at ITC and open-source geo-spatial software were used to generate global maps based on satellite observations and oceanographic model outputs to derive variables that reinforce and reduce stress in corals. "Coral reefs around the globe are under pressure from a variety of factors such as higher temperatures, sedimentation, and human-related activities such as fishing and coastal development," said Joseph M. Maina, WCS conservationist and lead author on the study. "The key to effectively identifying where conservation efforts are most likely to succeed is finding reefs where high biodiversity and low stress intersect." Using a wide array of publicly available data sets from satellites and a branch of mathematics known as fuzzy logic, which can handle incomplete data on coral physiology and coral-environment interactions, the researchers grouped the world's tropical coral reef systems into clusters based on the sum of their stress exposure grades and the factors that reinforce and reduce these stresses.

The study is an excellent example of how decision makers are now trying to integrate oceanographic data (analysis and model output available in formats like netCDF) with ecological data (i.e. the GPS-based observations of coral health). The authors used open-source [Integrated Data Viewer](#) (IDV) developed by [Unidata](#) which thanks to its multidimensional VisAD-data model facilitated seamless data integration and facilitated relating coral exposure to environmental stressors on a global scale.

The authors recommend that the study results be used to formulate management strategies that would include activities such as fishing restrictions, the management of watersheds through improved agricultural practices, and reforestation of coastal watersheds that play a role in healthy coral systems. Read the [paper](#) online in journal PLoS. [Source: ITC-University of Twente News].

### [UN Decades on Biodiversity and Desertification launched in Africa and South America](#)



July 2011: The regional launch for Africa of the UN Decade on Biodiversity was celebrated at the offices of the UN Economic Commission for Africa (UNECA) in Addis Ababa, Ethiopia, in conjunction with observance of the UN Decade for

Deserts and the Fight against Desertification. The African launch was preceded by the celebration of the UN Decade on Biodiversity in South America. The Africa launch, held on 22 July 2011, was attended by more than 200 ambassadors, diplomats, and representatives of UN agencies and other international organizations, who gathered to celebrate biodiversity and join efforts to halt land degradation, demonstrating the synergy between the biodiversity and the land-degradation agendas.

The South America launch, held in Quito, Ecuador, on 15 July 2011, marked the beginning of celebrations of the Decade in South America. The UN General Assembly, in resolution 65/161, declared the period 2011-2020 to be the UN Decade on Biodiversity, "with a view to contributing to the implementation of the Strategic Plan for Biodiversity" for the same years. The UN Decade for Deserts and the Fight against Desertification



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runs from January 2010 to December 2020, to promote action aimed at protecting drylands. [[CBD Communiqué on Africa Launch](#)] [[CBD Executive Secretary Statement - South America Launch](#)].

## [Africa's geospatial information management meeting adopts Addis Ababa declaration](#)



The African preparatory meeting on the Global Geospatial Information Management (GGIM) closed in Addis Ababa, Ethiopia Wednesday 10 August with the adoption of the Addis Ababa declaration on geospatial information management in Africa. The three-day meeting recommended that African countries, the Economic Commission for Africa (ECA) and the African Union Commission should finalise and implement the African Action Plan on Geospatial Information Management.

The meeting was attended by delegates from African countries; the African Association of Remote Sensing of the Environment; AfricaScope; Centre d'Etudes, de Recherche et de Production en Information pour l'Environnement et le Développement Durable (CERPINEDD); Environmental Information Systems Africa (EL-AFRICA), International Federation of Surveyors, FIG, GEODE, Ordnance Survey, Regional Centre for Training in Aerospace Surveys (RECTAS), Regional Centre for Mapping Resources for Development (RCMRD), Southern and Eastern African Mineral Centre, (SEAMIC).

In closing the meeting, the Deputy Executive Secretary of the Economic Commission for Africa, [Jennifer Kargbo delivered a message](#) which was read out by the director of ECA's ICTs, Science and Technology Division, Ms. Aida Opoku-Mensah in her absence. Ms. Kargbo thanked all the experts for their active participation in the meeting and assured them that ECA would carry their recommendations to future global fora working on developing a common management system. She commended the meeting for developing proposals for a future action plan for managing geospatial information in Africa and said: "I am convinced that you will continue working together to complete the African Action Plan, which would facilitate and promote member States geospatial information management activities. I assure you that, after its completion, the Action Plan will follow the various institutional steps and consultation processes necessary to its adoption at the highest African level."

The meeting agreed that ECA would continue to coordinate the global participation of African countries in GGIM activities through the African Regional Spatial Data Infrastructure (ARSDI). [Closing Remark by Jennifer Kargbo](#), Deputy Executive Secretary, Economic Commission for Africa. The [meeting web page](#).

## [Africa at Meso-scale: Adaptive and integrated tools and strategies on natural resources management](#)

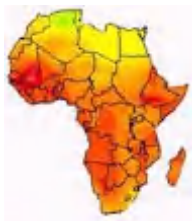


Africa appears to be very vulnerable to climate change, which can lead to large water shortages and higher damages due to natural disasters. It is expected that climate change will outpace the large efforts currently made to eradicate poverty. AFROMAISON is a project that aims to propose concrete strategies for integrated natural resources management in Africa in order to adapt to the consequences of climate change. AFROMAISON will propose sustainable solutions for communities and authorities in their operational management and strategic policy of natural (water)

resources, and help them in their fight against climate change. Funded by the 7th Framework Program of the European Union, it has a budget of 4 million euro and a runtime of 3 years (March 2011-2014).

The project have selected five case study sites, covering deserts, highlands, wetlands, grasslands, tropical humid forest and mountain forest. Each case study has a specific focus as a response to specific pressures, policies and other local conditions. However, tasks will not merely be limited to this focus area, different aspects of integrated responses will be considered in all areas.

Fundamental in all cases is access to land, water and wood. All AFROMAISON project partners have previously been engaged on related projects in these areas. The ambitious aims of this project could only function thanks to the rich data and expertise that already has been gathered during these projects. To develop and test a framework for INRM and to transfer results across case studies, sites throughout Africa have been chosen taking the following criteria into consideration: Multi-functional landscape; it can include both protected and non-protected areas; Strong competition of uses of natural resources & degradation of natural resources; High vulnerability; Strong local partners with good knowledge of pressing issues in INRM and well-connected and proven track record; Established networks with stakeholders and authorities; Work done in previous (recently finished) or current projects on at least one of the thematic focal points Area between 5,000 km<sup>2</sup> - 50,000 km<sup>2</sup>. The following five case study areas have been chosen: (1) [Enkangala](#)



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[grasslands / Drakensberg](#) (South-Africa), (2) [Inner Niger Delta](#) (Mali), (3) [Albertine Rift & Rwenzori Mountains](#) (Uganda), (4) [Oum Zessar Watershed](#) (Tunisia), and (5) [Headwaters of the Blue Nile](#) (Ethiopia).

### [New Forest Trends Publication - Implications of Ghana's current legal and policy framework for REDD+](#)



It is a critical and exciting time for Ghana in terms of forest conservation and REDD+, with forest management and policy developments occurring on various fronts. Yet, as recognized in the country's REDD+ Readiness Preparation Proposal (R-PP) to the World Bank's Forest Carbon Partnership Facility (FCPF), reaching REDD+ Readiness will be challenging.

In order to support legal and policy reforms that may be needed, as well as to provide certainty and stability for early action, Forest Trends and the Katoomba Group commissioned a report from The Rock and Partners - a leading African law firm on climate change and global warming issues - on implications of Ghana's current legal and policy framework for REDD+. In particular, the report focuses on implications for REDD+

from Ghanaian statutory and case law, and on the Community Resource Management Area (CREMA) as a potential platform for ensuring secure rights and equitable benefit sharing in REDD+. In parallel to the publication of this report, Nature Conservation Research Centre (NCRC) is leading a peer-review process within Ghana, which is expected to result in updates and revisions based upon input from Ghanaian experts. The report is available at [http://www.forest-trends.org/publication\\_details.php?publicationID=2957](http://www.forest-trends.org/publication_details.php?publicationID=2957).

### [Nigeria: Flood Early Warning messages not heeded](#)



Nigeria's Emergency Management Agency (NEMA) has accused state governments of overlooking early warning messages in the wake of flooding across the country that has killed an estimated 140 people and displaced tens of thousands. In early 2011 the Nigerian Meteorological Agency (NIMET) predicted heavy rainfall. Based on this, NEMA sent out early warning messages via radio in May 2011 to governments and citizens in seven states, including Kano in the north. "We advertised for both government and people to start cleaning up drainage ditches, and we formally wrote to state governments, including Kano State, to prepare for the expected flooding this year," said NEMA coordinator Musatafa Suleiman.

The Nigeria Red Cross also put out early warnings based on information it received from Africa's climate prediction centre, African Centre of Meteorological Application for Development. But according to Suleiman, "few states adhered to the early warning messages and started clearing their drainage systems or canals for easy passage of floodwater." NEMA is trying to improve its information-gathering and dissemination so it can play a stronger early warning role in future.

But local authorities need to shift from a reactive to a proactive role to fund and map out clearer emergency preparedness plans from now on, said Umar Maigari, disaster management coordinator for the Nigeria Red Cross in Bauchi State in northern Nigeria. Several states have no emergency preparedness measures at all, and those that do, are poorly funded. Abiola Ajimobi, governor of Oyo State in the southwest, gave a seven-day demolition notice on 1 September to house-owners living on drainage paths in the capital, Ibadan. Residents told IRIN they were not given enough notice of the move. It is not too late to strategize preparedness activities for the 2012 rainy season, said NEMA's Suleiman. Very little progress has been made in these areas since 2010, when heavy rains hit the north, displacing two million people after local authorities were forced to open flood-gates on swollen rivers.

### [National satellites will aid Disaster Monitoring in Nigeria](#)

The recently launched Nigerian earth observation satellites will significantly boost the country's capabilities for natural resource management as well aid disaster relief through the Disaster Monitoring Constellation, the Minister of Science and Technology, Prof. Ita Okon Bassey Ewa, has said.

Speaking in Abuja while presenting his ministry's scorecard in the last 100 days, Prof. Ewa said the two satellites which were wholly designed and built by Nigerian engineers would enhance transformation in the key sectors of the economy. According to him, the satellites would help in the agricultural sector and solve the problem of food insecurity. He said two earth observation satellites otherwise known as NigeriaSat-2 and NigeriaSat-X, which cost the country £34 million are the most advanced of their class in the world. The



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minister said the two spacecrafts were launched using the Dnepr launch vehicle which had launched over 55 satellites successfully in orbit on various missions.

## [UNOSAT is tasked to produce geospatial information to help respond to the crisis in the Horn of Africa](#)



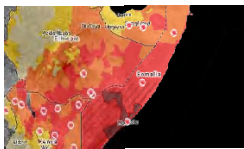
Extended drought is causing a severe food crisis in the Horn of Africa with parts of Somalia so severely affected that no less than 100,000 people are moving within Somalia and towards neighbouring Kenya and Ethiopia in search of emergency assistance. According to OCHA reports over 11 million people are in need of humanitarian assistance in the Horn of Africa. The famine is expected to spread across all regions in southern Somalia soon unless urgent measures are put in place.

UNOSAT has already published a rapid assessment of the Ethiopian border town of Dolo at the request of UNHCR to support of emergency humanitarian planning in the area following the influx of Somali refugees. Satellite imagery acquired on 17 July 2011 over the town was assessed for a number of thematic issues covering the possible presence of refugee/IDP settlements in the area, transportation, hydrology, rainfall and cultivation. This assessment is still preliminary and is being validated in the field.

In addition, a UNOSAT atlas provides detailed pre-crisis satellite imagery coverage over the main border crossing for Somali refugees entering Ethiopia, over the border towns of Dolo, Ethiopia and Doolow, Somalia. The atlas is based on pre-crisis satellite imagery acquired in October 2010 and has been designed for easy printing and readability on A4 and A3 paper.

UNITAR/UNOSAT is receiving support from the US State Department Humanitarian Information Unit and is coordinating geospatial requirements with WFP and UNHCR in this early phase, while coordination with the European Union's SAFER Project is ongoing to implement efficient division of labour for the production of complementary information products and to avoid redundancy. Report: [UN Institute for Training and Research, UNOSAT](#).

## [Visualizing hunger in the Horn of Africa](#)



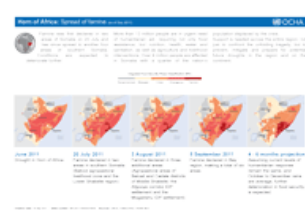
A map made with open data shows the extent of the humanitarian emergency in the Horn of Africa. Drought, conflict and rising food prices have put the lives of millions of people in the Horn of Africa at risk. Today, on [World Humanitarian Day](#), citizens and governments alike are looking for [ways to help victims of the East Africa drought](#).

According to the [State Department](#), more people than the combined populations of New York City and Houston need urgent assistance in the Horn of Africa.

To understand the scope of the unfolding humanitarian disaster, explore the embedded map on the website. The map was built by [Development Seed](#) using open source tools and open data. It includes estimates from the [Famine Early Warning System Network \(FEWS NET\)](#) and the [Food Security and Nutrition Survey Unit - Somalia \(FSNAU\)](#), coupled with data from the [UN Office of Humanitarian Coordination and Affairs \(UN OCHA\)](#). The map mashes up operational data from the World Food Program with situational data to show how resources are being allocated.

In the Horn of Africa, the World Food Programme can feed one person for one day with just \$0.50. Using this map it is possible to see what is needed budgetwise to feed those in need, and how close the World Food Programme is in achieving this. Going forward, new location and shipment data will be posted in near real-time, keeping the data as accurate as possible. Development Seed has also applied a fundamental platform principle by making it easy to spread both the data and message through social tools and [embeddable code](#). If you'd like to donate to organizations that are working to help people directly affected in the crisis, Interaction.org has posted a [list of charities](#). If you'd prefer to donate directly to the World Food Program, you can also text AID to 27722 using your mobile phone to give \$10 to help those affected by the Horn of Africa crisis.

## [Dekadal food security and nutrition monitoring in Somalia - September 13, 2011](#)



In addition to the five areas where famine has already been declared:

- All of Bay region has now met the three famine criteria.
- 25-75 percent of poor agropastoral households in Gedo and Juba and pastoral households in Bakool face famine level of food deficits.
- In total 4.0 million people are in crisis nationwide (Phase 3, 4, 5), of which 3.0 million are in the south. 750,000 people are experiencing famine-level



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outcomes. Tens of thousands of people have already died, over half of whom are children.

- Measles and Acute Watery Diarrhoea outbreaks continue in southern Somalia especially among Mogadishu IDPs where the nutrition and mortality results indicate deterioration from the July surveys.
- Despite, a large-scale increase in humanitarian response, evidence suggests that food security in the agropastoral and riverine areas of the south will deteriorate further over the coming four months. Famine is considered likely by December 2011 in agropastoral and riverine areas of Gedo and Juba, and agropastoral of Middle Shabelle and Hiran.

Report - [Famine Early Warning System Network](#), [Food Security and Nutrition Analysis Unit](#).

### [US\\$1 million for East African ICT project](#)



An organisation that gets multimedia into African villages has won a US\$1 million award. The Arid Lands Information Network (ALIN) received the Access to Learning Award for establishing ICT-based information centres for rural communities in Kenya, Tanzania and Uganda. "This is a pure, God-sent opportunity," said Anthony Mugo, ALIN's programmes director. "The award couldn't have come at a better time because one of our organisation's major stumbling blocks has been [the lack of] adequate funds for the expansion of our activities." ALIN's community knowledge centres - known as Maarifa, the Kiswahili word for

knowledge - provide multimedia equipment and publications for villagers so they can find out about agricultural and scientific information. They can also access the Internet at the centres. Topics include drought-forecasting, pest control, markets and new technologies.

Mugo said that ALIN's top priority was to turn access to the internet into the provision of information targeted to particular communities. This in turn helped farmers to generate income and improve their health. Since its inception in 2007, ALIN has established Maarifa centres in Kenya, Uganda and Tanzania.

Each Maarifa centre is run by a field officer assisted by volunteers who give basic computer and Internet training to villagers. ALIN also produces two quarterly publications, one on dryland agriculture and natural resource management, and one on the impacts of climate change on Africa. Mugo said that the challenges for ALIN include the lack of electricity and reliable internet connectivity.

Harun Warui, director of the African Adaptation Programme at Kenya's Ministry of Environment and Mineral Resources, said: "[IT equipment] should be current and innovative [so as to help] farmers adapt their farming practices to modern techniques". He said the packaging of the information was important. For instance, farmers in arid areas can get information on both the weather forecast and appropriate seeds for the season. "[The] use of IT platforms like those provided by ALIN ought to enable contingency measure[s] against droughts," he said. The award was given by the philanthropic Bill & Melinda Gates Foundation on 16 August.

### [Red Cross set to launch refugee tracking device](#)

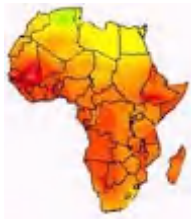
The Red Cross is this morning set to launch a mobile platform to aid in tracking refugees and displaced persons. The tracking device was first launched in Uganda in 2010 as a pilot project by Refugees United an organization that helps refugees reconnect with their families. It is now being expanded to 6 other African countries including Kenya.

### [6th Africa Geospatial Forum urges to educate people about geospatial technology](#)



The 6th Africa Geospatial Forum under the theme: Enabling Socio-economic Development through Geospatial was held on 6-8 September in Nairobi, Kenya and organised by the Geospatial Media & Communications. The three-day conference brought together surveyors, remote sensing experts, land management experts and researchers, among others to discuss the various advancements and promote the use of geospatial technology in the region.

Delivering the opening remarks, Dr. Hussein Farah, Director General, RCMRD thanked the organisers for providing an ideal platform for the continent to meet its goal of economic development. "The forum is an excellent opportunity for people from the geospatial industry to come together and discuss their common concerns. It is one of the ways to achieve our objective of using geospatial technology for economic development," he said. The Director, ICTs and S&T Division, UN Economic Commission for Africa, Aida Opoku-Mensah highlighted the significance of geospatial technology, "The need of the hour is to educate people about the significance of geospatial technology and encourage its maximum use. Keeping geospatial tech out of Africa's development would be a big mistake."



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The conference was declared open by Kenya's Minister of Lands, the honorable James Orengo. "In attempt to achieve Kenya's goal of vision 2030, the country has started using new technologies and geospatial technology is widely used," he said. The minister said it is against this background that the ministry has embarked on the computerization of lands records. He also noted that geospatial technology is already being used successfully at the Kenya National Bureau of Statistics (KNBS), Kenya Forestry Research Institute (KEFRI) and Regional Centre for Mapping of Resources for Development (RCMRD) among other government agencies such as DRSRS, KWS, Survey of Kenya, and specialized NGO's.

The conference was occasioned by presentation of the Geospatial Excellence Awards to honour African organisations that have done exceedingly well in the implementation geospatial technology:

- Environmental Management Award - Green Belt Movement,
- Utilities Management Award - Ghana Sewerage & Water Co.,
- Social Development Award - Map Kibera Project,
- Contribution to Space Technology - National Space Research of Africa,
- Infrastructure Development Award - Rwanda Development Authority,
- Governance Award - City of Johannesburg, South Africa,
- Land Management - Department of Surveys and Mapping, Botswana.

Summary of the plenary sessions: The Director, United Nations University Institute for Natural Resources in Africa, Elias T. Ayuk which highlighted the role of academia in promoting geospatial knowledge and its applications. Vice President, Trimbal Navigation, Chris Gibson gave an informative presentation on enabling socio economic growth through innovation in geospatial. Ms. Aida Opoku-Mensah gave an in-depth analysis on the present status of geospatial technology and the way forward to promote its increased and creative use. Ben Chikamai (Kenya Forestry Research Institute) explained the role of geospatial technology in forest ecosystems in Kenya. Discussions conducted on the need for standards and the use of geospatial technology in land management. Challenges facing geospatial technology in the region discussed and what needs to be done to get the decision makers' support to enhance the collection of geospatial data. Other [discussions](#) focused on: Geospatial contributing to Kenya's vision 2030, Geospatial for health and education, Geospatial protecting and conserving environment, Geospatial for socio economic development, Climate change and disaster management, and Geospatial and land administration among others.

### [RCMRD joins Open Geospatial Consortium \(OGC\) to support its mission in Africa](#)



Open Geospatial Consortium (OGC) marked its presence at the Africa Geospatial Forum 2011 held on 6-8 September in Nairobi, Kenya. The Executive Director, Steven Ramage informed plenary about discounted membership fee structure for developing nations, which also include world regions such as Latin America and Asia. This new OGC membership fee is based on World Bank Global Economic Indicator data (providing discounts on the standard annual membership fee). Membership application forms can be downloaded at <http://www.opengeospatial.org/ogc/join/levels> and fax/mail applications at <http://www.opengeospatial.org/ogc/join/application>.

During the Senior Executive Seminar a call for participation was also made to bring the voice of Africa into the OGC international standards setting process for geospatial and location services. This revised membership fee structure will make it much easier for African nations to participate. An announcement was made that the Regional Centre for Mapping for Regional Development (RCMRD) in Africa joined the OGC to support its mission and vision in Africa. For more information on some ongoing projects in Africa using OGC standards, for example AfroMaison (spatial data infrastructure and natural resource management) or EO2Heaven (earth observation and environmental modeling for health), contact Steven Ramage at [sramage@myogc.org](mailto:sramage@myogc.org) or follow on Twitter - ogc\_steven or join the LinkedIn OGC Group.

### [Geospatial tech inspires Kenyans to take up agriculture](#)



Kenyan youths embraced modern technologies (including geospatial technology) to spur innovations aimed to transform farming practices and the management of natural resources, according to a report published in Africa Science News. The Rome-based Young Professionals' Platform on Agriculture Research for Development (YPARD) recently partnered with the Kenya-based Africa Centre for Technology Studies (ACTS) to implement a training programme on geospatial technology targeting students interested in agriculture. The participants drawn from public universities in Kenya were trained on how to use GIS, GPS and remote sensing to provide solutions to agriculture, health and environmental challenges.





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Partnership between ACTS and YPARD has encouraged use of ICT platforms to modernise agriculture and make it attractive to youth. According to Courtney Paisley, the YPARD Coordinator, “this program has raised the voice of young people in agriculture through skills development on critical tools that aid innovations”. “Young people in Africa are missing at all agriculture value chains in many African countries. They are missing at the policy level and strategic decision making”. She added that agriculture research is part of food security and challenged governments to provide incentives that attracts more youths in this field.

Susan Moenga, one of the participants of the programme, hopes to convince small-scale farmers to undertake green house farming in the light of unpredictable weather patterns. Naomi Gichungu, an Environmental Education Student at Kenyatta University on the other hand is convinced that understanding of innovative geographic information tools and their application is crucial to solving environmental challenges. She intends to utilise skills gained on use of GIS and GPS to help farmers identify water points and other ecosystems at risk of depletion. Ann Kingiri, the Director of Research, Africa Centre for Technology Studies, hailed the vital role of modern technologies to address food security and environmental challenges in Kenya. Kingiri stated, “These technological tools spur agricultural innovations and promote environmental conservation critical to combating hunger and poverty in the country”.

### [South Africa submits bid to host the Square Kilometre Array \(SKA\) Radio Telescope](#)

The National Research Foundation has submitted on 15 September 2011 the documents supporting the African bid to host the Square Kilometre Array (SKA) Radio Telescope. The documents are South Africa's response to the Request for Information issued by the international SKA Siting Group in June 2011. This follows the initial submission of expressions of interest in 2003 and of reports in 2005, which led to South Africa and Australia being short listed as both being suitable for the SKA. The African SKA site bid is led by South Africa's Department of Science and Technology and includes Namibia, Botswana, Mozambique, Madagascar, Zambia, Mauritius, Kenya and Ghana.

The reports submitted cover a wide range of information - measurements of radio frequency interference and the physical conditions on the core site in the Northern Cape Karoo and the remote sites spread through South Africa and the other partner countries, measurements of the ionosphere and troposphere, analysis of the scientific performance of the array, designs for the roads, buildings and other infrastructure required, proposals for how 105MW of power can be supplied to the core site in the Karoo and how the remote sites can be powered, how the huge amounts of data can be transported from the telescope dishes in the Karoo and other sites to the central computer and then to the control centre in Cape Town and to science centres in other countries around the world, customs and excise duties, work permits and visas, laws affecting how the SKA will operate in South Africa and the other countries, working conditions for a highly skilled workforce of scientists and engineers, the financial and economic system, how security will be provided for the telescope and much else besides.

The South African SKA team has worked closely with telecommunication service providers including Broadband InfraCo, Meraka, Nokia Siemens Networks, Seacom, FibreCo, Muvoni Weltex, EASSY, SIA Solutions and Cisco and with Eskom, the City of Cape Town and Aurecon to come up with robust and cost-effective data transport, power and infrastructure proposals for the telescope. The team has also had tremendous support from Independent Communications Authority of South Africa (ICASA), Sentech, the Department of Communications, the Department of Public Enterprise, Vodacom, MTN and the National Association of Broadcasters in designing solutions to reduce radio interference on the site, while still providing services to people in the area. A great deal of support was also received from South African Revenue Service (SARS), the Reserve Bank, Southern Mapping Geospatial, the HSRC, the Centre for High Performance Computing, the Council for Geosciences, the South Africa Weather Service and many other government departments and service providers in preparing the bid reports. The bid documents represent eight years of work.

### [Tributes extended for Prof. Wangari Maathai, Founder of the Green Belt Movement](#)



Professor Wangari Maathai, founder of the Green Belt Movement in Kenya, passed away on 25 September 2011. Professor Maathai was awarded the 2004 Nobel Peace Prize for her work in environmental sustainability and empowerment of women, the first time a Nobel Peace Prize was awarded to an environmentalist.

The Green Belt Movement, founded in 1977, encouraged women in rural Kenya to plant trees in order to improve their livelihoods and reverse the effects of deforestation. According to a statement from the UN Environment Programme (UNEP), the Movement



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has planted over 30 million trees in Africa. Maathai also was the inspiration behind and a patron of UNEP's Billion Tree Campaign, which has led to the planting of 11 billion trees since 2006. In 2002, Professor Maathai was elected to Kenya's parliament and appointed Assistant Minister for environment and natural resources.

Maathai was appointed by UN Secretary-General Ban Ki-moon as a UN Messenger of Peace and a member of the Millennium Development Goals (MDG) Advocacy Group. She received France's Légion d'Honneur in 2006, the Nelson Mandela Award for Health and Human Rights in 2007 and Japan's Order of the Rising Sun in 2009. In addition to her doctorate degree, which she was the first woman in East and Central Africa to earn, she received honorary doctorates from several universities. [[UN News Release](#)] [[UNEP Statement](#)] [[UN-HABITAT Statement](#)] [[Statement of UN Secretary-General](#)] [[Statement of Director-General of Food and Agriculture Organization \(FAO\)](#)] [[International Union for Conservation of Nature \(IUCN\) Release](#)] [[Statement of Executive Director of UNWomen](#)].

### [AfricaGIS 2011: A geospatial technology revolution in Africa](#), 7-11 November 2011, Abuja, Nigeria



The AfricaGIS 2011 will be held between 7th -11th November at the Sheraton Hotels and Towers Abuja, Nigeria. The sub-themes are: Partially-enabled Governance; Enterprise GIS and Land Administration: the building blocks of sustainable development; New Trends: crowd-sourcing, volunteered geographic information (VGI), and web services in the cloud; and Business Geographic's: the geospatial advantage. This invitation has been made, with GEOSON (The Geo-information Society of Nigeria) as one of the organizers of this conference provides the backing and identity under which AfricaGISTM2011 is being set up and structured. The programme includes scientific sessions, field trips and a technical exhibition, alongside social events. Researchers, academics, students and the general public are expected to converge on this major event of great scientific relevance.

Please keep visiting the conference website [www.africagis2011.org](http://www.africagis2011.org) for updates. Download registration form at <http://www.africagis2011.org/images/form.pdf>. For further information, contact: Dr. Aminu Usman at [aminu.usman@africagis.org](mailto:aminu.usman@africagis.org).

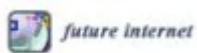
### [7th Annual AfricaArray Workshop](#), 17-22 November 2011, Johannesburg, South Africa

The 7th Annual AfricaArray Workshop will be held in Johannesburg, South Africa, during 17 - 22 November 2011. Please note that this year's conference will comprise an extended program over six days instead of the usual two days. Days 4 and 5 (Sunday 20 November and Monday 21 November) will follow the more traditional AfricaArray Workshop format (oral and poster presentations) of previous years.

- The first three days will be devoted to the GPS Data Processing Short Course, for which separate registration is required. The short course will be led by Dr. Bob King from MIT and Dr. Henry Berglund from UNAVCO, and will include lectures and one-on-one tutoring in static processing of both continuous and survey-mode measurements; defining, global, regional, and local reference frames; temporal and spatial filtering of time series; modeling tropospheric, antenna, and loading effects in height estimates; combining solutions to estimate post-seismic and long-term crustal deformation; handling step-displacements due to earthquakes and instrument changes; and developing an error model for velocity estimates. Tutoring will be based on data sets participants bring on their own laptops or else provided by the instructors. Participants will be expected to have installed and exercised with the software prior to arriving.
- The [IGCP565 Workshop](#) will take place on days 5 and 6, and also requires separate registration. This workshop will focus on the integration of geodetic observations and products in models of the hydrological cycle. For more information see <http://www.igcp.org/workshops/johannesburg2011>. Delegates wishing to obtain sponsorship to attend this workshop will be required to submit a separate motivation to Dr Hans-Peter Plag at [hpplag@unr.edu](mailto:hpplag@unr.edu).

Delegates may wish to register for the entire 6 days or for a shorter stay. The registration form is available online at <http://www.africaarray.psu.edu/>. For further information, contact Sharon Ellis, Africa Array Programme at [sharon.ellis@wits.ac.za](mailto:sharon.ellis@wits.ac.za).

### [Call for Papers - Special Issue "NeoGeography and WikiPlanning"](#)



The advent of Web 2.0 made available technologies and services such as blogs, social networking, Wikis and RSS/XML feeds that allowed many users to create their own content and share it through simple and freely available tools. The shift to a user-



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generated content paradigm on the web fostered changes in sharing and analyzing geographic information. The term “neogeography” rose as a way to describe people activities when using and creating their own maps, geo-tagging pictures, movies, websites, etc. It could be defined as a new bottom – up approach to geography prompted by users, therefore introducing changes in the roles of ‘traditional’ geographers and ‘consumers’ of geographical contents themselves.

During the past decades, the main issue in GIS implementation has been the availability of sound spatial information. Nowadays, the wide diffusion of electronic devices providing geo-referenced information has resulted in the production of extensive spatial information datasets. This trend has led to “GIS wikification”, where mass collaboration plays a key role in main components of spatial information frameworks (hardware, software, data, and people). Goodchild, (2007) introduced “Volunteered Geographic Information” (VGI), as the harnessing of tools to create, assemble, and disseminate geographic information provided by individuals voluntarily creating their own contents by marking the locations of occurred events or by labeling certain existing features not already been shown on map. The volunteered approach has been also adopted by important organizations. Whilst technologies (e.g. GPS, remote sensing, etc.) can be useful in producing new spatial data, volunteered activities are the only way to update and describe such data.

Recommended Topics: Neogeography, Volunteered geographic information, Crowdsourcing, Collaborative mapping, WikiCities, Wikinomics, GeoDesign, Planning 2.0, Participation 2.0, Urban social networks, Urban sensing, e-democracy, eParticipation, Participatory GIS, Web 2.0; Web 3.0, Technologies for eParticipation, Second life and participatory games, SDI and planning, Ontologies for urban planning, Urban computing, Ubiquitous-city.

Deadline for manuscript submissions: **15 November 2011**. For more information, visit: [Future Internet mpi.com](http://Future Internet mpi.com). Future Internet is an international, peer-reviewed Open Access journal.

### Practical SDI implementation materials from within and outside of Africa

#### [Surfing the radio waves for sustainable agriculture in Africa](#)



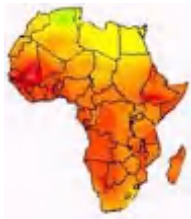
While the use of mobile phones is rapidly surging across Africa, access gaps persist between urban and rural users. But a new generation of social entrepreneurs is remedying this problem by combining new and old media to reach rural populations.

Twenty-nine-year-old Nnaemeka Ikegwuonu is one of such entrepreneurs who see the mobile telephony gap as a call to innovate. His organization connects rural farmers with the information they need through a combination of mobile telephony and radio, which is widely used in rural areas. "Where the four-wheel vehicle stops, that's where the radio wave starts," said Ikegwuonu. Ikegwuonu is founder of the Smallholders Foundation, a multi-technology platform that promotes environmentally sustainable agricultural activity in rural parts of Imo State, Nigeria. The foundation primarily runs a radio station that broadcasts daily programs on agricultural and environmental management, market information, financial planning and business skills to over 250,000 small farmers 10 hours a day. The Smallholders Foundation's technology platform uses mobile technology to allow rural radio listeners, particularly small farmers, to participate in the foundation's agricultural radio programming. Ikegwuonu foresees more integration between mobile phones and radio. "Where there is no electricity, people can get batteries for radio," Ikegwuonu said, implying that radio remains the most effective medium of mass communication in rural Nigeria.

A recent World Bank Group (WBG) study on the expansion of information and communications technology (ICT) shows that while there remain access chasms between developed and developing countries in Internet and broadband connectivity, the gap in the number of mobile phone users is rapidly closing as a result of private sector investment and policy reforms. The WBG, which has committed a total of \$4.2 billion to expansion, supports the ICT sector through lending, policy advice, investment in private projects, and political risk guarantees. Last year, 3.9 billion people in the developing world used mobile phones, equivalent to a 68-percent penetration rate. In Africa, the surge in mobile phone use has been rapid. There were 230 million mobile phone subscribers in 2007; today half of the continent's one billion people own a mobile phone, making the continent the fastest-growing mobile market in the world, according to the study. More...

#### [US: Spatial law resources now available online](#)

The Centre for Spatial Law and Policy website (<http://www.spatiallaw.com/>) has been redesigned and enriched with a valuable resource for those interested in understanding the complex legal and policy issues associated with the collection, use and transfer of spatial data, announced Kevin Pomfret, Executive Director of the Centre for Spatial Law and Policy. The website



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now contains an on-line repository that currently provides over 200 links to cases, legislation, regulations, law review articles and research related to issues such as privacy, intellectual property rights, liability and national security.

In his blog, Kevin wrote that the legal and policy landscape involving geospatial data is changing daily, due to rapid improvements in and applications for geospatial technology. Therefore, the website will remain a work in progress, with new links being added on a regular basis. Particular attention will be paid to adding links related to laws and cases outside of the United States. As a result, feel free to forward any links that you think are relevant and they will be added as appropriate.

The goal is for the repository to serve as a bridge between the works of noted academics in the field such as Harland Onsrud (University of Maine), Joanne Grabynowicz (National Center for Remote Sensing, Air, and Space Law - University of Mississippi), Katleen Jansseen (Interdisciplinary Centre for Law and ICT- K.U. Leuven), George Cho (University of Canberra), Bastiaan van Loenen (Delft University of Technology), Anne Sullivan, (Queensland University of Technology) and Frazer Taylor (Carleton University) - and many others - and current laws, bills, cases and policy white papers. Such a bridge is becoming increasingly important for both legal practitioners and policymakers as these issues are international in scope and cut across both technology platforms and legal disciplines.

This repository was made possible by the initial members of the Centre including: Google, Digital Globe, DMTI Spatial, GeoEye, ESRI, Lockheed Martin, Pictometry, Rolta and PCI Geomatics. For more information about becoming a member of the Centre, see the membership tab on the website.

### [Geospatial tool assesses crops' nitrogen needs](#)



Scientists at the Department of Primary Industries (DPI), Australia, developed a tool that uses satellites or airborne imagery to provide a precise analysis of crops' nitrogen needs. It aims to enable farmers to boost yields and lower costs by providing them with an accurate picture of where and how much nitrogen they need to apply.

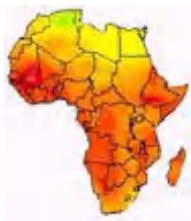
Scientists from DPI Horsham joined others from the University of Melbourne and Queensland University of Technology as well as Michigan State University and Italy's University of Basilicata in developing the system. DPI Senior Research Scientist Dr Glenn Fitzgerald said rain-fed wheat plots at Horsham and in southern Italy were studied, with their "greenness" and nitrogen status measured using the remote sensing index. "When this model was tested on the independent dataset it yielded good results for the estimation of greenness," he said. Fitzgerald added, "This research creates the potential for developing a whole paddock analysis of nitrogen levels rather than taking tissue samples at selected points in the crop and waiting several days for the results. In addition, the method provides an assessment of nitrogen throughout a paddock, unlike the limited spatial assessment from tissue samples." "Real time in-crop assessment will help farmers determine where to increase or decrease nitrogen across the whole crop," continued Fitzgerald. Source: [Stock & Land](#).

### [EO2HEAVEN \(Earth Observation and Environmental Modelling for the Mitigation of Health Risks\)](#)

EO2HEAVEN is a research project contributing to a better understanding of the complex relationships between environmental changes and their impact on human health. The project was started in February 2010 with duration of three years, and co-funded by the European Commission (EC) as part of the 7th Framework Programme (FP7) Environmental theme. The allocated EC funding is more than Euro 6 million.

The project objective is to monitor changes induced by human activities, with emphasis on atmospheric, river, lake and coastal marine pollution. EO2HEAVEN will follow a multidisciplinary and user-driven approach involving public health stakeholders who will work closely with technology and service providers in both the earth observation and in-situ environmental monitoring domain. The result of this collaboration will be the design and development of a GIS based upon an open and standards-based Spatial Information Infrastructure (SII) envisaged as a helpful tool for research of human exposure and early detection of potential health endangerments. The project will among others:

- Develop models to relate environmental data with exposure and health data.
- The SII will include bridging capabilities at the syntactic and semantic levels to and between environmental and health systems.
- Health data collections will be studied and new structures for their integration into SII will be described.
- Standards for health data collection will be proposed.
- Ongoing and recently completed research projects in the ICT environmental and health domains will be studied and used in an integrative approach.



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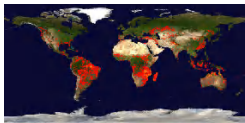


- Different Earth Observation products, especially those resources available free of charge for the research community will be examined,

Throughout the life span of the project the stakeholder requirements from three different case studies (in Europe and Southern Africa) will be assessed and the technical solutions proposed by EO2HEAVEN will be evaluated through an iterative process, thus ensuring that the solutions can be applied on a global scale. Specifically the involvement of International Co-operation Partner Countries (ICPC) such as Mozambique and South Africa is an important asset for the project in order to study and understand the complex implications of the climate change for the emergence of infectious diseases.

A first case study will be developed in Dresden (Germany) addressing the environment effects on allergies and cardiovascular diseases. A second case study will be located in south Durban industrial basin (South Africa) dealing mainly with pollution and respiratory diseases. The third case study will be conducted in Uganda to investigate the impact of climatic variables on the outbreak of cholera. [More...](#)

### [Real-Time Advanced Fire Information System \(AFIS\) deployed in South Africa](#)



In early 2004 Eskom and the Satellite Application Centre (SAC) of the Council of Scientific and Industrial Research (CSIR), launched a research project to demonstrate the ability to track active fires by using polar orbiting satellites. MODIS being a medium-resolution scanner enables four updates daily with a 1 km<sup>2</sup> resolution. The detection of grass fires as small as 0,25 ha is possible with this data. Eskom required information on fires every 15 minutes and whilst the MODIS data was sufficiently high in spatial resolution, the temporal resolution was less than satisfactory. Consequently the CSIR proposed the use of the Spinning Enhanced Visible and Infrared Imager (SEVIRI) sensor on board the Meteosat Second Generation (MSG) satellite. This satellite is in geostationary orbit above the equator and the SEVIRI sensor transmits data every 15 minutes. MSG data is observed at a spatial resolution of 5 km<sup>2</sup>.

Once the processing of the hot spots has been completed the information is published on a website, or email. Text message warnings of fires alerts are sent to mobile phones of Eskom field personnel on patrols. This system, where an electrical utility applied remote sensing together with cell phone technology to monitor fires under power lines, was the first of its kind in the world. The system developed from this project is called the Advanced Fire Information System (AFIS) and developed on proprietary Arc IMS software. In addition to the real-time functionality of the system, the history of fires that has accumulated on the system proves to be most valuable. The system permits queries on fires observed for any stated period and these data are used in the planning of vegetation management as well as investigations of line faults or even insurance claims.

### [Swedish daycare centres use GPS systems to track children on excursions in the forest](#)

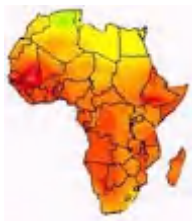


Daycare centres in Sweden have started using GPS systems and other electronic tracking devices to keep tabs on children during excursions - a practice that has raised ethical and practical questions.

Some parents are worried day care centres will use the technology to replace staff. Others wonder whether getting children used to being under surveillance could affect their idea of privacy when they grow older. Monica Blank-Hedqvist, the principal of a

daycare centre in the city of Borlange told The Associated Press her staff has been using such devices during supervised walks in the forest: the kids wear vests with transmitters that staff can track on a screen. "It is excellent, it has been only positive for us," Blank-Hedqvist said. The devices are used as extra security by three preschool teachers watching around 20 children, to quickly discover if one of them strays away from the group, she said.

Par Strom, an author and commentator on issues related to technology and privacy, told news agency TT he is of two minds about the tracking. "On the one hand I can see the practical advantages in some situations. At the same time you get children used to constant surveillance at a very young age," he said. Not everyone is convinced the tracking systems can increase security for their children. "What a shame we don't use the money and energy on salaries (for daycare employees) instead," columnist and mother of three, Malin Wollin wrote on tabloid Aftonbladet's website. "Everyone who has ever had a cellphone, or a TV, or a computer knows that technology sometimes plays up." Erik Janzon, team leader at Sweden's Data Inspection Board, said the authority may investigate the matter. "It could be quite harmless, or it could affect aspects of privacy," "It depends on what kind of information you feed into the system and the purpose of the use." "Problems could arise if the devices store personal details or information about a person's whereabouts." "Even if a system is initially developed for good causes it could be misused for other purposes in the future."



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## GIS Tools, Software, Data

### [Esri's interactive map of hurricane Irene](#)



Esri published an interactive map that allows users to view continuously updated hurricane information. Users can track specific hurricanes and see their projected path and also access newsfeeds, precipitation, and storm surge information.

According to Esri, the hurricane feeds are supported by the precipitation updated every 15 minutes as well as the storm surge, often the greatest threat to life and property from a hurricane, updated every 20 minutes. Click on the image to access the interactive map.

### [Satellite-based tool to detect airborne pollution](#)

Researchers at University of Leicester are using satellites to track the invisible airborne pollutants that determine the air quality and health of our major cities, CNN reported. They are developing a new generation of orbiting sensors which they call "Sciamachy," a technical acronym that in ancient Greek means "battling shadows." It will enable mapping of wraith-like chemicals at city level. "At the moment, from space, we can measure nitrogen dioxide over a whole country or even down to an area, but not yet down to a city. The challenge is actually to build the next generation of the satellites that would be able to measure down to the city scale," explained Paul Monks, a University of Leicester professor of atmospheric chemistry.

The team of researchers led by Roland Leigh, a climate change technology scientist at the University of Leicester, is developing a tool which will eventually provide an additional dimension to data collected on the planet's atmosphere by Envisat satellite. It is a 15-year project and they claimed that they are in midway now. "From 800 kilometres away we can produce maps of London or any major city and we can say where the air quality is good and bad," Leigh said. Leigh's project utilises equipment so sensitive that it needs to be assembled in an ultra-sterile room containing 100,000 times fewer atmospheric particles than standard air. Just one speck of dust can ruin delicate optical components.

Monks said, "Studying air quality at street level is crucial to engineering environmental change without throwing global ecosystems out of balance." "Air quality is also part of climate change," he said. According to Monks, a drastic fall in China's air pollution, for instance, could actually worsen the global warming in the short term as cooling aerosols - small particles that block radiation from the sun - are lost from the atmosphere. Monks calls it a "bumpy road to recovery." "What we're trying to do at the moment is re-understand where the climate change and air quality trade-offs are to produce a win-win scenario," he added. Source: [CNN](#).

### [Making the most of mobiles: Tracking almost everything](#)



Even the most basic mobile phones are able to use innovative tools. While mobile phones are ubiquitous in Africa, the internet has nothing like the same penetration and is almost non-existent in rural areas. Says Banks: "For example, in Zimbabwe, there's 2-3 percent internet penetration. If your amazing, whizzy mobile tool needs the internet, and you are looking to deploy it in Zimbabwe, you have lost 97 percent of people before you start."

One phone-based tool playing an important role in the drought-affected areas of East Africa is EpiCollect, developed by Imperial College, London, which allows the geospatial collation of data collected by mobile phone. Kenyan vets are using it for disease surveillance, monitoring outbreaks, treatments, vaccinations and animal deaths. Even where there is no mobile-phone signal, they can record data by phone and store it until it can be transferred to a computer, producing an interactive map pinpointing where each observation has been made, with additional information about locality, even photographs, available at the click of a mouse.

Nick Short, of the NGO VetAid, has been greatly impressed by the possibilities, and the fact that ministries of agriculture and the UN Food and Agriculture Organization (FAO) can now track what is happening in real time. "When I worked in Botswana," he says, "We had an outbreak in the northwest of a disease called CBPP. It took us about two-and-a-half months to hear the disease was in the country. By the time we got there about 20,000 cows had died; we ended up killing 300,000 cattle." Short is also hoping its use during the current drought will help leverage assistance, helping potential donors pinpoint exactly where their money will be going. "Just watching the BBC is not good enough," he says. "This way people will actually see the animals they are benefiting."

Banks has developed an SMS-based tool, Frontline SMS, which will work with even the simplest phones. By connecting a standard mobile phone to a laptop, data can be received or transmitted wherever a basic phone



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signal is available, without any need for 3G or an internet connection. It is freely available to any not-for-profit organization. In Afghanistan it has been used to send out security alerts to field workers. It tracks drug availability in clinics across East Africa, and house demolitions in Zimbabwe. Civil society groups in Nigeria have used it to collate information from their election observers, and it is used by a company distributing agricultural pumps in Kenya and Tanzania to keep in touch with farmers. Specialized versions are being developed for health and educational sectors, for NGOs working in law and microfinance, and for community radio stations.

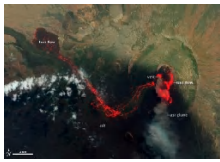
### [GRID Africa GeoPortal](#)

DEWA/GRID-Nairobi is one of UNEP's major centers for data and information management, with a unique, "value-adding" mandate in the handling of national, sub-regional and regional environmental statistics and data, which in turn supports the environment assessment and early warning activities of UNEP and its partners.

Located at UNEP's Headquarters based in Nairobi, Kenya, GRID-Nairobi occupies an important niche in the global GRID Network. The center also functions as a support provider to the DEWA-Africa Programme in the area of capacity building for African countries using environmental information for decision-making and action.

### Geospatial Research, Applications, Reference Material

#### [EO1 captures lava flows at Nabro volcano in Eritrea](#)



Located in the East African nation of Eritrea, Nabro began its eruption explosively on June 12, 2011. The powerful eruption sent plumes of ash streaming over North Africa and the Middle East, and pumped vast quantities of sulphur dioxide into the atmosphere. The ash halted flights in East Africa for a time. The eruption killed seven people, said the Eritrean government, and other reports indicate that thousands were affected in both Eritrea and Ethiopia, though news from the region is sparse.

More recently, the volcano has eased into a quieter, lava-oozing phase, as shown in images from the Advanced Land Imager (ALI) on the Earth Observing-1 (EO-1) satellite. The Nabro volcano has not erupted in recorded human history, but lava flows near the volcano are relatively recent geologically. Nabro is part of the very active East African Rift, where three tectonic plates are pulling away from each other. As the Earth's crust thins in the region, volcanoes rise in weak spots. More... [Ethiopian volcanoes unleashes massive ash clouds.](#)

#### **East Africa Rift**

In East Africa, spreading processes have already torn Saudi Arabia away from the rest of the African continent, forming the Red Sea. The actively splitting African Plate and the Arabian Plate meet in what geologists call a triple junction, where the Red Sea meets the Gulf of Aden. A new spreading center may be developing under Africa along the East African Rift Zone. When the continental crust stretches beyond its limits, tension cracks begin to appear on the Earth's surface. Magma rises and squeezes through the widening cracks, sometimes to erupt and form volcanoes. The rising magma, whether or not it erupts, puts more pressure on the crust to produce additional fractures and, ultimately, the rift zone.

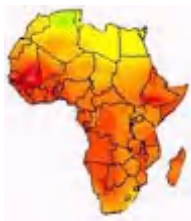
East Africa may be the site of the Earth's next major ocean. Plate interactions in the region provide scientists an opportunity to study first hand how the Atlantic may have begun to form about 200 million years ago. Geologists believe that, if spreading continues, the three plates that meet at the edge of the present-day African continent will separate completely, allowing the Indian Ocean to flood the area and making the easternmost corner of Africa (the Horn of Africa) a large island. ([USGS](#)).

#### [Drought in the horn of Africa: Thinking outside traditional funding box](#)



There are plenty of options with the use of mobile phones, even a not-very-smart phone: one of the pioneers was M-Pesa, designed as a tool for repaying microfinance loans. But Kenyans found all kinds of other uses; for instance, people afraid to carry large sums of cash while travelling would send it to themselves for collection at their destination. It was also key to the recent [Kenyans for Kenya drought aid funding drive](#).

The race to feed more than 12 million people facing severe food shortages in the Horn of Africa has seen humanitarian agencies make several funding appeals. Donor governments have contributed more than US\$1.46 billion out of the required \$2.48 billion. What has not been counted has been



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the response of ordinary people in the region to the disaster unfolding on their TV screens. Here is a round-up of some initiatives that have tapped into popular philanthropy.

- [Kenyans for Kenya](#) - One of Kenya's most successful funding drives ever, the campaign aimed to raise 500 million shillings - about US\$5.28 million - in one month; that target was reached in 10 days. The initiative then aimed for one billion shillings - \$10.56 million - and by 1 September, had collected more than \$7 million. The money has been used to send tonnes of food to crisis-affected areas through the Kenya Red Cross Society (KRCS). Corporate sponsors have been conspicuous givers, but private citizens contributed more than \$1.6 million using MPESA, a mobile phone money transfer service run by telecoms firm Safaricom.
- FeedKE - A separate campaign started by a Kenyan Twitter user, [Ahmed Salim](#), gained some popularity among internet users. Using the Twitter hashtag #FeedKE, the campaign also used mobile money transfers to raise more than \$15,000, which was also channeled through KRCS.
- Telethons - A three-day telethon organized by the United Arab Emirates Red Crescent Authority in August raised more than \$17 million. The Red Crescent has also collected more than 400 tonnes of food for the drought and set up clinics in Somalia.
- Another telethon, organized by the South African NGO, Gift of the Givers, and the South African Broadcasting Corporation, raised more than \$170,000. This was just a fraction of the nearly \$3 million that Gift of the Givers says has been raised by South Africans.

More...

### [Mosquitoes disappear in some parts of Africa](#)



Scientists have been left baffled with reports that malaria-carrying mosquitoes are disappearing in some parts of Africa, BBC reported. Figures in the Malaria Journal say control methods like use of bed nets treated with insecticide are making a significant impact on the incidence of malaria in countries like Tanzania, Eritrea, Rwanda, Kenya and Zambia.

But researchers say they are uncertain if mosquitoes are being eradicated or whether they will return with renewed vigour. For more than 10 years now, a team of Danish and Tanzanian scientists have been collecting and counting the number of mosquitoes caught in thousands of traps in Tanzania. In 2004, they caught more than 5,000 insects. In 2009, that dropped to just 14. The scientists say it was important that these collections took place in villages that were not using bed nets.

One possibility for the reduction in numbers was climate change. Patterns of rainfall in these 10 years were "more chaotic" in these regions of Tanzania and often fell outside the rainy season. The scientists say this may have disturbed the natural cycle of mosquito development. Lead author of the study, Dan Meyrowitsch from the University of Copenhagen, says he is, however, not convinced that it is just the changing climate. "It could be partly due to this chaotic rainfall, but personally I don't think it can explain such a dramatic decline in mosquitoes, to the extent we can say that the malaria mosquitoes are almost eradicated in these communities." "What we should consider is that there may be a disease among the mosquitoes, a fungi or a virus, or there may have been some environmental changes in the communities that have resulted in a drop in the number of mosquitoes," he said.

The researchers are now unsure if mosquitoes will return to these regions. If they do, a particular cause for concern is that young people, who have not been exposed to malaria over the past few years, may be affected. "If the mosquito population starts coming up again, it is most likely we will have an epidemic of malaria with a higher level of disease and mortality especially amongst these children who have not been exposed," Meyrowitsch said.

### [Cropland for sub-Saharan Africa using five land cover data sets](#)



Fritz, S. You, L., Bun, A., See, L., McCallum, I., Schill, C., Perger, C., Liu, J., Hansen, M., and M. Obersteiner, 2011. [Cropland for sub-Saharan Africa: A synergistic approach using five land cover data sets](#). [Geophysical Research Letters](#) 38(4).

This paper presents a methodology for the creation of a cropland map for Africa through the combination of five existing land cover products: GLC-2000, MODIS Land Cover, GlobCover, MODIS Crop Likelihood, and AfriCover. A synergy map is created in which the products are ranked by experts, which reflects the likelihood or probability that a given pixel is cropland. The cropland map is then calibrated with national and sub-national crop statistics using a novel approach. Preliminary validation of the map was undertaken and the results are presented. The resulting cropland map





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has an accuracy of 83%, which is higher than the accuracy of any of the individual maps. The cropland map is freely available at <http://agriculture.geo-wiki.org> (KMZ file format). [Source: Servir Community News].

## 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.gsd.org](mailto:sdi-africa@lists.gsd.org).

## ESRI Technical Certification

Beginning in January 2011, users will be able to test for five certifications. The remaining eight are still in development and will be available later in the year. Establishing an industry recognized benchmark of expertise in using ESRI software will:

- Improve success with GIS by creating a community of professionals proficient in using ESRI software.
- Help organizations maximize their investment in ESRI products by employing a workforce certified in using best practices.
- Create professional development opportunities.
- Provide an opportunity for individuals, partners, consultants, and other organizations to distinguish themselves among their peers.
- Assist hiring organizations in assessing candidate skills and abilities.

Workplace experience, combined with GIS education and ESRI training courses, is the best preparation. The ESRI Technical Certification Web site lists specific skills that will be assessed in each exam, as well as training courses that aid in acquiring and improving these skills. Advice on the best training and preparation for a particular certification is available. [Read more](#).

## ESRI South Africa presents a full spectrum of GIS courses: October 2011



- The course covers GIS theory and functionality: The desktop products (ArcView, ArcEditor, and ArcInfo; Server products (ArcGIS server and ArcSDE); Programming to enable customization of the product, ArcGIS extensions, as well as Introductory and advanced courses in ERDAS Imagine Remote Sensing Software'

Various training venues are available at Esri South Africa, for further information contact: 011 238 6300  
[Email the training team](#)

## Free ESRI Courses

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.

## GIS and Remote Sensing Courses at Esri Eastern Africa

ESRI Eastern Africa is now offering update courses to conform to improvements in ArcGIS 10 and ENVI 4.8, conducted with skilled and experienced instructors together with conducive and state-of-the-art training facilities. Courses in the following tracks are offered:

- Fundamentals of ArcGIS Desktop
- Data and Map Production
- Geoprocessing and Analysis
- Enterprise GIS
- Multi-user Geodatabases
- Remote Sensing

Make plans and take advantage of the courses offered at the Authorized Learning Centre in Nairobi, Kenya. Arrangements can also be made for client's site training on request for 12-16 students. Download our course catalogue and current class schedule at <http://www.esriea.co.ke/index.php/instructor-led-training>. To register,



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visit <http://esrietraining.cloudapp.net/>. For more information, contact by email: [training@esriea.co.ke](mailto:training@esriea.co.ke), telephone: +254 20 2713630/1/2 or visit the offices located on 3rd floor, KUSCCO Centre, Kilimanjaro Avenue, Upper Hill, Nairobi, Kenya.

## Training at Oakar Services

Oakar Services continues to building capacity for geospatial solutions within Eastern Africa. The following courses are available in 2011, which are offered at Oakar’s Training Centre or client’s site.

<b>GIS based courses</b>	Duration (Days)
• Introduction to GIS	2
• Fundamentals of ArcGIS	5
• Managing Water Utilities Using ArcGIS	3
• Introduction to Web Mapping	3
• GIS for Natural Resources Management	3
• Using GIS for Resource Planning and Management	3
• Working with ArcGIS 3D Analyst	2
<b>GPS based courses</b>	
• Data Collection Using GPS	2
• Mobile Mapping Using MobileMapper Field software	2
• Mobile Mapping Using ArcPad	2
<b>Remote Sensing based</b>	
• Introduction to Remote Sensing	2
• Image Processing with ERDAS Imagine	3
• Fundamentals of ERDAS IMAGINE I	4
• Fundamentals of ERDAS IMAGINE II	3
• Introduction to Leica Photogrammetry Suite (LPS)	4
• Stereo Analyst for ArcGIS	3
<b>Specialist Course</b>	
• ArcFM UT (Utilities Solution)	5
• Introduction to Cellular Expert and Implementation	5

You can register for [Focused Training Events](#) on GIS, GPS and Remote Sensing. Further information and enrollment - [www.osl.co.ke](http://www.osl.co.ke) or email at [training@osl.co.ke](mailto:training@osl.co.ke) or call Catherine or Teddy on Tel: +254-20-2718321 / 2715276 | Mobile: 0721-244785 / 0733-448255.

## **University of Twente - ITC Faculty of Geo-Information and Earth Observation: Registration for courses (2012-2013)**



Faculty of Geo-Information Science and Earth Observation

UNIVERSITY OF TWENTE

Apply online for courses starting in the academic year 2012-2013. Browse by programme (degree, diploma, and certificate), course domain (disaster management, earth sciences, geoinformatics, governance, land administration, natural resources, urban planning, water resources) or location in the course finder at [www.itc.nl/CourseFinder](http://www.itc.nl/CourseFinder). For printed copy of the study brochure, email: [alumni@itc.nl](mailto:alumni@itc.nl).

### **ITC Short Course: Remote Sensing and GIS for Geological and Mineral Exploration (2 weeks)**

The course will start on 7 November 2011 at the SEAMIC premises in Dar es Salaam, Tanzania. Registration deadline: 1 November 2011.

The course provides an introduction into the application of GIS, remote sensing and airborne geophysics to geologic mapping and mineral resources exploration. The course contents include:

- Analysis and interpretation of geological data sets, such as ASTER satellite imagery, aeromagnetism and gamma-ray spectrometry and geochemistry,
- Integration of different data sets to enhance geologic interpretations, and
- Mineral prospectivity modelling with GIS to generate exploration targets.

Concepts and theories are explained in interactive lectures and their application will be practiced in hand-on exercises of East-African and other case studies. Target group: Geologists working in the field of geological mapping and/or mineral resources exploration who want to deepen their knowledge of the use of digital data sets in a GIS environment to increase the efficiency of geologic mapping and exploration campaigns. Further information and registration: [www.itc.nl/Pub/study/Courses/C11-ESA-TM-05.html](http://www.itc.nl/Pub/study/Courses/C11-ESA-TM-05.html).



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

l'ÉRAIFT est une école d'avant-garde au service du développement humain et durable de l'Afrique.

Elle a pour vocation de former des Spécialistes (DESS & Ph.D) de l'Aménagement et de la Gestion des Forêts et Territoires Tropicaux, par une Approche Interdisciplinaire, Globale et Intégrée, autrement dit Systémique. Contact: [info@eraift.org](mailto:info@eraift.org).

## Short-courses offered by RECTAS in 2011, 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 intrested organisations. These could be either advanced or other certificate programs. Contact: [info@rectas.org](mailto:info@rectas.org) or [thontteh@rectas.org](mailto:thontteh@rectas.org).

## RCMRD - Courses offered by the department of Remote Sensing, GIS and Mapping



The Centre offers the following courses in geo-information. The courses last between one week to three months, and offered through out the year.

- Introduction to Remote Sensing & Image Processing
- Introduction to Geographic Information Systems (GIS)
- Introduction to Global Positioning Systems (GPS)
- Application of Remote Sensing & GIS in natural resources management.
- Application of Remote Sensing & GIS in Early Warning Systems for Food Security Application of RS & GIS in Disaster Risk Management
- Geospatial database development and management for use in planning process and decision making
- Principles of Digital Cartography
- Application of GPS technology in resource surveys and mapping
- Integrated Water Management
- Application of GIS in poverty mapping, health care & good governance
- Land Information Management Systems
- Service and Repair of Survey equipment

## **Funding Opportunities, Awards, Support**

### 4th D&C International Film Competition



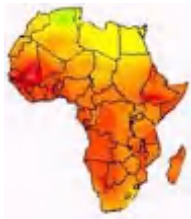
IIED is pleased to launch its 4th D&C International Film Competition. It will be showcased at the D&C conference at COP17 in Durban, South Africa, 4th December 2011. This year's theme is resilience to climate change. New films that find innovative and compelling answers to the question: What is climate change resilience is being sorted.

You can submit films on any aspect of climate change resilience, resilience building or resilience in action. Animations and audio slideshows are welcome too! This is an excellent opportunity to gain global exposure to practitioners and agencies working in the field, and recognition for your work. Selected entries will be screened in Durban, chosen by a panel of high level international judges, including Dr Hannah Reid (IIED Community-Based Adaptation specialist), Jorisna Bonthuys (Die Burger newspaper and WWF, South Africa), Fayyaz Ahmad Khan (producer, 'Bol', Pakistan), Franny Armstrong (director, 'The Age of Stupid', UK) and Laurie Goering, editor of AlertNet Climate.

The winner will receive a Panasonic Lumix GH2 Digital Camera and a Rode Videomic Video Microphone. Deadline for submissions: Sunday 23rd October 2011. To register: Please: [follow this link and complete the online application form](#). Submitting your film: Please email your film to: [dcvids@gmail.com](mailto:dcvids@gmail.com) or [kate.wilson@iied.org](mailto:kate.wilson@iied.org). Short-listed entries may be asked to submit versions in broadcast quality. For more information and the technical specifications, visit: [www.iied.org/filmcompetition](http://www.iied.org/filmcompetition).

### AstroMundus 2012 – Erasmus Mundus Masters Course in Astronomy and Astrophysics for International Students

Scholarship applications are now accepted for AstroMundus, a 2-years international Masters Course in Astronomy and Astrophysics offered by a partnership of 5 universities. Study Subject(s): Astronomy and Astrophysics. The scholarship is provided by Erasmus Mundus and can be taken at: Austria, Italy, Germany and Serbia. The course is open to students of all nationalities. Eligible students have a certified good



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knowledge of the English Language and hold a Bachelor's Degree in Astronomy, Astrophysics, Physics, or Mathematics, or an equivalent amount of certified learning (3 years of previous studies corresponding to at least 180 ECTS credits) in the same field(s).

A number of Erasmus Mundus scholarships are available both for non-European and European students. The admission to the Masters Course and assignment of scholarships are based on excellence. Admitted students will study in at least 2 and up to 4 of the partner Universities and, upon successful completion of their studies, they will be awarded a Joint Master Degree by all partner universities where they studied during the Masters Course. The course is held in the English language, however students will have the possibility to learn the language of the host countries through courses offered by the host universities.

Apply online, scholarship application deadline: 30 November 2011 for both Non-European and European students.

### [Call for nominations for the Equator Prize 2012](#)

The Equator Initiative recently announced its call for nominations for the Equator Prize 2012, which will be awarded to 25 outstanding local initiatives that are working to advance sustainable development solutions for people, nature and resilient communities.

One change of note to the Equator Prize 2012 is a thematic emphasis on Community-based Adaptation to Climate Change. Nominations are invited on innovative community-based initiatives working in this area. Information on selection criteria and how to nominate for the Equator Prize 2012 is available at [www.equatorinitiative.org](http://www.equatorinitiative.org). Nomination forms are available in 16 languages and may be completed online. The deadline for nominations is 31 October 2011. For questions and for more information on the Equator Prize 2012 process, please contact Joseph Corcoran at [joseph.corcoran@undp.org](mailto:joseph.corcoran@undp.org).

### [PhD fellowship: Call for applications open](#)

For the application deadline 1 November 2011, the following research topics are available within the two scientific fields of the FONASO programme (i) economics and policy, and (ii) ecology and silviculture. The FONASO topics fall within the following 4 categories:

- [Economics and Socio-Economics of Forest and Nature](#)
- [Governance, Policy and Sociology of Forests](#)
- [Forest Ecosystems and Ecosystem Services](#)
- [Silviculture and Sustainable Forest Management](#)

FONASO doctoral candidates will be part of research groups at two or more of the twelve partner institutions. All applicants must choose one of the described topics as base for their doctoral study synopsis.

### [TWAS - Grants for International Meetings 2011](#)

The Academy of Sciences for the Developing World (TWAS) makes grants to support the organization of high-level international and regional scientific activities in developing countries by offering financial assistance for conferences, workshops, symposia, and special meetings held in these countries. Application deadline: 1 December each year.

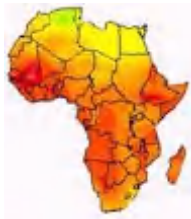
## Employment Opportunities

### [Capacity development officer \(closing 12 October 2011\)](#), Nairobi, Kenya

ILRI seeks to recruit a dynamic and competent Capacity Development Officer. The person reports to the Head of Capacity Strengthening. The overall purpose of the job is to coordinate Capacity Strengthening unit's training/graduate fellowship activities, to participate in various CD activities with other ILRI themes, assistance in CaSt projects, assist in resource mobilization and assist with CaSt publications and outputs.

The responsibilities include:

- Involvement in implementation of CGIAR's Challenge research programs (CRPs) and incorporating capacity development as an important impact pathway. This will include coordinating application, selection and contract development processes of various trainee categories coming to the CGIAR CRPs in accordance with ILRI's capacity development strategy. The Trainees include the following: Attachment Associates, Student Associates, Research Fellows, Graduate Fellows (Individual Training)
- Develop and manage group trainings for students and initiated by CaSt or other providers (ILRI/CRP Units and external). The officer may also be called upon to develop or support external training components such as outreach, face to face trainings for CRP Clients/Partners.



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- Manage the graduate and undergraduate fellowship programs with ILRI and co-ordinate with HR, Finance and research Themes/Operating Projects accordingly. This will entail coordinating the development and updating of the trainees' databases, containing technical as well as administrative information and any required integration with ILRI Finance and Human Resources database systems. Developing required status reports.
- Work with ILRI's Cast team in Addis Ababa as and when needed.
- Resource mobilization in consultation with the Head of Cast.

Requirements: Minimum first degree; Master's degree in Business Administration, agriculture or Education; Minimum 5 years of experience in Agriculture, life sciences, ecology or related fields; Networking skills and proven ability to work with a large number of partners/stakeholders; Good administrative, communication and public relation skills, basic IT skills and ability to learn, improvise and implement various capacity development programs. Applicants should send a cover letter and detailed CV, names and contact details (Telephone, E-mail) of three professional referees to e-mail: [recruit-ilri-Ken@cgiar.org](mailto:recruit-ilri-Ken@cgiar.org) by 12 October 2011.

### [Project manager, livestock and irrigation value chains for ethiopian smallholders \(lives\) \(closing 15 October 2011\)](#), Addis Ababa, Ethiopia

The Livestock and Irrigation Value-Chains for Ethiopian Smallholders (LIVES) project is an initiative designed by ILRI, IWMI (the International Water Management Institute) and their Ethiopian partners to enhance income and gender equitable wealth creation for smallholders and other value chain actors through increased and sustained market off-take of high-value livestock and irrigated crop commodities. ILRI seeks to recruit a senior Project Manager to oversee and lead all aspects of the implementation of the 5 year Livestock and Irrigation Value-Chains for Ethiopian Smallholders project.

The responsibilities include:

- Oversee the planning and implementation of the LIVES project activities based on linking research outputs and outcomes to development actions for triggering innovation in value chains;
- Instill a process of active monitoring and learning to capture lessons of what is working and what is not, and their implications for improving the development actions and, to support development of a strategy for scaling up and out;
- Inject a business management perspective to guide the development of appropriate services and involvement of the private sector to stimulate and sustain the target value chains
- Develop and implement a strategy of training and mentoring to nurture and build capacity locally to support the interventions and continued development of the value chains;
- Foster effective partnerships through team-building and communication across the national and international project partners including stakeholders, agribusiness, researchers, policy makers;
- Support and manage technical and administrative staff to operate effectively as a team;
- Develop and implement a communication strategy for disseminating results and lessons from the project

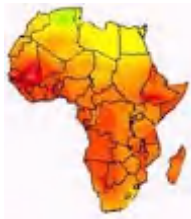
The successful candidate should be an agriculturalist or livestock development practitioner with a broad range of technical and managerial skills and experience, preferably in Sub-Saharan Africa; Advanced degree in livestock or agriculture; 10+ years experience in integrated rural or small business development activities, especially as it relates to the design, implementation and communication of applied research; Understanding of the rural and small enterprise innovation processes; Proven skills in project management, team building and developing partnerships with national and international R&D actors and private sector; Proven ability to work in and facilitate a multi-institutional environment; Work experience in Ethiopia and an understanding of the CGIAR is desirable.

Applicants should send a cover letter explaining their interest, what they can bring to the job and indicating earliest availability. They should also send curriculum vitae and the names and addresses (including telephone and email) of three referees who are knowledgeable about the candidate's professional qualifications and work experience to email: [ilri-project-manager@cgiar.org](mailto:ilri-project-manager@cgiar.org) by 15 October 2011.

### Other

#### [UNEP Risoe NAMA Pipeline launched](#)

The UNEP Risoe NAMA Pipeline Analysis and Database contains all submissions to the UNFCCC from developing countries and countries in transition for Nationally Appropriate Mitigation Actions. Such submissions have not yet been formalized and succeed in a bottom-up process induced by the current developments in international climate negotiations. This site is a work in progress, therefore not exhaustive



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and the information contained on each NAMA may not be uniform. All inputs provided by stakeholders and market participants to improve the level of information are welcomed.

A NAMA registry is foreseen in climate negotiations. The NAMA Pipeline is not such a registry, but a less formal overview of activities submitted as NAMAs. Many users will find similarities with the trendsetting sister site, the CDM Pipeline. Here projects have been recorded, categorised, and analysed in accord with the UNFCCC CDM website. The wordlist page in the NAMA Pipeline is showing the categories used expanding the types and sub-types used in the CDM Pipeline. It is the hope that the NAMA Pipeline similarly will supplement the official registries and provide users with similar options for creating their own statistics. It will also provide the first graphic and tabular presentations of the depth and reach of submitted NAMAs, a section that is going to develop as data accumulates.

As this is early days in NAMA development, the site is expected to develop over the coming months as the NAMA agenda spreads and countries develop ideas for Nationally Appropriate Mitigation Action. Please do not put the spreadsheets on other websites but provide a link to this site to ensure continuous updating.

### The Adaptation Fund NGO Network



The Adaptation Fund (AF), established under the Kyoto Protocol, is now fully operational. The main objective is to facilitate the close accompaniment of this pivotal implementation phase through enabling of a multi-stakeholder participation of civil society organisation (CSO) on the national as well as on the international level. The so

called "AF NGO Network" started in late 2010. Initial funding (until the middle of 2013) has been secured from the International Climate Initiative of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Members of the AF NGO Network are: Bangladesh Centre for Advanced Studies (Bangladesh), Bread for the World (Germany), ETC Foundation (The Netherlands), Germanwatch (Germany), International Institute for Environment and Development (IIED, UK), Jeunes Volontaires pour l'Environnement-International (Togo), Practical Action (UK), United Mission of Nepal (Nepal).

A number of developing countries submitted project proposals to the Adaptation Fund Secretariat to be discussed at the Adaptation Fund Board (AFB) meeting from 14-16 September 2011 in Bonn. The project proposals are available on the AFB website and can also be publicly commented. New project proposals are from Belize, Cook Islands, Egypt, Mali, Samoa, Mauritius, Madagascar, Tanzania, Georgia and Papua New Guinea. Comments on the projects can be done at [AF website for Project and Programme Proposals](#). Also send more informal comments to Alpha Kaloga, [kaloga@germanwatch.org](mailto:kaloga@germanwatch.org).

### Uganda's tea trade threatened by rising temperatures



Some of Uganda's most lucrative tea plantations could be "wiped off the map" under the 2.3 degree Celsius temperature rise predicted for 2050, a study has said. Even with the expected one degree Celsius rise by 2020, the 60,000 small farmers who grow Uganda's high-quality tea could face a 30 to 48 per cent decline in output, scientists at the Colombia-based International Center for Tropical Agriculture (CIAT) have said.

Yields are expected to shrink and optimum tea-producing zones will shift uphill to cooler areas according to Peter Laderach, a CIAT climate scientist and an author of the Future

Climate Scenarios for Uganda's Tea Growing Areas study, published last month (2 August).

Patrick Wetala, lead tea researcher at Uganda's Coffee Research Centre, toldSciDev.Net that temperature will expose tea varieties to new conditions. "In practice the rise in temperature is likely to lead to some parts of the plant, or all the plant, wilting or utterly drying as often happens during drought," Wetala said. "The plucked leaf of the surviving plants will give poor quality tea as the leaves will be brittle," he added. "Another, possibly more serious, impact of the rise in temperature is the coming into prominence of previously minor pests and diseases and the emergence of more virulent ones," he said.

The report, whose results were "a shock" according to Laderach, combined the results of 18 climate and two crop-prediction models, concluding that Uganda was set to suffer more than neighbouring Kenya, for a which a report CIAT published earlier this year (26 May) predicted "serious challenges". George Sekitoleko, executive secretary of the Ugandan Tea Association (UTA), said: "What scientists are predicting is right because whenever we have prolonged droughts, tea bushes dry extensively. Therefore, when temperatures rise by 2.3 degrees Celsius, impacts shall be extremely serious. "Worse still, our tea is 100 per cent rain-fed. Uganda grows about 20,000 hectares (ha) of tea, compared with about 132,000 ha for Kenya, and supports the livelihoods of up to half a million people, according to the UTA. [Link to full report](#) [2.73MB].



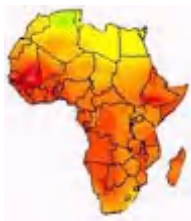
# Spatial Data Infrastructure – Africa Newsletter



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

## Conferences, Events

Date	Location	Event
<b>October 2011</b>		
3-7 October 2011	Cape Town, South Africa	<a href="#">International Astronautical Congress 2011</a> Contact: <a href="mailto:enquiries@iac2011.com">enquiries@iac2011.com</a> . Contact: <a href="mailto:enquiries@iac2011.com">enquiries@iac2011.com</a>
4- 6 October 2011	Saly, Senegal	<a href="#">Scientific Symposium on “Contribution of ocean data and information to sustainable development in Africa”</a>
5-6 October 2011	Port Harcourt, Nigeria	<a href="#">Seventh International Conference on Sustainable Development</a>
5-7 October 2011	Beach Resort, Zanzibar	<a href="#">6th ESRI Eastern Africa User Conference</a> Contact: <a href="mailto:events@esriea.co.ke">events@esriea.co.ke</a> .
11-14 October 2011	Rabat, Morocco	<a href="#">E-AGRI training workshop - crop yield forecasting based on remote sensing</a> Contacts: <a href="mailto:riad.balaghi@gmail.com">riad.balaghi@gmail.com</a> , <a href="mailto:qinghan.dong@vito.be">qinghan.dong@vito.be</a> .
10-14 October 2011	Kimberley, South Africa	<a href="#">International Wildlife Ranching Symposium</a>
10-21 October 2011	Changwon, Korea	<a href="#">UNCCD COP 10</a> , Contact: UNCCD Secretariat at <a href="mailto:secretariat@unccd.int">secretariat@unccd.int</a>
12-14 October 2011	Coimbra, Portugal	<a href="#">WG II/4 &amp; ICWG II/IV 7<sup>th</sup> International Symposium of Spatial Data Quality</a>
19-21 October 2011	Bloemfontein, South Africa	<a href="#">1st International Conference on Clays and Clay Minerals in Africa and 2nd International Conference on Geophagia in southern Africa</a>
31 October - 4 November 2011	Amsterdam, Netherlands	<a href="#">Call for papers: Young Scientist Workshop, International Water Week</a> Contact: <a href="mailto:ysw(at)waternetwerk.nl">ysw(at)waternetwerk.nl</a> or <a href="http://www.internationalwaterweek.com">www.internationalwaterweek.com</a> .
<b>November 2011</b>		
1-3 November 2011	Beirut, Lebanon	<a href="#">Esri Europe, Middle East and Africa User Conference</a>
1-4 November 2011	Drakensberg, South Africa	<a href="#">Esri South Africa User Conference</a>
7-11 November 2011	Abuja, Nigeria	<a href="#">AfricaGIS 2011 Conference</a> Contact: Dr. Aminu Usman, <a href="mailto:AfricaGISTM2011 - e-mail-aminu.usman@africagis.org">AfricaGISTM2011 - e-mail-aminu.usman@africagis.org</a>
7-12 November 2011	Worldwide	<a href="#">1st Call for Papers: Worldwide Online Climate Conference (CLIMATE 2011/KLIMA 2011)</a>
14-15 November 2011	Cape Town, South Africa	<a href="#">4th Euro-Africa Cooperation Forum on ICT Research</a>
16 November 2011	Nairobi, Kenya	<a href="#">GIS Day</a>
16 November 2011	Geneva, Switzerland	<a href="#">2nd UN-SPIDER International Expert Meeting: Crowdsourcing Mapping for Preparedness and Emergency Response</a>
16 - 18 November 2011	Delft, Netherlands	<a href="#">2nd International Workshop on 3D Cadastres</a> , Contact: <a href="mailto:P.J.M.vanOosterom@tudelft.nl">P.J.M.vanOosterom@tudelft.nl</a>
17-22 November 2011	Johannesburg, South Africa	<a href="#">7th Annual AfricaArray Workshop</a> , Contact Sharon Ellis, Africa Array Programme at <a href="mailto:sharon.ellis@wits.ac.za">sharon.ellis@wits.ac.za</a> .
21-23 November 2011	Mbale, Uganda	<a href="#">International Conference on East Africa Mountains (ICEAM) 2011</a> , Theme: Reconciling Resource Demands, Climate Change and Conservation. Contact: <a href="mailto:info@iceam2011.org">info@iceam2011.org</a> .
22-25 November 2011	Beijing, China	<a href="#">United Nations International Conference on Space-based Technologies for Disaster Risk Management</a>



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28 November-9 December 2011	South Africa	<a href="#">17<sup>th</sup> Conference of the Parties to the UNFCCC and 7th Meeting of the Parties to the Kyoto Protocol</a> Contact: UNFCCC Secretariat, <a href="mailto:secretariat@unfccc.int">secretariat@unfccc.int</a> .
<b>December 2011</b>		
3-4 December, 2011 * NEW *	University of Kwa-Zulu Natal, Durban	<a href="#">International conference on 'Climate Law &amp; Governance in the Global South'</a> Draft version of the <a href="#">Conference program</a> is available, Contact <a href="mailto:secretariat@cisdl.org">secretariat@cisdl.org</a> .
13-15 December 2011	Shah Alam, Malaysia	<a href="#">Third International Conference on Management of Natural Resources, Sustainable Development and Ecological Hazards</a>
<b>2012</b>		
7-9 May 2012 * NEW *	Rio de Janeiro, Brazil	<a href="#">4th International Conference on GEographic Object Based Image Analysis (GEOBIA) 2012</a>
14-17 May 2012 * NEW *	Québec City, Canada	<a href="#">Call for Papers: Global Geospatial Conference 2012</a> (GSDI World Conference (GSDI 13), 14th GEOIDE Annual Scientific Conference, Canadian Geomatics Conference (CGC) 2012 and the 7th 3D GeoInfo Conference).
21-23 May 2012 * NEW *	Boston, Massachusetts	<a href="#">Global Conference on Oceans, Climate and Security</a> Call for Abstracts: Deadline 15 October 2011.
21-27 May 2012	Vilnius, Lithuania	<a href="#">12th World Congress on Environmental Health: New Technologies, Healthy Human Being and Environment</a>
2-6 July 2012	Galle, Sri Lanka	<a href="#">MMM3: Meeting on mangrove ecology, functioning and management</a>
8-12 July 2012	San Diego, California USA	<a href="#">ESRI User Conference</a>
8-12 July 2013	San Diego, USA	<a href="#">ESRI International User Conference</a>
5-10 August 2012	Brisbane, Australia	<a href="#">34th Session of the International Geological Congress (IGC 34)</a> Enquiries: <a href="mailto:info@34igc.org">info@34igc.org</a> .
2015	Durban, South Africa	<a href="#">14th World Forestry Congress for SA</a>
1-31 August 2016	Cape Town, South Africa	<a href="#">35th International Geological Congress</a> Registration deadline: 30 June 2016.

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