Climate Change Adaptation: Bridging the Gap.

The Science, Politics, Economics & Realities

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GLOBAL WARMING

Is the increase of the Earth's average surface temperature due to a build-up of greenhouse gases in the atmosphere.

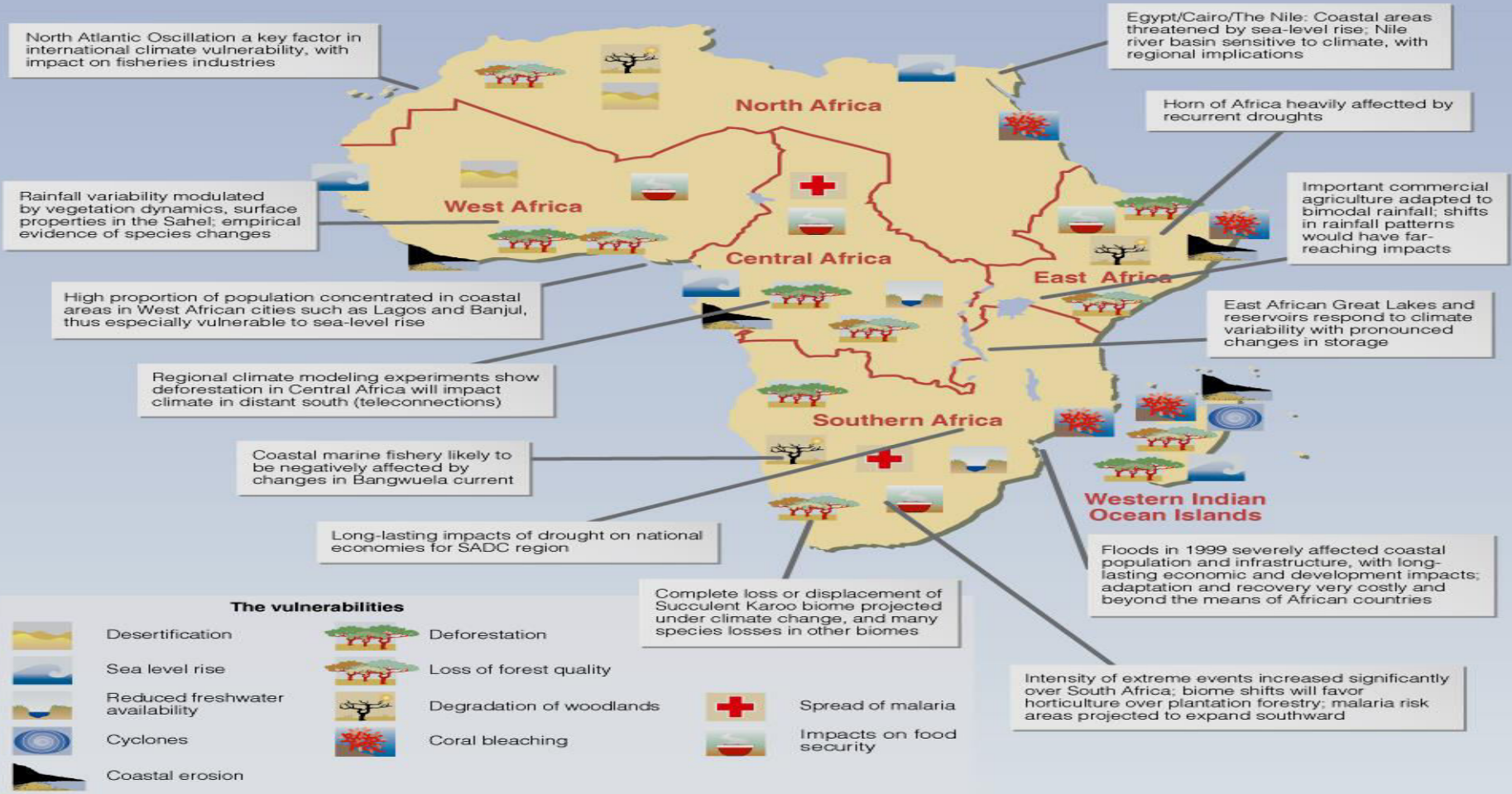
CLIMATE CHANGE

Is the long-term changes in average temperature, rainfall patterns, wind speed, humidity.

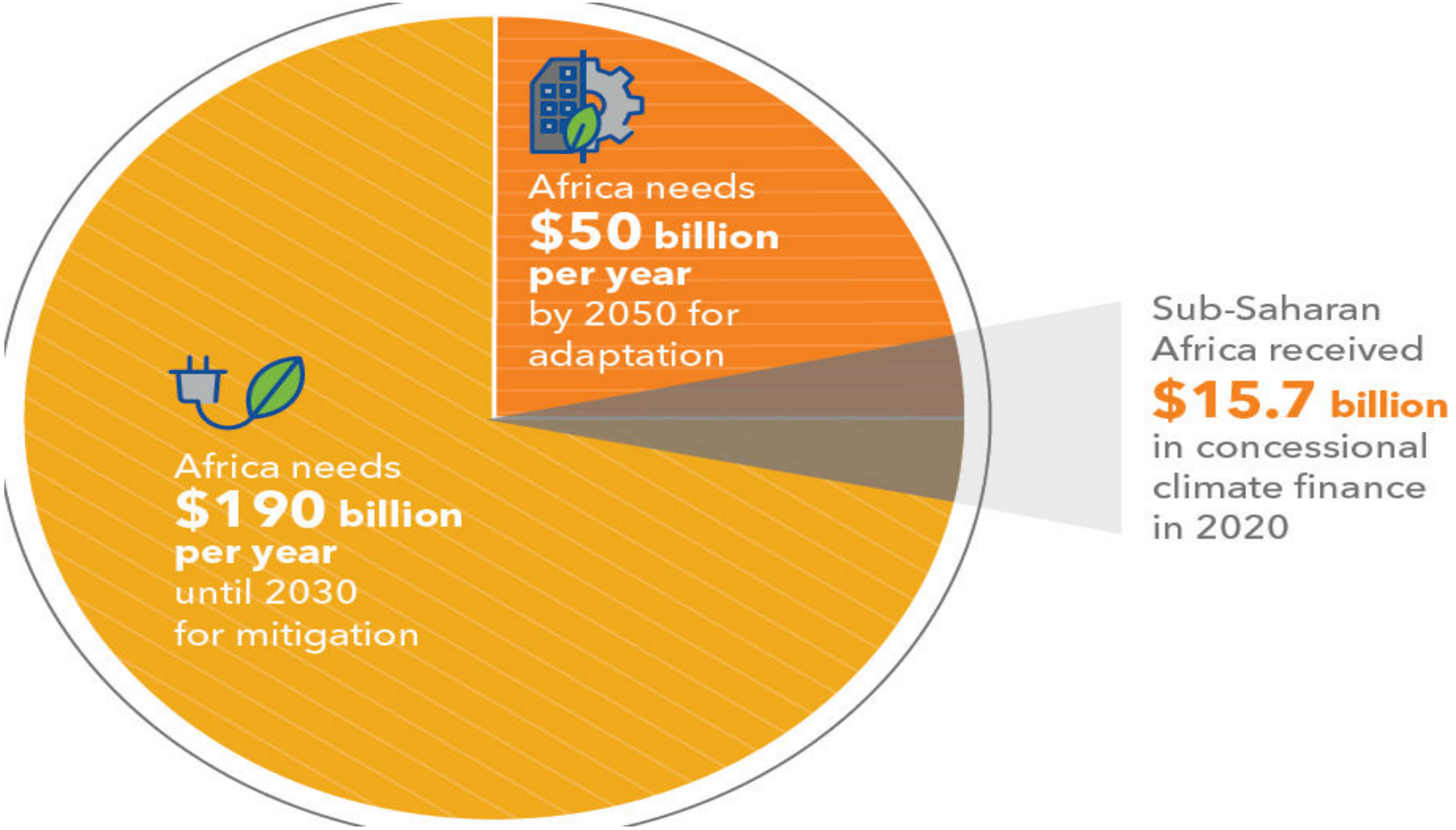
NB: although the average surface temperature may increase, the regional or local temperature may decrease or remain constant.

Joyce Banda (former Malawian President & Climate Justice Champion – "But where's the money?"

Climate Change Vulnerability in Africa



Concessional Climate Finance - SSA



Climate Change and Agribusiness - UG



14th most vulnerable **48th least prepared**

Out of 188 countries globally
She's a low GHG emitter – ranking 176 out of 188 countries.
Contributes 0.07% to global GHG emissions.

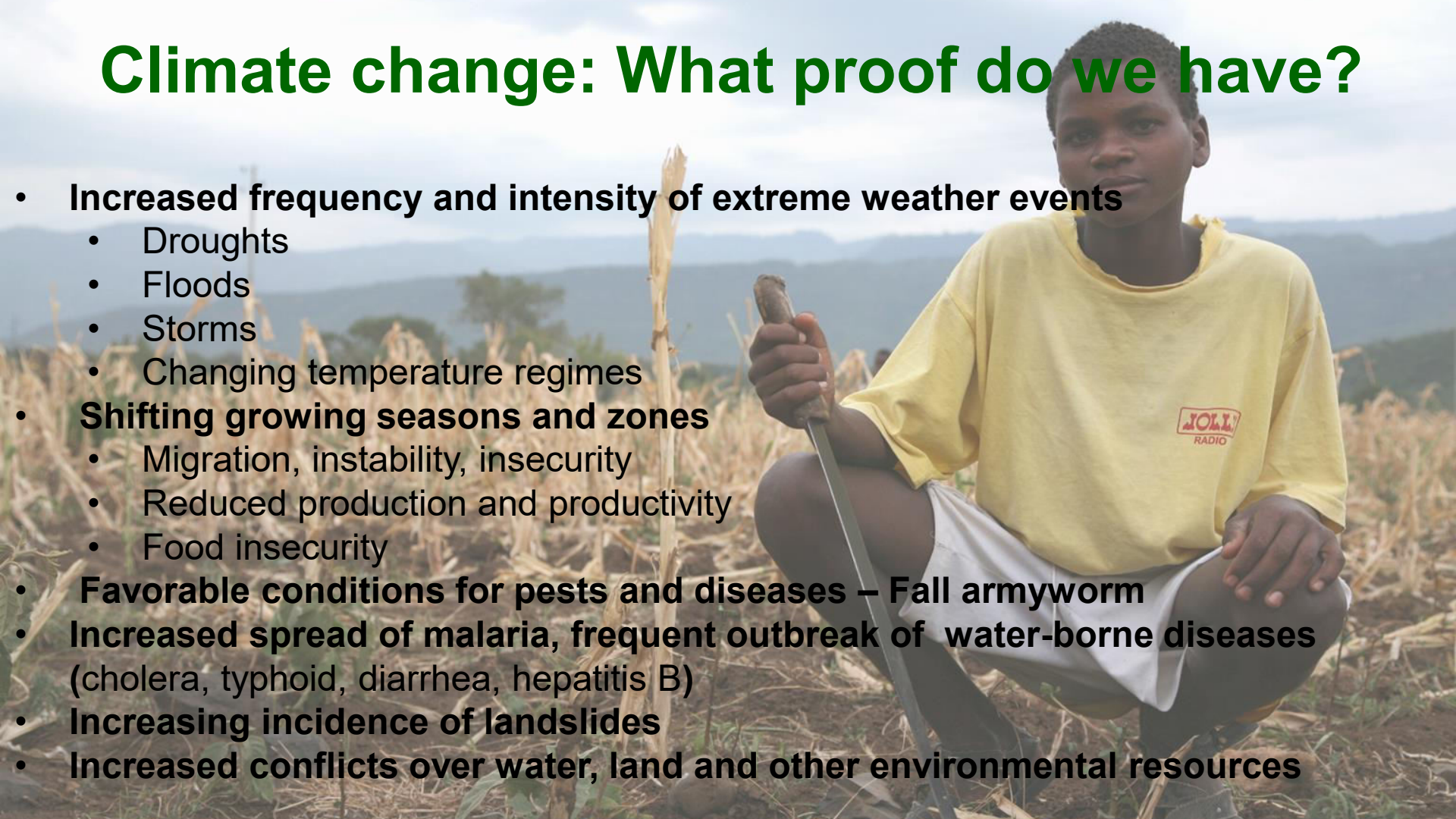
2-4% between 2010 and 2050

Sectors: **agriculture, water, infrastructure and energy**

USD 3.2 - 5.9 billion annual damage

Between 2015 and 2025

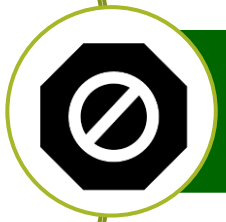
Climate change: What proof do we have?



- **Increased frequency and intensity of extreme weather events**
  - Droughts
  - Floods
  - Storms
  - Changing temperature regimes
- **Shifting growing seasons and zones**
  - Migration, instability, insecurity
  - Reduced production and productivity
  - Food insecurity
- **Favorable conditions for pests and diseases – Fall armyworm**
- **Increased spread of malaria, frequent outbreak of water-borne diseases** (cholera, typhoid, diarrhea, hepatitis B)
- **Increasing incidence of landslides**
- **Increased conflicts over water, land and other environmental resources**

What should we do about it?

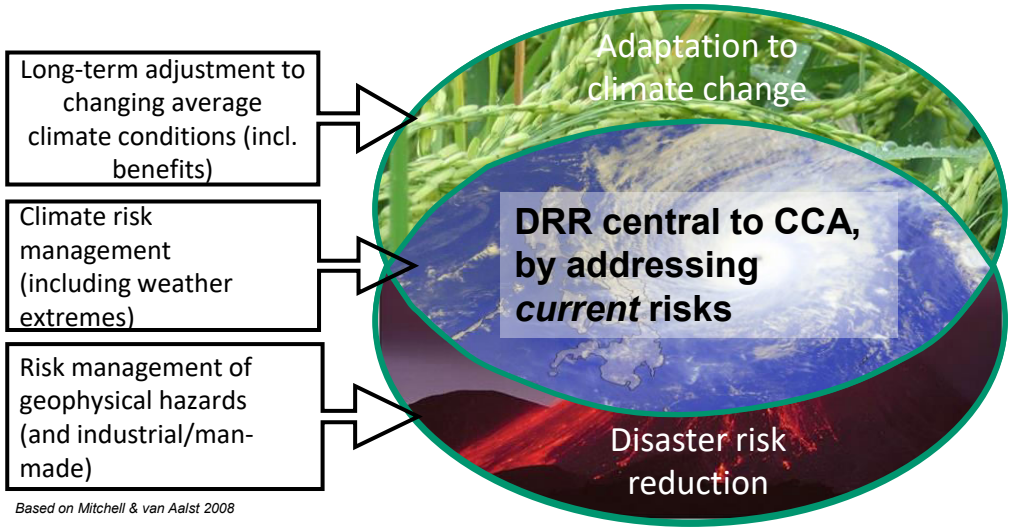
Learn to live with climate change – **The Serenity Prayer**



Do not contribute to making the climate change problem worse

Conserve life (biodiversity) on the planet

Overlap between CCA and DRR



Strengthening Community Resilience

- There is need for concerted efforts from civil society, national and local governments, academia, regional inter-governmental bodies, media and the private sector in order to work towards the overarching objective of developing a Programme of Action for strengthening community resilience and local adaptive capacity in changing climate realities.

- A range of issues ought to be purposely addressed e.g detailed predictions of climate changes in the region and its impact on the region's economy, food and water security, infrastructure, health tourism, etc.
- A body of knowledge and a repository of information should be put in place showcasing efforts at grassroots, national and regional levels to mitigate and prepare for climate change and disaster risk reduction (**local community level case studies and projects** from within the region).
- These will facilitate and achieve a multi-sectoral and multi-stakeholder approach towards this contemporary and existential threat……

Strategic Intervention

- The potential implications of these climate changes are enormous, not only from the perspective of disaster risk reduction but also with regards to regional development.
- Economic activities such as tourism, fisheries and agriculture are very sensitive to climatic conditions. Climate change also threatens vital infrastructure, settlements and facilities that support livelihoods.
- It is, thus, imperative that the region takes action to address the impacts of climate change, which may be aggravated by increasing vulnerability resulting from unsound environmental practices, demographic changes, social inequities and economic short-sightedness.

CLIMATE CHANGE ADAPTATION

1. Water installation for crops and Livestock
2. ICT infrastructure to support crop and Livestock.
3. Prevention and treatment of pathogens and diseases.
4. Improved drought resistant varieties for seeds, and livestock
5. Smart agricultural practise like Green House farming
6. Post-harvest handling practices and materials
7. Warehouse and storage facilities
8. Physical structures and equipment for livestock
9. Renovation of current Agric infrastructures
10. ICT systems to measure, track, and report Agric climate related indicators
11. Adaptation initiatives in line with: green energy & energy efficiency; green infrastructure; green housing; eco-tourism; etc.

Reasons: Governance, Society & Science

- The great vulnerability of Africa explained above (poverty, weak economies, weak institutions, corruption, etc)
- Inadequate awareness to galvanize communities into action.
- Humans by nature respond slowly to change, and particularly to threats with no sensory signals. Humans have been wired to respond to threats that they can hear, see, smell, taste and feel.
- The information from scientists is not presented in a form easily understood by the average person.
- The message from scientists is often not specific enough (to a geographical area, sector, economic activity, etc)
- Research is disproportionately skewed towards global/regional trend predictions and documenting impacts, with little attention to practical, action-oriented measures at national and local levels to cope and adapt
- Of particular concern is the inadequacy of knowledge to inform public policy making

Empirical Adaptation Issues

- Water supply and sanitation
  - Rural water supply: is it not time to change from cheap technologies (protected springs, shallow wells, dug wells and gravity flow systems) to piped supply?
  - Low-cost technological solutions for human waste disposal in water-logged conditions
- Public health
  - Curative versus preventive health care; relative importance of hygiene and sanitation in public health
  - Business as usual or more pro-active approach of dealing with recurring epidemics (malaria, cholera, typhoid, hepatitis, etc)?
- Agriculture
  - What grows best where? How should the farmer modify his annual pattern of land preparation, sowing, weeding, harvesting to the altered rainfall patterns?
  - Technological low cost options for rainwater harvesting for small-scale irrigation
- There is a gap between the message in research findings, and the message needed to take concrete actions. There is also a gap in making the information generated by science and researchers widely available
- Whose role is it to bridge this gap?

Questions, Comments