



Big satellite data opportunities, challenges, issues: *Africa user perspective*

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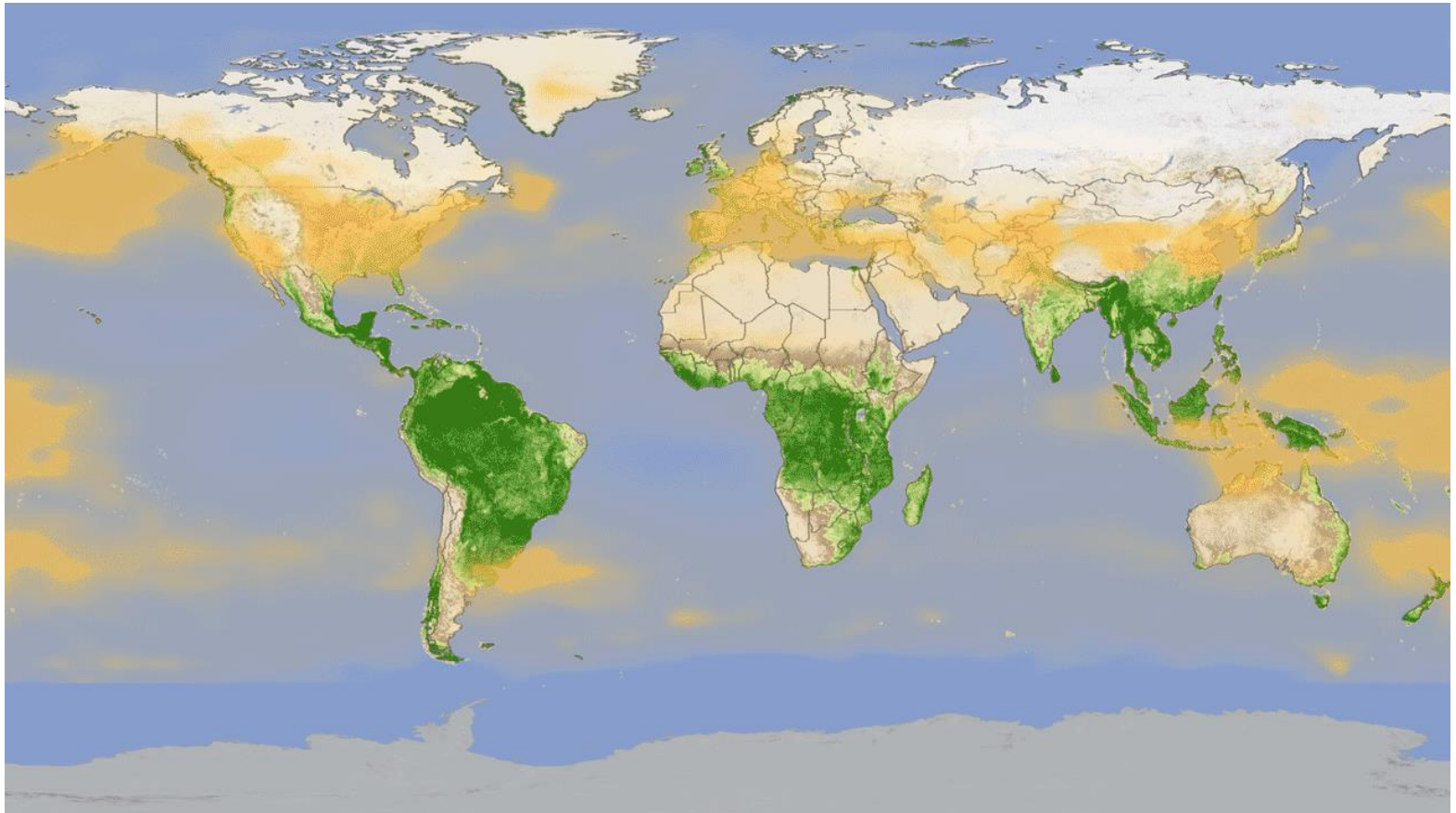
Content



- Introduction,
- Opportunities,
- Challenges,
- Issues to be considered



What is this?





Why should this happen?





How long will this continue?





Who's duty to manage this?





Introduction

Big satellite data use in Africa

– **Need to monitor climate change and its effects;**

- Droughts,
- Food security,
- Landslides
- Coastline erosion
- Flush floods

– **Infrastructure development & management**

- Increase facilities (e.g. Health, Assistance)
- Planned response and relief (Spatial data management)

Africa to consider use of space-based technology as a base to address developmental issues.



Opportunities



- Open source satellite data management available for all situations globally (Historical data for Floods and Droughts)
- Accessible processed satellite data (Maps, openstreets maps for navigation)
- Early warnings for distresses (faults zones and landscape, land use and land cover)
- Infrastructure development (urbanization, population schedules)
- Health dangers documentation (pathological infection and its remote treatment)



Challenges



- Knowledge of data expediency & capacity building
- Lack of processing expertise (Administrative)
- Lack of memorandum of understanding to access available & affordable resources (cloud data sources)
- Lack of resources for enactment of big satellite data for decision making.



Issues to be considered



- Government capacity to support satellite data management
 - Effective policy & regulation for decision making
 - Awareness creation for big satellite data suitability

Africa is behind schedule in the use of big satellite data for the management of disasters.

From Sentinel-1 Satellite Imagery

EESR01 MSG 221 RGB 08/11/2018 1200 UTC

you

Map of the Tana River Basin showing land use affected by the dam project. The map highlights the river and its tributaries, with a red line indicating the project area. A pie chart shows that 97% of the land affected is Cropland and 3% is Forestland. An inset map shows the location of the basin within Kenya.

Legend

- Green: Capital
- Red: Investment
- Blue: Network
- Yellow: Information
- Orange: Knowledge
- Purple: Power
- Grey: Other

0 5 10 15 20 25 Kilometers

0 5 10 Miles



Composed by:
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