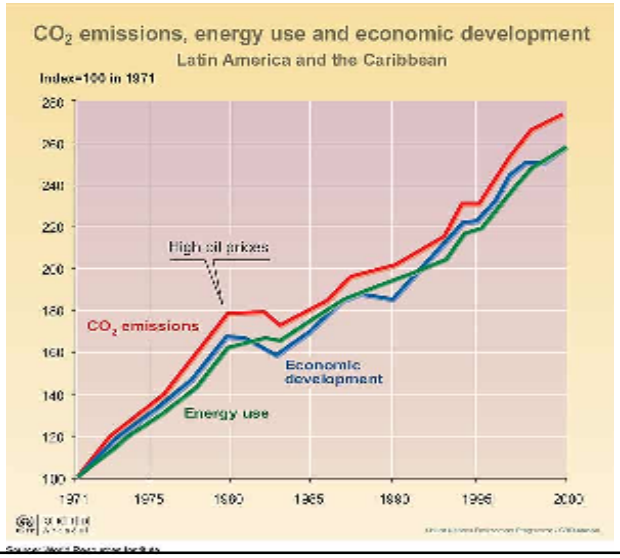
COLLABORATING FOR HEALTHY, LIVABLE AND INCLUSIVE CITIES

Sergio Sanchez

Washington, D.C.

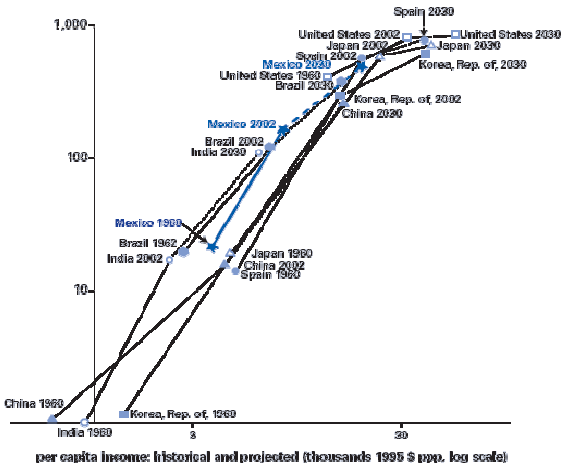
May 3, 2011

CO_2, Energy Use and Economic Development



Motorization is increasing

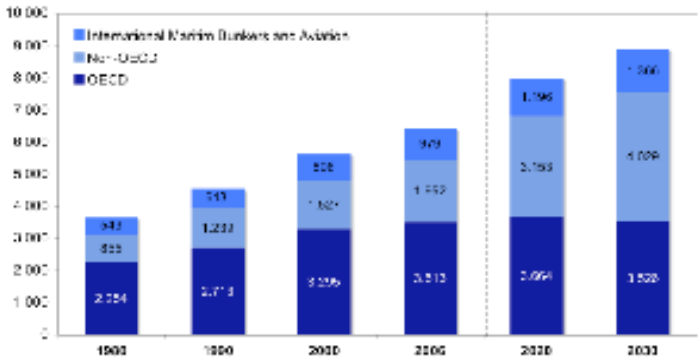
- High rates of motorization
- Increasing income
- Low price of fuel
- Low price of maintenance and keeping a vehicle



Source: MEDEC, 2009

Emissions will double if current trends continue

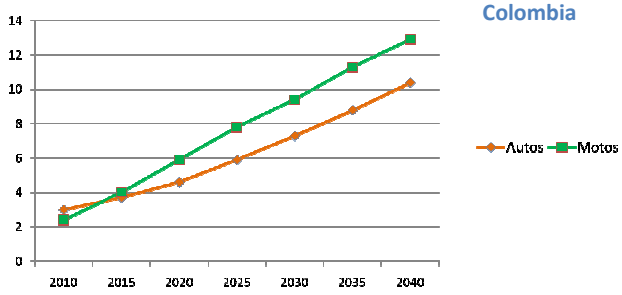
Transport sector energy related CO2 emissions by region in the reference Scenario (Million Tones)



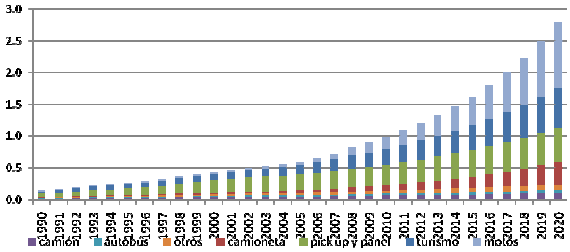
Fuente: World Energy Outlook 2008, IEA

Tendencias de crecimiento del parque vehicular

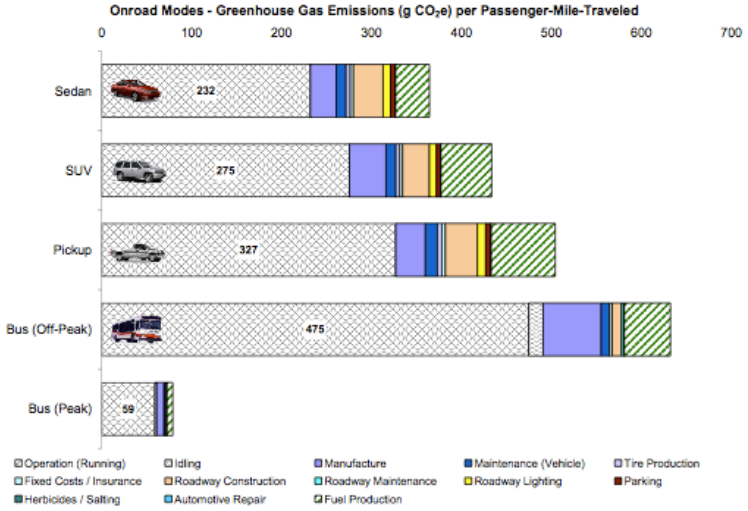
Colombia



Honduras

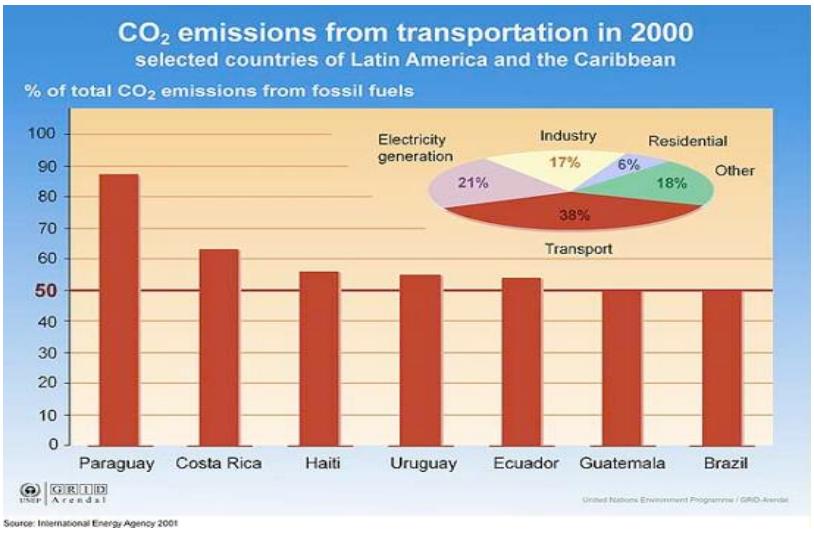


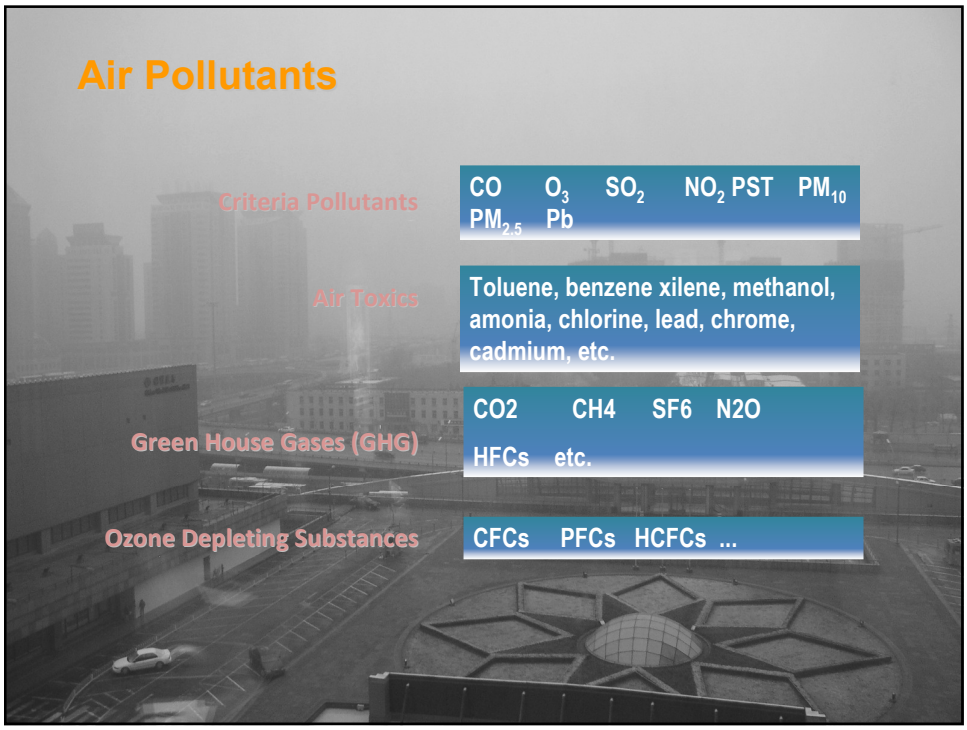
Onroad GHG Inventory



Source: Chester, M.: "Environmental Life-cycle Assessment of Passemger Transportation: A Detailed Methodology for Energy, Greenhouse Gas and Criteria Pollutant Inventories…" Berkeley, 2008

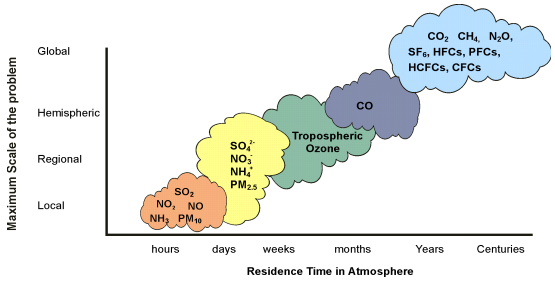
Large and growing portion of CO2 Emissions Associated to the Transport Sector





Challenges and opportunities

- Addressing air pollution as a serious threat to public health and obstacle for sustainable development.
- Dealing with air pollution and across the scales
- Moving from assessment to action
- Creating awareness of true costs of poor air quality and benefits in key stakeholders
- Integration of climate change and air pollution policies producing co-benefits

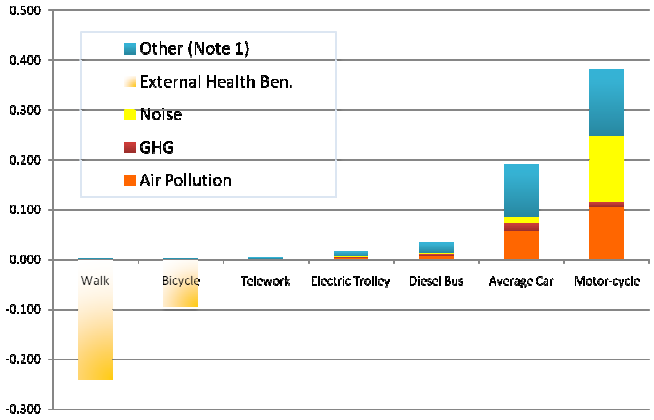


SEI

GLOBAL ATMOSPHERIC POLLUTION FORUM

Transportation Costs

Selected External Costs at Urban Peak in the US
(2007 U.S. Dollars per mile)



Note 1: Other includes: water pollution, external crash and resource externalities

Source: CAI Based on Victoria Transport Policy Institute, "Transportation Costs and Benefit Analysis". January 2009.

Clean Air Institute

Non profit organization based in Washington DC.

- Integrated global, regional and local approach,
- Emphasis in Latin America and the Caribbean (LAC)

Mission: Climate Change Mitigation and Air Pollution Abatement

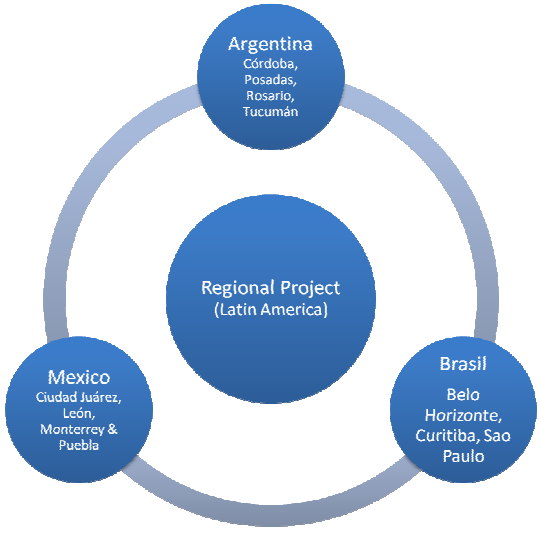
- Partnerships enabling activities with government, private sector, NGOs and financial organizations
- Priority on urban transport and energy issues

Programs at a LAC level and projects underway in 15 cities:

- Mexico
- Argentina
- Brazil
- Colombia
- Honduras
- Nicaragua

Our Programs

Regional STAQ Program on Sustainable Transport & Air Quality



STAQ Program Objectives

Regional Objectives:

1. Establish a network of practitioners on cleaner urban transport systems in Latin American cities
2. Provide technical assistance to cities to develop urban transport strategies
3. Improve capacity of cities to quantify impacts of transport interventions.

Country Objectives:

1. Reduce GHG emissions growth through the promotion of long term increase in use of less energy intensive transport modes.
2. Create policy guidelines and address barriers for more energy efficient and cleaner transport investments in selected cities and countries.

Superior objective:
Reduce the rate of growth of GHG emissions from transport in Latin America through the promotion of less energy intensive and cleaner modes of transport

Major Barriers

Technical

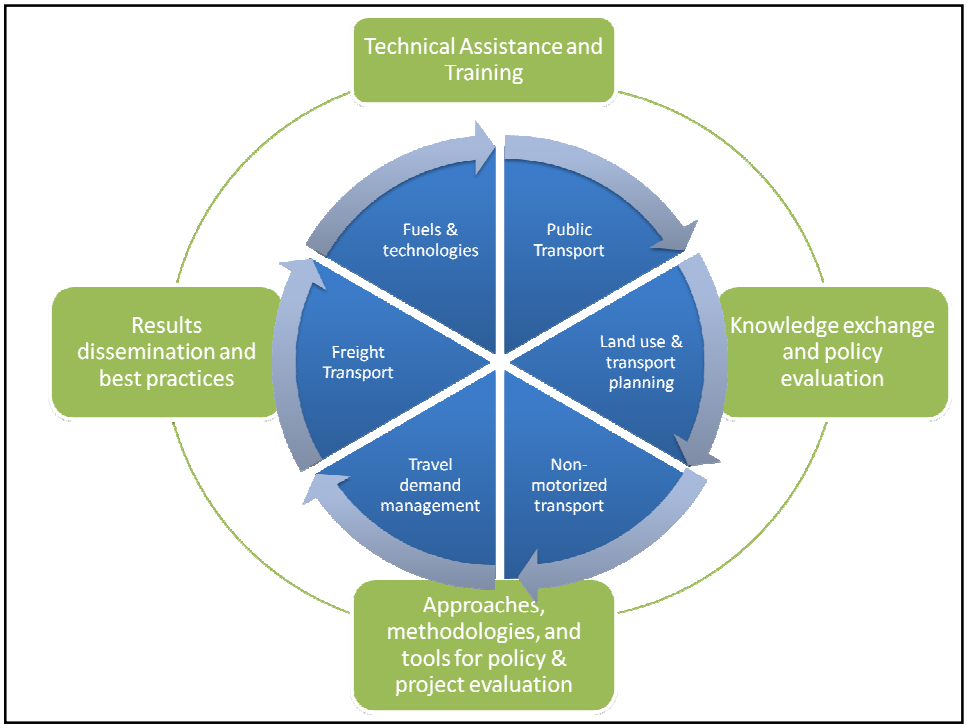
- Deficient understanding of options, benefits & costs
- Preference for known BAU solutions
- Lack of expertise for designing and implementing sustainable transport projects
- Deficient (and distorted) allocation of resources to transport, policies, program and projects

Social

- Deficient key stakeholders involvement
- Dominant social and individual beliefs and aspirations favoring private cars.

Financial

- Wrong economic incentives
- Inadequate capacity to access finance
- Limited private sector involvement



"nadie enseña a nadie y nadie se enseña solo, sino que todos nos enseñamos en comunión"

Communities of Practice

Communities of practice are formed by people who engage in a process of collective learning in a shared domain, in this case, sustainable transport and air quality

The community: In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. Having the same job or the same title does not make for a community of practice unless members interact and learn together.
The practice: Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short a shared practice.

- Photo by D'Arcy Norman

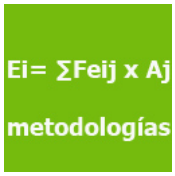
Communities of Practice

Travel Demand Management

Land Use and Transport
Land Use and Transport

Public Transport

Freight Transportation



Methodologies to evaluate emission reduction from transport interventions

Non-motorized Transport

Communities of Practice

Articles News Library Cities News Webinars Forums

Communities of Practice & Training and Technical Assistance

Clean Air Institute + giz = Sustainable Transport and Air Quality Leaders Academy

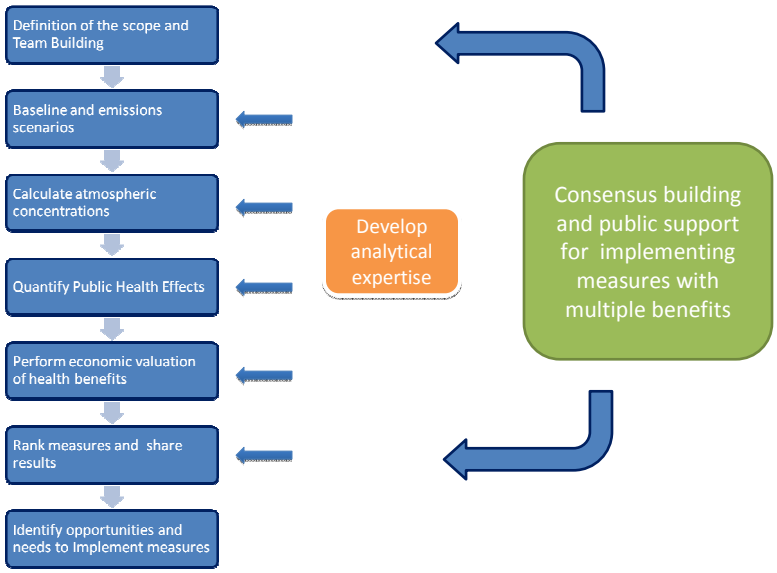
- Selection and Training of a group of 27 future trainers/leaders from Latin America. (Argentina, Mexico and Brazil)
- Benefit more than 100 participants from the whole Latin American region of training program to be held during 2011 and 2012
- At least 360 participants from webinars

The Integrated Environmental Strategies Approach

Goals and Objectives

1. Provide tools and approaches to analyze environmental, public health, and economic co-benefits
2. Improve analytical methods for co-benefits analysis
3. Build analytical expertise
4. Promote local support for implementing measures and policies with multiple benefits

Summary of IES Project Steps



Applying the IES approach to the SITP for Bogota

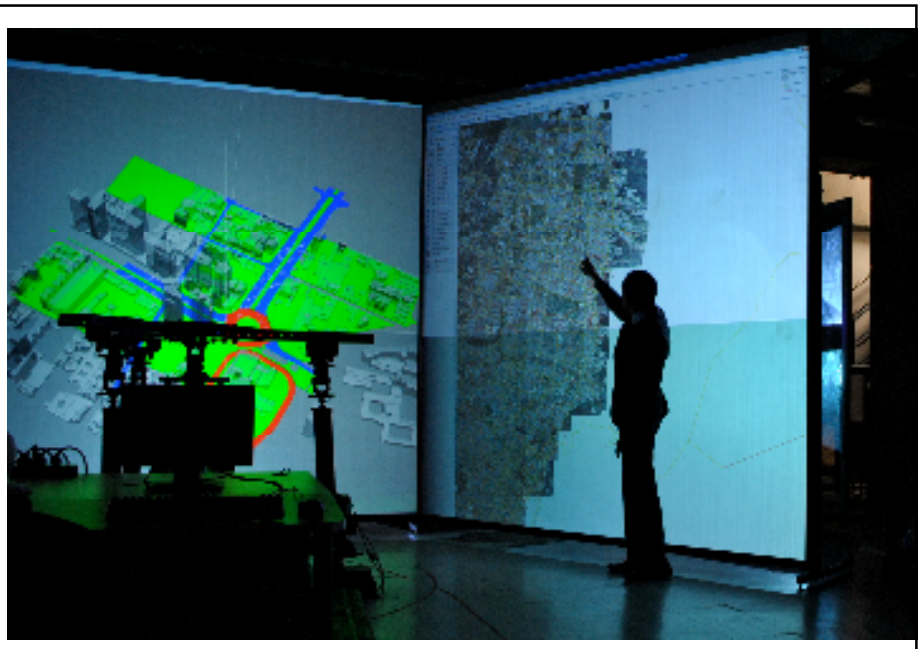
Overall objectives:

- Deepen the understanding of the environmental costs and benefits of Bogotá's SITP.
- Estimate the environmental and public health impacts of **potential changes** for the SITP, e.g., measures to discourage automobile use.
- Prioritize and evaluate the best set of projects to maximize environmental and health benefits.
- Advance the applicability of the IES approach as an analytical and capacity building process for assessing and prioritizing transport interventions in Latin American cities.

Scope Project and Build a Team

3 workshops and several meetings among key stakeholders

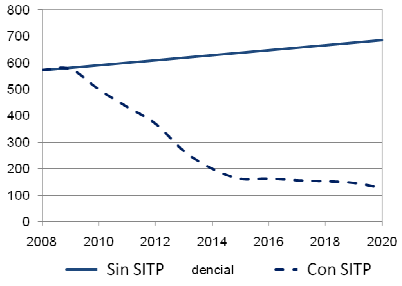
Scope Project and Build a Team



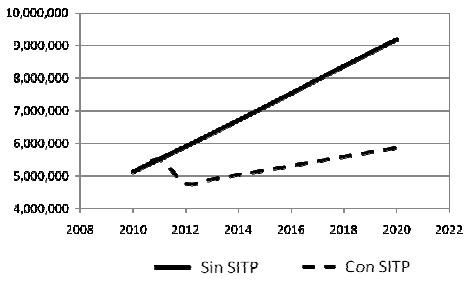
Current IES step: Emission scenarios

- **Scenario Do Nothing**: estimated from projections of economic growth; population; transport demand; and motorization
- **Scenario with SITP**: estimated from SITP contracts and plans

PM Emissions (Ton/Year



CO_2 Emissions (Ton/Year



Current Stage

- Definition of **Scenarios with Complementary Measures** which are studied and that will be proposed to Local authorities.

OBJECTIVE	COMPLEMENTARY MEASURES
Promote trips in public and non motorized transport	• Integration of taxis and bicycles to the system • Car parking in SITP terminals • Restrictions to car circulation in certain SITP corridors • …
Promote operational efficiency	• Inclusion of express services • Self regulation and stricter environmental standards to operators • Eco-driving training • …
Improve vehicle technology and environmental performance of SITP buses	• Better procedures on vehicle inspection and maintenance • …

Emission Inventories as a basis for developing Air Quality/Climate Change Strategies and Programs

Major outputs from previous projects and analysis in Honduras and Nicaragua

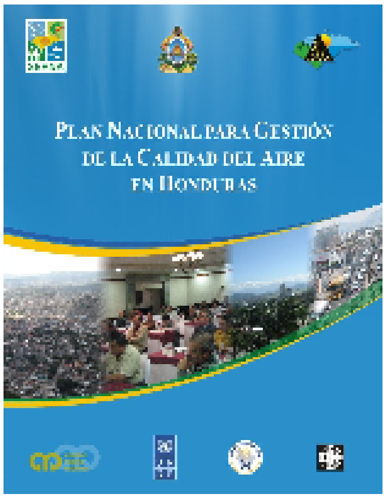


Tabla 10-16 Emisiones de las fuentes móviles en la Ciudad de Managua, 2008

Tipo de vehículo	Emisiones [ton/año]				
	PM_{10}	SO_2	CO	NO_x	COV
Automóvil	25	7	12,224	1,367	2,521
Taxis	19	5	9,410	1,052	1,553
Furgoneta	7	4	371	129	128
Microbús	10	8	1,530	238	252
Camioneta	105	84	13,045	3,049	3,274
Camión	117	46	1,538	2,009	203
Cabezal	34	17	554	1,125	120
Autobús	138	112	4,578	6,805	840
Motocicleta	24	3	13,181	514	1,502
Total	530	294	66,722	16,738	10,880

Objectives of the New Phase for Honduras and Nicaragua

- Identify, characterize and evaluate measures in the transport sector to reduce air pollution in Tegucigalpa
- Prioritize measures based on a cost-effectiveness analysis
- Provide recommendations for their implementation.

Data collection process

Challenges

Data and information

- Scarce or limited acces
- Sometimes it does not exist or is of poor quality
- Needs for simplified approaches and educated guesses

Opportunities

Local and external colaboration catalyze:

•Identification of existing information and data gaps

•Development of awareness of the importante of data

•Validate and cross check data

Involving Key Stakeholders

Expected Outcomes

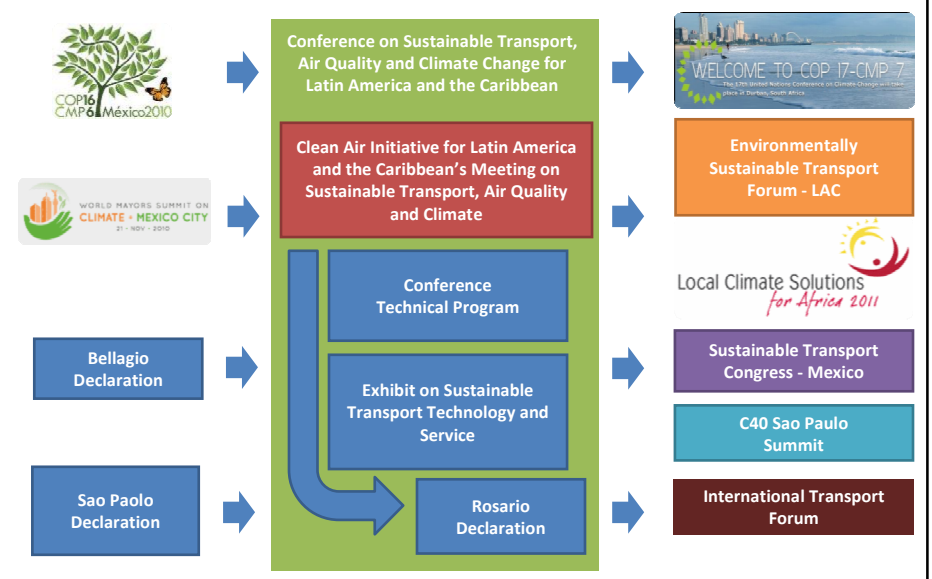
- Priorization of measures based on its cost-efectiveness
- Capacity Development
  - Local analytical capacities
- Report
  - Communication
  - Outreach
- Decision making tools
  - Easily comunicable
  - Easily understandable for a wide audience

CONFERENCE ON SUSTAINABLE TRANSPORT, AIR QUALITY AND CLIMATE FOR LATIN AMERICA AND THE CARIBBEAN

Sustainable Transport, Air Quality & Climate Change Conference for Latin America & the Caribbean: How to achieve sustainable urban transport?

Convention City Center
Rosario, Argentina
May 10 – 14, 2011

The Regional Conference in Rosario: A Milestone Towards a Regional Agenda



Conference figures:

- +100 speakers and special invitees from more than 20 countries
- 15 countries from LAC
- 25 metropolitan areas
- +15 transport operating organizations
- Several mayors from LAC

Thank you!

ssanchez@cleanairinstitute.org

www.cleanairinstitute.org