Climate financing opportunities for resilient, sustainable, low-carbon transportation in Africa

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Key messages

- By achieving a resilient sustainable low carbon transport climate change is playing a minor role – it is about **accessibility**, better **health** and **safety**, and **green economic growth**

- **Climate finance** is **only one of many** sources for sustainable transport, but a **growing one** to support mitigation and adaptation

- Opportunities so far **not took up by African countries** in general and by African countries for **transport improvements** in particular

- **Awareness raising** and **capacity building** to access funds could increase the share and **provide new options for funding**
The role of CLIMATE FINANCE
Overview of climate finance – enormous growth

- Total Pledges: US$ 26,891.39 million

- Africa’s share only 12%
- Transport sector underrepresented
- Africa’s transport sector share minimal

Source: Heinrich Boll Stiftung
Climate money: A small part of transport finance
Role of climate finance: Leverage change in other flows

Climate Finance

ODA

Domestic Finance

Billions

Trillions

Millions
Climate finance for MITIGATION

Photo: Manfred Breithaupt (GTZ)
Funding opportunities
Mitigation in Transport Sector

Existing

Multilateral
- CTF
- GEF
- ADB CEF
- ADB CCF
- IDB InfraFund
- UNDP MDG Carbon Facility
- IDB SECCI
- Hatoyama Initiative
- German ICI
- Other

Bilateral
- Carbon market
- CDM

Future (NAMAs)

Mitigation fund / CGCF

Sectoral mechanisms

Climate Finance Mitigation
Mitigation projects supported by climate finance

Source: Heinrich Boll Stiftung
Mitigation projects supported by climate finance in Africa

Source: Heinrich Boll Stiftung
Clean Development Mechanism - not designed for transport

- **32 transport projects** out of 5529 in the pipeline
- **3 registered transport projects** out of 2400
- **7 approved methodologies** out of 169
- **0.046%** of CERs issued
- **No African application**

% of CDM projects in pipeline (UNEP Risoe Center, October 2010)
BRT Bogota: TransMilenio in Bogota – CDM Project 0672 Phase II-IV

Components

- Infrastructure: dedicated bus lane with new stations
- Bus technology: EURO II/III – 160 people
- Transit Management: fleet centre manage bus dispatch, inform passengers; GPS
- Fare system: pre-boarding using magnetic ticketing

CDM - Background

- Carbon sold on the Voluntary Market (Phase I)
- Public-private partnership
- First Transport CDM accepted in 2006
- Reduction 2008: 68813 tCO$_2$eq (=52% CER)

Source: Encuesta de Movilidad, DANE, 2005; UNFCCC 2009 – Monitoring Report by Gruetter Consult; UNEP Risoe Center 2009
TransMilenio in Bogota

Emissions per passenger transported

Improved efficiency
- New buses: less emissions per km driven (Euro II and Euro III)
- Larger buses: ensuring less emissions per passenger transported

Improved occupancy rates
Centrally managed organisation dispatching vehicles

Mode switching
From taxis and private cars to public transport due to reduced transport times, increased safety, reliability and comfort.
Assumption: 20% of private car users switched to TransMilenio – in 2008: 2.4%

Source: TRANSMILENIO S.A., Balance Social 2006
Global Environment Facility (GEF)

- Total allocated US$8.8 billion (1991-2009)
- US$201 million allocated to transportation (1999-2009)

- Programmatic and Enabling Activities; Full size projects (>US2Million) Medium size projects (<US2Million)

- GEF Agencies: Multilateral Development Banks, UNEP, UNDP, IFAD, FAO, UNIDO.

- Consistent with national priorities & with GEF operational strategy, covers incremental costs, requires public involvement, endorsement by host country, eligible country.
## GEF support to transport projects in Africa

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ouagadougou Transport Modal Shift</td>
<td>Burkina Faso</td>
<td>0.91 million</td>
</tr>
<tr>
<td>Sustainable Transport</td>
<td>Egypt</td>
<td>6.9 million</td>
</tr>
<tr>
<td>Ghana Urban Transport</td>
<td>Ghana</td>
<td>7 million</td>
</tr>
<tr>
<td>Niger Urban Transport</td>
<td>Niger</td>
<td>4.5 million</td>
</tr>
<tr>
<td>Sporting events, FIFA 2010</td>
<td>South Africa</td>
<td>1 million</td>
</tr>
<tr>
<td>Sustainable Public Transport and Sport: A 2010 Opportunity</td>
<td>South Africa</td>
<td>11 million</td>
</tr>
</tbody>
</table>
GEF Sustainable Transport in East Africa – the latest example (subject to final approval)

- 2.8 million US Dollar for 2011 to 2015
- Kampala, Nairobi and Addis Ababa – development of options towards sustainable transport:
  - Bus Rapid Transport (incl. feeder service concept)
  - Improvement of existing public transport services
  - Non-motorised transport improvements
  - Traffic Management

- Feasibility studies
- Capacity building
- Regional network
Clean Technology Fund (World Bank)

- Total allocated US$4.149 billion (as of Jan 2009)
- US$600 million to transportation (2009-present)
- 12 investment plans and one regional investment plan (Egypt, MENA, Mexico, Morocco, Philippines, S. Africa, Thailand, Turkey, Vietnam, Colombia, Indonesia, Kazakhstan, Ukraine). Seven include actions in transport.

Requires: Eligibility to receive ODA, based on and complementary to national strategies and plans, transformational impact and scalability, potential for GHG emissions reductions, cost-effectiveness, development impact.

Focus now on implementation.
German International Climate Initiative

- Total allocated US$490 million (since 2008)
- 181 projects supported, 3% (5 projects) on transportation
  - Climate protection and electric transport in China (2009 to 2012, €4 million including a BMU grant)
  - Promoting low carbon transport in India (€2 million between 2010 and 2012 including a BMU grant)
  - Sustainable urban mobility in the Ukraine (2009 to 2011 and €1.091 million including a BMU grant)
  - Modernisation of transport in Lviv (Ukraine) (€500,000, including a BMU grant, in 2009)
  - Reducing methane emissions via a waste treatment plant in Gaobeidian, China (unspecified transport component) (€4.3 million between 2008 to 2010, including a BMU grant).

- Criteria: innovation, replicability, integration within climate strategy of host country, goal achieved in 5yr period, MR.
<table>
<thead>
<tr>
<th>Size of funding</th>
<th>GHG emission reduction assessment requirements</th>
<th>Co-benefits assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>National and local funds</td>
<td>Very large <strong>Trillions</strong></td>
<td>No GHG assessment requirements in place</td>
</tr>
<tr>
<td>Development bank funding</td>
<td>Large <strong>Billions</strong></td>
<td>Methodologies under development, not applied</td>
</tr>
<tr>
<td>CDM</td>
<td>Small <strong>Millions</strong></td>
<td>Very strict, at entry and during project</td>
</tr>
<tr>
<td>GEF</td>
<td>Small <strong>Millions</strong></td>
<td>New Methodology for 2011, only at project entry</td>
</tr>
<tr>
<td>CIF/CTF</td>
<td>Small <strong>Millions</strong></td>
<td>Emphasis is on sector transformation, detailed GHG assessment not at project entry</td>
</tr>
</tbody>
</table>
## Types of intervention encouraged

<table>
<thead>
<tr>
<th>Source of climate finance</th>
<th>Nature of support</th>
<th>Type of intervention supported</th>
<th>Modes supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Development Mechanism</td>
<td>✓</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>UNDP Millennium Development Goals (MDG)</td>
<td>✓</td>
<td>✓</td>
<td>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Hayotama Initiative</td>
<td>✓ ✓ ✓</td>
<td>unclear</td>
<td>unclear</td>
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<td>Global Environment Facility</td>
<td>✓</td>
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**Source of climate finance**
- Clean Development Mechanism
- UNDP Millennium Development Goals (MDG)
- Hayotama Initiative
- Global Environment Facility
- Clean Technology Fund
- International Climate Initiative

**Nature of support**
- Grants
- Loans
- Technical
- Infrastructure
- Technology
- Operations
- Capacity building
- Road
- Rail
- Urban public transport
- Non motorised transport

**Type of intervention supported**
- Road
- Rail
- Urban public transport
- Non motorised transport
Summary

- Broad variety of funds with very different processes and pre-conditions – most effort for applications is not equivalent to highest amount of funding (e.g. CDM)
- Support for sustainable transport is growing and countries start to make use of them
- However, only few examples in Africa – especially on transport
- Potential barriers:
  - Lack of awareness
  - Lack of knowledge how to access funds
  - Lack of initiative from donor countries
Climate finance for ADAPTATION
Funding opportunities
Adaptation in Transport Sector

Multilateral
- Adaptation Fund
- CIF - PPCR
- GEF - LDCF
- GEF - SCCF
- IDB InfraFund
- IDB SECCI
- ADB CCF
- ClimDev Africa Special Fund

Bilateral
- Hatoyama Initiative
- German ICI
- Other

Climate Finance Adaptation

Future mechanism TBD
Adaptation projects supported by climate finance

Source: Heinrich Boll Stiftung
Adaptation projects supported by climate finance in Africa

Source: Heinrich Boll Stiftung
Adaptation Fund (UNFCCC)

- Started operation in April 2010.
- Financed by a 2% charge on the CERs issued for Clean Development Mechanism projects plus other sources
- Available resources expected to be between USD 250-350 million by 2012.
- AF Agencies: Centre de Suivi Ecologique from Senegal, UNDP, ADB, the International Fund for Agricultural Development (IFAD), UNEP, the UN World Food Programme (WFP), the Planning Institute of Jamaica and the Agencia Nacional de Investigacion e Innovacion of Uruguay.
Adaptation Fund

- Preliminary results of call April 2010: 10 proposals to the secretariat, with the total requested funding amounting to US$60,991,487. Following the initial technical review carried out by the secretariat, two of the proposals were withdrawn by their proponents.

- The 8 remaining proposals amounted to US$52,057,000: Senegal, Egypt, Guatemala, Honduras, Madagascar, Mongolia, Niue, Uganda.

- The deadline for project submissions for the twelfth Board meeting is October 25, 2010
Pilot Program for Climate Resilience (CIF)

- Approved November 2008
- Part of Strategic Climate Fund (World Bank)
- Objective: Pilot and demonstrate ways to integrate climate risk and resilience into core development planning.
- Country led, built on National Adaptation Programs of Action (NAPA) and other country studies and strategies, complement existing adaptation funding, actions that are both outcome of comprehensive planning process and consistent with countries’ development and poverty reduction goals.
- Following countries/regions invited to participate: Bangladesh, Bolivia, Kingdom of Cambodia, Republic of Mozambique, Nepal, Republic of Niger, Republic of Tajikistan, Yemen, Zambia, Caribbean, Pacific.
GEF – Least Developed Country Fund

- Finances the additional costs imposed on the Least Developed Countries to address their special needs under the Climate Convention (priority adaptation)

- At present, $115 million committed by 14 donor countries to implement the urgent and immediate adaptation actions identified by the National Adaptation Plans of Action. The amount will increase as donor countries continue to make voluntary contributions to the Fund.

- A grant request can be justified by specifying the costs of urgent and immediate adaptation needs over a development baseline. No co-financing needed.

- First step: Contact a GEF Implementing Agency (UNDP, UNEP, WB) or a GEF Executing Agency (FAO, UNIDO, AfDB, ADB, EBRD, IDB, IFAD).
GEF – Special Climate Change Fund

- Established under the UNFCCC in 2001 to finance activities, programs, and measures relating to climate change.
- Pledges to date amount to: US$91 million
- Comply with eligibility under the Programming papers, priorities in the NAPAS, National Communications, other regional or national programs and plans.
- 15 approved SCCF Adaptation Programme projects totaling USD 67.5 million and 14 projects in the pipeline that are expected to request approximately USD 46 million.
Climate for Development in Africa

- ClimDev-Africa is a joint initiative of the African Development Bank, the Commission of the African Union and the United Nations Economic Commission for Africa.

- AfDB: $30 million to strengthen the institutional capacities of four African regional climate centers: the African Centre of Meteorological Applications for Development (ACMAD), the Agro-meteorology and Hydrology Regional Centre (AGRHYMET), IGAD Climate Prediction and Application Centre (ICPAC) and the Drought Monitoring Centre (DMC).

- ClimDev Africa Special Fund, a multi-donor facility with estimated at about $135 million between 2010 and 2012. Launched October 15th 2010 in Addis Ababa – Program will start 2011
Summary

- Broad variety of funds with very different processes and pre-conditions – most projects in initial phases
- Transport is part of broader adaptation plans
- However, so far only few examples on transport
- Potential barriers:
  - Lack of awareness
  - Lack of knowledge how to access funds
  - Lack of initiative from donor countries
Leveraging further changes through THE UNFCCC PROCESS
Background: The Road to Copenhagen

- The Kyoto Protocol
  - Adopted in 1997, entered force in 2005
  - 1st commitment period (2008-12)
  - Targets for “Annex 1” countries
  - Flexible instruments key elements: ETS, JI and CDM

- A two track approach since Bali (2007) to work towards a new agreement in Copenhagen:
  - AWG-KP (The Kyoto Track)
  - AWG-LCA (The Convention Track)
Copenhagen: The window of opportunity will not get bigger

Saturday 19th
2009
Plenary 4 am
The Copenhagen Results

- No legally binding agreement
- No mention of targets (for anyone)
- “Taking note of” the Copenhagen Accord

- Extension of negotiations and key working groups – COP 16 (Cancun) Dec 2010, COP 17 (Jo’borg) Dec 2011
“Taking note of the Copenhagen Accord”

- Mention of 2 degree target
- **Finance** of US$30 billion between 2010-2012 (Fast-Start), growing to US$100 billion per annum by 2020
- Carbon markets mentioned, but no reference to sectoral mechanisms
- Internationally supported **National Appropriate Mitigation Actions (NAMAs)** to be **Measurable Reportable Verifiable (MRV)**
- Mention of a **Technology Mechanism**
- **Adaptation** in LDCs, SIDS and Africa given “urgent” attention
National Appropriate Mitigation Actions (NAMA): The appetite for low carbon transport is there

- Based on analysis of NAMA submissions to Copenhagen Accord by Sept 2010
  
  >28 out of 43 submissions mention transport
  
  >17 African countries refer to transport

Examples:

Togo: Increase energy efficiency by improvement of public transport

Ghana: Improve non-motorised infrastructure....

Future options through the negotiation process

- Future of climate finance key element in Cancun (COP 16)
- Support for National Appropriate Mitigation Action (NAMA) and process will be discussed
- More prominent role for transport (e.g. transport window) could be suggested by countries
- Technology Transfer and Capacity building further elements under negotiation (Regional Centre for Resilient Low Carbon Sustainable Transport?)
- More finance available NOW!
Conclusions and thoughts on
THE FUTURE ROLE OF SSTAP
Conclusions

- Climate finance offers opportunities and growing prospects for sustainable low-carbon transport and adaptation activities in Sub-Saharan Africa.

- Africa has so far not received much climate financing for the transport sector in both mitigation and adaptation.

- It is important to act pro-actively in the identification of options to reduce emissions from transportation and to attract climate finance to programs and projects.

- Climate finance can play an important role in catalysing change and leveraging funds for sustainable low-carbon transportation.
The building blocks of resilient low carbon sustainable transport – a framework for SSATP

- Finance
- Institutions
- Planning
- Technology
- Vision
## Key actions

<table>
<thead>
<tr>
<th>Strategic vision</th>
<th>General strategy</th>
<th>SSATP Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>°</td>
<td>Leapfrog to a green resilient transport system via the Avoid, Shift, and Improve approach. Pre-empt a transport network reliant on motorised private transport, and aim to retain the current shares in public and non-motorised modes taking future climate effects into account.</td>
<td>Mainstreaming climate change in transportation planning and development plans</td>
</tr>
<tr>
<td>°</td>
<td>Design and develop compact and transit oriented resilient cities. Implement and enforce standards for new and used vehicles</td>
<td>Support for transport NAMA</td>
</tr>
<tr>
<td>°</td>
<td>Refrain from subsidising fuel, and use tax revenues from vehicles and fuels to develop green transport systems Request funding from donors for green transport modes and a resilient infrastructure</td>
<td>Jo’burg (COP 17) strategy</td>
</tr>
<tr>
<td>°</td>
<td>Request funding from donors for green transport modes and a resilient infrastructure</td>
<td>Suggesting projects to receive funding from climate finance in both mitigation AND adaptation</td>
</tr>
<tr>
<td>°</td>
<td>Enabling self-sufficient finance and linking to new international funding sources like climate finance</td>
<td></td>
</tr>
</tbody>
</table>
## Key actions

<table>
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<th>Technology</th>
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<tbody>
<tr>
<td></td>
<td>• Apply affordable and existing technologies (e.g. bus rapid transit systems, non-motorised transport etc) which support green growth</td>
<td>• Capacity building on access funding for technology transfer</td>
</tr>
<tr>
<td></td>
<td>• Decarbonise the current fleet of vehicles</td>
<td>• Guidance for resilient low carbon technologies</td>
</tr>
<tr>
<td></td>
<td>• Develop climate modelling and enabling better adaptation plans</td>
<td></td>
</tr>
</tbody>
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<th>General strategy</th>
<th>SSATP Contribution</th>
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<tr>
<td></td>
<td>• Develop institutional capacity in green transport policy making and enforcement.</td>
<td>• Strengthening data availability and reliability</td>
</tr>
<tr>
<td></td>
<td>• Ensure monitoring and accounting capabilities to allow progress to be measured and developments in green resilient transport</td>
<td>• Creation and dissemination of relevant knowledge and tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop a regional forum/partnership for adaptation and mitigation</td>
</tr>
</tbody>
</table>
More information

- GTZ Sourcebooks for Policy Makers in Developing Cities
  [www.sutp.org](http://www.sutp.org)

- A Paradigm Shift Towards Sustainable Low Carbon Transport
Please check these websites

Bridging the Gap
www.transport2012.org

Sustainable Low Carbon Partnership
www.slocat.net/
Thank you for your attention

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