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# Climate Resilience, Development and Adaptation in Africa

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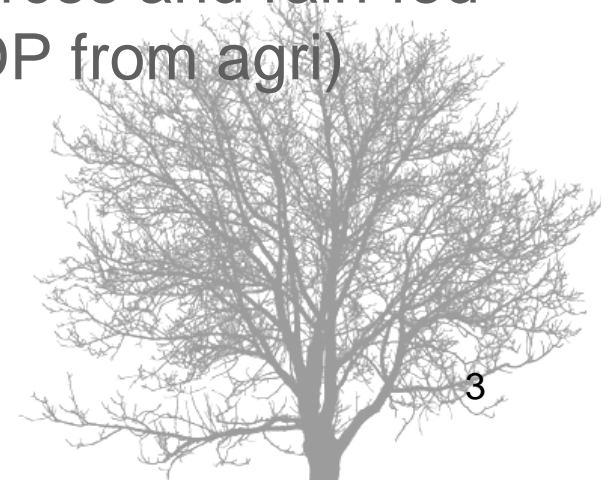
# Africa and Climate Change

- Scientific consensus:
  - Africa is the continent most vulnerable to impacts of climate change
  - Africa is warming faster than other regions (1.5 - 4 °C on average during this century),
  - Africa has been and continues to experience increases in extreme events (floods and droughts) and sea level rise
  - Africa is the least able to cope with climate changes

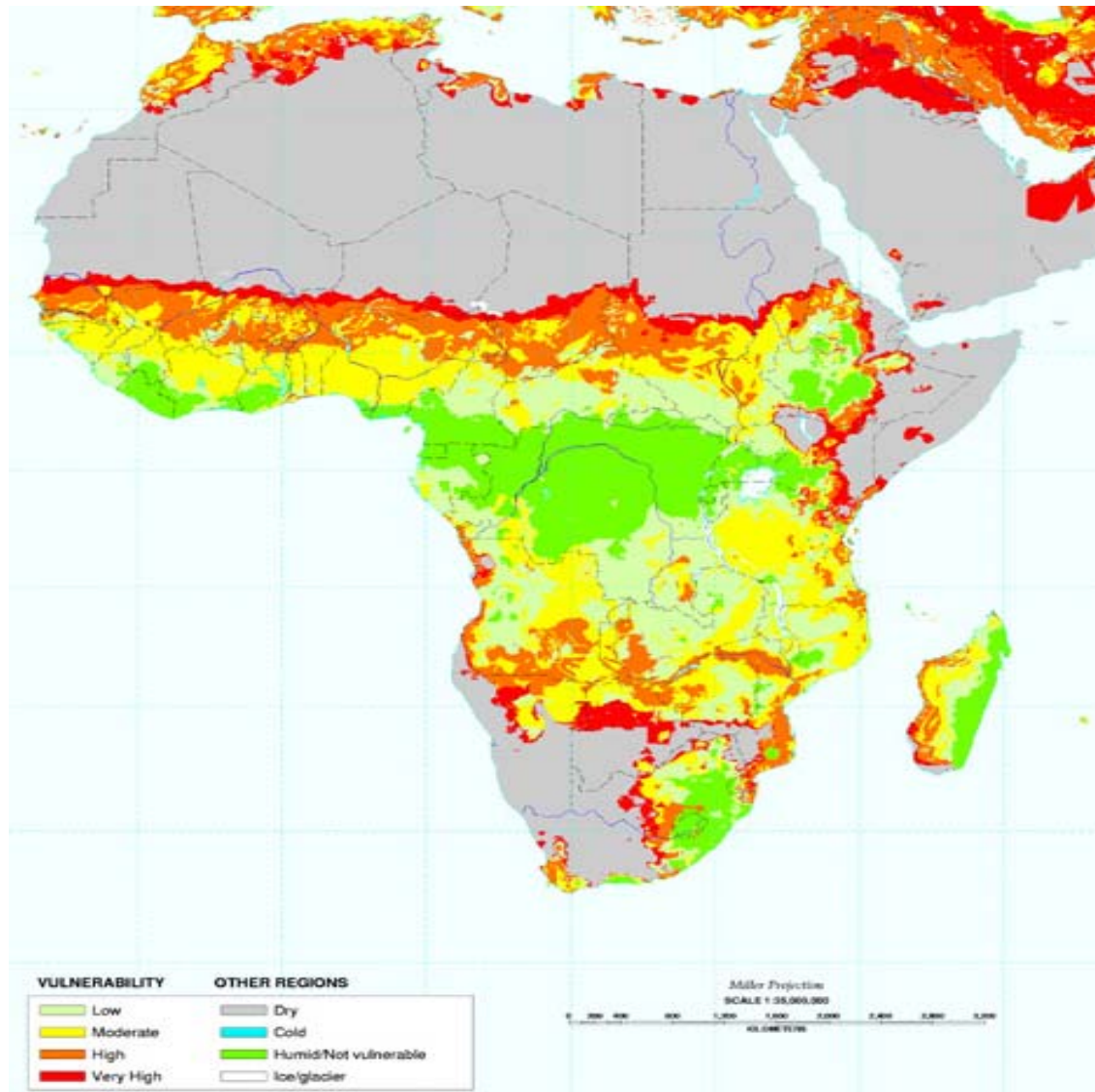


# Africa and Climate Change

- Africa's high vulnerability arises from:
  - natural fragility of its ecosystems (degradation and desertification 67% surface area)
  - exposure to frequent natural disasters (droughts and floods)
  - dependence of livelihoods and economic activities on highly climate sensitive natural resources and rain-fed agriculture (70% population, 30% GDP from agri)



# Africa's Vulnerability to Desertification



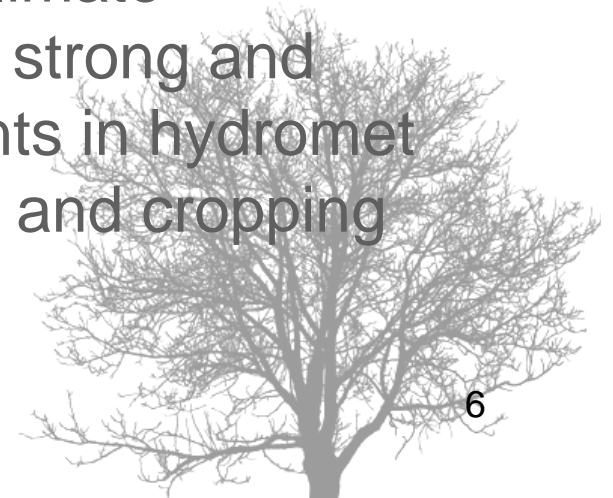
# Africa and Climate Change

- Impacts of climate change:
  - Natural disasters triggered by extreme weather events, such as droughts and floods, have devastating impacts on human lives and livelihoods, (millions of people are affected)
  - Results in substantial declines in productivity of economic activities
  - Could threaten and erode developmental gains achieved, hampering progress in achievement of development goals (MDGs)



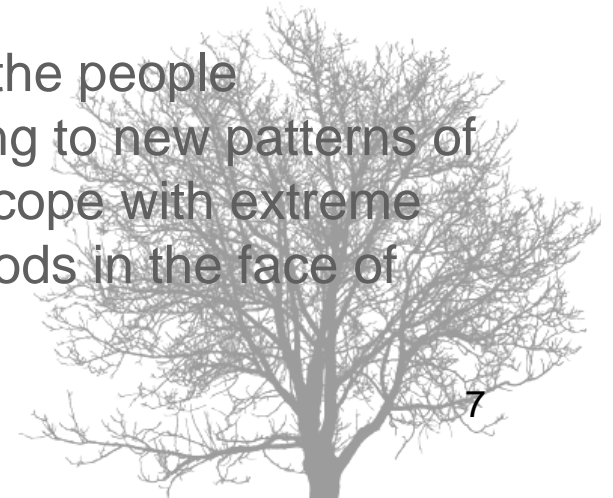
# Africa and Climate Change

- Africa's weak/lack of capacity to adapt emanates from:
  - Constraints regarding access to relevant climate data, quality of forecasting systems and their communication and use, as well as adaptation infrastructure, practices and finance.
  - Adaptation would require improved climate information and forecasting systems, strong and innovative institutions, and investments in hydromet systems, improved storage, irrigation and cropping systems, etc.



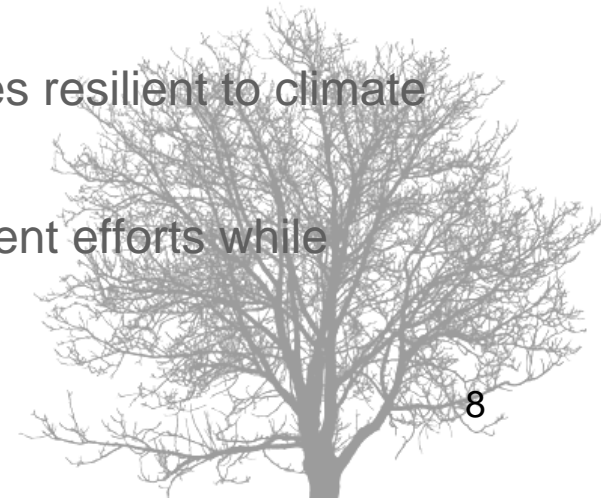
# Africa and Climate Change

- Certain Premises:
  - Climate change is a fact of life – we live with it
  - Fast, sustainable and equitable development is imperative for Africa to extricate itself from poverty and achieve development goals
  - Adapting to climate variability and change is critical towards building resilience in order to sustain and enhance development gains;
  - Essentially adaptation is about people! It is the people (producers, consumers, etc) who are adapting to new patterns of production, consumption and livelihoods, to cope with extreme weather events, and to improve their livelihoods in the face of emerging challenges;



# Africa and Climate Change

- Key questions concerning the link between development imperatives and adaptation demands:
  - What does adaptation entail for Africa in terms of using vital resources for development ? (e.g., access and use of energy)
  - How about the cost of adaptation and the cost of building resilient economies? (reported to be less than the cost of emergency response to disasters, but will push up the cost of development)
  - Does adaptation entail additional burden to development in Africa? (will it hinder the pace of development)
  - What options are there to make African economies resilient to climate risk? (e.g., through disaster risk management)
  - What actions are necessary to support development efforts while making them more resilient to climatic risks?

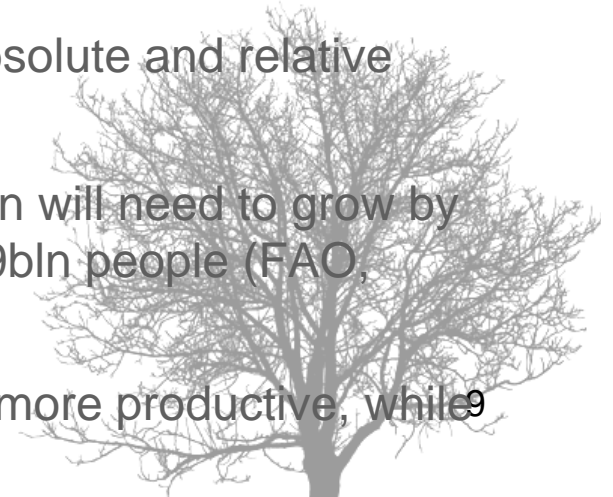




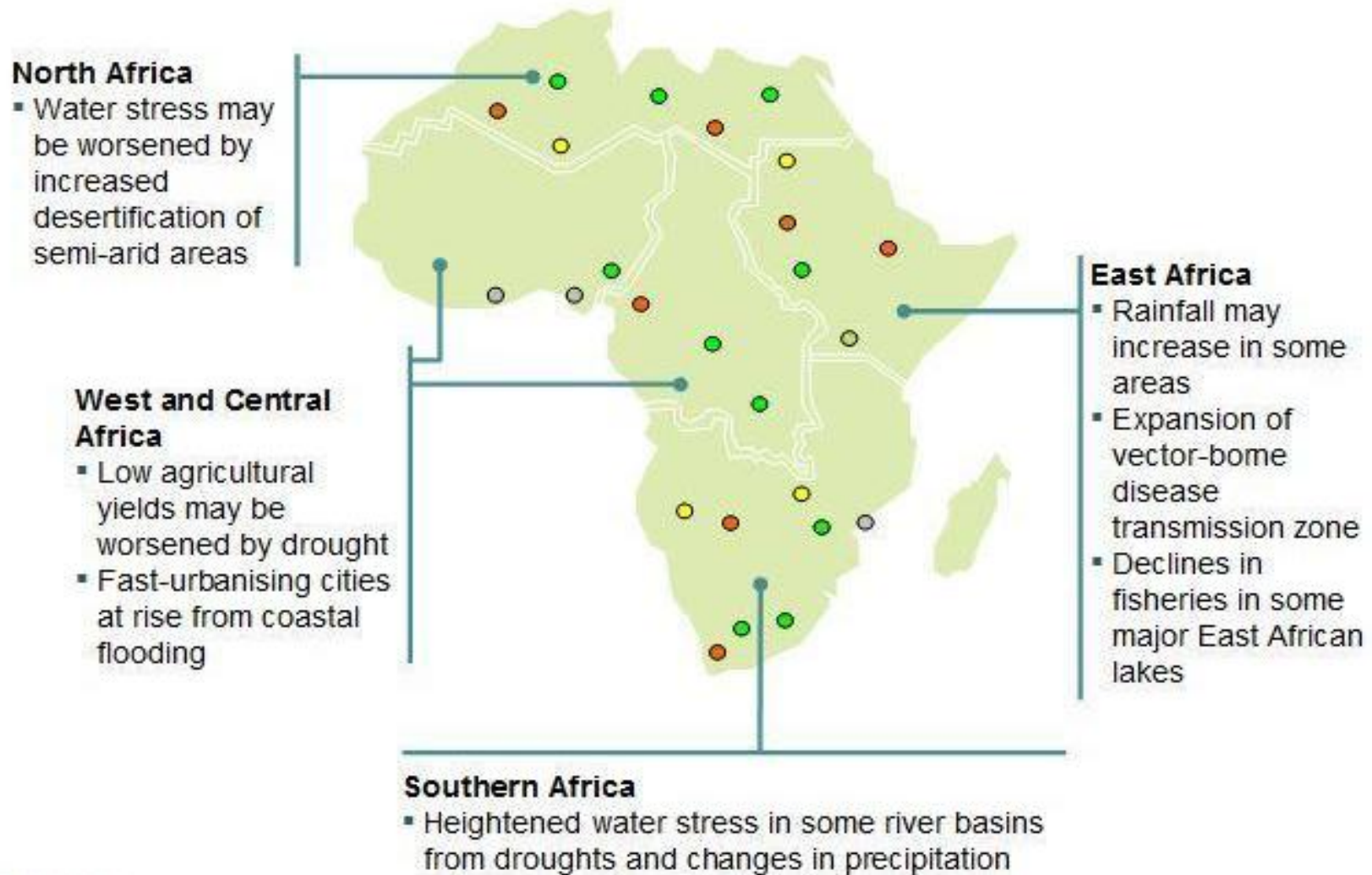
# Adaptation to CC and African Agriculture

- **Climate Change and African Agriculture**

- The majority of the population live in rural areas depending on agriculture for their livelihoods (70-80%).
- Most countries in Africa heavily rely on agriculture for economic growth, food security, and poverty reduction.
- Agriculture in Africa is a highly climate sensitive sector. Vulnerability to climate change conditions apply to agriculture (recurrent droughts triggering famine and erosion of livelihoods)
  - Example: the current famine crises in the Horn of Africa affecting some 12m people
- Current agricultural productivity remains low in absolute and relative terms;
- On the demand side, global agricultural production will need to grow by 70 percent overall by 2050 to feed the projected 9bn people (FAO, 2009)
- Therefore agriculture will simply have to become more productive, while protecting ecosystems.



## Some projected climate change impacts in different parts of the Continent

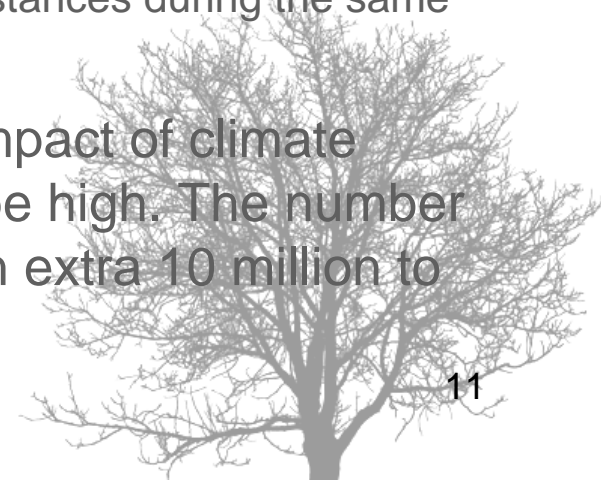


Source: Project Catalyst



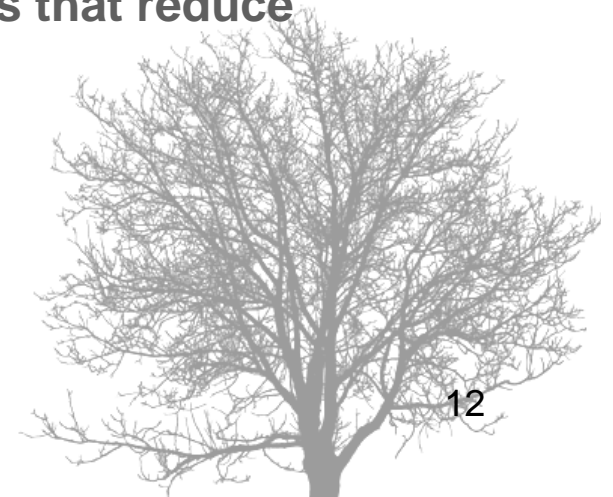
# Adaptation to CC and African Agriculture

- **Projected increases in extreme weather events may result in:**
  - Reduced crop yields and livestock and fisheries productivity (due to water stress, soil/land degradation, pests, pollution, etc.)
  - Increased cost of infrastructure maintenance (raising cost of production and marketing – less competitive products)
  - Report by the IPCC (2007) predicts that
    - up to 250 million people in Africa will experience problems in accessing sufficient water by 2020 because of climate change.
    - Agricultural production could be halved in certain instances during the same period.
  - IFPRI predicts that, without adaptation, the impact of climate change on agriculture and food security will be high. The number of malnourished children could increase to an extra 10 million to a total of 52 million by 2050



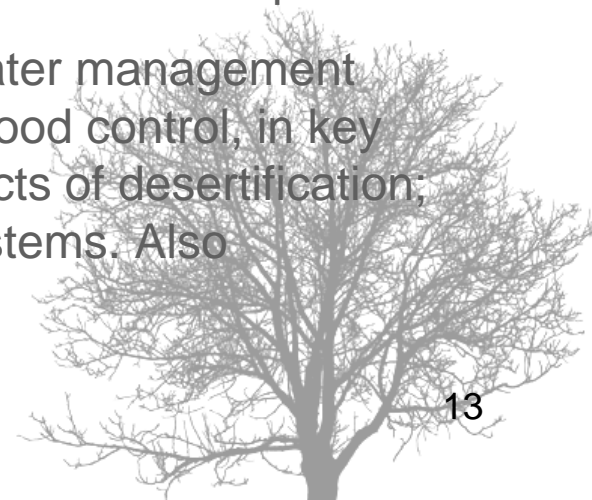
# Adaptation to CC and African Agriculture

- **Issues concerning the challenge of boosting agricultural production and productivity in the face of climate variability and climate change.**
  - The extent to which African agriculture sufficiently adapts to climate change and climate variability determines the options for successful agricultural growth and economic transformation in Africa.
  - In African agricultural systems, which are primarily rain-fed, adaptive capacity is inherently related to the ability to maintain or to buffer ecosystem productivity under climatic stress.
  - This requires implementing **adaptation measures that reduce vulnerability and building resilience:**



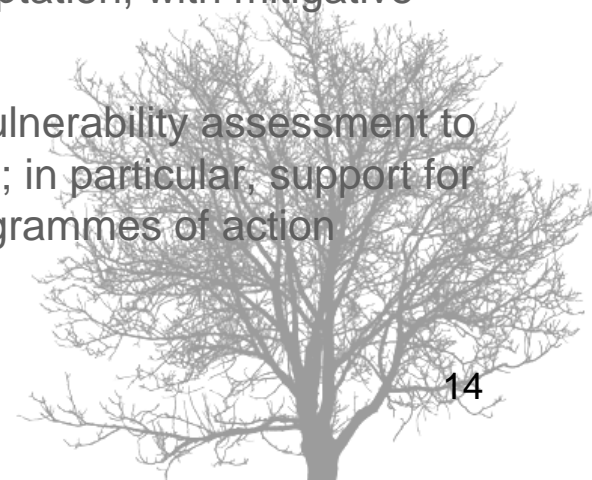
# Adaptation to CC and African Agriculture

- Implementing **adaptation measures that reduce vulnerability and build resilience** involves:
  - Ensuring that Africa's need for climate change objectives are fully consistent with the need to boost food production and productivity;
  - putting in place incentives, policies and institutional mechanisms, including adequate support in terms of financing, technology and capacity-building to enable the adoption of climate smart agricultural practices and techniques, so that agriculture can become a significant part of the solution to the interdependent challenges of climate change and food security in the context of continuing economic development.
  - increased investments in sustainable land and water management practices including water storage, drainage and flood control, in key adaptation technologies for dealing with the impacts of desertification; drought resistant crop varieties; early warning systems. Also investments



# Adaptation to CC and African Agriculture

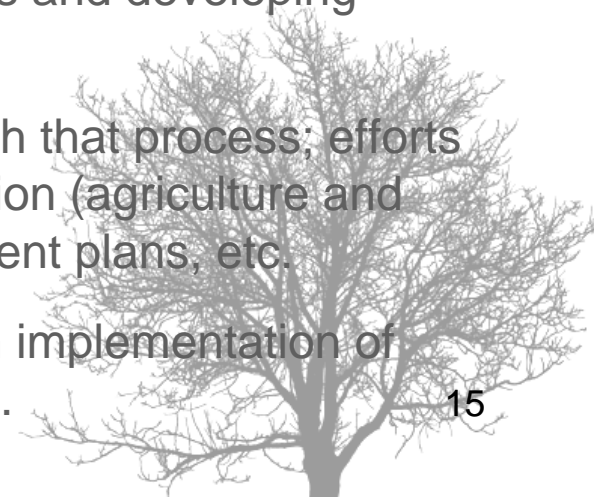
- Implementing **adaptation measures that reduce vulnerability and build resilience also** involves:
  - Addressing the historical legacies judiciously:
    - Policy neglect of the agricultural sector and under-investment;
    - adaptation to climate change is an additional burden on Africa's efforts to reduce poverty and achieve development goals (Africa did not cause the problem). Note that:
      - in CC Negotiations, agriculture is being negotiated under paragraph 1b(iv) of the Bali Action Plan within the context of mitigation, yet Africa's primary priority in respect to agriculture is adaptation, with mitigative functions being considered as co-benefits;
      - Now the focus of adaptation must shift from vulnerability assessment to the implementation of adaptation programmes; in particular, support for the implementation of national adaptation programmes of action (NAPAs) and regional initiatives.



# Adaptation to CC and African Agriculture

- **CAADP in the context of adaptation to CC**

- CAADP as a framework of agricultural development and as African Model of Development (link between agricultural development and overall economic transformation)
- The CAADP content: CAADP Pillars, in particular the pillar on SWLM speaks to issues of climate change adaptation and mitigation. There is an agriculture-climate change adaptation/mitigation framework developed to guide action.
- The CAADP process – rolling out the framework through country processes leading to signing of CAADP Compacts and developing investment plans.
- Close to 30 AU Member States have gone through that process; efforts have been made to ensure that issues of adaptation (agriculture and climate change) are integrated within the investment plans, etc.
- Ultimately, what determines is the extent to which implementation of these investment plans are adequately supported.



# Climate Resilience Development and Adaptation

- **In conclusion:**

- Adapting to today's climate is not same as adapting to future climate change: the fact that climate variability and climate change are dynamic makes adaptation targets shifting goals to be achieved, which necessitates making continual efforts and struggles;
- The transition from vulnerability to resilience is to be determined by conscious and concerted actions through designing and implementing adaptation measures. Some of the crucial conditions include
  - improving climate change governance,
  - mainstreaming climate change in development,
  - enhancing knowledge systems and
  - forging strategic partnerships & cooperations to support such a transition.
- Apparently these constitute the pillars of the African strategy on climate change that the AU in collaboration with its partners has been elaborating.





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# Thank You!

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