

Achieving Water Security: Innovative Solutions for System Resilience

Dr. Walter Baethgen

Director, Latin American and Caribbean Program
International Research Institute for Climate and Society

Framework theme: Water for Growth and Development

*Crosscutting perspective: Application of Science, Technology and
Knowledge*

IRI LAC Regional Office
<http://iri.columbia.edu>
Juan M Perez 2917
Montevideo, URUGUAY

IRI Headquarters
<http://iri.columbia.edu>
61 Route 9W
Palisades, NY 10964-8000

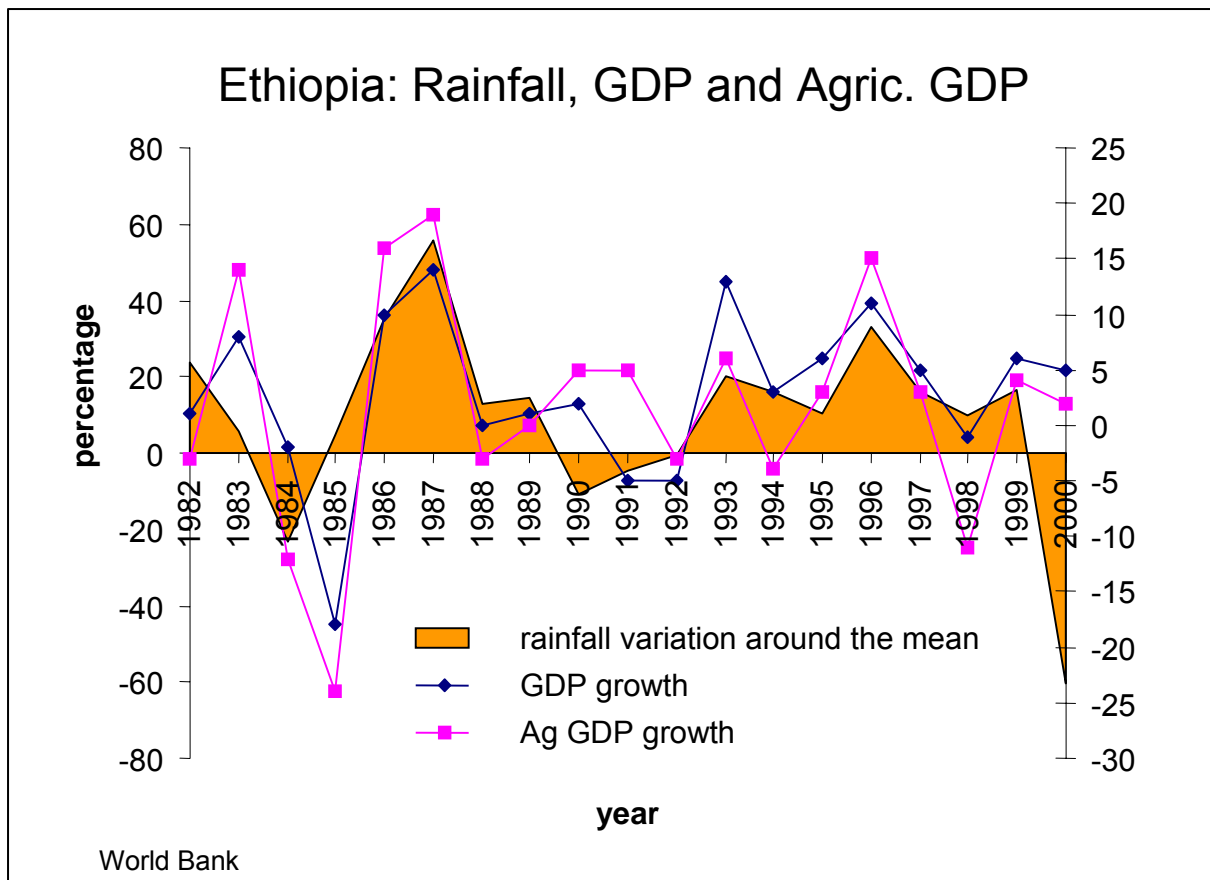


Achieving Water Security

- Definition of Water Security
- Impact of Water Insecurity
- Context – driven water security
 - Climate
 - Infrastructure
 - Economy



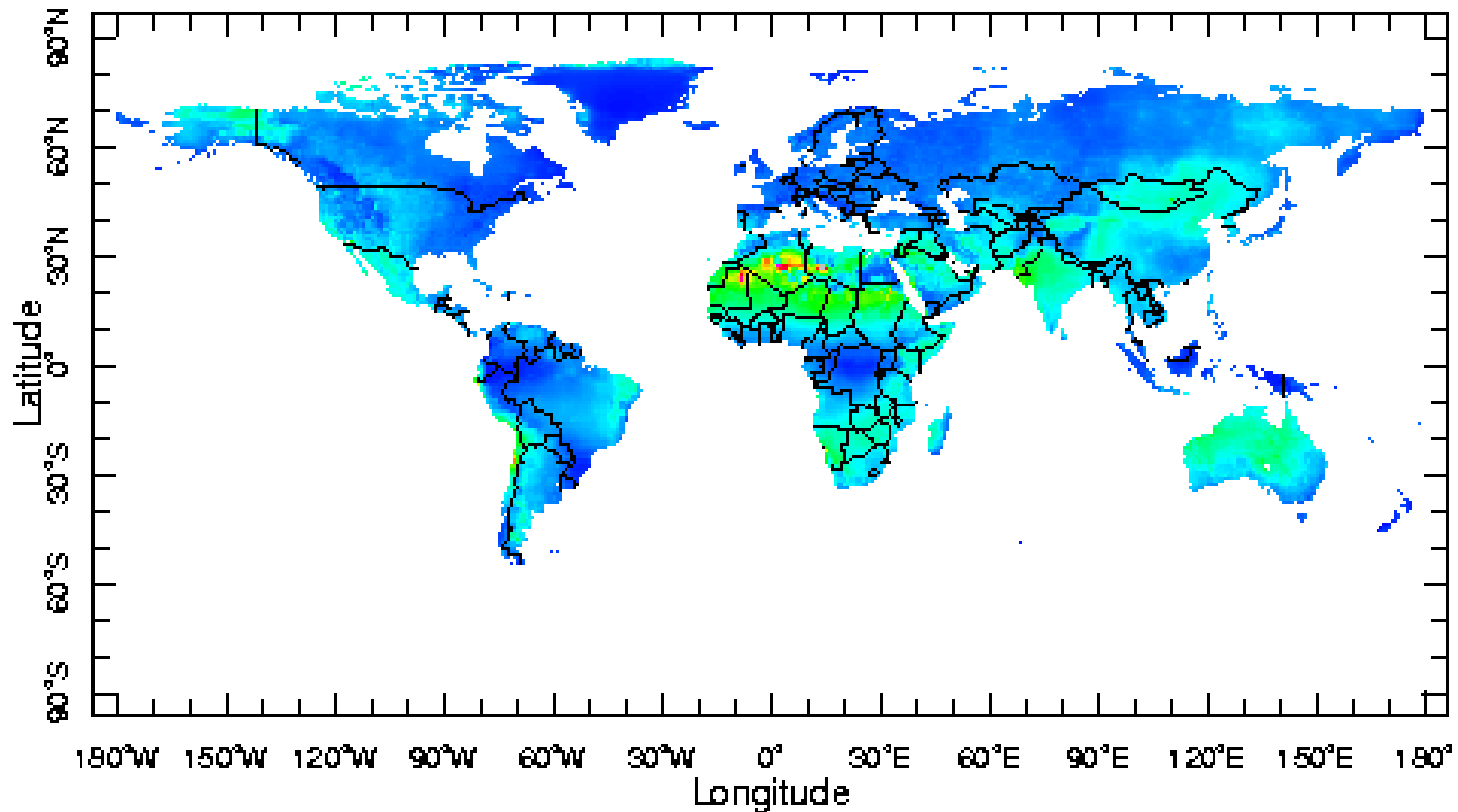
Economic Impact of Climate Variability



(World Bank, 2005)



Challenging Climate – High within Year Rainfall variability (wet season – dry season)

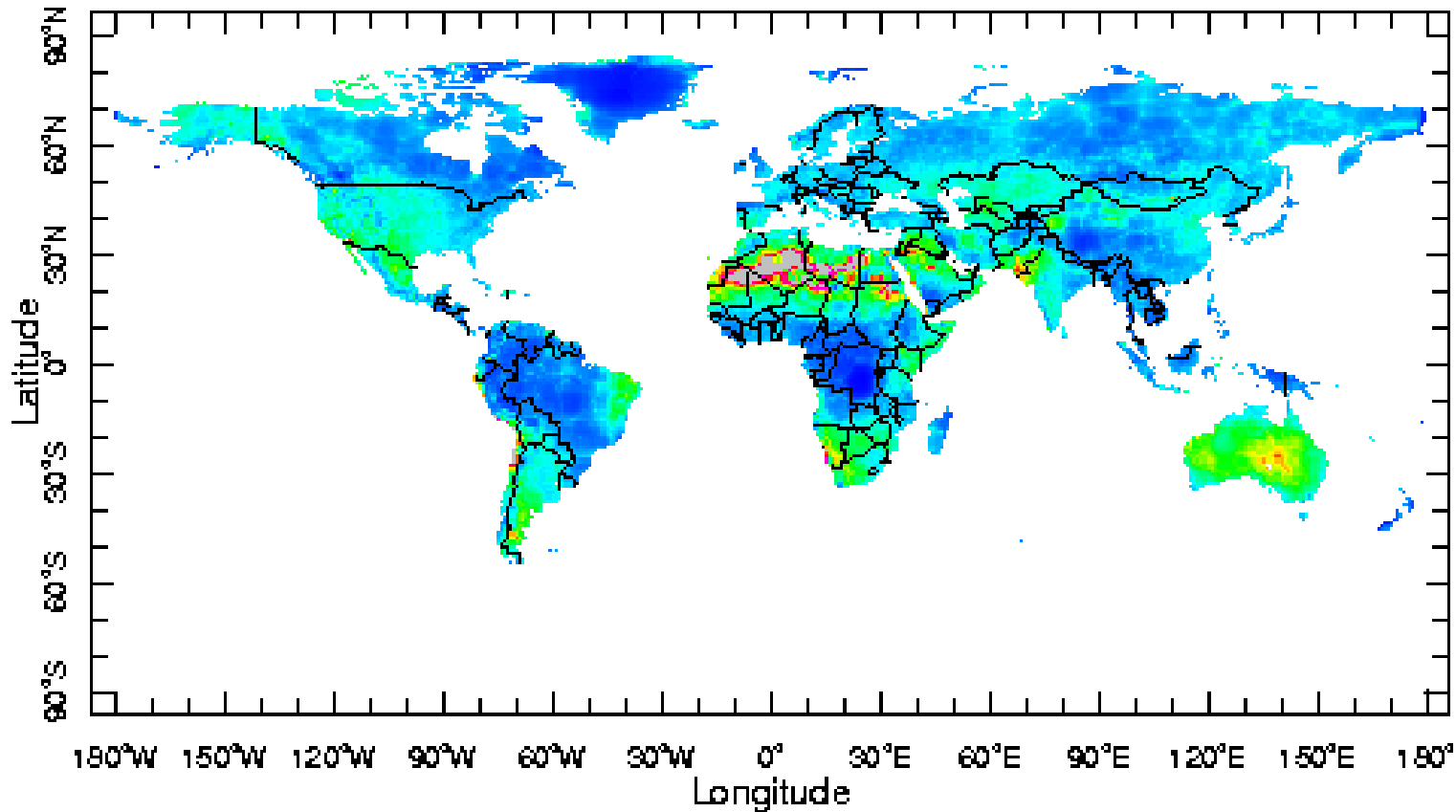


(Brown and Lall, 2006)

Challenging Climate – High Year to Year variability (frequent drought; ENSO)



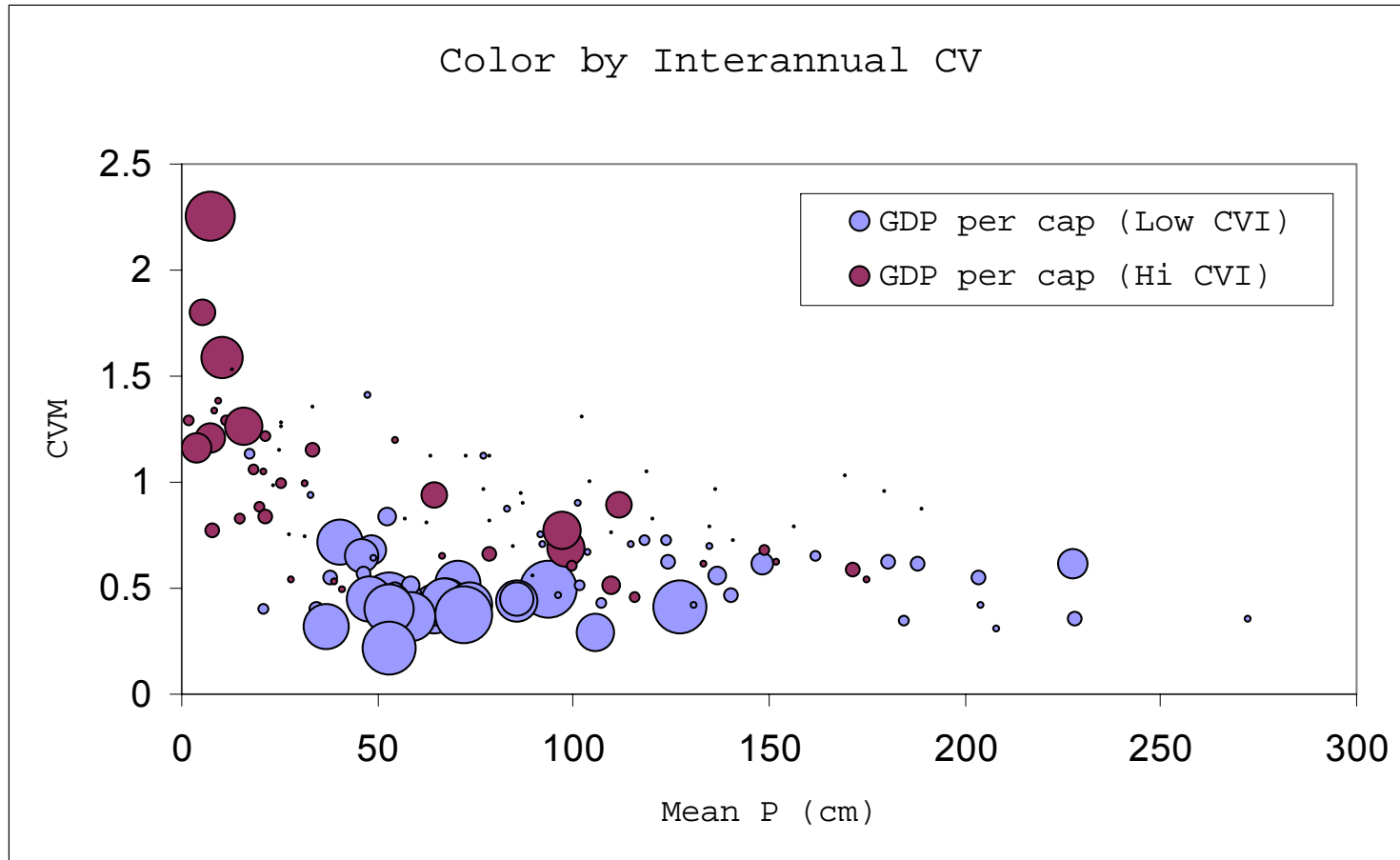
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(Brown and Lall, 2006)

Climate “Sweet Spot”

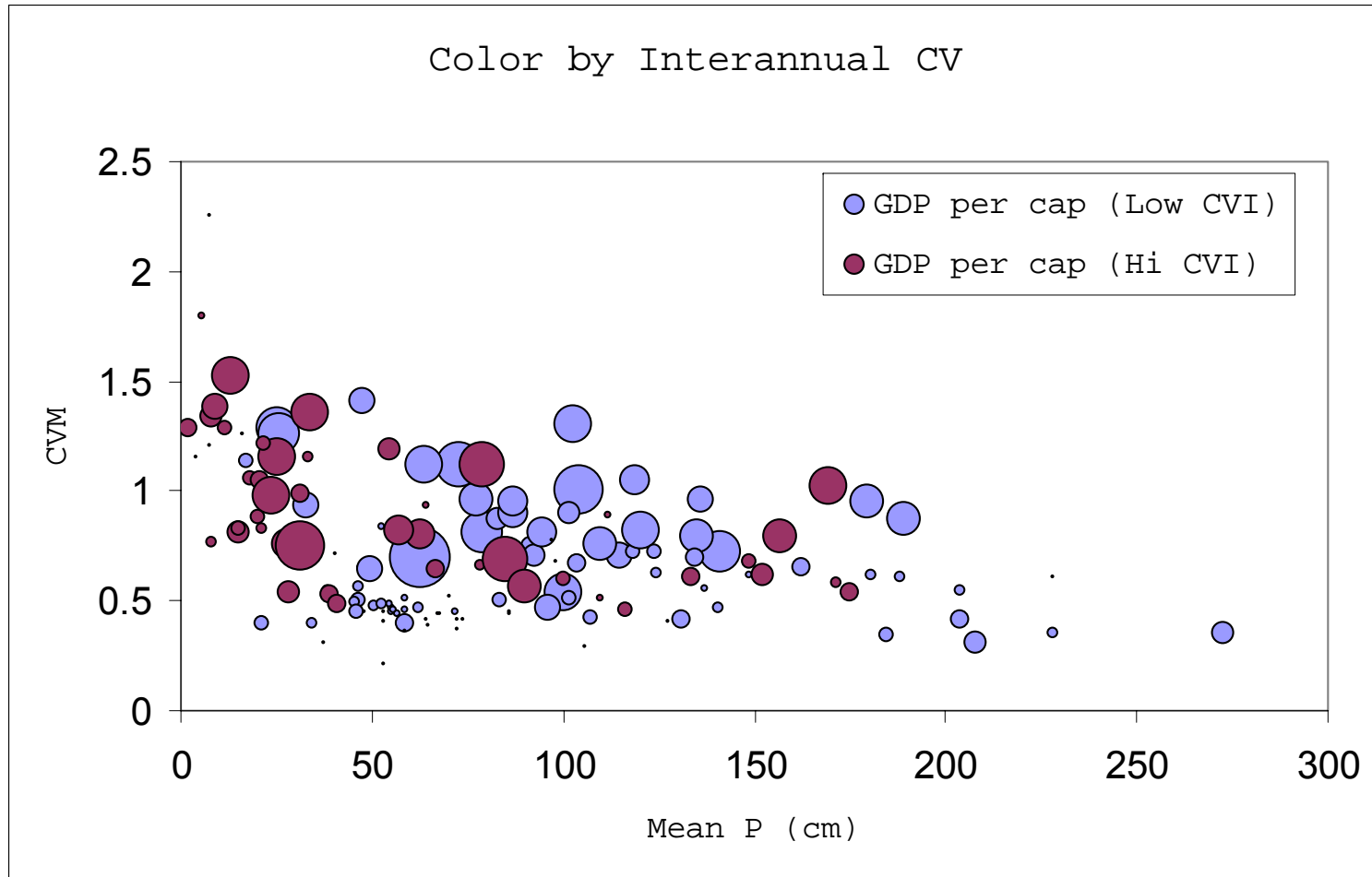
Low Rainfall variability = High GDP



(Brown and Lall, 2006)

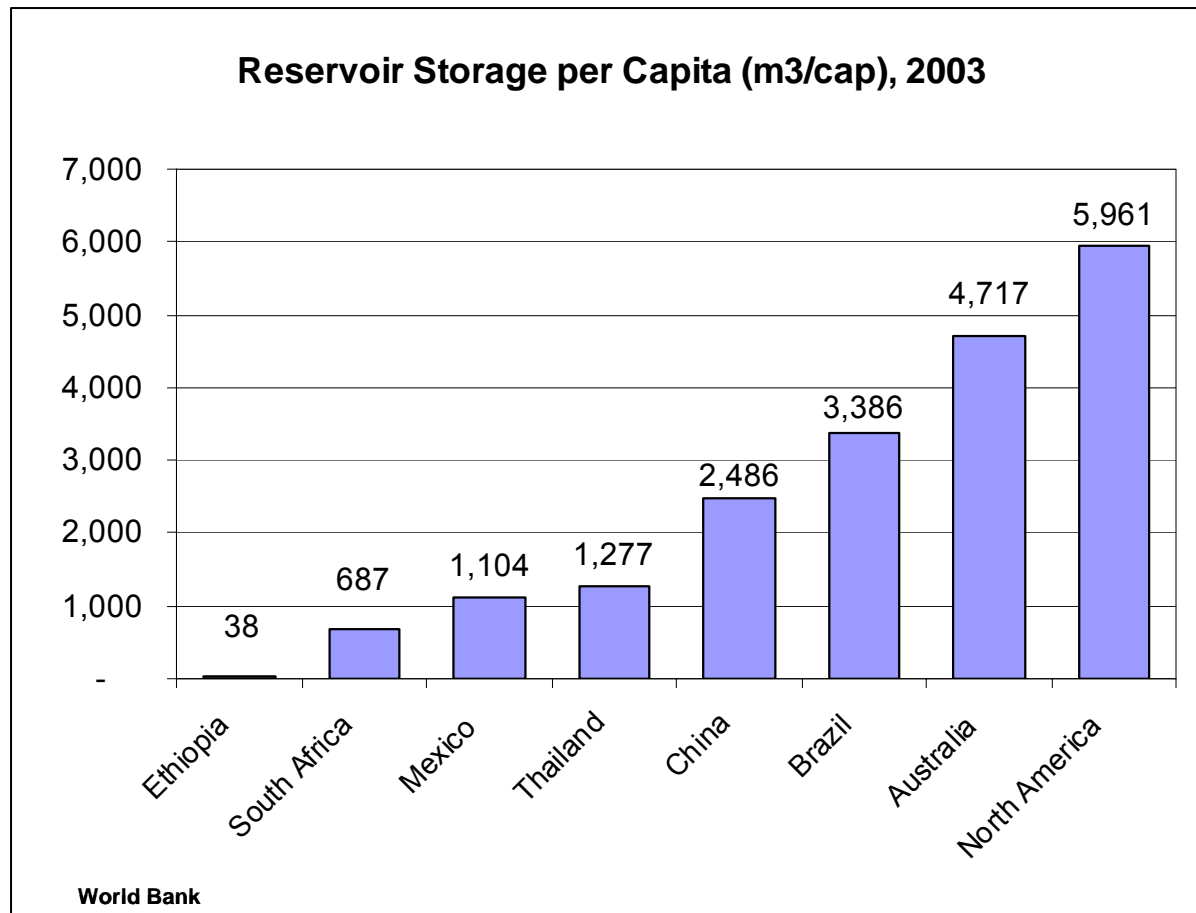


High in Year Variability = Low GDP



(Brown and Lall, 2006)

The Infrastructure Gap



(World Bank, 2005)



Innovative Solutions

- Identifying vulnerability
- Early Warning of Drought and Flood
- Water policy interventions
- Infrastructure

Today's Session

LOCAL ACTIONS:

- “Aridity Zones Mapping in Latin America and the Caribbean”
 - Dr. Fernando Santibañez (CAZALAC)
- “Climate Risk Management for a Multi-use Reservoir using Climate Forecasts”
 - Dr. Casey Brown (IRI)
- “Flood Forecasting System for integrated natural resources management in the Niger Inner Delta, Mali”
 - Dr. Abou Amani (AGRHYMET)

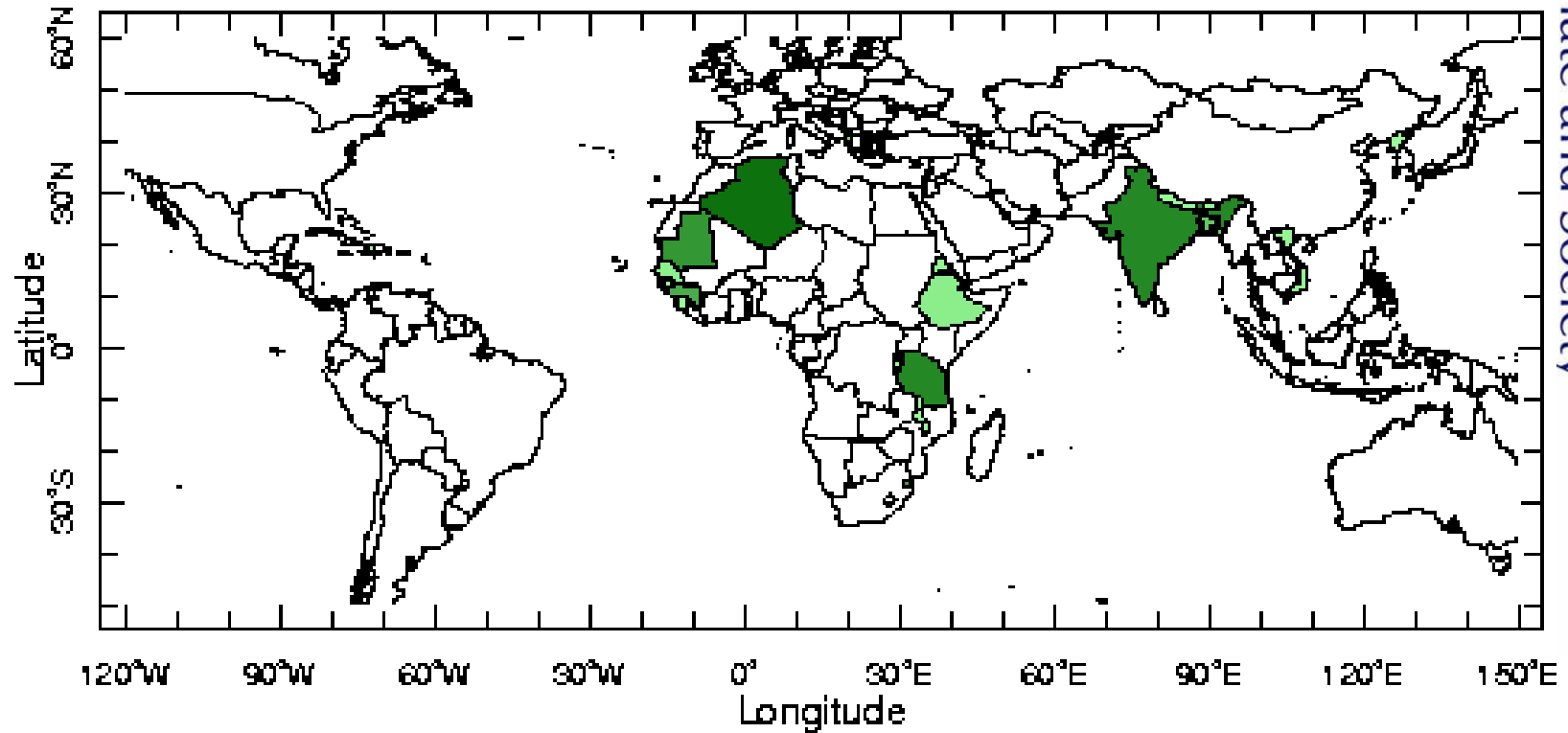




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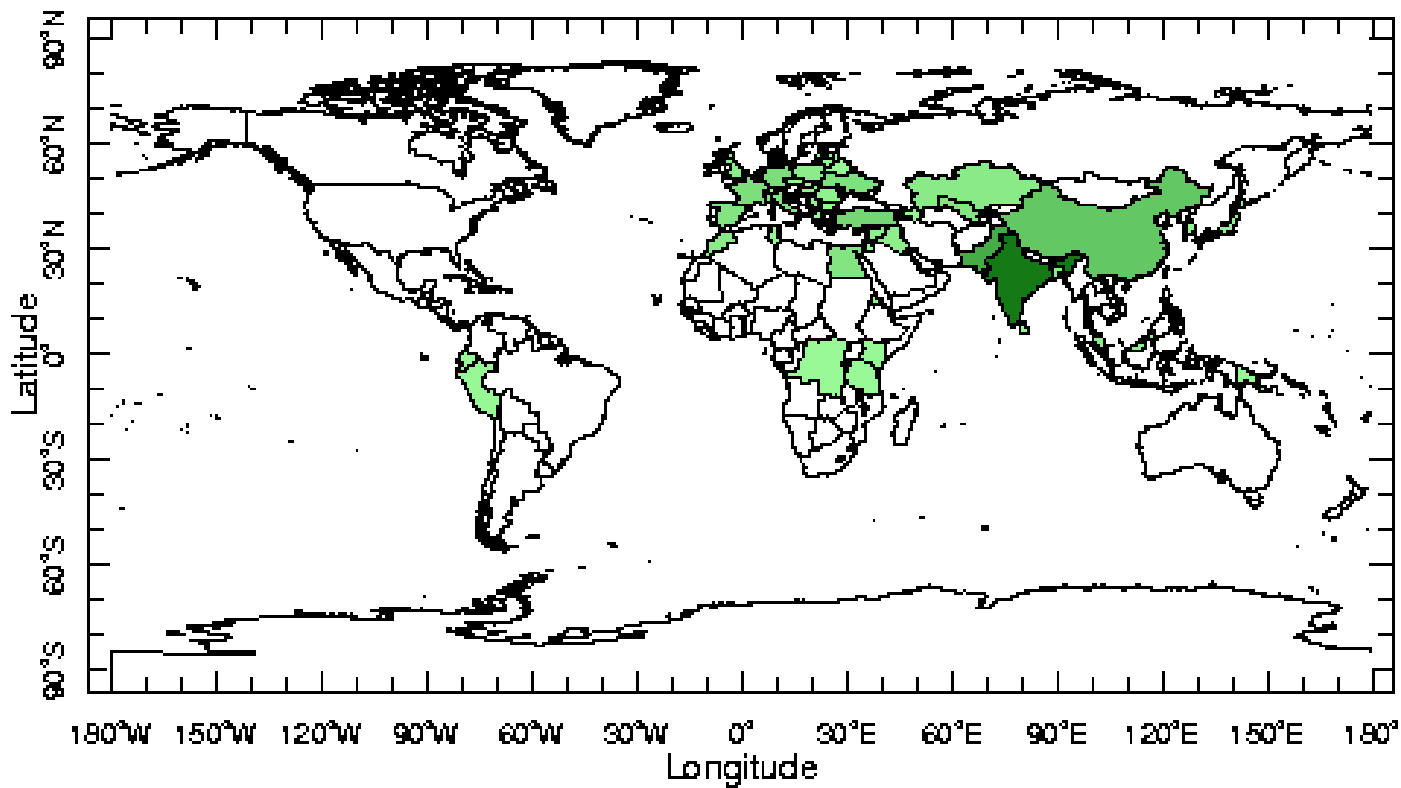
Countries that likely lack Infrastructure



(Brown and Lall, 2006)



Countries Needing Innovative Solutions



(Brown and Lall, 2006)

