

Geospatial Enablement in Addressing Climate Change among the Youth in Kenya

AFRICA GIS 2017
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SERVIR-ESA

RCMRD

SERVIR  **Eastern & Southern AFRICA**



RCMRD



REGIONAL CENTRE FOR MAPPING OF RESOURCES FOR DEVELOPMENT





■ Contracting Member States

■ Non-Contracting Member States

Our Vision

To be a premier Centre of Excellence in provision of Geo-Information services

Our Mission

To promote sustainable development through generation, application & dissemination of Geo-Information and allied ICT services and products in the Member States & beyond

 Botswana
  Burundi
  Comoros
  Ethiopia
  Kenya
  Lesotho
  Malawi
  Mauritius
  Namibia
  Rwanda
  Seychelles
  Somalia
  South Africa
  South Sudan
  Sudan
  Swaziland
  Tanzania
  Uganda
  Zambia
  Zimbabwe

SERVIR Project Goal

Improve capacity of national and regional institutions to apply geospatial technologies, in order to improve **resilience** and **adaptation** to the impacts of climate change and promote *sustainable development*.



*Food security & Agriculture;
Water & related Disasters,
Weather & Climate;
Land Use/Land Cover*

Applied Science Team



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Partnerships



GLOBE - Kenya



4-H Kenya



Trans-African Hydro-Meteorological Observatory

<https://school2school.net/>



Esri Eastern Africa



Kenya Met Department



Kenya National Commission for UNESCO (KNATCOM)



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RCMRD Space Challenge

Goal: Equip students with skills in environmental degradation, climate change and its drivers. Contribute to STEM - Science, Technology, Engineering and Math , SDG's.

Mode: Obtain reading from automatic weather stations (AWS) installed by TAHMO, GLOBE.

Partners: GLOBE, TAHMO, 4-H Kenya, KMD, KNATCOM, Esri

Video: <https://www.youtube.com/watch?v=8v5WTv8J79M&t=1s>



Nasokol Girls School (first)



Orientation of teachers

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RCMRD Space Challenge

CHALLENGE: 7 schools, 10 students each = 70 students - Kenya
Nyandarua High school, Homa Bay High School, Thome Boys High School,
St. Scholastica Catholic School, Nasokol Girls, Moi Forces Academy Lanet
and Moi Forces Academy Nairobi.

4-H Kenya schools: Murema primary school and Mathare Old Primary



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RCMRD Space Challenge - Task

TASK: use TAHMO Automatic Weather Stations (AWS) normalized atmospheric data provided by GLOBE, TAHMO, RCMRD
Compute graphs: temperature, precipitation and humidity; relationships, trends

Problem/ Purpose State the problem you meant to solve.	Project Title by Your Name	Results What did you learn from your work? Explain your data.
Hypothesis State your hypothesis.	Data & Graphics  Display your data and pictures in this area. Graphics are very effective for explaining results.	Conclusions Was your hypothesis right or wrong? Can you make a new one?
Procedures Explain the experiments you did. What? How? Why?		Recommendations From what you learned, would you try anything new?



Poster Layout for the Challenge

Practical session on data collection -
Nasokol Girls Secondary School (West Pokot, Kenya)



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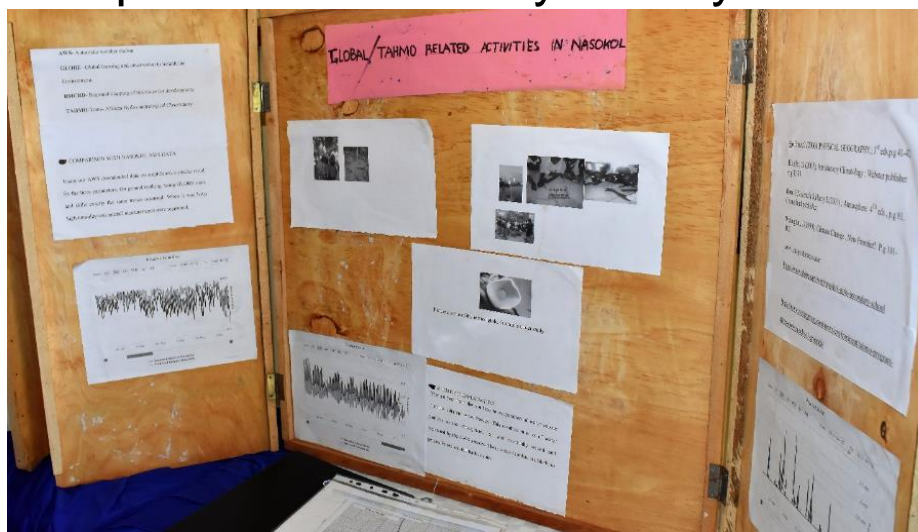
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RCMRD Space Challenge

PRESENTATION: The three parameters, humidity, precipitation and temperature were very closely related.



Nasokol Girls Secondary School



Moi Forces Lanet



Nyandarua High School



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RCMRD Space Challenge – Awards



Nasokol Girls School (first)



St. Scholastica Primary School (second)



Moi Forces Nairobi (third position)



Homabay High School (fourth position)

7th July 2017



<https://youtu.be/8v5WTv8J79M>

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RCMRD webinar

GODAN: Sharing open data and capacity development experiences from RCMRD



GODAN Action webinar: Sharing open data and capacity development experiences from RCMRD

Join us for a webinar on Nov 29, 2017 at 4:00 PM CET.

Register now!

Earth observation data plays a critical role in building resilience to climate change as well as reporting on sustainable development goals (SDG's). There are new opportunities to use open data in earth observation such as Landsat and the Sentinel data. Modern day farming relies on weather information in order to plan ahead of extreme weather conditions such as drought and floods. In addition, there is need to invest in hydromet services to build resilience to climate change and help citizens with accurate weather forecasts.

<https://attendee.gotowebinar.com/register/8266692853814829058>

7th July 2017



<https://youtu.be/8v5WTv8J79M>

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Way forward

- ❑ RCMRD Space challenge – bi-annual/annual, East Africa
- ❑ Public Private Partnerships (PPP)
- ❑ Capacity building: youth & gender in STEM, resilience
- ❑ Link to SDG's: science & policy
- ❑ Innovation workshops e.g. hackathons
- ❑ Outreach
- ❑ IMPACT – services, sustainability



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Thank you

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