

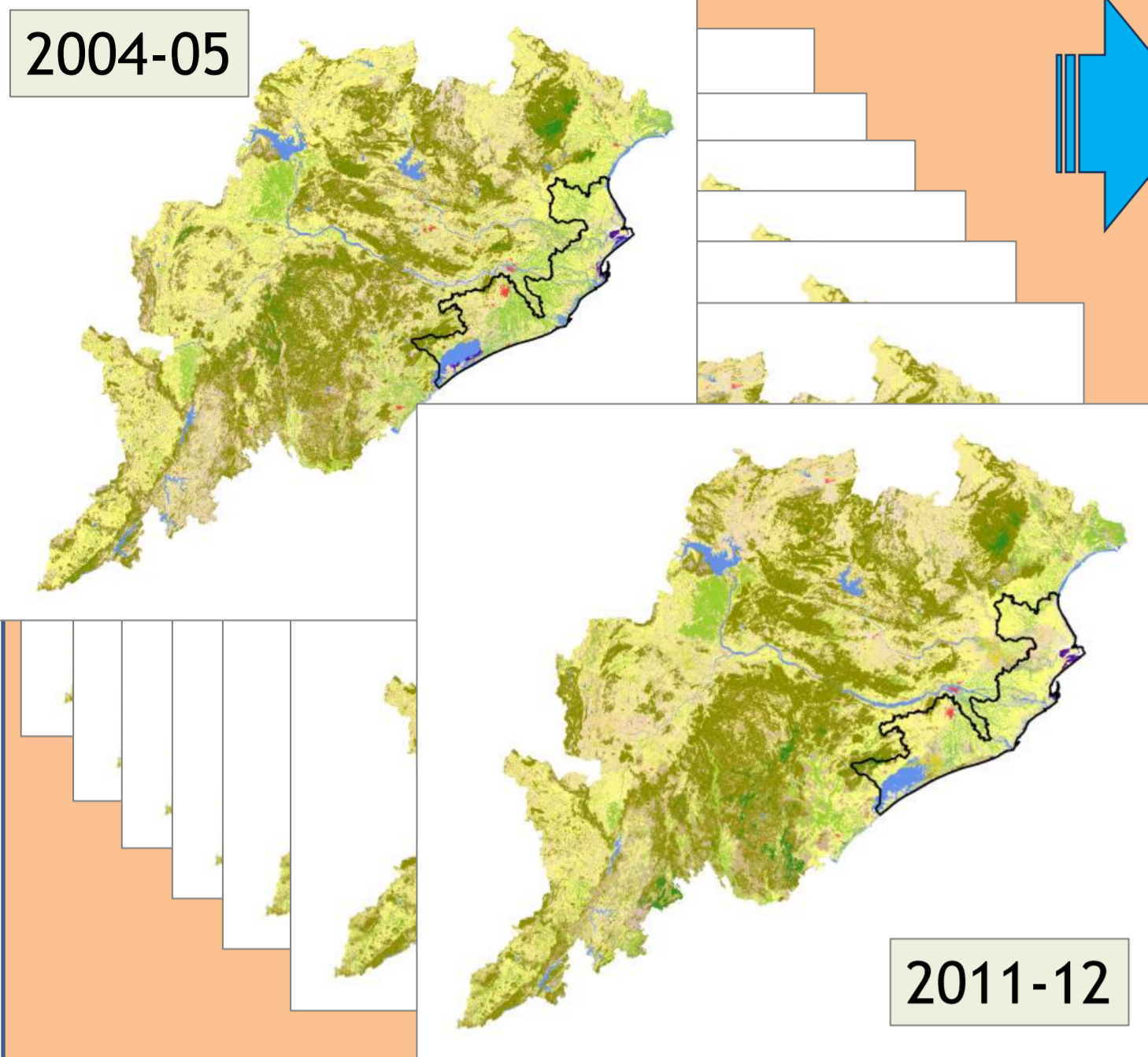
Adaptive Capacity Characterization Using Satellite Data Derived Land Use/Land Cover

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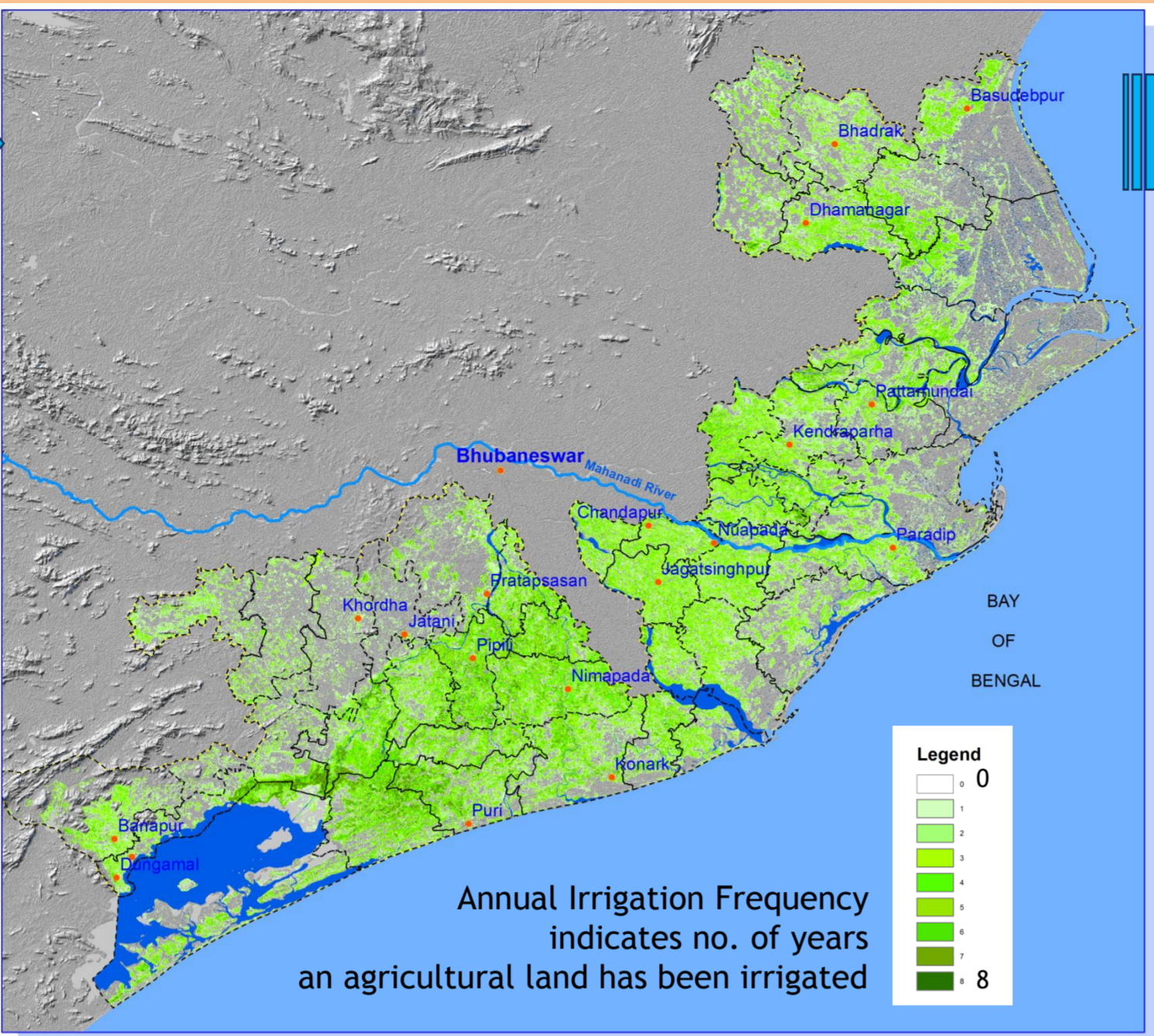
Annual Land use / Land cover

2004-05

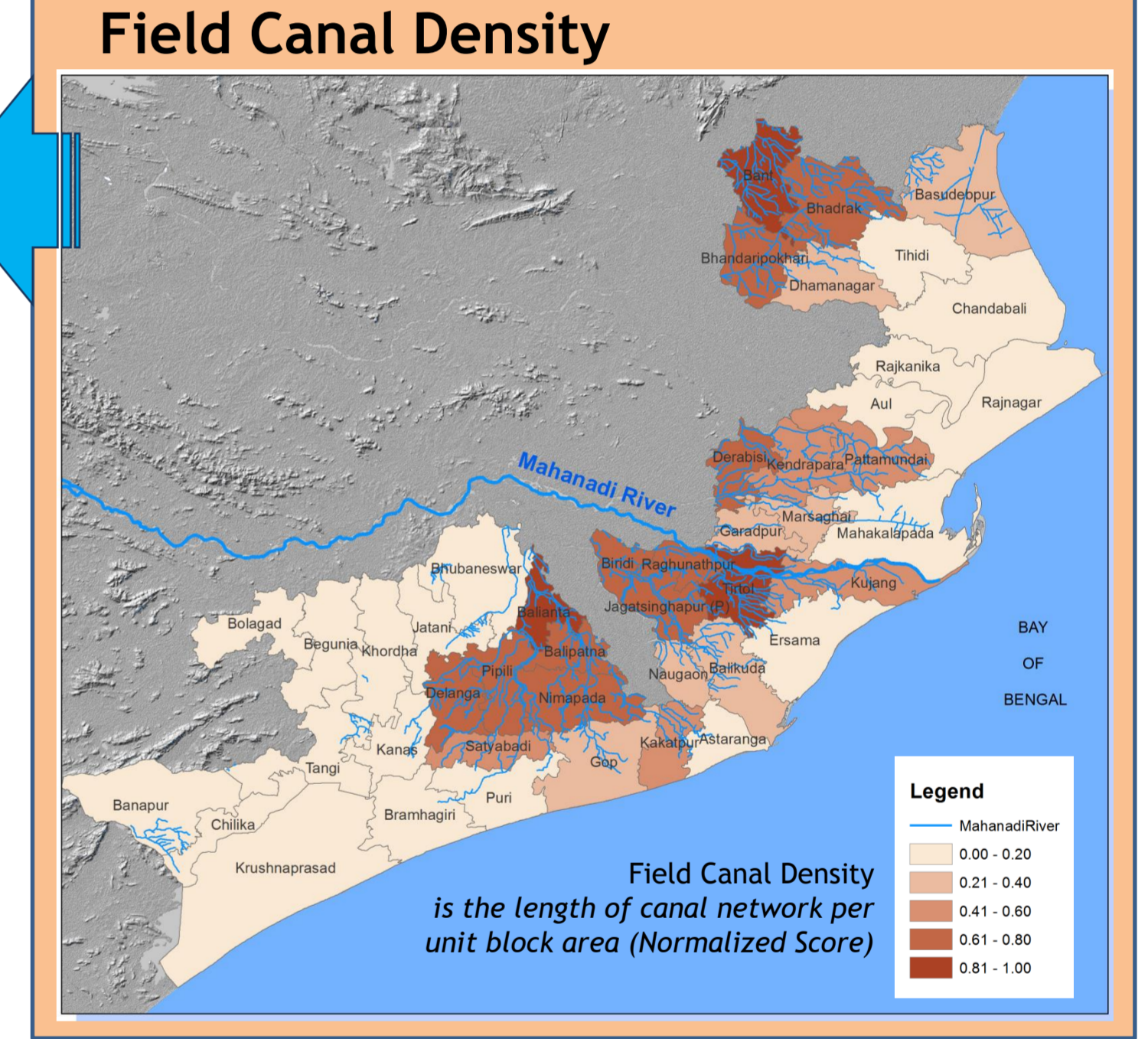
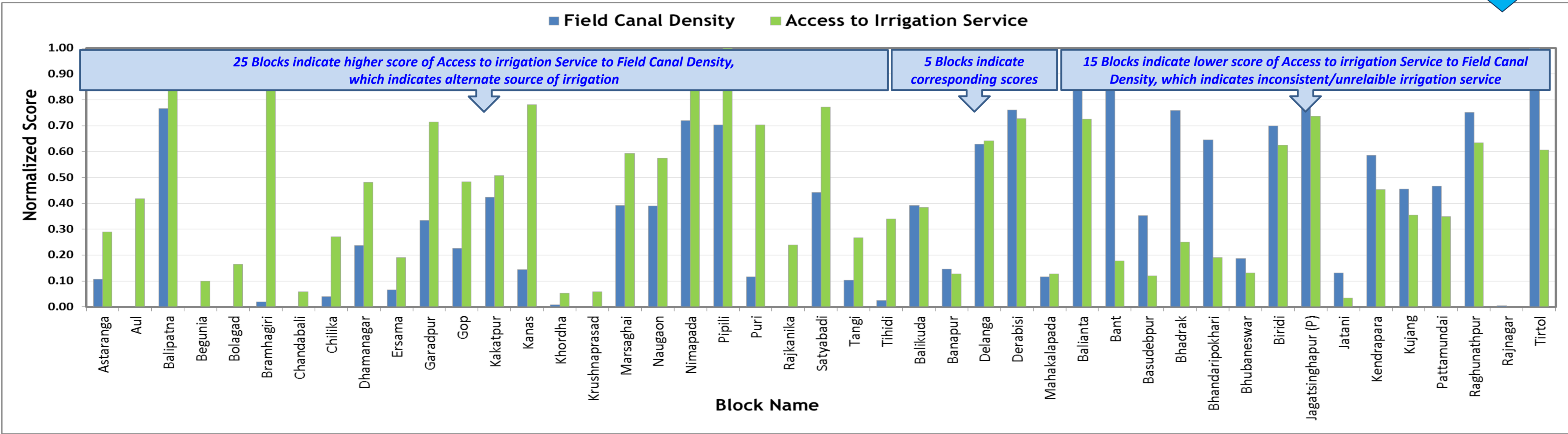
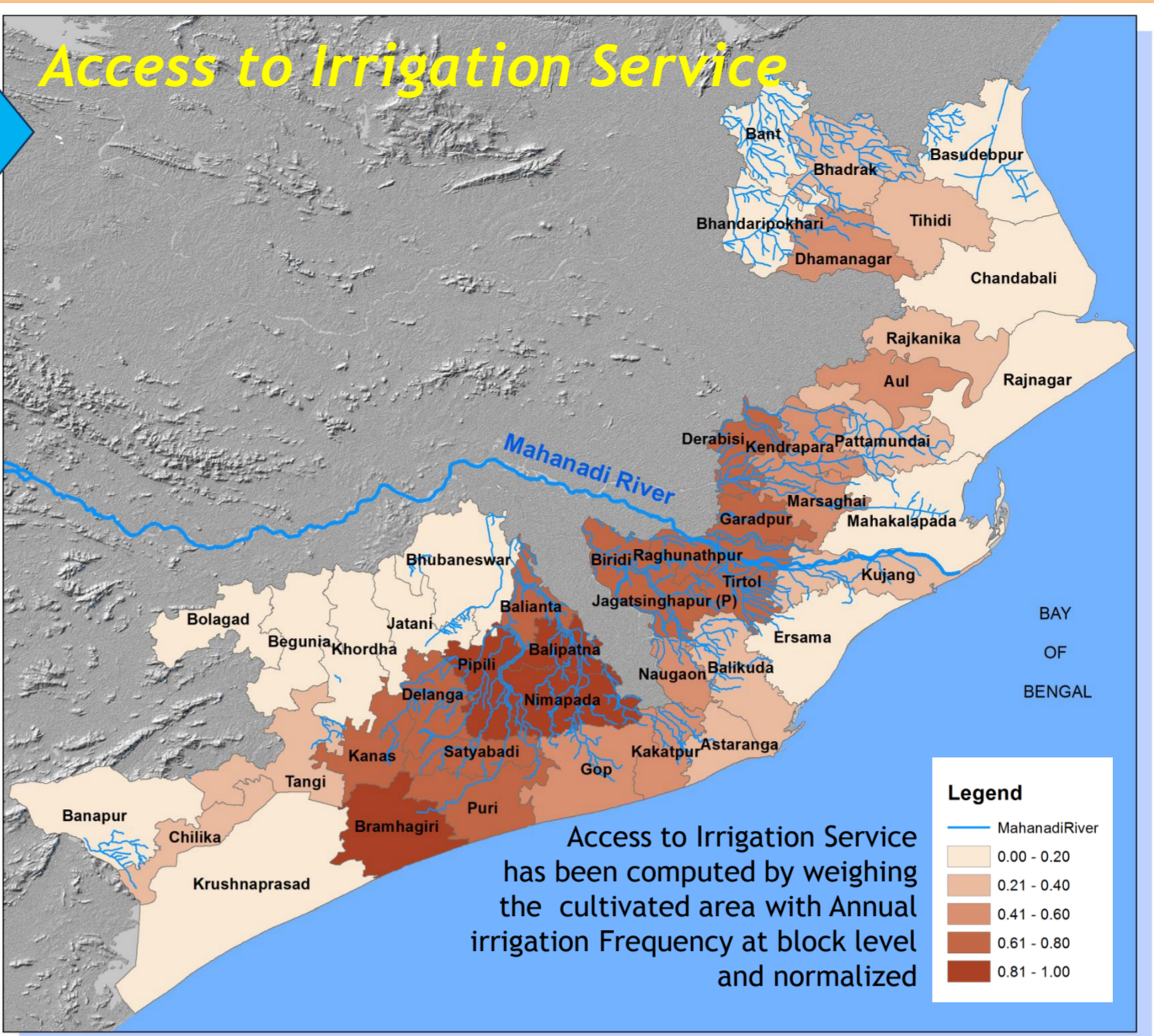


2011-12

Annual Irrigation Frequency



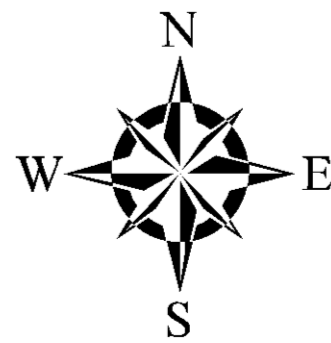
Adaptive Capacity



Abstract

Evaluating the adaptive capacity is one of the essential components in climate change vulnerability assessment and is key to climate change adaptation planning. Adaptive capacity can be determined by the access to resources that could help in responding to the threats and exposures (e.g., supplementary irrigation requirement). However, access to resources will not alone determine/enhance the adaptive capacity, when such resources show spatial and temporal dynamics and are influenced by policy and governance.

Access to irrigation service typically facilitates 2-3 times crop cultivation during a water year. Annual land use/land cover data available with National Remote Sensing Centre, Indian Space Research Organisation, indicated the areas where crops were cultivated in more than once. In support of DECCMA study for IBD/Mahanadi deltas, archives of annual land use/land cover (2004-05 to 2011-12) were used to identify the irrigated area at each geo-location. The frequency weighted area under each administrative unit was used to quantify the access to irrigation service which is an indicator of adaptive capacity for managing water shortage under climate change conditions.



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