

The State of Land and Water Resources in West Africa

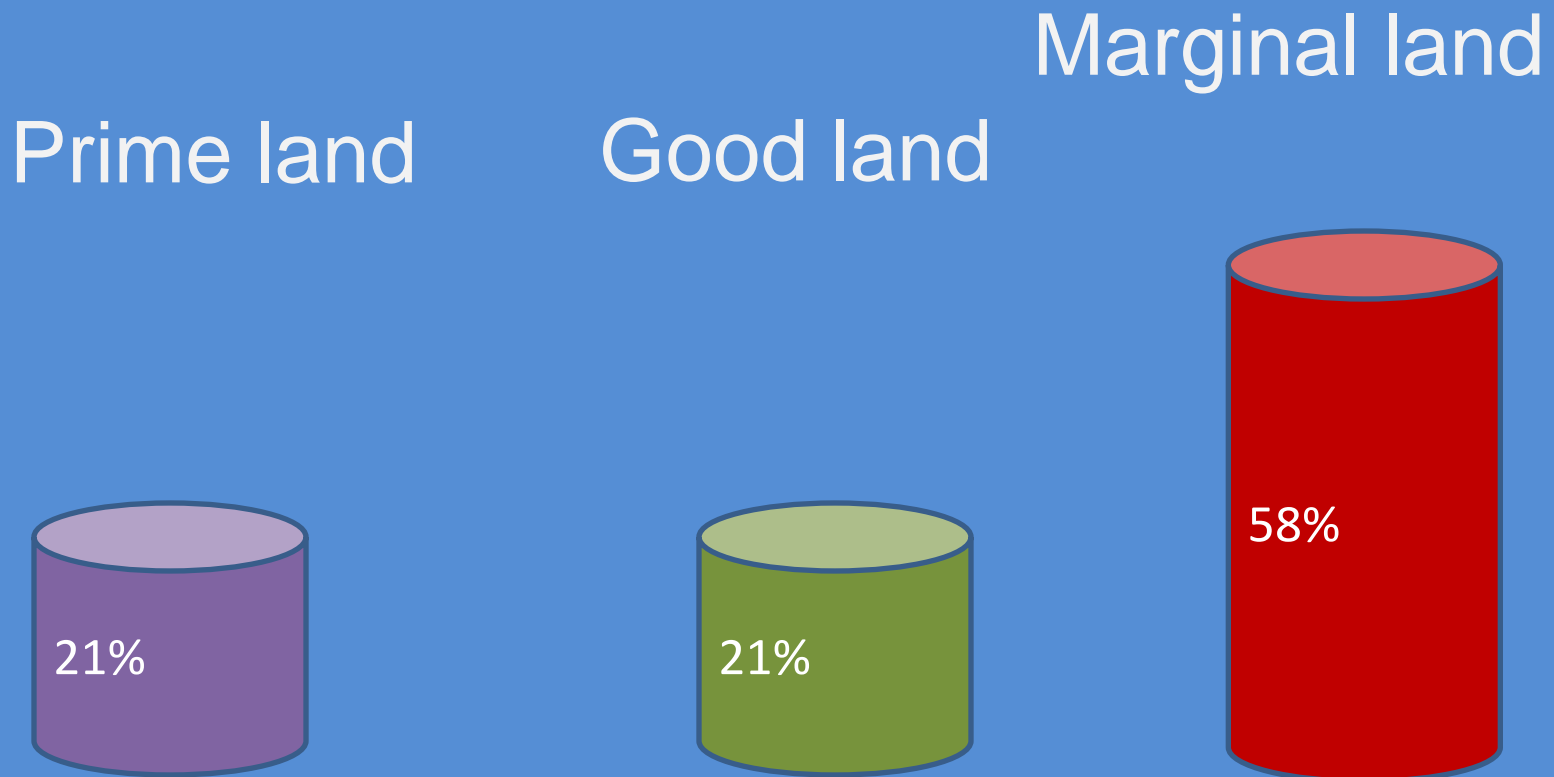
- I. Status and Trends*
- II. Towards 2050*
- III. Challenges ahead*
- IV. Selected Priorities*
- V. The Way Forward*



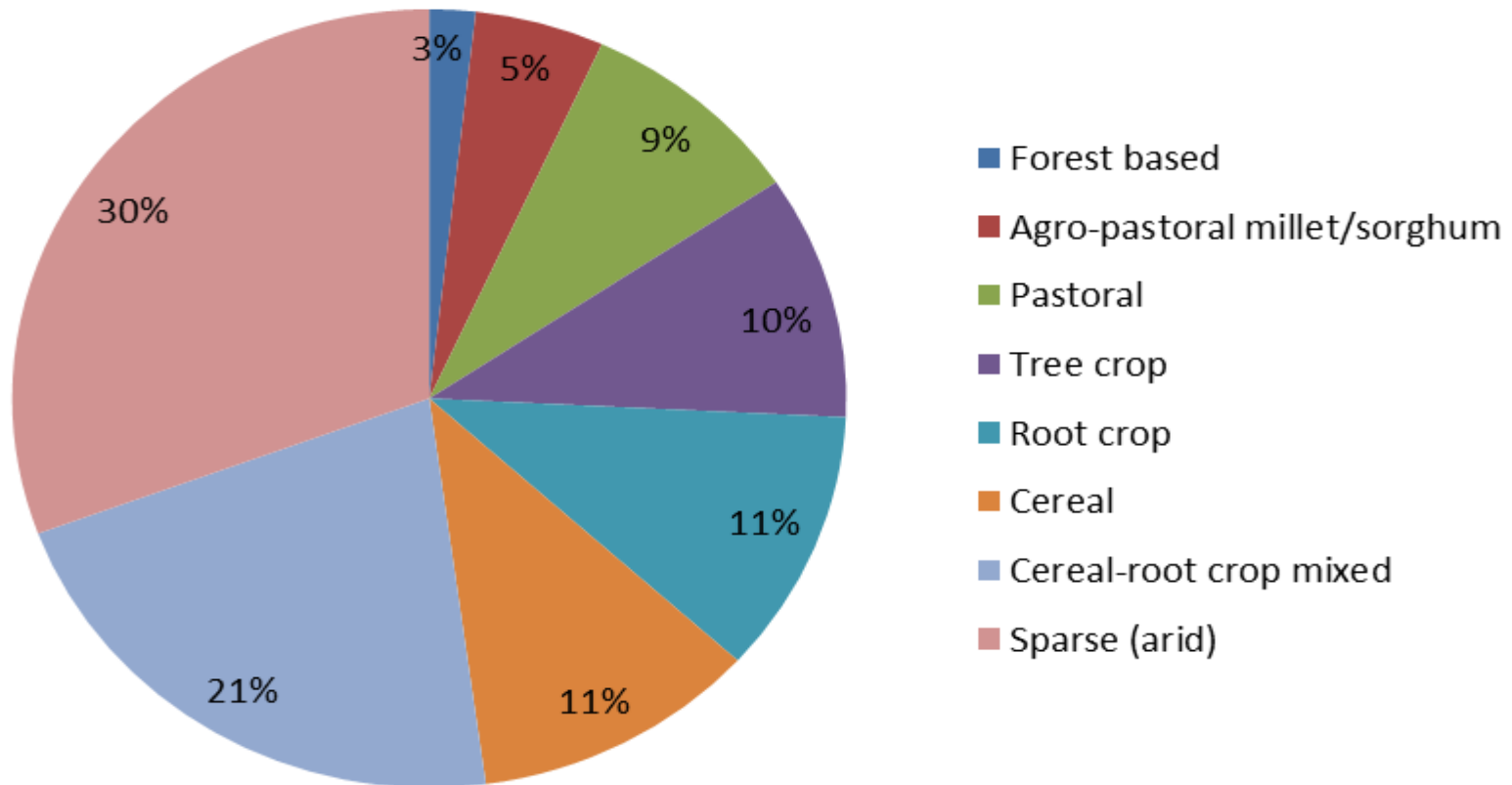
I. Status and Trends

- ❖ Land Potential and suitability
- ❖ Diversified farming Systems
- ❖ Available water resources
- ❖ Status and evolution of irrigation
- ❖ Agricultural uses of Natural resources

Land suitability distribution (2010)



Existing farming systems

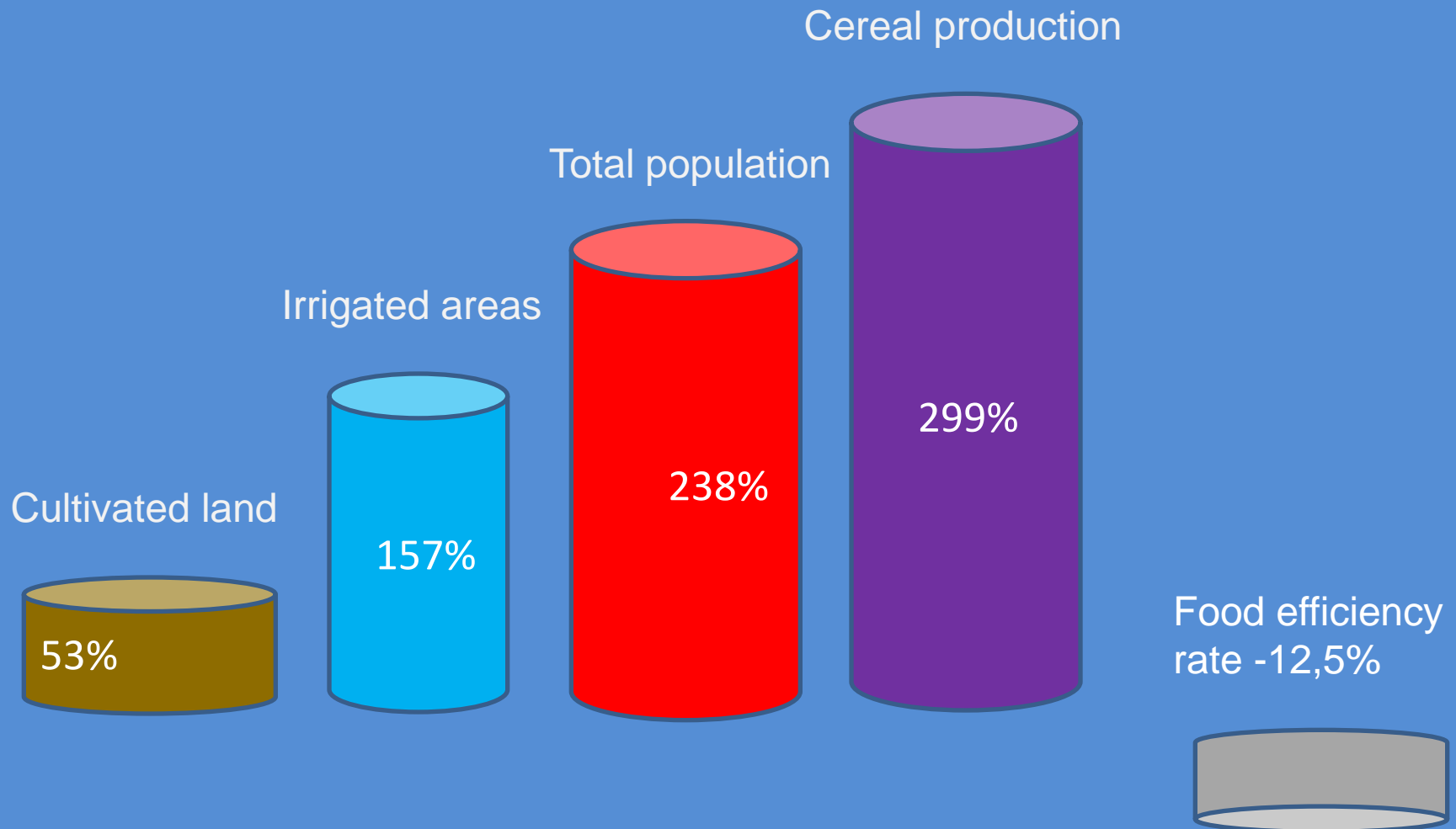


Water Resources

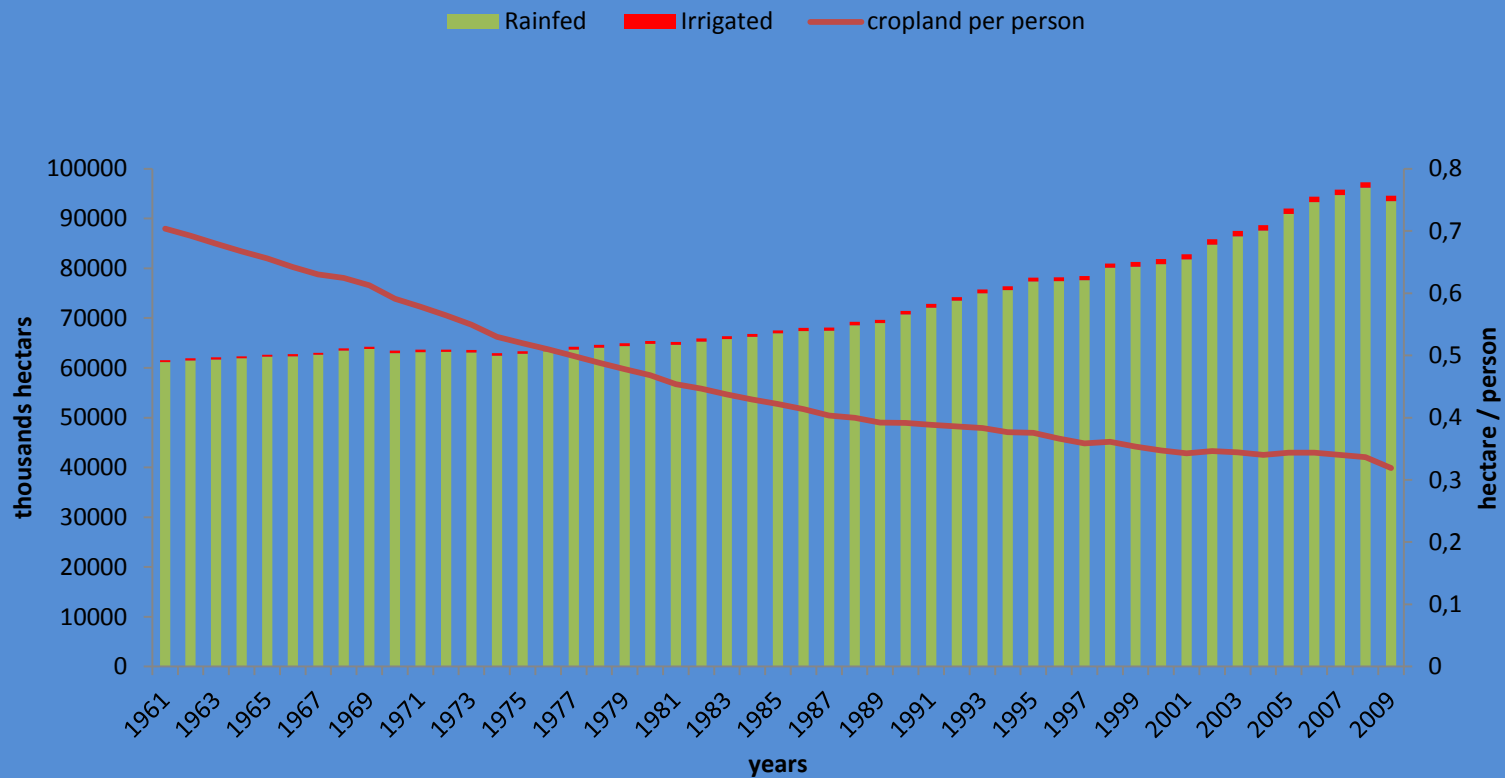
- 1,300.0 billion of m^3 ($1,300 \text{ km}^3$) renewable per year
- Including 358 billion m^3 groundwater
- 24,2 km^3 used :
 - *agriculture* : 19,6 $\text{km}^3 = 81\%$
 - *domestic*: 3,4 $\text{km}^3 = 14\%$
 - *industry* : 1,3 $\text{km}^3 = 5\%$
- >2 % of total renewable water currently used



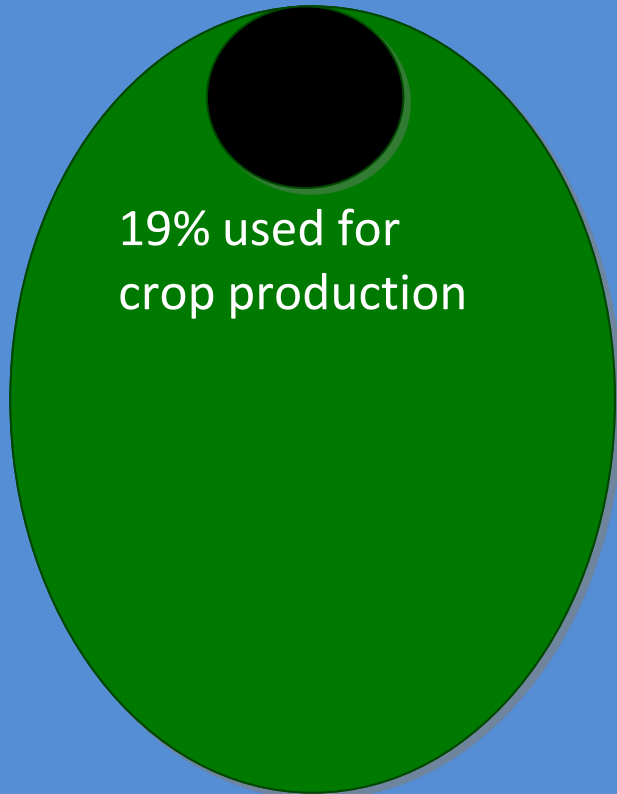
Agriculture and Food (1961-2009)



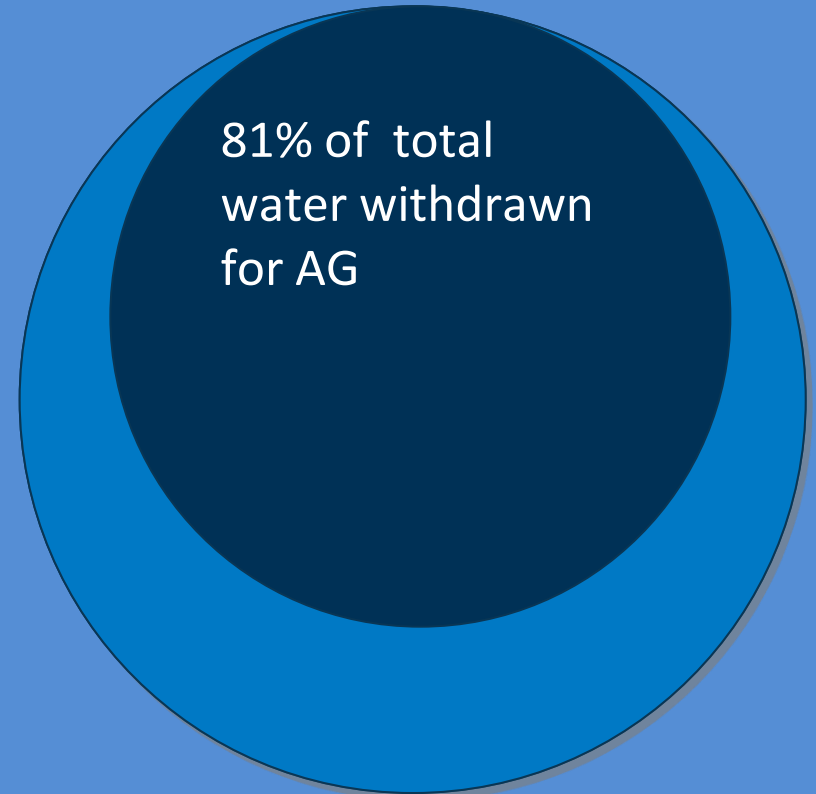
Irrigated and Rainfed Agriculture areas (1961 -2009)



Use of resources for Agriculture



Land surface



Water use

Land and Water productivity gap

- Productivity low in both systems (rainfed and irrigated)
- Rainfed agriculture (90% of food production)
- Irrigation systems (10 % of food production) ; below actual capacities.
- Low water productivity (loss of benefits from low water use efficiency)



II. Trend Towards 2050

Population

2009: 272 millions inhabitants

2050: 690 millions inhabitants (more than double)

Urbanization



Encroachment of cropland

Food production

Needs



100% in average



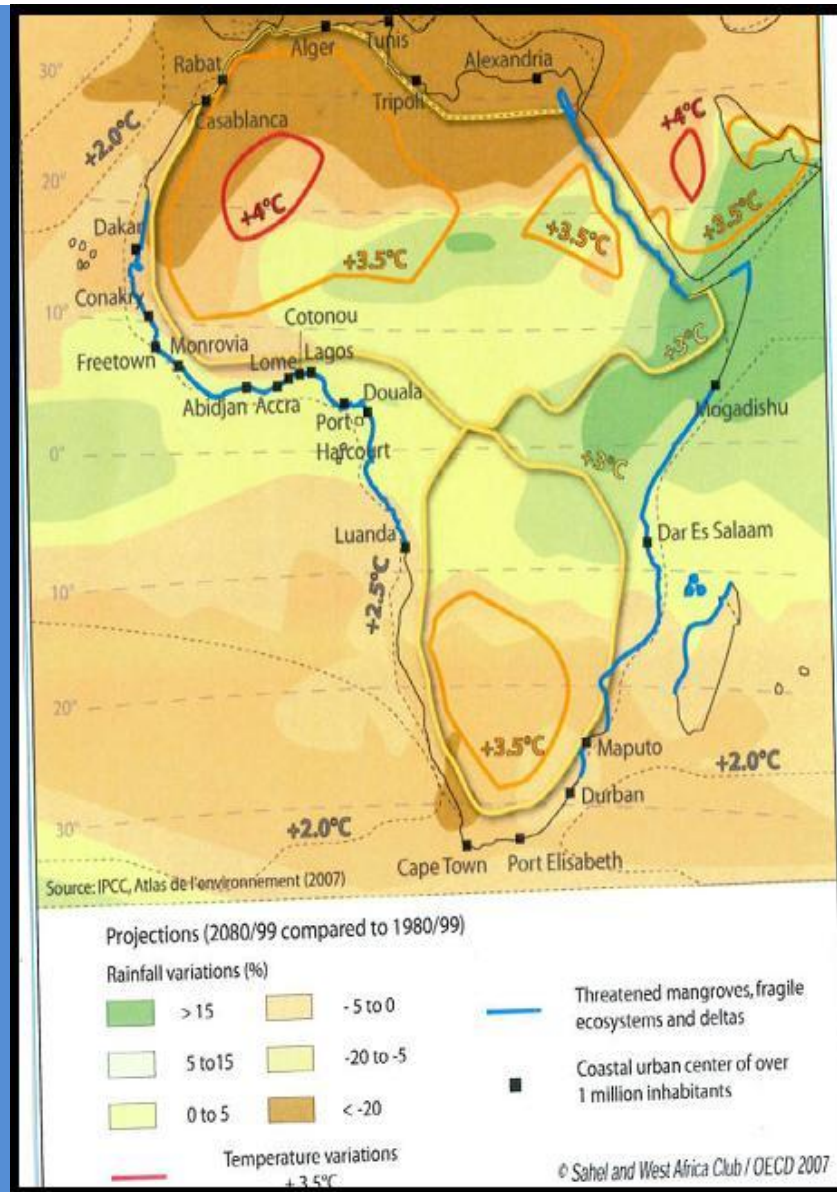
Climate Change

Trend toward 2050 (IPCC) :

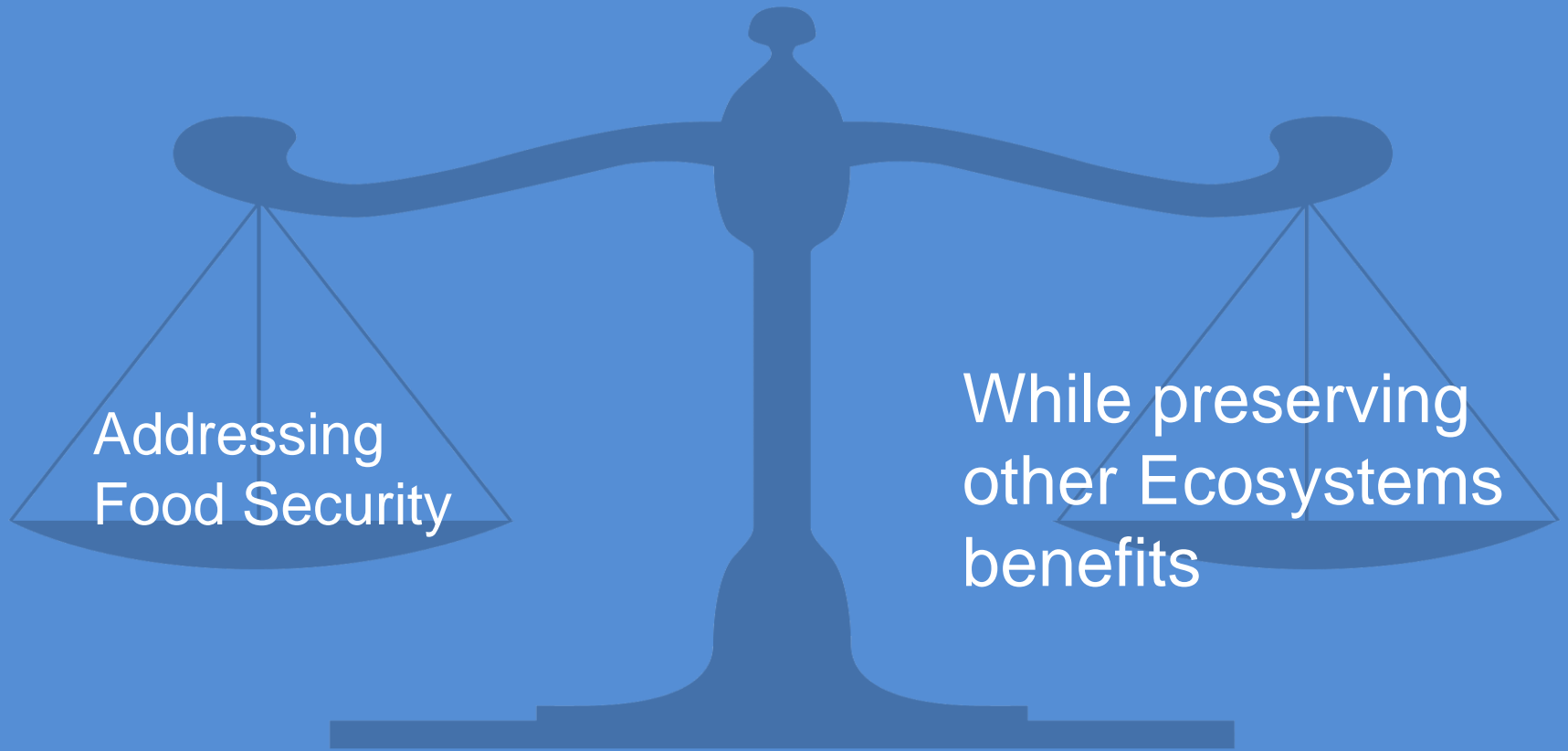
- ❖ Temperature projected to rise by 3.5 to 4⁰ C (inland)
- ❖ 2.5 to 3⁰ C in Coastal zones (threatened mangroves, fragile ecosystems and deltas).



Overview of Climate Change in Africa



III. The challenges ahead



Food Security Challenge

Food import projection by 2030:

- *57% of rice demand,*
- *15% of other cereals, mainly maize*
- *48% of milk and dairy products, and*
- *13% of meat*

Source: UNECA



Ecosystems' benefit preservation Challenges

- Fighting against land degradation and soil mining: SLM, CA and Smart Agriculture
- Enhancing water infrastructure specifically for irrigation and water use efficiency. *One drop per Crop*
- Improving land tenure (administration, governance and access)
- Strengthening Land and Water Institutions
- Knowledge exchange and research for climate change mitigation and adaptation.



IV. Identified priorities from NAPAs

Nr	ADAPTATION PRIORITIES	Ranked priorities			Total
		First	Second	Third	
1	Early warning and monitoring system	7	2	2	11
2	Integrated water resource management	3	7	3	13
3	Diversification and intensification of production	3	3	4	10
4	Improved crop varieties	2	0	0	2
5	Introducing fodder crops	1	0	1	2
6	Implementation of agroforestry	1	0	0	1
7	Promotion of alternative energy and energy-efficient stoves	0	1	0	1
8	Promotion of income-generating activities	0	2	2	4
9	Valorization of traditional knowledge and practices	0	1	0	1
10	Reinforcing coastal protection	0	1	3	4
11	Rehabilitation of aquaculture sites	0	0	1	1
12	Improvement and development of outreach activities to promote cultural calendar	0	0	1	1
	TOTAL	17	17	17	51



v. Way Forward

1. Land and Water uses, productivity status and trends : *databases and modeling of LD, CC features vis a vis investments, Early warning*
2. New models of modernized multiscale Agriculture for sustain productivity *to meet food demand and address CC challenges*
3. Identification of new roles\ niches for Land and Water Institutions *serving as platforms for various Ministries decision making*
4. Building strong Partnership for knowledge exchange and synergic Action : *i.e. GPS*





*Thank You
for your attention*

