

### First Climate Change and Development in Africa Conference

# **Economics of Adaptation in Africa Evidence for action**

Addis Ababa, 17-19 October 2011

Thomas E Downing Paul Watkiss

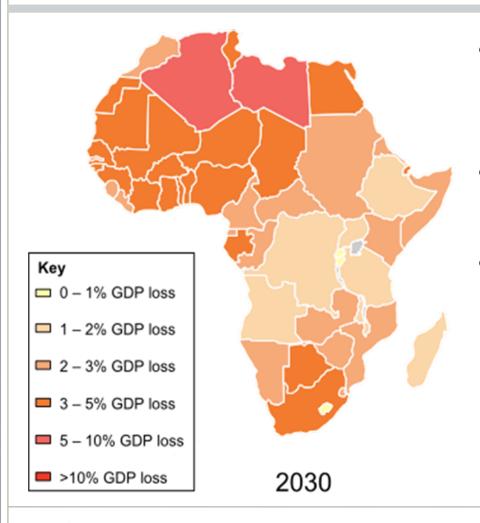


Evidence is growing on the cost and benefits of climate adaptation in Africa. There is now a clear consensus that investment in adaptation is urgent, and finance is only beginning to come on stream despite years of commitments and programming. By 2030, the requirement for new investment in climate adaptation, beyond existing development commitments, could well be \$100 billion per year. Developing effective pathways of adaptation, from where we are today to realistic scenarios of climate resilience is the priority. Developing effective assessments of policies, strategies and measures should be based on robust economic analysis: however, metrics of adaptation cannot be easily reduced to one dimension. Given the challenges ahead, uncertainty over future climate change impacts and the economics of adaptation is not an excuse for inaction.

# Economics of adaptation in Africa: Evidence for action

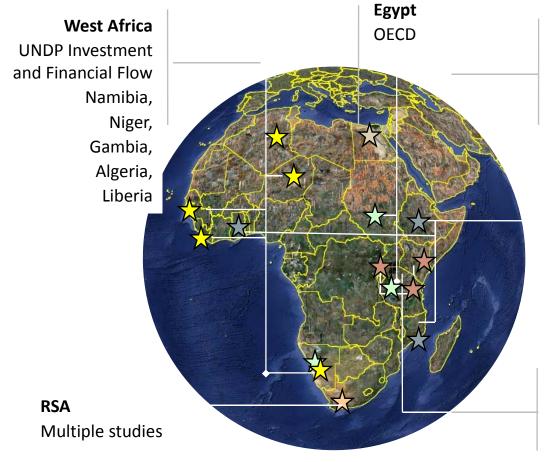
Thomas E Downing and Paul Watkiss, Global Climate Adaptation Partnership

# Impacts of climate change in Africa



- Indication of costs of climate change in Africa from Integrated Assessment Models
- 1 to over 5% of GDP by 2030 for much of Africa (FUND)
- Extreme outcomes are possible: some 500 million people in Africa currently live in low elevation coastal zone less than 10m (University of Southampton)

### Evidence base: economics of adaptation



#### **E&S Africa**

**IIED** Economic analysis of adaptation

Sudan

Tanzania

Malawi

Namibia

#### Ethiopia, Ghana

#### Mozambique

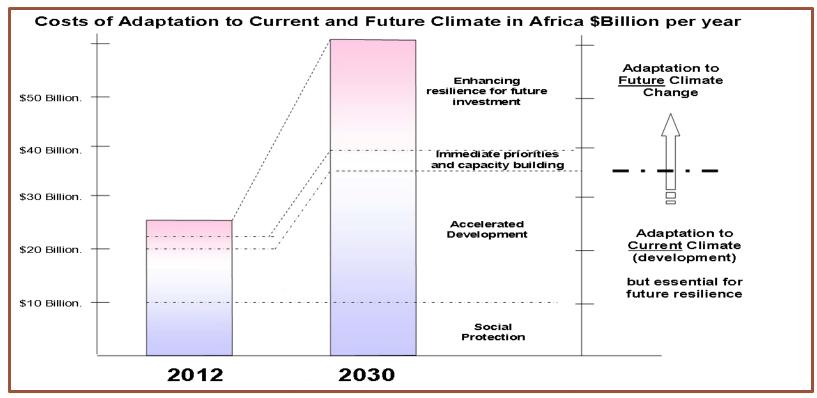
Economic analysis of adaptation World Bank

#### **East Africa**

Economics of climate change, GCAP, SEI Kenya, Rwanda, Tanzania

Evidence is growing: decisions need to be taken in the context of uncertainty

## Range of estimates for Africa



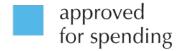
AdaptCost project

Early, no regrets actions are foundation of adaptation pathways: build institutional capacity for major investments

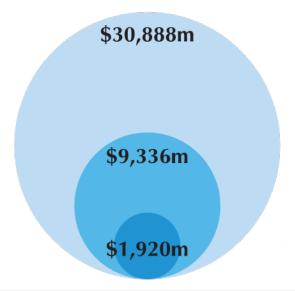
# STATUS OF CLIMATE FUNDS

Value of total funds 2003–April 2011









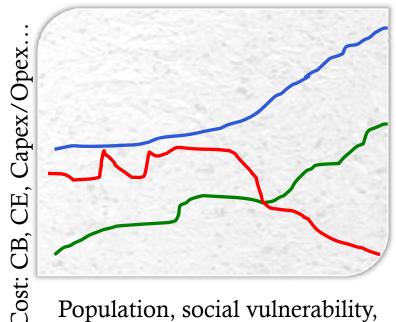
# Finance is a gap

- \$10 billion programmed on climate change now from 24 global funds
- Cancun agreement is for \$100 billion per year by 2020
- Up to half is for adaptation
- But less than 1% of commitments has been spent

Atlas of Climate Change

Investment strategies need to be based on sound economics and grounded in effective institutions.

## Research gaps



Population, social vulnerability, institutional capacity...

- Scaling from project microeconomics to macro-economic outcomes
- Private vs public costs, benefits (impacts), finance, capacity
- Anticipating future decision nodes: path dependence, lock-in, path-breaks and transformations
- A+M synergies or conflicts
- Tracking investment, transparency, accountability

Research capacity and expertise is required across a range of sectors, bridging science and policy and creating effective action.



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# Uncertainty is the reason for action

www.ClimateAdaptation.cc

Partners:

ACPC, AfDB, UNEP ATPS, ESRI, IIED, MetroEconomica, SEI, UCT, SOTON,

