



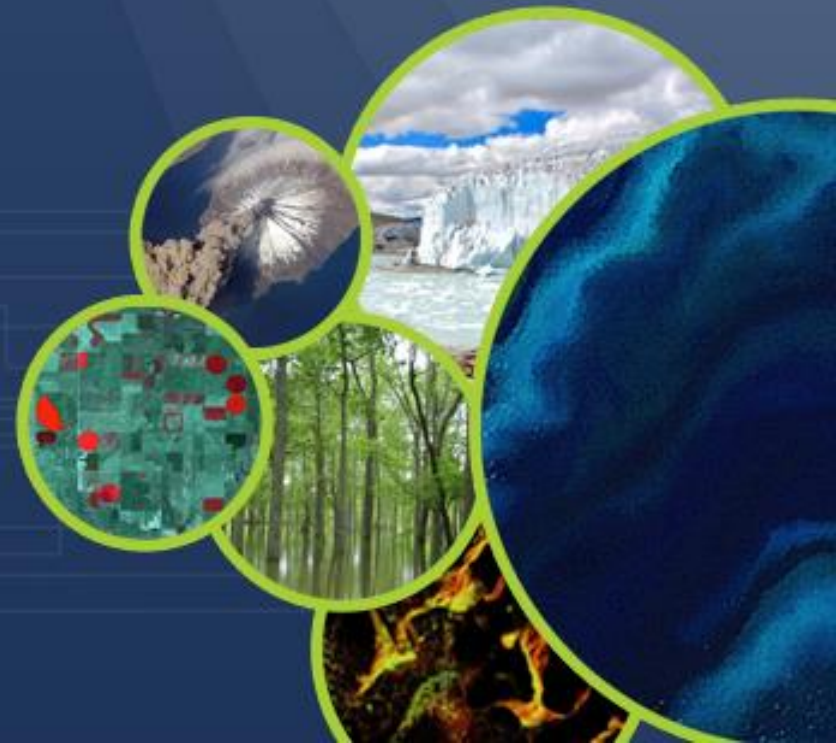
Committee on Earth Observation Satellites

GEO-DARMA Update and Status

WG Disasters 15

10 March, 2021 –
Teleconference

Ivan Petiteville, Chair, GEO-DARMA SC
Andrew Eddy, Secretary, GEO-DARMA SC





GEO Programme Board review team (24 August 2020)

made following assessment:

- Review Team congratulated GEO-DARMA on strong relationships with regional institutions.
- Projects have been slow to start due to funding problems and now COVID.
- Prospects for better results in 2021 in Africa (PRIDE) and Asia (UNGGIM).
- Recommends selecting priorities and pushing for faster implementation for those projects.



GEO-DARMA has focused on developing interest for new projects, especially in Africa and LAC:

- **PRIDE-Botswana:** RCMRD and Uni Bochum will partner for a proposal to develop a PRIDE pilot in Botswana (*see next slide*).
- **Colombian University risk reduction effort:** project to showcase local risk reduction projects using high resolution imagery (*suspended due to COVID but could start again mid 2021*).
- **Long-term collaboration with CEPREDENAC:** build on RO Demo activation work to provide satellite data for long-term recovery monitoring and risk reduction efforts (*CEPREDENAC GIS Team*).

Users: Department of Water Affairs (Botswana), RCMRD

Approach: *testbed* – pilot – demonstrator

Main elements:

- Develop **dashboard** showing past and present flood and drought – integrate existing open sources and develop satellite-based methodology for high and very high-resolution monitoring.
- **Baseline flood monitoring** using Sentinel-1 with added CSK and SAOCOM for temporal resolution (Central and Northeast districts).
- **Baseline drought monitoring (impact and prediction)** using Sentinel-1 and 2, with validation of hotspots at VHR spatial resolution using Pleiades, CSK, TSX, and SAOCOM (Central district).
- AI big data analysis – integrate LIST Hasard/S-1 (flood) and analyse past drought events (S-2) to **identify recurring variables**.

Outcomes: **validated, scalable methodology** for regular monitoring across 20 RCMRD countries



- **APDC:** SERVIR-Mekong up and running but unable to identify RADARSAT data in archives relevant to flood library of interest; no further collaboration planned at this time.
- **ESCAP:** waiting on requirements from UN-GGIM project on integrated geospatial monitoring for land accounting and SDGs.
- **PRIDE-Botswana:** proposal to ESA by 26 March.
- **CEPREDENAC GIS Team** to work on RO Demo activation #1 – Iota, and define longer term DRR needs for GEO-DARMA request mid 2021.



Thank you!

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