



FROM THE DG'S DESK

It is my pleasure to present the fifth edition of our quarterly e-Newsletter series. The e-Newsletters are a valuable source of information on our products and services and also help in identifying areas of cooperation and mutual support with our stakeholders.

In this issue we report on the launch of Land Cover maps for Ethiopia, flood damage assessment in Kenya, launch of web portal for Rwanda, and water resource management information system, among several projects.

Also, we highlight our capacity development training programs including water quality assessment, flood forecasting, web mapping, food security and climate change, and land cover mapping in various member states.

For more information please visit our website (www.rcmrd.org).

Dr. Hussein. O. Farah

I wish you a happy reading

Launch of Land Cover Maps for Ethiopia



Minister of Environment and Forest, Ethiopia receives Land Cover maps

RCMRD conducted a three-day Land Cover Data Dissemination and Technical Training Workshop from 1st-3rd April, 2015, in Ethiopia.

Currently, RCMRD is building the capacities of nine member states in the areas of land cover mapping. The main deliverables for the project in Ethiopia were land cover maps for the years 2003, 2008, and 2013, related Technical Reports, manuals, as well as capacity building in Land Cover mapping using consistent and replicable methodologies.

Drawing from the above background information, the workshop aimed at covering the final activities of capacity building and officially handing over the country's developed products.

The workshop included a launch, official dissemination of land cover maps developed both by RCMRD and Ethiopian Mapping Agency (EMA), and a two-day training for the Technical staff from the Central Statistical Agency, Ethiopian Mapping Agency, Ministry of Agriculture, Ministry of Environment and Forestry, and the University of Addis Ababa.

Launch of the LandPKS Applications

The Land-Potential Knowledge System (LandPKS) Project released two mobile applications at a launch that took place at the Regional Centre for Mapping of Resources for Development (RCMRD) on 22nd April 23, 2015.

LandPKS is a collaborative project between the United States department of Agriculture, USAID and RCMRD. LandPKS will allow the potential of land to be defined using a knowledge engine, mobile applications and cloud computing, and provide scientific knowledge for land management and land

use planning. The tools main advantage lies in the fact that they are free and automated, provide basic data and climate summaries and offer immediate feedback.

The data generated from the apps can be further downloaded from the data portal for further processing and analysis.

These innovative mobile data collection and analysis tools support local land management and land use planning to optimize food security, land restoration, climate change adaptation and biodiversity conservation programs. Read more [here](#)



LPKS launch ceremony

Stakeholders Workshop on the use of Satellite Data for Early Warning and Disaster Risk Reduction

RCMRD held a one-day stakeholders workshop on the Use of MODIS Data for Early Warning, Disaster Risk Reduction (DRR) and Environmental Monitoring at its offices in Kasarani (Nairobi), on Thursday, 4th June 2015.

Speaking during the workshop, Dr. Hussein Farah (Director General, RCMRD) said, "This is an important workshop for us as it marks an important milestone of a long effort to have Near Real Time (NRT) Earth Observation data that are freely and easily accessible and can support applications in Disaster Risk Reduction, Early Warning and Environmental Monitoring efforts."



Group discussion among the participants



Group photo of the participants

The objectives of the workshop included creating awareness of the data streams received and products generated through the Moderate Resolution Imaging Spectro-radiometer (MODIS) antennae; and demonstrating the importance of near real-time data synthesis and product dissemination.

Additionally, the workshop focused on a product on near real-time fire detection; dissemination of the service; crop and pasture monitoring; and flood forecasting, whose impacts can be controlled or managed through timely delivery of information relating to location, time and magnitude. Read more [here](#)

RCMRD hands over the Flood Damage Assessment Report to the Kenya Government

A group of staff from RCMRD led by Mr. Degelo Sendabo, the Remote Sensing Officer, visited the Ministry of Environment, Water and Natural Resources, Kenya.

The staff were handing over the "Floods Assessment in Lower Nzoia River through Hydrologic Modeling, Remote Sensing and GIS Techniques" Project Report to the Ministry.

The Lower Nzoia region has been continuously experiencing flooding during the rainy season due to the wearing out of the existing dykes.

As a result, the Ministry of Environment, Water and Natural Resources



Mr. Sendabo (right) handing over the project report to the Ministry of Environment, Water and Natural Resources.

sought the services of RCMRD so as to establish and determine the amount of damage caused by the floods in lower Nzoia through mapping. This was to help develop a cost-benefit analysis of improving the dykes in order to lessen the degree of destruction caused by the

floods in the future. RCMRD staff were primarily involved in land Use Land Cover mapping, GIS based feature extraction, hydrological modeling, spatial analysis, and thematic mapping.

The 4th Meeting of the CEOS Working Group on Capacity Building & Data Democracy

RCMRD was represented at the 4th Meeting of the Committee on Earth Observation Satellites (CEOS) Working Group on Capacity Building & Data Democracy (WGCapD) held at the South African National Space Agency Innovation hub offices in Pretoria, South Africa, from 18-20th March, 2015.



Participants of the WGCapD meeting pose for a group photo

The WGCapD performs a variety of activities based on the four pillars of the Data Democracy Initiative Mission and aims to unify CEOS efforts toward: Providing wider and easier access to Earth Observation data; Increasing the sharing of software tools such as the use of open source software and open systems interface; Increasing

data dissemination capabilities and transferring relevant technologies to end users; and Providing intensive capacity building, education, and training (including awareness and outreach) for enabling end users to gather the information they need and for increasing communication on achieved results.

The meeting offered an opportunity for WGCapD to plan its activities for the coming year and to communicate with its regional partners, including the Regional Centre for Mapping of Resources for Development. Read more [here](#)

Meeting of Partners in the RCMRD/SERVIR Africa Programme

RCMRD held a meeting of its partners in the RCMRD/SERVIR Africa programme on Wednesday, 29th April, 2015 at the Centre.

The objective of the meeting was to get the feedback of partners on the collaboration with RCMRD and, in particular, the ongoing SERVIR-Africa Programme activities.

14 partner institutions from governmental, academic, and non-governmental institutions attended the meeting.

In addition, the meeting focused on future activities being planned under the SERVIR- Africa Programme.



A meeting of RCMRD/SERVIR Africa programme partners

Wajir County Government Presents the Developed Web-Based Water Resource Management System

A delegation from the Wajir County Government in Kenya led by Sheik Abdi Osman (Chief Executive in charge of Water, Energy and Natural

Resources) visited RCMRD. The delegates came to give a presentation on the Developed Web-Based

Water Resource Management System and get feedback and support from RCMRD.



RCMRD meeting with the Wajir County Government officials

Wajir County Government was the beneficiary of \$50,000 grant by RCMRD/SERVIR under the United States Agency for International Development (USAID) and the National Aeronautics and Space Administration (NASA) collaboration.

The project started in September, 2014 and is expected to end in July, 2015.

RCMRD helps Rwanda Develop a Web Portal to Ease Disaster Management

The ministry of Disaster Management and Refugee Affairs (Midimar) in Rwanda launched a web portal that will help facilitate disaster data and information sharing as well as improve response to disasters.



The launch of the Rwanda web portal in Kigali



Participants go through the portal functionalities

The portal was developed with support from Regional Centre for Mapping of Resources for Development (RCMRD).

Seraphine Mukantabana, Rwanda's minister for disaster management and refugee affairs, said most disasters in the country take the form of small scale events that do not require massive national or international respons-

es, and hence remain largely unnoticed. Capacity building and public awareness is at the core of our mandate, according to officials from the ministry. Read more [here](#).

RCMRD Staff Trained on Advanced Data Processing for Food Security and Climate Change

A group of staff from RCMRD took part in an in-house training facilitated through the partnership of the Planning for Resilience in East Africa through Policy, Adaptation, Research and Economic Development (PREPARED) Project and the Center for International Earth Science Information Network (CIESIN) from 13-15th April, 2015 at RCMRD.

PREPARED is being implemented in Kenya, Tanzania, Uganda, Burundi, and Rwanda and addresses three main East Africa Community challenges,



PREPARED training at RCMRD

including Increasing resiliency to climate change; Managing trans-boundary freshwater biodiversity conservation; and Improving access to drinking water supply and sanitation services.

The capacity building of staff was based on advanced data processing

focusing on developing information for policy for food security and climate change.

The facilitation was carried out by Dr. Malanding Jaiteh of CIESIN, Earth Institute of Columbia University. RCMRD is an implementing partner of the PREPARED Project.

Technical Training on Land Cover Mapping in Uganda

Staff from RCMRD, Jaffer Ababu and Eunice Kibung'a conducted a Technical Training on Land Cover Mapping for the Development of Green House Gas Inventories (GHG) at the National Forestry Authority (NFA) headquarters in Kampala, Uganda from 20-24th April, 2015.

The five-day training workshop attracted participants from the National Forestry Authority (NFA), the National Environmental Management Authority (NEMA), the University of Makerere

and the UN REDD+ Sector.

Currently under the SERVIR Project which benefits from technical and financial support from the United States Agency for International Development (USAID) and the National Aeronautics and Space Administration (NASA), RCMRD is developing the capacities of member countries in the areas of land cover mapping for the development of Green House Gas Inventories to support their reporting obligations to the

United Nations Framework Convention on Climate Change (UNFCCC).

There were various concepts covered during the training workshop. They included the acquisition and processing of Landsat satellite images into land cover maps, using Geographic Information System (GIS) and Remote Sensing techniques, accuracy assessment, and the use of Global Positioning System (GPS) in fieldwork.

Web Mapping Training in Cape Town, Republic of South Africa



Group photo of Web Mapping training participants

Patrick Kabatha and David Kanyari of RCMRD trained 30 officers of the department of rural development and land reform on Web Mapping. The five-day training was held in Cape Town, Republic of South Africa, from 25th to 29th May 2015.

The training offered skills on how to deliver and share geographic information so that it can be effectively used by colleagues, decision-makers, and non-GIS audiences.

At the end of the training, the trainees were supposed to be able to share GIS maps, data, and work flows by creating, building publishing and sharing high-performing GIS services that could be accessed from desktop computers, web browsers, and mobile devices.

Monitoring and Evaluation Systems Training



CSSEPA's M&E training for RCMRD staff

RCMRD staff took part in a Monitoring and Evaluation Systems training in Nairobi on the 17th of April, 2015.

The Monitoring and Evaluation Systems training was carried out by Center for Social Sector Education and Policy Analysis (CSSEPA). There were also presentations by RCMRD staff, Wahu Mbatia (Communication & Outreach Expert) and Nancy Mutiga (Monitoring and Evaluation Officer).

The training objectives included an understanding of the general principles of Programme Life-cycle and Management, and an understanding of the general principles of Monitoring and Evaluation.

The expected outcomes comprised an improved understanding of Management and Planning, and improved skills in Monitoring and Evaluation.

RCMRD intends to use the Monitoring and Evaluation Systems to gather the necessary information needed to assess and guide project strategy, ensure effective operations, meet internal and external reporting requirements and inform future programming.

Strengthening the Capacity of IGAD in Building Disaster Resilience in the Horn of Africa Project Launched

Dr. Hussein Farah (RCMRD's Director General) represented RCMRD during the launch of the Project 'Strengthening the Capacity of the Intergovernmental Authority on Development (IGAD) in Building Disaster Resilience in the Horn of Africa' in Djibouti on 26th May, 2015.

During the launch, there were a number of important remarks made by Dr. Guleid Artan, the Director of the IGAD Climate Prediction and Applications Centre (ICPAC), a representative of IGAD Executive Secretary, Gerd Trogemann, the Deputy Director of the Regional Bureau for Africa in the United Nations Development Programme (UNDP).



'Strengthening the Capacity of IGAD in Building Disaster Resilience in the Horn of Africa' group photo

H.E. Hassan Omar Mohamed, the Minister for Interior and Decentralization, the government of Djibouti delivered the keynote speech and officially opened the launch.

In addition, Dr. Hussein Farah made a statement in support of the program in RCMRD's member states. This project is a five-year program funded by UNDP.

Training Workshop on Satellite-Based Lake Water Quality Data Processing



Satellite-Based Lake Water Quality Data Processing using SEADAS workshop participants

RCMRD conducted a five-day training workshop on Satellite-Based Lake Water Quality Data Processing from 18th to 22nd May 2015.

RCMRD under the SERVIR Eastern and Southern Africa Project is conducting work on application of remote sensing (RS) and Geographical Information System (GIS) in lake water quality monitoring and land use-land cover changes with a focus on Lake Victoria and Lake Malawi, using remotely sensed satellite data.

The objective of the training was to teach participants the basic skills needed to work with satellite remote sensing data for water quality assessments. Additionally, the training was a

follow-up on the progress made in the First User Engagement Workshop that was held at the same venue in March 2015. The initial workshop focused on information sharing and identification of regional challenges.

The training was coordinated by Dr. Robinson Mugo of RCMRD and was attended by 21 participants from Kenya, Uganda, Rwanda, Malawi, and Tanzania.

Training Workshop on Flood Forecasting



Faith Mitheu conducting the CREST model training

RCMRD held a four-day training workshop under the theme 'Use of Distributed Hydrologic Model (CREST) and Earth Observation Data for Flood Prediction' starting the 26th of May, 2015 at the Centre's premises.

RCMRD/SERVIR-Eastern and Southern Africa has been working on a Hydrologic model (CREST Model) for the

predictions of likelihood of flood in various catchments within the RCMRD member States, with the objective of providing water managers in the member States with information about precipitation and stream-flow amounts for watersheds to enable timely decision making.

The CREST tool uses the NASA TRMM and GPM precipitation which is available every three (3) hours.

This application can support a broad range of water resources management

activities that are directly linked to economic, environmental and livelihood security. The training was expected to facilitate greater understanding of the model products and is expected to result in dissemination of the data to a wider audience. Also, it was geared towards the provision of hand-on practical experience in the calibration of the model, to enable hydrologist in different agencies do it themselves. The model is currently being tested in Uganda, Rwanda, Namibia, and Kenya.

Workshop on Application of Geographical Information System (GIS) & Use of GPS/Total Stations in Surveying

RCMRD hosted a three-day workshop on Application of Geographical Information System (GIS) & Use of GPS/Total Stations in Surveying from 20th-21st May, 2015.

The workshop was officially opened by the Institution of Surveyors of Kenya (ISK) Deputy Chairman, Fred Oduor.

RCMRD's Director General, Dr. Hussein Farah gave the executive welcome to the participants and explained the role of RCMRD in the application of Geographical Information System (GIS) & Use of GPS/Total Stations in Surveying and the Centre's important role in supporting National Initiatives.

The workshop aimed at providing members with a practical experience of surveying applications and educating them on current technologies relevant to their daily activities.

50 members of ISK participated in the workshop.

Pictorial



The Minister for Lands, Housing and Urban Development, Republic of Malawi visit to RCMRD



Workshop on Open Source Land Cover Change Mapping & GHG Uncertainty Estimation and Forest Connectivity-Carbon Co-benefits Mapping



Participants of Land use Land cover training in Uganda



Joseph Masatu on a service mission in Uganda



Delegates from the Ministry of Local Government Chieftainship and Parliamentary Affairs, Kingdom of Lesotho visit RCMRD



The Regional Training of Trainers (ToT) on "Application of Remote Sensing Techniques in Irrigation Water Management"

Pictorial



The UNECA-LPI Experts' Group Meeting held in Bahir Dar, Ethiopia



DG RCMRD Meeting with the Rwanda Minister of Natural Resources (MINIRENA)



DG RCMRD Meeting with the State Minister of Environment and Forestry of the Federal Democratic Republic of Ethiopia



Visit to the Permanent Secretary for the Ministry of Local Government (Lesotho) H. E. Mrs. Dingiswayo



Web mapping training in Gaborone, Botswana



Spatial Planning & Applications of GIS & RS for IGAD Drought Disaster Resilience & Sustainability Initiative (IDDRSI) Test Workshop for Training participants