Transport and Climate Change

EcoMobility Dialogues / Technical Paper

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By Karl Peet, Cornie Huizenga, and Sudhir Gota

In brief:

There is no shortage of current commitments and initiatives – both on the supply and demand sides – to help reduce the climate impact of urban transport. The challenge now is to ensure that local efforts are properly coordinated and that these local efforts are effectively translated to policies at the national, regional and global levels.

The SLoCaT Partnership offers recommendations to help to accelerate the scaling up of sustainable transport at the pace and scope needed to achieve climate change targets – as well as broader sustainable development goals – both before and beyond 2020.

The EcoMobility World Festival 2015

The EcoMobility World Festival 2015 will take place in the CBD of Sandton, Johannesburg – the vibrant heart of South Africa – in October. The Festival will offer a view of cities in the future, with active street life and social inclusivity, served by a sustainable transport system.

As part of the EcoMobility World Festival, the EcoMobility Dialogues aim to encourage local and international dialogue and informed conversations about the future of urban mobility and the need for innovation to meet the needs in developing cities.

The Technical Papers: Contributions to the EcoMobility Dialogues 2015

In the course of preparing the EcoMobility Dialogues 2015 in Johannesburg, South Africa, experts have been asked to prepare and present technical papers on topics that challenge urban mobility today.

Five such technical papers have been compiled:

- Transferring sustainable transport and EcoMobility solutions
- Transport and climate change
- Sustainable development synergies and co-benefits of low-carbon transport measures
- A call to action on green freight in cities
- Soot-free urban bus fleets

The findings and messages of this paper are part of informing local leaders for their debates and provide input to the "Johannesburg Declaration on Climate Smart Cities". They will be further shared within ICLEI's EcoMobility Alliance (www.ecomobility.org) and are made available to a wider audience.

We cordially thank the authors of **Transferring sustainable transport and EcoMobility solutions** for their enormous work and input and for enriching technical and political debates around how we can generate more livable cities while contributing to a low carbon development.

Further information

EcoMobility World Festival 2015 Team
ICLEI - Local Governments for Sustainability
Kaiser-Friedrich-Strasse 7
53113 Bonn, Germany
E: ecomobility.festival@iclei.org
T: +49 228 976 299 54
F: +49 228 976 299 00

www.ecomobilityfestival.org

Transport and Climate Change

Authors

Karl Peet, Research Director, Partnership on Sustainable Low Carbon Transport (SLoCaT);

Cornie Huizenga, Secretary General, Partnership on Sustainable Low Carbon Transport (SLoCaT);

Sudhir Gota, Independent Researcher and Consultant, Bangalore, India

Executive Summary

Urban transport constitutes 40% of total transport energy consumption, which is poised to double by 2050, despite ongoing vehicle technology and fuel economy improvements. At the same time, cities offer immense potential to scale up sustainable low carbon transport solutions to contribute to climate change mitigation, to improve health outcomes through non-motorized transport, and to create more compact developments to increase access and improve mobility.

Under the United Nations Framework Convention on Climate Change (UNFCCC), transport has traditionally been viewed as a sub-sector of energy, which has led to a failure of governments to significantly scale up transport projects to reduce climate impacts. Intended Nationally Determined Contributions (INDCs) have the potential to drive progress on transport, and among INDCs submitted to date, nearly 30% make specific reference to urban transport improvements. It is necessary to continue to raise the profile of sustainable urban transport within the UNFCCC framework – and especially through the actions of non-state actors – to help to raise mitigation ambition within the transport sector before and beyond 2020.

An important leap forward can be seen in the growing role of cities through the Lima-Paris Action Agenda (LPAA), with the voluntary commitments made during and since the 2014 Secretary General (SG) Climate Summit a key example of non-state actors taking concrete transport mitigation actions. To complement the LPAA-backed initiatives, many city governments are taking steps to accelerate action on sustainable low carbon transport. The combination of these commitment types creates a key opportunity for matchmaking among 'supply-side' and 'demand-side' commitments, which can create further momentum to accelerate action on sustainable low carbon urban transport in the coming decades.

Acknowledgements

The International Society of City and Regional Planners (ISOCARP) is a global association of experienced professional planners. It was founded in 1965 in a bid to bring together recognised and highly-qualified planners in an international network.

The paper represents the view of the authors.

List of Abbreviations

ADP	The UNFCCC's Ad Hoc Working Group on Durban Platform for Enhanced Action
ASI	Avoid-Shift-Improve
ATEC-ITS	Association pour le développement des Transports, de l'Environnement, et de la Circulation
CDM	Clean Development Mechanism
CMP	The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
COPs	UNFCCC Conference of the Parties
COP21	UNFCCC's 21st Conference of the Parties
CO2	Carbon dioxide
CTCN	Climate Technology Centre and Network
C40	Cities Climate Leadership Group
ECF	European Cyclists' Federation
EPA	Environmental Protection Agency
GHG	Greenhouse gas
GFEI	Global Fuel Economy Initiative
IEA	International Energy Agency
INDCs	Intended Nationally-Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
ITF	International Transport Forum
ITS	Intelligent Transportation System
LCCA	Lima Call for Climate Action
LPAA	Lima-Paris Action Agenda
MCB	Michelin Challenge Bibendum
MRV	Measurement, reporting and verification
NAPs	National Adaptation Plans
NAZCA	Non-State Actor Zone for Climate Action
PPMC	Paris Process on Mobility and Climate
Rio+20	United Nations Conference on Sustainable Development in Rio de Janeiro, Brazil in June 2012, 20 years after 1992 Earth Summit in Rio.
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SDGs	Sustainable Development Goals
SG's	Secretary-General's
SLoCaT	Partnership on Sustainable, Low Carbon Transport
TDM	TDM
TEM	Technical Expert Meeting
UITP	International Association of Public Transport
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WCA	World Cycling Alliance
WS1	Workstream 1
WS2	Workstream 2
ZEVs	Zero-emission vehicles
2DS	Two-degree scenario

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I. Introduction

Overview

Urban transport constitutes 40% of total transport energy consumption[1] and is poised to double by 2050[2], despite ongoing vehicle technology and fuel-economy improvements. Further, mobility demand is growing rapidly, especially in developing cities. Recent estimates suggest that under a business-as-usual scenario, urban passenger kilometers traveled could triple in 2010 to 2050 in cities[3]. As cities increase in population and size, mobility needs must be met, and at the same time it is essential to make needed reductions to Greenhouse Gas (GHG) emissions from transport.

A crucial way to meet these challenges is to capitalize on existing opportunities in cities. The transport sector represents a third of global urban mitigation potential in the period leading up to 2050, so there is room to implement sustainable transport strategies for their emissions reduction potential.[4] Cities thus offer immense potential to scale up sustainable low carbon transport solutions to contribute to climate change mitigation, to achieve positive health outcomes through non-motorized transport, and to create more compact developments to increase access in addition to improving mobility. Many cities already have the necessary ingredients to reduce climate change impacts, and therefore the current need is to prioritize these existing factors for success.

Maximizing national mitigation ambitions also requires optimizing contributions from the transport sector. A recent SLoCaT analysis[5] reveals that the transport sector is the largest energy consuming sector in 40% of countries worldwide, and in most remaining countries, transport is the second largest energy consuming sector. Between 2000 and 2050, GHG emissions from transport are projected to increase by 140%, with 90% of this share expected in developing countries.[6] Thus, any attempt at limiting global average temperature rise to less than 2°C without including the transport sector is infeasible, and local transport actions will play an essential role in meeting national transport targets.

EcoMobility offers a blueprint for more sustainable travel through integrated, socially inclusive, and environmentally-friendly transport options, including and integrating walking, cycling, public transport and other low carbon modes. By enabling individuals and organizations to access goods, services, and information in a more sustainable manner, EcoMobility supports quality of life, increases travel choices, and promotes greater social cohesion.[7]

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[1] Sims R., et al. Transport (chapter). Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. 2014.

[2] Policy Pathways: A Tale of Renewed Cities, IEA, 2013

[3] Replogle, M. A. and L. M. Fulton. 2014. A Global High Shift Scenario: Impacts And Potential For More Public Transport, Walking, And Cycling With Lower Car Use. ITDP and UC Davis. http://bit.ly/1Q6ZxbY

[4] 2015. Investing in Sustainable Transport Can Save Cities Up To $500bn by 2030, Says New Climate Economy Report. http://ppmc-cop21.org/?p=1754

5 SLoCaT Partnership. 2015. Transport Emissions of non-Annex I countries larger than Annex 1 countries in next few years. http://slocat.net/news/1465

[6] UNFCCC. 2015. MobliseYourCity: Locaal Governments in Developing Countries Take High Road to Low Carbon. http://bit.ly/1MCO6GP

[7] ICLEI. EcoMobility.. http://www.iclei.org/activities/our-agendas/ecomobilecity/ecomobility.html

Mitigation Potential of Urban Transport

In order to meet projected mobility demands, urban infrastructure (especially roads) must be expanded by 129% in the next forty years, which may necessitate increasing urban transport investments by seven times. However, if cities improve and invest in public transport, walking and cycling, more than $100 trillion in cumulative public and private infrastructure spending, and 1,700 megatons of annual carbon dioxide (CO2)—a 40% reduction of urban passenger transport emissions—could be eliminated by 2050, as shown in **Error! Reference source not found.**Figure 1.[8]

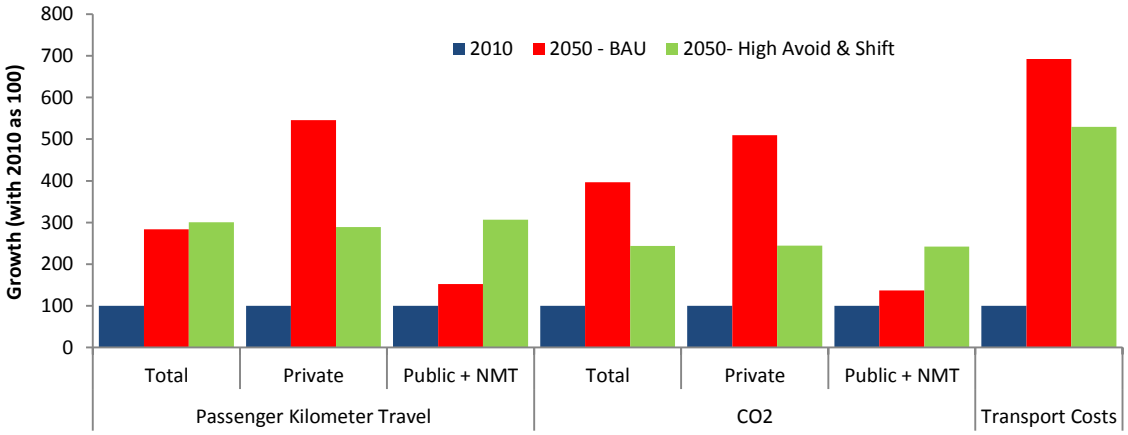

Figure 1. Global High-Shift Scenario

In addition, recent research[9] from the New Climate Economy project suggests that investing in public, non-motorized and low-emission transport can save cities up to $500 billion by 2030. The project estimates that *these investments can yield up to 2.5Gt CO2e in annual abatement by 2050, which is equivalent to 29% of total potential urban abatement*. Similarly, logistics improvements and freight vehicle efficiency and electrification can contribute an additional $110 billion in energy cost savings and 6% of urban abatement. Using the Compact of Mayors[10] as a framework for policy coordination, the project proposes that cities take ambitious local action to avoid the substantial costs associated with hyper-motorized transport and sprawl while making significant contributions to climate change mitigation.[11]

Furthermore, the International Transport Forum (ITF) has produced a series of projections for urban mobility in China, India, Latin America, which assert that cities in these regions with over 500,000 inhabitants will more than double their share of world passenger transport emissions (from 9% in 2010 to 20% in 2050) based on current urban transport policies. [12] Furthermore, 38% of the total growth in world surface transport passenger emissions to 2050 will come from big cities in these three regions under a business-as-usual scenario. These projections underscore a critical

[8] A Global High Shift Scenario: Impacts and Potential for More Public Transport, Walking and Cycling with Lower Car Use. https://www.itdp.org/wp-content/uploads/2014/09/A-Global-High-Shift-Scenario_V2_WEB.pdf
[9] The New Climate Economy. 2015. Accelerating Low-Carbon Development in the World's Cities http://2015.newclimateeconomy.report/misc/working-papers/
[10] Compact of Mayors. http://www.compactofmayors.org/history/
[11] 2015. Investing in Sustainable Transport Can Save Cities Up To $500bn by 2030, Says New Climate Economy Report. http://ppmc-cop21.org/?p=1754

[12] ITF Transport Outlook 2015. Chapter 4 Preview: Urban Passenger Transport Scenarios for Latin America, China And India. http://www.internationaltransportforum.org/Pub/pdf/14Outlook-Chapter4.pdf

choice for policy-makers to pursue urbanization models that prioritize public or private transport, which will lead to very different mobility futures, as shown in Figure 2:

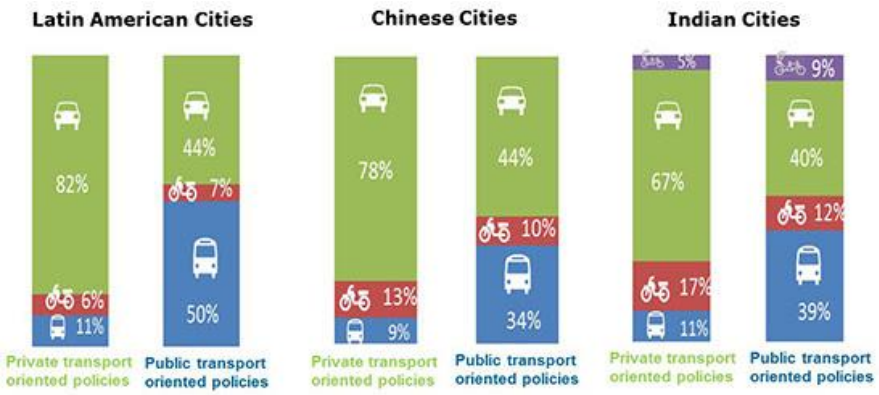

Figure 2: Emissions Projections for Public and Private Urban Transport Strategies

In Latin America, private transport oriented policies would lead to an 82% share for cars, while a public transport-oriented policy would result in a 50% share for public transport, 44% for cars, and 7% for two-wheelers. In China, an urban policy with restrictions on new roads and car ownership would lead to a 44% share for cars and 34% for public transport, and 10% for two-wheelers; in the absence of these measures, cars would account for 78% of urban modes, and public transport only 9%. In India, a private transport-oriented policy would lead to two thirds (67%) of urban mobility being covered by car traffic, while with pro-public transport policies, the share of buses and other public transport modes could reach 39% (roughly equivalent to auto mode share). Thus, urban transport policies will be crucial in establishing transport sector-wide low-carbon trajectories in the coming decades.

Finally, a forthcoming SLoCaT pre-2020 mitigation report projects a cumulative gap of 4.5 billion tons of CO2eq between aggregate country transport emission targets and a business-as-usual scenario. This gap could be decreased to 2.1 billion tons CO2eq by implementing and intensifying low carbon transport efforts. For Annex I Parties, the transport emissions gap could be completely eliminated, and for non-Annex I Parties, the emission gap could be significantly reduced. The report will apply a similar set of methodologies to a broader array of countries based on forthcoming national transport mitigation strategies, which will require a sound foundation in sustainable transport urban transport policy.

Objectives

This paper focuses on the current status quo of transport and climate change and describes various international, national, and sub-national efforts underway to scale up sustainable transport infrastructure and services and increase the provision of EcoMobility. Though the focus of the paper is primarily on urban transport, it places city-level issues in the broader context of national and global actions as required within the United Nations Framework Convention on Climate Change (UNFCCC) framework and as pursued through multi-stakeholder efforts spanning these geographic scopes.

Transport and climate change also comprise an umbrella issue for a number of related issues, including the following, which are discussed further in accompanying papers:

- **Co-benefits of mitigating climate change:** Encouraging EcoMobility not only has a direct effect on climate change mitigation; co-benefits of EcoMobility also extend to other sectors such as public health, air quality, road safety, and liveability, among others. A number of cities have shown success in advancing EcoMobility by highlighting the co-benefits of mitigating climate change through urban transport.

- **Urban freight**: Urban freight plays an important role in mobility in cities, as a large portion of urban transport constitutes freight transport. Managing freight effectively not only saves resources for businesses but also provides great environmental benefits. Recent trends in urban freight management provide action items for cities to expand the scope of EcoMobility strategies.

- **Urban bus fleets** provide affordable transport around the world and are a core foundation of low carbon urban transport. However, diesel urban buses produce one quarter of black carbon emissions from global transport, and bus riders and residents in urban environments are highly exposed to bus emissions. Cities can nearly eliminate the adverse impacts of diesel engines to health and climate by shifting to soot-free bus fleets.

- **Sustainable Transport and EcoMobility.** Many types of road infrastructure can better enable low carbon mobility. A complete streets approach can help to adapt city streets for a broader set of mobility types, and thus can offer a more balanced application of Avoid-Shift-Improve (ASI) strategies to reduce emissions from transport and expand EcoMobility options.

The following sections provide further background on these and other EcoMobility strategies through discussions of urban transport in the UNFCCC framework, the incorporation of urban transport in forthcoming intended nationally-determined contributions (INDCs) and city-level commitments, and the status of urban transport-focused commitments with the Lima-Paris Action Agenda (LPAA), which account for 9 of 13[13] of the Agenda's transport commitments. Analysis shows that there is a remarkably good fit between the areas where cities and countries would like to take action on

[13] Transport Initiatives Proposed in the Context of An Action Agenda on Transport and Climate Change. This includes all commitments except those on aviation and maritime transport and regional/global rail. http://ppmc-cop21.org/wp-content/uploads/2015/06/Transport-Initiatives-flyer-web-ready.pdf

transport (i.e. 'demand-side' commitments), and urban transport-oriented action channels through initiatives such as the LPAA.

The paper concludes with a set of recommendations to help to accelerate the scaling up of sustainable transport at the pace and scope needed to achieve climate change targets – as well as broader sustainable development goals – in the run-up to the UNFCCC's 21st Conference of the Parties (COP21) in Paris in December 2015.

II. Coverage of Urban Transport in the UNFCCC Process

Background

The United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty established in 1992 to limit average global temperature increases and resulting climate change impacts. In 1997, to accelerate efforts to reduce global emissions, countries adopted the Kyoto Protocol, which legally binds developed countries to emission reduction targets. The Protocol's current commitment period began in 2013 and will end in 2020. There are now 195 Parties to the UNFCCC and 192 Parties to the Kyoto Protocol.[14]

The UNFCCC secretariat supports all institutions involved in the international climate change negotiations, particularly the Conference of the Parties (COP), the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP), and the subsidiary bodies – the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) – which advise the COP and CMP. See Annex I for a brief depiction of the relationship among these various bodies.

The UNFCCC's Ad Hoc Working Group on Durban Platform for Enhanced Action (ADP) was established at COP17 Durban in 2011, and is organized along two primary workstreams. Workstream 1 (WS1) focuses on post-2020 action, with a mandate to develop a protocol, legal instrument or other outcome no later than 2015, which is to take effect in 2020. Workstream 2 (WS2) focuses on pre-2020 ambition, noting the significant gap between Parties' mitigation pledges and the emissions pathways required to hold global temperature within 1.5 to 2°C above pre-industrial levels (the so-called two-degree scenario (2DS)).[15]

The UNFCCC process includes six negotiating streams with particular relevance to the transport sector:

- *Pre-2020 ambition* – Mitigation actions defined under WS2 to help reduce short-term emissions
- *Intended Nationally-Determined Contributions (INDCs)* - Detailed post-2020 national mitigation strategies, guided by development priorities and common responsibilities
- *Nationally-appropriate mitigation actions (NAMAs)* - Voluntary mitigation activities, enabled by technology, financing, and capacity building
- *Technology transfer* - Technical assistance; capacity and network building; and knowledge sharing through the Climate Technology Centre and Network (CTCN)
- *Climate finance* - Coordination of climate change financing and mobilization of financial resources through the Standing Committee on Finance (SCF)
- *Climate adaptation* – Increased resilience to climate change impacts to be supported through National Adaptation Plans (NAPs)

[14] UNFCCC. Background on the UNFCCC: The international response to climate change. http://unfccc.int/essential_background/items/6031.php

[15] UNFCCC. Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). http://unfccc.int/bodies/body/6645.php

Progress in these areas for the transport sector in recent COPs is described further below.

Transport Coverage in Recent COPs

The transport sector has travelled a winding road within the UNFCCC process. Transport has traditionally been viewed as a sub-sector of energy in the UNFCCC framework, which has led to a failure of governments to significantly scale up transport projects to reduce climate change impacts. As a result, the UNFCCC's Clean Development Mechanism (CDM)[16] has proposed a methodology that does not fully consider the characteristics of transport, and a result, only 33 of 7,670 CDM projects approved to date are in the transport sector.[17]

The introduction of NAMAs at COP18 Doha raised the profile of transport in the UNFCCC framework, and while NAMAs initially aroused interest in expanding climate finance to transport projects, this interest has largely plateaued. INDCs offer another potential avenue to place the transport sector more centrally in the UNFCCC process, and while momentum is building slowly, proposed transport mitigation efforts remain insufficient to achieve a 2DS. Meanwhile, though transport sector emissions are stabilizing in much of the developed world, transport emissions continue to grow rapidly in most of the developing world, with significant future growth projected.

Despite an overall lack of progress, COP19 Warsaw did manage to yield a total of 37 outcomes to help keep it somewhat on track to formalizing a climate change agreement at COP21 Paris. Crucially, the decision from the ADP framed a deadline for input from Parties to modify the 2015 draft text; however, the downgrading of INDC terminology from 'commitments' to 'contributions' indicated a shift towards weaker language. The agreed bottom-up approach, under which countries base emission reduction targets on their own circumstances rather than required cuts to achieve a 2DS, is likely to reduce the mitigation ambition by UNFCCC Parties. However, acknowledging the role of city and subnational action to contribute to emission reduction targets was a significant positive outcome.[18]

Following the rather disappointing outcomes of COP19 Warsaw, COP20 Lima began with the benefit of several significant developments to raise optimism to define a blueprint for a binding global treaty at COP21 Paris. Significantly, discussions in Lima benefited from the most recent Assessment report of the Intergovernmental Panel on Climate Change (IPCC). 2014 also brought signs of modest progress within UNFCCC technical processes, and hailed ambitious mitigation commitments from the European Union, and a historic pact between the United States and China to stabilize and ultimately reduce carbon emissions.[19]

A principal achievement of COP20 was the Lima Call for Climate Action (LCCA)[20], an agreement among nearly 200 countries that for the first time establishes ground rules for all Parties to submit INDCs in 2015 to form the basis of post-2020 mitigation action. Key outcomes of the LCCA (as

[16] UNFCCC. Clean Development Mechanism. http://bit.ly/1kAloUL
[17] Clean Development Mechanism (homepage). cdm.unfccc.int. Accessed 30 September 2015.
18 Bridging the Gap Initiative. 2014. COP 19 Analysis: Warsaw climate change conference in slow gear

http://bit.ly/1Rd7r06
[19] White House, Office of the Press Secretary. 2014. Factsheet: US-China Joint Announcement on Climate Change and Clean Energy Cooperation. http://1.usa.gov/1H9vSdo
[20] UNFCCC. 2015. Lima Call for Climate Action Puts World on Track to Paris 2015. http://bit.ly/1z9dZpt

highlighted by the UNFCCC) include general progress on pre-2020 ambition, technology, finance, transparency, and adaptation. However, progress for transport at COP20 in the six key negotiating streams described above was decidedly mixed.

In the wake of COP20, pre-2020 mitigation commitments continued to fall short of modeled potential and lacked detail on transport contributions, and INDCs for defining post-2020 mitigation actions required significant detail under a tight timeline. While NAMAs must shift from a project to policy focus to achieve transformational change, few transport NAMAs have received funding and transport NAMAs are constrained by limited measurement, reporting and verification (MRV) capacities. Although the UNFCCC forged stronger linkages between its Technology and Financial Mechanisms, the bulk of attention was focused on other sectors, which risked locking transport investments into high-carbon pathways, and the amount of climate finance made available from UNFCCC sources fell far short of projected investments required to facilitate a global shift to low-carbon transport. Finally, while transport systems must become more resilient to climate change to maximize mitigation potential, public funding for adaptation strategies remained limited at COP20.

Building on the modest momentum established at COP20 Lima, expectations for increasing the profile of sustainable transport at COP21 Paris are high, underscored by joint efforts of the Peruvian and French governments to galvanize national, city and private sector action through the LPAA. A number of "Trains to Paris"[21] are poised to pick up negotiators in European cities to begin discussions of transport's role in tackling climate change en route to COP21, and a wide number and scope of transport-focused side events at the COP21 venue, organized through the Paris Process on Mobility and Climate (PPMC)[22], will increase the visibility of transport contributions throughout the negotiations.

Sub-National Actions through the UNFCCC

It is necessary to continue to raise the profile of non-state actors within the UNFCCC framework, which provides clout for the sustainable transport community to engage in the COP process. An important leap forward can be seen in the growing role of cities and subnational entities in climate change action through the LPAA, and the transport commitments made at the 2014 Secretary General (SG)'s Climate Summit – along with emerging commitments in the following year – are a key example of non-state actors taking concrete actions to contribute to mitigation efforts (as described further in the following section). The private sector is another important force for transport innovations, and it is therefore essential to strengthen the budding alliance of cities, the private sector and the UNFCCC (with support of national governments) to help deliver required reductions from the transport sector.

The ongoing Technical Expert Meeting (TEM)[23] process (which links sub-national expertise to national delegations to the UNFCCC) and the introduction of the LPAA's Non-State Actor Zone for Climate Action (NAZCA)[24] portal (which compiles sub-national actions across a range of sectors) are other tangible steps for engaging non-state actors, but it remains to be seen how much impact these steps will have in shaping a binding climate change agreement within the UNFCCC framework. To

[21] Train to Paris. http://www.traintoparis.org/
[22] Paris Process on Mobility and Climate. www.ppmc-cop21.org
[23] UNFCCC. Technical Examination Process. http://bit.ly/1FTZLdJ
[24] UNFCCC. About NAZCA. http://climateaction.unfccc.int/about.aspx

underscore this point, the Lima outcome document included one option which would greatly expand the role of non-state actors (including civil society, the private sector, and subnational entities), while a competing option provided no provision whatsoever for non-state actors. This language persisted in the consolidated text from ADP 2-9 session in Bonn in June 2015[25], along with a further provision to incorporate "inputs from non-state actors, relevant international organizations and international cooperative initiatives" within the review mechanism to evaluating country mitigation contributions.[26] Sustainable transport advocates must continue to remain engaged in shaping this language in the final negotiating session before COP21 to ensure a more central role for sub-national actors during post-2020 implementation, as well as in scaling up pre-2020 action.

Five key messages on mitigation potential and financing strategies for low-carbon land transport were developed in a SLoCaT Partnership-BtG Initiative report[27] to define sustainable pathways for transport in the post-2020 process. These include: (a) decoupling development ambitions and transport choices to shape low carbon transport pathways; (b) using Avoid-Shift-Improve strategies as a framework for sustainable transport policies and measures; (c) increasing the role of sub-national and non-state entities in the UNFCCC process; (d) leveraging opportunities for transport development and financial and technical support via UNFCCC mechanisms; and (e) linking comprehensive climate and development planning. It is evident that each of these pathways has implications for sub-national action, in either an explicit or an implicit sense.

In summary, the past year has brought positive developments for sustainable transport and climate change, with the formation of the SG's High Level Advisory Group on Sustainable Transport[28] as a channel for bold action, the inclusion of transport among the United Nation (UN)'s Sustainable Development Goals (SDGs)[29] (also known as the Global Goals on Sustainable Development), and increased interest from UNFCCC in engaging with non-state entities. Yet, if we are to succeed in reducing GHG emissions 80% by 2050 to keep global climate change from exceeding the 2DS, the transport sector must continue to increase its profile in the UNFCCC framework. Thus, the above assessment of progress transport-relevant areas in recent COPs provides a roadmap for the sustainable transport community to advance the critical role that transport must play in carrying the modest momentum established at COP20 toward a strong finish at COP21.

[25] ADP 2-9, Streamlined and Consolidated Text. Section 13, Options 1 and 2.
[26] ADP 2-9, Streamlined and Consolidated Text. Section 189, Option 1h.

[27] Bridging the Gap Initiative. 2014. Land Transport's Contribution to a 2-Degree Target. http://bit.ly/14VuJFy
[28] UN. 2014. Secretary General's High-Level Group Discusses Sustainable Transport. http://bit.ly/1O5qo6o
[29] SLoCaT Partnership. Transport & Open Working Group Process. http://www.slocat.net/un-general-assembly-negotiations-sdgs-january-september-2015

III. Integration of Urban Transport in Intended Nationally Determined Contributions

Overview

Intended Nationally Determined Contributions (INDCs) are poised to play an integral role in the negotiations leading up to COP21. As noted, INDCs communicate country targets and strategies to reduce carbon emissions for the post-2020 period, and each country faces a unique set of circumstances influencing reduction strategies, including socio-economic development patterns, historic emission trajectories, and varying financing requirements.

Since INDCs represent a bottom-up, nationally determined process, they have the potential to drive progress in countries, especially in the global south, that are shaping emerging climate policies. INDCs may also give new life to NAMAs, by making them a critical short- term element to prepare for post-2020 mitigation strategies. Starting in 2016, countries will have to operationalize the transport components of their INDCs, and thus will need a robust set of data, tools, and analysis to ensure that INDC targets are ultimately realized.[30]

Recent estimates suggest that under a business-as-usual scenario, urban passenger kilometers traveled could triple in 2010 to 2050 in cities[31]. Therefore, urban transport investment strategies must be clearly spelled out in the scope of existing and forthcoming INDCs.

References to Urban Transport in INDCs

As of September 24, 2015, a total of 45 INDC submissions representing 72 countries had been submitted to the UNFCCC. These countries represent nearly 65% of global GHG emissions and nearly 60% of global transport GHG emissions. While the transport sector is acknowledged in all INDCs, the 2030 economy-wide target is translated to transport sector target in only 9 countries. Urban transport measures are featured in a significant share of INDCs from Europe/Central Asia and Africa, a lesser share in Latin America/Caribbean and Asia/Pacific, and are not represented at all in North America, as shown in Table 1:

[30] Paris Process on Mobility and Climate. Operational Plan. http://bit.ly/1KNqXLk

[31] Replogle, M. A. and L. M. Fulton. 2014. A Global High Shift Scenario: Impacts And Potential For More Public Transport, Walking, And Cycling With Lower Car Use. ITDP and UC Davis. http://bit.ly/1Q6ZxbY

	% of submissions in the region	Transport sector mentioned	Specified Transport Target	Transport Mitigation Quantified	Specified Transport Measures	Urban Transport Measures
Africa	36%	88%	36%	50%	69%	48%
US & Canada	4%	100%	0%	0%	100%	0%
Europe & Central Asia	27%	100%	0%	0%	25%	67%
Latin America/Caribbean	11%	100%	40%	20%	60%	33%
Asia-Pacific/Middle East	22%	100%	20%	20%	80%	26%

Table 1: Transport Sector References in Submitted INDCs

Among INDCs submitted to date, 29% make specific reference to urban transport improvements, and other modes provide indirect support for urban transport (e.g. freight transport, railways, waterways), as shown in Figure 3:

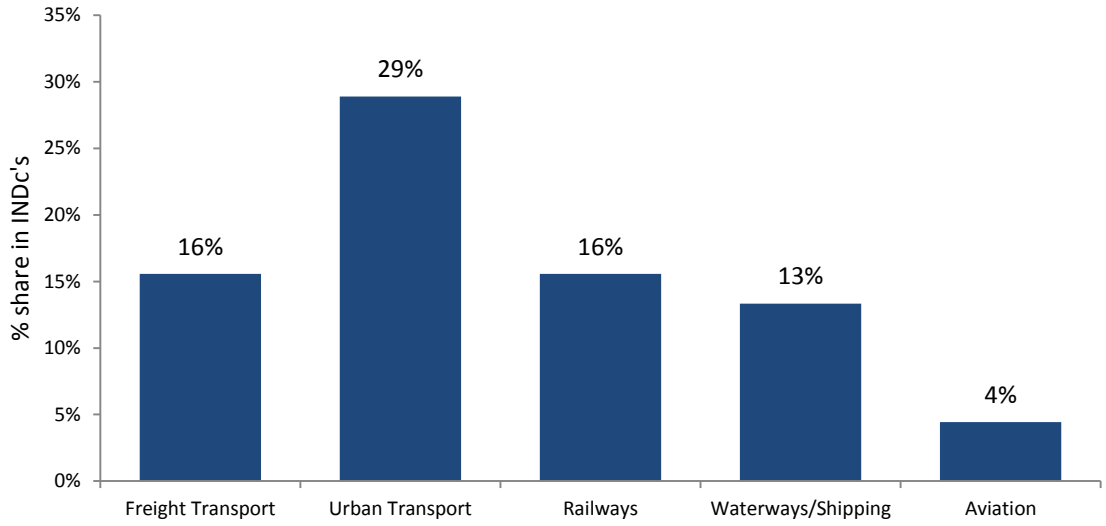

Figure 3: Urban Transport Modes in INDCs

Urban transport measures included in INDCs are allocated among a variety of direct measures, which include public transport (24%), walking and cycling (8%), compact land use (8%), and parking (3%). In additional, several overarching strategies in INDCs can contribute indirectly to urban transport, including renewable energy (41%), energy efficiency (35%), and inspection & maintenance (3%).

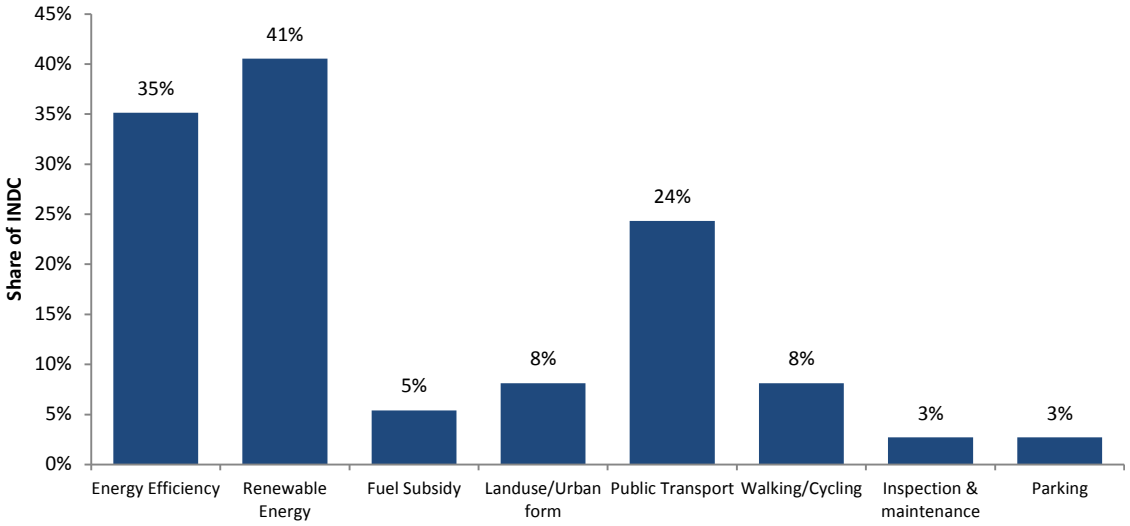

Figure 4: Urban Transport Strategies in INDCs

Examples of specific urban transport **measures** in a selected set of INDCs are shown in Table 2.

Country	Proposed Urban Transport Sector Measures
Benin	Improve traffic flow in urban crossings of large cities; develop a river-lagoon transport system with navigable rivers; modernize and extend rail infrastructure; develop collective urban transport.
China	Increase fuel quality and promoting alternative fuels; increase the mode share of public transport in in large- and medium-sized cities to 30% by 2020; promote dedicated pedestrian and bicycle infrastructure in cities; accelerate development of green freight.
D.R Congo	Implement urban transport improvements.
Ethiopia	Promote clean rail transport, compact development.
Gabon	Increase infrastructure investments, public transport services (e.g. congestion reduction in Libreville), restrict importation of vehicles that are more than 3 years old.
Ivory Coast	Integrate climate considerations in territorial planning to limit travel distances; propose efficient policies in urban transport plan development (e.g. Abidjan urban train); accelerate uptake of low-emission vehicles through standards and incentives.
Japan	Promote modal shift to public transport and railways; develop traffic safety facilities and improve traffic flow through Intelligent Transport Systems (ITS); promote driverless cars, eco-driving and car sharing.
Jordan	Increase public transport mode share to 25% by 2025; reduce vehicle fuel emissions and vehicle travel, particularly in densely populated areas.
Macedonia	Increase electrification of transport, increase use of railways, renew vehicle fleets increase use of bicycles and walking; introduce a parking policy

Monaco	Continue development of clean public transport, development of soft modes (pedestrian walkways, bicycle trips), and development of electric mobility.
Republic of Korea	Continue to expand infrastructure for environment friendly public transport, while introducing low-carbon standards for fuel efficiency and emissions produced from automobiles. Provide incentives for electric and hybrid-electric vehicles.

Table 2: Transport Sector Measures in Selected INDCs

Transport sector-related **targets** emphasize reduction in magnitude of reductions with base year and sometimes with business-as-usual baseline. Urban transport has been specifically highlighted in two emission targets in INDCs submitted to date:

- *D.R. Congo*: 10Mt CO2eq reduction by urban transport improvements
- *Trinidad and Tobago*: 30% reduction in GHG emissions by December 31, 2030 in the public transportation sector, compared to a business as usual scenario

IEA has estimated that the transport sector could potentially see the largest intensity of reductions when compared with other sectors; however, implementing current INDC pledges will not be sufficient to maintain a 2DS and thus, it is necessary to increase mitigation ambition within the transport sector.[32] Urban transport plays a central role in decreasing national and global emissions, and thus should receive additional attention in current and forthcoming INDCs.

32 SLoCaT Partnership. 2015. SLoCaT Review of World Energy Outlook Special Report on Energy and Climate Change. http://slocat.net/news/1499

IV. City Initiatives and Commitments on Transport

LPAA Transport Initiatives on Urban Transport

The Lima-Paris Action Agenda (LPAA)[33] was launched by the Peruvian Presidency of COP20, the incoming French Presidency of COP21 and the Secretary-General of the United Nations. The LPAA intends to contribute to closing the emissions gap by further increasing pre-2020 ambition to support the anticipated 2015 agreement at COP21, and to emphasize the need for greater action to strengthen resilience to climate impacts.

The LPAA places a strong emphasis on city-level mitigation and adaptation actions in its stated objectives, which include convening of global, national, subnational and local leaders towards accelerated climate action; fostering regional, provincial and city-level activities for the above-mentioned actions; and showcasing existing partnerships and stimulating new or enhanced action initiatives among state and non-state actors.[34]

Building upon the UN Secretary-General's Summit in September 2014 and subsequent fora, the LPAA is committed to scaling up cooperative climate initiatives to advance sustainable development and promote economic prosperity. Among these broad-ranging initiatives are a number of urban transport-focused initiatives, which demonstrate a set of 'supply-side' solutions for scaling up sustainable urban mobility.[35] These urban transport-focused commitments account for 9 of the 13[36] transport commitments under the LPAA, as described here:

The **MobiliseYourCity** partnership helps local governments in developing countries plan sustainable urban mobility, to reduce GHG emissions and develop more efficient cities. Adequate transport-related activities at national and sub-national levels could yield a 50% reduction in urban emissions by 2050 compared to business as usual. The MobiliseYourCity coalition aims to engage 100 cities by 2020 in integrated mobility policies, and to spur national governments to create comprehensive urban mobility frameworks.[37]

The **C40 Clean Bus Declaration of Intent** was announced during the C40 Latin American Mayors Forum in March 2015. The ultimate goal is to incentivize and help manufacturers and other stakeholders, such as multilateral banks, develop strategies to make these technologies more affordable for cities. Based on the momentum out of the Mayors Forum, a total of 22 cities across Africa, East Asia, Europe, Latin America, and North America have signed on to the Declaration.[38]

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[33] UNFCCC. Lima-Paris Action Agenda. http://newsroom.unfccc.int/lpaa/
[34] Lima-Paris Action Agenda. http://www.scribd.com/doc/252621563/LIMA-PARIS-ACTION-AGENDA
[35] UNFCCC. LPAA Transport Area. http://newsroom.unfccc.int/lpaa/transport/
[36] Transport Initiatives Proposed in the Context of An Action Agenda on Transport and Climate Change. This count includes all LPAA commitments except those on aviation, maritime transport and global rail. http://ppmc-cop21.org/wp-content/uploads/2015/06/Transport-Initiatives-flyer-web-ready.pdf
[37] UNFCCC. 2015. MobliseYourCity: Local Governments in Developing Countries Take High Road to Low Carbon. http://bit.ly/1MCO6GP
[38] C40 Cities. 2015. C40 Clean Bus Declaration urges cities and manufacturers to adopt innovative clean bus technologies. http://bit.ly/1JzPWk9

The Action Platform on Urban Electric Mobility (UEMI) is an initiative to increase the market share of electric vehicles in cities to at least 30%, of all new vehicles (including cars and motorized 2-3 wheelers) sold on annual basis by 2030 while developing the enabling infrastructure for their effective use. Through increased use of electric mobility for passenger transport (both private and public) as well as freight transport (combined with measures to reduce transport demand and increase use of public and non-motorized transport) the initiative aims to reduce CO2 emissions by 30% in urban areas by 2030.[39]

The **UITP Declaration on Climate Leadership** encourages UITP members to make commitment to reduce carbon emissions and strengthen climate resilience within their cities and regions. UITP brings around 350 commitments and actions from 110 public transport undertakings. Actions aimed at giving a greater role to public transport in mobility will help decrease carbon footprints in metropolitan regions, and these actions will also support UITP's goal to double the market share of public transport by 2025, which would prevent half a billion tons of CO2 equivalent in 2025.[40]

The **World Cycling Alliance (WCA) and European Cyclists' Federation (ECF) voluntary commitment** seeks to increase modal shift to cycling worldwide and to double cycling mode share in Europe by 2020. This will be achieved by showing the importance of cycling to achieve the new UN Sustainable Development Goals, and mobilizing the support of WCA and ECF members to enable local, national and international governments and institutions to scale up action on cycling.[41] In September 2015 UITP and ECF signed an agreement to support each other's missions to double cycling mode share and double public transport mode share. The agreement marks a more intensive collaboration process for the development of policy messages on economic benefits of sustainable mobility, public health, transport policy, and urban mobility data collection.[42]

The FIA Foundation-led **Vehicle Fuel Economy Energy Efficiency Accelerator**[43] calls for doubling by 2030 the efficiency of all new vehicles and by 2050 doubling the efficiency of the entire global vehicle fleet. These fuel economy numbers would save over 1 Gt of CO2 a year by 2025 and over 2 Gt/yr by 2050, thus reducing annual oil imports worth over USD 300 billion in 2025 and USD 600 billion in 2050. GFEI has expanded its network of pilot countries through a range of outreach processes such as training workshops and meeting, and has achieved global recognition as the lead fuel economy initiative.

Over 20 committed governments and dozens of NGOs and companies are brought together under the Climate and Clean Air Coalition-coordinated **Global Green Freight Action Plan**[44] to expand, harmonize and scale up freight programs that reduce black carbon, particulate matter, CO2 and other emissions from global freight transport. These goals are to be accomplished by aligning and enhancing existing green freight efforts through peer-to-peer partnerships and government industry exchanges, and by expanding green freight practices in interested countries to build bridges among policy makers, business leaders and civil society at the global level. An accompanying EcoMobility

[39] SLoCaT Partnership. Secretary General's Climate Summit 2014. http://slocat.net/climatesummit
[40] SLoCaT Partnership. Secretary General's Climate Summit 2014. http://slocat.net/climatesummit
[41] SLoCaT Partnership. Secretary General's Climate Summit 2014. http://slocat.net/climatesummit
[42] European Cyclist' Federation. 2015. Cycling and Public Transport Lobby Join Forces for more Sustainable and Active Mobility. http://bit.ly/1GeaYVF
[43] Sustainable Energy for All, Global Energy Efficiency Accelerator Platform: Action Statement and Action Plan. http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/07/ENERGY-SE4ALL-Platform.pdf
[44] Global Green Freight Action Plan. http://bit.ly/1KHApCY

conference paper on green freight in cities highlights key challenges and opportunities for logistics at the urban scale.

The California EPA-led **International Zero-Emission Vehicle Alliance** aims to accelerate adoption of zero-emission vehicles (ZEVs), including electric vehicles, plug-in hybrids and fuel-cell vehicles, and to foster collaboration on policies to promote the advancement of investment and innovations required to achieve ZEV targets. The alliance was formally launched in August 2015[45], and ZEV partners are working towards an announcing a significant target at COP21 to demonstrate significant GHG reductions from transport due to zero-emission technologies.

ITS for the Climate, an emerging initiative from ATEC-ITS France and TOPOS Aquitaine and other partners, is working to facilitate the deployment and operation of ITS services to reduce CO2 emissions in the transport sector. The aims of the initiative are to facilitate integration of transport modes for people and goods, promote efficient navigation of vehicles, encourage local authorities to develop clear mobility policies based on intermodality to optimize investments in infrastructure, vehicles and training, and to share best practices for deployment of ITS to reduce transport GHG emissions. The commitment partners are currently assessing the feasibility of a global action plan on ITS and climate change, which will be the topic of discussion at the ITS World Congress in October 2015.

Other City Initiatives and Commitments on Transport

To complement the LPAA-backed transport initiatives, city governments are taking steps to expand actions and strengthen partnerships, which – similar the submission of INDCs – indicate a growing willingness from local authorities to prioritize action on sustainable low carbon transport. These city actions are documented in a knowledge product developed by the Paris Process on Mobility and Climate (PPMC)[46], which was created as a joint initiative of SLoCaT and Michelin Challenge Bibendum (MCB), and is bringing together different actors to speak on the contribution that sustainable mobility can make to climate change mitigation and adaptation, with a focus on COP21. These further 'demand-side' initiatives include the following:[47]

Civitas is an initiative co-funded by the European Union, with the objective is to help cities redefine their transport policies to create cleaner transport systems. So far, Civitas has helped about 60 demonstration cities to implement innovative measures to develop greener transport by maintaining networks and working groups on transport topics, and compiling best practices for broader dissemination. Furthermore, Civitas provides funding for the transfer of smart measures from one city to another. At present, the Civitas initiative has a database of more than 700 mobility-related commitments.[48]

The **Covenant of Mayors** is a joint initiative developed and administered by five of the largest city networks in Europe.[49] Covenant signatories aim to meet and exceed the European Union 20%

[45] New Initiative Accelerates Global Transition to Zero-Emission Vehicles. http://www.calepa.ca.gov/pressroom/Releases/2015/EVGlobalTran.htm
[46] Paris Process on Mobility and Climate. http://ppmc-cop21.org
[47] Paris Process on Mobility and Climate. 2015. City Initiatives on Sustainable, Low Carbon Transport. http://bit.ly/1LYYXoT
[48] Civitas. http://www.civitas.eu
[49] Climate Alliance, Council of European Municipalities and Regions, Fedarene, Eurocities and Energy Cities

CO_2 reduction objective by 2020. The transport-related submissions are generally local pledges, which range from improving public transport to increasing accessibility for cyclists. In planned actions towards 2020 from signatories to the Covenant that have already been assessed and approved by the Joint Research Centre of the European Commission, 24% involve sustainable transport, with an estimated total reduction of 117 TW/h, equivalent to the total annual energy consumption of the Netherlands.

The Sustainable Urban Mobility Campaign was launched in 2012 to support sustainable urban mobility campaigners in the European Union's 28 member states, plus Norway, Iceland, and Liechtenstein**.** Under the slogan "Do the Right Mix", it advocates the use of different modes of transport to help reduce the cost and impact of each journey. "Do the Right Mix" has recently joined forces[50] with the annual **European Mobility Week**, which encourages European cities to promote the use of sustainable transport and invite local residents to try alternative forms of transport. The event is organized each September to promote innovative mobility measures by local authorities, encourage exchanges with citizens on urban mobility themes, and find concrete solutions to related issues (e.g. urban air pollution). In 2015, more than 1700 cities participated in European Mobility Week.[51]

Through the examples described in the previous sections, we see a continued willingness from the transport sector to engage in voluntary commitments to reduce the impact of sustainable transport infrastructure, services, and policies (e.g. SG Climate Summit Initiatives, emerging commitments), creating in essence a set of 'supply-side' commitments. At the same time, there is a growing interest from cities and countries to engage in sustainable low carbon transport initiatives and implementation measures (e.g. city commitments, business sector commitments, and transport-focused INDC targets and measures), creating a set of complementary 'demand-side' commitments. Analysis shows that there is a remarkably good fit between the areas where cities and countries would like to take action on transport for both the sustainable development and climate change oriented transport commitments.

The combination of these two commitment types creates a key opportunity for 'match-making' across among supply-side and demand-side commitments, which has the potential to create further momentum among existing commitments and generate new commitments to accelerate action on sustainable low carbon transport in the coming decades.

[50] European Mobility Week. Do the Right Mix Official Announcement. http://bit.ly/1JU7c5R
[51] European Mobility Week. Participants 2015. http://www.mobilityweek.eu/cities/

V. Recommendations for Urban Transport Pre- and Post-COP21

In sum, there is no shortage of current commitments and initiatives – both on the supply and demand sides – to help reduce climate impact of urban transport. The challenge now is to ensure that local efforts are properly coordinated and that these local efforts are effectively translated to policies at the national, regional and global levels. Based on the efforts described in the previous sections, the SLoCaT Partnership offers the following recommendations to help to accelerate the scaling up of sustainable transport at the pace and scope needed to achieve climate change targets – as well as broader sustainable development goals – both before and beyond 2020.

- *COP21 outcomes should include a stronger focus on technology transfer and financing policies, and strategies to support sustainable urban transport strategies.*

Urban transport requires additional attention within the UNFCCC framework, which can be achieved in several ways. First, technology transfer discussions under the UNFCCC offer the potential to scale up urban transport solutions, which should be implemented through a balanced ASI approaches (e.g. congestion charging technologies ('Avoid'), high-quality bike share systems ('Shift'), electric mobility ('Improve')). In addition, the project selection criteria of the Green Climate Fund (GCF) should ideally incorporate an urban focus, and at a minimum not discriminate against ambitious investments in urban transport.

Furthermore, fossil fuel subsidy reform efforts under the UNFCCC should be accompanied by efforts to allocate dedicated funding streams for the implementation of urban transport infrastructure and services and supportive compact development patterns. Finally, transport systems worldwide are vulnerable to the increasing impacts of extreme weather, and rapid urbanization and motorization increase the potential for catastrophic impacts. Crucially, COP21 outcomes must provide support for sustainable urban transport systems to adapt to climate change, and thus to achieve their full mitigation potential.

- *Existing and forthcoming INDCs should give additional attention to urban transport –both through planned projects and supportive policies – to optimize mitigation potential.*

Among the growing number of INDCs submitted by UNFCCC Parties, a growing number mention urban transport among planned mitigation measures, and these are generally dominated by public transport. Yet, many INDCs defining transport measures make little or no explicit mention to urban transport, focusing solely on sector-wide measures such as fuel decarbonization and energy efficiency. While such approaches are valid, they overlook the fact that the transport sector represents a third of global urban mitigation potential up to 2050[52], which can thus relieve pressure on other sectors to make economy-wide reductions.

Furthermore, as mentioned in the previous recommendation, urban transport measures in particular should maximize mitigation potential through a balanced set of ASI strategies. For example, 'Shift' strategies should incorporate non-motorized transport enhancements as well as public transport

[52] 2015. Investing in Sustainable Transport Can Save Cities Up To $500bn by 2030, Says New Climate Economy Report. http://ppmc-cop21.org/?p=1754

improvements, and they should be complemented by 'Avoid' approaches that encompass both compact development and travel demand management (TDM). Furthermore 'Improve' approaches should be used as a supportive strategy rather than a primary or sole strategy. Finally, urban transport measures in INDCs should incorporate adaptation strategies to ensure resilience to more frequent extreme weather events, which will help increase mode share and thus maximize mitigation potential.

- *LPAA activities before and during COP21 should be leveraged to scale up implementation of additional urban-focused transport commitments (e.g. public/non-motorized transport, electric mobility).*

During COP 21, it is expected that the LPAA will organize several events in which the Transport Action Agenda of the LPAA will be featured. First, a Thematic Day on Transport is expected to showcase transport initiatives under the LPAA with the support from countries, private sector and other non-state actors, to increase awareness on the need for greater action on transport and climate change. The outputs of the Thematic Day on Transport will feed into and reinforce a subsequent LPAA Action Day on December 5. Transport will be one of the topics covered in this full day high-level event, which will capture the magnitude of the mobilization as well as the credibility of the commitments.

The outcomes of the these events will help to solidify existing commitments and to set the agenda for further action on sustainable urban transport. The transport community should thus carry the momentum of these events and the existing transport commitments into renewed strategies to accelerate the implementation of these commitments on a broader scale, and to add further commitments in complementary areas (e.g. TDM, bike sharing, pedestrian facilities) to further scale up sustainable urban transport investments in the period following COP21.

- *The global transport and climate change community should leverage recently-adopted SDGs and targets, and contribute to the ongoing development of indicators of the post-2015 development agenda to help to scale up sustainable transport in urban areas.*

The sustainable development goals (SDG) framework[53] provides ample opportunity to further low carbon transport on a global scale. SDG 11[54] is dedicated to urban issues, and associated Target 11.2[55] is focused exclusively on sustainable transport; thus these are key avenues for advancing the urban transport agenda. In addition, SDG 13[56] is focused on reducing climate impacts, with corresponding targets focused on both mitigation and adaptation. A SLoCaT analysis[57] shows that a majority of existing transport commitments (preceding and including the LPAA commitments) contribute substantially to urban transport-related SDG goals and targets, as well as climate change

[53] Transforming our world: the 2030 Agenda for Sustainable Development. https://sustainabledevelopment.un.org/post2015/transformingourworld
[54] SDG 11: "Make cities and human settlements inclusive, safe, resilient and sustainable"
[55] Target 11.2: "by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons."
[56] SDG 13: "Take urgent action to combat climate change and its impacts."
[57] SLoCaT Partnership. 2015. 2015 Transport Commitment Report: Contribution of Transport Commitments to the Global Goals on Sustainable Development. www.slocat.net/ggsd

mitigation targets (see Annex II). Thus, efforts focused on scaling up low carbon urban transport should be closely linked to the forthcoming implementation of the SDGs in the 2015 to 2030 period.

The SLoCaT Partnership has been active in assessing proposed indicators relevant to assessing transport within in SDG framework, examining potential gaps in the coverage of transport, and making recommendations on how sustainable transport could be best monitored. SLoCaT has made a number of observations for solidifying the position of urban and rural transport within the proposed indicators. While sustainable transport is reasonably well covered in the current set of proposed indicators (with the notable exception of walking and cycling), the cross-cutting nature of transport continues to be underemphasized. Furthermore, there is no full consensus within the transport community on how to best track urban transport-related targets (e.g. proposed indicators alternatively focus on access to transport, or the essential services that can be reached via transport). Thus, building internal consensus is an obvious first step to ensure that transport targets are being tracked with the active support of the sustainable transport community.

- *The sustainable transport community should capitalize on Habitat III by positioning the transport sector more strategically within the conference narrative and issue areas.*

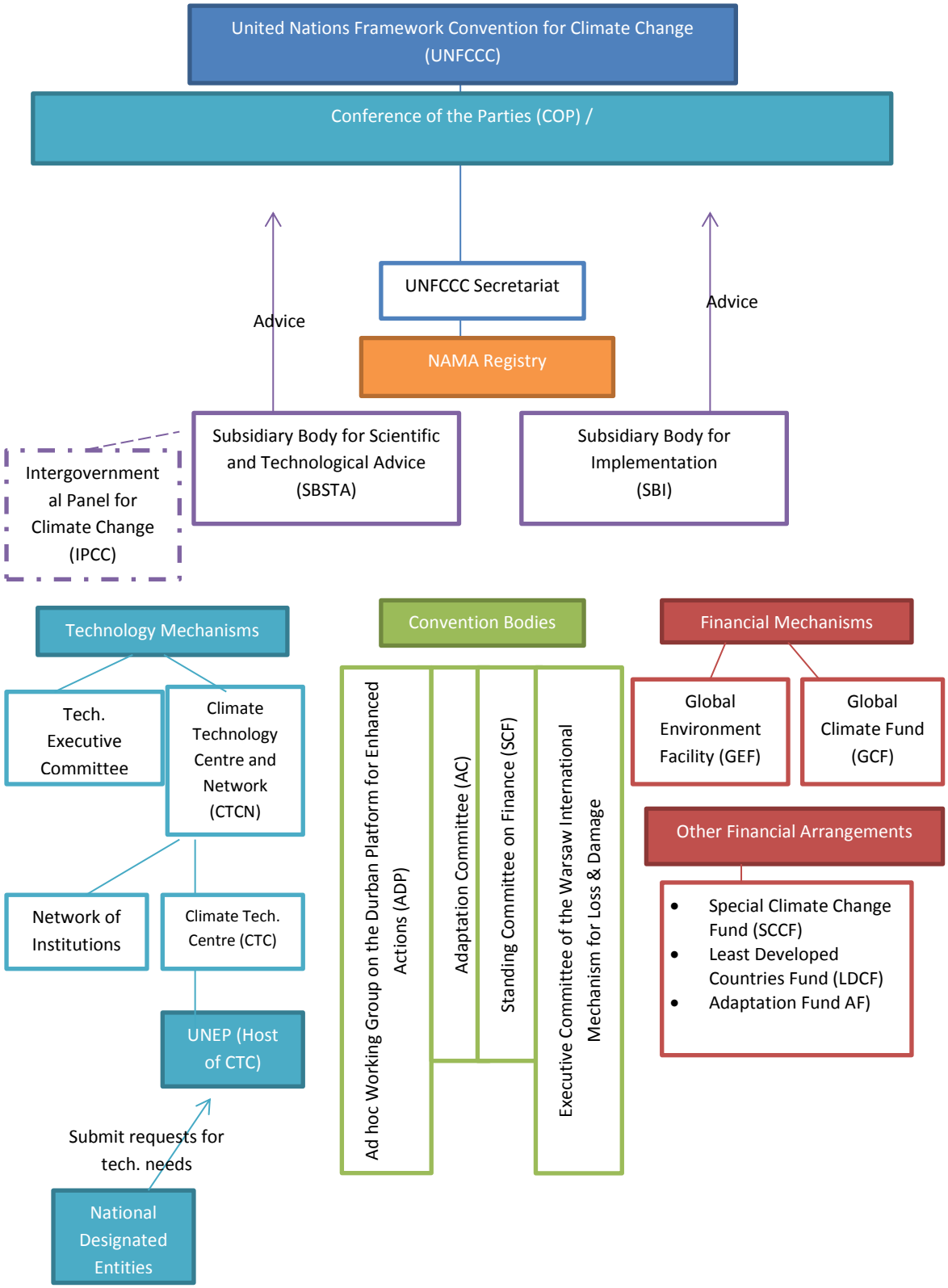
In October 2016, Habitat III will set the agenda for urban development over the next decade, and scaling up sustainable transport infrastructure and services within the world's cities will be a critical component in the sustainable urban development process. Thus, it is crucial to more closely link Habitat III (and associated issue papers[58]) to 2015 global processes on sustainable development, climate change, and financing for development, specifically as related to the sustainable transport sector.

Transport has been mainstreamed as a cross-cutting sector in the sustainable development process, and the sector needs to be addressed in a similar manner under Habitat III, as it cuts across several relevant conference topics (e.g. Safer Cities, Urban-rural linkages, Jobs and Livelihoods). In addition, strategies to reduce GHG emissions require action in different spheres, and thus transport's contribution must also span multiple issue areas (e.g. Urban and Spatial Planning and Design, Urban Resilience, Urban Infrastructure and Basic Services, including energy). Finally, significant resources will be needed to scale up the sustainable transport investments to meet sustainable development and climate change targets, and the Habitat III narrative could make significant contributions in this area by increasing focus on financing. More specific references to the transport sector should be more prominently emphasized, since transport is a vital, cross-cutting sector that enables all other sectors to deliver on national and international global frameworks and targets – as well as local needs – on sustainable urban development, social cohesion and climate change.

In conclusion, EcoMobility is poised to gain momentum in the period leading up to and following COP21, and the combination of the above actions and channels can help to secure the position of sustainable low carbon transport in a post-COP21 world.

[58] UN Habitat. Issue Papers. https://www.habitat3.org/the-new-urban-agenda/issue-papers

Annex I: UNFCCC Architecture



Annex II: Transport Commitments and Sustainable Development Goals

An analysis of the correlation of transport commitments and transport targets shows that a significant majority of commitments in each category contribute to the SDG *direct* transport targets in the areas of sustainable transport infrastructure (Target 9.1) and urban transport (Target 11.2), and to a somewhat lesser extent, energy efficiency (Target 7.3), as shown in Table 3 .

Transport Commitments	**Direct Transport Targets**				
	3.6: Road Safety	**7.3**: Energy Efficiency	**9.1**: Sustainable Infrastructure	**11.2**: Urban Access	**12.c**: Fuel Subsidies
Rio+20 Commitments (2012)					
Follow-on Commitments (2013)					
Climate Summit Commitments (2014)					
Emerging Commitments (2015)					
Total					

Table 3: Correlation among Transport Commitments and *Direct* SDG targets[59]

Among indirect transport targets, those focusing on reducing impacts to air quality (Target 3.9) and sustainable cities (11.6) are addressed by a significant majority of commitments, as shown in Table 4.

Transport Commitments	**Indirect Transport Targets**						
	2.3: Agricultural Productivity	**3.9**: Air Pollution	**6.1**: Access to Safe Drinking Water	**11.6**: Sustainable Cities	**12.3**: Food Loss and Waste	**13.1**: Climate Change Adaptation	**13.1**: Climate Change Mitigation
Rio+20 Commitments (2012)							
Follow-on Commitments (2013)							
Climate Summit Commitments (2014)							
Emerging Commitments (2015)							
Total							

Table 4: Correlation among Transport Commitments and *Indirect* SDG targets [60]

[59] SLoCaT Partnership. 2015. 2015 Transport Commitment Report: Contribution of Transport Commitments to the Global Goals on Sustainable Development. www.slocat.net/ggsd

Level of Correlation:

Very Weak
Weak
Moderate
Strong
Very Strong

[60] SLoCaT Partnership. 2015. 2015 Transport Commitment Report: Contribution of Transport Commitments to the Global Goals on Sustainable Development. www.slocat.net/ggsd