

Spatial Data Infrastructure – Africa Newsletter



SDI-Africa Newsletter

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

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



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

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

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



Input to this Issue

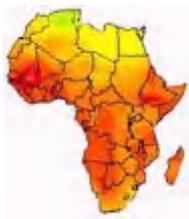
Thank you to Kate Lance, NASA/SERVIR-Africa (USA), Hussein Farah, RCMRD (Kenya) and Karen Levoleger, Kadastre (Netherlands) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

[Africa SD policy makers: A model of improving climate services in Africa?](#)

A [new set of free online climate maps](#) (<http://213.55.84.78:8082/maproom/.NMA/>) based on 30 years of rainfall and temperature data for all of Ethiopia is now available. This is unprecedented in terms of scale and accessibility anywhere in Africa. "The information could be used in a number of applications, including long term investment and developmental studies, tourist information, disaster reduction and preparedness planning and more," said during the official public launch of the maps in December 2011. "With this new service, NMA is shifting from one-desk service to a one-click service," he said, referring to how easy it will be for anyone with an internet connection to access the data.

In the [latest issue of the WMO Bulletin](#), scientists who worked on the project with the NMA say the Ethiopian experience is a template for providing customizable data for agriculture, water, health and other sectors across the continent. The project was funded by the U.S. National Oceanic and Atmospheric Administration and in large part by [Google.org](#), the philanthropic arm of the technology company, which has been interested in improving the prediction and prevention of infectious-disease outbreaks in East Africa. For more details, please visit IRI's web site: <http://bit.ly/NMAmaps>. Source: Francesco Fiondella, the International Research



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Institute for Climate and Society, the Earth Institute, Columbia University. Office: +1.845.680.4476, Mobile: +1.646.321.2271.

Smart weather data can make a difference



"When should we plant?" is a question increasingly being asked by small farmers in sub-Saharan Africa who depend on rain-fed agriculture. To help answer such questions, climate scientists are being urged to provide more reliable and relevant local climate data, and better communicate their knowledge on climate adaptation techniques.

"When we think about preparing for imminent disasters it is not possible to prepare for flooding, for example, just a few days in advance, which we get from the weather forecast. We need to think about preparedness further in advance and think in terms of

what kind of decisions we can make, say, three months in advance, such as moving important resources away. We need a continuum of information," said Simon Mason, the chief climate scientist at Columbia University's International Research Institute (IRI) in the USA.

According to Mason, more effective short, mid-range and seasonal weather forecasting is needed for the development of useful early warning systems.

Spatial weather tools, including satellite imagery and weather forecasts, allow the processing of weather data over different space and time frames. By allowing better integration of historical data with real-time weather data, such tools can improve the accuracy and impact of forecasts. "If we are using projections of what will happen in 80 years to plan for the next 10 years, then we will have very bad information," he said. "We have to match the kind of climate information we have with our decision-making time frames... For [climate] adaptation, we are much more interested in what is going to happen in the next few years," he said.

Mason was speaking at a recent forum on disaster risk management at which a partnership between the UN International Strategy for Disaster Reduction (ISDR) and the African Centre of Meteorological Applications for Development (ACMAD) was launched. The partnership is aimed at facilitating the linkage between climate scientists and disaster risk managers as well as policymakers. "There is a need to convert the information coming from scientists into usable material such as maps. There is a need to strengthen more partnerships in climate change in the Horn of Africa region," said ISDR Africa head Pedro Basabe.

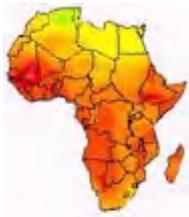
Poor linkages in the past have meant that climate research does not necessarily inform policy for disaster mitigation: Complicated, long-range climate projections are often hard to sell to policymakers. "We are fairly renowned for being incomprehensible to everybody," said Mason. To help make climate data more palatable, the World Meteorological Organization's Global Framework for Climate Services (GFCS) is helping with capacity-building in regional climate bodies such as ACMAD, the Inter-Governmental Authority on Development (IGAD), and the Climate Prediction and Applications Centre (ICPAC). This in turn can assist national bodies produce customized information that is more relevant for communities.

New map overlays conflict, climate change and aid in Africa

A pilot version of an online mapping tool has been launched in Africa which enables researchers and policymakers to identify how climate change vulnerability, conflict, and aid intersect. Researchers from the Strauss Center's Climate Change and African Political Stability (CCAPS) programme, United States, integrated data from areas of climate change vulnerability and active aid-funded projects in Malawi, and mapped this information onto the locations of Malawian conflicts up to 2010.

The result is a dynamic tool that can help policymakers, researchers and aid groups plan for climate change mitigation activities and deliver aid more effectively. Ashley Moran, CCAPS programme manager, told SciDev.Net that the tool is intended to "provide access to data in a way that allows people in government, civil society and academic institutions to explore the questions on how climate change, conflict, and aid intersect in Africa."

The tool comprises multiple datasets that can be layered to provide answers to a range of questions; for example, whether regions most at risk from climate change are benefiting from aid. It can also be used by policymakers and non-profit organisations to find under-served communities and implement aid projects there - and by the communities themselves to lobby for help. The researchers plan to make the tool available on government and civil society websites where policymakers and interested stakeholders can access it. The mapping tool could also be made available through mobile phone applications, to enable users identify where conflicts are occurring in real-time.



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Weaver said there are plans to replicate the tool in Ethiopia, and to train stakeholders elsewhere in Africa to carry out mapping and identify projects with a specific climate change focus. Additional pilots are planned with grassroots communities vulnerable to climate change, to determine whether it is easy for them to access and use. But Annabelle Houdret, a scientist with the German Development Institute in Bonn, said linking climate change, aid and conflict was complex, partly because "aid can also trigger conflicts if some people are empowered while others are marginalised". She also noted that some local climate change adaptation strategies - such as those of a cultural or religious support nature - would be difficult to capture and incorporate into an online mapping tool.

[Algerian President inaugurates the Satellite Development Center \(CDS\)](#)



His Excellency the President of the Republic Abdelaziz Bouteflika inaugurated Thursday, February 23, 2012 the Satellite Development Center (CDS), located in the town of Bir El-Djir, in Oran. This center is a business unit of the Algerian Space Agency whose realization is a planned action in the National Space Program for 2020. Built on an area of 4.7 hectares, and provided with a living space including staff accommodation and sports fields, the CDS will provide some impetus to the process of mastering space technology in Algeria.

The CDS consists of modern infrastructure (laboratories and workshops) dedicated to the design, assembly of satellites and means testing and environmental testing. The President of the Republic visited the exhibition including a model of the CDS, the model of the satellite Alsat-1 full-scale version and pedagogical boards and tracing the process of transferring know-how achieved by the team Algerian engineers involved in various phases of the satellite Alsat-2A. The Head of State then followed the presentation of the different steps of the CDS, its missions and the outline of the National Space Program - 2020, in its technological and human application.

Objectives of CDS Design, Development and Implementation of national space systems provided under the National Space Program, including: the implementation of satellite integration in space systems and solar panels; - the conduct of functional tests on satellites (test Interference and EMC, thermal vacuum test, vibration test and noise test); - quality assurance activities for integration and testing of space systems; - the emergence of an industrial related fields of space technology, particularly in the fields of electronics, computer science, mechanics, optics and telecommunications. Thus, this infrastructure will:

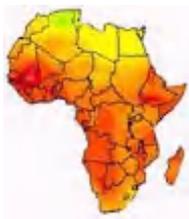
- Conduct satellites weighing up to 1000kg, with their sub space systems. The realization of a third Algerian satellite earth observation Alsat-2B, twin Alsat-2A, will be fully done in this complex high-tech.
- Provide appropriate technology environment to accommodate researchers and engineers in space technology or related fields (electronics, software engineering, mechanics, optics, telecommunications, energy system).
- Promote the creation of specialized industry in space, particularly in related areas and, through the creation of small and medium enterprises working in areas related to the achievement of satellites.

[IPCC predicts rise in extreme climate event in South Africa](#)

Climate change could mean unusually high temperatures occurring much more often in most parts of the world by the end of the century, according to a [special report](#) on extreme weather events from the Intergovernmental Panel on Climate Change (IPCC). "A hottest day that occurs once in 20 years is likely to become a one-in-two year event, except in the high latitudes of the northern hemisphere, where it is likely to be one-in-five years," according to Sonia Seneviratne, a climate expert at ETH Zurich, which is part of the Swiss Federal Institute of Technology.

Seneviratne was speaking at the [Planet Under Pressure conference](#), which was held in London on 26-29 March. She was a member of an IPCC group set up in 2009 to compile the Special report on managing the risks of extreme events and disasters to advance climate change adaptation (SREX), which was published on 28 March.

Contributors to the report include experts on disaster recovery and risk management, together with members of the physical sciences and climate change mitigation and adaptation disciplines. The report marks the first time that the scientific literature on extreme events has been synthesised by a single team, Seneviratne told the conference. It assesses observations and predicts changes in temperature extremes, heavy rainfall and drought for 26 regions. According to the IPCC, it offers "an unprecedented level of detail regarding observed and expected changes in weather and climate extremes, based on a comprehensive assessment of over 1,000 scientific publications".

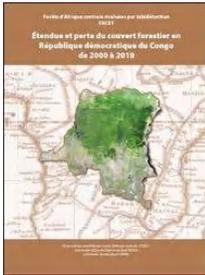


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Seneviratne said that it is likely that both the frequency of heavy rainfall, and the proportion of total rainfall from heavy rains, will increase in many areas of the world this century. A "high" daily rainfall that has typically occurred once in 20 years is likely to happen every 5 to 15 years. The average tropical cyclone maximum wind speed is likely to increase, but the global frequency of tropical cyclones is likely to decrease or remain unchanged, she said. Increased dry weather is predicted for southern Africa, north-eastern Brazil, central Europe, Mediterranean countries and central North America. The report also notes that observations gathered since 1950 suggest it is "very likely" - with a 90 to 100 per cent probability - that there has been an overall decrease in the number of cold days and nights, and an increase in the number of warm days and nights. The report found that many of the projections contained in the IPCC's fourth assessment report, which was released in 2007, are robust - for example, projections relating to temperature extremes.

[New atlas on forest cover and loss in the Democratic Republic of Congo \(2000 - 2010\)](#)



This atlas was produced as a part of the OSFAC (Observatoire Satellital des Forêts d'Afrique Centrale) initiative "Monitoring the forests of Central Africa using remotely sensed data sets" (FACET in French). FACET is led by OSFAC in collaboration with South Dakota State University and the University of Maryland, and supported by USAID CARPE. Additional support was provided by the World Resources Institute.

The FACET publication is the result of a study of forest cover and forest cover change in the Democratic Republic of Congo (DRC). The analysis made use of an automated "wall-to-wall" remote sensing method, developed jointly by South Dakota State University and the University of Maryland, and incorporated over 8,000 Landsat ETM+ images. The atlas consists of Landsat image composites coupled with classifications of forest cover and

forest cover loss for the periods 2000-2005-2010.

The publication seen as a step towards a regional platform will be the first in a series allowing the diffusion of useful and timely information concerning forest change dynamics in Central Africa. There are myriad uses for the thematic data and image composites provided with the DRC FACET Atlas such as: natural resources management including forests, biodiversity, wildlife habitat, protected area and mineral exploitation management; land use and transportation network planning; watershed and surface water monitoring; agriculture monitoring and planning. In addition, when combined with the appropriate carbon stock inventory data, the FACET methodology and data provide the capability for carbon monitoring for REDD and/or carbon markets. The FACET Atlas provides a thematically simple map of relatively few forest cover types and change. Mapping the occurrence and type of forest cover change is the first step in identifying and analyzing the drivers of deforestation such as agriculture, logging and charcoal production. The Democratic Republic of Congo FACET Atlas and data are available for download via: <ftp://congo.iluci.org/FACET/>.

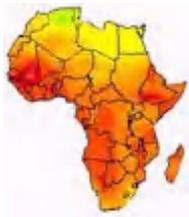
[Tanzania: Land policy could help control sleeping sickness](#)



Tackling land-use conflicts around game parks must form part of the national strategy to stop the spread of sleeping sickness, warn doctors fighting the disease in Tanzania. Tanzania's booming tourism industry has been driven largely by its wildlife parks, which contribute almost US\$1.8 billion a year to the economy. But the expansion of these areas, which now cover more than a third of the country, has major consequences for the rural population.

A growing number of communities find their villages "squeezed" between wildlife areas, putting them at risk from tsetse flies that spread Trypanosomiasis or sleeping sickness, a debilitating and often fatal disease. The impala, wildebeest, buffalo, giraffe, zebra and rhino in the parks are seen as excellent reservoirs for the disease, which is most prevalent from Kigoma at Lake Tanganyika to Arusha in the northern part of the country. Imna Malele, researcher at the Tsetse & Trypanosomiasis Research Institute (TTRI) in Tanga, wants planning to form part of the national strategy to tackle the disease. "Proper plans on land use could help in sleeping sickness control. I would suggest that parks be surrounded by buffer zones, and wildlife management areas, and in these areas tsetse control should be stepped up [to stop the flies reaching the villages]." Sleeping sickness is endemic in Tanzania. In advanced stages, the disease attacks the central nervous system and people experience changes in personality, alteration of the biological clock - hence its name - and difficulty walking and talking. These problems can develop over many years and if not treated, result in death.

One of the biggest challenges is the increasing population, expected to grow by 2 percent in 2012, according to the World Bank, with more than 75 percent of the total 37 million living in rural areas. Mramba said: "All the



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huts are concentrated right along the borders of the parks, which is aggravating the problem. There are 'hedge effects' of people living head-to-toe with the border of national parks. Land use is a real problem." Ignas Lejora, ecology manager at the Tanzania National Park Authority (TANAPA), said: "There's no clear-cut solution – maybe the way forward is to plan [land use] in these infested areas." Read more...

[Kenya farmers use science, traditional forecasting to survive climate change](#)



Kenyan farmers are combining information from climate scientists with traditional weather forecasting methods in an experiment which could help thousands of families adapt to climate change, a major conference will hear this week. 'Combining traditional knowledge with science-based forecasts will help farmers make better decisions about which crops to plant where, as well as when to plant and harvest them,' said Richard Ewbank, Climate Adviser at

Christian Aid. 'Those decisions change people's lives - getting them right leads to good harvests and families having plenty to eat and sell. Getting them wrong can lead to hunger, poverty and suffering. This is the reality for millions of people across Africa.'

Climate change is expected to make it harder than ever for farmers to know what each growing season will bring, by making the weather more erratic and extreme. The idea behind the Sustainable Agricultural Livelihoods Innovation Project in eastern Kenya, funded by Christian Aid and the Humanitarian Futures Project of King's College, London, is that combining science-based seasonal forecasts with more traditional methods will be more successful than either approach alone. Participating farmers have been coping with weather patterns consistent with the expected effects of climate change such as higher temperatures, more intense rainfall, stronger winds and longer dry periods.

Twelve groups (averaging 55 farmers each) were given scientists' predictions of when last year's short rains would start, how they would be distributed across the area concerned and when they would finish. Local, traditional indicators such as the timing of the flowering of acacia trees were also factored in. Training was given in how to interpret the data from the Kenya Meteorological Department, and recommendations made about how best to grow main crops such as maize, cow peas, green grams, beans and sorghum. Although some farmers already receive seasonal forecasts via radio and occasionally TV, many place little reliance on the information as the nearest weather monitoring station is some distance away in an area with very different rainfall patterns. This highlights another difficulty facing African farmers - the continent has only one eighth of the minimum number of weather monitoring stations recommended by the World Meteorological Association.

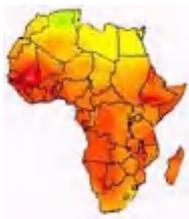
The forecast for the area using the project's methods was that it was 'likely to receive near-normal rainfall with a tendency to above-normal' and this is what actually happened, along with flash-floods in some areas towards the end of the rainy season. The project will continue through 2012 and 2013, including a further 24 farmers' groups to bring the total number of people (including the farmers' families) benefiting to some 12,000. New ways to tell farmers about scientists' seasonal forecasts will also be investigated, including via mobile phones.

[New weather station boost to farming in Taita-Taveta, Kenya](#)

Taita residents are set to benefit from \$100,000 (Sh8.3 million) automatic computerised weather station in Mwatate town. Launching the station, project coordinator Dr Tino Johansson from Finland said that the project, the first of its kind in Kenya, is funded by the Finnish Foreign Affairs ministry and coordinated by the International Centre for Insect Physiology and Ecology.

Johansson said that the weather station will provide quality data to farmers that will help them make informed decisions on their farming mechanisms and methods in a bid to improve food security. "The station will help the community in enhancing knowledge and information on climate change impacts on ecosystem services and food security in the region," he said. He said the station will further provide scientific knowledge to policy makers. "The equipment is capable of recording soil moisture, temperatures and rain volumes which can be accessed more easily within the shortest time possible. The computerised station is also capable of recording time when the data was recorded," he said. "In the next two months the community can start accessing the information collected at the station. The equipment can be used for the next 10 years."

Mwatate senior DO Michael Aswani, who officiated the launch, called on the community members to provide security for the expensive equipment. "Through the programme, farmers will make informed decisions and improve food availability by embracing the new farming technologies," he said. Johansson said the

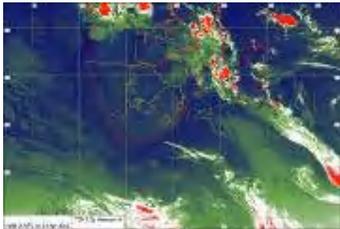


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programme was vital since it helps researchers from Africa to build their capacity. "More than 25 researchers with master's degree who are now on study leave have been employed in the project. They will graduate with their PhDs by the end of the project," he said. He said the project was being carried out in parts of Kenya, Tanzania and Ethiopia.

Zimbabwe's weather stations need facelift



Whereas an efficient and well- resourced weather and climate services system is important in designing relevant policy responses to rising climate risks, the local meteorology unit is not, and needs more capacity for it to adequately and efficiently fulfill this role. Capacitating the Zimbabwe's Meteorological Services Department through adequate funding would enhance the division's provision of accurate and timely early warning information, "used for planning local level economic activities and that aid to incremental economic benefits to the local populace".

Speaking to The Herald Business, as Zimbabwe celebrated the World Meteorological Day on March 23, MSD director Dr Amos Makarau said meteorology in the country was "facing several challenges, which include aged equipment and shortage of personnel". Equipment used at some stations is believed to be 100 years old or more. The earliest weather stations in Zimbabwe were set up at Harare and Bulawayo very early in the 20th century.

However, corrective measures were now being taken. Dr Makarau said among numerous strategies, the department had started replacing some equipment at international airports and meteorological stations countrywide while plans were afoot to offer a degree in meteorology in partnership with a local university. The MSD was also working towards an ISO certification to improve service and meet international standards. "Modernisation and densification of the current meteorological network is underway, as the department is expected to install automatic weather stations in disaster-prone and remote areas of the country during the course of the year," Dr Makarau said.

"These will greatly enhance the observational network and forecasting system." In line with agreed international plans to launch the Global Framework for Climate Services (GFCS), the MSD was working with insurance companies in the provision of weather index insurance that seeks to assist farmers to hedge against the vagaries of weather and climate.

The GFCS urges world meteorological units to improve information for the development of natural resources and protection of lives and livelihoods and property.

That information must be user-defined and be climate relevant at global, regional, national and local levels and provided in a timely and understandable manner. Dr Makarau said the Met Department was providing "weather advisories and warnings of impending hazards like tropical cyclones, droughts, prolonged heavy rains, strong winds and prolonged dry spells that are likely to endanger life and property".

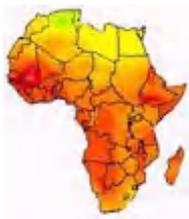
Zimbabwe: Fighting climate change via SMS



One of the biggest obstacles for climate change mitigation in Zimbabwe is the utilisation and applicability of information, currently scattered, random and poorly coordinated. Information must get to those who are always at the forefront of climate change impacts on time. This was what participants attending the Apps4Africa Climate Change challenge in Harare last week agreed on.

Programme developers, civic society, environmentalists and other interested stakeholders met in Harare to explore ways of how ICTs, particularly the mobile phone, could be used to transmit effective climate change information to those who are most affected by it. They were meeting as part of a five-nation Apps4Africa Climate Change regional challenge, a technology competition funded by the US government encouraging locals to develop country-specific applications to tackle the challenge of climate change and global warming.

The Americans have promised US\$25 000 to the eventual top three winners, with the first prize set at US\$15 000. Facilitator of the brainstorm, Ms Mariame Jamme of SpotOne Global Communications, a UK firm, said the contest aimed to create networks between the different environmental stakeholders and program developers in crafting applications for Africa, by Africans, that limit the impact of climate change. "We need winners in Zimbabwe. We need winners in Africa," said Ms Jamme during the presentations. "Applications are needed because the use of mobile technology has increased. They are needed to disseminate



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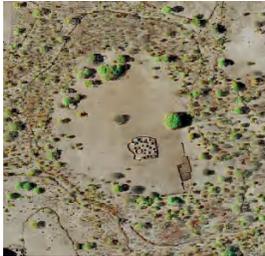


information and encourage communities to engage in behaviour that is friendly to the environment, behaviour that would help reduce the impacts of climate change."

Participants showed a deep understanding of climate change and problems it has caused for Zimbabwe.

They highlighted agriculture as the worst affected sector due to rapid changes in rainfall patterns, and the increased frequency of droughts and floods, especially in the Midlands and Matabeleland. This had negatively affected agricultural productivity and threatened food security.

Namibia: Land rights registrations on track



The Ministry of Lands and Resettlement has dismissed as "baseless rumours" claims that land rights registration in communal areas has been suspended in Caprivi. Acting Regional Chief Development Planner in the Ministry of Lands, Gift Sinyepe, was quick to disprove such claims as mere hearsay and that the registration was still on track. "We are still continuing with the registration. The only problem we had was technical as our GIS equipment (Geographical Information System) was broken and we had trouble with transport, but that has been resolved now and we are going to continue," said Sinyepe

There were claims that customary land rights registration, which officially resumed in October last year, was characterised by land conflicts because people tried to abuse the system by extending their crop fields into neighbouring fields, thus leading to its "suspension".

The unofficial report circulating in Katima Mulilo, but dismissed by Sinyepe, claimed the issue has now been referred back to the four chiefs to look for an amicable and progressive solution. Without ruling out the thorny issue of land disputes, Sinyepe was adamant that the process has to a large extent been going well. "We get land dispute issues sometimes, yes. Normally, communal land is allocated by the traditional authority. If land disputes fail to be resolved with the traditional authority, complainants refer their dispute to the regional Land Board. Until the issue is resolved, the certificates for land rights cannot be issued,"

Sinyepe maintained that their responsibility at the ministry lies with land verification with authority from the traditional authority and the issuing of Customary Land Rights Certificates. "Chiefs and their Indunas are consulted about our impending visits first so that they can inform their subjects. People are sensitised and then given forms to fill in before the actual registration takes place. Apart from that, the traditional authorities attend workshops related to this registration, thus they know how to handle conflicts of that nature".

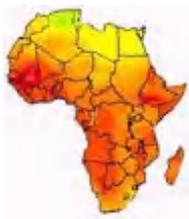
Only seven out of the estimated 998 villages have been covered in the entire Caprivi Region so far. "Since October last year, we have managed to cover seven villages namely Kasika, Ikaba, Nsundwa, Schuckmannsburg, Lusesse and Kalimbeza. We conduct the registration according to the number of traditional authorities and currently we are still busy with the Masubia Traditional Authority, as we knew most areas and villages are flood-prone," said Sinyepe. Recommended hectares for land rights registration has been set at 20 hectares and approval granted by the Regional Land Board, however, those exceeding this requirement, would have to present their written reasons to the Minister of Lands and Resettlement for approval. Sinyepe also hastened to put to rest the concern of "unequal payment" for registration, saying that the registration fee of N\$25 dollars per application was required for administrative purposes, regardless of the size or hectares of land registered. See also:

http://fig.net/pub/fig_wb_2009/papers/sys/sys_2_meijs_kapitango.pdf.

Open Source Geospatial Lab initiative in Africa

After the successful establishment of Open Geospatial Labs in Europe and Asia, the first such initiative in Africa is being established at Centre for Geoinformation Science, University of Pretoria, South Africa under the leadership and vision of Dr Serena Coetzee. Serena has strong research background in Geospatial Science, SDI and GI standards. Her research details can be found at <http://www.cs.up.ac.za/cs/scoetzee/index.htm>.

The Centre for Geoinformation Science at the University of Pretoria <http://www.up.ac.za/cgis> is already doing excellent undergraduate and postgraduate teaching using various open geospatial software, with many of the postgraduate students either using FOSS4G in their research or contributing to FOSS4G. These students will become the future leaders of Geospatial Science from Africa and contribute for the development of our discipline and the wider community. Open Geospatial Technologies are the key enablers for helping to provide the benefits of geospatial science to the wider community globally (especially in poor countries). For further information, contact: Dr. Suchith Anand, Nottingham Geospatial Institute, University of Nottingham, Tel: (0)115 82 32750, email: Suchith.Anand@nottingham.ac.uk.



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[Esri Eastern Africa User Conference, 3-5 October 2012, Naivasha Sopa Lodge, Kenya](#)

The Esri Eastern Africa User Conference will be held in Kenya from 3 to 5 October 2012 at Lake Naivasha Sopa Lodge. The shoreline of Lake Naivasha, a fresh water lake in the Great Rift Valley, will provide the ideal setting for Esri software users from across Eastern Africa to learn more about the latest technology and to share their experiences.

Esri software users are invited to present a paper which will showcase the use of Esri software in their particular field of work and/or further the science of GIS. All papers presented at the conference are eligible for publication in the conference proceedings. Get [more information](#) on how to submit your paper presentation and the requirements needed.

[AARSE 2012 International Conference](#), 29 October- 2 November 2012, El Jadida, Morocco.



The Conference Theme: Earth Observation & Geo-information Sciences for Environment and Development in Africa: Global Vision and Local Action Synergy.

The 9th AARSE International Conference, AARSE 2012, on Earth Observation & Geo-information Sciences for Environment and Development in Africa: Global Vision and Local Action Synergy will be held in El Jadida, Morocco, at the Faculty of Science, Chouaib Douakali University from October, 29 to November 2, 2012. The conference will be a major event in the African and international community of Earth observation and geo-spatial information science in 2012; organized by the African Association of Remote Sensing of the Environment (AARSE) and the Chouaib Douakali University, Faculty of Sciences (CDU_FS), in partnership with the International Islamic Organization for Education, Science and Culture (ISESCO) and the Moroccan Association of Remote Sensing of the Environment (MARSE).

Paper selection is based on abstract and full paper peer review following the guidelines provided in the “Call for Paper” document downloadable from the conference website: www.aarse2012.org. Abstract submission opens on 2 January to 30 April 2012. Questions regarding abstracts should be e-mailed to abstracts@aarse2012.org.

Paper selection is based on abstract and full paper peer review following the guidelines provided in the “Call for Paper” document downloadable from the conference website: www.aarse2012.org. Abstract submission opens on 2 January to 30 April 2012. Questions regarding abstracts should be e-mailed to abstracts@aarse2012.org.

- **AARSE AWARDS** - All presenters are invited and encouraged to enter the AARSE award-winning competition for best paper presentation and best poster.
- **IEEE GRSS/AARSE TRAVEL FELLOWSHIPS** - To support travel costs, accommodation and registration fees to attend conferences of the two societies in the field of Earth observation by remote sensing. The beneficiaries of these conference fellowships shall be African scientists or students who have their paper accepted for oral or poster presentation at the AARSE biennial conference.

[GISSA Ukubuzana 2012: Conference and exhibition of geo-informatics, ICT, surveying, remote sensing and location-based business](#), 2-4 October, Gauteng, South Africa



The GISSA Ukubuzana 2012 conference will be held at the [Emperors Palace](#), Jones Road, Kempton Park, Gauteng, South Africa on 2-4 October.

GISSA Ukubuzana 2012 is primarily aimed at leaders, academics, professionals, technologists, technicians, students and companies in the

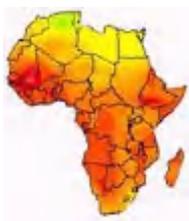
public and private sectors involved with or interested in geographic information science (GIS), information and communication technology (ICT), global positioning systems (GPS), surveying, remote sensing, and location-based applications and business.

To participate as an exhibitor, sponsor, presenter or delegate, or to request further information, please follow the links below:

- [Call for presenters of training workshops](#);
- [Register to present a training workshop](#);
- [Call for papers and presenters for the peer-reviewed academic track](#);
- [Instructions to authors and presenters of peer-reviewed academic papers](#);
- [Call for papers and presenters for general papers, short papers and poster papers](#);
- [Instructions to authors and presenters for general papers, short papers and poster papers](#);
- [Templates and style sheet for papers for GISSA Ukubuzana 2102](#).

Practical SDI implementation materials from within and outside of Africa

[Water monitoring system aids Kenyan herders](#)



Spatial Data Infrastructure – Africa Newsletter



Satellite technology is coming to the aid of pastoralists in drought-stricken Kenya, with the expansion of a water monitoring system that aims to reduce livestock loss. The Livestock Early Warning System combines information uploaded by villagers with satellite data to create a virtually real-time map of forage and water conditions.

A successful pilot project in Turkana district in northwest Kenya is being considered for extension across the country. "The whole idea is to automate the process of providing information on water conditions in the pastoral areas in a reliable, timely and consistent manner," said Laban MacOpiyo, the scientist in charge of the project at the University of Nairobi. The system uses technology developed by Texas A&M University in the United States and has been used in several states there, as well as in Mali and Mongolia, said MacOpiyo.

The current programme began in southern Ethiopia and northeastern Kenya. MacOpiyo said the UN Food and Agriculture Organization (FAO) provided \$30,000 for its expansion in October 2011 into Turkana District, where an additional 12 monitoring sites were established by the University of Nairobi and Texas A&M. The project uses Geographic Information System (GIS) mapping with open-source data. Villagers have been trained to use mobile phones to record information about water levels and the number of households and specific livestock – camels, donkeys, cattle, sheep or goats - using particular waterholes. These data are combined with satellite images generated by the US National Aeronautics and Space Administration (NASA) to identify water sources, which are then visited by monitoring staff to ensure that water is present. "We want to look at the conditions, the water quality, and distance trekked by livestock to a waterhole, as well as the forage conditions in the region," said Joseph Matere, FAO official in Nairobi. The data from locals on the ground and from NASA are fed into a computer that models the topography of the region along with hydrological characteristics such as infiltration, evapo-transpiration and surface run-off, explained MacOpiyo. The aim is to come up with "a very reliable early warning system" and to give pastoralists faced with water shortages ideas on how to cope with drought conditions.

As part of the program, forecasts and advice are communicated to Turkana pastoralist communities via the Internet – accessed in part on mobile phones - but MacOpiyo said that scientists hope to work with the National Drought Monitoring Authority to disseminate their forecasts through community radio, text messaging and community meetings as well. The pilot project in Turkana ended in February, and MacOpiyo and his colleagues are now seeking FAO funding to support its continuation and expansion into other arid and semi-arid parts of the country.

[Human rights officers undergo GIS training at UNOSAT](#)

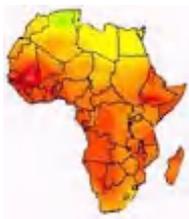


Within its Geneva-based training offer, UNOSAT has completed in February 2012 a professional training for 6 Officers of the UN Office of the High Commissioner for Human Rights (OHCHR). UNOSAT training modules on rapid mapping and satellite analysis are well known both in Geneva and in several countries, but this was the first time that Human Rights Officers were hosted in the UNOSAT training facility based at CERN.

"Hosting training courses at our operations centre is a way to immerse trainees in the real atmosphere of a rapid mapping centre" says Wendi Pedersen of UNOSAT, who coordinated the course. The training lasted two full weeks and included modules on GIS and satellite derived analysis. Wendi Pedersen adds: "We tailored this training for professionals who require a general understanding of GIS and its potential and be able to make maps and make sense of maps they read without having to become GIS graduates"

One of the participants confirmed this point: "I will implement (this) methodology in my section and use the tool to brief UN staff members and advise managers". Another participant said: "I now understand the amount of work that goes into making a map". Since their first collaboration in 2009, the relationship between UNOSAT and the Office of the High Commissioner for Human Rights has steadily grown. As stated by the High Commissioner Navi Pillay herself: "OHCHR has on several occasions requested UNOSAT to provide satellite imagery and analysis to be used to examine specific human rights situation. The information provided has been extremely valuable, in particular in the context of investigative missions".

GIS Tools, Software, Data



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List of primary geospatial data repositories for the humanitarian sector

Dr. Karen Payne, from the Carl Vinson Institute of Government in Athens, GA (USA), as part of a paper she wrote had compiled a list of data repositories that others may find useful. The list (<http://bit.ly/oiJMI5>) is designed to point to free downloadable primary geographic datasets useful in humanitarian response - it includes some cross over into environmental data, but is designed for the humanitarian sector. The repositories are grouped according to the tabs at the bottom of the sheet. This is the first draft of the compilation - the list is openly editable and Karen encourages correction and additions, especially at the country level. Contact: Dr. Karen Payne, Humanitarian Programs, Carl Vinson Institute of Government. skype: karenpayne1. <https://gistdata.itos.uga.edu>. 1180 East Broad Street | Athens, GA 30602, Phone: 706-542-7766 | Fax: 706-542-6535. Email: kpayne@itos.uga.edu, www.vinsoninstitute.org. Source: Kate Lance.

Regional Centre for Mapping of Resources for Development data centre

The RCMRD Data Centre has a large LandSat Data Archive, dating back to 1972, for all African Countries. It is also a Reseller Agent in Africa for Digital Globe for QuickBird and WorldView 1/2 High-Resolution Satellite imagery. The Centre also supplies data from GeoEye (GeoEye 1/2, Ikonos & Orbview Imagery), SPOT Image (SPOT 2.5m, SPOT 5m & SPOT 10m), USGS (Landsat MSS, Landsat TM & Landsat ETM+) amongst other active and passive satellite imagery products. Datasets for Africa archived at the Centre are available at subsidized rates. Other low resolution imagery datasets (90m SRTM, NOAA, MERIS, MODIS), scanned maps and vector data for Africa are also available.

The center in collaboration with European Space Agency (ESA) and EUMESAT has established a facility for direct satellite reception for MERIS, MODIS, NOAA and EUMESAT Second Generation Meteosat data. These datasets amongst others can be accessed online via: <http://www.rcmrd.org/geonetwork> or via email to [remote_sensing\(at\)rcmrd.org](mailto:remote_sensing(at)rcmrd.org).

Training Opportunities

Have you signed up to receive [SDI-Africa Newsletter](#) notices? It only takes a minute, and then the GSDI Association can notify you when a new issue of the SDI-Africa newsletter is available, plus alert you to particular GSDI announcements (like a call for GSDI grants, or a call for papers for a GSDI conference).

The GSDI Association also hosts an [SDI-Africa E-mail Discussion List](#) with intermittent news and announcements of opportunities (this discussion list is separate from the SDI-Africa Newsletter list).

- The [SDI-Africa E-mail Discussion List](#) is open and available to anyone to read on the web. To submit messages or to receive submitted comments or notices by e-mail, one first must register.
- To see the collection of prior postings to the list, visit the [SDI-Africa E-mail Discussion List Archives](#).
- To post a message to the list, send an email to sdi-africa@lists.gsdi.org.

Short courses by Continued Education

Courses presented in 2012 by Continued Education at UP (www.ceatup.com) and the Centre for Geoinformation Science (www.up.ac.za/cgis) on the main campus of the University of Pretoria, in Pretoria, South Africa. Enquiries and registration: Mickaele Jenkins mickaele.ce@up.ac.za.

- Introduction to GIS Standards - 10 and 17 September

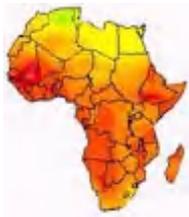
Call for application for postgraduate diploma in applied Geo-Information

The National University of Rwanda through its centre for GIS and Remote Sensing (CGIS-NUR) wishes to call for 2012 intake application for its Postgraduate Diploma Programme in Applied Geographic Information Science: Geographic Information System, Remote Sensing, and their various applications.

Further information, keep visiting us on websites: www.nur.ac.rw and www.cgisnur.org. The program is run at Kigali or Butare, as evening or day program depending on the availability of students. All about postgraduate diploma programme or guidelines for filling and submitting the application information is available on: <http://www.nur.ac.rw/spip.php?article30>.

Institute for Capacity Development: 2012 Training Workshops

The training courses are held in Namibia (Head Office); South Africa and Zimbabwe. For the past years, ICD has been conducting international capacity building workshops for national, provincial and local officials, elected representatives, members of boards, personnel of projects as well as bilateral & multilateral



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agencies. A large number of high profile persons have participated in the programmes in the past and you are welcomed to one or more of the [upcoming programmes in 2012](#).

For the full [2012 training calendars](#) or check out the website on www.icdtraining.com. Institutions sending at least 5 participants qualify for group discounts. Contact Mr. Kenias on coordinator@icdtraining.com.

ESRI Technical Certification

ESRI has set the industry standard for GIS technology and is now establishing benchmark standards for individuals who use Esri software with the recently launched Esri Technical Certification Program. The ESRI Technical Certification Program recognizes qualified individuals who are proficient in best practices for using Esri software and are awarded in different areas of expertise at both an Associate and Professional level. The program is open to ESRI users worldwide and consists of 13 certifications recognizing expertise in desktop, developer, or enterprise use of ArcGIS. Users achieve certification by successfully completing computer-based examinations, which are offered in more than 5,000 testing locations in 165 countries. 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. ESRI is available to advise you on the best training for a particular certification and also offer you the training that you need to prepare for your certification. [Read more..](#)

ESRI South Africa presents a full spectrum of GIS courses: April 2012



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](#)

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

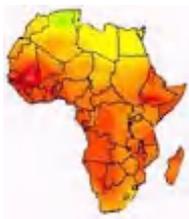
Make plans and take advantage of the courses offered at the Authorized Learning Centre in Nairobi, Kenya. Arrangements can also be made for client's site training on request for 12-16 students. Download our course catalogue and current class schedule at <http://www.esriea.co.ke/index.php/instructor-led-training>.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

University of Twente - ITC Faculty of Geo-Information and Earth Observation: Registration for courses (2012-13)



Faculty of Geo-Information Science and Earth Observation

UNIVERSITY OF TWENTE



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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 and water resources) or location in the course finder at www.itc.nl/CourseFinder. For printed copy of the study brochure, email: (alumni@itc.nl).

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



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

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

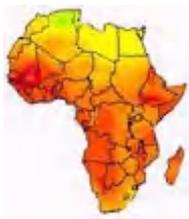
Funding Opportunities, Awards, Support

African Union Research Grants-Open Call for Proposals - 2012

The African Union Commission (AUC) is committed to ensure that science and technology in Africa contributes to its sustainable development efforts. The Act establishing the Union recognizes the need for Africa to embark on an ambitious strategic science and technology development programme, aimed at contributing to the wellbeing and improved quality of life for the African citizens. To this end the establishment of the AU in 2002 was accompanied by the setting up the AUC with a special Department of Human Resources, Science and Technology to drive this strategic programme.

The Specific objective of this Call for Proposals is to award grants to finance research projects in the fields of (a) Post-harvest and Agriculture, (b) Renewable and Sustainable Energy, or (c) Water and Sanitation. It is highly envisaged that the deployment and the improvement of science and technology research in these challenging areas will effectively contribute to Africa's poverty reduction strategies, economic growth and social development efforts. There are three sets of eligibility criteria, relating to: applicant(s) which may request a grant (2.1.1), and their partners (2.1.2); actions for which a grant may be awarded (2.1.3); and types of cost which may be taken into account in setting the amount of the grant (2.1.4). Who can apply:

- Legal persons and be nationals of African Union , ACP, EU Member States, Least Developed Country as defined by the United Nations (LDCs), European Economic Area (EEA) Member States, one of the official EU candidate countries or, for proposed actions taking place in at least one LDC, reciprocal access shall be granted to the members of the OECD/Development Assistance Committee and
- be directly responsible for the preparation and management of the action with their partners, not acting as an intermediary and
- be registered locally in (or have a memorandum of understanding in relevant research areas, with) an eligible African country prior to the publication of this call for proposals and
- have at least a three-year record in the formulation and/or implementation of research activities in Africa for which they will have to provide the relevant legal documents and
- be able to demonstrate their experience and capacity to manage activities corresponding in scale and complexity to those for which a grant has been requested and



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- have stable and sufficient sources of finance to ensure the continuity of their organisation throughout the implementation of the proposed action and
- Belong to consortia of scientists as explained under 2.1.2 (2) - composition of partnerships. And belong to at least one of the following categories:
- National or regional science and technology organizations, research institutions, universities, government ministries or public institutions dealing with scientific research including regional science and technology institutions, with separate legal status, not belonging to any national system but formally recognized by one of the eligible countries; or
- Established science and technology networks provided that: all network members and the network headquarters are located in eligible countries; the network has a legal status; the network is applying in its own right; and the network has been registered for a minimum of two years.

[Call for Nominations invited at the Tech Awards](#)

The Tech Awards invites [nominations](#) for the year 2012. The Tech Awards is an international awards program that honors innovators from around the world who are applying technology to benefit humanity. Nominations for The Tech Awards are accepted year-round. The Tech Awards team will review it to ensure the participants meet the program's requirements for eligibility. Self-nominations are accepted. The Tech Awards program requires participation in a two-step process. These three key questions on the nomination form (note character count on form) need to be answered:

- Identify the technology application
- Explain how the technology application benefits humanity
- State why you think the nominee deserves recognition

Call for nominations for The Tech Awards are accepted year-round. Nominations for 2012 are accepted beginning October 21, 2011. The 2012 deadline for nominations is [April 6, 2012](#).

[Call for Proposals: Canada Fund for African Climate Resilience](#)

The main aim of the Canada Fund for African Climate Resilience (Canada Fund) is to support projects which will substantially improve and enhance food security or economic growth within an African country by reducing the impacts of climate change through protection of investments and/or adaptation measures.

[CIDA's](#) Partnerships with Canadians Branch (PWCB) is introducing a specialized call for proposals under a \$20-million fund to support and rapidly address climate change effects and adaptation needs which are restricting or having negative impact on improving food security or economic growth in Africa.

This call will capitalize on Canadian expertise in addressing climate change effects and adaptation requirements as well as delivering sustainable, effective development projects in eligible developing countries in Africa. Proposals are to target achieving the objectives of the call. Proposals should also consider the opportunity to capture innovation to address critical climate change issues which need specialized expertise and technologies and integrated approaches. The proposals must be substantive in scope, self-sustaining in operation and achieve demonstrable results consequences.

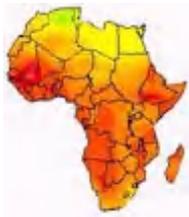
A panel will include experts in the fields of development, climate change, agriculture and economic development will review all eligible proposals. The panel will make recommendations to the Minister for International Cooperation for final approval. Completed applications must be submitted by noon, Pacific Standard Time, on [April 19, 2012](#).

[Project Inspire for Women's Empowerment: \\$25,000 Grant Opportunity](#)

The Singapore Committee for UN Women and MasterCard has come together to organize this joint initiative called "Project Inspire: 5 Minutes to Change the World." This competition aims to help young changemakers create a better world of opportunities for women and girls in Asia Pacific, the Middle East and Africa.

The competition seeks entries from 18-35 year olds to submit a 5-minute platform to pitch their inspired idea to the world. There is an opportunity to win a \$25,000 grant. The grant must show creativity and sustainable impact in the lives of women and girls across Asia, Pacific, the Middle East or Africa through entrepreneurship.

Entries should be submitted in the form of a (maximum) 5-minute video or a (maximum) 2-page A4-sized proposal. Video entries are to be uploaded on any public video-sharing sites, such as YouTube or Vimeo. Links to the videos must be provided on the submission e-form. Submissions, either video or written, must be made in English. Each proposal should address the following questions: What is your inspirational idea?, How will your project change the lives of women and girls in the short and long term?, How will you/your



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team carry out the project?, How will you spend the US\$25,000 grant to carry out the project?, How will you measure the success of the project?

Submissions should be accompanied by information on the existing program, biographies of the team members and any supporting materials (e.g. website, social media channels, media clippings, past awards). The deadline to submit entries is 30 June 2012.

[Center for Economic Policy Research \(UK\) - Private Enterprise Development in Low-Income Countries](#)

The UK's Center for Economic Policy Research, in partnership with the UK's Department for International Development, has launched a 5-year program in Private Enterprise Development for Low-Income Countries (PEDL). PEDL aims to understand market forces and constraints in the world's low-income countries, with attention to cross-cutting themes that include climate and environment (among others). Eligibility extends to researchers from academia, the non-profit sector, think tanks, research centers, and similar. Exploratory Grants (multiple deadlines per year) range from £10 thousand to £35 thousand; the next deadline is 31 March 2012. Major Research Grants (annual) are a minimum of £100 thousand; the deadline is 16 April 2012.

[Global Knowledge Initiative - Partnerships for Agriculture in East and Southern Africa](#)

The Global Knowledge Initiative (GKI) invites Requests for Engagement to promote collaboration in research, capacity building, and innovation in African agriculture. Selected researchers in East and Southern Africa will be offered assistance to locate resources for their work; further develop their capacity; and connect with persons and organizations to create larger impact. Requests for Engagement will be accepted through 30 April 2012. [Link1](#).

[Tropical Biology Association - Small Grants for African Conservation](#)

The TBA offers annual small grants for conservation projects and research in Sub-Saharan Africa. The call is restricted to TBA alumni groups. Grants are for a maximum of £1,500. The application deadline is 30 April of each year.

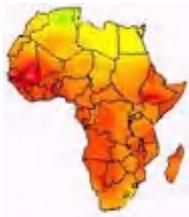
Employment Opportunities

[Director, Climate Prediction and Applications Centre \(ICPAC\), Nairobi](#)

Under the overall supervision of the IGAD Executive Secretary, the Director of ICPAC, shall be responsible for the day to day management of the Centre and shall perform the following duties and responsibilities: Follow-up and ensure the implementation of the decisions of the Assembly, the Council and the Steering Committee; Represent the Centre at international meetings and conferences; Coordinates the programmes and activities of the Centre with those of the IGAD; Keep the Executive Secretary of IGAD informed of the programmes and activities of the Centre; Identify suitable Cooperating Partners and initiate the necessary processes for conclusion of appropriate agreements or Memoranda of Understanding; Provide advice and guidance to the National Meteorological and Hydrological Services with regard to the development of methodologies for climate monitoring, prediction, early warning and climate change adaptation; Identify regional training needs and organize training events in areas related to climate monitoring, prediction, applications and climate change adaptation;

Participate in activities that contribute to preparedness, early warning and regional disaster risk reduction; Establish and promote effective collaboration with relevant institutions within IGAD as well as other regional and international Climate Centres; Mobilize resources for the Centre; Keep in safe custody the documents, files and other data relating to the work of the Centre; Prepare and submit reports on the activities of the Centre; Prepare and submit the draft programme, budget, periodic reports and financial statements to the Council through the Executive Secretary; Ensure that timely information is provided as may be requested by Member States, the IGAD Secretariat, Non IGAD Member States or Cooperating Partners; Keep an inventory of all the assets and liabilities of the Centre; Prepare and submit to the Steering Committee a report on the financial status of the Centre; and Perform such other duties as may be assigned by the Steering Committee, Executive Secretary, Council or the Assembly.

Minimum Qualifications: Education At least a Master of Science degree in Meteorology from a recognized University. A PhD in Meteorology will be an added advantage; at least 10 years in senior management positions in meteorological or related organizations; A good knowledge of spoken and written English; Ability



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to communicate effectively orally and in writing; Ability to prepare written reports in a clear, concise and meaningful manner; A demonstrated initiative and ability to manage a team of experts and other specialist personnel; Maturity of judgment, originality of ideas and ability to plan and organize events; Capability to coordinate technical activities, especially climate modeling; Self motivation; Ability to work with minimum supervision.

Send your CV with a covering letter, briefly stating why you think you are the right candidate for the job to the following address: Director, Administration & Finance, IGAD P.O. Box 2653 Tel: 253 354050 Fax: (253) 356994,353520 igad@igad.int. Closing date: Monday, 09 April 2012.

Hydrology/ Water Resources Applications Officer, Nairobi

Under the general supervision of the ICPAC Director the Hydrological/Water Resources Applications Officer will be responsible for the following duties and responsibilities: Implement and lead ICPAC related applications of climate products and services needed by the Water Resources and related sectors

Conduct gaps and needs assessment; and coordinate the development of regional strategy for enhanced applications of climate products and services in water Resources risks assessment and Management; Coordinate capacity building activities related to applications of climate products and services in water resources risks assessment and Management; Coordinate ICPAC's regional programmes for improving Meteorological and Hydrological Observations and data base management; Prepare plan for assessing and mapping the impacts of climate change/ variability to water resources potential to build scenarios for future adaptation and mitigation strategies; Coordinate development and use of Climate Information Systems in Hydrological Forecasting and Water Resources Management practices including Decision Support Tools (Systems); Prepare periodic progress reports and annual reports as required by ICPAC undertake any other related duties as may be assigned by the Director

- At least a Master of Science Degree in Hydrology / Water Resources.
- At least 5 years of working experience in hydrological/water resources modeling;
- Good knowledge of computer and applications in hydrology and water resources sector.
- Key Skills and Competencies:
- Good knowledge of hydrology related computer programming needs;
- Ability to communicate effectively orally and in writing;
- Ability to prepare written reports in a clear, concise and meaningful manner;
- Ability to work with minimum supervision

Send your CV with a covering letter, briefly stating why you think you are the right candidate for the job to the following address: Director, Administration & Finance, IGAD P.O.Box 2653 Tel: 253 354050 Fax: (253) 356994,353520 igad@igad.int. Closing date: Monday, 09 April 2012.

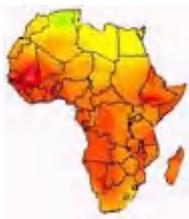
Programme Assistant, Nairobi

This post is located in Resource Mobilization Unit, Office for Operations in the Executive Office (UNEP/OFO/EO) at the Nairobi duty station. Under the supervision of the Chief, RMU, the incumbent will assist in the coordination of programme/project planning and preparation work for a medium-size and complex component of the departmental programme/project initiatives; monitor status of programme/project proposals and receipt of documentation for review and approval; Compile, summarize, and present basic information/data on specific programmes/project and related topics/ issues; Review project documents, especially cost plans/budgets, prior to submission for final approval and signature; identify inconsistencies; distribute project documents to relevant parties upon approval; Review budget revisions; verify availability of funds; ensure necessary approval and entry in computerized budget system; Perform other duties as assigned.

Professionalism: Knowledge of administrative policies, processes and procedures generally and in particular those related to programme/project administration, implementation and evaluation, technical cooperation, programming and budgeting. Ability to work well with figures, undertake basic research and gather information from standard sources.

Completion of secondary school is required. Supplementary training in office administration and/or office management is desired. A minimum of five years of experience in Programme/Project Administration or related area is required. Closing date: Friday, 13 April 2012.

Gender Thematic, Nairobi



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The Gender Thematic Manager is responsible for coordinating the development and implementation of the gender thematic programs in line with the overall ACORD Strategic Plan, the Pan-African programme, and Gender thematic strategies and Programming guidelines.

S/he will provide technical and methodological support to ACORD's country and area programmes across Africa in relation to gender work. S/he shall actively contribute to define strategies advancing gender work at Pan-African level through research, partnership, alliance building and advocacy initiatives. S/he shall provide leadership in cross-learning and knowledge generation for thematic alignment in relation to ACORD's gender strategic priorities across the organisation.

- The incumbent should possess a Masters degree in Social Sciences or Sustainable Development, Gender or similar field
- Five (5) years working experience in gender work with an International Non-Governmental Organisation (INGO) at Management level;
- Strong experience in strategic planning and policy formulation
- Strong experience in lobbying and media work
- Experience in popular mobilisation and policy advocacy at international level
- Experience in alliance and partnership building
- Bilingual: English-French spoken and written is an essential requirement for the position
- Very good understanding of gender issues at the level of Policy influence in the Pan-African scene
- Highly conversant with Civil Society and Social Movement approaches on gender work at Pan-African level
- Good organisational, research, negotiation and analytical capabilities
- Ability to identify, obtain and analyze information from a variety of sources

Apply to: Human Resources & Organisational Development Manager ACORD Nairobi, ACK Garden House, P. O. Box 61216, 00200, Nairobi, Kenya. Tel: +254 20 2721172, 2721185/86. To apply, please complete an application form available at www.acordinternational.org and e-mail it with a detailed Curriculum Vitae and cover letter to recruit@acordinternational.org with the Job Title in the Subject Box. A detailed Job Description is also available on the website. Closing date: Wednesday, 18 April 2012.

Other

[Strong winds and storm surge cause extensive damage in Madagascar](#)

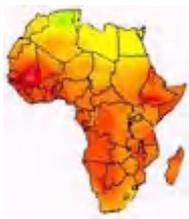


There are clear indications of extensive building damages within the coastal city of Vatomantry, likely the result of strong winds and storm surge, based on a rapid review of post-cyclone satellite imagery from 17 and 18 February 2012. The main transport routes appear open without significant debris or flood water obstructions; further, the single bridge crossing the main canal leading inland appears undamaged and functional. There are also areas within the town of extensive tree cover loss. As illustrated in the map below, a selection of over 350 prominently damaged buildings have been marked to illustrate both the relative distribution and severity of the impact of the tropical cyclone. Note: this product is not intended as a comprehensive damage assessment. It is probable that the total number of destroyed and severely damaged buildings in the town is well in excess of 1,000. This is a preliminary analysis and has not yet been validated in the field..

[Geological Survey confirms earthquake in Namibia](#)

Officials of the Directorate, Geological Survey of Namibia in the Ministry of Mines and Energy said that the March earthquake was the second biggest in Namibia after the 2009 tremor. According to Bufelo Lushetile of the Geological Survey of Namibia, an earthquake of magnitude 4.5 MI (Richter scale) struck the south of Khorixas area on Saturday at 06:44:46. In the afternoon of the day at 15:20:46, an aftershock of magnitude 3.8 MI was recorded. "The earthquake occurred close to the biggest earthquake recorded in 2009, however this is more to the south of Khorixas about 58 km to be exact. The location using these phase readings is 20.979°S and 15.274°E, a report issued by Lushetile reads.

Meanwhile, residents of Fransfontein and Khorixas described the tremor as a scary incident. "My house was shaking like hell. I feared it would collapse anytime. Fortunately there are no cracks on the house, but some cups on the cupboard fell to the ground and broke," Ernest Bowe of Fransfontein was quoted saying. Other areas where the earthquake was felt include Okombahe, Omatjete, Daures Constituency and Walvisbay.



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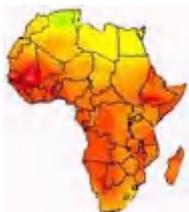


Lushitile, however, maintains that the Geological survey of Namibia is still to determine that exact areas that were affected. "We have to carry out a grant assessment, where we will go out on the field and talk to the people, to tell us what they experienced. Based on that we will be able to establish the areas affected and the intensity," said Lushitile. Last year alone five earthquakes were reported in Namibia. The tremors were reported in areas such as Tsumeb, north of Uis; areas north of Opuwo, west of Otavi and close to Mariental. The largest earthquake ever reported in Namibia took place at nearby Uis north of Khorixas. Its magnitude was measured at 5.6 MI on the Richter scale.

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

Conferences, Events

Date	Location	Event
April 2012		
16-18 April 2012	Hohenheim University, Germany	International conference on Sustainable Land Use and Rural Development in Mountain Areas
24-27 April 2012	Avignon France	AGILE 2012: Bridging the Geographic Information Sciences
May 2012		
7-9 May 2012	Rio de Janeiro, Brazil	4th International Conference on GEographic Object Based Image Analysis (GEOBIA) 2012
14-17 May 2012	Québec City, Canada	Call for Papers: Global Geospatial Conference 2012 , GSDI World Conference, 14th GEOIDE Scientific Conference, Canadian Geomatics Conference and 7th 3D GeoInfo Conference.
21-23 May 2012	Boston, Massachusetts	Global Conference on Oceans, Climate and Security Call for Abstracts: Deadline 15 October 2011.
21-27 May 2012	Vilnius, Lithuania	12th World Congress on Environmental Health: New Technologies, Healthy Human Being and Environment
13-18 May 2012	Dublin, Ireland	IWA World Congress on Water, Climate & Energy 2012
14-16 May 2012	Rio de Janeiro, Brazil	UN Conference on Sustainable Development (INCSD), Rio+20
21-23 May 2012	Boston, USA	Global Conference on Oceans, Climate and Security
23-24 May 2012	Taza, Morocco	International conference of GIS users, Taza GIS-Days 2012
23-25 May 2012	Cotonou, Benin	eLearning Africa
28-30 May 2012		International Conference on Green Technology & Ecosystems for Global Sustainable Development
June 2012		
13-15 June 2012	Columbia University, New York	ICELW 2012 - The Fifth Annual International Conference on E-learning in the Workplace
18-22. June 2012	Albena, Bulgaria	4th International Conference on Cartography and GIS & EU Seminar on EW & CM , Deadline for abstract submission is 10. January 2012.
July 2012		
2-6 July 2012	Galle, Sri Lanka	MMM3: Meeting on mangrove ecology, functioning and management
3-6 July 2012	Sundvolden Hotel, Oslo	3rd International Statistical Ecology Conference (ISEC2012) , Abstract submission deadline: 20 January 2012
3-6 July 2012	Salzburg, Austria	Geomatics Forum, Linking GEovisualisation, Society and Learning
6-8 July 2012	Cairo, Egypt	10th International Internet Education Conference and Exhibition
8-12 July 2012	San Diego, California USA	ESRI User Conference



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16-21 July 2012	Obergurgl, Austria	ESF research conference: Energy Landscapes - Grants to attend
August 2012		
2-10 August 2012	Brisbane, Australia	34th International Geological Congress
5-7 August 2012	Kampala, Uganda	8th Annual International Conference on Computing and ICT Research
5-10 August 2012	Brisbane, Australia	34th Session of the International Geological Congress (IGC 34) Enquiries: info@34igc.org .
22-25 August 2012	Freiburg Germany	Experience-based Geography Learning, IGU-CGE Precongress
26-30 Aug 2012	Köln, Germany	32nd IGU International Congress , University of Cologne, Theme: 'Down to Earth'
29-31 August 2012	University of Basel, Switzerland	Third International Sustainability Conference ISC 2012 , Theme "Strategies for Sustainability: Institutional and Organisational Challenges"
September 2012		
3-5 September 2012	Gaborone, Botswana	2nd IASTED African Conference on Health Informatics
5-7 September 2012	Gaborone, Botswana	International Conference on Water Resources Management
16-18 September 2012	Columbus, Ohio, USA	AutoCarto 2012, an international research symposium on computer-based cartography
30 September–5 October 2012	Columbus, Ohio, USA	EcoSummit 2012, Ecological Sustainability: Restoring the Planet's Ecosystem Services . Abstract submission deadline, <u>20 January 2012</u>
October 2012		
15-19 October 2012	Chengdu, China	International Conference on Mountain Environment and Development
29 October-2 November 2012	El.Jadida, Morocco	AARSE 2012 International Conference , Theme: Earth Observation & Geo-information Sciences for Environment and Development in Africa: Global Vision and Local Action Synergy. Abstract submission - 2 January to <u>30 April 2012</u> .
November 2012		
December 2012		
2013		
8-12 July 2013	San Diego, USA	ESRI International User Conference
2015	Durban, South Africa	14th World Forestry Congress for SA
1-31 August 2016	Cape Town, South Africa	35th International Geological Congress . Registration deadline: <u>30 June 2016</u> .

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