



The Clean Air Institute

Report and Strategy to Improve the Effectiveness of CDM to Foster Sustainable Transportation

*Prepared by:
The Clean Air Institute*

*For:
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The Clean Air Institute also expresses deep appreciation to the organizations and individuals who contributed their experiences and expertise to this project (see Appendix B and Appendix D, which includes lists of participants in this participatory process). The project involved extensive dialogue and consultation, and this report seeks to provide an integrated perspective regarding opportunities to improve carbon finance of sustainable transport in developing countries. We hope this perspective provides guidance and encouragement to enhance carbon finance opportunities for the transport sector.



Table of Contents

1.	Executive Summary	4
2.	Background	6
2.1.	General	6
2.2.	The Current CDM Process	8
2.3.	Purpose of This Project	9
3.	Methodology	12
4.	Key Issues	13
4.1.	Recommendations for post-2012	13
4.2.	Recommendations within the Existing CDM Program	16
5.	Strategic Approach	18
6.	Proposed next steps	19
7.	Conclusion	20
	<i>Appendix A: Framework for Reform</i>	21
	<i>Appendix B: Project Participants</i>	23
	<i>Appendix C: Agenda for Berlin Workshop</i>	27
	<i>Appendix D: Report from Preparatory Meeting, January 2008, Washington D.C.</i>	32
	<i>Appendix E. References</i>	44



1. Executive Summary

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.

Although the transport sector was set as a priority by the Conference of the Parties 10 (COP 10), there are only two urban transport projects registered with the Clean Development Mechanism (CDM). The lack of participation by the transport sector has been attributed to:

- *The relatively small amount of CDM revenue available as compared with total project costs, which creates a disincentive to pursue carbon financing and a challenge to meeting the CDM's "additionality" requirement;*
- *The complexity of the transport sector as compared with stationary sources, which makes methodological development, data collection, and verification difficult; and*
- *The fact that most transport projects are designed primarily to achieve goals other than GHG reduction, such as enhanced mobility and economic growth.*

This project reviewed available literature and brought together over 60 experts representing all parts of the CDM project development cycle. Through two meetings and extensive consultations, a series of recommendations and a proposed strategy were developed to enhance participation of the transport sector in

CDM and future carbon finance instruments.

In general, participants felt that significant reform is required to achieve more reductions in GHG emissions from the transport sector. Funding for sustainable transport must be increased substantially from all sources, including carbon financing. Moreover, new and enhanced carbon finance mechanisms must be created to replace or complement the CDM. Among other things, participants suggested that the new mechanisms should:

- *Use sectoral approaches instead of the project-based approach of the CDM;*
- *Account for co-benefits of transport projects, such as reduced pollution, improved health, and reduced petroleum consumption;*
- *Be specific to the transport sector instead of designed for general applicability across sectors; and*
- *Be integrated with other processes and mechanisms, such as air quality and transport plans, loan applications, and national and local regulatory processes.*

Participants also suggested that a significant research and technical assistance program should be created and consistently funded to better understand the effects of various transport and land use interventions, develop integrated assessment tools, and to assist cities in developing sustainable transport projects and associated carbon financing.

Finally, as new instruments are created, participants noted a number of opportunities for expanding participation of the transport sector in the existing CDM program.

THESE INCLUDED:

- *demonstrating the use of the “first of its kind” approach to additionality in the transport sector;*
- *developing a standard methodology and applying it to a Program of Activities (POA) that could be adopted in multiple cities;*
- *creating a fund to finance data collection and the development of new tools and approaches for the transport sector;*
- *improving the cost-effectiveness of participating in the CDM by streamlining the process and standardizing data collection and methodologies;*
- *integrating CDM with other existing financial instruments, such as loan applications, thus reducing the need for multiple processes;*
- *developing a more robust feedback program, enabling better communications between the Methodologies Panel, project proponents, the transport community, and the public;*
- *ensuring that transportation is a high priority by, among other things, increasing the capacity of the Methodologies Panel to address transport issues;*
- *prioritizing projects based upon their CO₂ reduction potential, thus focusing resources on projects with the greatest potential;*
- *accounting for national and local co-benefits, thus increasing the value of Certified Emissions Reductions (CERs); and*
- *developing a communications program that*

recognizes and rewards cities that develop successful CDM projects.

Finally, an action plan was developed to begin implementing these recommendations and to foster the development of new carbon finance instruments for post-2012. Among other things, this action plan seeks to test innovative approaches to transport in the existing CDM, create a technical assistance program, and develop methodological approaches that help lead toward new carbon finance instruments for post-2012.



2. Background

2.1. GENERAL

When the Kyoto Protocol entered into force in 2005, total global anthropogenic greenhouse gas (GHG) emissions were 49 GTCO₂-eq, roughly 25% more than when the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992. Global greenhouse gas (GHG) emissions could triple by 2050 compared with 2004 levels, if no additional climate change policies are implemented.

The transport sector is one of the largest and fastest growing GHG sources. Between 1970 and 2004, transport-related GHG emissions increased 120% globally, reaching 6.4 GTCO₂-eq (13.4% of the total). Although industrialized countries account for the largest share, emissions in developing countries are growing quickly. Between 1990 and 2002, transport-related CO₂ emissions doubled in China, Indonesia and South Korea. Looking ahead, the International Energy Agency (IEA) predicts substantial increases in China (143%), Indonesia (122%), India (91%) and Mexico (71%) by 2020 compared with current levels.

The transport sector also is the major source of urban air pollution in developing countries, resulting in hundreds of thousands of premature deaths, billions of dollars in medical costs and lost productivity annually, and degradation of the environment.

There is a critical need for integrated, forward-looking, comprehensive measures to improve air quality and minimize risks associated with climate change at the local, national, regional, and international levels. Fossil fuel combustion is the common source of

both greenhouse gas emissions and air pollution, and some transport-related pollutants, such as black carbon and tropospheric ozone, contribute both to air pollution and climate change. Win-win integrated strategies to address both issues are needed to succeed in fostering sustainable transport interventions at local level.

At the same time, it is important to recognize that enhanced mobility is essential to continued economic progress. Transportation facilitates economic growth by enabling the efficient movement of people and freight. Policies must strike an appropriate balance between reducing pollution and GHG emissions and promoting sustainable development.

To achieve this balance, nations and cities need support to develop visions, policy frameworks, and integrated programs, as well as to strengthen transport, environment, and land-use planning institutions.

The CDM is an important component of an overall framework to promote sustainable development in developing cities.

Transportation was set as a priority for the CDM by the Conference of the Parties 10 (COP 10) held in Buenos Aires in 2004. Unfortunately, four years after COP 10, transport is still not well represented in the CDM project portfolio. Of the roughly 1,200 registered CDM projects listed in the UNEP Risø Pipeline ([see *http://www.cdmpipeline.org*](http://www.cdmpipeline.org)), only two involve urban transport:

- *TransMilenio (Phase II to IV), a Bus Rapid Transit System (BRT) located in Bogota, Colombia;*
- *The Delhi Metro Rail Corporation installation of low GHG-emitting rolling stocks, which use regenera-*

tive braking system to improve energy efficiency.

Table 1 provides additional information of these CDM registered projects.

TABLE 1: REGISTERED URBAN TRANSPORT PROJECTS

Registration date	Description	Methodology and scale	Host Parties	Other parties	Reductions Ton/year
07 Dec 06	BRT Bogotá, Colombia: <i>TransMilenio</i> Phase II to IV.	AM0031 (large scale)	Colombia	Switzerland Netherlands	246,563
29 Dec 07	Installation of Low Green House Gases (GHG) emitting rolling stock cars in metro system	AMS-III-C (small scale)	India	Japan	41,160
<i>Total emissions reduced (tons/year)</i>					287,723

Source: CDM Executive Board.





Moreover, although five transportation sector methodologies have been approved by the CDM Executive Board, no CDM projects have been approved for three of these methodologies.

Table 2 shows the transport methodologies approved by the Executive Board.

TABLE 2: TRANSPORT SECTOR METHODOLOGIES APPROVED BY THE CDM EXECUTIVE BOARD

Methodology Number	Description
AM0031 (large scale)	Applicable for the construction and operation of a BRT system for urban road based transport as well as extensions of existing BRT systems. The BRT methodology is the only large-scale methodology in the transport sector.
AM0047 (large scale)	Production of biodiesel based on waste oils and/or waste fats from biogenic origin for use as fuel --- Version 2
AMS-III-C (small scale)	“Emission Reduction by Low GHG Emitting Vehicles”
AMS-III.T (small scale)	“Plant Oil Production and Use for Transport Application”
AMS-III.S (small scale)	“Introduction of Low Emission Vehicles to Commercial Vehicle Fleets.”

Source: CDM Executive Board.

2.2. THE CURRENT CDM PROCESS

The CDM is a novel mechanism designed to promote sustainable development and reduce greenhouse gas emissions by enabling developing countries to sell Certified Emissions Reductions (CERs) earned through projects that achieve emissions reductions. All projects, regardless of sector, must complete the same CDM project development cycle, although a simplified process is available for small-scale projects. In general, the CDM process requires project developers to:

- *establish a baseline of greenhouse gas emissions that would occur in the absence of the proposed project activity;*
- *demonstrate that that emissions reductions are in addition to any that would occur in the absence of the registered project (the “additionality” requirement); and*
- *identify and calculate “leakage” – changes in greenhouse gas emissions that may occur outside of the project boundary yet which are measurable and attributable to the CDM project.*

Table 3 provides a simplified description of the CDM project development cycle.



TABLE 3: CDM PROJECT DEVELOPMENT CYCLE

Step	Responsible Party
Prepare project concept note	Project developer (a project developer is broadly defined and may include a government agency, private sector company, foundation, or NGO)
Prepare project design document (PDD), including: <ul style="list-style-type: none"> • <i>select baseline approach</i> • <i>assess additionality</i> • <i>set baseline emission level and crediting period</i> • <i>calculate net emission reductions</i> • <i>establish monitoring plan</i> • <i>assess environmental impacts</i> • <i>invite local stakeholder comments</i> 	Project developer
Host country approval	Designated National Authority (DNA)
Validate PDD (includes public comment period)	Designated Operational Entity (DOE) (entities designated by the CDM Executive Board to validate projects, receive and incorporate stakeholder comments, and verify and certify reductions achieved)
Submit validation reports and PDD	DOE
Project Registration	CDM Executive Board (ten member board, composed of developing and developed country representatives, that reports directly to the Conference of the Parties)
Project implementation and monitoring	Project developer
Project verification and certification	DOE
Issue CERs	CDM Executive Board

2.3. PURPOSE OF THIS PROJECT

There appears to be a growing consensus that the CDM, as currently structured, is not well suited as a financing mechanism for sustainable urban transportation in developing countries. This project was designed to:

- *identify the decisions and actions necessary to enhance the effectiveness of CDM in the transportation sector;*
- *foster a policy dialog among CDM stakeholders; and*
- *propose an action plan for strengthening the overall framework of CDM, including actions that can be taken before 2012 and structural changes that can be made in the context of renegotiating the Kyoto protocol.*





3. *Methodology*

The project was conducted in two parts: *a literature review and meetings with stakeholders in the CDM project development cycle*. The stakeholders included project proponents, Designated National Authorities, Designated Operating Entities, international development organizations, methodology developers, regulatory agencies, private companies, industry associations, non-governmental organizations (NGO's), the UNFCCC, and regional environment and transport organizations and specialists. Two meetings were held: *a preparatory meeting and a workshop*. In addition, consultations were conducted with individuals and organizations that were unable to participate in either the preparatory meeting or the workshop. A list of project participants is contained in Appendix B.

The preparatory meeting was held in Washington, DC on January 14, 2008 at the headquarters of the World Bank. The meeting was facilitated by the Clean Air Institute and included several presentations as well as a robust discussion of finance issues relating to sustainable transport. A significant outcome of the preparatory meeting was the creation of the Working Group on Financing Sustainable Transport in Developing Countries, which currently operates virtually through Google Groups. A complete report on the preparatory meeting is contained in Appendix C.

The workshop was held in Berlin, Germany on June 26 and 27 at the Umweltbundesamt (the German Environment Agency). The workshop also was facilitated by the Clean Air Institute and included more than thirty participants from Asia, Latin America, Europe, and North America.

4. Key Issues

Participants noted that transport-related GHG emissions are likely to continue rising quickly, unless significant action is taken. As a result, they suggested that investments in sustainable transport must substantially increase, regardless of the future of CDM. Governments and international development organizations should establish frameworks and programs to reduce GHG emissions from all transport investments, not just those seeking carbon finance. In particular, the World Bank and other international development organizations could play a key role by changing lending practices, such as subjecting all new projects to a climate change and co-benefits assessment.

Participants also suggested that, as one of the leading GHG emitting sectors, transport should receive higher priority in climate negotiations. Among other things, national transport ministers and local authorities should play prominent roles in future climate negotiations.

Several explanations were offered regarding lack of participation of the transport sector in CDM. First, transportation projects are relatively expensive, and carbon finance represents a marginal contribution to the total project investment. This creates a disincentive to pursue carbon financing, especially given the high transaction costs of registering a project. It also creates challenges regarding the “additionality” requirement, because it is difficult to show that CDM financing is necessary to implement the project.

Second, unlike stationary sources, emissions reductions from urban transport projects depend upon a complex mix of interrelated factors, such as land use, traffic congestion, economic conditions, demo-

graphic changes, technology changes, and culture. Accurately modeling and measuring greenhouse gas reductions in such a complex system is difficult. Required data often is limited or very expensive to generate and there are significant uncertainties associated with the data, such as predicting the ridership levels for new public transport systems and the extent to which such systems will promote mode switching. These challenges can impose overwhelming barriers to CDM project development in developing countries, especially those with poor data, little experience, and limited capacity.

Finally, transportation projects generally are designed and implemented to promote local goals such as enhanced mobility and economic growth, not greenhouse gas reductions. By contrast, projects in other sectors often are designed with greenhouse gas reduction as one of their primary goals.

As a result, many participants in this project observed that efforts regarding carbon finance should focus upon creating new, scaled-up mechanisms for the post-2012 timeframe. As these mechanisms are being developed, participants also suggested that the existing CDM can be improved to better enable participation by the transport sector. The following sections summarize the recommendations made by participants for post-2012, as well as for the existing CDM.

4.1. RECOMMENDATIONS FOR POST-2012

In general, participants felt that new carbon finance instruments should be created that are program-oriented, of broad scale, and not project-specific. Participants also felt that the transition to future instruments should be accomplished in phases. For example, the first phase could be a methodology ap-



plied to urban transport programs of a city. Once that methodology has been verified, other transport programs or systems could be added to the methodology. The following are specific recommendations made by participants.

Use sectoral approaches. To meaningfully reduce CO₂ in the transport sector, future mechanisms must promote large-scale changes in mode choice, the carbon content of fuels, and fuel efficiency. The current project-based approach makes such large scale changes extremely difficult to accomplish. Therefore, future instruments should take a sectoral approach designed to address the transportation sector more holistically.

What is meant by a “sectoral” approach is subject to considerable interpretation. According to the IEA, there are at least four broad categories of sectoral approaches:

- *Country-specific quantitative approach, which defines GHG reductions by sector at the national level;*
- *Transnational quantitative sectoral approach, which defines GHG reductions by sector at the international level;*
- *Sustainable development policies and measures (SD-PAMs), where a country implements policies that serves sustainable development objectives and reduces GHG emissions; and*
- *Technology-oriented approaches, which seek to transfer and deploy low-GHG technologies.*

Determining the best approach for the transport sector will require considerable research and supporting decisions from the Parties. However, a potential

advantage of sectoral approaches is that they can achieve reductions on a much larger scale than the current project-based approach. A potential disadvantage is that sectoral approaches will require a significant effort to address new methodological challenges, because of the uncertainties associated with the larger scales involved.

To address these uncertainties, some participants suggested that models from other industries should be explored. For example, the insurance industry uses detailed actuarial models to predict losses to life and property across large risk pools. Although these models do not predict individual losses, they accurately forecast trends and enable financial values to be placed on the probability that certain losses will occur. A similar approach in the transport sector could predict emissions reductions resulting from sectoral approaches, with a discount applied to reflect the margin of error and provide a conservative value for purposes of issuing CERs.

Account for Co-benefits. Sustainable urban transport projects can have a wide range of benefits in addition to GHG emissions reductions, including reduced air and noise pollution, improved health, reduced petroleum consumption, congestion mitigation, accident avoidance, and increased productivity. The CDM, however, ignores these co-benefits and focuses only upon CO₂. This narrow focus underestimates the value of projects and, among other things, ignores the potential climate change benefits of reducing pollutants, such as black carbon. At a minimum, participants suggested that pollutants that also have climate change implications should be considered in future carbon finance mechanisms.

Transport-Specific. As noted above, the transport sector is unique in its complexity and challenges.





The CDM, however, is an instrument of broad applicability, designed for use across sectors. Most felt that a new instrument should be purpose-built for the transport sector, including a separate funding mechanism for transport. Some argued that a new specialized institution should be created to manage this mechanism.

Integrate with Other Mechanisms. Governments have many tools and processes that influence transportation planning, including air quality management plans, transportation plans, master plans, energy strategies, regulatory instruments, and zoning. Future carbon finance instruments should be integrated with, rather than separated from, these processes. This would enable GHG reductions to be considered early in the project development cycle. It also could reduce administrative burden and costs for cities and project developers, because a separate project development cycle for CDM could be avoided. Finally, financial and regulatory tools could be combined, creating more powerful options for GHG reductions.

Invest in R&D, Technical Assistance and Development of Policy Guidance. Participants suggested that a program to fund research and upstream strategic interventions should be created. Among other things, this program would fund research and dissemination on the effects of transport and land use interventions, develop integrated assessment tools, and assist cities with master planning, metropolitan and regional “visioning,” investment prioritization, and long-term budgeting. The program also could help cities and project developers prepare sustainable urban transport programs and meet the methodological and other requirements, thus reducing the burden of compliance and encouraging more projects.



4.2. RECOMMENDATIONS WITHIN THE EXISTING CDM PROGRAM

Participants suggested opportunities to improve CDM by broadening its scope, simplifying and improving data collection and methodologies, and by minimizing barriers, such as the additionality requirement. The following are specific recommendations that emerged from the discussion.

Additionality: There was considerable discussion regarding the challenges posed by the additionality requirement. In the short-term, participants suggested making more use of the existing “first of its kind” approach to demonstrating additionality. Under “first of its kind,” a new project or approach can be deemed “additional” if it is not already in common practice. For example, relatively few cities have extensive bus rapid transit (BRT) networks, creating the potential for a certain number of new BRT projects to be “first of their kind. Participants recognized, however, that there are significant issues with this approach, such as what constitutes “first-of-its kind” and the development of baselines and methodologies. Participants suggested that these and similar issues should be addressed promptly.

The use of “first of its kind” was discussed in an informal meeting with a member of the Methodologies Panel on June 24, 2008. Based upon the positive nature of this discussion, participants agreed that a transport project should be selected to demonstrate the first of its kind approach.

Develop a Programmatic Approach. Participants felt that a standard methodology could be developed and applied to a Program of Activities (POA) and that the POA could be adopted in multiple cities. The POA should include a bundle of individual projects

under an integrated approach, such as public transportation, pedestrian and bicycle improvements, improved land use, transportation demand management, and freight management.

R&D and Technical Assistance. Participants suggested that a fund should be created to finance data generation, collection and assessment for the transport sector. The fund also could be used to provide experts to support the CDM Meth Panel and project proponents to ensure that projects successfully complete the project development cycle. Such a fund would significantly ease the burden on cities and would result in better project proposals.

Process Improvement and Streamlining. Participants suggested that the cost-effectiveness of the CDM review and approval process should be improved, including streamlining and standardizing data collection and the Methodologies Panel review process. For example, better use could be made of existing data, tools, and processes. Specific ideas included:

- *Use of public transportation “smart cards” to track origin and destinations and trip lengths, and survey data to assess how trips would have been taken in the absence of the public transport investment. Such approaches could provide reasonable estimates of the GHG reductions associated with projects.*
- *Integration of CDM with other existing financial instruments, such as loan applications, thus reducing the need for multiple processes. Such an approach could also promote institutional reform and help remove barriers within the transport sector.*
- *The development of a more robust feedback program, enabling better communications between the Panel, project proponents, the transport community,*

and the public. Better communications would improve the ability to develop viable CDM projects and reduce the costs of such development.

- *Ensuring that that transportation is a higher priority for the Executive Board, and reflecting this priority in the Methodologies Panel program.*
- *Improving the efficiency of the Meth Panel review process and enhancing the Panel's capacity to deal with transport, such as by adding transport experts to the Panel or creating an external expert group to provide guidance and advice on methodologies, programs and projects.*
- *Prioritizing CDM projects based upon their CO2 reduction potential. This would focus attention on high yield projects and would enable resources to be allocated on a priority basis to such projects.*

Account for Co-benefits. As with post-2012 instruments, participants suggested that CDM should better account for national and local benefits and the projects contribution to sustainable development. Currently, the Gold Standard approach, implemented by a private foundation in Switzerland, enables the creation of premium CER's, in part by accounting for co-benefits and by reducing the risks of project failure. Quantifying the co-benefits of transport projects could increase the value of the CERs and make projects more attractive for cities. An analysis of the costs and benefits of applying this type of approach to all CDM projects, including transport projects, should be conducted.

Develop a Communications Program. Achieving CDM registration can bolster a city's image and encourage other cities to develop CDM projects. Thus, participants felt that a program to recognize and reward

cities that develop successful CDM projects should be implemented. Currently, the benefit of developing a CDM project is limited to the monetary value of the CER's. A communications program could help create a "CDM brand" that confers greater credibility and status to projects and fosters the development of more projects.



5. Strategic Approach

The discussions suggested a two-part strategy to be pursued in parallel. First, a set of reforms and new programs should be adopted within the existing CDM framework. These reforms and programs should be designed to achieve the following objectives:

- *enhance the ability of CDM as an instrument to promote sustainable transport interventions; and*
- *improve the ability of project proponents to successfully pursue transportation CDM projects.*

Second, a new mechanism should be developed for post-Kyoto that:

- *is specific to the transportation sector;*
- *uses a broad scale rather than project-specific methodology;*
- *accounts for co-benefits of transport projects, such as improved air quality, human health, and economic opportunity; and*
- *encourages cities to link local transport planning with planning for greenhouse gas emissions reductions, perhaps through a combination of regulatory requirements and incentives.*

To implement the strategy, participants discussed a three phased program. In Phase I, a POA would be developed under the existing CDM framework and a standardized methodology would be applied to that POA, taking advantage of the “first of its kind” methodology to meet the additionality test. A limited number of cities would be selected to pilot the methodology, perhaps using cities from the existing

GEF Regional Sustainable Transport Project in Latin America, as well as cities from Asia.

Also in Phase I, a technical assistance program would be created by the World Bank and other interested parties, such as the Global Environment Facility. This program would work with all stakeholders to support the development of better baselines and monitoring capabilities, including data collection and management.

Finally, Phase I would continue the outreach and consultation process. This will build additional support for the program and help refine the implementation strategy.

In Phase II, more detailed data would be collected and data gaps identified in the pilot cities would be addressed. International financial organizations would collaborate to begin integrating the methodological framework into lending practices, and cities would be encouraged to begin integrating the methodology into their transport planning.

In Phase III, the results from the pilot cities would be validated. Assuming successful validation, methodological guidelines would be developed for use by other cities. Moreover, lessons learned from the program would be used to develop recommendations for approval by the COP and/or the Executive Board for post-2012.



6. *Proposed next steps*

There was a strong desire from the group of stakeholders consulted in this project to engage in a series of activities to implement this strategy. First, this strategy should be broadly distributed to gain additional support. This process has already begun at several major international conferences, such as the Better Air Quality Conference in Bangkok and the OECD Global Forum on Transport and Environment in a Globalized World in Guadalajara, Mexico.

Second, recommendations are expected to be presented to the Conference of the Parties at COP-14 in December 2008. A Event on Transport has been planned to frame this presentation. Moreover, a draft decision on key issues has been prepared and is being considered for its possible submittal to the COP by Parties from Latin America, Asia, Africa, and Annex I.

Finally, a work plan should be developed, including a communications program to build awareness about the potential of the transport sector to contribute to climate change mitigation and the need to enhance CDM and develop improved instruments.





7. *Conclusion*

To the best of our knowledge, this project was the first time that project proponents, Designated National Authorities, Designated Operating Entities, international development organizations, methodology developers, regulatory agencies, private companies, industry associations, UNFCCC, and regional environment and transport organizations and specialists were brought together to discuss the future of CDM. The dialogue was comprehensive and resulted in clear recommendations.

There was consensus that the purpose of CDM is not being achieved in the transport sector. Participants felt that there are opportunities to improve the effectiveness of CDM by broadening its scope and simplifying its rules. More importantly, more effective instruments need to be created for post-2012, and climate change governance and institutions need to be enhanced. This project laid the foundation for building a broad consensus on improving the Kyoto Protocol as it applies to the transport sector. Moreover, there was a strong willingness among participants to continue working together, and to involve others, on these issues.

There was a strong desire for the World Bank or other international organizations to assume leadership and to make the appropriate investments to ensure that these reforms are accomplished. There also was a recognition that key stakeholders need to be actively involved in the development of these reforms. This process will raise the profile of the transport sector in climate negotiations and will help ensure that the transport sector can contribute more effectively to the ultimate goal of the UNFCCC.

APPENDIX A: FRAMEWORK FOR REFORM

The United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty established in 1992, designed to stabilize greenhouse gas concentration in the atmosphere. On February 16, 2005, the Kyoto Protocol entered into force, requiring signatories to reduce or limit their greenhouse gas emissions. To help countries meet their emission targets, and to encourage the private sector and developing countries to contribute to emission reduction efforts, negotiators included three market-based mechanisms – Emissions Trading, the Clean Development Mechanism and Joint Implementation (UNFCCC).

The purpose of the CDM, as set forth in Article 12 of the Kyoto Protocol, is to assist Annex 1 countries in meeting their emission reduction requirements and to help non-Annex 1 countries in achieving sustainable development. Under this system, Annex 1 and non-Annex 1 countries can jointly contribute to stabilization of greenhouse gas concentrations.

The UNFCCC includes three organizations layers relevant for CDM, each of which has different roles and responsibilities:

The Convention Bodies. The Convention bodies include the Conference of the Parties (COP) and the Subsidiary Bodies.

- *The Conference of the Parties is the governing body of the Convention, and advances implementation of the Convention through the decisions it takes at its periodic meetings. The COP is responsible for keeping international efforts to address climate change on track. It reviews the implementation of the Convention and examines the commitments of Parties in light of*

the Convention's objective, new scientific findings and experience gained in implementing climate change policies. A key task for the COP is to review the national communications and emission inventories submitted by Parties. Based on this information, the COP assesses the effects of the measures taken by Parties and the progress made in achieving the ultimate objective of the Convention.

- *Two permanent Subsidiary Bodies were established by the Convention: the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). The SBSTA's task is to provide the COP with advice on scientific, technological and methodological matters. The SBI gives advice to the COP on all matters concerning the implementation of the Convention. The SBSTA and SBI work together on cross-cutting issues that touch on both their areas of expertise. These include capacity building, the vulnerability of developing countries to climate change and response measures, and the Kyoto Protocol mechanisms.*

CDM Executive Board (CDM EB). The Kyoto Protocol establishes an Executive Board to supervise the CDM under the authority and guidance of the Conference of the Parties (COP). Among other things, the Executive Board can:

- *Make recommendations to the COP on further modalities and procedures for the CDM;*

- *Approve new methodologies regarding, among other things, baselines, monitoring plans and project boundaries, consistent with decision 17/CP.7 of the COP.*

- *Review provisions with regard to simplified modalities, procedures and definitions of small/scale project activities and make recommendations to the COP.*



- *Develop, maintain and make publicly available a repository of approved rules, procedures, methodologies and standards; and*
- *Address issues relating to observances of modalities and procedures for the CDM by project participants and/or operational entities, and report on them to the COP.*
- *Prepare recommendations on options for expanding the applicability of methodologies and provide tools for project participants to choose among approved methodologies of a similar nature;*
- *Maintain a roster of experts and select experts who are to undertake desk reviews to appraise the validity of the proposed new methodology.*

Methodologies Panel. The Methodologies Panel (Meth Panel) was established to develop recommendations to the Executive Board on guidelines for methodologies for baselines and monitoring plans and prepare recommendations on submitted proposals for new baseline and monitoring methodologies. The Meth Panel responsibilities include:

- *Prepare recommendations on submitted proposals for new baseline and monitoring methodologies;*
- *Prepare draft reformatted versions of proposed new baseline and monitoring methodologies approved by the Board;*

- *Elaborate, with the assistance of the secretariat, precise and workable recommendations for consideration and adoption by the Executive Board, as appropriate, on, inter alia: revisions to the project design document, in particular on sections relevant to baseline and monitoring; draft “decision trees, and other methodological tools, where appropriate, to guide choices; amendments on the annex on indicative simplified methodologies for CDM small-scale project activities.*

It is important to highlight that the importance of the role played by of UNFCCC Secretariat to support all institutions involved in the climate change process, particularly the COP, the subsidiary bodies and their Bureau.



APPENDIX B. PROJECT PARTICIPANTS

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Eduardo Dopazo	World Bank
Ernesto Monter	Inter-American Development Bank
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Seema Parak	World Resources Institute
Seraphine Hauessling	World Bank
Sudhir Sharma	UNFCCC Methodologies Panel
Sylwia Klatka	CONVOCO

APPENDIX C: AGENDA FOR BERLIN WORKSHOP

Workshop

Clean Development Mechanism (CDM) and Sustainable Urban Transport (SUT):

Challenges, Successes and Suggestions for the Future

Location: UBA Berlin, Bismarckplatz 1, 14193,

Room: "Kinosaal"

Berlin, Germany

June 26 and 27, 2008

The World Bank and the Clean Air Institute have organized a workshop to discuss the future of the Clean Development Mechanism as it applies to sustainable transportation. This event is being sponsored by the World Bank Institute's Carbon Finance Assist (CF-Assist) Program, a capacity building and technical assistance program to enable developing countries and economies in transition to fully participate in the carbon market.

The CDM offers the potential to fund sustainable transportation projects in developing countries. To date, however, there are just two transportation projects approved under the CDM, raising significant questions about the viability of CDM, as currently structured, for transportation.

The purpose of this workshop is to (1) discuss ways to improve the efficiency of CDM as an instrument to foster GHG emission reductions in the transport sector, and (2) to identify the key decisions to be adopted by the Conference of the Parties and implemented by the UNFCCC to develop more suitable instruments for transport looking beyond 2012.

The workshop is designed to be of interest to key

stakeholders in the CDM process for transport projects, including National Designated Authorities, Designated Operation Entities, project proponents, investors, international development entities, methodology developers, and representatives of the UNFCCC. Discussions will cover a variety of topics, including ways to improve the current project-based approach of CDM and the requirements and next steps to introduce sectoral and programmatic approaches. It will also include a discussion on methodological issues, such as the additionality requirement, modeling issues, data collection and monitoring.

The workshop will build upon a January 2008 meeting held in Washington, DC at the World Bank. Following the workshop, the Clean Air Institute will develop recommendations for improving CDM as a tool for financing sustainable transportation projects.

Format

The workshop will be organized in four thematic discussion sessions and a lunch session for discussing recommendations. Each thematic discussion session will consist of a moderator, a panel of "key discussants", and the other workshop participants. The moderator will ask questions of the key discussants that are expected to respond briefly and concisely. They are not requested to bring a presentation, but may provide the moderator with up to 5 slides to be used to illustrate key points. These slides should be provided in electronic format.

The audience is free to comment or participate in the discussion as they deem appropriate. As with key discussants, the audience is requested to provide short and concise comments.

At the beginning of the workshop, the moderator will request volunteers to serve as commentators for each



thematic session. The commentators will be expected to provide remarks and observations about their thematic session during the working lunch on day 2.

The information and recommendations from this workshop will be incorporated into a report prepared by the Clean Air Institute. The objective of this report is to outline a proposed strategy to improve the effectiveness of CDM and alternative instruments to reduce CO₂ emissions while fostering sustainable urban transportation in developing countries. This document will be presented in a side event at the COP in Poznan.



DRAFT AGENDA

June 26, 2008		
13:30– 14:00	<p>Welcome</p> <p>Introductory remarks</p>	<p><i>Paul Procee</i>, World Bank,</p> <p><i>Sergio Sanchez</i>, The Clean Air Institute</p>
14:00 – 16:00	<p>Stakeholder Roundtable: The mandate from the parties on CDM and transport: key issues that have limited its implementation.</p> <p>Key questions</p> <ul style="list-style-type: none"> • What are the key elements and criteria for CDM financing and why are they important? What has been the experience in applying them in the transport sector? • Is the current underrepresentation of transport projects an expression of typical start up problems? Or is it an indication of fundamental problems? • What are the initiatives being developed and/or implemented by the UNFCCC and/or the CDM EXB to increase the transport sector participation in the CDM portfolio? • What is the current importance governments give to CDM as we know it to support financing transport? What role would governments like CDM to play in the future? • What is important to investors seeking to finance transport projects through CDM? 	<p>Key discussants:</p> <p><i>Holker Dalkmann</i>, Transport Research Limited</p> <p><i>Flordeliza Andres</i>, UNFCCC</p> <p><i>Ana Carolina Avzaradel</i>, DNA Brazil</p> <p><i>Dora Luz Llanes</i>, DNA Mexico</p> <p><i>Eduardo de Mello</i>, BNDES, Brazil.</p> <p><i>Henning Hannen</i>, Volkswagen</p> <p>Commentator. Volunteer</p>
16:00-16:15	Break	
16:15-18:00	<p>Stakeholder Roundtable: The perspective of Project Proponents and Certifiers on the CDM approval process.</p> <ul style="list-style-type: none"> • What is required to achieve an approved CDM project? What are the major costs, challenges and obstacles? What are the benefits? • What are the major elements to certify a CDM Project and most common failures 	<p>Key discussants:</p> <p><i>Wendy Garcia</i>, Metrobus Mexico</p> <p><i>Rohini Balasubramanian</i>, Gruetter Consultants</p>



June 27, 2008		
8:00 – 8:15	Welcome to the second day	
8:15- 10:00	<p>Stakeholder Roundtable: Ways to improve CDM under the current project-based approach.</p> <ul style="list-style-type: none"> •Are there changes to the additionality requirements that should be considered? •What methodological improvements could be introduced to improve the approval process? <ul style="list-style-type: none"> •Are there options to simplify data collection and monitoring? • What is the role of the Voluntary Emission Reduction ? Will they be accepted? What standards are needed? 	<p>Key discussants</p> <p><i>Carolina Edant, Veolia</i></p> <p><i>Rohini Balasubramanian, Gruetter Consultants</i></p> <p><i>Ricardo Jordan, ECLAC (CEPAL)</i></p> <p>Commentator: Volunteer</p>
10:00-10:15	Break	
10:15-12:00	<p>Stakeholder Roundtable: Options to move beyond the CDM project-based approach</p> <ul style="list-style-type: none"> • Might the sectoral approaches for the CDM provide a more fitting framework for transport projects? • What are the methodological challenges of the sectoral approach? • Would PoA's would have any effect for the transport sector? • What implications would have the implementation of the sectoral approach for the different stakeholders involved <ul style="list-style-type: none"> • What decisions should be made and to adopt the sectoral approaches to CDM? • Are the sectoral approaches and the project based approach mutually exclusive? • What other carbon finance alternatives can be developed and implemented for the Post Kyoto stage? • What are the regulatory, fiscal and financial options needed to catalyze sustainable transport? 	<p>Key discussants</p> <p><i>Holmar Dalkmann, Transport Research Limited</i></p> <p><i>Ricardo Jordan, CEPAL</i></p> <p><i>Monali Ranade, World Bank</i></p> <p>Commentator: Volunteer</p>
2:00 -13:30	<p>Working Lunch: Discussion on key issues, recommended decisions and next steps (looking forward current and Post Kyoto needs).</p> <ul style="list-style-type: none"> • Improvement of the current CDM process • Implementation of the sectoral approach to CDM in the transport sector • Identification of alternative carbon finance and other financial instrument to reduce GHG while fostering sustainable urban transport. 	<p>Presentation from each session commentator's followed by an open group discussion.</p>

June 27, 2008

2:00 -13:30

- Identification of top priority needs and ways to address them
- Methodology and analytical tools development
- Data collection and monitoring requirements
 - Communication and awareness raising
 - Research & development
 - Institutional capacity
- The goal for Poznan and next COP (2009)

Presentation from each session commentator's followed by an open group discussion.

13:30-13:45

Final remarks and closure



APPENDIX D: REPORT FROM PREPARATORY MEETING, JANUARY 2008, WASHINGTON DC

Developing a Strategy to Improve the Effectiveness of Carbon Finance to foster Sustainable Transportation

Report of the preparatory meeting held on January 14, 2008

*World Bank
Eye building
1850 I Street NW
Room I 1-200
8:30 am -12:30 pm*

I. INTRODUCTION

1. The Clean Air Institute has been assigned by the World Bank to develop a strategy to improve the effectiveness of carbon finance in order to foster sustainable transportation. This meeting was held in preparation of a workshop to be hosted by the World Bank and co-organized by the Clean Air Institute to improve the effectiveness of carbon finance, especially the CDM (Clean Development Mechanism), to impulse sustainable transportation.

2. The objectives of this meeting were: (i) to provide a shared view on major carbon finance issues (CDM included), (ii) to identify major issues to be addressed to improve the role of carbon finance to invest in sustainable transport programs, and (iii) to propose next steps for strengthening the overall framework for using carbon finance to foster sustainable transport for 2012 and beyond.

II. AGENDA AND PARTICIPANTS

3. The meeting agenda is included in Annex I. Participants in this meeting included specialists on transport, clean air and finance, as well as representatives from international financial organizations, as listed in Annex II.

III. OPENING OF THE MEETING

4. The goal of this meeting is to bring transport, environment and carbon finance specialists together for discussing how to improve carbon finance instruments to foster sustainable transport policies and projects in developing countries.

This meeting is to identify successes, challenges, opportunities, lessons learned and next steps to ensure carbon finance works for reducing CO₂, as a basis to prepare an agenda for a forthcoming formal workshop on this subject.

IV. PRESENTATIONS

5. Presentations mentioned in the agenda of this meeting (see Annex 1) and other related materials can be viewed at: http://www.cleanairnet.org/lac_en/1415/propertyvalue-27104.html. Major issues presented were as follows:

6. Fixing (reducing) CO₂ should be done while fixing (improving) urban transport. There is a need to decide which policies can be rewarded or reinforced by carbon finance. It is essential to develop ways to measure project and policy results, baseline and outcome lines and slopes. It is important to recognize that carbon finance represents a small amount of money for projects. Instead of a project-based approach, an alternative is to focus on sustainable transport policies and programs. Focusing solely on carbon finance

for urban transport projects only slows the projects down.

7. The Carbon Finance Unit (the Unit) of the World Bank is aiming to move from custom-made mitigation projects to programs of low-carbon investments. Recommendations from the Unit were: a) to focus on post 2012 but start now, b) to focus on multiple sectors with long-term, large-scale impact at the country level, c) to aggregate small sources of emissions into programs, such as end-use energy efficiency, d) to develop simpler, standardized, and more cost-effective methodological approaches and administrative procedures, and e) to broaden the scope of carbon finance by opening new opportunities, such as transport and energy efficiency.

8. The Carbon Fund (CF) targets will be operational by April/May 2008, capitalizing at a rate of \$1bn/year over FY09-FY13. Each \$1bn would support 10-20 major programs. A pilot program will be developed in FY08 and scale up in operations from FY09 onwards, with roughly 1-4 programs/region/year. The pilot program ideas proposed by the regions are: a) Colombian bus rapid transport (BRT), b) India railways and c) India highways.

9. Some concerns were raised from participants regarding the CF since it is considering funding highways. It was questioned how this would help the environment. Also, comments were made about the fact that if a project is awarded GEF funding (Global Environmental Facility), it is then not likely to get CDM support.

10. Participants commented about the limited amount of money that the CF is providing to support CO₂ emission reductions from urban transport; about the lack of measures adopted by Carbon Finance to

include transport; and about the lack of transport specialists in the Carbon Fund (CF) team. The Unit mentioned its intention for developing measures to reflect better transport in the CF portfolio and to incorporate transport specialists as part of the CF staff.

11. A proposal to establish A Working Group on Financing Sustainable Transport in Developing Countries was made. It was highlighted that 6 trillion dollars are being proposed as needed for energy projects, but there is not a similar estimation for transport projects. It is necessary to make an approximate estimation. There is a need to define what it means for transport to be "clean" when it is used to qualify air projects, or other related subjects. Clean should not just apply to "carbon" but also to air quality. Developing countries should develop strong internal financing systems and the role of project financing should ideally be to help catalyze internal financing. In practice this means that carbon financing and ODA need to become more strategic and fund programs and policies rather than individual projects.

12. In December 2007, at a side event of the Bali COP 13 (13th meeting of the Conference of the Parties held in Bali, Indonesia), a decision was made to set up an informal Working Group (WG) to foster Sustainable Urban Transport (SUT). In this meeting a critical path for activities of the WG was proposed, aiming to present its outcomes at the COP 14 meeting in Poznan, Poland. Membership for the WG is free and open to all interested parties.

13. It was expressed that in order to foster Sustainable Urban Transport (SUT), most of the financing will come from public and private finances such as: rates, taxes, fees, subsidies, earmarked funds, permits, concessions, etc.



14. The importance of developing performance indicators was also highlighted. The need to estimate how much money is required for transport investments is also an issue. It was also recalled that funders don't want to give money through complicated methodologies because it is too much of a waste of time for private capital. CO2 is dwarfed as an incentive for capital flows into transport. A question to be addressed is how new governance could be established in order to create new accountability contracts for capital flows.

V. DISCUSSION

15. There is a consensus among participants on the need to develop a strategy to improve the effectiveness of carbon finance in order to foster sustainable transportation. This strategy should look beyond the CDM and include in discussions broader carbon finance and sustainable transport issues. Consistently, discussions and results should involve the Carbon Finance Board and the GEF Secretariat, among other stakeholders.

16. The development of this strategy should be based on an in-depth assessment of current schemes and practices, looking at the interconnectedness of sustainable urban transport policies, programs and projects with climate change, air quality and other related issues. Carbon instruments should be designed to substantially reduce greenhouse gas (GHG) emissions by fostering sustainable transport and preventing inappropriate climate interventions.

17. Participants at the meeting agreed to integrate another Work Group on carbon finance for enriching the development of such strategy. This working group could form part of the broader Work Group on Financing and Transport proposed by Mr.

Huizenga and CAI-Asia. Participants agreed that the Clean Air Initiatives are an appropriate forum to frame the activities of this work group.

18. The Carbon Fund representatives requested to create an expert group for advising CF decisions on how to move beyond CDM.
CDM Approach

19. Participants highlighted the importance of going beyond an environmental defense strategy into an offensive strategy for making transportation investments more sustainable. For instance, the real impact of Bus Rapid Transit (BRT) is low if there are not other policies in place. Comprehensive policies must be implemented around BRT systems to avoid rebound and leakage effects. A paradigm shift is needed when thinking about projects/programs so they include sustainable options such as bike lanes and pedestrian ways that are truly connected to the system.

20. It is essential to develop an offensive strategy because other mechanisms, like contracts, have had limited effect or have not worked. For instance, it is necessary to establish mechanisms to block the use of climate funds for supporting highways and other inappropriate investments, which could result in more greenhouse emissions and other negative impacts.

21. There is an urgent need for international development organizations to establish sound guidelines and instruments in order to substantially prevent and reduce GHG emissions from urban transport investments. In particular, the WB could play a key role in establishing such standards to influence the lending on transport towards sustainable transportation. If sound guidelines are established by the WB, it is likely that other banks will follow suit. Also, the WB could



help in the global reduction of GHG emissions by including emission requirements with any project, just as exemplified by the WB's requirements on resettlement, wildlife impacts, etc.

22. In general, carbon finance, as it exists currently, is not providing sufficient incentives for sustainable transport projects. Sometimes, CDM and GEF projects can actually be a disincentive by making promises that are delayed too long. Participants cautioned about having unrealistic expectations of the CDM since it is not seen as a significant source of funds, and methodologies are long and complicated. Governments, therefore, consider it not worth the process and the wait. CDMs are the “cherry on the pie” and not a strategy to finance projects. Private funds and local funds need to be pursued. Dialogue with the private banking system, perhaps through CAI, has to be encouraged.

23. Some factors of GHG emissions are easy to tackle, such as low carbon fuels and more efficient vehicles. Other factors are harder to approach, such as modal shift, land use, urban design, etc. Therefore, Carbon Fund instruments need to be redesigned to foster the adoption of national policies rather than instigating competition for funding for narrow, individual projects. These national policies could be complemented with carbon trust funds.

CDM methodological challenges

24. To comply with the additionality requirement established by CDM is a big problem for sustainable transport projects since its measurement and demonstration is very difficult. Experience has shown that, up to now, no transport project has been able to meet this requirement.



25. Another hurdle for CDMs and transport is the fact that it takes too long to follow the present CDM methodology requirements. Politically speaking, it is not a suitable strategy to finance public transport with CDMs, as following the methodology outlives the mandate of the politician and the administrative costs end up being higher than the financial incentive of the CDM.

26. Participants agreed that indicators should be developed so that carbon emission measurements can be conducted. Key performance indicators have to be pinpointed; perhaps NYC can help as an example. Different classes of assets need to be identified instead of trying to measure the emissions of every single car and bus. There is also a desire to define ways to assess sustainable urban transport projects that give non-tangible benefits, such as walkability and better air quality. Once indicators are identified, incentives need to be put forth so countries and cities can start measuring carbon emissions.

27. When deciding what projects and/or programs to realize/fund, participants agreed that transport projects need to be ranked to see which ones have the most CO₂ reduction potential, and then go ahead with the most beneficial ones. In order to rank the projects, performance measures have to be developed (apparently, 50% of measured variables of projects found no impact on CO₂ emissions).

28. Another thing attendants found important to measure are the impacts of all projects funded by the Carbon Fund, as there seem to be some that might have negative environmental impacts (highways) and some that might have positive environmental impacts (sustainable transport). Having a framework to measure undesirable capital flows will help to switch the trajectory of funds towards flows that actually

help reduce GHG emissions.

29. In light of current sustainable transportation issues, a new methodology for CDMs has to be developed. This new methodology needs to be generic, have a pragmatic approach and be flexible (so it can help more resources). When an approved methodology is in place, it gets replicated everywhere, so standards on project funding ought to be established. It is important for technical transport experts to get together with the CDM board to discuss a more relevant CDM methodology.

30. A good CDM methodology will be highly conservative, transparent, and as simple as possible, without overlooking rebound effects, induced demand, impacts on vehicles and trips outside the project boundary, etc. Also, a lifecycle analysis of the projects should be determined in order to see if the project is really sustainable and what kind of upkeep or maintenance will be needed in order to maintain emissions levels in the long term. CDMs can be used to reduce carbon footprint on BRT systems.

Role of CDM and other Carbon Finance Instruments

31. Participants agreed that, as of now, the CDM funding for transport projects is minimal. And even if the CDM methodology and approach changes, that sustainable transport projects/programs should still look into other financial options. Right now the total dollar amount of CDM finance is next to nothing, so the discussion must be opened to financing in general.

32. The fact that CDM supported Transmilenio has been a great success. However, the CDM as a project based mechanism has proven to be limited. Leaving the CDM scheme as it is will tend to only finance projects such as Transmilenio III where measure-



ments can be made, rather than funding other projects/programs that might be broader. There is a need for UNFCCC to develop a mechanism for policies and standards to expand the impact on CO2 by enhancing support to larger urban transport interventions.

33. The transport sector is the 7th of 15 sectors of United Nations Framework Convention on Climate Change (UNFCCC). Improving access to carbon finance requires a better understanding and demonstration of impacts of specific policies. This requires considering validation and verification costs and setting up thresholds for definition of project viability. According to the carbon finance experience, if you don't have at least 5000 buses, then CDM is not worth the effort. Another issue to be addressed is the definition of the time horizon. There is a need to reduce rigidity of the CDM project approach and move forward to a policy approach scheme.

34. CDM is very rigorous and more conservative than GEF. Having a discourse between GEF and CDM would be important as there remains the question of how to make them more effective to foster urban transport improvements and whether obtaining financing from one would preclude getting finance from the other.

CDM branding

35. Participants agreed with the idea that perhaps the role of carbon finance, in its present shape, could be more about prestige, thus leveraging other investments. Having the CDM branding could give a project/program more prominence and a seal of excellence that can be leveraged to not only obtain other means of funding, but also to promote it amongst the users/beneficiaries.

36. However, caution needs to be taken to avoid putting pressure on governments to purchase vehicles that are not always the cleanest while branding the system as green. That is why it is imperative to institute ironclad and crystal clear methodologies to make the brand valuable. Branding credibility also requires the establishment of a carbon cap, with a procedure to make it accountable.

Stakeholders

37. Participants agreed that a dialogue amongst the buyers and sellers of carbon credits is highly recommended. It is essential to identify such counterparts for dialogue in the developing countries. An effort to develop said capacity ought to be made. How can a problem be addressed without having a counterpart with whom to discuss? All stakeholders need to work together more, and look at the interconnectiveness of projects/programs, funding, welfare, air quality, etc.

38. Structures in receiving countries should be strengthened so dialogue can be improved. It is essential for dialogue to be conducted at different scales within one country: localities talk to one another, and cities, and regions talk to one another, respectively. The sellers also need to be more involved in the process. For instance in Asia, where there are no region-wide discussions on urban transport, the World Bank could play a leading role in creating a structure to promote dialogue.

39. Other important stakeholders to keep in mind for dialogue are private companies such as Ford and GM.

40. Participants also agreed that a database of information is essential so all stakeholders can be in-



formed and so interested parties can better communicate, as well as leverage funds and expertise.

Communication strategy

41. Everyone at the meeting acknowledged that it is imperative to proactively influence people's opinions and behavior with demonstration projects that show that sustainable urban transport does provide a better standard of living.

42. A communications strategy should be part of this effort. There is a need to better broadcast all of the benefits, direct and indirect, of sustainable transport projects and programs. All stakeholders and the public in general would benefit from a better understanding on these projects.

43. A change in culture is paramount, at all levels: policy and decision makers, engagement with industry representatives, financial institutions and investment, cities and public transport, and the public in general.

Capacity building

44. There is an opportunity to build capacity in cities to better understand the impacts of investment choices and how to use carbon finance and other financing instruments.

IV. NEXT STEPS

- *The World Bank, with support from the Clean Air Institute, will organize a Sustainable Transport and Carbon Finance Workshop. The agenda for this workshop will be set taking into consideration issues identified in this preparatory meeting. A possible time for holding this workshop is March 2008, during the World*

Bank Transport Week. However, the final date is yet to be defined by the World Bank and it will be announced by the Clean Air Institute as soon as it is set.

- *As assigned by the World Bank, the Clean Air Institute will prepare a draft Strategy to Improve the Effectiveness of Carbon Finance to Foster Sustainable Transportation. The strategy will be based on recommendations from the Sustainable Transport and Carbon Finance Workshop mentioned before, a critical review that is currently underway, and inputs from the Sustainable Transport/Carbon Finance Work Group.*

- *The World Bank will invite the CDM Executive Board to meet together to present and discuss the proposed Strategy to Improve the Effectiveness of Carbon Finance to foster Sustainable Transportation. One possible date for this meeting would be the Carbon Expo in Germany, 7-9 May, 2008.*

- *The Clean Air Institute will work with the CAI-Asia Center in establishing a specific list-serve to facilitate the Sustainable Transport/Carbon Finance Working Group participation and interaction. Members of this Work Group will include participants in this meeting and other interested parties.*

- *The Clean Air Institute will work with CAI-Asia Center to create follow-up discussions, both in the Latin American and Asian region to engage local stakeholders in the discussion on SUT/Carbon Financing. This will include a session on SUT financing in the Better Air Quality (BAQ) workshop in November 2008 in Bangkok.*

- *The Clean Air Institute and CAI-Asia will work with other parties to get a slot in COP 14 in Poznan, Poland in December 2008 to disseminate the results of the working group(s).*



- The Clean Air Institute will post the report and presentations from this preliminary meeting at the CAI-LAC website (http://www.cleanairnet.org/lac_en/1415/channel.html).



Developing a Strategy to Improve the Effectiveness of carbon finance to Foster Sustainable Transportation

Preparatory meeting
January 14, 2008

*Location: World Bank, "Eye" Building
8.30 AM (coffee), 9.00 (start) to 12.30 PM*

AGENDA

Background:

The transportation sector is responsible for almost one quarter of global carbon dioxide emissions, as well as for significant air pollution, health impacts, congestion, noise pollution and other issues facing developing cities (IEA 2005). Transport's contribution to carbon dioxide emissions is increasing annually, particularly in developing countries where the urban population is expected to double by 2030. In Latin America cities, vehicle ownership is expected to triple along the same timeframe. This unabated growth underscores the need to address carbon dioxide emissions from the transport sector.

Transportation was set as a priority sector of Clean Development Mechanism (CDM) by the Conference of the Parties 10 (COP 10), particularly in terms of developing and considering methodologies (UNFCCC 2004). Unfortunately, 3 years after COP 10, transport is still not well represented in the CDM project portfolio. As of March 2007, nearly 600 CDM projects were registered by the UNFCCC, but only one was a transport project (the Transmilenio in Bogotá). One

reason for this may be that the process of obtaining an approved methodology is time consuming and the risk of rejection is considerable. On average the time required to develop and approve a methodology is roughly 12-14 months.

There are also significant challenges regarding the reliability and availability of data, as well as the capacity for data collection. Issues such as modal share, load factors, origin and destination patterns, number of passenger-kilometers driven, and driving cycle are complex, even in relatively sophisticated countries. This complexity is compounded in projects that address fundamental structural changes, such as the implementation of a bus rapid transit network, even though such project may result in substantial emissions reductions. The challenges could pose insurmountable barriers in the vast majority of developing countries, especially those with poor data, weak models, and low experience and capacity (Barías et al, 2005; Dalkmann et al, 2007).

Finally, CDM and other carbon finance mechanisms need to be strengthened and streamlined to become relevant incentives for emission reduction from the transport sector. Although CDM offers the potential for additional revenue, current CER prices are low. As a result, some have concluded that the revenue potential is not sufficient to warrant the effort to obtain an approved methodology.

In the future, developing countries need an integrated approach that combines transportation with other sustainability issues, such as housing, land use and economic development. Current infrastructure, investment and development decisions have a major impact on future emission rates. Moreover, short-term benefits (e.g., air quality and health improvement, congestion relief) can largely help to make

¹ The Tenth Session of the Conference of the Parties was held on 6-17 December 2004 in Buenos Aires, Argentina (http://unfccc.int/meetings/cop_10/items/2944.php).

long-term sustainability solutions more politically viable. This integrated approach, however, does not fit well within the current CDM structure, which was designed to address specific projects with quantifiable and verifiable GHG reductions (Barías et al, 2005; Dalkmann et al, 2007).

A sectoral approach to the CDM may provide a more fitting framework for transport projects. At the COP/MOP 1 (Montreal 2005) of the UNFCCC, the parties established that “project activities organized under a program” as well as bundles of large-scale project activities may be registered as single CDM project activities. In discussions that the UNFCCC is having to define the post-2012 context, it is necessary to continue exploring policy-based or sectoral CDMs that better accommodate system-wide changes, such as fuel economy standards and renewable fuel standards. It is timely to discuss the CDM opportunities emerging from this decision and prepare the way for improving its implementation.

Objective of this meeting:

The following are the major objectives of this meeting: (i) to provide a shared view on major Carbon Finance issues (CDM included), (ii) to identify major issues to be addressed to improve the role of Carbon finance to invest in sustainable transport programs, and (iii) to propose next steps for strengthening the overall framework for using Carbon Finance to foster sustainable transport for 2012 and beyond.

Participants: Transport and environment specialists; World Bank Project Managers and Specialists.

Format:

Participants are expected to participate in moderated discussions guided towards identifying the key uncer-

tainties in each area that affect policy development.

Output:

The output of this meeting will be a set of recommendations to be used in preparing a Workshop on Carbon Finance and Sustainable Transport, to be convened by the World Bank within the first semester of 2008. This workshop will concentrate on developing recommendations to improve efficiency of Carbon Finance instruments to foster sustainable transport programs in developing countries.



AGENDA

Step	Responsible Party	
08:30 – 09:00	Coffee	
09:00 – 09:10	Welcome and introductions	Sergio Sanchez, The Clean Air Institute
09:10 – 09:20	Purpose of this meeting	Paul Procee, World Bank
09:20 – 09:35	Fixing CO2 while you fix transport - understanding priorities.	Lee Schipper
09:35 – 09:50	Overview of major issues on carbon finance and transport	Jari Vayrynen ENV Carbon Finance
09:50 – 10:00	Summary results from discussions in Bali on Carbon Finance and sustainable transport	Cornie Huizenga, CAI-Asia Center
10:00 – 11:00	<p>What are the key issues to be addressed for improving the role of Carbon Finance in providing incentives to invest in new sustainable transport projects?</p> <ul style="list-style-type: none"> • What have been the successes? • What have been the challenges? • Lessons learned? <p>• What are the technical, financial and other needs for improving efficiency and access to Carbon Finance for sustainable transport?</p> <p>What should be the role carbon finance play in urban transport and how to get there?</p>	Moderated discussion
11:00 – 11:10	Coffee break	
11:10 – 12:20	Discussion on proposed next steps	Moderated discussion
12:20 – 12:30	Review of findings and recommendations from this meeting	Sergio Sanchez, The Clean Air Institute

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APPENDIX E. REFERENCES

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