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## Seasonal and Long-term Change Detection: Understanding the Present and Anticipating the Future

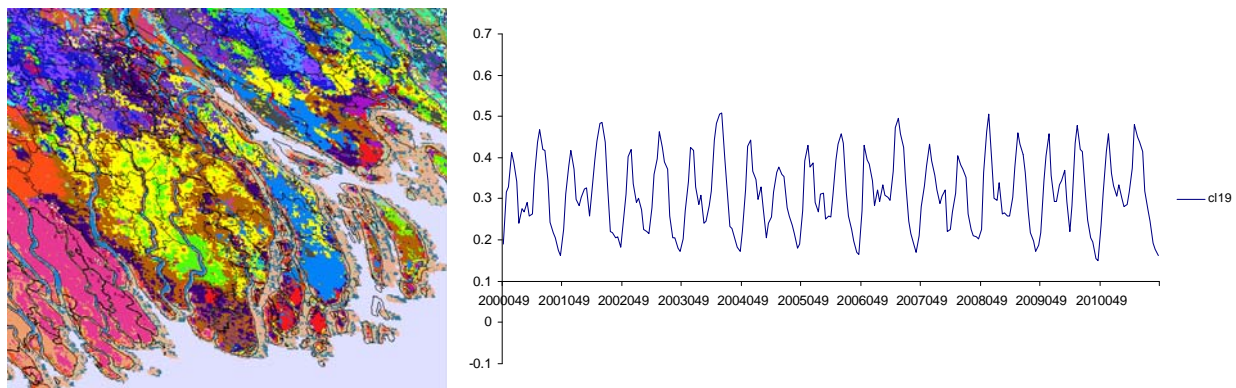
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### Session: Basin [Ganges] and Spatial Analysis and Modeling



AGRO-ECOSYSTEMS AND THEIR SEASONALITY IN THE GANGES BDC TARGET AREA, SOUTHWEST BANGLADESH

### Key Message

Spatio-temporal analysis of variation and change in vegetation coverage during the last decade until the present provides a basis for targeting and out-scaling interventions that enhance adaptation and resilience.

## Summary

We introduce a quick and robust analysis of seasonal and long-term change in vegetation cover over southwestern Bangladesh. The method discerns and detects change in agro-ecological systems over an 11-year (and counting) period since 2000 till present. The analysis is replicated easily in other basins,

updated near-real time, and is based on satellite data that are publicly available. Preliminary results suggest single- and double crop rice dominated farming over most of the target area, with the exception of Bhola district where triple cropping (Aman-Aus-Boro) is discernable. The results suggest, as expected, lower crop productivity towards salt-water affected coastal areas. Although little or no long-term change is discernable in the Ganges BDC target area over the last decade, we demonstrate with an example from the Mekong that such change, if and when it takes place, can be detected with this application. Hence, the method will be useful in scenario- and extrapolation domain analysis.