The Partnership for Clean Fuels and Vehicles: Energy Choices for Africa

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4 Main UNEP Transport Campaigns

**Share the Road** - min 10% road financing for Safety, Sustainability and Accessibility (FIA, UNEP)

**Global Fuel Economy Initiative** - 50% improvement in fuel economy across the global vehicle fleet by 2050 (ITF, IEA, FIA, UNEP)

**Partnership for Clean Fuels and Vehicles**
Public Transport

- Report on Cleaning Bus Fleet
- Climate change co-benefits of BRT
- Cost-benefit analysis of fuel and bus options for Nairobi, Addis Ababa and Kampala
Global transport fuel-mix & petroleum consumption by mode

Global Growth of Light Duty Vehicles

Source: WBCSD, 2003
Tanzania

Most of Daladala Vehicles are Minibuses and are More than 10 Years Old
1 billion people exposed to air pollution exceeding WHO standards – 2,000 deaths in children in South Africa - More than 5% of developing-country GDP

Highest annual urban growth rate in SSA

Vehicle emissions largest source of air pollution - 70% of outdoor pollution
Partnership for Clean Fuels and Vehicles

- Was set up at the World Summit on Sustainable Development, September 2002
- Main objective is to address urban air quality in developing & transition countries by promoting clean fuels and vehicles
- Comprises over 116 partners from governments, industry, international organizations and civil society
- Clearing-House in UNEP Headquarters in Nairobi, Kenya
PCFV GOALS (2005)

- To reduce sulphur in vehicle fuels to 50 ppm or below worldwide, concurrent with clean vehicles and clean vehicles technologies, with roadmaps and timelines developed regionally and nationally.

- To phase out leaded gasoline by end of 2008 worldwide to be followed by the global introduction of vehicles with catalytic converters.
PCFV Support

www.unep.orgpcf
Key Campaigns

- Elimination of lead in gasoline
- Phase down of sulfur in diesel & gasoline fuels, concurrent with
- Adoption of cleaner vehicle technologies
- Development of Automotive Fuel Efficiency policies & strategies
Progress of leaded petrol phase out in sub-Saharan Africa

June 2001
(A sub-regional agreement reached to phase out leaded gasoline by January 1, 2006)

September 2002
(PCFV was launched)

September 2003

September 2004

September 2005

January 2006

Legend:
- Light blue: Leaded
- Light purple: Leaded and unleaded
- Dark blue: Unleaded
Diesel Fuel Sulphur Levels: Global Status
October 2009

* Information in parts per million (ppm)

Suiphur levels are maximum allowable as of October 2009. For additional details and comments per country, visit www.unep.org/pcfv.
Lowering Sulphur in Diesel in Africa

Diesel Fuel Sulphur Levels: Africa Status

2002

Feb 2009

* Information in parts per million (ppm)
Cleaner Vehicles

Fuels and vehicles work together as a system:

- Low emission, fuel efficient vehicles
- New technologies: hybrid, hydrogen etc
- Retrofit vehicles: can reduce emissions by 40-95%
- Catalytic Converter: can reduce emissions up to 90%

Cleaner buses- DART to import Euro 3 diesel buses
Improve fuel efficiency

- Goal: 50% improvement in fuel economy across the global vehicle fleet by 2050

- Currently: Global average 8L/100km

- The goal: Global fleet average 4L/100km (25km/L)

- Achievable with current technology combined with appropriate vehicle size, weight and power

- The result: A drop in CO2 emissions from 180gm/Km CO2 to 90gm/Km
Other Energy Choices for Africa

- Biofuels (energy security, economy, environment, improve fuel quality, sustainability)
- Compressed Natural Gas
- Liquefied Petroleum Gas
- Electric trams/light rail
Renewable energy share of global final energy consumption

- Fossil fuels: 79%
- Renewables: 18%
- Nuclear: 3%
- Transport biofuels: 0.3%
- Power generation: 0.8%
- Hot water/heating: 1.3%
- Large hydropower: 3.0%
- Traditional biofuels: 13.0%

Source: REN21 (2008)
Compressed Natural Gas
- Egypt leading in Africa with about 100,000 cars
- Nigeria building infrastructure

Liquefied Petroleum Gas
- Ghana developing the infrastructure
- Extensively developed in Tunisia
- Limited in Egypt and South Africa
- More countries looking at option

Tunisian Metro Rail

Electric tram in Alexandria, Egypt
Thank you
www.unep.org/pcf