EOTEC DevNet September Regional Meeting: Africa -- Notes

September 21, 2021

Attendees: Adebayo Ojo, Samuel Wainaina Kamau, Bekke Buench, Michael Adetona, Dan Matsapola, Nina Kickinger, Bolarinwa Balogun, Juan Carlos Villagran, Okon Ebeiyamba, Jiali Shang, Emil Cherrington, Sara Miller, Coen Bussink, Morwapula Mashalane, Jorge Del Rio Vera, Alex Tosin, Dave Borges, Lauren Childs Gleason, Nancy Searby, Yasha Moz, Erin Martin, Sydney Neugebauer

Topics:

- Brainstorm Community of Practice outreach and engagement opportunities
- Thematic conversation: Fostering access to capacity building in drought

Discussion:

- *Jorge Del Rio Vera:* UNOOSA is engaged with Space Africa and has regional centers that could help facilitate outreach.
- *Nina Kickinger*: Gaps assessment is a long-term and very sensitive process. Do you have a best practice on how to assess capacity building needs of a country? Or will you use a bottom up approach to have countries share those with you? How could capacity building actors without resources to do thorough assessment of local needs learn about user needs in a locality/region?
- *Dan Matsapola:* SADC Secretariat in Gaborone for the southern African community of 16 countries as member states. There is an entire CoP we can reach out to. People come together on particular problems, so we need to be sure they have the correct issues on the table.
- *Bolarinwa Balogun:* Nigeria has government institutions, such as the National Emergency Management Agency, that deal with issues of natural disasters such as flood or drought. Bringing in such a group would help build the CoP in Nigeria and Africa. No dedicated social media networks for EO disaster information, but Facebook has a lot of traction in Nigeria and in Africa. Could create a Facebook page for that purpose. Could share the information in that community externally as well.
- *Juan Carlos Villagran*: UN SPIDER carries out capacity development efforts at the national level. For example, in Nigeria, they work in contact with two government institutions. They work in other countries throughout Africa as well. GMES approach has a capacity development component. Wants to do training courses in Mozambique, South Africa, Niger, Ghana, Nigeria and elsewhere with national disaster management agencies. They are hosting a flooding training soon with Morwapula Mashalane at SANSA. There is a need to address the use of different languages (such as French in West Africa). Imagine the same is true in other regions. Brazilian colleagues help use Portuguese in Mozambique.
- *Dan Matsapola*: East Africa is usually represented by RCMRD. New players like Kenya Space Agency would be obvious candidates to invite. National Disaster Management centers would be very active, even with less of an EO connection. Also note that South Africa has provincial stakeholders that need help.
- *Morwapula Mashalane*: Getting information in the hands of people is crucial. Has a few operational systems for multiple drought types. That information is circulated amongst specialists but might not make it to the general person/farmer on the ground who could make a decision. This is the biggest gap in South Africa.
- *Dan Matsapola*: From being involved with meteorological organizations and other disaster organizations, Dan would be actively involved in the CoP for Southern Africa and is happy to play a major role in the group as they hope to service the needs in the region.

- *Bolarinwa Balogun*: In Nigeria, droughts are not an incident that are often reported. The only droughts happen in the northern part of the country, which is much drier. The challenge is that any work that could be done to identify drought needs to be encouraged.
- *Dan Matsapola*: The economies of Africa are tied to agriculture, and drought can cause major consequences. Seeing an increase in drought-prone areas impacts food security and farmers' livelihoods. There needs to be greater awareness; working with EO experts who share the tools available can build capacity to articulate extent of damage and mitigation strategies.
- *Morwapula Mashalane:* An operational tool on drought in South Africa can be accessed through the link https://www.dws.gov.za/niwis2/DroughtStatusManagement/DroughtStatusOverview. This is from EO data integrated with in-situ data.
- *Sara Miller*: Drought monitoring work in SERVIR (E&S Africa). Many regional tools: rangeland services, many different indices (NDVI, ESI, CDI, remotely sensed soil moisture)
- *Dan Matsapola*: Are the tools really being used? We need the user perspective. What value does the tool add for users (especially governments)?
- *Emil Cherrington*: Are the sheer volume of tools and resources overwhelming in floods? Does drought have the opposite problem?
- *Juan Carlos Villagran*: To reach users, we communicate throughout the years with agencies to understand their level of awareness about what is available. For DRR efforts, they are very willing to take note of what is available. Especially for countries without space agencies, they may not be aware of new products and tools. Requires constant communication over years, not one-off training and webinars. Keeps ties with National Disaster Management Agencies. Had a regional expert meeting a few months ago with presentations from NDMC, DMTC, and SANSA. Some of the needs they mentioned are challenges to the EO community.
    - For example, cattle managers need to differentiate good quality pasture from brushes the cattle do not eat. Those pastures show up differently on satellite imagery. You have to learn to tell the difference between what is suitable and what is not to provide the most useful tools
    - Added some tools to the tracker that utilize MODIS, but sees an opportunity to combine with Sentinel for greater benefit. Reaching the stakeholders might not be at the national level, but at the local level, which can be challenging to reach when there is no space agency.
- *Dan Matsapola*: Space agencies make a big difference, when there is a national mandate and traditional users, but there is a need to reach out to non-traditional users of EO. To celebrate National Science Week this August, they traced the journey of two young people into the space industry to encourage young people. Goal is to develop all 52 districts of South Africa. Just after a tropical storm, they went into a district to see how the tool supported that community. Rural users communicated the benefit of these tools, but how can you quantify or evaluate those tools? Decision-makers come and go, but those on the ground doing the work are more aware now. Let's bring more users to share their stories. Can bring in additional users who aren't aware that they *could* be users.
- *Nancy Searby*: Perhaps we need multiple CoPs in Africa to reach into existing regional networks. Doesn't think we *need* a space agency to facilitate uptake of tools, but should still be able to communicate this information in spite of barriers. We have the ability to study drought now, and perhaps there are fewer tools, which makes uptake easier for each use.
- *Nina Kickinger:* I don't have individual data on drought to share, but Space4Water also is a community portal, introducing stakeholder's tools, software, models, projects, missions, etc. We publish articles on the use of space technology for water management and soon will release an overview article on space technologies to monitor drought. www.space4water.org