

COMMON POLICY FRAMEWORK TO SUPPORT SUSTAINABLE, LOW CARBON TRANSPORT IN DEVELOPING COUNTRIES

KEY MESSAGES

1. Transport in developing countries is one of the largest, and fastest growing, sources of greenhouse gas (GHG) emissions, yet it is largely missing in climate change mitigation policies and actions. Without strong and effective actions to address the projected growth of GHG emissions, a significant and perhaps permanent failure in the global actions to address and reverse climate change is a serious possibility.
2. Growing GHG emissions from the transport sector in developing countries are inextricably linked to an overall lack of sustainability, evidenced by increased air pollution, noise pollution, congestion, and decreasing road safety. Low carbon transport can only succeed through an integrated approach that explicitly addresses these near term sustainability priorities while mitigating GHGs. This common policy framework (CPF) outlines a vision for sustainable, low carbon transport in developing countries and proposes a concrete set of recommendations for how the future climate regime can help realize it.
3. Technological improvements by themselves will not be enough for the transport sector to make a significant contribution to mitigation of GHG. A sector wide reorientation transport is required, combining policies and measures to (a) avoid the need for travel, (b) shifts to the more efficient modes, and (c) improve efficiency of motorized modes of transport.
4. Developing countries must play a lead role in making their transport systems sustainable and low carbon through a combination of transport policy instruments, institutional capacity development, appropriate pricing mechanisms and mobilization of financial resources.
5. COP 15 offers a unique opportunity to place transport in developing countries on a lower GHG growth trajectory. The agreement to be reached at COP 15 needs to ensure that adequate funding will become available to help developing countries make their transport sector more sustainable and low carbon. Future funding for sustainable, low carbon transport could be delivered as part of the financial mechanisms to be agreed upon in Copenhagen as well as through a new dedicated Low Carbon Transport Facility (LCTF).
6. To promote increased mitigation activities by the transport sector in developing countries it is important that transport is acknowledged in the climate negotiations as a sector in its own right. It is also important to acknowledge that current approaches to promote and fund mitigation actions might not be applicable to the transport sector.
7. A new agreement will not come into force until 2012, yet motorization in developing countries will continue. In the interim period, up to 2012, there is an important role for non United Nations Framework Convention on Climate Change (UNFCCC) related international efforts to assist developing countries make substantive changes towards sustainable, low carbon transport. Beyond 2012 such international efforts should complement and strengthen activities of developing countries under a new international climate agreement.

1. A high-level group of international transport experts, drawn from multilateral and bilateral development organizations, research institutes and civil society, convened by the Asian Development Bank and the Clean Air Institute, with the support of the Rockefeller Foundation, met in Bellagio, Italy, 12-16 May 2009. The objective of this meeting was to build a consensus on the required policy response to the growing GHG emissions from transport in the developing world and how such a policy consensus could be used to influence the ongoing negotiations on a new global climate agreement.

I. BACKGROUND AND RATIONALE

2. In 2006, transport was responsible for 13% of all world greenhouse gas emissions (GHG) and 23% of global Carbon dioxide (CO₂) emissions from fuel combustion were transport related. Moreover, growing black carbon and ozone concentrations in the atmosphere, partially caused by the transport sector, are a cause for concern as both warming agents and as local air pollutants. While industrialized countries still hold the largest share of GHG emissions from the transport sector, emissions from developing countries are growing rapidly. Transport related CO₂ emissions are expected to increase 57% worldwide in the period 2005 – 2030, and transport in developing countries is expected to contribute about 80 % of this increase, both from passenger and freight transport.

3. The growing CO₂ emissions from the transport sector in developing countries are only one, albeit an important, dimension of the growing lack of sustainability of the transport sector. The rapid motorization of the last decade has also resulted in an increase in congestion, local air pollution and noise and has contributed to increases in road accidents. Most of the current GHG and other emissions in the transport sector and virtually all the expected growth in emissions come from private cars and trucks. The continued unchecked growth in private vehicles will therefore pose further strains on the overall sustainability of transport systems in developing countries.

4. Mitigation of transport emissions is believed to have high upfront costs and the cost of reducing emissions through technological innovations in the transport sector is credited to be higher than in other sectors where emissions are more concentrated in a smaller number but larger sources—e.g. power, steel and cement industry. Land transport so far ranks low in international climate change mitigation strategies (e.g. the Stern Report) and plays a rather minor role in the climate change negotiations. Transport also does not fit well in the current financing mechanisms, e.g. the Clean Development Mechanism, designed to reduce GHG emissions globally.

5. A growing number of governments and other stakeholders have recently called for more effective policy mechanisms and funding instruments that can support strategies to lower greenhouse gasses in the transportation sector. Such strategies would have to go beyond technological innovations and should support behavioral change and modifications to the transportation systems themselves. Continued economic and social development in developing countries is required to be able to further alleviate poverty. Yet, it is now increasingly accepted that the sustainability of transport systems that enable economic and social development is a goal by itself which should not be compromised.

6. Initial suggestions by IPCC, which are reflected in the draft negotiation text for COP 15 in December 2009, seek a 15% to 30% reduction in CO₂ emissions below business as usual in developing countries by 2020. The IPCC further believes that CO₂ emissions from fossil fuel consumption will have to be reduced globally by 70-90% compared to 1990 by 2050. Such drastic reductions require an accelerated paradigm shift in transport sector infrastructure and service provisions so that it can become part of the solution rather than the problem.

7. Yvo de Boer, the Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC), at a recent international meeting in January, 2009 in Japan commented that for any future climate agreement to be effective it will have to include transport. This sentiment has also been echoed in various policy forums and intergovernmental meetings including the 2008 International Transport Forum in Leipzig and the first January 2009 Ministerial Meeting on Global Environment and Energy in Transport which brought together the transport Ministers from the G8 countries and most Asian countries.

II. OBJECTIVE AND SCOPE OF COMMON POLICY FRAMEWORK

8. This CPF intends to raise awareness and build consensus on how the transport sector in developing countries can be better integrated in climate change mitigation efforts. The CPF analysis and recommendations focus on the developing countries, it does so within the internationally agreed upon principle of “common but differentiated responsibilities”. The changes proposed for transport in developing countries will have to be accompanied by changes in the transport sector in developed countries. The rationale for a separate CPF for developing countries is that while motorization in developing countries is at present still low it has started to increase, and will continue to do so, at a much faster pace than in developed countries which already have high rates of motorization. At the same time many of the developing countries and cities are still developing their transport infrastructure. These two combined and linked processes make it possible for developing countries to avoid repeating mistakes made by developed countries and to pursue a lower carbon intensive growth path for their transport sector.

9. The scope of the CPF is on land transport in the developing countries. It does not deal with international emissions from shipping and aviation which are already the focus of separate discussions, both within and outside the scope of the climate negotiations.

10. The CPF focuses on mitigation actions. It can be extended to adaptation, even if adaptation mechanisms and measures are negotiated separately. Urban development is one particular area in which mitigation goes hand in hand with adaptation. Population in developing cities is expected to double in size in the next 25 years and a large part of the expansion of cities will be in green fields. Sustainable, low carbon transport can help develop the new areas of the cities in a way that both mitigates impacts (as compared with business as usual) and incorporates adaptation considerations (not to develop in vulnerable areas).

11. The CPF presents a vision in which low-carbon transport is one key dimension of an overall sustainable transport system which supports equitable and inclusive economic development with minimum negative impacts on the environment, the economy and society. The CPF outlines how the low carbon dimension of such an overall sustainable transport system can be promoted within the existing climate change negotiations.

III. THE VISION: STRONG ECONOMIC AND SOCIAL DEVELOPMENT ENABLED BY A LOW CARBON SUSTAINABLE TRANSPORT SYSTEM

12. Current transportation policies in many parts of the world are grounded in a widespread belief that modern transport systems requires full, nearly universal motorization. Yet increasingly, the economic, environmental, and social unsustainability of this paradigm is becoming apparent in both developed and developing countries. The economic costs of congestion, air quality, noise and road safety problems account for annual losses of 3-5% of GDP.

13. Continued rapid motorization endangers achieving economy wide mitigation targets and objectives in developing countries. To reverse this trend towards increasing GHG emissions and overall unsustainability, developing countries should aim for a decoupling of economic and social development and transport associated GHG emissions. The amount of GHG emissions per person from transport is closely related to the number of kilometers driven, how many people there are in a vehicle and how efficient the vehicle is. Reducing GHG emissions from

transport needs address all these components and can be best achieved by adopting the so called “Avoid -Shift-Improve” approach which combines measures aimed at:

- (a) Avoiding or reducing the need to travel through improved access to daily needs. A reduction of the need for long distances to be travelled can be best achieved by the integration of land use and transport;
- (b) Shifting travel to, or keeping the modal share of the most efficient mode, which in most cases will be either non-motorized or public transport, and by strengthening the attractiveness of these modes of travel; and
- (c) Improving existing forms of motorized transport through technological improvements and innovations to make engines and fuels less carbon intensive and by managing transport network operations for peak efficiency through such strategies as smart traffic and public transport system management.

14. Private car ownership is at present still relatively low in developing countries and so are the overall GHG emissions from the transport sector compared to the developed world. Adopting the ‘Avoid -Shift-Improve’ approach can help avoid an emissions intensive car-based pattern of development. It can modernize transport systems while preserving, protecting, and expanding low carbon and cost-effective transport modes, such as public transport, walking and cycling, and boosting overall access.

15. Several countries and cities have started to regret transport earlier investment choices which have left them dependent on imported oil and vulnerable in a carbon-constrained world. For example, European cities are now reclaiming streets for pedestrians and cyclists and reinventing trams in their cities which they abolished in 1960’s and 1970’s. They and a growing number of U.S. cities are adopting strategies to reduce dependence on cars, seeking to reverse the growth in traffic. Several developing countries and cities are also making efforts to adopt low carbon policies, for example by reallocating street space for high efficiency bus rapid transit and for expanded pedestrian travel.

16. The implementation of an ‘Avoid -Shift-Improve’ approach can initially reduce the growth of GHG emissions in developing countries and ultimately possibly reverse it. It will also contribute to the overall sustainability of the transport system by improving air quality, enhancing accessibility, reducing accidents and curbing traffic congestion. It is clearly more cost-effective to adopt such a co-benefit strategy rather than to pursue these objectives in isolation, especially in developing countries where financial and other resources are limited. Building overall sustainable transport systems today, either for concerns about local sustainability or global climate concerns, will have long term positive effects, especially when fossil fuels become scarcer and the need to reduce carbon increases.

IV. REALIZING THE VISION

17. There needs to be a great sense of urgency when it comes to realizing the vision of a low carbon sustainable transport system. Many of the developing countries and cities are in the process of planning investments in transport systems and infrastructure which will lock in transport emissions for the next 20-30 years. A gradual implementation of the ‘Avoid -Shift-Improve’ approach can have only a marginal impact on the current projected rapid increase in transport sector GHG emissions because it will only affect part of the new investment flows. What is required is a sector-wide approach whereby governments, international development agencies and other stakeholders coordinate and combine their efforts to design and implement policies, programs and projects to realize a low carbon sustainable transport system. This fits

well with the internationally agreed upon approach of “common but differentiated responsibilities” which underpins the work of the UNFCCC.

18. Countries making up today’s developing world vary greatly in their social, political, economic and cultural contexts. The actual travel patterns of people differ greatly and this has implications for what constitutes optimal transport and traffic policies. Therefore a ‘one size fits all’ approach is not appropriate and will not bring the desired results. For the ‘Avoid -Shift-Improve’ approach to be fully effective, it must be packaged and implemented in a way that meets local conditions, priorities, and preferences.

. A. The Contribution of the Developing Countries

19. A sector-wide reorientation of the transport sector in developing countries will require: (a) the adoption of policy objectives that call for low-carbon sustainable transport; (b) the development and deployment of supportive policy instruments; (c) institutional re-alignment and capacity development; (d) appropriate pricing mechanisms and mobilization of financial resources; and (e) effective monitoring and evaluation.

20. Developing countries are increasingly aware that the current motorization patterns negatively affect sustainability, especially of their cities. This shows in local, national and regional policy statements, increasing environmental regulations, and growing investments in public transport. It is questionable, however, whether these promising, emerging shifts in policy can reverse overall future motorization trends. In most countries, no explicit reference to GHG emission reduction is made within the shifting policy approach towards transport. This limits opportunities to obtain large scale external financial support under UNFCCC and other climate change funding mechanisms. It also makes it more difficult to build support for behavioral change within the developing countries even when there is in many cases a growing awareness of climate change.

21. The success of developing countries to effectively adopt and implement ‘Avoid -Shift-Improve’ oriented policies will be strongly influenced by the policy instruments that countries and cities put in place in the next 5-10 years. There is a variety of policies and measures that can support sustainable, low carbon transport:

- Planning instruments that include measures on land use and infrastructure, encompassing both public transport and non-motorized modes.
- Regulatory instruments that include norms, rules or standards to limit behavior of individual actors and corporate entities, defining allowable levels of emissions, types of vehicle design and technologies, quality of fuel, and amount of travel activity.
- Economic instruments that use cost-based incentives (taxes, fees, and markets) toward the same ends.
- Informational instruments that provide information in easily accessible formats that can increase the awareness of alternative modes, leading to a modal shift to public transport, walking or cycling, improved driver behavior and reduced fuel consumption.
- Technological instruments that can reduce the impact on carbon emissions when travel by motorized transport is necessary, for example, through cleaner fuels and improving vehicle efficiency.

22. It is encouraging that many of the potential policies and measures are already well known and have been tested in specific countries and cities in the developing or developed world and can be relatively easily replicated or scaled up. Yet many countries lack the financial, technological, and institutional resources to do so. The future climate regime and other international initiatives can help open these opportunities. But there has to be significantly more progress integrating climate and transport policies to take advantage of these opportunities.

23. To implement an “Avoid – Shift- Improve” approach requires more coordination in policy development and implementation between government departments which have not coordinated closely. This applies especially to the integration of land-use and transport planning and if priority is given to the development of comprehensive transport systems, rather than individual, ad-hoc, projects. Also, the linkages between cities, which in many cases have a leading role in development of transport systems and provinces which can have an intermediate role in policy development and the national level which oversees overall transport policy is often weak. Experiences from developed countries indicate the importance of a transparent and predictable regulatory framework to promote private sector involvement. The same applies to civil society which can help mobilize support for policy development and implementation and which can also take on an important role in flagging problems before they become unmanageable and in following-up of policy commitments made by governments.

24. So far the transport sector in developing countries has in most cases been only partly involved in developing negotiation positions for the climate negotiations or in the actual negotiations themselves. This has not been helpful in ensuring that existing and future climate agreements and their instruments are applicable to the transport sector.

25. The limited acknowledgement of climate change as a driver of (sustainable) transport policies is partly responsible for the limited capacities of transport institutions to conduct regular GHG emission inventories and to prepare and implementing transport strategies that target the reductions of GHG emissions from the transport sector.

26. Current mainstream financing mechanisms and pricing practices in developing countries generally do not support a sustainable transport system, both in terms of scope and in scale. Current prices do not reflect the full external costs of transport and in many cases promote unsustainable behavior and thereby add to the problem. Revised pricing mechanisms are required that take into account the full cost to society (i.e. the user pays principle) and which address issues that go beyond the transport sector, especially land use and urban sprawl. Transport oriented financial mechanisms which feed into public sector funding, in particular a fuel tax, vehicle taxes and road pricing have the potential to play a central role in reducing trips, shifting modes and improving the efficiency of various modes.

27. Investment (both public and private, domestic and foreign) is still largely skewed towards a motorization model based on carbon-intensive private motor vehicles. The growth of the transport sector in the developing world up to 2020 and beyond involves hundreds of billions of dollars of investment – the success of low carbon sustainable transport sector will largely depend on the extent to which this funding can be redirected towards investments in support of the “Avoid– Shift- Improve” approach. It is in the interest of developing to ensure that future funding which is expected to become available for mitigation under a new climate agreement is accessible for the transport sector and that it is to leverage and catalyze other domestic and international financing.

28. To better monitor and evaluate the present and future contribution of the transport sector developing countries need to improve GHG inventories for the transport sector. In many cases

this can only be done after better information on present movement of people and goods is available. To implement low carbon transport as part of sustainable transport it is important that co-benefits including air quality, congestion, noise and road safety are better quantified and integrated in policy, program and project appraisals.

B. The Contribution of an International Climate Agreement

29. 2009 is a critical year in the design of global climate change policies and agreements. At COP 15, in December in Copenhagen, an agreement is to be reached on the continuation of the Kyoto Protocol after the end of the first commitment period in 2012. Discussions on the continuation of the Kyoto Protocol started in earnest after COP 13 in December 2007 with the adoption of the Bali Action Plan which provided a roadmap for discussions and negotiations up to COP 15 in December, 2009. Based on the Bali Action Plan and the draft negotiation texts (version May, 2009) the following observations can be made with respect to applicability to the transport sector in developing countries:

- A new agreement is expected to be more ambitious on mitigation and for the first time reference is made to a possible mitigation objective for developing countries on the order of 15 to 30 % below a business as usual baseline by 2020 and 25 % from 2000 levels by 2050;
- Mitigation activities in the future can be supported through two possible new instruments Nationally Appropriate Mitigation Activities (NAMAs) and Sectoral crediting;
- The possibility for developed countries to compensate for emission reductions not achieved domestically through CDM are continued, although there is a suggestion to limit this to 10%, of the emission reduction target for individual countries;
- Proposals have been made that co-benefits of activities supported through CDM should be acknowledged and that emissions reductions realized through certain project types could be discounted or multiplied;
- To support the increased emphasis on mitigation (and adaptation) the draft negotiation text provides suggestions for generating substantial additional funding and generic proposals for the use and administration of such funds;
- A new agreement is expected to call for increased attention on technology transfer and capacity building and proposals for specific institutional arrangements and funding mechanisms are part of the draft negotiation text;
- A new agreement is expected to have a stronger focus on assessment of GHG emissions through the Measurement, Reporting and Verification (MRV) Mechanism.

30. These expected outcomes present the transport sector in developing countries with unique opportunities to facilitate and catalyze a sector wide reorientation towards low carbon sustainable transport.

31. Efforts to ensure that an agreement to be reached at COP 15 in December 2009 in Copenhagen are fully applicable to the transport sector in developing countries should focus on ensuring that: (a) adequate financing is available for transport and guidelines for different

mitigation instruments and associated financing mechanisms are transport friendly; (b) transport sector is a beneficiary of actions on technology transfer and capacity building for transport including for MRV.

32. A central theme in the discussions on the position of transport in a post 2012 climate agreement is the need to deal with transport as a sector in its own right and not as a sub-sector of the energy sector as is currently the case. Treating transport as a sub-sector of the energy sector puts an undue emphasis on technological solutions and tends to underplay the importance of the “Avoid and Shift” part of the “Avoid– Shift – Improve” approach. Much more so than in the energy sector there are possibilities to limit emissions in the transport sector through behavioral change and through reducing the need for mobility through better land use planning. “Avoid and Shift” oriented strategies often result in a negative cost for the society as a whole and a larger focus on “Avoid” and “Shift” can change the perception of costs and benefits of mitigation in the transport sector. This is an important precondition to increase the buy-in for action on transport. Climate considerations can help in removing institutional barriers that preclude these strategies from otherwise being implemented

1. Adequate financing is available for transport

33. To influence an overall favorable outcome of COP 15 for transport it is important that transport be fully part of instruments agreed upon at COP 15. This is required for the transport sector to be able to access mitigation funding. Box 1 lists a number of specific points that are to be raised with respect to the three main instruments: CDM, Sectoral Crediting and NAMAs. Of particular interest are the NAMAs which can become an important instrument for developing countries to undertake mitigation activities. Developing countries have indicated that NAMAs could be one important way to incentivize mitigation actions through new additional financing from developing countries. At the same time the possibility is also being discussed that NAMAs will be utilized to generate certified emission reductions to developed countries as part of CDM or Sectoral Crediting. It is not expected that COP 15 will result in detailed guidelines on the operationalization of instruments to be agreed upon at COP 15. The formulation of detailed guidelines in 2010-2011 should follow up on an initial COP 15 consensus on the importance of transport.

Box 1: Transport and Climate Change Mitigation Instruments

CDM	Sectoral Crediting	NAMAs
<ul style="list-style-type: none"> ▪ Accommodate transport specific criteria in proving additionality, baseline and boundary setting ▪ Standard methodologies that could be applied to Programmes of Activities (PoAs) ▪ Development of standardized, multi-project baselines for transport sector ▪ Acknowledgement of co-benefits should specifically include transport related co- 	<ul style="list-style-type: none"> ▪ Transport is acknowledged as a sector in its own right and not as a sub-sector of the energy sector ▪ Allow sectoral crediting for specific sub-sectors, e.g. freight, or for sub-regions or metropolitan areas ▪ Flexible, not overly ambitious, thresholds in no-lose sectoral crediting ▪ Allow discounting in case of difficulties in verifying base line and/or impacts 	<ul style="list-style-type: none"> ▪ Transport sector specific methodologies to measure and verify the generation of nationally appropriate mitigation actions ▪ Allow the possibility of model NAMAs with standardized methodologies ▪ Fund not only incremental costs but contribute towards overall costs to reward activities with negative incremental costs. ▪ Apply the same principle of

CDM	Sectoral Crediting	NAMAs
<p>benefits and quantified co-benefits should be rewarded</p> <ul style="list-style-type: none"> ▪ Possible multiplication and discount factors should reward “Avoid and Shift” activities 	<ul style="list-style-type: none"> ▪ Apply the same acknowledgment and rewarding of co-benefits and possible multiplication factors for certain types of activities as under the CDM 	<p>acknowledgment and rewarding of co-benefits and possible multiplication factors for certain types of activities as under the CDM</p>

34. Transport currently contributes roughly one fifth of the CO₂ emissions and is among the fastest growing sector in terms of CO₂ emissions. Based on this the transport sector should be able to qualify for 20% of possible mitigation funds for developing countries. Adequate international funding, either through existing and new to be established financial mechanisms at COP 15 can greatly help domestic efforts by developing countries to realize the long-term structural changes that support the “Avoid-Shift-Improve” approach and develop sustainable, low carbon transport. These domestic efforts can be catalyzed by providing financial assistance when governments in developing countries agree to the following:

- Developing national or local programs on sustainable transport, for example National Sustainable Urban Transport Plans, which include the preparation of a ‘Strategic’ environmental impact assessment of the entire major infrastructure investment portfolio.
- Agreement on implementation of measures such as effective parking and or road user charging, appropriate vehicle/fuel taxation and fuel efficiency standards.
- Giving priority or at least equal treatment to public transit and non-motorized road users in road design guidelines and standards.
- Ensuring that generally higher income private motorists are subsidizing rather than being subsidized by the general taxpayers and public transit passengers and other non-motor vehicle users.
- Building institutional and human capacity around sustainable transport.
- Enforcing parking and other road user regulations and policies.
- Setting up and supporting the measurement and monitoring of transport and emissions data, and
- Developing indigenous technologies that support sustainable transport

35. As these efforts and their effects transcend beyond individual projects, funding would preferably come from different fund-type sources, in addition to UNFCCC related funding and could include the GEF, CIF, or loans and grants from bilateral and multilateral development agencies. Dedicated climate money will not be able to deliver enough funding for sustainable, low carbon transport projects and programs in developing countries. However, it can act as a catalyst to enable the paradigm shift towards “Avoid- Shift – Improve”.

36. In some cases the earmarking of funds has been helpful in prioritizing activities in specific sectors or regions where regular funding mechanisms have failed to trigger action at a sufficient scale. It may be that a financing mechanism specific to the transport sector could help to catalyze action in sustainable, low carbon transport in the developing countries. Box 2 gives an overview of the possible structure and use of such a possible “Low Carbon Transport Facility (LCTF)”.

BOX 2: Suggestion for a Low Carbon Transport Facility (LCTF)

The failure of the existing Kyoto Mechanisms to effectively support mitigation in the transport sector should not be repeated in the Post-2012 framework, as it will seriously undermine international efforts to reduce GHGs to the required levels. One of the ways in which transport emissions can be properly addressed is to establish a financial facility unique to the transport sector. One example is to create a Low Carbon Transport Facility (LCTF) which could be established and replenished through a number of revenue streams, including

- (a) A levy on the carbon allowance trading by Annex 1 countries,
- (b) Revenue from the selling of (international) aviation and shipping credits,
- (c) Contributions from industrialized countries, and
- (c) Resources from other multi-lateral and bi-lateral development assistance programs.

The purpose of the LCTF would be to act as catalyst towards sustainable, low carbon transport by providing;

1. *Funding for national governments, as well as provincial and local authorities to incentivize (a) policy/program development on sustainable transport, (b) institutional strengthening and capacity building, and (c) MRV activities specific to the transport sector.*

This funding stream would enable the development of investment programs and projects, possibly in the form of NAMA's; evaluation of baseline and projected mobility, accessibility, emissions, and other impacts and benefits; comparing business-as-usual long-term transportation plans and short-term investment and system management programs vs. alternative scenarios that are designed to support mobility and economic development while minimizing GHG emissions; and capacity building activities.

2. *Direct (co) financing of investments in sustainable transport projects, including those conducted by private or non-governmental entities.*

This may include a broad set of actions and activities that to incentivize policy changes and innovative best practices to reduce travel demand, increase vehicle fleet fuel efficiency, reduce the carbon-intensity of transport fuels, and increase the GHG efficiency of transportation networks. Such actions, which could be NAMAs would be evaluated for their effectiveness in reducing GHGs within the context of overall transportation investment programs and policies, while acknowledging and quantifying co-benefits. Funding would be made available to support public transportation service infrastructure development; pedestrian and bicycle facilities, improvements and services; transit oriented development; brownfield remediation; parking management and pricing; carsharing and bikesharing initiatives; and road pricing and congestion charging. It would supplement financing for transit investments, supporting integrated transportation and land development initiatives. These funds might be available only to authorities that have adopted satisfactory policies that demonstrate reasonable timely progress in slowing and eventually capping and reducing transportation GHG growth. Funding can be in the form of support for specific projects or to support governments to include sector wide policy changes.

2. Technology cooperation and capacity building

37. Additional financing to support the Avoid-Shift-Improve strategy made available through the new funding arrangements will be utilized most effectively when combined with technology cooperation, institutional strengthening and capacity building. At present much of the discussion on technology in transport revolves around vehicle technology, fuels, infrastructure and new technologies to improve transport flow. These are reflected in the "Improve" part of the "Avoid –

Shift – Improve” approach. It is important to ensure that new vehicles entering the fleet are as efficient as possible as the effective lifetime of vehicles in developing countries is often much longer than in developed countries. Developing countries can benefit from the experiences of some of the developed countries in lowering the carbon intensity of fuels. Care should be taken however in technology cooperation that developing countries do not replicate the trend that some of the developed countries have followed where relative efficiency gains in fuel economy have been outstripped by increases in weight and engine size of vehicles. The drive towards more stringent emission standards in the developed world increase the chances of technology dumping through an increase in the export of used cars to developing countries.

38. In order to make progress towards low carbon sustainable transport systems in the developing countries it is important however to move beyond just technological improvements to individual motorized vehicles and the manner in which they move as indicated in the “Avoid – Shift” part of the “Avoid-Shift-Improve” approach. A key policy aim needs to be to limit the growth in vehicle kilometers driven and not just the fuel efficiency with which these kilometers are driven. To enable and support this technology cooperation in the transport sector should increasingly focus on areas like integrated land use planning and public transport. In many cases this will require technology cooperation, in know-how and other forms of soft technology and not through hard technology.

39. As a follow-up to the recommendation above to consider transport as a sector in its own right and not as a sub-sector of the energy sector it is recommended that the Technology Road Maps and Technology Needs Assessments currently proposed as part of a new climate agreement have a specific focus on the transport sector. In recent years several developing countries have established significant programs on Bus Rapid Transit, alternative fuels and travel demand management activities which can act as examples for other developing countries. Developing countries should be able to benefit from the proposed strengthening of technology development and demonstration programs by developed countries as well as the suggestion to reinforce not only North-South, but also South-South and triangular cooperation with the aim of promoting indigenous technologies of developing countries and prioritizing technologies.

40. The draft negotiation text for Copenhagen reflects various proposals for capacity building, including a capacity building fund, for enhanced action on adaptation, mitigation, technology and finance. The proposals made are generic and not sector specific. Considering the importance of the transport sector in terms of current and projected GHG emissions good arguments can be made to prioritize the transport sector and the following activities are to be considered:

- Development of transport specific measurement methodologies to improve the accuracy of inventories and national communications; as well as baseline and impact assessment methodologies for CDM, sectoral crediting and NAMAs;
- Develop and apply integrated land-use and transportation planning methodologies;
- Design appropriate institutional structures at national and local level in support of the “Avoid– Shift – Improve” approach;
- Develop policy and legal and regulatory frameworks guiding the involvement of private sector in low carbon sustainable transport systems, including associated land development;
- Assist developing countries in the design of Planning, Regulatory, Economic, Information and Technological policy instruments that support the “Avoid – Shift – Improve” approach;

- Public awareness to support behavioral change in favor of Non-motorized transport, public transport and other approaches to make transport less carbon intensive.

C. Other International Efforts

41. Transport fleets in many of the developing countries double in size every 5-7 years and in some of the cities in Asia fleets double in size every 3-5 years. This means that on average vehicle fleets in developing countries will increase at least by 50-60% in the time between December, 2009 when a possible agreement is adopted at COP 15 in Copenhagen and the effectiveness a new agreement in 2013. This puts an important responsibility on other international efforts to provide increased assistance to developing countries on low carbon sustainable transport until 2013. Organizations including, GEF, multilateral and bilateral development agencies, NGOs and Foundations can make important contributions to advancing mitigation of GHG emissions in the transport sector through:

- Policy advocacy and other assistance to developing countries and cities to re-orient their policies and policy instruments in line with the “Avoid– Shift – Improve” approach.
- Capacity building of different stakeholders to plan, implement and evaluate sustainable, low carbon transport programs;
- Mainstream sustainable, low carbon transport in their own ongoing transport and urban development programs;
- Co-finance large scale demonstration programs and projects, document their experiences and promote their replication;
- Establish a pilot Low Carbon Transport Facility for the period 2010-2012 to test its viability and effectiveness to catalyze sustainable, low carbon transport;
- Engage in a concerted manner in the formulation of detailed operational guidelines for CDM, sectoral crediting and NAMAs in the post 2012 period whereby key concepts for post 2012 transport CDM, sectoral crediting and NAMAs are piloted in programs and projects funded by them.

42. These activities would position the international community well to use the interim period to 2013 in an optimum way and to ensure that transport mitigation activities can commence in a significant manner once the new instruments to be agreed upon at COP 15 in December 2009 become effective in 2013. At the same time international organizations need to utilize the period up to 2013 to consider what their role will be beyond 2012 if indeed large amounts of (grant) funding become available for mitigation of GHG emissions in the transport sector in developing countries.

V. CONCLUSIONS

43. The problem of transport and climate change in developing countries is a developmental problem. Developing countries are faced with a challenge to provide increased mobility and access to goods and services to foster further economic and social development while at the same time not compromising the environmental sustainability of this further development.

44. The current motorization paradigm which promotes motorization has proven to be unsustainable. It has resulted in a situation that GHG emission from transport are the fastest growing of all sectors and thereby worsen the overall outlook for future GHG emissions. At the

same time the unchecked motorization has resulted in increased air pollution, noise and congestion as well increased traffic accidents.

45. Most of the current GHG and other emissions in the transport sector and virtually all the expected growth in emissions come from private cars and trucks. The challenge therefore is to reduce the dependence on individual vehicles, to ensure that vehicles need to drive as little as possible and that they are as clean as possible. To ensure that developing countries achieve a high level of mobility and access while minimizing greenhouse gas emissions, transport policies and actions need to focus on:

- (a) Avoiding/reducing the need to travel through better integration of land-use and transportation planning,
- (b) Shifting travel to, or keeping the modal share of the most efficient modes of transport such as public transport, cycling and walking, and
- (c) Improving existing forms of transport through technological improvements and innovations.

46. Realizing such a vision will require leadership of the developing countries themselves through appropriate policies and policy instruments, as well as institutional and financing mechanisms. A new agreement to be reached at COP 15 in December 2009 in Copenhagen offers a unique opportunity to the international community to assist and inspire developing countries in their efforts to put their transport sectors on a more low carbon and more sustainable growth trajectory. This will require, more so than under the current Kyoto protocol, that financial incentives are proportionate to the scale of the challenge. The current draft negotiation text for COP 15 offers several possibilities to strengthen assistance for increased mitigation activities in the future but there might be a need for a dedicated Low Carbon Transport Facility to kick-start action on sustainable, low carbon transport in the developing countries.

47. A new agreement will not come into force until 2012. In the interim period, up to 2012, there is an important role for other international efforts to assist developing countries to make a substantive start with sustainable, low carbon sustainable transport.