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

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Partnership on Sustainable Low Carbon Transport

## 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 taken 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**

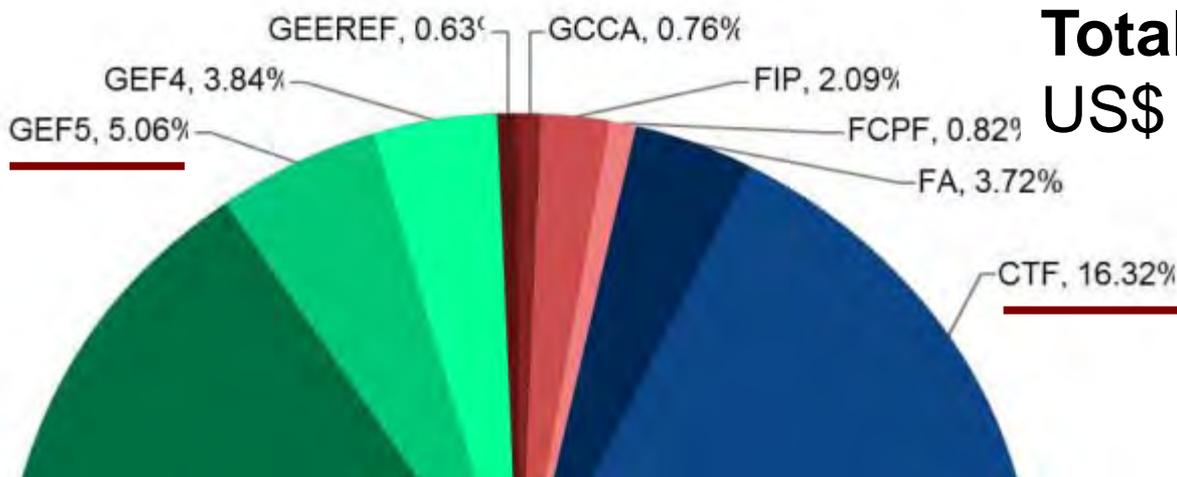


Photo: Ko Sakamoto (TRL)

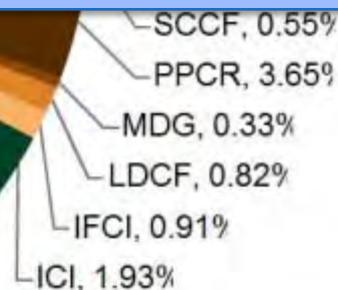
# The role of **CLIMATE FINANCE**

# Overview of climate finance – enormous growth

**Total Pledges:**  
US\$ 26,891.39 million

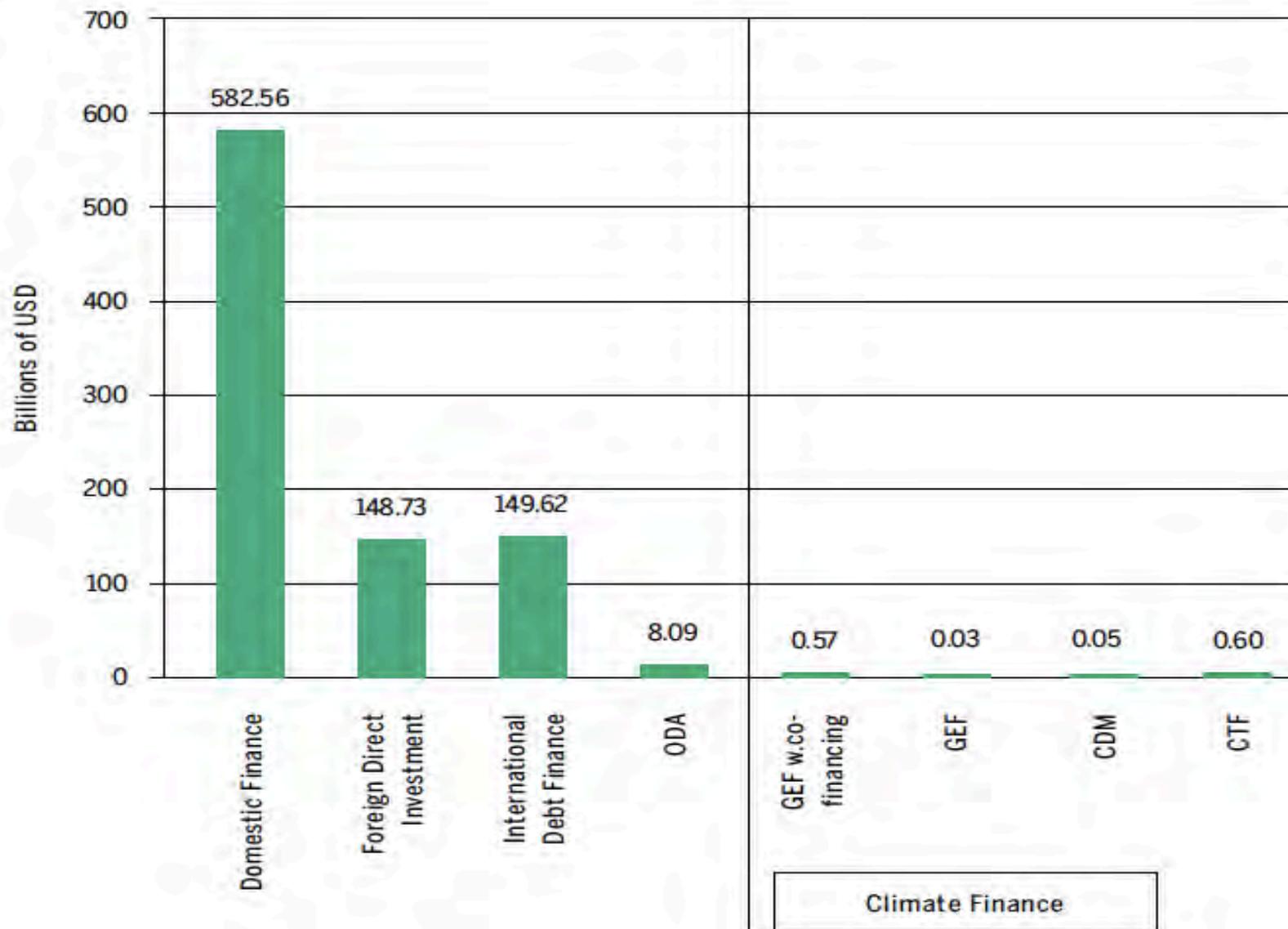


- Africa's share only 12%
- Transport sector underrepresented
- Africa's transport sector share minimal



Source: Heinrich Boll Stiftung

# Climate money: A small part of transport finance



# Role of climate finance: Leverage change in other flows

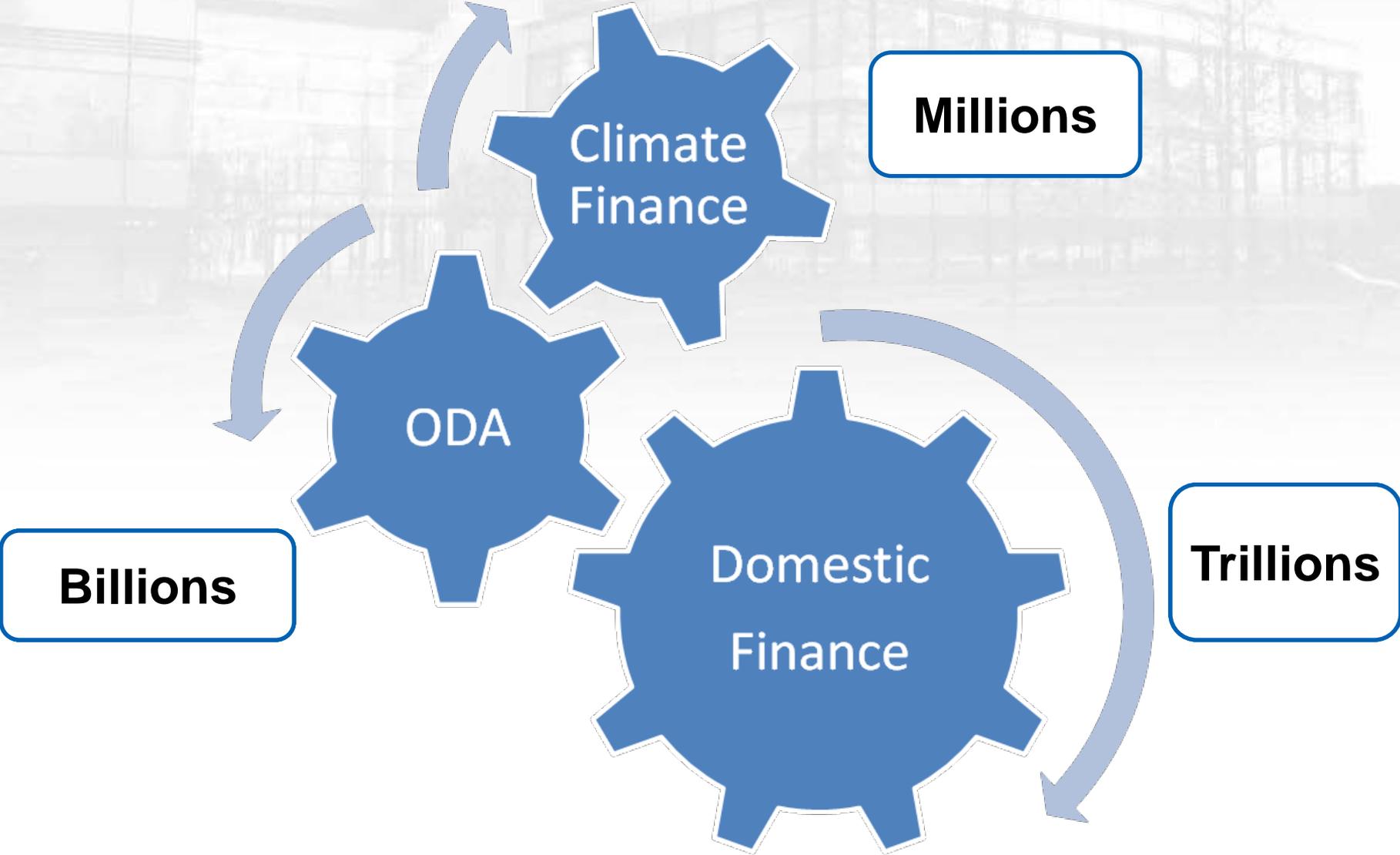


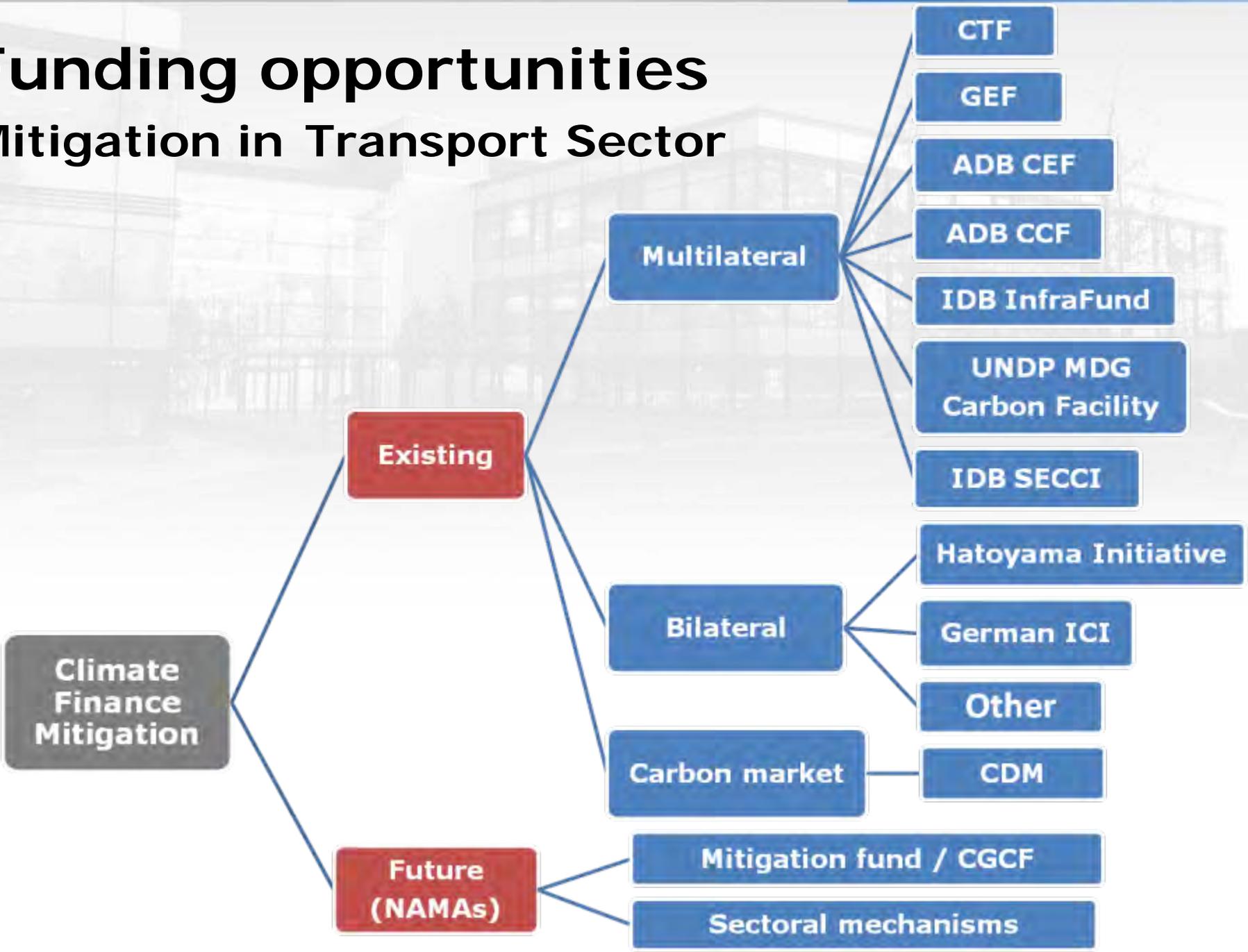


Photo: Manfred Breithaupt (GTZ)

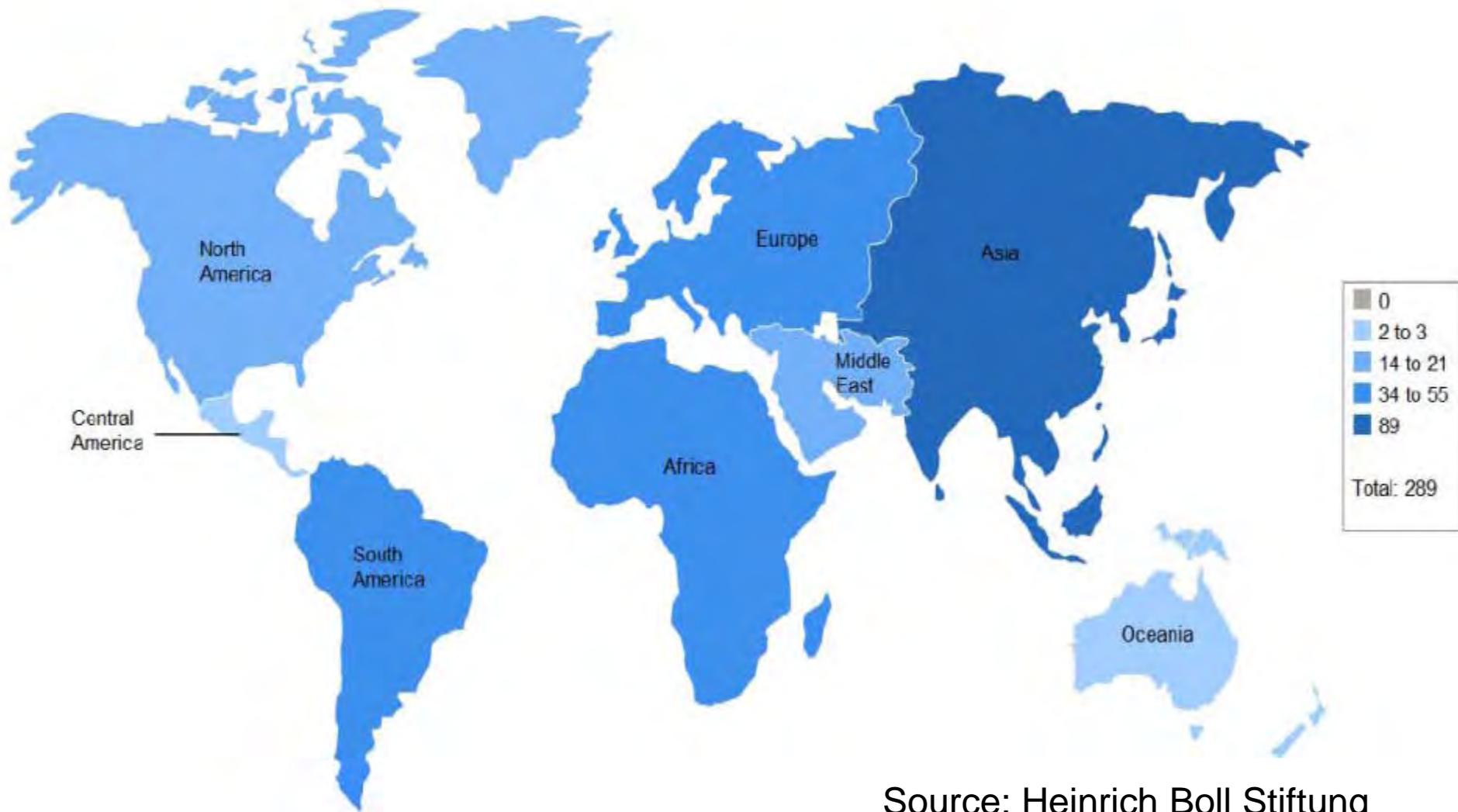
# Climate finance for **MITIGATION**

# Funding opportunities

## Mitigation in Transport Sector



# Mitigation projects supported by climate finance

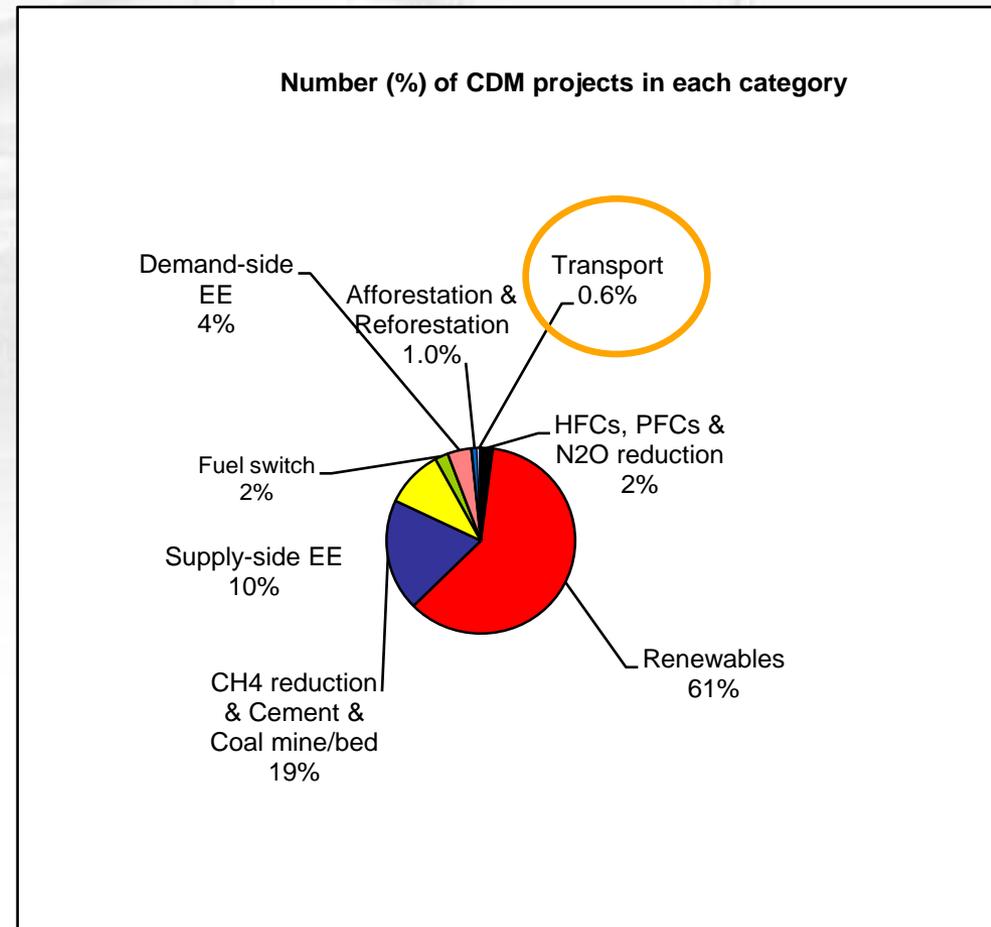


Source: Heinrich Boll Stiftung



# 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<sub>2eq</sub> (=52% CER)**

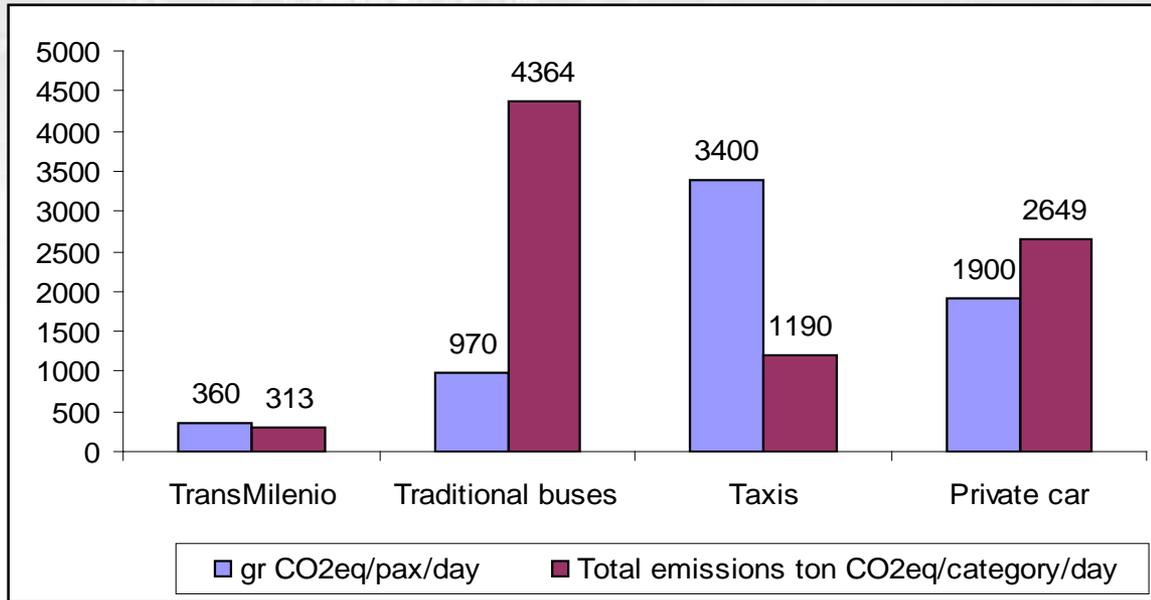


# TransMilenio in Bogota

## 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



Source: TRANSMILENIO S.A., Balance Social 2006

### 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%**

# Global Environment Facility (GEF)

- Total allocated US\$8.8 billion (1991-2009)
- US\$201 million allocated to transportation (1999-2009)
- GEF 5 (July 2010 –June 2014). US\$250 million is assigned to transportation.
- 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

Project	Location	US\$
Ouagadougou Transport Modal Shift	Burkina Faso	0.91 million
Sustainable Transport	Egypt	6.9 million
Ghana Urban Transport	Ghana	7 million
Niger Urban Transport	Niger	4.5 million
Sporting events, FIFA 2010	South Africa	1 million
Sustainable Public Transport and Sport: A 2010 Opportunity	South Africa	11 million

# 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.

# MRV (Measurable, reportable, verifiable) requirements vs size of funding

	Size of funding	GHG emission reduction assessment requirements	Co-benefits assessment	
National and local funds	Very large <i>Trillions</i>	-	No GHG assessment requirements in place	Varies per country, generally low
Development bank funding	Large <i>Billions</i>	*	Methodologies under development, not applied	Environmental/Social Externalities not
CDM	Small <i>Millions</i>	*****	Very strict, at entry and during project	Depends on country
GEF	Small <i>Millions</i>	**	New Methodology for 2011, only at project entry	New methodology recognizes but does not reward
CIF/CTF	Small <i>Millions</i>	**	Emphasis is on sector transformation, detailed GHG assessment not at project entry	Qualitative assessment

# Types of intervention encouraged

Source of climate finance	Nature of support		Type of intervention supported				Modes supported				
	Grants	Loans	Technical	Infrastructure	Technology	Operations	Capacity building	Road	Rail	Urban public transport	Non motorised transport
Clean Development Mechanism	✓		✓	✓	✓				✓	✓	✓
UNDP Millennium Development Goals (MDG) Carbon Facility			✓				✓	✓	✓	✓	✓
Hayotama Initiative	✓	✓	✓			unclear				unclear	
Global Environment Facility	✓		✓	✓	✓	✓	✓		✓	✓	✓
Clean Technology Fund	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
International Climate Initiative	✓			✓	✓		✓			✓	✓

# 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

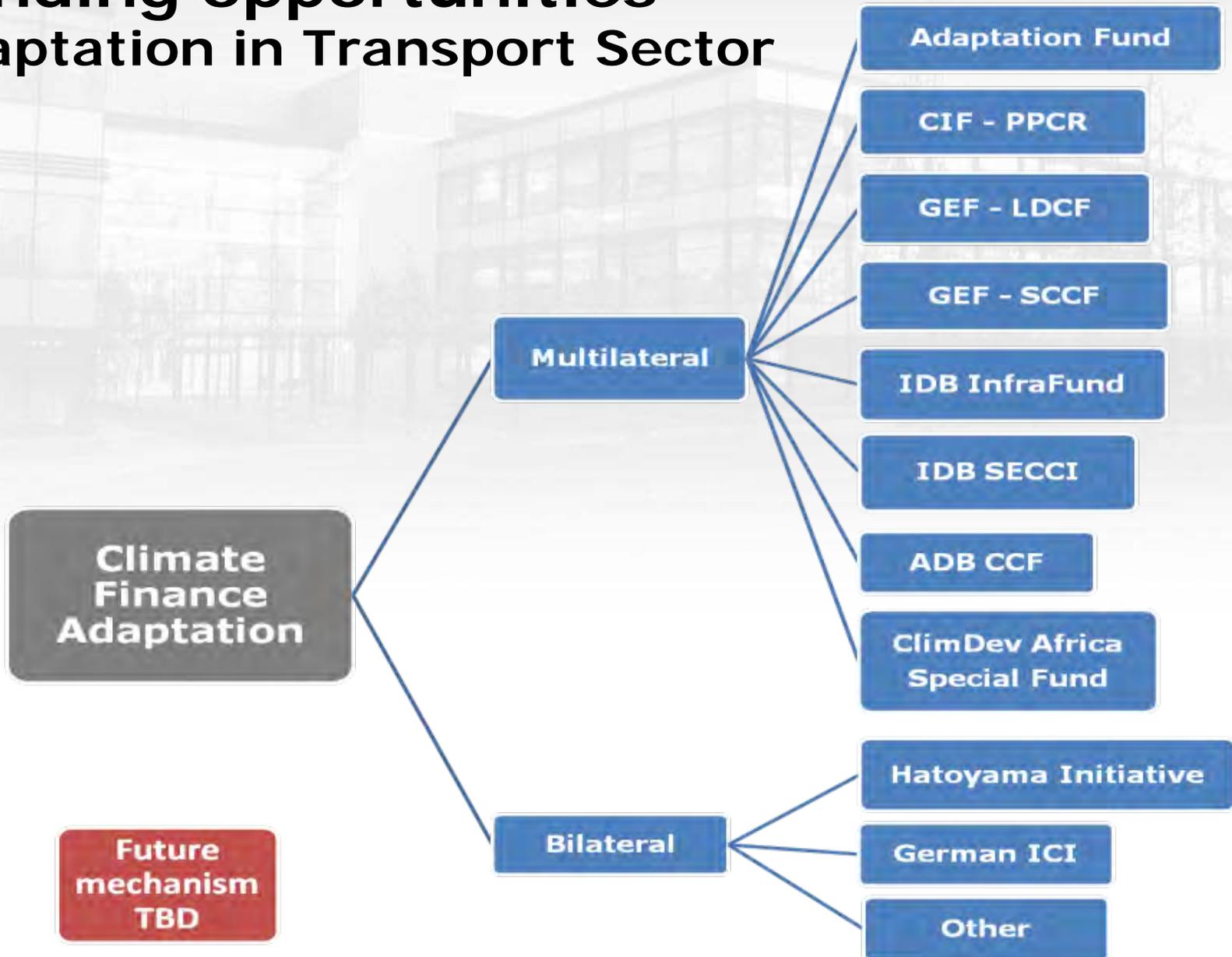


Photo: Ko Sakamoto (TRL)

# Climate finance for **ADAPTATION**

# Funding opportunities

## Adaptation in Transport Sector

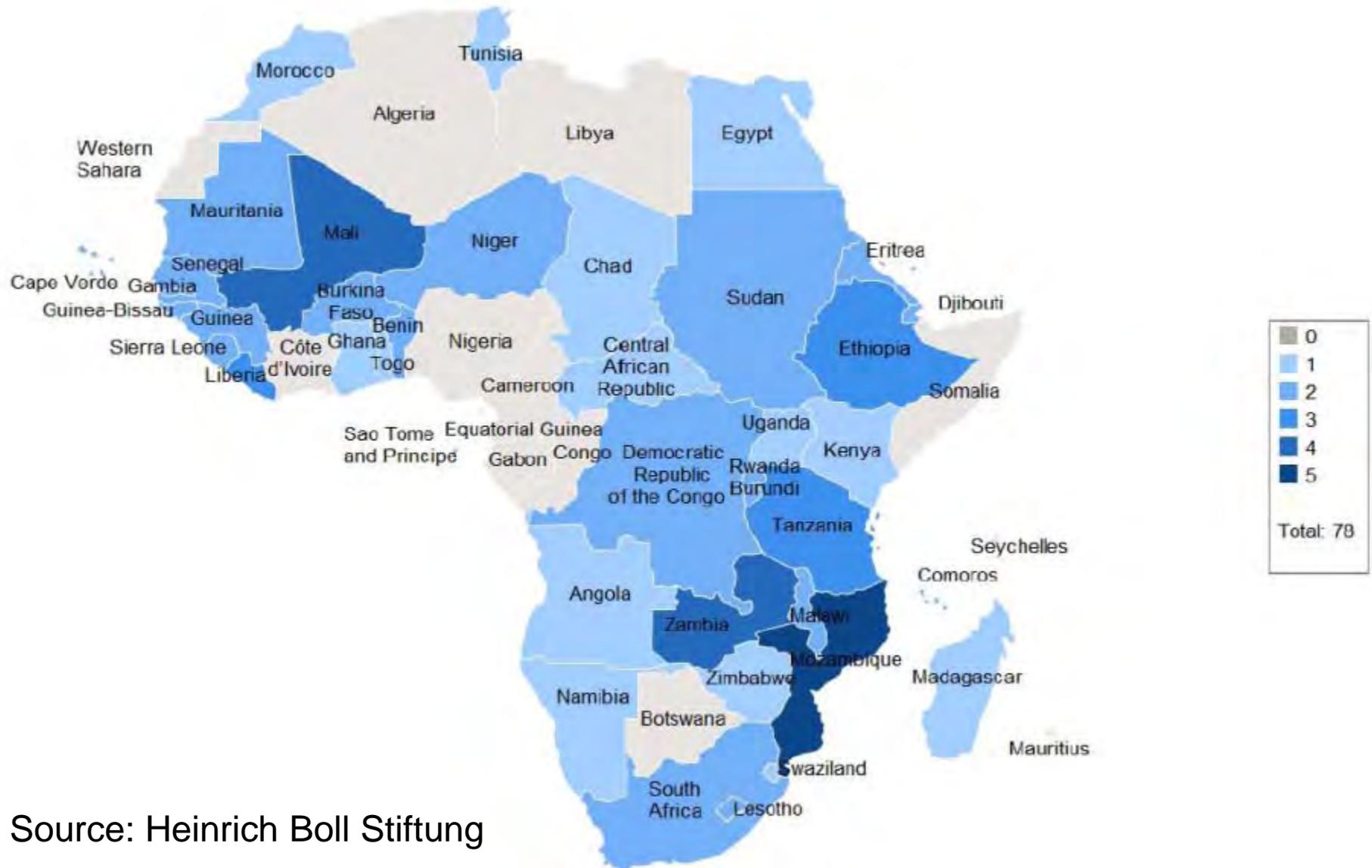


# Adaptation projects supported by climate finance



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 15<sup>th</sup> 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



Photo: Ko Sakamoto (TRL)

# Leveraging further changes through **THE UNFCCC PROCESS**

# Background: The Road to Copenhagen

- The Kyoto Protocol
  - Adopted in 1997, entered force in 2005
  - 1<sup>st</sup> 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



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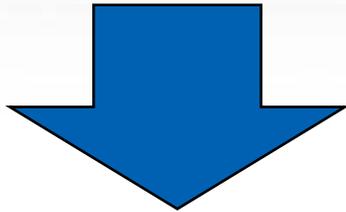
Saturday 19<sup>th</sup>  
2009  
Plenary 4 am



Picture copyright Ramon Cruz

# 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



Picture copyright Ko Sakamoto

## “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

Developing country Party	Strategy approach	Infrastructure development/enhancement						Land use planning	Assessment strategies (TDM)	Vehicle of fuel technology	Regulatory policy measure	Energy efficiency	Other unspecified
		Road light rail	Non-motorised	Fleet	Other (or unspecified) public transport	Waterborne	Unspecified						
Republic of Armenia	Improve											✓	
Benin	Shift				✓							✓	
Botswana	Shift and improve			✓								✓	
Central African Republic	Avoid, shift and improve						✓					✓	
Chad	Shift and improve									✓		✓	
Colombia	Shift and improve					✓				✓		✓	
Cote d'Ivoire	Avoid and shift							✓	✓			✓	
Costa Rica	Not specified											✓	
Republic of Congo	Avoid and shift					✓	✓			✓		✓	
Eritrea	Avoid, shift and improve											✓	
Ethiopia	Shift	✓										✓	
Gabon	Shift and improve				✓					✓		✓	
Ghana	Shift and improve	✓	✓	✓	✓	✓				✓	✓	✓	
Indonesia	Shift											✓	
Jordan	Shift and improve	✓			✓		✓			✓		✓	
Macedonia	Shift and improve	✓	✓	✓			✓		✓	✓		✓	
Madagascar	Shift and improve	✓										✓	
Marshall Islands	Shift and improve					✓				✓		✓	
Mauritania	Shift				✓							✓	
Mexico	Shift and improve	✓	✓	✓						✓		✓	
Morocco	Avoid, shift and improve	✓		✓			✓			✓		✓	
Papua New Guinea	Not specified											✓	
San Marino	Unclear							✓				✓	
Sierra Leone	Shift and improve			✓	✓					✓		✓	
Singapore	Shift and improve			✓			✓		✓	✓		✓	
Togo	Shift and improve				✓					✓		✓	
Tunisia	Avoid, shift and improve	✓			✓		✓			✓		✓	

- 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!



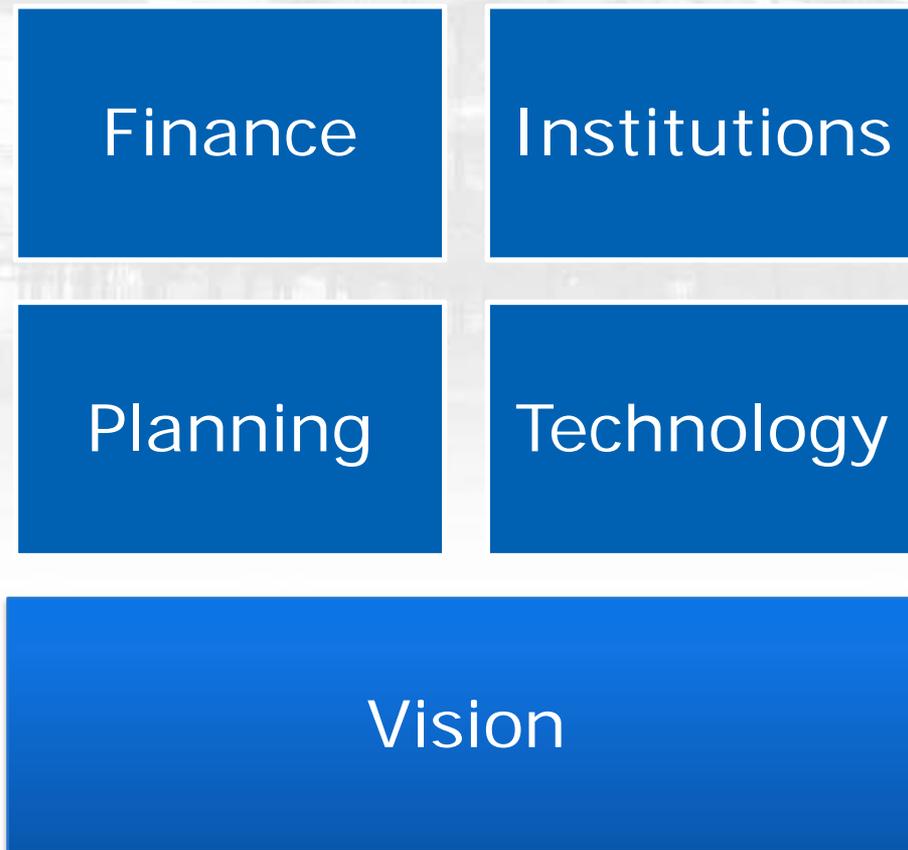
Photo: Ko Sakamoto (TRL)

# 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



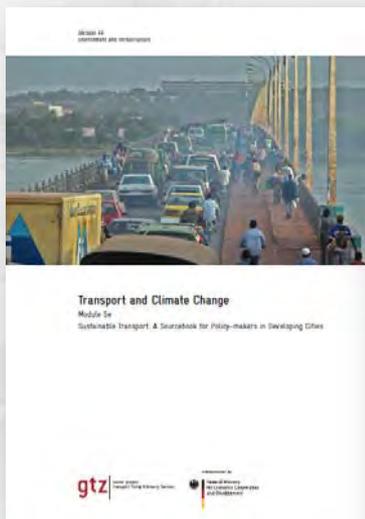
# Key actions

	<b>General strategy</b>	<b>SSATP Contribution</b>
Strategic vision	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Mainstreaming climate change in transportation planning and development plans</li> <li>Support for transport NAMA</li> <li>Jo'burg (COP 17) strategy</li> </ul>
Planning /regulation	<ul style="list-style-type: none"> <li>Design and develop compact and transit oriented resilient cities.</li> <li>Implement and enforce standards for new and used vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Suggesting projects to receive funding from climate finance in both mitigation AND adaptation</li> </ul>
Economics and finance	<ul style="list-style-type: none"> <li>Refrain from subsidising fuel, and use tax revenues from vehicles and fuels to develop green transport systems</li> <li>Request funding from donors for green transport modes and a resilient infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Enabling self-sufficient finance and linking to new international funding sources like climate finance</li> </ul>

# Key actions

	<b>General strategy</b>	<b>SSATP Contribution</b>
Technology	<ul style="list-style-type: none"> <li>• Apply affordable and existing technologies (e.g. bus rapid transit systems, non-motorised transport etc) which support green growth</li> <li>• Decarbonise the current fleet of vehicles</li> <li>• Develop climate modelling and enabling better adaptation plans</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building on access funding for technology transfer</li> <li>• Guidance for resilient low carbon technologies</li> </ul>
Institutions	<ul style="list-style-type: none"> <li>• Develop institutional capacity in green transport policy making and enforcement.</li> <li>• Ensure monitoring and accounting capabilities to allow progress to be measured and developments in green resilient transport</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening data availability and reliability</li> <li>• Creation and dissemination of relevant knowledge and tools</li> <li>• Develop a regional forum/partnership for adaptation and mitigation</li> </ul>

## 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
- <http://www.transport2012.org>

Please check these websites

Bridging the Gap

[www.transport2012.org](http://www.transport2012.org)

Sustainable Low Carbon Partnership

[www.slocat.net/](http://www.slocat.net/)



Partnership on Sustainable Low Carbon Transport

# Thank you for your attention



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