Division 44
Water, Energy and Transport

Reading List on

Low Carbon Transportation

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giz Transport Policy Advisory Services

On behalf of
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for Economic Cooperation
and Development

Preface

Transport is a fast growing sector. A steadily increasing motorisation along with urbanisation is a trend that can be observed in most developing countries. This and the oil dependence of the transport sector lead to considerable growth rates of carbon emissions. Actions to stop this trend are urgently needed. This paper shows how national and/ or urban low-carbon transportation policies could help countries to achieve a smart, sustainable economic growth while at the same time stabilizing and later reducing transport emissions. Sustainable Development Policies and Measures in the transport sector include a variety of co-benefits, e.g. reduced air pollution, social equity and economic development. In the context of the global economic crisis such measures promote economic growth, social stability and can also be implemented at reasonable costs.

The current document is one of the several efforts of GIZ-Sustainable Urban Transport Project to bring to the policymakers an easy to access list of available material. The document aims to list out some influential and informative resources that highlight the importance of low carbon transport in cities and shows opportunities to improve the existing situation. The material stated in this document does not serve as a panacea for the developing cities but gives the policymakers the advantage of being updated with the developments and existing material on the subject.

Any comments on the material cited in this document can be directed to the SUTP team via email sutp@sutp.org. We hope that you will benefit from this document.

Mr. Philipp Schaltenberg and Mr. Santhosh Kodukula

GIZ, SUTP

Contents

1 Policy and Practice Documents

BTG, 2010, Reducing Emissions through Sustainable Transport (REST), Bridging the Gap (BTG), 2010

Proposal for a sectoral approach as a means to increase the potential for GHG mitigation in the land transport sectors of both developed and developing countries.

Link:
http://www.transport2012.org/bridging/ressources/files/1/817,Transport_sectoral_approach_18-08-20.pdf

BTG, 2009, Transport suggestions to COP15 Non-Papers, Bridging the Gap (BTG), 2009

To ensure that the Agreement in Copenhagen fully enables mitigation and adaptation actions in transport, we have developed a set of concrete text suggestions to the most recent non-papers, which will form the basis for the negotiations at the COP15.

Link:
http://www.transport2012.org/bridging/ressources/files/1/627,446,Transport_Suggestions_COP15.pdf

BTG, 2009, Ten Guiding Principles for Considering Land Transport in a Post 2012 Climate Agreement, Bridging the Gap (BTG), 2009

The Bridging the Gap Initiative has formulated key messages to negotiators and specific recommendations to the negotiating text of the AWG-LCA. These suggestions are based on the following ten principles. In order to ‘bridge the gap' these principles include five transport and five-climate policy related statements.

Link: http://www.transport2012.org/bridging/ressources/files/1/600,67,guiding-principles.pdf

BTG, 2009, Discussion Paper: Strategies to bring land transport into the climate change negotiations, Bridging the Gap (BTG), 2009

This discussion paper is intended to provide the climate negotiators with key recommendations on how to include land transport in the climate change negotiations of the Bali Action Plan. Most of the ideas are also relevant to freight transport as well as other modes such as air and maritime.

These suggestions are based on the outcomes from the ‘Bridging the Gap' expert workshop in Paris in March 2009, a review of submissions by Parties to the UNFCCC, and an analysis of the two negotiation texts prepared by the chairs of the AWG-KP and AWG-LCA in April 2009.
The paper has been developed by TRL on behalf of GTZ, Veolia Transport and UITP as part of the ‘Bridging the Gap' initiative (see Annex A). The partnership is also grateful for the support and contributions of UNEP to this paper. The paper does not reflect the official positions of any of these organisations.

Link: http://www.transport2012.org/bridging/ressources/files/1/592,Discussion_Paper.pdf

BTG, 2010, Cities in a post-2012 climate policy framework: climate financing for city development? Views from local governments, experts, and businesses, Bridging the Gap, 2010

This report addresses the position of local governments in the international climate financing architecture for cities, particularly in developing countries, where the effects of climate change (global warming, rising sea levels, changing precipitation patterns, and more extreme weather events) threaten livelihoods, health, infrastructure, physical safety and future progress. It addresses the demand of climate risk and resilience integration into core development planning and suggests that more light should be shed on municipal decision makers' awareness of opportunities for climate mitigation and adaptation at city level, and especially of financing options, and their preparedness to take action.

The report is intended to inform both international policy and local practice, contributing to a greater understanding of how the international community can more effectively support climate action at the urban scale. It integrates views from senior City Decision Makers, International Climate and Urban Experts, and International Business Representatives.

The study was prepared by ICLEI - Local Governments for Sustainability, with the support of the German Ministry for Economic Cooperation and Development (BMZ) via the sector project 'Policy Advisory Services for Urban and Municipal Development' of the Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ).

Link: http://www.transport2012.org/bridging/ressources/files/1/832,Cities_in_a_Post-2012_Policy_Framewo.pdf

BTG, 2009, Towards Technology Transfer in the Transport Sector, Bridging the Gap, 2009

The Transport Section of GTZ has analysed the 51 transport chapters out of 71 Technology Need Assessments (TNA), available on the UNFCCC webpage. They were submitted mainly between 2000 and 2005. The analysis gives interesting insights: Other than the TNA Handbook suggests, not only "hard", vehicle-related technologies, but public transport and urban planning skills play an important role for a sustainable, low carbon development in developing countries. The short paper also suggests how to best consider transport in TNAs. And check your countries performance and needs! Download the 4-page fact-sheet here.

Link: http://www.transport2012.org/bridging/ressources/files/1/625,449,TechnoTransf.pdf

Eichhorst U, 2009, Adapting Urban Transport to Climate Change, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany

Many transport decision-makers in developing countries are already confronted with extreme weather events, such as flooding, subsidence and storms, all of which are expected to increase with climate change. In the worst case, transportation systems may not be able to recover between such events, resulting in exponential damages.

Link: http://www.transport2012.org/bridging/ressources/files/1/621,521,5F-ACC-EN.pdf

Dalkmann H, and Brannigan C, 2007, Transport and Climate Change, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany

In October 2007 GTZ published a comprehensive module on transport and climate change within its sourcebook for decision-makers in developing cities. The module focuses on the sustainable transport instruments available that will help achieve both reduction in greenhouse gas emissions and co-benefits. In addressing the impacts of climate change through sustainable transport instruments, cities are also able to benefit from a range of co-benefits, including improved air quality, reduced noise from traffic, increased road safety, and a range of social and economic benefits.

Link: http://www.transport2012.org/bridging/ressources/files/1/609,-dl_name-en-transport-and-climate-ch.pdf

Wagner A (Ed.), 2009, Urban Transport and Climate Change Action Plans - Details, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany

More and more cities around the world are developing dedicated Climate Action Plans to reduce Green House Gas (GHG) emissions and improve the local air quality for their inhabitants.

The transport sector usually plays a crucial role in any such strategy. In many cases, transportation is the primary source of CO2 and other GHGs, contributing up to 40 per cent of the cities' total emissions. The measures initiated to reduce these negative impacts of urban transport take many forms. Increasing the share of Public Transport and non-motorised modes such as walking and cycling are core elements in many emission reduction strategies, but most often they are supplemented by other short- and long-term measures. One key feature of most actions proposed is that they provide several co-benefits: Many options not only reduce GHG emissions and improve air quality, but also enhance energy efficiency and - especially in the developing world - contribute to better transport services for the poor.

Link:
http://www.transport2012.org/bridging/ressources/files/1/150,Climate_Change_Action_Plans_details_.pdf

Huizenga C and Bakker S, 2009, Applicability of post 2012 climate instruments to the transport sector, Climate Instruments in the Transport Sector (CITS)

The post 2012 Climate Instruments in the transport sector (CITS) project implemented by the Asian Development Bank (ADB), in cooperation with the Inter-American Development Bank (IDB) is a first step to help ensure that the transport sector can benefit from the revised/new climate change mitigation instruments under a post-2012 Climate Change Agreement. The CITS project is a contribution to the Partnership on Sustainable, Low Carbon Transport. A draft report has been published for comments.

Link: http://www.transport2012.org/bridging/ressources/files/1/623,CITS-Interim-Report-draft-11-Decembe.pdf

Leather J, 2009, Rethinking Transport and Climate Change, ADB Sustainable Development Working Paper Series, Asian Development Bank

The report makes suggestions for the rethinking of the relationships between transport and climate change. Clean Air Initiative for Asian Cities Center team was engaged to identify the five "think-pieces" on how to address transport and climate change issues.

Link: http://www.transport2012.org/bridging/ressources/files/1/96,Rethinking_Transport_and_Climate_Chan.pdf

Wright L, 2007, Environmentally Sustainable Transport for Asian Cities: A Sourcebook, United Nations Centre for Regional Development (UNCRD), Japan

This Sourcebook on Environmentally Sustainable Transport for Asian Cities seeks to offer an alternative to the current mobility form of urban centres that are increasingly chaotic, dangerous, unhealthy, and environmentally damaging.

Link: http://www.transport2012.org/bridging/ressources/files/1/114,EST_Sourcebook.pdf

Millard-Ball A, 2010, Transportation NAMAs: A Proposed Framework, The Center for Clean Air Policy, Washington DC

This paper from CCAP discusses the importance of addressing greenhouse gas emissions from the transportation sector in developing countries and suggests that supported NAMAs provide an important opportunity to truly transform the transportation sector in many countries.

Link: http://www.transport2012.org/bridging/ressources/files/1/613,CCAP-transport-NAMAs-paper-FINAL-DRA.pdf

IEA, 2009, Executive Summary: Transport, Energy and CO2: Moving Toward Sustainability, International Energy Agency

The International Energy Agency (IEA) has released a publication entitled "Transport, Energy and CO2: Moving Toward Sustainability," which builds a scenario to realize increases in global mobility while significantly lowering overall CO2 emissions by 2050.

Link: http://www.transport2012.org/bridging/ressources/files/1/629,transport2009SUM.pdf

Sakamoto K, Dalkmann H and Palmer D, 2010, A Paradigm Shift to Low Carbon Transport, Institute for Transportation & Development Policy (ITDP), New York

The rapid growth in transport activity, based primarily on private motorised vehicles, generates social, environmental and economic costs. Transport already accounts for more than half of global liquid fossil fuel consumption and nearly a quarter of the world's energy related carbon dioxide (CO2) emissions (IEA, 2009). If current trends continue, transport related CO2 emissions are expected to increase by 57% worldwide between 2005 and 2030, mainly as a result of rapid motorisation in developing countries.

Link: http://www.itdp.org/documents/A_Paradigm_Shift_toward_Sustainable_Transport.pdf

Bailey L, Mokhtarian P.L and Little A, 2008, The Broader Connection between Public Transportation, Energy Conservation and Greenhouse Gas Reduction, ICF International

Link: http://www.apta.com/resources/reportsandpublications/Documents/land_use.pdf

Tunçer B, 2008, One Planet Mobility: A Journey towards a sustainable future, World Wildlife Foundation (WWF)

Link: http://www.wwf.org.uk/filelibrary/pdf/opm_report_final.pdf

Wright L, 2004, Climate Change and Transport in Developing Nations: The search for low-cost emission reductions, German Technical Cooperation (GTZ)

Link: http://www.sutp.org/documents/CC-LW-Nov-2004.pdf

EC, 2007, Green paper Towards a new culture for urban mobility, European Commission (EC)

Link: http://ec.europa.eu/transport/urban/urban_mobility/green_paper/green_paper_en.htm

Kahn Ribeiro, S., S. Kobayashi, M. Beuthe, J. Gasca, D. Greene, D. S. Lee, Y. Muromachi, P. J. Newton, S. Plotkin, D. Sperling, R. Wit, P. J. Zhou, 2007: Transport and its infrastructure. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA

Link: http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter5.pdf

Meckling, Jonas O. and Gu Yoon Chung, "Sectoral Approaches to International Climate Policy. A Typology and Political Analysis" Discussion Paper 2009-02, Cambridge, Mass.: Belfer Center for Science and International Affairs, January 2009

Link: http://belfercenter.ksg.harvard.edu/files/2009_Meckling_Chung_Sectoral_Approaches.pdf

Wright L and Fulton L, 2005, Climate Change Mitigation and Transport in Developing Nations, Transport Reviews, Vol. 25, No. 6, 691–717, November 2005

Abstract: Emissions from the transport sector represent the fastest growing source of greenhouse gas emissions. There is little prospect that this situation will be resolved with a single technological fix. As developing nations quickly move to catch up with the motorization levels of developed nations, the sheer number of private vehicles may overwhelm any advances made by cleaner fuels. By 2030, there is projected to be more vehicles in the developing world than in developed nations. Despite the growth in developing-nation transport emissions, the sector has produced relatively few mitigation projects within the mechanisms of the Kyoto Protocol. However, a few developing cities, such as Bogota, Colombia, have demonstrated innovation in low-cost solutions to reducing emissions. This research employs scenario analysis to examine the size and cost of potential emission reduction options from the urban transport sector of developing nations. In particular, the analysis compares the cost of greenhouse gas emission reductions from fuel technology options to reductions from measures promoting mode shifting. This comparative analysis indicates that a diversified package of measures with an emphasis on mode shifting is likely to be the most cost-effective means to greenhouse gas emission reductions.

Link: http://www.gobrt.org/wright-fultonClimateChange.pdf

Mason C, 2008, What is 'peak oil'? When might it happen and what effect might it have on transport usage and transport planning? Paper for the Transport Planning Society's Bursary Award

This paper seeks to further examine the background theory to 'peak oil', the potential of alternatives to oil, and possible impacts on current transport systems.

Link: http://www.tps.org.uk/files/Main/Library/2008/christopher_mason__peak_oil.pdf

Turchetta D, 2008, Integrating Climate Change into the Transportation Planning Process, Federal Highway Administration prepared ICF International

The report reviews the experience of a number of DOTs and MPOs that are already incorporating climate change into their transportation planning processes and identifies their successes as well as challenges faced by these agencies.

Link: http://www.fhwa.dot.gov/hep/climatechange/climatechange.pdf

Harmen R, Kroon P, Ybema J.R, Jespersen M.S and Jordal-Jørgensen J, 2003, International Co2 Policy Benchmark For The Road Transport Sector

This report is one of the key results of the study 'An international CO2 policy benchmark for the transport sector'. This study was performed by ECN and COWI and directed by a Dutch steering group. The study has utilised many very useful inputs from country teams participating in the project, for which we are grateful. These country inputs have been published in a separate document. The report is registered under ECN project number 7.7484.

Link: http://www.ecn.nl/publicaties/PdfFetch.aspx?nr=ECN-C--03-001

Binsted A, Bongardt D, Dalkmann H And Sakamoto K, 2010, Accessing Climate Finance For Sustainable Transport: A Practical Overview, Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ), Germany

GTZ together with the Bridging the Gap Initiative has developed a practical guide for developing country's governments on how to access climate funds for sustainable land transport interventions. The guidance focuses on climate change mitigation and introduces existing and proposed sources of climate finance in the context of the land transport sector.

It intends to reduce the financial barriers to the development and implementation of sustainable climate change mitigation transport strategies by outlining the climate finance available in the transport sector.

Link: http://www.sutp.org/dn.php?file=TD-ACF-EN.pdf

Bongardt D, Breithaupt M and Creutzig F, 2011, Beyond the Fossil City: Towards Low Carbon Transport and Green Growth, Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ), Germany

Transport is a fast growing sector. A steadily increasing motorisation along with urbanisation is a trend that can be observed in most developing countries. This and the oil dependence of the transport sector lead to considerable growth rates of carbon emissions. Actions to stop this trend are urgently needed. This paper shows how national and/or urban low-carbon transportation policies could help countries to achieve a smart, sustainable economic growth while at the same time stabilizing and later reducing transport emissions. Sustainable Development Policies and Measures in the transport sector include a variety of co-benefits, e.g. reduced air pollution, social equity and economic development. In the context of the global economic crisis such

measures promote economic growth, social stability and can also be implemented at reasonable costs.

Link: http://www.sutp.org/dn.php?file=TD-LCT-EN.pdf

2 Case Studies

UITP, 2007, A low carbon future with public transport, Union Internationale des Transports Publics, Belgium

The contribution Public Transport makes to reducing carbon use and the mitigating, the risk of climate change. This Paper will provide a short background on Greenhouse Gases (GHG), detail the share and responsibility for Public Transport and provide recommendations.

Link: http://www.transport2012.org/bridging/ressources/files/1/108,FP-Climate-en.pdf

Duduta N and Bishins A, 2010, Citywide Transportation Greenhouse Gas Emissions Inventories: A Review of Selected Methodologies, Working Paper, World Resources Institute (WRI), Washington D.C. United States

EMBARQ - The World Resources Institute Center of Sustainable Transport released a new working paper, "Citywide Transportation Greenhouse Gas Emissions Inventories: A Review of Selected Methodologies," which provides information to assist local and national governments in reducing GHG emissions from transportation and promoting low carbon transportation projects. The paper reviews the necessary components of creating an inventory and explores the importance of the transportation emissions inventory in the context of state, national and international climate policy.

Link: http://www.transport2012.org/bridging/ressources/files/1/912,Citywide-20Transportation-20Greenhou.pdf

Johnson T.M, Alatorre C, Romo Z and Liu F, 2010, Low-Carbon Development for Mexico, The International Bank for Reconstruction and Development / The World Bank

This World Bank study is a timely contribution to the on going discussions on the global framework that are needed in order to undertake climate change mitigation actions.

Link: http://www.transport2012.org/bridging/ressources/files/1/647,WB-MX-MEDEC-English-Nov-09.pdf

Dings J, 2010, How Clean are Europe's Cars?, T&E – European Federation for Transport and Environment AiSBL, Belgium

European carmakers are set to achieve mandatory EU targets for new car CO2 emissions years ahead of time according to a new report published today. One carmaker, Toyota, has almost met its target for the year 2015, six years in advance. The study's findings suggest that carmakers previously exaggerated the time needed to comply with car CO2 limits. Therefore targets now being discussed for vans should be tightened according to Transport & Environment.

Link: http://www.transportenvironment.org/how_clean_are_europe-s_cars/

Jensen P, 2010, Towards a resource-efficient transport system, TERM 2009: indicators tracking transport and environment in the European Union, European Environment Agency (EEA), Report No 2/2010

This report presents a summary of selected issues from the European Environment Agency Transport and Environment Reporting Mechanism (EEA TERM) set of transport and environment integration indicators. It is not simply a replication of indicators but rather an attempt to put insights from the indicators into the context of efforts to develop European policy towards achieving a low- carbon transport system.

Link: http://www.eea.europa.eu/publications/towards-a-resource-efficient-transport-system

EEA, 2008, Success stories within the road transport sector on reducing greenhouse gas emission and producing ancillary benefits

Link: http://www.thepep.org/ClearingHouse/docfiles/Success.Stories.pdf

EEA, 2008, Beyond transport policy - exploring and managing the external drivers of transport demand: illustrative case studies from Europe

Link: http://www.eea.europa.eu/publications/technical_report_2008_12

Creutzig F, 2008, Climate change mitigation and co-benefits of feasible transport demand policies in Beijing, Energy Foundation China

Link: http://www.user.tu-berlin.de/creutzig/trd.pdf

McGlynn G, Crist P, Fulton L and Crass M, 2001, GOOD PRACTICE GREENHOUSE ABATEMENT POLICIES: TRANSPORT, Information Paper, Organisation for Economic Co-operation and Development, International Energy Agency

As part of its work supporting effective implementation of the UNFCCC, the OECD and IEA have conducted analyses of specific types and sectors of domestic policies. The Annex I Expert Group1 has held a series of roundtables on domestic policies, which included background analysis by the OECD and IEA Secretariat, and presentations and discussion by national delegates of country experience. This publication contains three papers from the discussions on transport, covering a general overview of the sector, the role of technology and voluntary agreements, and freight transport. Examination of other important areas of domestic policy is part of the ongoing work of the OECD and IEA on this important topic.

Link: http://www.oecd.org/dataoecd/27/14/2345641.pdf

Spearling D and Salon D, 2002, Transportation in Developing Countries: An Overview of Greenhouse Gas Reduction Strategies, University Of California, Davis

This report focuses on transportation in developing countries, where economic and social development — not climate change mitigation — are the top priorities. Yet decisions on infrastructure, vehicle and fuel technologies, and transportation mode mix are being made now that will significantly affect greenhouse gas (GHG) emissions for decades. The key is to identify strategies that address high-priority local issues while also reducing GHGs. There are many such options but no “one-size-fits-all” approach. Thus building the capacity of local institutions is especially critical.

Link: http://www.pewclimate.org/docUploads/transportation_overview.pdf

Crane-Droesch A, 2006, Environmentally Sustainable Transport and Climate Change: Experiences and lessons from community initiatives, Global Environmental Facility (GEF)

Link: http://www.thepep.org/ClearingHouse/docfiles/GEF%20sustainable%20transport.pdf

INFRAS, 2004, External Costs of Transport, Karlsruhe University, Germany

Link: http://www.infras.ch/downloadpdf.php?filename=UpdateExternalCosts_FinalReport.pdf

3 Agreements and Submissions related to Climate Change and Transport

BTG, 2010, Submission to the UNFCCC on the development of standardised baselines, Bridging the Gap (BTG), 2010

The Transport Research Foundation has made a the submission on behalf of the Bridging the Gap Initiative with endorsement from the Partnership on Sustainable Low Carbon Transport (SLoCaT) on "the modalities and procedures for the development of standardised baselines that are broadly applicable, while providing for a high level of environmental integrity and taking into account specific national circumstances". The submission provides recommendations for methods of standardisation that can help improve the efficiency, applicability and environmental integrity of CDM in the transport sector.

Link:
http://www.transport2012.org/bridging/ressources/files/1/671,Submission_on_modalities_and_procedu.pdf

BTG, 2010, What's next? - The outcome of the climate conference in Copenhagen and its implications for the land transport sector, Bridging the Gap (BTG), 2010

The recent United Nations conference on climate change that took place in Copenhagen in December 2009 was attended by over 40,000 stakeholders, with more than 100 Heads of State and some 190 governments from around the globe making it the largest gathering of climate experts and policy makers ever known. An expectation of the COP15 conference was the delivery of an international agreement on a post 2012 international climate regime after two years of intense high-level negotiations and discussions on the basis of the Bali Roadmap. This paper provides a brief overview of the outcome of the UN conference and a discussion of the implications of decisions made there in respect to the transport sector, and how transport can play a more defining role in addressing climate change.

Link:
http://www.transport2012.org/bridging/ressources/files/1/611,556,Copenhagen_report_FINAL_Bridging.pdf

BTG, 2009, Key Messages for Copenhagen, Bridging the Gap (BTG), 2009

Transport accounts for 13% of GHGs and 23% of energy related CO2 emissions. By 2050 the OECD/ITF predicts a 120% growth of global transport emissions on 2000 levels. Without tackling transport, climate change cannot be limited to 2°C average surface temperature increase compared to pre-industrial levels.

Link: http://www.transport2012.org/bridging/ressources/files/1/590,282,key-messages.pdf

BTG, 2009, Submission on Transport by the United Nations Environment Programme (UNEP) to the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA), Bridging the Gap, 2009

UNEP developed a submission with support from the following international organizations; TRF, GTZ, UITP, ICLEI, ECN and IGES. Tis submission provides suggestions on elements contained in paragraph 1 of decision 1/CP13, the Bali Action Plan, for promoting and implementing low carbon mobility in developing countries, and recommendations on how to integrate land transport, both passenger and freight, into the work of the AWG-LCA.

Link: http://www.transport2012.org/bridging/ressources/files/1/99,045.pdf

UNCCC, 2009, Copenhagen Accord.

The Copenhagen Accord is the document that delegates at the United Nations Climate Change Conference (UNCCC) agreed to "take note of" at the final plenary session of the Conference on 18 December 2009 (COP-15). It is a draft COP decision and, when approved, is operational immediately.

Link: http://www.transport2012.org/bridging/ressources/files/1/631,568,Copenhagen_Accord.pdf

, 2009, Common Policy Framework (CPF) on Transport and Climate Change in Developing Countries

The Bellagio meeting also produced a Common Policy Framework (CPF) on Transport and Climate Change in Developing Countries. The CPF elaborates the rationale for the Declaration and outlines how the three main principles in the Declaration can be implemented especially through COP 15 in December 2009.

Link:
http://www.transport2012.org/bridging/ressources/files/1/84,Common_Policy_Framework_on_Transport_.pdf

, 2009, Bellagio Declaration on Transportation and Climate Change

Twenty one representatives from eighteen different organizations working on transport and climate change in developing countries met on the 12-16 May, 2009 in Bellagio, in a meeting to build a consensus on the required policy response to the growing CO2 emissions from transport in the developing world. The meeting resulted in the Bellagio Declaration on Transportation and Climate Change. Discussions are on going on the establishment of a new UN-Partnership on Sustainable, Low Carbon Transport based on the declaration having its secretariat in New York.

Link:
http://www.transport2012.org/bridging/ressources/files/1/81,Bellagio_Declaration_on_Transportatio.pdf

Bongardt D, Rudolph F and Sterk W, 2009, Transport in Developing Countries and Climate Policy — Suggestions for a Copenhagen Agreement and Beyond, Wuppertal Institute, Germany

In May 2009 the Wuppertal Institute published a Policy Paper that aimed at connecting the need for transport actions in developing countries to the inter- national negotiations on a post-2012 climate change agreement. It outlines decisions to be taken on COP 15 in Copenhagen and the preparations to adequately implement these decisions from 2013 in the transport sector. The

paper concludes several concrete suggestions, like setting up a mitigation fund for both policies and transport projects.

Link: http://www.transport2012.org/bridging/ressources/files/1/105,WP179.pdf

Bongardt D, Sterk W and Rudolph F, 2009, Achieving Sustainable Mobility in Developing Countries: Suggestions for a Post-2012 Agreement

Article by Daniel Bongardt, Wolfgang Sterk, Frederic Rudolph Further rapid motorisation of developing countries could counteract climate efforts and aggravate problems of noxious emissions, noise, and traffic congestion. Which provisions should a global climate change agreement include for reducing transport-related CO2 emissions in developing countries?

Link: http://www.transport2012.org/bridging/ressources/files/1/78,307_314_Bongardt_lv.pdf

UNCRD, 2009, SEOUL STATEMENT: Towards the Promotion of Environmentally Sustainable Transport (EST) for a Low-Carbon Society and Green Growth in Asia

The participants, having met in Seoul, the Republic of Korea from 24 to 26 February 2009, for the Fourth Regional EST Forum, to draw up and adopt a statement for the promotion of environmentally sustainable transport in Asia.

Link: http://www.transport2012.org/bridging/ressources/files/1/120,FINAL-SEOUL-STATEMENT-4th-EST-Forum-.pdf

UNCRD, 2008, Kyoto Declaration on EST

Subsequently twelve Asian cities (Baguio, Bangkok, Batam, Cebu, Colombo, Guwahati, Karachi, Kathmandu, Makassar, Makati, Palembang, and Surat) having met in the Special Event of Asian Mayors on Environmentally Sustainable Transport during Better Air Quality (BAQ) 2008 Workshop in Bangkok, Thailand on 12 November 2008, unanimously endorsed and signed the Kyoto Declaration for the promotion of environmentally sustainable transport (EST) in Asia.

Link: http://www.transport2012.org/bridging/ressources/files/1/117,KyotoDeclaration-with-signatures.pdf

UNCRD, 2005, Aichi Statement on EST

The participants, having met in Nagoya City, Aichi Prefecture, Japan from 1-2 August 2005, for the International Conference on Environment and Transport, to draw up and adopt a statement on the establishment of a Regional EST Forum for the promotion of environmentally sustainable transport in Asia.

Link: http://www.transport2012.org/bridging/ressources/files/1/111,Aichi-Statement-on-Regional-EST-Foru.doc

ICCT, 2010, Athens Resolution, International Council on Clean Transportation (ICCT)

The principles presented in this resolution were developed by consensus and represent the collective expert opinion of International Council on Clean Transportation

Link: http://www.theicct.org/pubs/Athens_resolution.pdf

4 Nationally Appropriate Mitigation Actions (NAMA) related

BTG, 2010, Copenhagen Accord NAMA Submissions: Implications for the Transport Sector, Bridging the Gap (BTG), 2010

This paper provides a brief overview of the Nationally Appropriate Mitigation Actions (NAMAs) submissions made by developing countries as of 4 February 2010. Since February 1 submissions are added to the UNFCCC website every day and a number of Parties have stated an "intention" to do so. The current fluidity of the process means that the website should be referred to for updates, although to date 25 countries have submitted NAMA actions, and 35 developed countries submitted national pledges to cut and limit greenhouse gases (GHGs) by 2020. These countries collectively account for more than 78% of global emissions from energy use.

Link: http://www.transport2012.org/bridging/ressources/files/1/720,NAMA-submissions_additional-submissi.pdf

BTG, 2010, Guidance note for developing countries: Formulating NAMAs in the Transport Sector, Bridging the Gap (BTG), 2010

The Copenhagen Accord provides an opportunity for non-Annex I country Parties to submit a list of Nationally Appropriate Mitigation Actions (NAMAs) for inclusion within Appendix II of the Accord. The 'Bridging the Gap' initiative has developed a guidance document for Parties on the submission of NAMAs in the transport sector, providing an overview of the potential mitigation actions, at national and sub-national level, that could be included within NAMA submissions.

Link:
http://www.transport2012.org/bridging/ressources/files/1/615,567,Guidance_on_Transport_NAMA.pdf

Bongardt D and Sakamoto K, 2009, NAMAs, MRV and Technology - Ensuring a Role for Land Transport in the Post-2012 Framework

Article by Daniel Bongardt (German Technical Cooperation, GTZ) and Ko Sakamoto (Transport Research Laboratory) published in CDM Investment Newsletter 3/2009: "Future CDM?" on August 28, 2009.

Link:
http://www.transport2012.org/bridging/ressources/files/1/93,Article_CDM_Investment_Newsletter03-2.pdf

CCAP, 2010, CCAP Data & Capacity Needs for Transportation NAMAs

CCAP just released two new reports, completing its series on Data & Capacity Needs for Transportation NAMAs. Prepared in collaboration with Cambridge Systematics, these reports assess data availability, data selection and capacity building needs for developing, implementing and evaluating successful transportation NAMAs. These reports build upon the Proposed Transportation NAMAs Framework we circulated earlier in the year.

Link: http://www.ccap.org/docs/resources/924/CCAP_Transport_NAMA.pdf
http://www.ccap.org/docs/resources/925/CCAP_Transport_NAMA_Data_Availability.pdf
http://www.ccap.org/docs/resources/972/Transport_NAMA_Data_Selection.pdf

5 Emissions related

Tréanton K, 2010, CO2 Emissions from Fuel Combustion, International Energy Agency (IEA), France

The IEA helps to inform the debate on climate change leading up to Cancún.
This annual publication contains:
• estimates of CO2 emissions by country from 1971 to 2008
• selected indicators such as CO2/GDP, CO2/capita, CO2/TPES and CO2/kWh
• CO2 emissions from international marine and aviation bunkers, and other relevant information

Link: http://www.transport2012.org/bridging/ressources/files/1/868,CO2highlights.pdf

OECD, 2010, Reducing Transport Greenhouse Gas Emissions, International Transport Forum

This document provides a brief update of GHG emission trends from the transport sector and discusses the outcome of the United Nations Conference of the Parties to the Framework Convention on Climate Change held in December 2009 in Copenhagen. It is based on material collected for the OECD-ITF Joint Transport Research Committee's Working Group report on GHG emission reduction strategies that will be released in 2010.

Link: http://www.transport2012.org/bridging/ressources/files/1/728,10GHGTrends.pdf

OECD, 2010, The Cost and Efficiency of Reducing Transport GHG Emissions, International Transport Forum

OECD and the International Transport Forum Working Group has released a report that includes the preliminary findings of a work group exploring transport greenhouse gas (GHG) emission reduction strategies. The final report will be released in 2010.

Link: http://www.transport2012.org/bridging/ressources/files/1/617,543,09GHGsum.pdf

Cooper C, Kamakaté F, Reinhart T, Kromer M and Wilson R, 2009, Reducing Heavy-Duty Long Haul Combination, Truck Fuel Consumption and CO2 Emissions

Link: http://www.theicct.org/pubs/HDVemissions_oct09.pdf

ITF, 2008, Transport Outlook 2008: Focusing on CO2 emissions from Road Vehicles, Discussion Paper No. 2008-13, May 2008, International Transport Forum (ITF), International Energy Agency (IEA)

Link: www.internationaltransportforum.org/jtrc/DiscussionPapers/DP200813.pdf

Penner J.E, Lister D.H, Griggs D.J, Dokken D.J and McFarland M (Eds.), 1999, Aviation and the Global Atmosphere, Cambridge University Press, UK. pp 373

Link: http://www.ipcc.ch/ipccreports/sres/aviation/index.htm

Watson R.T, Zinyowera M.C and Moss R.H (Eds), 1997, The Regional Impacts of Climate Change: An Assessment of Vulnerability, Cambridge University Press, UK. pp 517

Link: http://www.ipcc.ch/ipccreports/sres/regional/index.htm

Nakicenovic N and Swart R (Eds.), 2000, Emissions Scenarios, Cambridge University Press, UK. pp 570

Link: http://www.ipcc.ch/ipccreports/sres/emission/index.htm

Schipper L, 2007, Automobile Fuel; Economy and CO2 Emissions in Industrialized Countries: Troubling Trends through 2005/6, EMBARQ, the World Resources Institute Center for Sustainable Transport

Abstract: A review of recently available data on both on-road fuel economy and new car test fuel economy shows that while US on-road fuel economy has been flat for almost 15 years, major European countries and Japan have shown modest improvements in response to "voluntary" agreements on fuel economy, steadily rising fuel prices (since 2002), and to some extent shifts to smaller cars and 2nd family cars.

At the same time the sales weighted average of new vehicles sold in the European Union, expressed in terms of their implied CO2 emissions, have fallen short of 2008 goals. That a significant part of the improvements in Japan are related to the growing share of mini-cars (displacement under 600 CC) suggest that technology is not the only factor that can or will yield significant and rapid energy savings and CO2 restraint in new cars.

Fuel economy technology, while important, isn't the only factor that explains differences in tested or on-road fuel economy when comparing vehicle efficiency and transport emissions in different countries. Fuels, technology, and driver behaviour also play significant roles in how much fuel is used. As long as the upward spiral of car weight and power offsets much of the impact of more efficient technology on fuel efficiency, fuel economy will not improve much in the future. And as long as the numbers of cars and the distances cars are driven keep creeping up, technology alone will have a difficult time offsetting all of these trends to lower fuel use and CO2 emissions from this important sector.

Link: http://pdf.wri.org/automobile-fuel-economy-co2-industrialized-countries.pdf

CCAP, 2004, Transportation and Greenhouse Gas Emissions - Exploring Opportunities for the Clean Development Mechanism in Chile, Centre for Clean Air Policy (CCAP)

Link: http://www.ccap.org/docs/resources/299/CDM-Chile_brochure2_qx.pdf

Bates J, Brand C, Davison P and Hill N, 2001, Economic Evaluation of Emissions Reductions in the Transport Sector of the EU, Contribution to a Study for DG Environment, European Commission by Ecofys Energy and Environment, AEA Technology Environment and National Technical University of Athens

Link: http://ec.europa.eu/environment/enveco/climate_change/pdf/transport_update.pdf

ITF, 2008, The Cost Effectiveness of Policies to Reduce Vehicle Emissions, Discussion Paper No. 2008-9, International Transport Forum (ITF)

Link: http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP200809.pdf

Sunder S and Dhingra C, 2008, Reducing Transport CO2 Emissions in Emerging Economies, International Transport Forum (ITF), 28 May 2008, Leipzig, Germany

Link: http://www.internationaltransportforum.org/Topics/Workshops/WS4Sundar.pdf

Mackay E, 2006, Reducing Carbon Emissions from Transport: What are we doing, and is it enough?, Paper for the Transport Planning Society's Bursary Award

This paper seeks to assess the policy being used to address the climate change impact of the transport sector. Using the context of the government's various emission reduction targets and current emissions trends, current policies and anticipated reductions will be outlined. The effectiveness of the approach is questioned both at the strategic and individual policy level. In concluding, an attempt is then made to suggest the way forward through a redefinition and change of approach to tackling the problem of transport's contribution to climate change.

Link: http://www.tps.org.uk/files/Main/Library/2006/emackaypaper.pdf

UBA, 2003, Reducing CO2 emissions in the transport sector, Umwelt Bundes Amt (UBA – Federal Environmental Agency, Germany)

This report describes the different measures for reducing CO2 in the transport sector and explains how they interact.

Link: http://www.umweltdaten.de/publikationen/fpdf-l/2607.pdf

OECD/ITF, 2008, The Cost and Effectiveness of Policies to Reduce Vehicle Emissions – Summary and Conclusions, Organisation for Economic Co-operation and Development (OECD), International Transport Forum (ITF)

Link: http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP200809.pdf

IFEU, 2008, Transport in China: Energy Consumption and Emissions of Different Transport Modes, Institute for Energy and Environmental Research Heidelberg (IFEU)

Link: http://www.ifeu.de/verkehrundumwelt/pdf/IFEU_et_al(2008)_Transport_in_China_GB.pdf

Barth M and Boriboomsonsin K, 2008, Real-World CO2 Impacts of Traffic Congestion, Transport Research Board

Abstract: Transportation plays a significant role in carbon dioxide (CO2) emissions, accounting for approximately a third of the United States' inventory. In order to reduce CO2 emissions in the future, transportation policy makers are looking to make vehicles more efficient and increasing the use of carbon-neutral alternative fuels. In addition, CO2 emissions can be lowered by improving traffic operations, specifically through the reduction of traffic congestion. This paper examines traffic congestion and its impact on CO2 emissions using detailed energy and emission models and linking them to real-world driving patterns and traffic conditions. Using a typical traffic condition in Southern California as example, it has been found that CO2 emissions can be reduced by up to almost 20% through three different strategies: 1) congestion mitigation strategies that reduce severe congestion, allowing traffic to flow at better speeds; 2) speed management techniques that reduce excessively high free-flow speeds to more moderate conditions; and 3) shock wave suppression techniques that eliminate the acceleration/deceleration events associated with stop-and-go traffic that exists during congested conditions.

Link: http://www.uctc.net/papers/846.pdf

6 Cross-Cutting Issues

Ebert S, Metschies G.P, Schmid D, Wagner A, 2009, International Fuel Prices 2009 - Full Version, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany

The 2009 International Fuel Prices report provides an overview of the retail prices of gasoline and diesel in more than 170 countries, discusses pricing policies, presents case studies on the impact of high and volatile fuel prices in 2007/2008 in developing countries and provides access to numerous additional resources. (114 pages, over 450 graphs and figures)

Link: http://www.transport2012.org/bridging/ressources/files/1/653,gtz2009-en-ifp-full-version.pdf

Gruetter J, 2007, The CDM in the Transport Sector, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ), Germany

The Kyoto Protocol entered into force on February 16th 2005. The Protocol has as target to reduce Greenhouse Gas (GHG) emissions and includes binding emission reduction commitments for Annex I countries (industrialized economies). The Protocol establishes three innovative "mechanisms" known as Joint Implementation, the Clean Development Mechanism and Emissions Trading.

Link: http://www.sutp.org/dn.php?file=5D-CDM-EN.pdf

Ville, rail & transports, 2009, Le transport terrestre et les négociations internationales sur le climat: pur une mobilité durable

The French transport magazine, Ville, rail & transports, published an opinions page of Veolia's CEO Cyrille du Peloux about the messages of the Bridging the gap initiative Description.

Link: http://www.transport2012.org/bridging/ressources/files/1/660,VT_CdP_interview-Mobilite-durable_Co.pdf

World Bank, 2010, A city-wide approach to carbon finance (incl. transport), Carbon Finance Unit, The World Bank

Less than 1% of projects registered with the CDM are credited to cities, among which are two transport projects. In contrast to that, cities are recognized leaders in mitigating GHG emissions. However, there are numerous reasons for the limited experience of cities in developing carbon finance projects. In this recent publication of the World Bank's Carbon Finance Unit, a city-wide approach to carbon finance is outlined. It proposes expansion of the CDM's Programme of Activities approach to enable aggregation of city-based GHG mitigation reductions broadly covered by five sectors: energy, transport, solid waste, water and wastewater, and urban forestry. The approach presented in this document refers extensively to CDM methodologies and is limited in terms of the sector-specific non-CDM methodologies available to estimate emission reductions. However, this approach could help to make transport projects more interesting and it could be expanded to include innovative interventions and new methods to calculate emission reductions including new transport methodologies.

Link: http://siteresources.worldbank.org/INTCARBONFINANCE/Resources/A_city-wide_approach_to_carbon_finance.pdf

CAI, 2008, Report and Strategy to Improve the Effectiveness of CDM to Foster Sustainable Transportation, Clean Air Institute (CAI), World Bank

Global anthropogenic greenhouse gas (GHG) emissions are rising rapidly, and the transport sector is one of the largest and fastest growing GHG sources. For example, between 1990 and 2002, transport-related CO2 emissions doubled in China, Indonesia and South Korea, and further substantial increases are expected unless strong action is taken.

Link: http://www.transport2012.org/bridging/ressources/files/1/102,SanchezCDMcarbonReportFinal-12.1.09.pdf

Vossenaar R, 2010, Deploying Climate-Related Technologies in the Transport Sector: Exploring Trade Links, International Centre for Trade and Sustainable Development (ICTSD)

Climate-friendly goods are critical for addressing climate change. Trade is the most important means for disseminating such goods. This paper is part of a series on trade in climate-friendly goods in the sectors that the IPCC determined to be most important for the mitigation of climate change.

Link: http://ictsd.org/downloads/2010/11/rene_vossenaar_web3gp.pdf

Metz B, Davidson O, Martens J, Van Rooijen S and Van Wie Mcgrory L (Eds.), 2000, Methodological and Technological Issues in Technology Transfer, Cambridge University Press, UK. pp 432

Link: http://www.ipcc.ch/ipccreports/sres/tectran/index.htm

WBCSD, 2004, Mobility 2030: Meeting the Challenges to Sustainability, World Business Council for Sustainable Development (WBCSD)

Link: http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=NjA5NA

Dalkmann H, 2007, The Sectoral Clean Development Mechanism - A Contribution from a Sustainable Transport Perspective

Link: www.cleanairnet.org/lac_en/1415/articles-72376_Paper.pdf

Chowdhury S, Higelin J, Holmes K, and Karlsson K (eds.), 2001, Handbook for Conducting Technology Needs Assessment for Climate Change, United Nations Development Program (UNDP)

Link: http://content.undp.org/go/cms-service/stream/asset/?asset_id=2972062

Dalkmann H and Huizenga C, 2010, Advancing Sustainable Low-Carbon Transport through GEF Support, Global Environment Facility (GEF)

Description: The Bridging the Gap partner TRL co-authored this Advisory Document that reviews past and planned GEF support to the transport sector as well as providing strategic advice on the options for GEF to promote energy efficient, low-carbon passenger and freight transport systems. It recognises that the transport sector has unique requirements and that GEF transport operations need to evolve if they are to have the optimal impact upon emissions from the sector.

Link: http://www.transport2012.org/link/dl?site=en&objectId=968&src=

ICCT, 2010, Passenger Vehicle Greenhouse Gas and Fuel Economy Standards: A Global Update, International Council on Clean Transport, 2010

Link: http://www.theicct.org/2010/04/ghg-fe-standards-update/

GIZ – Sustainable Urban Transport Project (SUTP)

Based on more than 25 years of practical experiences, GIZ hosts the “Sustainable Transport: A Sourcebook for Policy-Makers in Developing Cities” (www.sutp.org) with a wealth of information and knowledge on appropriate solutions, inter alia on tackling climate change in the transport sector. Through training and advisory services, decision makers in the transport sector are better informed about transport options, mode choices, mobility management and transport related emissions and their impact on our climate. This may lead to improved urban transport systems, less traffic and better alternatives to individual motorized transport modes.

This flagship publication compiles most of the international literature on the relevant subject and provides access to numerous other resources. It is complemented by training courses targeted to policymakers, planners or engineers in cities, regional entities and federal governments.

Editor:

Mr. Jonathan Gomez-Vilchez
Mr. Santhosh Kodukula

Author:

Mr. Philipp Schaltenberg, Mr. Santhosh Kodukula

Cover photo:
Ms. Shreya Gadepalli

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http://www.transport2012.org
http://www.gtz.de/transport

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