



ClimDev-Africa

Regional Climate Change Implications and the Possible Role of Regional Institutions

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The World Bank

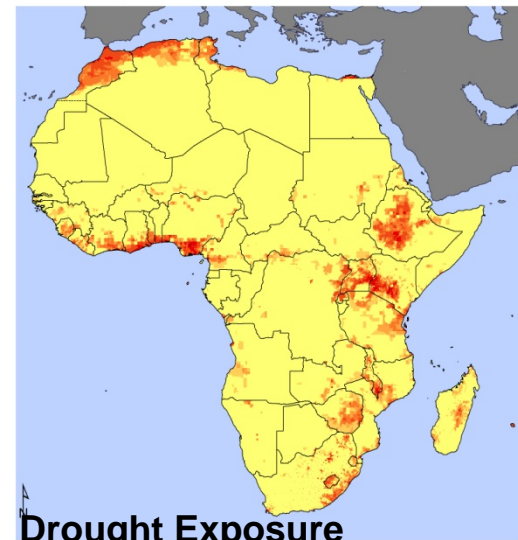
***Topic 4.3: Roles and Experiences of RECs and other
African Regional Institutions on Climate Change***

**Presentation at
Climate Change and Development in Africa Conference
October 19, 2011
Addis Ababa**



Africa currently faces many climate risks...

Africa Union: Exposure to Droughts

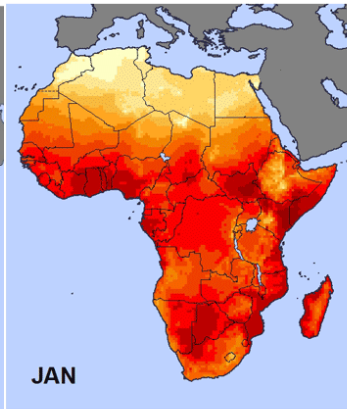


Drought Exposure

Exposure to droughts
(Average number of people exposed to droughts per grid cell per year)

0 - 25 50 - 100 250 - 1000 5000 - 150000

25 - 50 100 - 250 1000 - 5000

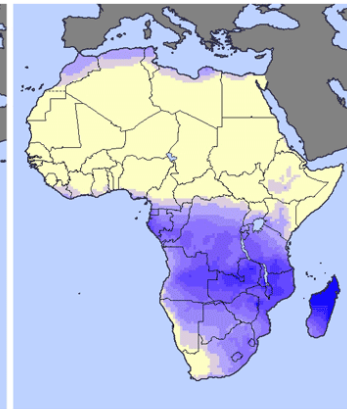


JAN

Average temperature (°C)

< 10 12 - 14 16 - 18 20 - 22 24 - 26 28 - 30

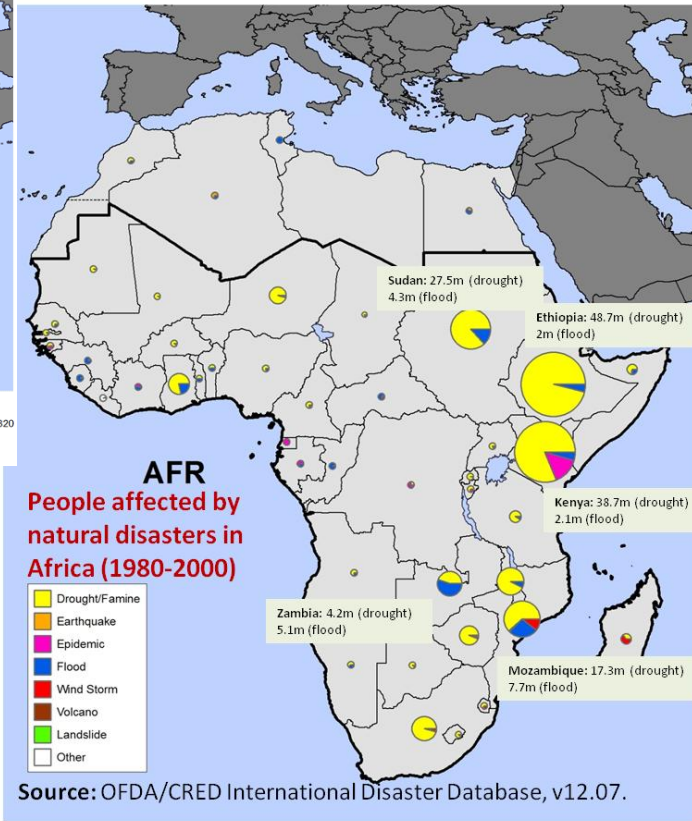
10 - 12 14 - 16 18 - 20 22 - 24 26 - 28 > 30



Average precipitation (mm/month)

< 20 40 - 80 120 - 160 200 - 240 280 - 320

20 - 40 80 - 120 160 - 200 240 - 280 > 320



Source: OFDA/CRED International Disaster Database, v12.07.



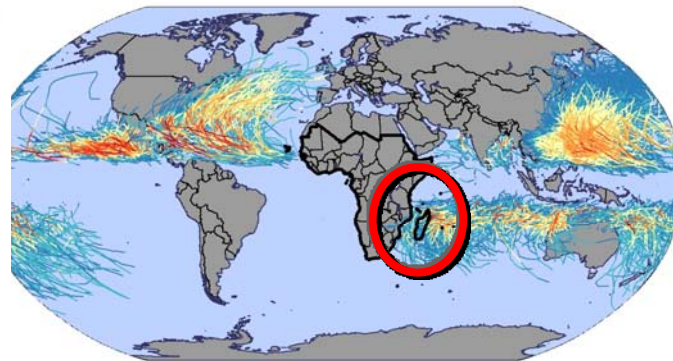
Flood Exposure

Exposure to floods
(Average number of people exposed to floods per grid cell per year)

0 - 50 100 - 250 1000 - 5000 10000 - 700000

50 - 100 250 - 1000 5000 - 10000

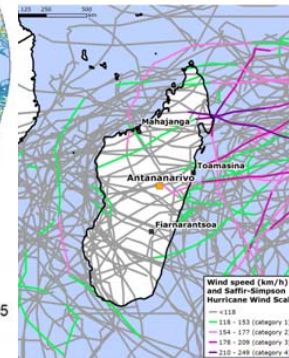
Tracks and Intensity of Tropical Storms from 1980 to 2006 included.



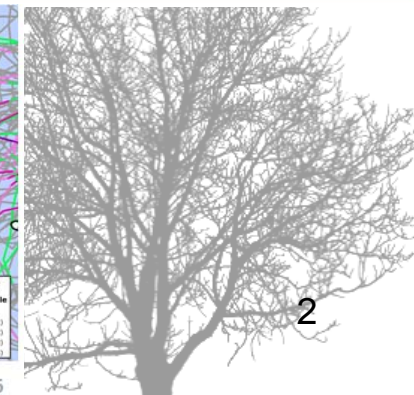
Saffir-Simpson Hurricane Intensity Scale

Tropical Depression Category 1 Category 3 Category 5

Tropical Storm Category 2 Category 4



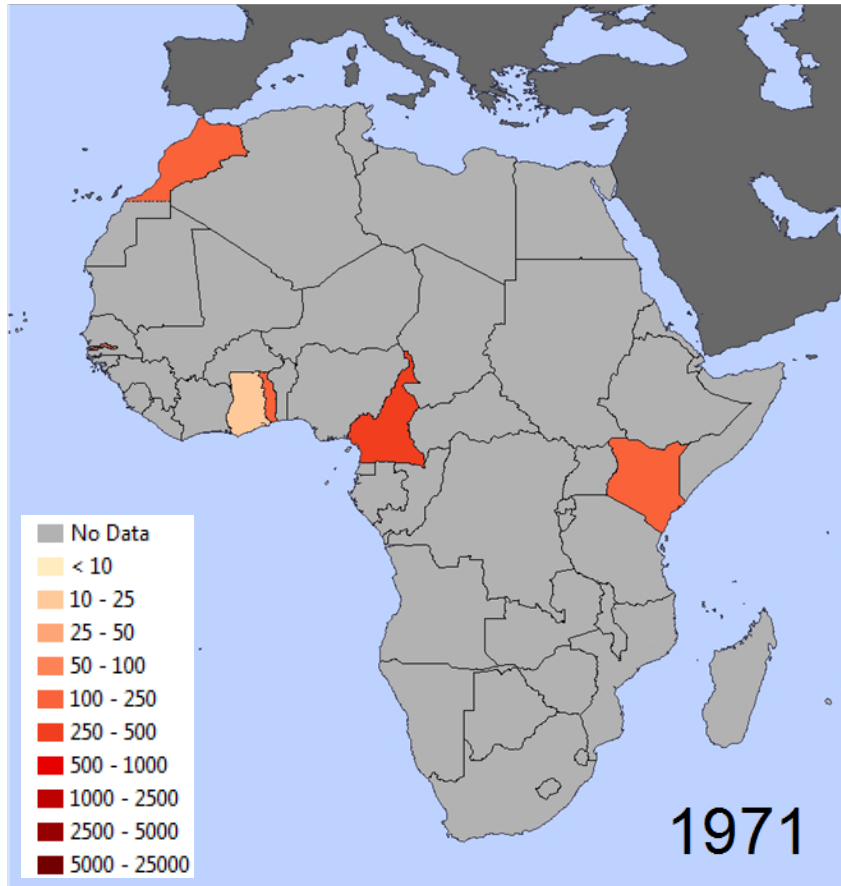
Cyclones tracks: 1980 to 2006



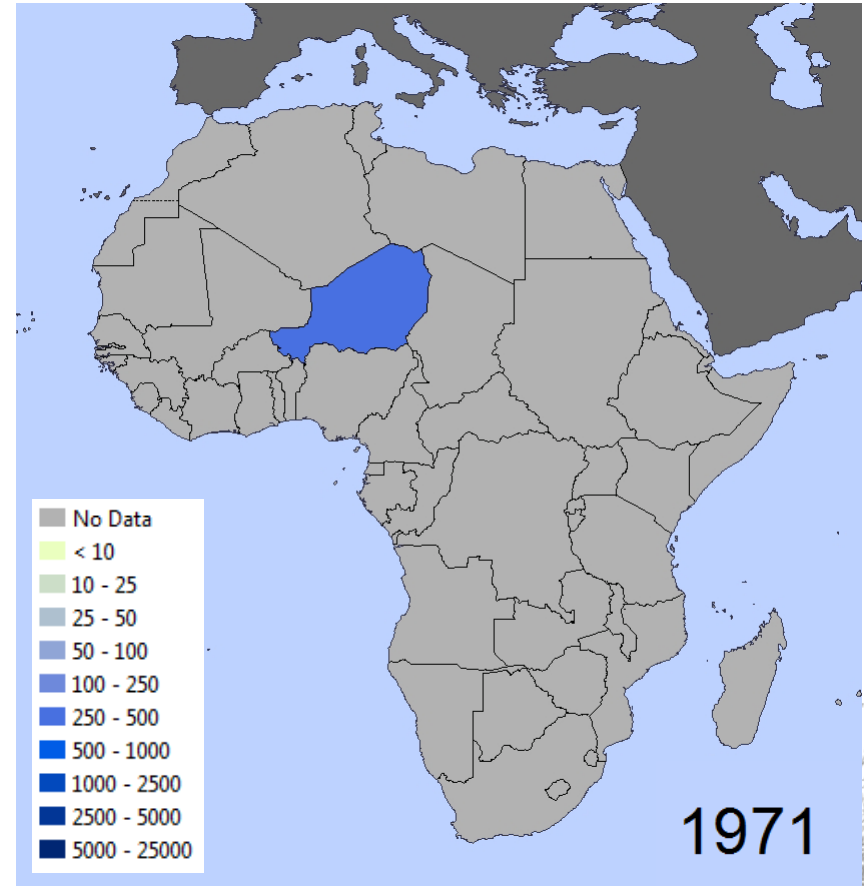
Not a year passes...

...without some part of Africa being devastated by floods or droughts...

Droughts

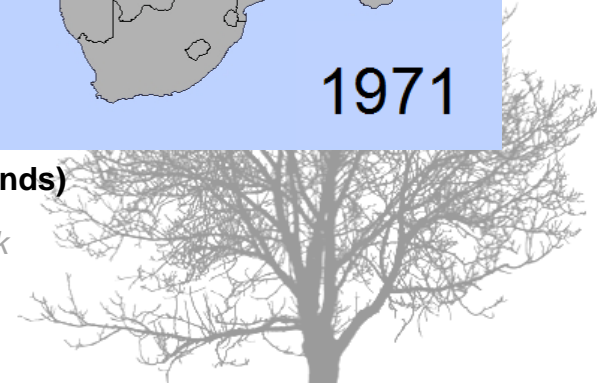


Floods



Total number of people affected annually (in thousands)

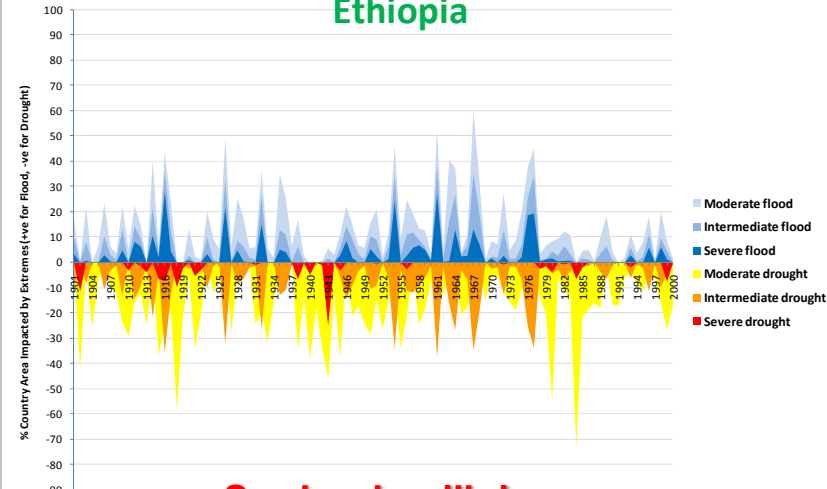
Source: World Bank AFR Spatial Services Helpdesk



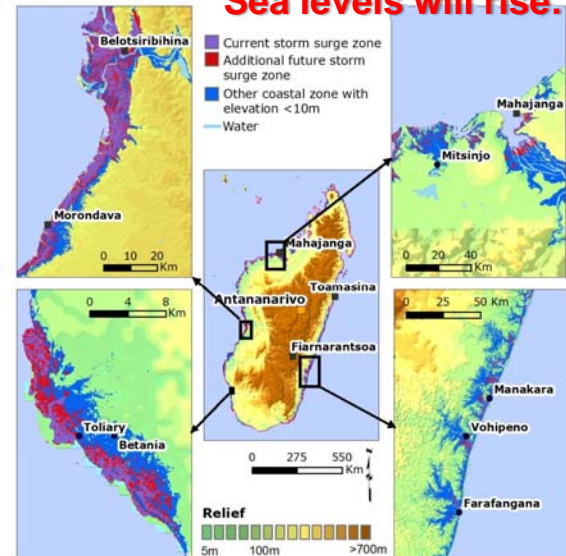
Climate Change is expected to exacerbate these further...

Historic Climate Variability

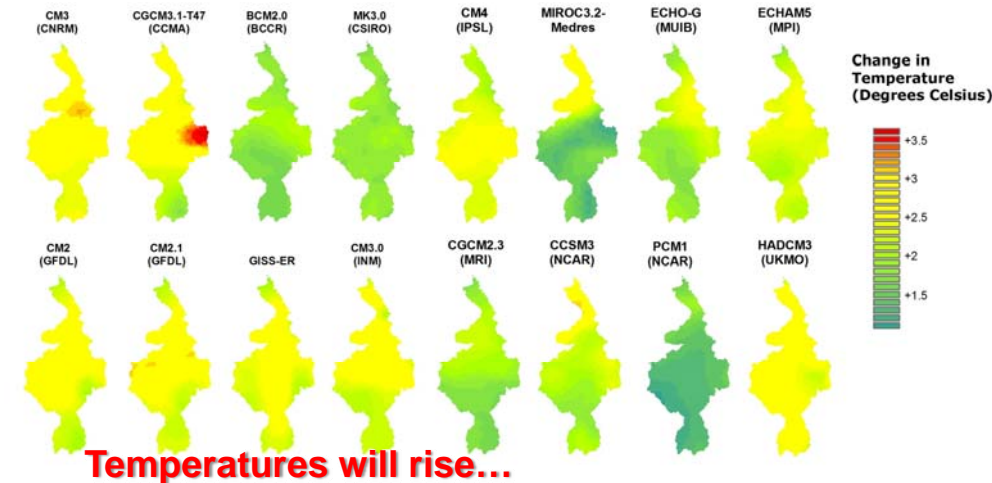
Weighted Anomaly of Statistical Precipitation (WASP) Index
Ethiopia



Sea levels will rise...



Nile Basin - Differences between GCMs, in terms of Change in Annual Temperature by the 2050s



Temperatures will rise...

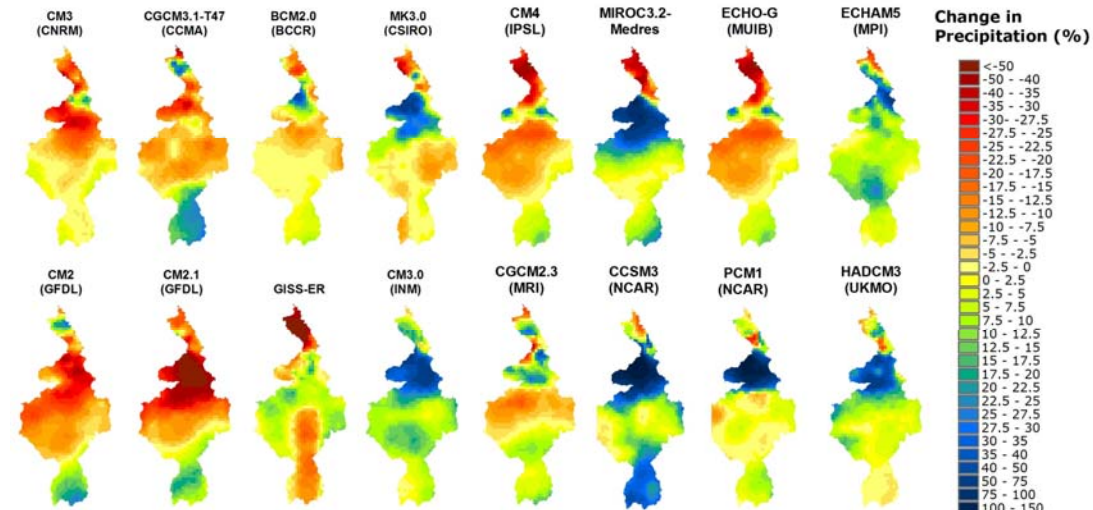
This map shows the temperature change projected by the considered climate model, under the A2 scenario for 2040 - 2069 as compared to 1961 - 1999. Map displays gridded data (cell size=0.5dd).

Disclaimer: The boundaries, colors, denominations, and other information shown in any map do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

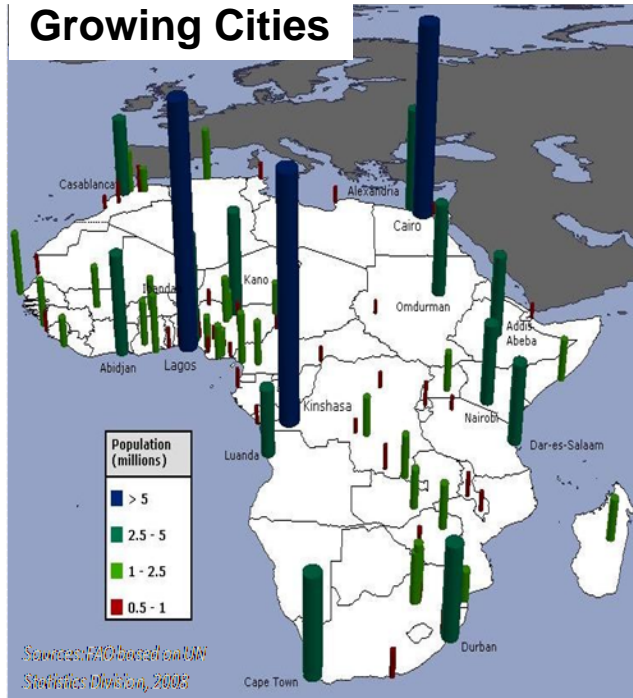
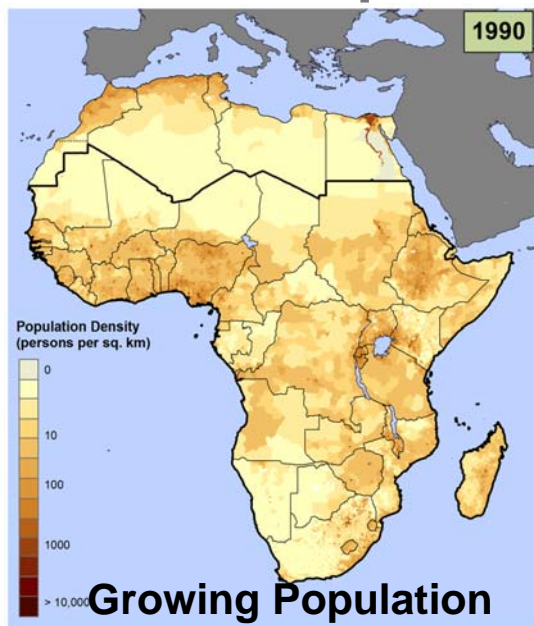
Sources: WCRP's CMIP3 (Meehl et al. 2007), downscaled by Maurer et al. (2008), rivers (Aquastat, FAO, 2006).

Precipitation will ?

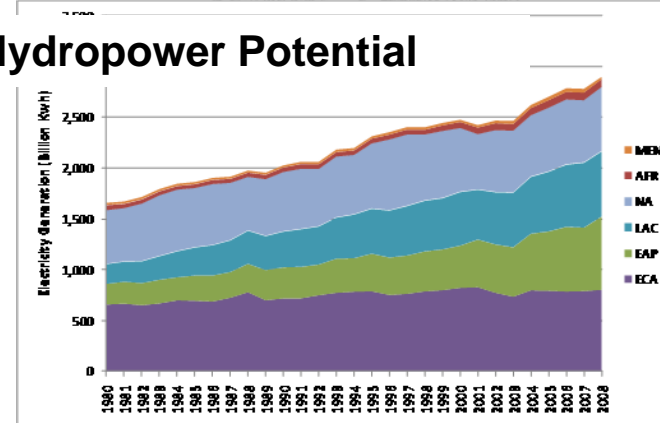
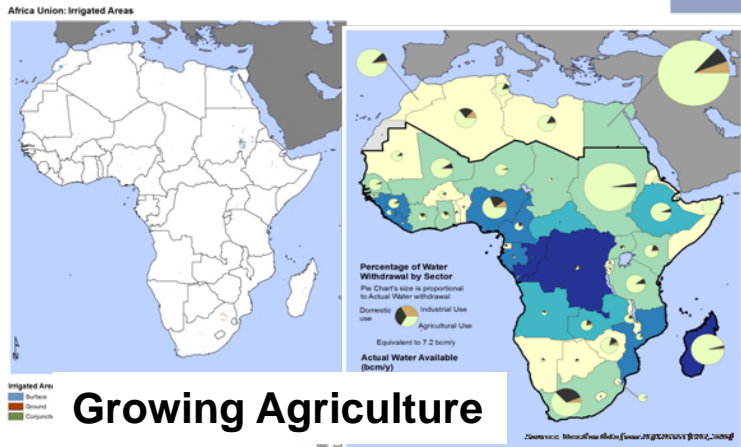
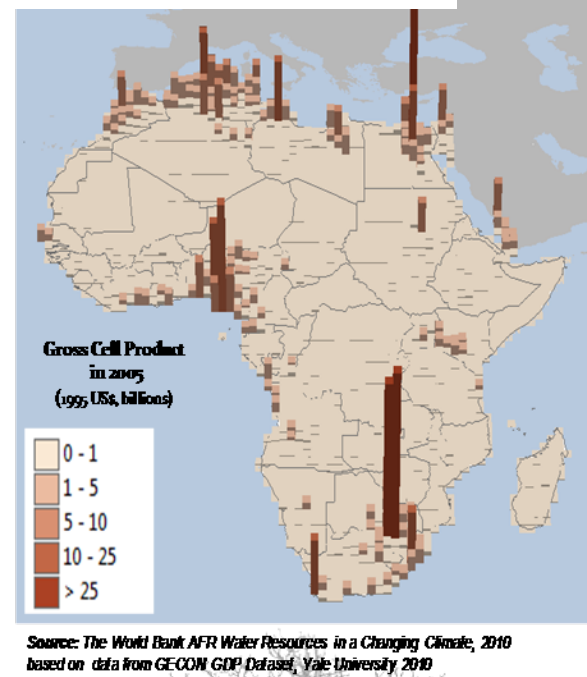
Nile Basin - Differences between GCMs, in terms of Change in Annual Precipitation by the 2050s



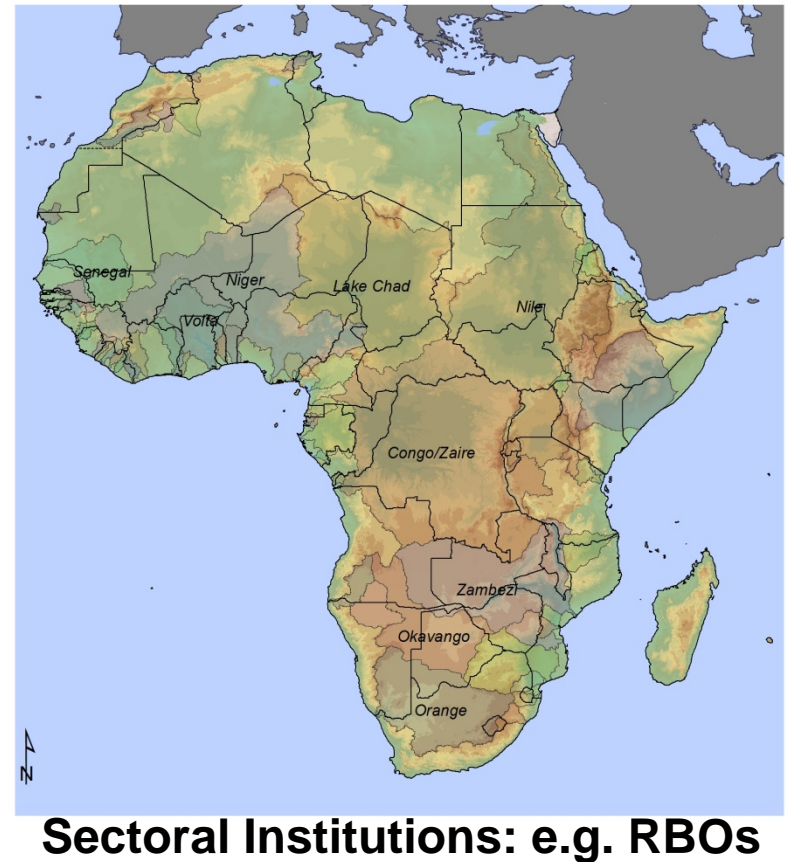
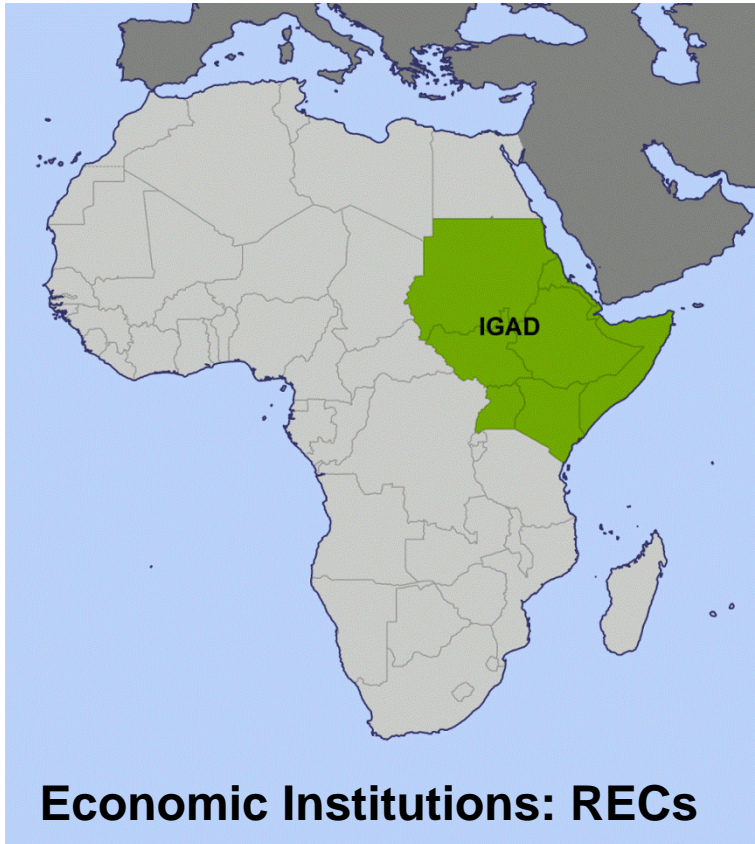
...that need to be considered with other development challenges...



Growing Economies



Need for a regional perspective with a key role for Regional Institutions



Other Institutions: Climate Forecasting Centers, University Partnerships, etc.

Need to improve readiness...

- There is a need to improve the investment climate for climate investments in Africa. This will require regional and country-level work on climate readiness related to:
 - Information
 - Institutions
 - Infrastructure



Information

- Improved regional **public-domain knowledge base** (e.g. of basins, regions) and regional planning tools (e.g. for climate risk analysis of existing and potential investments in river basins) and other decision support tools (for basin/energy systems planning and real-time operations)
- Regional financing and networking of interoperable **hydromet systems**; combine with satellite data for improved forecasting and communication for improved flood and drought management
- Regional **documentation** of successful adaptation/low-carbon development measures that can be scaled-up



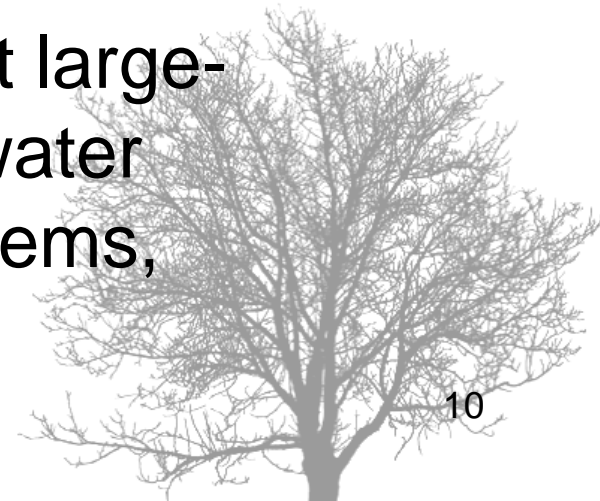
Institutions

- Building Regional ***Institutional and Policy capacity-building*** (Helpdesks at AU/RECs to provide access to information and policy/technical/ communications guidance) and facilitating access to climate finance and NAMA/NAPA preparation, implementation, and monitoring
- Targeted ***training/knowledge sharing*** on climate risks and climate financing at regional and national levels
- Synergistic ***partnerships*** (e.g. with Universities, among RECs and member states) for facilitating studies and action on improved instruments for climate risk management



Infrastructure

- *Facilitate preparation of a pipeline of bankable climate-related investment packages at regional and national levels*
- *Improved real-time hydro-meteorological systems to promote timely climate risk management in key sectors*
- *Promote innovations in climate resilience/low-carbon development investments – at large-scale and community-levels (e.g. in water infrastructure, agriculture, power systems, transport, etc.)*



Conclusion

- Africa needs to demonstrate its readiness for climate investments for climate resilience and low-carbon development
- RECs, RBOs, and other regional organizations can play a significant role in this regard
- This will require the regional organizations to undertake serious, systematic, and concerted efforts to facilitate regional and national activities on information, institutions, and investments across Africa



Thank you

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