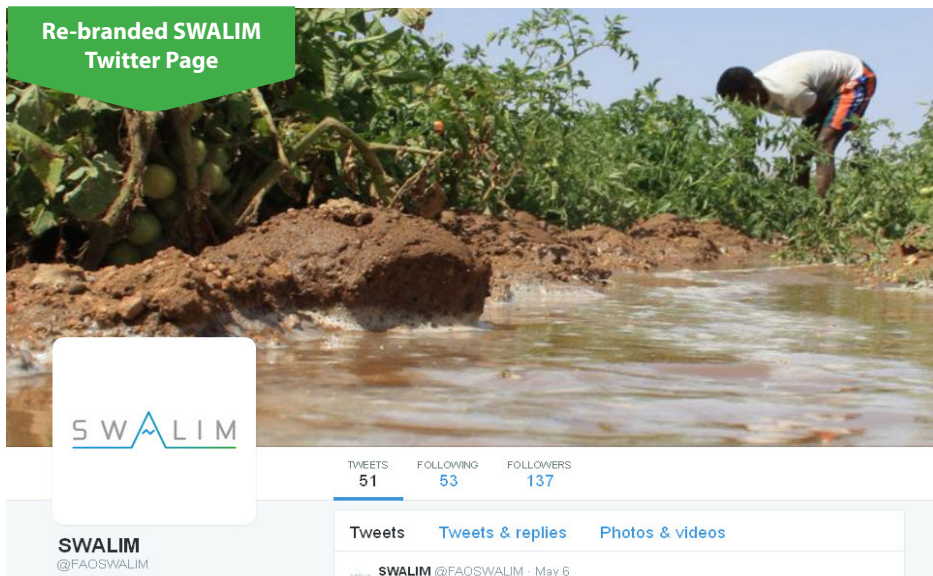


SWALIM Update



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SWALIM Rebrands!

by Evelyne Karanja

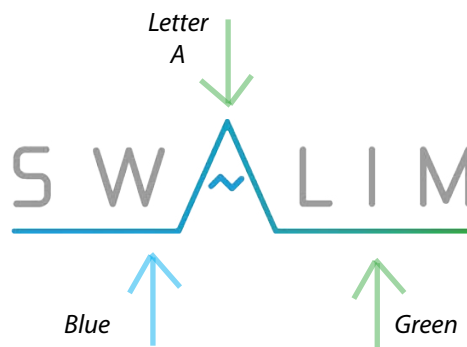
After more than a decade in operation, SWALIM is getting a facelift. In addition to a major activity to upgrade and refresh the project's web presence, SWALIM has developed a new logo for the on-going re-branding exercise. With the re-branding, we hope to increase the number of stakeholders who know what we do and recognise us as a key player in natural resources management in Somalia.

The new logo was selected through a lengthy process from among 14 candidates developed by a local graphics outfit and a design team working with the land and water division in FAO Rome.

SWALIM's new logo seeks to take the SWALIM brand into a new era of increased information and knowledge sharing. The logo maintains the reference to the 3 focus areas of SWALIM: Water, Land & Information – but with a stylish and timeless shape and a fresh and lighter feel. The typography was also given a futuristic touch. The minimal design reduces the graphical elements, using custom typography to mirror the main elements of

the previous logo, but making it simpler.

Central 'A' forms the focal point of the mountain (representing land)



Colors blue and green (representing land and water) are used to draw the line graph that represents information.

The use of the new logo came into effect as of 1 January 2015, and the new design has started to appear on SWALIM's information, education and communication (IEC) materials, posters, display graphics and all other products and services. The re-branding process will last several months.

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Juba River Monitoring Network Expands with a New Installation at Dollow

by *Flavian Muthusi*

Discharge measurement at Dollow



As part of FAO's contribution to the multi-agency resilience program in Southern Somalia, SWALIM has installed a new river gauge within 2 km of Dollow town, a boon to both farmers and aid workers. This is in addition to earlier SWALIM installations in the area: an Automatic Weather Station (AWS) and a synoptic weather station, both installed within Dollow town for monitoring weather parameters, including rainfall, air temperature, humidity, atmospheric pressure, wind speed and direction, maximum and minimum temperatures and evaporation.

The Dollow river gauge adds to a network of three existing gauges along Juba (at Luuq, Bardhere and Buale), whose main purpose is flood and irrigation water monitoring. Located just a few kilometers from the Ethiopian border, the Dollow river gauge is strategic to the flood monitoring and forecasting network, as it provides over one week lead time to allow early warning for the lower reaches of the river prone to floods. Currently, there is no hydrological data sharing between the Somali and Ethiopian water authorities thus Dollow provides the best location to monitor the Juba River at the highest upstream point of the catchment within Somalia.



Farmers in Dollow are among the key beneficiaries of the installation. With the increased agricultural activities supported by FAO and other partners, the need to monitor river flow for irrigation scheduling cannot be over-emphasized. Humanitarian agencies in Southern Somalia will also benefit from data collected by this station for monitoring and planning flood related activities and interventions along the Juba River.

In an effort to establish the amount of water flowing at Dollow, SWALIM started discharge measurements at the location of the river gauge. Initial discharge measurements were done in late April 2015, and the exercise is expected to continue for some time as a lot of data needs to be collected during the high and low period of the river flow. Once developed the collected data will be used to convert observed river levels to river flow (discharge).

Data on daily river levels from Dollow and other river gauging stations along Juba and Shabelle rivers can be accessed through SWALIM's online [Data and Document Repository \(SDDR\)](#) or can be requested through email - swalim@fao.org.

Building Flood Resilience Among Juba and Shabelle Communities

by *Peris Muchiri*

SWALIM has partnered with local NGOs along the Shabelle and Juba Rivers respectively, in efforts to assess the increasing trend of flood frequencies and their impact in the areas. The two NGOs have carried out surveys in Middle Shabelle and Middle Juba regions to verify the river breakages information generated from satellite images. In Middle Shabelle, 13 open breakages were identified while in Middle Juba there were 31 open points. Besides the breakages, several vulnerable points were also identified. The information has been shared with stakeholders active in flood preparedness to take action.

The two NGOs are also involved in community sensitization on best practices to build a culture of safety and flood resilient



A river breakage with sand bags to close the opening

communities while ensuring sustainable development for all along the Juba and Shabelle rivers. This is done through radio and distribution of flood information brochures.

SWALIM Completes Data Collection to Map Invasive Prosopis Species in Somaliland

by Ugo Leonardi

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Did You Know?

- * You can request to be booked into next available trainings by visiting the 'Contact Us' section of the website and filling in the subscription form?
- * SWALIM has an online [Digital Document Repository \(SDDR\)](#) where all of SWALIM's products and data collected in activities is easily available? All you need is an internet connection!
- * You can subscribe to receive weather updates disseminated by SWALIM by sending an e-mail to swalim@fao.org with the words "subscribe weather updates" as the subject?

SWALIM staff measuring prosopis infested areas with a spectrometer



SWALIM and the Joint Research Centre of the European Union (JRC), are developing a method to map Prosopis Juliflora invasion in Somaliland using remote sensing data. For the classification of satellite imagery, specific field observations and measurements were needed. SWALIM and JRC carried out a field survey to gather information on this invasive tree species known in Somali language as "Garanwaa". During the assessment, a team of experts surveyed different areas and environments where Prosopis Juliflora is present and spreading fast to rangelands, wadis (dry streambeds), agricultural lands and urban areas. The field survey allowed the collection of a large amount of GPS points/photos and spectral measurements as well as documentation about typical natural vegetation and land degradation.

The data collected will be the main reference for a more detailed mapping and

classification exercise and will constitute the baseline field information for the land cover characterization of the areas surveyed. The mapping results are expected to assist Somaliland authorities, to plan rangeland management and invasive species eradication projects.

Prosopis Juliflora was first introduced in Somaliland in 1950s as a shelterbelt/windbreak for a date palm plantation project, and in the eighties for a re-afforestation project. However, it is a fast-growing and wide-spreading tree species with a high invasion potential in semi-arid areas. The alarming rate of expansion of the weed, its encroachment into farmlands and rangelands and its prolific characteristic of annexing large areas, which limits the free movement of people and livestock, is having an increasing negative socio-economic impact.

Palm tree surrounded by Prosopis



Feature Article: Land Degradation in Somalia

by Simon Mumuli & Jeremiah Njeru

Land degradation is the reduction of land potential through processes such as water or wind erosion, reduction of amount and diversity of natural vegetation, long-term reduction of soil nutrients, sedimentation and increase in aridity. When the land becomes degraded, it no longer serves basic human needs such as food production and its capacity to provide ecological services are compromised. Although land degradation takes place gradually, in small increments, its negative environmental and socio-economic impact is huge.

SWALIM studies show that the main types of land degradation in Somalia include loss of topsoil by water and wind erosion, reduction of vegetation cover, gully erosion, aridification, increase in invasive plant species, and soil fertility decline in agricultural areas. Land degradation is widespread in Somalia and the problem has been identified as a major cultural, social

Crop fields and gully erosion in Puntland (Oasis farms)

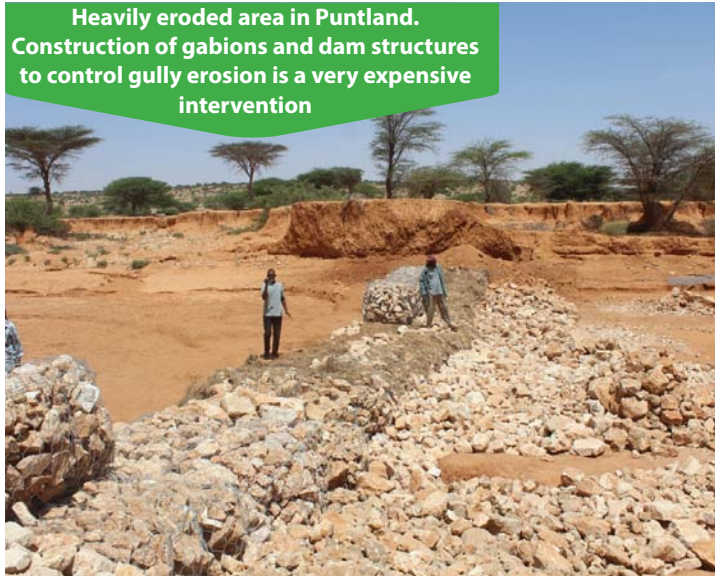


and development concern. Many initiatives are currently being undertaken by communities, government and development agencies to address the problem. FAO SWALIM is working with these institutions to address the problem of land degradation in the different regions of Somalia.

In Puntland, SWALIM is supporting a Millennium Development Goals (MDG) initiative funded by the European Union and implemented by Ministry of Environment, Wildlife and Tourism. The project covers Bari, Mudug, Sanaag, Nugal and Sool regions and aims to improve productivity of rangelands through institutional strengthening, expansion of income sources, provision of alternative energy sources, improved natural resources management and capacity development at community level. This project is implemented together with African Development Solutions (ADESO) and CARE International. In this project, SWALIM is providing expertise in the use of Remote Sensing technology in land degradation assessment and train ministry technical staff involved in field data collection. SWALIM is also assisting in development tools for assessing the impacts

of the interventions implemented under this project.

In Somaliland, the Somaliland Ministry of Environment and Rural Development is undertaking a project to enhance



community-based Natural Resources Management inside and near grazing and forest reserves. This project is supported by the Somaliland Development Fund (SDF) and covers Adwal, Sahil, Togdheer, Maroode Jeex and Sanaag regions. To strengthen this effort, SWALIM is working with the ministry on two activities, one focusing on community based natural resources management in Odweyne and Burco districts and the other on land initiative. In the community based natural resources management activity, SWALIM will train the ministry staff on the use Remote Sensing and field techniques in undertaking NRM and land degradation inventory and support the ministry on two community based NRM pilot projects – one on establishment of a community tree nursery and the other of safe access to fuel wood and energy. In the land initiative activity, SWALIM is working with the ministry to develop a land resources database that will be used in negotiating land territorial rights.

A tree nursery at the Somaliland Ministry of Environment and Rural Development

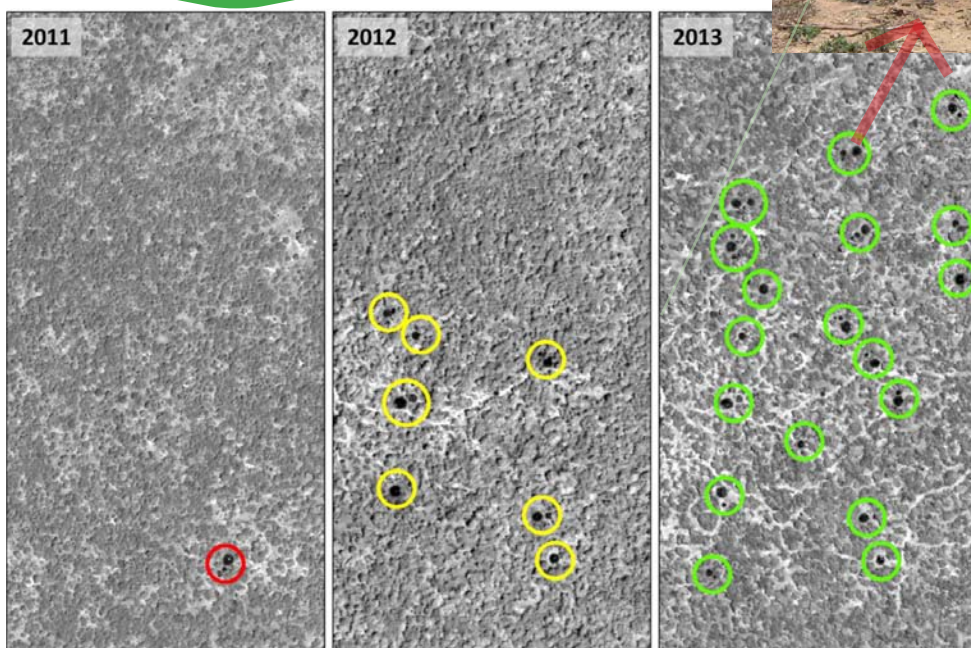


Beyond the support provided by SWALIM to other organizations involved in land degradation projects, the project is involved in developing datasets to support land degradation assessment. This is critical considering the large size of Somalia and the high cost of field surveys. In this respect, SWALIM has developed tools for rapid assessment of land degradation that have been applied right across the country. A classic example is when huge piles of charcoal were discovered in the port of Kismayo. Everybody wanted to know the source of that charcoal. SWALIM then used high resolution satellite data to investigate the source of the charcoal and found out that it had been produced in the woody areas south of Afmadow in the Lower Juba region. Analysis of multi-year satellite data indicated that much of that charcoal was produced in 2012 and 2013, with 48,000 trees removed for charcoal production. This translates to 1 tree cut every 2 minutes. In an arid country like Somalia, this is a shocking loss of tree cover that requires urgent attention.

In looking at vegetation cover status, the data generated show alarming tree cover loss with some areas experiencing up to 3% loss every year. In Puntland, for example, *Acacia bussei* (Galool) is chopped even in areas where standing tree density is very low. Tree cutting leaves the soil exposed and vulnerable to water and wind erosion and this may account for much of the bare, eroded landscape that characterises Somalia.

To help the government address land degradation, SWALIM supported the Ministries of Environment in Somaliland and Puntland to set up pilot land degradation monitoring systems. The systems will select land degradation hotspots as benchmark sites for assessing both the state of the land under different land uses as well as the impact of land restoration and conservation initiatives.

Charcoal production sites in Afmadow area of Somalia between 2011 and 2013. Notice the rapid increase between 2012 and 2013



SWALIM News In Brief

- SWALIM is conducting a “Women and Information Management” training in May 2015 for women working in Somali government institutions, in order to equip them with skills to improve their efficiency and increase their chances of career advancement, as well as enable them to manage information better
- SWALIM and the YME, (a Norwegian humanitarian organization) are undertaking a rapid assessment of the Somali State of Environment through a desk assessment by environmental sector experts. The results of the assessment will be shared with relevant government institutions for validation and improvement.
- SWALIM has begun setting-up data centers in Mogadishu. The Ministry of Electricity & Water and the Ministry of Agriculture in Mogadishu, have received office furniture and computer equipment from SWALIM, for the data centers, which will bring water and land information closer to the federal institutions.
- SWALIM is currently undertaking a hydrogeology study in Ceel Waaq district in Gedo Region, which aims to increase water availability in Ceel Waaq district through guided borehole drilling using up to date hydrogeological information.

SWALIM Holds an Academic Institution Open Day in Borama

by Evelyn Karanja

Students receive a demonstration on use of water quality testing equipment



SWALIM held a successful academic open day in Borama, Somaliland. The event was held at Rays Hotel and attracted 100 participants (students and lecturers) drawn from Borama's Amoud and Eelo universities, providing an opportunity to increase visibility and market SWALIM products to natural resources management information users.

The objectives of this open day were to:

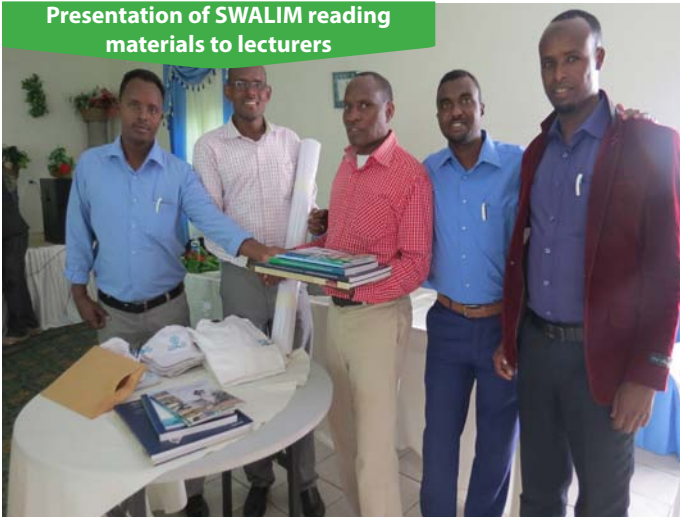
- Create more awareness and visibility for SWALIM products and services
- Demonstrate SWALIM's water and land datasets, services and products for use in learning and research
- Disseminate the results of various studies on water, land and natural resources studies to generate discussion on the challenges and opportunities of sustainable natural resources management in Somalia today

The open day combined presentations on the various datasets, products and services that SWALIM has developed

over the past 10 years, as well as live demonstrations related to SWALIM's key focus areas where students and lecturers were able to actively engage with technical staff and receive specific responses to questions they had in these areas. In addition lecturers held round-table discussions with SWALIM staff to explore ways to strengthen collaboration and partnership. This open day was instrumental to reaching a wider audience within academic institutions beyond those based in Hargeisa.

Academic institutions in Somalia continue to be an important partner for SWALIM as they recognize SWALIM as a unique source of reference materials for teaching, a source of vital primary and secondary data for research and a partner in capacity development and research, especially at the post-graduate level. In 2014, over 500 students and lecturers used SWALIM information for research and education purposes. SWALIM looks forward to holding more of these open days in other parts of Somalia.

Presentation of SWALIM reading materials to lecturers



Students take notes during the presentations



Coming Soon: SWALIM “New Web Site”!

by David Dion



SWALIM is moving into its second decade with a new approach to the Internet, including more aggressive use of social media, the introduction of advanced systems for presenting geographical data and information and a brand new SWALIM web site.

Following endorsement of the SWALIM Information, Communications and Knowledge Management (ICKM) Strategy in mid-2014, SWALIM initiated a process to renovate and ultimately replace the existing SWALIM web site with a new and more dynamic on-line presence. The web site was already remarkable for the quantity and quality of the material made available and for the completeness of the site, with various thematic sections and multiple sub-sites. However, the ICKM strategy, in response to feedback from users and stakeholders, recommended a site that is more easily navigated and understood and that linked together all of the diverse SWALIM content.

The new website is based on Agri-Drupal, which is a combination of Drupal Content Management system and AGRIS, an FAO web agricultural document cataloguing system. The system is customized to manage a document repository, directories, news and events, using FAO indexing and classification for agricultural vocabularies. These features and a richer set of metadata will make the web site more easily searched, improve the ranking of SWALIM data in major search engines and support the development of more advanced content-rich applications.

The whole catalogue of SWALIM materials has been reviewed, updated and re-edited, giving the whole site a more even and regular presentation. The site is organized along the lines of the SWALIM focal areas:

- Water Resources
- Land Resources
- Information Management
- Capacity Development

There is also a general project overview giving a background and history (About Us) of the project and a special section on available information sources, such as on-line and stand-alone information systems, the searchable digital library and information services. The site is also now rich with high quality photographs and maps, the complete set of SWALIM's publications and additional information not present in the previous site.

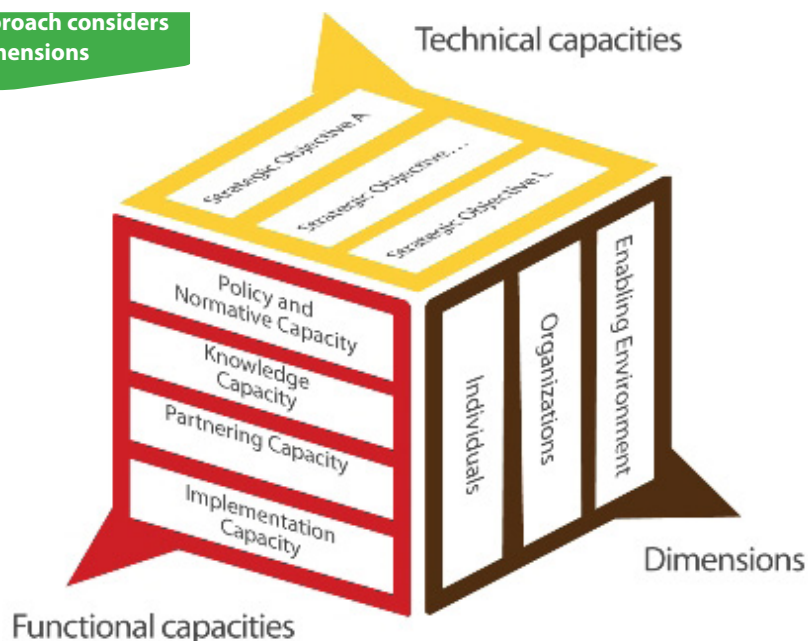
We invite you to take a good look at the new website, explore it, try out the features and send us your feedback. We are always ready to learn how we can improve your experience with the site.

The new SWALIM web site is now in beta testing and is scheduled for public release by end of May on the same domain: www.faoswalim.org.

SWALIM Completes Capacity Needs Assessment for Partner Government Institutions in Somalia

by Jeremiah Njeru

New FAO CD approach considers three dimensions



SWALIM recently completed and published the results of a capacity needs assessment study for the government ministries and institutions it partners with. The primary focus of this study was to understand the human and institutional capacities required to effectively manage water, land and natural resources information in Somalia. Over the years, SWALIM has established a well-functioning Capacity Development (CD) programme for eight Somali government ministries and agencies involved in water, land and natural resources management in Somaliland and Puntland.

The study looked at the existing capacities, policies and legal frameworks, identified gaps and recommended actions that should be taken to fill the gaps and reach the desired objectives. The study followed the new FAO CD approach that considers both technical and functional capacities as equally important. The new approach also looks at institutional capacity in three distinct dimensions: the individual, the organization and the enabling environment. The study focused on local ownership, leadership, priorities and contexts, as well as the sustainability of capacity development activities.

A number of actions were proposed to achieve changes in capacity development. At the individual level, the study suggests that organizations should recruit specialized staff to fill identified skills gaps and also put in place career development plans to motivate staff to stay at these

institutions. "On-the-job" training programmes should also be put in place so that staff can simultaneously improve their skills and fulfill their functions more effectively. At the organizational level, suggestions made, included implementing a better structured salary scheme, investing in production equipment and materials, developing information management facilities and reviewing and improving organizational systems and processes. For the enabling environment, the study identified the need to formulate and implement legislative frameworks and promote partnerships, collaboration and coordination.

SWALIM is using the results of the study to refine its ongoing capacity development programme and to start new initiatives that will build on the findings, recommendations and actions of the study. As a first step, SWALIM will organise meetings with partner institutions and develop an action plan based on the study, current institution priorities and the ongoing SWALIM capacity development programme. For recommendations beyond SWALIM's mandate we will support partnerships with relevant institutions such as UN agencies and donors, e.g. through proposal development.

SWALIM has started laying the foundation for a capacity development programme for the relevant line ministries of the Federal Government of Somalia and has already provided IT equipment, furniture and stationeries to set up data centers in these ministries.

SWALIM Digital Document Repository (SDDR) Updates

SDDR has been updated with the following time-series data for the period January to April 2015:

- * Rainfall data
- * River levels
- * Other climate data from automatic weather stations

Towards Sustainable Somali Meteorological Services

by Peris Muchiri



To improve the value and quality of data from the weather monitoring network in Puntland and Somaliland, training for all weather observers, who are staff of the ministries of agriculture, was conducted in Hargeisa, Somaliland and Garowe, Puntland. A total of 46 observers were trained; 19 from Puntland and 27 from Somaliland. The knowledge transferred included; data collection and recording, care and maintenance of weather instruments and upkeep of the weather monitoring site.

One of the main objectives of SWALIM is to develop the capacity of the ministry data centres and field offices and equip staff with the necessary skills and knowledge to manage water and land information services in the long-term. Weather monitoring is also one of SWALIM's major activities due to the high demand for climate data to support agricultural activities and other interventions. Since its inception, and in partnership with different stakeholders, SWALIM has managed to reinstall the climate monitoring network and seen it grow progressively over the years. Presently, there are over 80 manual rainfall stations and eight automatic weather stations in the country with plans to expand the network further.

SWALIM's major partners for climate data collection in Puntland and Somaliland are the agriculture ministries.

In Puntland, there are 19 manual rainfall stations, two automatic weather stations (AWS) and two synoptic stations. The monitoring network in Somaliland consists of over 27 manual rainfall stations, four AWS and three synoptic stations. Data from all these stations have been very useful for early warning, floods and drought monitoring and support to agricultural and development activity planning.

The weather observation network in Somalia faces various challenges and opportunities, the main challenge being insecurity. The lack of a national meteorological services department also poses another challenge for integrated climate services. However, SWALIM has taken the initial step in developing a national meteorological services department through the establishment of regional climate data centres within the agriculture ministries in Somaliland and Puntland where all meteorological services are conducted with support from SWALIM. A similar data centre will be established in Mogadishu. After the complete transfer of SWALIM activities to the Somali authorities, it is expected that the staff running the data centres and trained observers will take a lead role in training other ministry staff in using the monitoring systems.

Training Timetable May - August 2015

Course	Date	Location
GIS, Remote Sensing, GPS & Field Data Collection for Land Resources Management	May 2015	Somaliland
Information Management for Women	May 2015	Puntland and Somaliland
Hydrometrological Observers Training	August 2015	Kenya
Land Use/Cover & Land Degradation Monitoring Techniques	August 2015	Puntland
Water Quality Monitoring	August 2015	Puntland

Pictorial

Gully erosion causing degradation



A well uncovered by water erosion



Haphazard urbanization contributing to degradation



SWALIM staff presenting at academic open day



Comments?

The Editorial Staff of SWALIM Update invites letters, comments and opinions from readers. Address your comments to:

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