

## Irwin Plenary Remarks at Africa Geospatial Data and Internet Conference, Accra, Ghana

### *Acknowledgements*

- I'm deeply honored to speak on behalf of NASA to address the Africa Geospatial Data and Internet conference today. I would also like to thank CERSGIS, USAID, CILSS, AGRHYMET, and the SERVIR-West Africa Project Coordination Unit for the opportunity to participate in this landmark event.
- I would also like to acknowledge the participation of important private sector partners in supporting events like this.

### *African context*

- As you are aware, the West Africa Cloud Computing conference organized by SERVIR-West Africa has been folded into the conference, and that itself is a testament to both the synergies that SERVIR-West Africa has been exploring with like-minded initiatives, and the importance of geospatial data management to the continent's future.
- Key SERVIR-West Africa services - for addressing development and environmental challenges - have been developed using cloud-based technologies, and they are all geospatial in nature, in line with the focus of this conference.
- SERVIR-West Africa, in addition to SERVIR-Eastern & Southern Africa, headquartered at **RCMRD**, and SERVIR's global network on a whole, have been developing new geospatial datasets for the continent, all with an eye toward supporting sustainable development, for the benefit of society.
- In the context of SERVIR, NASA, for instance, has supported, and continues to support collaborations between top African remote sensing and geospatial scientists and top US researchers who are parts of our SERVIR Applied Science Teams, the most recent of which was just appointed to a three year term from 2019 to 2022.

### *Cloud-based computing*

- Focusing specifically on the geospatial and cloud computing themes, we are particularly intrigued by new opportunities, such as **the use of cloud-based computing** to rapidly monitor of our environment.
- Through SERVIR-West Africa, for example, we have real examples of how cloud-based technologies can be used to **rapidly generate reference data and land cover data for monitoring**.
- The ephemeral water body monitoring service leverages the powerful Google Earth Engine platform to provide up-to-date information on water resources in arid regions like the Ferlo, in Senegal.
- The gamsey monitoring tool developed by CERSGIS, here in Ghana, meets a similar function, in its innovative leveraging of the cloud and NASA and European Earth observation data.
- At the global level, NASA is also working closely with the FAO in delivering cloud-based tools such as Collect Earth Online, an open source platform created to collect individual or crowdsourced reference data to classify and monitor land cover / land use change.

- Those are just a few examples of what can be done, as the sky is the limit if we apply ourselves.

#### *Upcoming missions*

- We are also pleased with how the SERVIR-West Africa - and SERVIR-Eastern & Southern Africa continue to position themselves as scientific leaders in the use of both the best NASA Earth observation data and the latest technologies to do that monitoring.
- Earlier this year, both SERVIR hubs hosted trainings related to the use of cutting edge LiDAR technologies for **forest biomass estimation**, here in Accra, as well as in Nairobi.
- Those trainings help ensure that the region is prepared for relevant upcoming NASA missions like **NISAR, JPSS-2, Landsat-9, and Landsat-10.**

#### *Close*

- In closing, for NASA, that is the essence of why we are all gathered here today: to ensure that the continent continues to absorb and to take advantage of the most innovative and appropriate science and technology, for the benefit of society.
- We likewise acknowledge that science is a two-way street, and that understanding what is occurring in Africa is absolutely critical to understanding **what is occurring at the global level**, to the Earth as a system.
- Please be sure that the highest levels of NASA management will be looking to hear about the outcomes of this conference.
- We appreciate your time and your presence. We are confident that we all leave here with a renewed commitment to put geospatial data and tools to the service of society. Thank you.