CLIMATE CHANGE IN AFRICA
POST-COPENHAGEN: WHAT IS AT STAKE?

Simon Carter
Program Manager,
Climate Change Adaptation
International Development Research Centre
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Outline of talk

• How is Africa affected by climate change?
• Can Africa adapt to climate change? How?
• What is needed to support adaptation?
How is Africa affected by climate change?

- Why are African nations asking for developed countries to commit to deeper emissions cuts?
  - Reduction of GHG by developed countries of 40% compared to 1990, by 2020
Climate change is happening now

Source: IPCC Fourth Assessment Report, 2007
What people are experiencing

Getting hotter and drier...

...and less predictable

• Extreme and unpredictable weather
• Rising sea levels
• Shrinking water resources
• Soil degradation

• Livelihood stress
• Physical insecurity
• Food insecurity
Increasing impacts: drought in Kenya

Numbers of people directly affected by drought

Emissions are increasing faster than anticipated

Source: Raupach et al, 2007
Future scenarios and possible impacts of continued emissions growth

- Can only be estimated, using models
- Multiple models can be compared to identify robust patterns
- Very conservative (eg IPCC scenarios)
Five degrees warmer?

Percentage change in length of growing period, 2090s compared with present, for the average of the three AR4 SRES scenarios scaled to a global temperature increase of 5°C, means of 14 GCMs.

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<th>Crop</th>
<th>Yield (kg per ha)</th>
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<td>2000s</td>
<td>2090s +5°C</td>
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Source: Thornton and Jones, 2009
Increased exposure to water stress by 2055

(Source IPCC Fourth Assessment Report Working Group II Chapter 9)
Can Africa adapt?

• Not to five degrees of warming
• Uncertainty is very great – pace, extent, costs
• Underlying, non-climatic factors limit people’s adaptive capacity
  – limited success in addressing these factors
• No “solutions” – paradigm shift needed
People are adapting - and we know a lot about how to support their efforts
Vulnerability: Who? Where? To what?
Existing livelihoods are changing
Adaptation can be enhanced, in familiar ways.
Climate Change Adaptation in Africa program (CCAA)

- Launched 2006 by DFID & IDRC
- CAD $65 million
- 46 projects across continent
- Action research and capacity building
Capacity development through Participatory Action Research

Planning: Define desired conditions and actions to achieve them

Monitoring: describe present conditions and follow implementation of actions

Reflection/evaluation: compare present conditions to the desired ones, assess the value and effectiveness of actions

Learning: Adjust actions to reach desired conditions more effectively; gaining knowledge through iteration
Adapting to drought in northern Kenya
Strengthening adaptive capacity in Rural Benin
Adapting to change in Madagascar

Felix Levoavy, farmer, member of the local reflection group in Tampolo, region of Analanrifo, Madagascar
Paulette Marisoa, farmer, member of the local reflection group in Tampolo, region of Analanrifo, Madagascar
Summary: “No-regrets" investments for the future

• Focus efforts on needs of the poorest
• Protect people from hazards
• Reduce uncertainty
• Improve financial and communication systems
• Provide new services e.g. crop insurance
• Ensure that key infrastructure is “climate proofed”
• Conserve biodiversity for multiple benefits
• Build capacity
What is needed to support adaptation?

- Funding
- Trust
- Better understanding
Funding for Adaptation

• African countries asking for:
  – Guaranteed funding
  – Additional to ODA
  – Adequate to cover costs of adaptation (0.5 – 1.5% of GDP)
  – Direct access to funds via UNFCCC

• Estimated range of $70 - $100 Bn + per year
  – $10-20Bn currently estimated for Africa alone
  – Reliability of estimates, given uncertainties?
Trust

• Gap widening between African and developed nations
  – Lack of progress on emissions reductions
  – Difficulties for African nations to access funds
  – High transaction costs
The Global Environment Facility

Figure 5.1: Current governance system of adaptation finance under the GEF
Source: Möhner and Klein (2007); Klein and Möhner (2009)
Can we bridge the trust gap?

• African nations ask:
  – Reduce emissions
  – Meet ODA commitments
  – Make additional funding available for adaptation
  – Effective mechanisms to support adaptation

• Implications
  – Adaptation funding is not the same as ODA
  – Overcome limitations to ODA effectiveness
Limited progress towards MDG’s 2008

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- **Green**: Likely to be achieved
- **Blue**: Progress insufficient to meet target
- **Red**: No progress/Deterioration

Need for new funding delivery mechanisms:

- Match the scale, urgency of the challenge
- Mobilise social capital, innovation, creativity
- Long time-frame: continuity, flexibility
- Subsidiarity is implicit in adaptation
- Public engagement for priority setting
- Develop practical approaches to
  - Standards
  - Social audit
  - Governance
Better understanding through research and capacity building

• Risk and vulnerability assessment
• Reducing uncertainty
• Supporting resilience and diversity
• Rigorous learning, monitoring
• Cost-benefit analyses
Thank you

www.idrc.ca/ccaa