



Bridging the gap

Pathways for transport in the post 2012 process



Low carbon transport technologies

Expanding traditional perspectives of climate change mitigation technologies in the sector

November 2010

Technology transfer is fundamental to climate change mitigation and an integral part of the climate negotiations. In the context of the transport sector the term 'technology' is often associated with vehicle-based improvements or alternative fuels. Technology Needs Assessment (TNA) Country Reports show that developing countries are taking a broader approach to transport technologies than some projects and technology reports suggest.

If the large mitigation potential of the transport sector is to be realised then there is the need to go beyond this traditional conceptualisation of environmentally sound transport technologies. There are a wide range of "supporting technologies" that improve the efficiency of the overall transport system and have rather indirect mitigation potential. Such an approach also brings plenty economic, social and environmental 'co-benefits' (like reduction of congestion).

Awareness that transport technologies can take many forms needs to be increased amongst those developing and implementing climate change mitigation activities and those providing guidance and support for doing so.

The Bridging the Gap Initiative aims at:

- Encouraging a more holistic approach to climate change mitigation in the transport sector,
- Supporting an increased focus on overall emission reduction rather than diffusion of specific technologies,
- Increasing the likelihood of affordable and appropriate technologies being developed and implemented in developing countries,
- Including system related approaches and technologies in cost potential analysis,

A forthcoming 'Bridging the Gap' report will provide an overview of environmentally sound transport technologies to:

- Encourage developing countries to take a broader perspective when considering technologies and their role in transport strategies, and
- Promote inclusion of a more comprehensive range of technologies in guidance documents, such as the UNFCCC Handbook.

For more information see <http://www.transport2012.org> or contact one of the Bridging the Gap partners listed below.

Heather Allen (UITP)
Daniel Bongardt (GTZ)
Ramon Cruz (ITDP)
Holger Dalkmann (TRL)
Caroline Edant (Veolia Transport)

heather.allen@uitp.org
daniel.bongardt@gtz.de
rcruz@itdp.org
hdalkmann@trl.co.uk
caroline.edant@veolia.com

Mobile: +32 477 580655
Mobile: +49 151 14073420
Mobile: +1 646 2506671
Mobile: +44 781 0804849
Mobile: +33 627 833986



Bridging the gap

Pathways for transport in the post 2012 process

The table below contains examples of climate change mitigation technologies that are available in the transport sector.

	Cross modal aspects	NMT	Road-based public transport	Track-based public transport	Private vehicles (i.e. cars, motorbikes and 3-wheelers)	Inland waterways	Freight
Design technology, tools and software	High density mixed use development Transport-oriented development	Pedestrian street design software Cycling assessment tools	Public transport accessibility GIS tools Eco-driving training simulators	Public transport fleet system and route planning software (and integration tools)	Road pricing/congestion charging systems	Route and load planning software	Fleet management and route planning software
Infrastructure	Traffic calming tech (incl. physical barriers)	Surveillance & other road safety tech. Shared space design technologies	Bus lanes Interchange spaces	Stations and stops Light Rail Transit (LRT) systems Tram systems	Electric vehicle charging infrastructure	Embarkation and disembarkation facilities Inter-modal freight terminals	Freight consolidation centres
Operation and management	Intelligent Transport Systems (ITS)	Signalised crossings Automated bicycle hire systems	Intelligent Transport Systems (ITS) GPS vehicle tracking	Real time information systems Smart card ticketing	Urban Traffic Control (UTC) systems	Automated waterway operational management systems	Automated logistic management systems
Vehicles	n/a	Bicycles Three-wheelers	Articulated vehicles Hybrid vehicles	Regenerative braking Double-deck	Hybrid dual fuel vehicles Light-weight	Digital self adaptive engines Bio-diesel	Rail Waterway based
Fuel	n/a	n/a	CNG Hydrogen fuel-cells	Electricity (generated from renewables)	Biofuels CNG Electricity	Electricity (generated from renewables)	Biofuel blend CNG

Heather Allen (UITP)
Daniel Bongardt (GTZ)
Ramon Cruz (ITDP)
Holger Dalkmann (TRL)
Caroline Edant (Veolia Transport)

heather.allen@uitp.org
daniel.bongardt@gtz.de
rcruz@itdp.org
hdalkmann@trl.co.uk
caroline.edant@veolia.com

Mobile: +32 477 580655
Mobile: +49 151 14073420
Mobile: +1 646 2506671
Mobile: +44 781 0804849
Mobile: +33 627 833986