

Mitigation and adaptation using agriculture in Kenya

*Presented by the Government of Kenya
in cooperation with The World Bank*

*United Nations Climate Change Conference
Poznań, Poland - COP 14
1-12 December 2008*

Climate change management in Kenya

- Climate change technology needs assessment
- NEW Climate change management centre
- CDM project pipeline in the energy and land use sector e.g. *Mumias Cogen*, *KenGen* geothermal or *Green Belt Movement AR* projects
- High expectations from integrated agricultural land management mitigation & adaptation projects – 80 % of Kenya's population which is involved in agriculture & threatened by climate change would benefit –

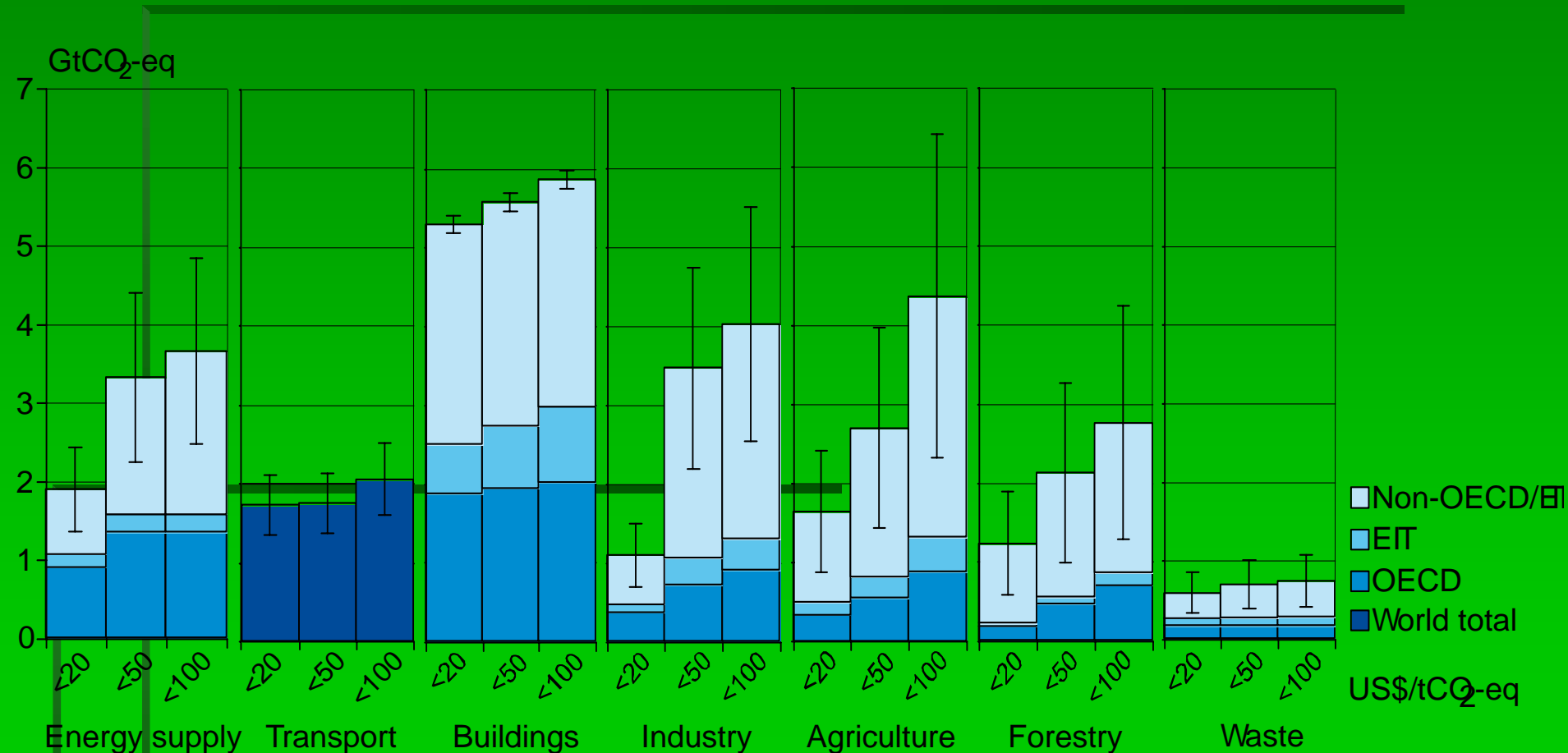
Objectives of the side event

- Awareness raising for GHG mitigation potential in the agriculture sector (plus adaptation synergies)
- Share experiences from agricultural mitigation pilot projects in Kenya & presenting methodology approaches
- Discuss role for agricultural land management in future compliance and voluntary markets

Side event program

Welcome note	Government of Kenya	Permanent Secretary, Ministry of Environment and Mineral Resources
Moderator	Johannes Woelcke, World Bank Africa Region - Agriculture & Rural Dev., Introduction to the program & highlighting global mitigation potential	
Speakers	Timm Tennigkeit, Chinese Academy of Sciences/ ICRAF	Steps involved to develop & implement agricultural carbon finance projects
	Neil Bird, Joanneum Research	A baseline & monitoring methodology for agricultural land management activities
	Ken Newcombe VCS Board, C-Quest Capital	Why do we need to develop credible VCS agricultural methodologies for the US and the CDM?
Panel discussion	Amos Wafula Wekesa, SCC-VI Agroforestry	SALM practices on small-holder farms in Kenya to increase staple food production & generate carbon revenues (introduction & film)
	Kathleen Schepp, GTZ	Climate change adaptation & mitigation synergies in smallholder agriculture
	Philip Valentine, ECOM Agroindustrial Corp	Carbon finance in smallholder coffee farms, producing speciality coffee & carbon credits
	Closing remarks	

Global economic mitigation potential for different sectors (different carbon prices)



Source: IPCC, 2007

Mitigation potential: African agriculture

	Total Agric. Land (Mha)	Mitigation Potential by 2030		
		Technical (t CO ₂ e/ha/yr)	Technical (Mt CO ₂ e / yr)	Economic at 0-20\$/ton CO ₂ eq (Mt CO ₂ e / yr)
East Africa	364	1.10	400	109
Middle Africa	177	1.02	180	49
North Africa	113	0.80	90	25
South Africa	138	0.58	80	22
West Africa	302	0.73	220	60
Total	1093	0.89	970	265 (27%)

Source: IPCC, 2007.

Note: Coarse estimates calculated from data provided by Smith et al (2008) (for SRES scenario B1).

Mitigation potential - Agriculture

Considering that not all agricultural area will be subject to SLM activities (*physical constraints-e.g. land suitability and social constraints-e.g. adoption rate*) and that the carbon price is actually <20 \$/ton CO₂e (*economic constraints*), we have calculated the realistic mitigation potential for Africa

Total Agric. Land	Technical Potential		Economic Potential
1093 Mha	0.89 t CO₂eq/ha/yr	970 Mt CO₂eq / yr	265 Mt CO₂eq / yr (~27%)
Assuming on 10% of all agric. area SLM activities will be adopted			
109 Mha	0.89 t CO₂eq/ha/yr	97 Mt CO₂eq / yr	26 Mt CO₂eq / yr (~27%)
	Model is not considering above ground carbon mitigation potential (estimate: 0.5 tCO ₂ e/ha/yr)	Assuming the economic potential is only 10% of the technical potential, due to low carbon prices	
			9.7 Mt CO₂eq / yr (~10%)