

MEETING SUMMARY:  
**SIXTH LATIN AMERICAN  
REGIONAL MAIN DIALOGUE**

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THE MITIGATION ACTION  
IMPLEMENTATION NETWORK (MAIN)

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WRITTEN BY:  
PAOLO COZZI  
BROOKS SHAFFER

# Summary: Sixth Latin American Regional MAIN Dialogue

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*Washington, D.C.*

*October 27-29, 2014*

## Key Takeaways

The sixth Latin American regional dialogue of the Mitigation Action Implementation Network (MAIN-LAC) took place from October 27-29 in Washington, D.C. Organized and hosted by the Center for Clean Air Policy (CCAP), the event brought together senior policy leaders and experts on low-carbon transportation to share, inform and enhance countries' efforts on Nationally Appropriate Mitigation Actions (NAMAs), low-carbon development, and Intended Nationally Determined Contributions (INDCs).

The dialogue convened representatives from developing and contributing country governments, the private sector, multi-lateral institutions and civil society. It built on previous efforts on NAMAs, discussed recent developments in the Green Climate Fund (GCF), and provided insight on countries' efforts to develop ambitious INDCs to a 2015 climate agreement. Inter-ministerial MAIN-LAC country teams from Argentina, Chile, the Dominican Republic, Colombia, Costa Rica, Panama, and Uruguay learned from sector and finance experts, shared best practices on the development of NAMAs in the region, and discussed strategies for designing NAMAs that are attractive to funders and investors. The dialogue focused in particular on the transportation sector.

The following key points emerged during the dialogue:

- Vehicles are a large and growing source of GHGs in Latin America. In some cases, projected emissions increases can outweigh mitigation potentials of several other sectors combined.
- NAMA financing has been ramping up. Projects funded through the UK-Germany NAMA Facility are coming online. It is expected that the first round of GCF funding will happen in 2015.
- Transportation mode shifts, vehicle efficiency standards and lower-carbon fuels present opportunities to reduce both Green House Gases (GHGs) and local air pollution from both light- and heavy-duty vehicles. Achieving sufficient GHG reductions from the sector will require robust efforts in all three areas.
- Transit-Oriented Development (TOD) slows growth in travel demand through land development patterns that increase pedestrian and transit mode shares and shorten motorized trip lengths. TOD policies leverage existing and planned investments in infrastructure, improve quality of life, and attract private sector investment. Freight mode shifts to rail and marine also offer major GHG savings per ton of cargo transported.
- A regional Latin American effort on vehicle efficiency could capitalize upon aggregate market power to influence vehicle manufacturers, replicate best practices and pool resources to catalyze a shift to high efficiency vehicles.
- Electric vehicles can play a crucial role in reducing GHGs in the longer term as the electricity sector is de-carbonized. Short-term progress on vehicle efficiency is the essential first step.

The MAIN project is part of the International Climate Initiative (IKI). The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the

basis of a decision adopted by the German Bundestag. Additional support provided by the Swedish Ministry of Foreign Affairs, and the Belgian FPS Health, Food Chain Security and Environment.

## Meeting Summary

### Day 1 – October 27<sup>th</sup>

#### Opening and Introduction

**Ned Helme** (President of CCAP) welcomed participants to Washington. He set the stage for the dialogue by explaining that it would focus on how sustainable transport and the larger climate picture are integrated, and the major opportunities for countries to access climate finance to simultaneously achieve national sustainable development goals and GHG reductions. He explained that the goal of the Washington, D.C. dialogue is to build on past successes and provide participants with a better sense of how to design effective mitigation policies and attract climate finance.

#### The State of Climate Finance

**Ned Helme** updated participants on the Green Climate Fund (GCF). Proposals are to be selected through a competitive process based on 6 criteria: (1) impact potential for mitigation and adaptation, (2) paradigm shift potential (impact beyond a one-off project), (3) sustainable development potential (economic, social and environmental), (4) needs of the recipient, (5) country ownership, and (6) efficiency and effectiveness (economic and financial soundness of the program). The first call for proposals is expected in spring 2015. Among the first steps a country can take is to designate a National Designated Authority (NDA), a primary liaison with the GCF. The NDA would be responsible for: developing country work programs compatible with the existing national framework, stakeholder engagement, supporting domestic entities to meet GCF accreditation standards for intermediaries, ensuring the no-objection procedure is followed, and finally, submitting proposed projects to the GCF.

**Jorge Gastelumendi** (Advisor on Climate Finance, Peru) noted that an NDA should be placed within a national ministry that can see the opportunities for GCF proposals as a whole, and not just individual projects. GCF funding will be a very competitive process, with decisions of which projects to support based on the six criteria mentioned above. In contrast to the CDM, the GCF will provide investment seed capital to start the project, rather than revenue support once the project has been implemented. Smaller Latin American countries might think about aggregating projects across countries, to better compete with larger countries like China and Brazil.

#### NAMA Financing: The Germany/UK NAMA Facility

**Markus Kurdziel** (International Climate Initiative, Germany) presented on the path-breaking [Germany/UK International NAMA Facility](#), which has already provided €70 million for the implementation of ambitious Nationally Appropriate Mitigation Actions (NAMAs). At the 20<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change (COP20) in Lima, two additional countries will contribute to the NAMA Facility. The German Ministry for the Environment, Nature Conservation, Building, and Nuclear Safety (BMUB), and the United Kingdom's Department of Energy and Climate Change (DECC) have committed an additional €50 million, totaling a joint provision of €120 million of funding from Germany and the UK. The NAMA Facility is targeting spring or early summer 2015 for the next call for proposals.

## NAMAs as Building Blocks for Intended Nationally Determined Contributions (INDCs) to the 2015 Climate Agreement

During the “Tour de Table” representatives of Developing Countries’ Environment Ministries gave a brief overview of where their countries stand on the development of NAMAs and their INDC. Most countries shared the specifics of NAMAs currently under development, especially in energy, solid waste management, and transportation.

**Federico Grullón** (National Council for Climate Change and the CDM) presented on the Dominican Republic’s approach to building an INDC. An initial abatement potential study showed a Business-as-Usual (BAU) emission increase of 30% from 2010 to 2030. The subsequent climate-compatible development plan included sectoral plans in energy, transport, forestry, and “quick wins” in waste, cement and tourism, to reduce GHGs by 65% from BAU. At COP 18, the Dominican Republic announced a 25% reduction between 2010 and 2030. They plan to submit their INDC by March 2015.

**Paolo Cozzi** (CCAP) presented on the Colombian experience in developing an INDC, based on CCAP’s support for Colombia. Colombia’s integrated approach comes out of their Colombian Low Carbon Development Strategy (CLCDS), part of the Mitigation Action Plans and Scenarios (MAPS) program. The CLCDS identifies baselines and mitigation actions for a number of sectors. CCAP’s initial efforts to support Colombia on its INDC have focused on three: waste, transport and energy, which together make up about a third of Colombia’s emissions profile. Emissions are projected to grow substantially through 2030, particularly in the transport sector. A sector-by-sector assessment can help identify cost-effective and politically viable actions to stem projected growth in emissions.

## The Challenge of Motorization and Reducing Transportation GHGs

**Chuck Kooshian** (CCAP) presented on the challenge of motorization and reducing transportation GHGs. He used the metaphor of the “three-legged stool” to describe how transportation GHGs can be reduced by addressing (1) vehicle efficiency, (2) energy source (fuels), and (3) vehicle kilometers traveled (VKT). These three components should ideally be addressed in unison to account for interactions between them and double-counting. Latin America has a choice to make – to follow the US pattern of car-based suburban development or the European pattern of more public-transport based urban development. In NAMA development, countries should look at both freight and light duty vehicles rather than just focusing on one or the other. Further, time is a major challenge – e.g., vehicle efficiency standards often take 10 to 15 years to make a difference. Countries should aim for sector-wide packages, tackling freight, private transport, electric vehicles and transport-oriented development together, rather than taking a piecemeal approach.

## Electric Vehicles: State of the technology and practice

**John German** (ICCT) presented on electric vehicles (EVs), their performance, cost and penetration. The market is growing, from almost no EVs sold in 2009 to over 200,000 sold worldwide in 2013 (almost all in the US, EU and Japan). Ten different companies are making EVs, with six models represent over 90% of the market. EVs can be divided into three types: Battery Electric Vehicles (BEVs), Plug-in Hybrid Electric Vehicles (PHEVs) and Fuel Cell Electric Vehicles (FCVs). National incentives and policies are key drivers of the EU and US markets. Fiscal incentives include direct one-time subsidies for first purchasers, value added tax (VAT) savings, registration tax savings, annual circulation tax savings, and company car tax savings. “Light-weighting,” a reduction in weight and aerodynamic drag, allows the placing of a smaller battery pack and electric motor, and will lead to further cost savings over time. In the long run, both BEVs and FCVs are projected to become cheaper than conventional internal combustion engine

(ICE) vehicles, assuming technology break-throughs and economics of scale. Deep penetration of FCVs will require incentives and major upfront investments in distribution infrastructure.

In discussion, participants noted that BEVs have the benefit of potentially balancing intermittent electricity sources in a system, by providing potentially crucial energy storage for the grid.

### **Passenger Vehicle Technology: Regulations and Incentives for GHG Reduction**

**Gianni Lopez** (Centro Mario Molina) presented on Chile's CO<sub>2</sub> tax and the Global Fuel Economy Initiative (GFEI) efforts in Latin America. By 2030 the majority of vehicles will be in non-OECD countries, and will grow further from there. This poses both energy and climate risks, so all countries will have interests to develop fuel economy initiatives and standards. In Chile a fuel efficiency and labeling standard addresses energy risk (as 100% of petroleum is imported), air pollution problems in large cities, and national CO<sub>2</sub> emissions. The labeling standard was phased in; voluntary until January 2012 at which point it became mandatory. The Centro had proposed a feebate – rebates for vehicles that meet or beat emissions standards and a fee for vehicles that don't. In September, Chile passed an emission tax on new vehicles sales that address both CO<sub>2</sub> and NO<sub>x</sub>, in conjunction with a broader tax reform package. A national study showed that Chile's fuel efficiency and labeling standard and emission tax policies have resulted in a US\$ 200 million annual savings in petroleum importation, and 833,000 tons of annual CO<sub>2</sub> emissions reduction, while helping consumers to save at the pump. Lessons learned include the importance of strong institutional capacities for the control of emissions standards (test vehicles and ensure compliance), and the importance of working with car manufacturers and dealers, who are often the most critical barrier to the introduction of fuel efficiency policies.

**John German** presented on the US Corporate Average Fuel Economy (CAFE) and GHG standards. Technology for testing and improving fuel efficiency is developing very fast. Computers are fostering increases in fuel efficiency much more quickly and to a greater extent than anticipated, from the use of computer-aided design, lightweight materials and improving hybrid systems. In the United States, the switch from a weight-based to a footprint-based vehicle standard, which allows manufacturers to get credit for "lightweighting" cars, has been important to promoting efficiency and avoiding gaming of the standard. The United States Environmental Protection Agency (EPA) has set increasingly stringent standards through 2025. It is estimated that in 2025 costs will be an extra \$2700 per vehicle due to advanced equipment, but new cars will achieve \$16,000 in fuel cost savings over the life of the vehicle. These types of initiatives are gaining traction globally, and leading to deployment of increasingly efficient technologies. Developing countries will be able to take advantage of technology investments, lessons learned and economies of scale along the way.

**Ivan Islas Cortes** (INECC) presented on Mexican light duty vehicle efficiency standards, which have followed the example of CAFE standards in the United States. The automobile industry in Mexico is large and influential, producing 2 million vehicles per year. The transportation sector accounted for 22% of national GHG emissions in 2010 and the share is expected to double by 2030. 70% of these emissions are from light duty vehicles. Mexican regulation NOM-163 harmonizes Mexico with the US CAFE regulations (with some adjustments). The projected goals for the 2016 model fleet are a fuel efficiency goal of 14.9 km/l and a CO<sub>2</sub> emission goal 157.5 gCO<sub>2</sub>/km.

In the discussion, and ideas for a NAMA moving forward, Mr. Cortes mentioned that the industry often requests incentives to help achieve vehicle standards. Mexico could consider a NAMA to improve fuel efficiency labeling and provide incentives such as the Chilean feebate proposal.

## A Latin American Regional Effort on Vehicle Efficiency?

Individual Latin American countries tend to have limited market power vis-à-vis motor vehicle manufacturers given the size of their vehicle markets. Manufacturers that comply with vehicle efficiency and CO<sub>2</sub> regulations in other countries (US, Mexico, Japan, Europe) tend to sell less efficient vehicles in Latin America. However, working together on developing coordinated policies, LAC countries could potentially have more influence on vehicle manufacturers, and substantially improve vehicle efficiency in the region.

**Steve Winkelman** introduced the idea of a regional Latin American effort on vehicle efficiency. Such a coordinated approach has been successful in the US, where California has led other states, working together to exert market and regulatory pressure to increase the supply of vehicles that are more efficient than US Federal standards. Steve presented a simple “strawman” idea in which participating countries would require US CAFE/GHG fleet average standards for all vehicles sold in their country. (An alternative or complementary idea could be to design national feebate systems designed and coordinated to achieve similar results.) Participants discussed technical, legal, political, economic and institutional aspects of such an approach. One important issue that arose is the need for lower-sulfur fuels to enable use of higher efficiency vehicle technologies that comply with US and EU air quality regulations. Thus, we would need a strategy that addresses both vehicles and fuels. While an ambitious undertaking, participants agreed that it would be valuable to pursue the idea through continued dialogue and analysis to assess opportunities and challenges. (See further discussion on Day 2.)

## Day 2: October 28<sup>th</sup>

The second day of the dialogue was dedicated to Transit Oriented Development (TOD), freight truck efficiency and smaller, more intimate “breakout sessions” focusing on vehicle efficiency and TOD. In each session, participants shared personal experiences and best practices in building NAMAs and developing effective transportation policy.

### Transit Oriented Development and Sustainable Urban Transportation

**Steve Winkelman** (CCAP) gave an introduction to Transit Oriented Development (TOD). TOD is principally about land use, walkable neighborhood design and regional accessibility, and can be defined as higher-density mixed-use development within walking distance of transit stations. TOD focuses public and private development around transit stations to create neighborhoods where people can safely walk, live, work, shop and play. Examples include Columbia Heights in Washington, D.C., Manhattan, Paris, and Pasadena, California. TOD saves time and money (on travel and infrastructure), improves quality of life (more walking, cycle and transit use and decreased trip length), reduces GHG emissions through reduced VKT, and increases returns on investment (whether public infrastructure or private real estate). Given growing vehicle ownership, vehicle technology and fuel improvement are insufficient to reduce GHG emissions, so TOD is critical. TOD can be encouraged through progressive planning in public transit infrastructure and investment, zoning for higher density and mixed use, and creating incentives for private sector investment through tax policy and cost sharing agreements. A publically articulated vision, community engagement, private sector support, multiple investors, and an effective implementation plan are key to implementation.

**Colombia TOD NAMA: Claudia Diaz** (USAID Colombia) presented Colombia’s TOD NAMA. TOD can help address several challenges of urban development in Colombia, such as congestion, road accidents, and inefficient public transit. TOD benefits include social inclusion, safety, green spaces, better quality of life,

and increased competitiveness, among others. The TOD NAMA will build upon the existing US\$10 billion that Colombia has invested in public transit, social housing, and infrastructure, and will help optimize mitigation effects of future planned investments in these areas, worth billions of dollars. Additionally, the €14.7 million in NAMA support through the UK-Germany NAMA Facility could leverage another €150 million in direct financial support. The TOD NAMA could reduce annual GHG emissions by 3.6 to 5.4 MMTCO<sub>2</sub> by 2040. It will help cities overcome technical, policy and market barriers by implementing catalytic local pilot projects, developing national policies for replication, and undertaking comprehensive measurement and evaluation. Several promising local TOD proposals have already been put forward.

**Mexico sustainable urban transport efforts: Alejandro Morales** (SEDATU) presented on Mexico's sustainable urban transport efforts, and highlighted the need to increase urban density to make public services more economically viable. As elsewhere, in Mexico motorization increases as income increases: vehicles doubled between 2000 and 2010, and vehicle kilometers traveled have tripled between 1990 and 2010. This brings higher costs and challenges. For example, building an elevated highway is four times more expensive than BRT. With one hour and twenty minutes being the average commute time, a large portion of income and time are spent on transportation. Public transportation is not enough to reduce vehicle use. With a new vision of urban development along the lines of TOD, SEDATU is promoting vertical housing, mixed-use zoning, high quality public and green space, and sustainable urban mobility. In the words of Betsy Hodges, former Mayor of Minneapolis, "People don't object to the density of people. They object to the density of cars."

**Developer perspective on the business case for TOD: Christopher Coes** (LOCUS) shared the business case for TOD from the perspective of a US developer. The younger professional generation in the US drives less than older generations and values a walkable urban environment. Walkable urban development has higher returns for developers, and studies show a 75% rental premium for buildings in the walkable urban core. TOD benefits developers through an upward economic spiral that occurs as real estate prices go up, businesses move in, and higher tax revenues for local government improve services. The opportunity for value capture on future rents can help finance the creation of transit infrastructure.

**US Sustainable Communities Partnership: John Thomas** (US EPA) presented on supporting TOD as a sustainable community strategy. The EPA's Sustainable Communities Partnership provides cities with a coordinated way to access different federal programs to help cities. Regulatory policies can encourage and implement TOD, including: zoning at a range of densities that are market supported, limiting requirements for ground-floor retail, parking reductions, streamlining entitlements, providing incentives, and making initial public realm infrastructure investments such as street trees and sidewalks. In Boston, adding a rail stop in an unserved neighborhood changed a 1h10 minute bus ride to the center to a 15-minute train ride and encouraged economic development in the previously overlooked area.

### **Development Bank Perspective on TOD in Latin America**

According to **Alejandro Pablo Taddia** (IDB), TOD is key to the goal of achieving economic growth and social development, while at the same time mitigating GHG emissions. The transport sector is the fastest growing sector in LAC countries and the 2<sup>nd</sup> largest GHG contributor after industry. The IDB has seen a significant increase in funding for transportation over the last decade, spending US\$2.5 billion on urban transport investment in 2013 and 2014 vs. only US\$500 million in 2005. While TOD is excellent, development can take 15 to 20 years. In the short-term, countries can improve demand management and fuel and vehicle efficiency standards.

**Felipe Targa** (World Bank) sees major opportunities in TOD. He referenced two publications: *Transforming Cities with Transit* (2013) and *Financing Transit with Land Values* (2014), which may be of use to countries interested in developing TOD NAMAs. In TOD, coordination between different government agencies is critical and remains a big challenge. Partnerships between all relevant parties (national, local, public, private, etc.) are key. In countries where only a small percentage of the population can afford a car, there is an opportunity to shift modes to alternative forms of public transit.

### **Freight Truck Efficiency**

***Truck Efficiency Standards: US, Japan and the Potential for Latin America: Rachel Muncrief (ICCT)*** explained that freight emissions are projected to grow, and are a greater share of transport emissions than light-duty vehicles in LAC countries. Trucks will likely dominate cargo transport in Latin America in the long term given topographic challenges with rail in many countries. No LAC country as of yet has a freight efficiency standard and LAC countries have not yet adopted the most stringent Particle Matter and Nitrous Oxide standards (Euro-VI). For efficiency, only the US, China, Japan and Canada have standards in place. Heavy-duty vehicle efficiency standards are complex to develop and test for compliance. However, it is possible to do so more economically by getting data for different elements (pay load, aerodynamic drag, engine map, etc.) rather than doing full vehicle testing. The Global Green Freight Action Plan provides countries an opportunity to join and work on reducing their heavy-duty vehicle emissions.

***Mexico and Colombia Freight NAMAs: Georg Schmid (GIZ)*** presented on freight NAMAs that GIZ is supporting in Mexico and Colombia. Colombia has a cargo fleet of 225,000 vehicles of which one third is older than 30 years. In Colombia and Mexico, GIZ is working with the Ministry of Transport on freight fleet renovation, efficiency improvements and enhancing competitiveness. The NAMAs will develop and implement fuel standards and emissions standards (Euro IV), implement a scrapping program, promote dissemination of fuel saving technologies, improve demand management, and pilot an eco-driving initiative.

### **Break-Out Groups**

The dialogue broke into two break-out sessions, one focusing on vehicle efficiency and the other on Transport-Oriented Development. In each session, participants and speakers shared experiences and best practices in building transportation NAMAs and developing effective transportation policy.

### **Vehicle Efficiency Break Out**

**Steve Winkelman** (CCAP) moderated the vehicle efficiency break out session, which focused on the feasibility of a coordinated regional Latin American effort on vehicle efficiency. Participants noted that if multiple countries signaled that they would pursue different approaches (standards, feebates, import regulations, etc.), this could lead manufacturers to actually request harmonization. Steve floated the idea -- and participants refined it -- of a regional or multi-country proposal to the GCF that would include fuel quality improvements (low-sulfur), emissions standards (Euro-VI) and vehicle efficiency policies. Participants noted that vehicle testing is essential for measurement and enforcement and proposed that coordinated vehicle labeling and new emission testing laboratories could be part of such a request for climate finance. Given lack of institutional capacity and the need to increase political will, this would be a longer-term undertaking (i.e., not for the first GCF call in 2015). It was also noted that vehicle dealers in some Latin American countries have disseminated misinformation on vehicle costs, performance and fuel requirements. Given the economic importance of the automobile industry in several countries,

improved economic analyses and enhanced civil society capacity will be important for a campaign on vehicle efficiency. Gianni Lopez noted that there may be significant short-term opportunities to improve buses given available technologies (hybrids, electric transit systems), multiple cities facing similar air quality and black carbon concerns and less political resistance than from passenger vehicles. CCAP agreed to help coordinate further discussions to identify analytical needs, collaboration opportunities and potential next steps.

### TOD Break Out

**Chuck Kooshian** (CCAP) moderated the TOD break out session, focused on the feasibility of transit-oriented development in Latin American, LAC country experiences, and comparisons with the USA and other developed countries. US cities seem to be more advanced than Latin American cities in TOD, but some Latin American cities have opportunities that the US does not. Though the US has more knowledge and resources, many Latin American cities are not as dependent on car-use, so there is an opportunity to start redirecting the development path and in many cases leap frog over the car culture with increased investment in TOD. Participants noted that opportunities are not only in large cities (where international finance tends to be directed), but also in medium and small cities. Public transport can have the added benefit of uniting people across socio-economic classes. Insufficient investment can prevent public transit from keeping pace with demand, which degrades the user experience and leads those who can afford it to turn to private transportation, as has happened in Colombia, with the Transmilenio public transit. Panama expressed interest in pursuing TOD opportunities and requested CCAP technical assistance.

### **Next Steps**

Participants expressed interest in a regional Latin American vehicle efficiency initiative. Options discussed included adopting a Latin American vehicle standard and/or designing regional "feebate" programs. While this regional effort would be a major undertaking, participants agreed it was worth pursuing. CCAP will help coordinate further discussions to identify analytical needs, collaboration opportunities and practical next steps.

Several MAIN participating countries are currently revising NAMA proposals to be submitted to the next phase of the Germany-UK NAMA Facility and the GCF. The GCF is expected to have its first funding round in 2015. Countries should aim to stay abreast of GCF developments, and should identify potential projects. CCAP is interested in increasing bilateral, on-the-ground support for NAMAs. Countries interested in technical assistance from CCAP should reach out to Paolo Cozzi ([pcozzi@ccap.org](mailto:pcozzi@ccap.org)).

750 First Street, NE, Suite 940 Washington, DC 20002

[p +1.202.408.9260](tel:+12024089260) [f +1.202.408.8896](tel:+12024088896)

[www.ccap.org](http://www.ccap.org)