Spatial Data Infrastructure – Africa Newsletter

GSDI
Global Spatial Data Infrastructure

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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 or sdiafrica@rcmrd.org or gojwang@rcmrd.org

Input to this Issue

Thank you to Kate Lance, NASA/SERVIR-Africa (USA), Hussein Farah, RCMRD (Kenya), Karen Levoleger, Kadastre (Netherlands), F. Javier Zarazaga-Soria, University of Zaragoza (Spain) for their contributions to this issue of the newsletter.

SDI News, Links, Papers, Presentations

RIO+20: The "landscape approach"

A new and awkward term is doing the rounds at the UN Conference on Sustainable Development, also known as Rio+20, in Rio de Janeiro, Brazil. It is "landscape science/ agriculture/ approach", which now embraces "eco-agriculture", "forest landscape restoration", "territorial development", "model forests", "food sheds", "participatory watershed management", "community-based natural resource management", "biological corridors", and many other connected concepts.

As higher temperatures and erratic rainfall affect the lives of rural dwellers, this approach helps them develop and use their land and water resources more efficiently to earn a livelihood, produce food, maintain livestock and take care of other needs. But they do it in a manner that causes minimum damage to the environment while helping to restore and maintain biodiversity, according to Sara Scherr, president and CEO of

EcoAgriculture Partners, a co-organizer of the Landscapes for People, Food and Nature Initiative, a US-based non-profit organization.
The initiative hopes to use spatial technology, for instance, to advise rural communities on which portion of the land in their village should be put under agriculture, or left alone to revive, to ensure the ecological balance is maintained. It falls under the broader ambit of sustainable development. The Rural Futures programme of the African Union, launched in 2010, is based on a similar approach, better known as integrated rural development. But unlike the integrated rural development models from the 1970s and '80s, where a lead organization devised and financed a "top-down" plan within a defined project period, landscape initiatives are led by local stakeholders, said Scherr. "There are several such initiatives where communities, pastoralists, farmers, the private sector, people from agriculture, water and other sectors, conservationists, have come together - we have found more than 300," she noted. These efforts are known by different names, but the initiative's collaborators thought it would be useful to band them under a single umbrella, which would help not only to create awareness but also funding, "otherwise these initiatives struggle to raise money sectorally."
Lindiwe Sibanda, head of the Food Agriculture and Natural Resources Policy Analysis Network, a think-tank based in South Africa, said: "It doesn't matter what it is called - we are interested in its motives and results. Any initiative that helps reduce hunger and improve rural lives should be welcomed." The landscape approach is a bit more than integrated development, said Tim Benton, the UK Champion of the Global Food Security Programme, who teaches at the University of Leeds. The use of remote sensing, resource monitoring, and spatial analysis are part of landscape science and provide the tools to communities to assess the impact of their actions on a rural landscape. Benton said the expansion of mobile phone technology could help make such information available to communities at their fingertips.

Mathematical model developed to predict malaria outbreaks in Africa

Ethiopian and Norwegian researchers have developed a mathematical model that can identify conditions that increase the likelihood of a malaria outbreak up to two months ahead of its occurrence. The computer model, Open Malaria Warning (OMaWa), incorporates hydrological, meteorological, mosquito-breeding and land-use data to determine when and where outbreaks are likely to occur. Torleif Markussen Lunde, one of the model's developers and a researcher at Norway's University of Bergen, told SciDev.Net that the model made direct use of the limited real-time information available in typical rural areas. "The model also reproduces observed mosquito species composition in Africa. It is the first time this has been done with a biophysical model. We are now looking at which areas in Africa the model can be applied," he said. Lunde said that past attempts at predicting malaria epidemics have had limited success because "some models [were] oversimplifications of the reality, and might have led to problematically high or low sensitivity to changes in the environment".
Predictions made by the model compared favorably with observations from field trials and health clinics, the researchers said. However the model needs to be tested during a significant malaria outbreak and its outputs compared with case studies and field observations, according to Bernt Lindtjørn, professor of international health at the University of Bergen and a co-author of the paper. "It is [also] specific to African mosquitoes and may require modification before being applied outside Africa," he added. "Our model is not only a tool for predicting malaria, but can also be used to understand the dynamics of malaria transmission," he added, noting that the tool could be used to better understand the effects on a malaria outbreak of interventions such as residual spraying and bednet use. Daniel Argaw, of the World Health Organisation in Ethiopia, said that "the development of a model that can predict malaria outbreaks will have a significant role in combating malaria," adding that no other models have been developed for this purpose. The research was published in Forecasting Malaria in April. Link to full article.

Insuring against dry days in Africa

Soaring temperatures and the severity of this year's drought have taken some by surprise in southeastern and eastern Mauritania. When rains are normal people only dip into their cereal reserves from June/July in the following year, but in mid-2012 people have already been without food for more than three months, and many pastoralists in the region have lost the animals on which they depend for a living. Livestock farming is the second biggest export earner so the loss extends to the national purse. In any given year a thin rainy season in Mauritania is probable,

but this cannot be predicted with certainty says WFP, which is helping the African Union (AU) set up the Africa Risk Capacity (ARC) insurance and early response facility. The objective is that the insurance will pay out when an extreme event occurs - in this case drought - rather than in the case of persistent or localized arid events that occur often or even every year.
By linking insurance payouts to effective response plans, ARC aims to help African governments reduce the negative impact of droughts on the lives and livelihoods of the vulnerable, while decreasing reliance on external aid. "We are still in the design phase, and if all goes well we hope to establish the ARC in mid-2013 or so," said Joanna Syroka, programme director of the project. The ARC is modeled on the Caribbean Climate Risk Insurance Facility (CCRIF), a non- profit pooled insurance scheme created in 2007 for the 16 members of the Caribbean Community (CARICOM), which pay comparatively low premiums and get quick payouts when a member is hit by a hurricane or an earthquake. However, the ARC will be modified to reflect the continent's weather and food security context, bringing together the concepts of insurance and contingency planning to help African countries hit by severe drought translate an ARC payout into effective and timely responses to assist those affected.
WFP has developed software called Africa Risk View (ARV) to define the payout rules. The package takes the 10-day rainfall estimates from the US government's National Atmospheric Administration (NOAA) and uses them to plot a drought graph. "Measuring total rainfall at the end of a season has proven to be too crude an indicator for estimating the potential impact of rainfall deficits on production and livelihoods," said Syroka. ARV then uses the Water Requirement Satisfaction Index (WRSI), which monitors water deficits throughout the growing season, and captures the impact of the timing, amount and distribution of rainfall on annual rain-fed staple crops and pasture. "Although a simple index, it is used by many national meteorological offices across Africa to monitor rainfall seasons and their impact on agriculture, and is the basis of many drought early warning tools for the continent," she noted. The resulting drought index is applied to vulnerable populations - identified in household surveys - that depend on rainfall. The "ARV then uses this information to estimate how many people may be directly affected, or have been affected, by drought or deficit rainfall in a given season. Using cost-per-affected-person numbers as a final step, ARV estimates how much response costs to the observed drought event may be," Syroka said. The software tool can be customized by each country to define drought events, as modeled by ARV, for which they would want a payout from ARC, and the size of the payout, which is made at the end of the season. Information from the software will calculate the size of the premium to be paid. Read more..

Climate Change in West Africa: Farmers and forecasts

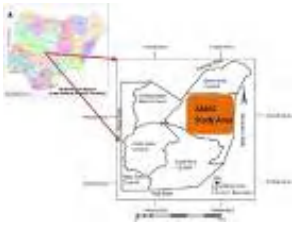
Unpredictable rainfall in parts of Côte d'Ivoire cost some farmers over half of their harvest in 2011, but, armed with more knowledge about how to get weather reports and interpret them, they might still have been able to boost their output, say agricultural specialists. Between 1971 and 2000, rainfall in Côte d'Ivoire dropped by 15 percent, according to Augustin Kouakou Nzue, head of agro-climatic studies in the National Weather Service (Direction Météorologie Nationale), although it has increased slightly since 2000. In southern Côte d'Ivoire, farmers took clearly defined seasons for granted until the 1980s: rains from April to mid-July; a short dry season from mid-July to September; a short rainy season until November; and finally a long dry season from December to March. Now, the rains come later and finish earlier, with longer dry seasons and patchy distribution, says Nzue. Most growers rely on rain-fed production, so the long-term impact of this shift could devastate Ivoirian farmers, who make up 60 percent of the workforce. Cocoa, the country's main export crop, could also be affected - a September 2011 study by the International Centre for Tropical Agriculture, based in Cali, Colombia, predicts that rising temperatures may make it too hot to grow cocoa by 2050.
Poor and erratic rainfall in 2011 and the subsequent poor harvests across the southern Saharan band have thrown 13 million people into a food security crisis in the Sahelian zones of Burkina Faso, Mauritania, Nigeria, Niger, Chad, Mali and Senegal. Donors and investors are channeling climate adaptation funds into improved weather forecasting and more sophisticated climate science, but few groups are focusing on how climate information can better be used by farmers and communities in disaster-prone areas. A few groups are attempting to bridge the information gap, including various national meteorological agencies, the World Meteorological Organization, the HFP, and some humanitarian and development NGOs such as Christian Aid. HFP has worked on pilot studies in the Mbeere district of eastern Kenya and flood-prone Kaffrine in central Senegal to bring together communities, humanitarian partners (Christian Aid Kenya and the

Senegalese Red Cross) and National Met offices to determine how to improve the exchange and use of weather information. In Senegal, weather forecasts are broadcast on national radio, in newspapers, on television and via the internet, but these avenues are not readily accessible by local communities, said Visman. The Kenya Meteorological Department (KMD) makes available daily, weekly, monthly and seasonal forecasts, but most people are unable to access the channels it uses to distribute this information and find the format difficult to understand, so they resort to using inaccurate information in uncertified channels instead. The Met Offices in both countries have signed memorandums of understanding with the humanitarian partner involved to ensure better collaboration. As donors start to see the pay-off from more detailed weather information in the right hands, it may generate more interest. “If climate services get more accurate,” “then clearly the scope to use climate prediction tools will also improve.”

Nigeria: Geographical mapping key to disaster management

The Vice President, Arc. Muhammad Namadi Sambo has said the federal government would do everything possible to map its geographical landscape to address disaster management in the country. For this purpose, the vice president said, the office of the Surveyor-General of the Federation has been positioned for the task. Arc. Sambo, who was represented by the Surveyor-General of the Federation, Surv. Prof. Peter Nwilo, as guest of honour at the ongoing 47th Annual General Meeting of the Institution of Surveyors in Ilorin, Tuesday, with the theme, Surveying Climate Change and Disaster Management, called on state governments to also take up the challenge. "This essentially is what maps and its attribute products enable us to do. The government of Nigeria will do everything possible to ensure that our geographical space is properly and comprehensively mapped". The vice president said the theme of the meeting was apt and timely, added that it strikes the core of the challenge facing the world today. He expressed the hope that the idea from the meeting would help to tackle global warming and environmental disasters in the world.
Also speaking, the President of the Institute, Yakubu Maikano, said Nigeria needs a National Mapping Policy that would sustain the production of maps in the country. "The Federal Government must produce accurate maps throughout the length and breadth of the country". "When government came up with the Land Reform Agenda, surveyors advised government to embark on the mapping of the entire country for the successful delivery of the land reform dividend, especially to Nigerians in the rural areas", he said. Read more..

Nigeria: Recreating Nasarawa state's land use map



The heavily iron drawers at the Nasarawa State Ministry of Lands, Survey and Town Planning are used for the safe keeping of documents containing vital records of the state land use. One particular document in those office drawers is the Intelligence Sheet - a broadsheet containing the Nasarawa State land use created from records obtained before the British colonial masters that gave independence to Nigeria. The colonial administration left in 1953, and captured the topography of the part of the country which later fragmented into states, including Nasarawa. The fifth generation state, at creation, copied its portion of the 1953 data, and created its Intelligence Sheet.
The Priority Sheet, from where an intelligence sheet is drawn, among various other sensitive materials about the land use in the state, are all in state of complete mutilation, rendering them useless. Thousands of individual land files are also in this state, in what made the management and administration of land in the state impossible in previous dispensations. Daily Trust visited the ministry and witnessed the ongoing cleanup process. The reforms had run into hitches because of obsolete land management process at the ministry. This informed the administration's award of a contract for the project called Nasarawa State Geographic Information System (NAGIS), with a component in digital area mapping of the state. This component of the N2.7 billion, 24-month-period project entails the aerial capturing of images of Karu, Keffi and Keffi, and putting them on computer. Siraj Consultancy Engineering, the consortium handling the project is also to put all land data in the ministry on computer.
The contract which was signed according to World Bank standard has the overall project of putting Nasarawa land management and administration into international best practice which will phase out the obsolete data storage system and management. The commissioner, in company of the state Surveyor General, Emmanuel Ibi, and other top officials of the ministry, took the team to all data stored at the ministry, and extracted commitment to fast tract the computerization process. "We want to upgrade land administration in the state to 21st Century, by fast tracking the record keeping, and then the computerization of land documents themselves. By the time the images from the NAGIS project start arriving, our ministry will

be complete; it will be a one-stop shop where a tap of a computer button will take you to the complete data base on land use in Nasarawa.

Modernization of National Geodetic Network to support land reforms programme in Cameroon

When Cameroon's Ministry of State Property Survey and Land Tenure (MINDCAF) recently embarked on a vast programme of land reform that included the modernization of its national cadastre, one of the very first tasks was to establish a unique national geodetic network. Completing this important task in a country with such varied terrain and climate required careful planning, experienced surveyors and state-of-the-art technology. The resulting geodetic network was completed within a year and includes 25 reference points and 500 base points. A law will soon be passed in Cameroon requiring all future surveying and mapping activities to be based on this unique system.

A national geodetic network consists of a series of geographic points covering an entire country and identified by a permanent marker whose x, y, and z coordinates are measured to within a few centimetres using GPS positioning. These points are identified on the ground by some type of permanent marker or monument. Such a network provides an objective, scientific basis for a number of applications, including measuring and delineating property parcels and building cadastral maps. This land property information is critical to a nation's legal and fiscal system, since property taxes are an important source of revenue for most nations. The full feature is online at http://member.gim-international.com/.

Mozambique: Protocol on Global Navigation Satellite Systems (GNSS)

The mining company Rio Tinto Coal Mozambique signed a cooperation protocol with the Mozambican Ministry of Agriculture on establishing and maintaining permanent GNSS (Global Navigation Satellite Systems) stations in Mozambique. These stations make it possible to improve GPS (Global Positioning System) signals, thus allowing greater efficiency and precision in collecting geo-referenced information. According to a Rio Tinto press release, the purpose of the protocol is to define forms of technical and scientific cooperation in setting up, using and maintaining Permanent Satellite Stations in Mozambique. The Protocol will be managed by the National Mapping and Remote Sensing Centre (CENACARTA).

Currently the GNSS network in Mozambique has only four permanent stations, in the cities of Maputo, Inhambane, Nampula and Pemba. "To ensure coverage of the entire national territory, other stations must be built in the interior of the country", said the release. Rio Tinto had already set up a station of its own in Tete province, where it is operating a gigantic open cast coal mine. This week Rio Tinto handed management of the station over to CENACARTA. It claims that the Tete station increases the capacity of the network by 50 per cent. Further stations are planned for Beira, Quelimane and Lichinga. Construction should be concluded by the end of the year, and between them the stations should provide total coverage of Mozambique.

The Permanent Satellite Stations are owned by the Mozambican state and the information they provide is for public access. "This will be fundamental for improving the collection of geographical data for developing structured plans for urban planning, 4-D monitoring systems, and control of dredging, among others", added the release. Through the protocol, Rio Tinto and the Ministry of Agriculture pledge to promote joint studies to improve the skills of local technical staff, and consolidate their capacity to intervene in development projects. Mozambican universities will also be supported in promoting such disciplines as surveying, geomatics and geography in general.

Madagascar launches online research network

Madagascar has launched an online research network, the Research and Education Network for Academic Learning Activities (iRENALA), which aims to boost science, technology and education in the country, as well as internationalize its science. The network, launched earlier last month (8 June), will promote discussions between worldwide researchers, students and policymakers, and facilitate access to digitized documents available in virtual libraries and also encourage remote learning in the higher education sector according to Horace Gatien, President of Toamasina University.

According to a statement issued at a government cabinet meeting on 30 May, the project aims to forge new links between Madagascar's six state universities, three higher institutes of technology, the Ministry of Higher Education and Scientific Research, and all national research centres. iRENALA will also connect

Madagascar to a cluster of worldwide networks through GÉANT, an existing pan-European research and education network, which connects 40 million users in over 8,000 institutions worldwide.
"Madagascar is one of five African countries ... [privileged] with such an opportunity", said Andriamanjato, the Malagasy minister of post, telecommunications and new technologies. Andriamanjato added that the network is part of wider movement of digitizing African universities, an idea launched by African researchers during a France-Africa summit held in Ouagadougou, Burkina Faso, in December 1996. The project stems from an agreement signed in December 2011 between the government and Telma, an Internet and mobile phone service provider, which functions via the high speed fibre optic cable running through the Eastern African Submarine Cable System.
"Learning and research activities are destined to improve, despite the fact that Malagasy universities are poorly equipped with infrastructure and resources," the Malagasy prime minister, Jean Omer Beriziky, said at the launch. "We will produce many more experts capable of taking the country forward and ending poverty within 20 years." Etienne Hilaire Razafindehibe, minister of higher education and scientific research, said the iRENALA association was created to ensure effective use of the network, but he added that users will have to pay to access the network.

Expert demands the implementation of land laws in Kenya

A stakeholder in the land industry is calling for the speedy operationalisation of the National Land Commission Act 2012, the Land Act 2012 and the Land Registration Act 2012. According to the Land Development and Governance Institute, the National Land Commission Act will ensure that all unregistered land owners in the country have legal titles within the next ten years.
Chairman Ibrahim Mwathane describes this as a big gain as it will address the situation of land ownership through inheritance where many acquire land legally but do not have titles. "If you live in this country and understand what that essentially means to the lives of ordinary Kenyans who have never had access to titles yet have land which is their own, it would be a major gain for the country," he said. He further pointed out that the Act will also delve into the issue of historical injustices and ways of resolving them."If you read section 15 of the National Land Commission Act, it obliges the commission to develop some legal framework or law to resolve historical injustices in this country within two years of its operationalisation so that Parliament can now take over," he said. He explained that the land laws have guidelines that can be used to resolve conflict between communities.
"If you think again about some of the reasons that have got communities in this country fighting one against the other, it has got to do with either real or perceived historical land injustices so if we are able to now legally and in a very structural manner address those injustices, then we are on our way to stabilizing both our social and political platforms in this country," he said. Mwathane further stated that it is essential for the government to formulate an organized national register of properties in the country if it is to effectively collect tax from landlords and other land owners. He pointed out that currently, it is not possible to know which property owner is paying or not paying taxes. He explained that maintaining such an accurate record will further help in revenue collection which can be used in other development projects. He however observed that "to be able to do that, we have to spend resources in updating our map coverage, so that all properties that are not covered on maps can be covered." he said. "We also need to spend resources on people who can move out there and against the parcels that are covered on our maps get the buildings that are there." President Mwai Kibaki assented to the three land laws two month ago.

Early warning volunteers try to prevent flood misery in Kenya

Bunyala is in the Budalangi region, which has an estimated population of 64,000, many of whom live in the flood plains of the River Nzoia. The Nzoia perennially bursts its banks causing population displacement and damaging crops and infrastructure. In 2008, for example, some 10,000 people were displaced with at least 2,500 others marooned, while in 2007 an estimated 28,000 people were affected, according to the Ministry of Special Programmes. At present, ongoing rains are increasing farmers' anxiety in Budalangi. "We need rain to plant our crops, but it also bring floods and sweep our crops away," Jack Wasilla, a farmer, told IRIN. "We don't know what to do but we pray and hope this time there will be no floods."

Experts are calling for better flood management. “There should be sustainable ways of controlling the floods like building a dam and educating people on the dangers of cultivating and destroying trees and vegetation along the river banks. Unless this is done, rains will continue to cause misery to people in Budalangi and other flood-prone areas,” Sylvia Miriwa, an environmental management lecturer at Maseno University, in western Kenya. But past plans to dam the Nzoia stalled after local members of parliament disagreed on the viability of the project and on where to relocate some 40,000 people. Residents have in the past been reluctant to relocate, saying the flood plains are their ancestral lands blessed by fertile soils brought downstream by floods. Currently the emphasis is on providing early warning information. A flood alert system is in place to help monitor water levels in the Nzoia. Dykes (some of which were constructed 40 years ago) are also regularly repaired, with the government providing local residents with gunny bags.
In 2011, flash-floods displaced thousands in Budalangi. “The other time [in 2011], we were caught unawares, but this time, the people are fully prepared. They had an early warning system in place,” said Khalif, adding that the government has also formed a disaster management committee made up of government and aid agency officials. Amid ongoing heavy March to May long rains, some residents, fearing the worst, had abandoned their homes and stayed in nearby market centres. Flash-floods and storms in other parts of Kenya have led to the deaths of several people, affected dozens of livestock and destroyed infrastructure,

AFREF Newsletter No.13, May 2012 is available

The AFRICAN GEODETIC REFERENCE FRAME (AFREF)-newsletter is available. The issues highlighted include: Modernization of Geodetic Network in Cameroon, Mozambique: Protocol on Global Navigation Satellite Systems, Update on CORS Projects in Botswana and Rwanda and 7th Annual AFREF & GNSS Data Processing Course. For further information, contact: Dr Katetegeilwe Rwiza AFREF Secretariat, Regional Centre for Mapping of Resources for Development (RCMRD). P.O. Box 632-00618 Ruaraka, Nairobi, Kenya, and Tel: +254-20-8560227/8561775; Fax: 254-20-8561673 E-mail: rwiza@rcmrd.org or afref@rcmrd.org.

7th Annual AFREF & GNSS Data Processing Course, 3-14 September 2012, Nairobi, Kenya
The RCMRD in conjunction with the Center of Geophysics of the University of Lisbon (CGUL), Portugal and HARTRAO South Africa have been conducting a course on African Reference Frame (AFREF) and Global Navigation Satellite System (GNSS) Data Processing at RCMRD offices in Nairobi Kenya annually since 2006. This year the training is scheduled to take place from 3rd September to 14th September 2012 in Nairobi, Kenya. The Objectives of the course is to provide technical skills in the installation and management of GNSS base stations, data handling, dissemination and processing towards AFREF realization. Registration is currently going on. For more information, contact Mr. Muya Kamamia at muyack@rcmrd.org.

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 Douakkali 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 Douakkali 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. 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.

Practical SDI implementation materials from within and outside of Africa

Africa: Rio+20 - Nasa satellite data support sustainable development

Changes in ground cover in Africa, forest fires in Guatemala, snow pack in the Himalayas - their potential impact on populations, water supplies and farmlands is better understood when seen from a satellite. U.S. agencies are collecting this data and giving it to decision makers in other countries so they'll be better informed on how to protect their lands and people.
Officials with the U.S. Agency for International Development (USAID) and NASA explained how the SERVIR Regional Visualization and Monitoring System is working to support better decisions for sustainable economic development and adaptation to climate change. They led a discussion June 20 on the sidelines of the Rio+20 U.N. Conference on Sustainable Development being held in Brazil through June 23.
"SERVIR has many applications," said USAID's Kit Batten, director of the climate change program. "It is increasingly focusing on providing historic, real-time and future weather, climate and land-cover information that can support decision-making related to adaptation, forest management and reducing greenhouse gas emissions." SERVIR has become operative in three world regions since 2005: Central America, the Hindu Kush-Himalayas, and East Africa. Batten said the two U.S. agencies aim to achieve global environmental monitoring through SERVIR in the future. The RCMRD hosts the East Africa component at its headquarters.
"The studying, the monitoring of our home planet is a key goal of NASA," said Daniel Irwin, the SERVIR expert from NASA. A network of satellites orbits Earth to "take the pulse of the planet," with support from governments and scientific and academic institutions around the world. Governments can use the data effectively as they see how climate and environment are changing their lands, and that is "where good science can really be used for decision-making," Irwin said.
First recognition of the power of satellite images and their capability to influence decision-making developed about 1986, Irwin said, with a sky-high view of the Mexican and Guatemalan border. The image, which was published internationally, depicted the sharp contrast between land-use decisions made in the two countries, with lush forests on the Guatemalan side of the border and scrubland on the Mexican side where forests had been cut down. Irwin said the image motivated Guatemalan lawmakers to declare a forest preserve in that area and leaders throughout the region gained an early awareness of what they could learn from satellite images. That episode led in 2005 to creation of the SERVIR program for Central America, where satellite data are analyzed by geographic and other specialists from across the region. Their analysis provides decision makers with background data applicable to a variety of environmental and land-use considerations, but the most common use is in assessing the impacts of extreme events - floods or hurricanes, for example - preparing for those events and attempting to mitigate damage with foreknowledge.
Several African governments learned of the Mesoamerican success with SERVIR and sought out a similar partnership with NASA and USAID. That partnership now involves 18 member countries in southern and eastern Africa. A third partnership followed soon thereafter with governments and institutions in the Hindu Kush-Himalayan region. The SERVIR partnerships help broaden skills and expertise among technical and scientific personnel in each region and introduce students to the use of satellite data. NASA and USAID hold workshops for local leaders so they can learn to interpret the data and use it to better inform environmental policy decisions. In Guatemala, for example, the satellite data provided vivid pictures of forest fires as they developed during the annual dry season. That data helped leaders on the ground make better decisions about where to allocate firefighting resources. Then Guatemalan officials saw potential to get more high-value information from the satellite data, and asked NASA to create a model that could make some predictions about where fires might be likely to break out in the weeks ahead. NASA rose to the occasion, Irwin said, producing "a fire-forecast map that is produced weekly during fire season so they can actually allocate the resources accordingly, based on the fire-forecast system." Irwin said the SERVIR program has also tracked the progress of floods in low-lying South Asia, and is on the way to developing other data tools that will help nations keep inventory on their greenhouse gases.

Mozambique: Border demarcation to resume in July

Mozambique and Malawi are expected to resume the delimiting of their joint border in July, after a six month suspension due to conflicting interpretations. A consensus was reached on at a meeting in the city of Tete, in

western Mozambique, during which both countries agreed to resume the demarcation exercise which started in 2009. The Mozambican delegation was headed by Jose Elias Mucombo, the Director of Borders at the National Institute for Sea and Border Affairs.
According to an issue of the daily newspaper "Noticias", Mucombo said that besides reaching consensus on the interpretation of the agreement, both countries also agreed on procedures for employing temporary workers to move equipment along the border, particularly in remote and inaccessible regions. Mucombo explained that there is a 76 kilometre stretch of the border yet to be demarcated, of which 25 kilometres is in dense forest. "It is a barely accessible region. We even considered using helicopters to move equipment, but after calculating the cost we realized that neither the Mozambican nor Malawian governments are in a position to cover such an expense. Therefore, we agreed to hire temporary workers", explained Mucombo.
There is also a stretch of 51 kilometres that remains to be completed in the district of Milange, in the central province of Zambezia. "Fortunately, we have solved two of the sticking points, particularly the most delicate point which was the interpretation of the agreement. By 20 July we want to have teams deployed on ground to resume our work", said Mucombo. The demarcation of the border is to replace the original boundary markers stretching along the 1,400 kilometre border, which is composed of 900 kilometres of land, 322 kilometres of lakes and 190 kilometres of rivers. As for other neighbouring countries, Mucombo said that a technical meeting was held with Tanzania, and an agreement was reached that mapping issues should be carried out before resuming the process of demarcation. Mucombo hopes to shortly complete the process of border demarcation with Zambia.

Namibia and Botswana Celebrate West Africa Cable System (WACS)

The inauguration of the Swakopmund landing station of the West Africa Cable System (WACS) has brought Namibia and Botswana closer to each other, as well as to the rest of the world, when it comes to telecommunication. An inaugural event was held at Telecom Namibia's technical building in Swakopmund, which is one of the 13 bases of the 14 000-kilometre optic-fibre undersea cable between South Africa and Portugal.
Botswana and Namibia, who will both benefit from the Swakopmund landing station, contributed about N$320 million each towards the system. On Botswana's side, the funding came from the government and the Botswana Telecommunication Corporation BTC, while the Namibian Government, Telecom Namibia and Mobile Telecommunications Limited (MTC) funded the other half. The cable will allow Namibia, Botswana and other southern African countries to enjoy super-fast data transmission of over five terabytes per second. Customers of Telecom Namibia, MTC and BTC can expect an increase in data transmission speed, improved voice quality and video conferencing that will enable 'real-time' data communication.
This was demonstrated when President Hifikepunye Pohamba communicated with the Namibian High Commissioner to the United Kingdom, George Liswaniso, who is based in London. "This connectivity must be brought to all 13 regions in our country. It will not only develop the economy, but will present opportunities to more Namibians to participate in this economy," said Pohamba. He said WACS has reinforced the government's efforts to make available affordable connectivity to all sectors, including rural communities. Botswana President Ian Khama, said while the new telecommunication technology was a benefit to social and economic development, it was also necessary for users to know and understand how it works so as to be able to reap the benefits. He said that in order for all people to enjoy this technology, it was important to keep it affordable. The cable landed in Swakopmund (at the Mole beach) in September last year. The other landing stations are in South Africa, Angola, the Democratic Republic of Congo, Congo-Brazzaville, Cameroon, Nigeria, Togo, Ghana, Cote d'Ivoire, Cape Verde, the Canary Islands and Portugal.

GIS Tools, Software, Data

Release of CatMDEdit (4.6.6 version)

We are very pleased to communicate the release of CatMDEdit (4.6.6 version) metadata editor under Open Source (GNU Lesser General Public) license. This application is an initiative of the National Geographic Institute of Spain (IGN), which is the result of the scientific and technical collaboration between IGN and the Advanced Information Systems Group (IAAA) of the University of Zaragoza with the technical support of GeoSpatiumLab (GSL).

CatMDEdit is a metadata edition tool that facilitates the documentation of resources, with special focus on the description of geographic information resources. The main new feature that this new version includes is a conversion gateway between MARC21 and ISO19115 standards. This conversion gateway is the result of the research carried out in the GTI PC-IDEE (Interdisciplinary Working Group on Cartographic Heritage in the SDI) in the context of the Spanish SDI Working Group (http://www.idee.es/en/web/guest/subgrupos-de-trabajo). Technical specifications - http://metadatos.ign.es/metadatos/Patrimonio_cartografico. In addition to that, new adaptations have been added to this version in order to guarantee the INSPIRE Implementation Rules compliance. CatMDEdit downloaded: http://joinup.ec.europa.eu/software/catmdedit/description.

The RCMRD 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-Resoultion 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.

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.

7th Annual AFREF & GNSS Data Processing Course, 3-14 September 2012, Nairobi, Kenya
The RCMRD in conjunction with the Center of Geophysics of the University of Lisbon (CGUL), Portugal and HARTRAO South Africa have been conducting a course on African Reference Frame (AFREF) and Global Navigation Satellite System (GNSS) Data Processing at RCMRD offices in Nairobi Kenya annually since 2006. This year the training is scheduled to take place from 3rd September to 14th September 2012 in Nairobi, Kenya. The Objectives of the course is to provide technical skills in the installation and management of GNSS base stations, data handling, dissemination and processing towards AFREF realization. Registration is currently going on. For more information, contact Mr. Muya Kamamia at muyack@rcmrd.org.

GIS Class at Kruger National Park, October 28 - November 3, 2012
Juniper GIS is offering a five and a-half day conservation oriented GIS class at the South Africa Wildlife College, near Kruger National Park, October 28 - November 3, 2012. The cost is USD 575, including lodging and all meals if you sign up before August 1.
The class, working with ArcGIS for Environmental Analysis, (http://www.junipergis.com/training/destinations/arcgis-for-environmental-analysis/) is appropriate for new GIS users and for experienced GIS users wanting more in-depth instruction. Juniper GIS courses are based on real projects, with an emphasis on the skills needed to successfully complete your projects.
Students will learn key GIS skills including compiling and organizing data, understanding projections, using symbology and labels, working with tables, editing data, performing analysis, and creating finished maps while working through realistic, conservation oriented, GIS projects. Students will also be introduced to some advanced skills – working with Spatial Analyst, using ModelBuilder, and using Google Earth. Students will earn 40 hours of education credit towards the GIS Professional (GISP) certificate. For more information on the course, contact John Schaeffer at John@junipergis.com or Mervyn Lötter at mervyn.lotter@gmail.com.

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, visit: 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 guidlines for filling and submitting the application: 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 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 advice 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: July-August 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 experiences 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://esrieatraining.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)

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) 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 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

TWAS Fellowships for Research and Advanced Training for Developing Country

The academy of science for developing country (TWAS) offers fellowships to young scientists in developing countries to enable them to spend between three and twelve months at a research institution in a developing country other than their own. The purpose of these fellowships is to enhance the research capacity of promising scientists, especially those at the beginning of their research career, helping them to foster linkages for further collaboration. The fellowships are for research and advanced training. They are offered to

young scientists holding at least an MSc or equivalent degree. Eligible applicants for the fellowships are young scientists working in any area of natural sciences who are citizens of a developing country and are employed by a research institution in a developing country. There is no age limit however preference is given to young scientists at the beginning of their research career and those working in Least Developed Countries. The deadline for applications: 1 October 2012.

2012 Call for applications of the OWSD Fellowship

Applications are being accepted be the Organization for Women in Science for the Developing World (OWSD) for Postgraduate Training Fellowships for Women Scientists from Sub-Saharan Africa and Least Developed Countries (LDCs) at Centres of Excellence in the South.
The OWSD postgraduate fellowship is awarded to women scientists to pursue a PhD at a centre of excellence in the South in a field of the natural sciences. Applications are accepted from female scientists in all branches of the natural sciences.
See link for more information on the application procedure, eligibility criteria and to download the application form. Deadline for applications submission: 31 July 2012.

Call for Applications- TED Fellowships

TED is looking for an eclectic, heterogeneous group of young thinkers and doers from the fields of technology, entertainment, design, sciences, engineering, humanities, the arts, economics, business, journalism, entrepreneurship and NGOs. TED can take risks on unconventional innovators, value achievement over credentials - making and doing over merely talking.
Applicants of ages 21-40 from five target regions: Africa, Asia/Pacific, the Caribbean, Latin America, the Middle East. However, anyone over the age 18 from around the world is welcome to apply. Deadline for application is 22 October 2012.

Academy of Sciences for the Developing World (TWAS) - Fellowships 2013

Each year, TWAS coordinates with participating research institutions in the developing world to host visiting research fellows. The fields of research include biotechnology, natural sciences, chemical and biological sciences, and others. Partner (host) organizations are located in Brazil, China, India, Iran, Kenya, Malaysia, Mexico, Pakistan, and Thailand. For fellowships in 2013, application deadlines range from 28 June 2012 to 15 September 2012 - depending on the program.

European Commission (EC) - Food Security in Zimbabwe

The EC Delegation in Zimbabwe invites proposals to support sustainable agricultural production (crops and livestock) and alternative production systems for small-scale farmers in Zimbabwe, and to strengthen Zimbabwe's extension services in agriculture and natural resources. Grants are up to €4 million for the first objective (agricultural production), and up to €3.2 million for the second (extension services). The program is open to nonprofit organizations in the EU member states and ACP countries (including Zimbabwe), and to international organizations. The deadline for concept notes is 16 July 2012.

International Food Policy Research Institute (IFPRI) - African Growth and Development Policy Modeling Consortium

The African Growth and Development Policy (AGRODEP) Modeling Consortium announces its first annual call for competitive grant proposals to support research on emerging issues in Africa that have previously received little or no attention. The topic of this year's grants is "Foreign Direct Investment in Land, Land Markets and Land Institutions, and Development of the Agricultural Sector in Africa." Proposals may address any or all aspects of this topic. Researchers and research organizations in and outside of Africa are invited to apply, including AGRODEP members. Proposals should range from US$10 thousand to US$15 thousand. The closing date for applications is 16 July 2012.

Organization for Women in Science for Developing World (OWSD) - Postgraduate Fellowships 2012

The OWSD invites applications from female scientists in Sub-Saharan Africa and Least Developed Countries (LDCs) to apply for doctoral fellowships in the natural sciences. The fellowships are for the pursuit of a doctoral degree at a host institution in a developing country, but not in the applicant's home country. Applicants should be qualified young women science graduates (generally below 40 years of age), who have a MSc. degree or outstanding B.Sc. in the natural sciences. The deadline to apply is 31 July 2012.

United Nations University - Grants for Capacity Building in Agricultural Research 2012

The United Nations University Institute for Sustainability and Peace (UNU-ISP) with funding from the government of Japan makes grants for research capacity building in agriculture. The program is "On the Job Research Capacity Building for Sustainable Agriculture in Developing Countries" (OJCB). Grants are proposed and implemented by leading scientists (host scientists) who are engaged in research on sustainable agriculture (including forestry and fisheries) in developing countries, under the responsibility of a host institution. The host scientists train and supervise one or more younger scientists for one or several months. The grant amount varies with the number of trainees. The application deadline is 20 July 2012.

Employment Opportunities

Vice President (VP), Africa programs position, Jane Goodall Institute, Tanzania

The VP, Africa Programs will have overall strategic and operational responsibility for all program areas. The position will be an integral part of JGI's senior management team that drives the overall strategy for the organization and represents the Institute on a national and global basis.

With operations in four sub-Saharan African countries and a program budget of $5 million and a staff of 150+, the VP, Africa Programs will initially develop deep knowledge of each project, program operations, and business plan, and will focus on the following three areas: program leadership and management, external relationships, and knowledge management.

This position requires exceptional leadership, vision, integrity, and excellence in execution. S/he will also play the leading role in building and motivating project teams as well as engaging the JGI-US Arlington, Virginia, staff to ensure financial and operational support. The ideal candidate will have technical experience in species conservation, community-based conservation and/or projects linking and balancing conservation and sustainable development in Africa.

The VP, Africa Programs, will work for 4-6 months with the team in Arlington, Virginia, prior to taking up the position in Dar es Salaam.

The VP, Africa Programs will be thoroughly committed to the Jane Goodall Institute's strategy and mission. All candidates should have demonstrated leadership, coaching, and relationship management experience and strong demonstrated success in managing funder relationships. Other qualifications include:

- Advanced degree, with at least 10 years of management experience.
- At least 10 years of implementing conservation programs on the ground in Africa, including financial management/oversight.
- Working fluency in French, knowledge of Swahili a plus.
- Familiarity with conservation tools methodologies and measuring conservation success.
- Familiarity with developing technologies used in conservation and sustainable development, including GIS, mobile services.
- Demonstrated experience and success in working across various sectors and operating models.
- Unwavering commitment to quality programs and excellence in organizational and project management with the ability to achieve strategic objectives.
- Strong budgeting acumen and, in particular, skills in managing a budget within organizational constraints to ensure financial sustainability.
- Strong demonstrated fundraising experience with the ability to engage a wide range of stakeholders including advisory groups, coalitions, forums, trade associations, foundations, corporate sponsors, and practitioner groups.
- An individual who is able to handle a variety of constituencies, manage multiple tasks simultaneously and thrive in a complex environment with multiple priorities

For immediate consideration, forward your resume and salary requirement to jobs@janegoodall.org.

Program Managers for Central Africa, DRC and Cameroon

The WWF seeks Program Managers with expertise in broad-scale/ landscape conservation management to direct field programs and provide overall coordination and leadership. The Program Manager will oversee the implementation of WWF's program, work closely with senior scientific and conservation staff in the program, and supervise project staff and partners to advance landscape objectives. Duration: Two (2) years with possibility of extension. Required Qualifications:

- A minimum of an M. Sc. in natural resource management or a related field, or the equivalent in working experience.
- Over 10 years working experience in conservation or development organizations, preferably in a similar biome, however, applicants with project management experience in Africa or elsewhere are encouraged to apply.
- Strong working knowledge of forest and wildlife ecology, and natural resource management principles.
- Depth and breadth of knowledge of community-based natural resource management and rural livelihood issues.
- Strong administrative and financial management skills and excellent organizational skills.
- Fluency in French and English ;

The position are based in Mbandaka (Democratic Republic of Congo), Salonga landscape (Democratic Republic of Congo) and Campo (Cameroon) with frequent travel. Interested candidates should send a cover letter and a detailed CV to the human resource manager at email address: recrutement_wwfrdc@wwfcarpo.org by 15 July 2012.

Conservation Manager, Yaoundé, Cameroon

In order to ensure the development and implementation of the WWF Cameroon Conservation Strategy in line with the Green Heart of Africa Global Initiative and other Global Programme Framework priorities to the highest standards, the WWF seeks a Conservation Manager for its Cameroon Country Programme Office. Required qualifications:

- Advanced university degree in an appropriate field (conservation / environment / natural resource management wildlife / forest / terrestrial ecology). Additional academic training or a degree in a management field would be a strong asset;
- Demonstrate a strong working knowledge of forest and wildlife ecology and Management principles and/or poverty alleviation and development issues
- Familiarity with WWF and funding agencies, especially the World Bank, Government and Aid Agencies
- At least 8 years professional experience in a project management role, 3 years of which should be in the Congo Basin with demonstrated success in managing multi-disciplinary teams,
- A working experience in Cameroon will be an advantage

Interested candidates should send a cover letter and a detailed CV to the address recruitccpo@wwfcarpo.org by 16 July 2012.

Other

Top scientists develop fynbos fire management project

Top environmental scientists are applying their minds to develop an integrated fire management programme for the world-famous fynbos biome that will have significant environmental, social and economic benefits. Fynbos needs fire every 10 to 15 years, but burning too often can damage the biome. A group of about 60 people, including scientists, landowners, conservation agencies, disaster management officials and United Nations representatives gathered at an inaugural workshop in Kirstenbosch to develop the Fynbos Fire Project which will look at how best to implement fire management activities that will assist communities adapt to changing wildfire conditions during the current period of climate change.The project, made possible through a US$3.5 million grant (approx R30 million) from the Global Environment Facility (GEF) Special Climate Change Fund to the Department of Environmental Affairs, comes at a time when there has been an increase in the duration and intensity of unwanted wildfires.

A number of major or catastrophic wildfires have resulted in loss of life, livelihoods and natural resources and come at an enormous cost to the South African economy.The Fynbos Fire Project will encourage landowners, wildfire fighting specialists, scientists, the conservation community and the insurance industry to work together and implement and integrate fire management activities. This involves aspects such as controlled burning within the fynbos biome – as fynbos species require occasional burning for seeding and growth renewal – fire prevention, the removal of alien species and proper protection and management of water bodies and water courses. It's looked at as a pilot project that will inform international science, with its lessons possibly used across the globe.

Dr Christo Marais, manager of DEAF's natural resource management programmes, said the project would assist in protecting ecosystem services that maintained a healthy, functioning natural environment that contributed to life and livelihoods. The Fynbos Fire Project would also empower communities affected by fire, by "helping them understand prevention and fire management methods". The management of fire was essential, he said, as it impacted about 60% of South Africa's surface area, and "probably about 90% of the population".

CDM African Radio Contest 2012

Following the success of last year's inaugural contest, the UNFCCC secretariat wishes to announce the launch of CDM African Radio Contest 2012. Under the theme "Changing Lives", the contest aims to spread the word about the benefits of the CDM in Africa and especially in under-represented regions of the continent. Broadcasters and freelancers from Africa are invited to grab their microphone and recording device and create a compelling radio story that answers the following question: "How can my community/city/country benefit from the CDM?" Selected winners will be invited to visit CDM project sites in Africa where they will have an opportunity to learn more about the CDM and produce new radio stories and documentaries.

Radio stories will be judged on originality, technical excellence, clarity of message, and thoroughness of investigation, level of professionalism and presentation skills. The "Wow Factor" is also very important, so we'll be looking for radio stories able to generate and hold interest.

The stories can fall into two categories:

1. Those that relate to a specific, "registered" CDM project (see information below on how to locate registered projects); and
2. Those that do not relate to a specific registered project, but which explore the potential benefits of CDM for a community/city/country

The deadline to submit your stories is 6 August 2012.

Learning lessons from lethal landslides in Uganda

Following a third landslide in as many years that left at least 18 dead and over 100 missing in eastern Uganda's mountainous district of Bududa, experts are warning that unless long-term measures are put in place, similar disasters are inevitable. The landslide, which ripped through four villages on the slopes of Mt Elgon amid a heavy downpour on the afternoon of 25 June, also displaced a large number of people. More than 300 people were killed and 8,000 forced to abandon their homes when landslides struck Bududa District in March 2010, while hundreds in the area were left homeless following more landslides in August 2011. The danger of rainfall-induced landslides tends to be much greater in mountainous regions, where the steep terrain and heavy rains put dense populations at risk.

Uganda has one of the highest population growth rates in the world. As more people settle on the mountain, more trees are felled to make way for homes and agriculture - making mudslides and flooding more common. "As the rains continue, they will trigger more landslides on steep slopes of the mountain. What is needed now is to remove people from these hazardous areas and have the areas restored through tree-planting," The government has announced a plan to relocate more than 400,000 people from the country's mountainous areas to more suitable land, and is urging communities in high-risk areas to move off the landslide-prone slopes. "Government advises all residents within the proximity to relocate to much safer areas," said government spokesman Fred Opolot, in a statement. "We are going to pass a law to have these people relocated and resettled elsewhere," Mallinga said, adding that the government had drafted a national disaster preparedness policy and risk reduction strategy.

Aid workers say the government must intensify its efforts to move vulnerable populations away from dangerous areas. "The permanent solution to these disasters is relocating people from the risky to safer areas. The government needs to put more resources on it," Michael Nataka, secretary-general of the Uganda Red Cross Society, told IRIN. Uganda also lacks the equipment and resources to monitor landslide-producing conditions. Michael Nkalubo, the commissioner for meteorology, said that the government would deploy automatic weather stations in different parts of country to improve weather forecasting. The United Nations World Food Programme recently gave the ministry of water and environment 14 automatic weather stations. "The increased flow of weather data from such districts will enhance the generation of climate

information products, which are needed to boost early warning services, disaster preparedness and ensure food security," he said. Experts have warned that global climate change has been changing the rainfall pattern (http://www.reliefweb.int/node/353469) in Uganda from regular and moderate to more unexpected and extreme, raising risks of natural disasters like floods, landslides and prolonged drought. Among the expected disasters are: floods, landslides, earthquakes, disease outbreaks, construction accidents, wars, prolonged drought, pests and animal diseases.

Conferences, Events

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

Date	Location	Event
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**
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, 20 January 2012
October 2012		
2-4 October 2012	Gauteng, South Africa	**GISSA Ukubuzana 2012: Conference and exhibition of geo-informatics, ICT, surveying, remote sensing and location-based business**
3-5 October 2012	Naivasha Sopa Lodge, Kenya	**Esri Eastern Africa User Conference**

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 30 April 2012.
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: 30 June 2016.

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