

Air Quality and Mobility Unit UN Environment

Cleaner and More Efficient
Fuels and Vehicles
Jamaica, Kingston



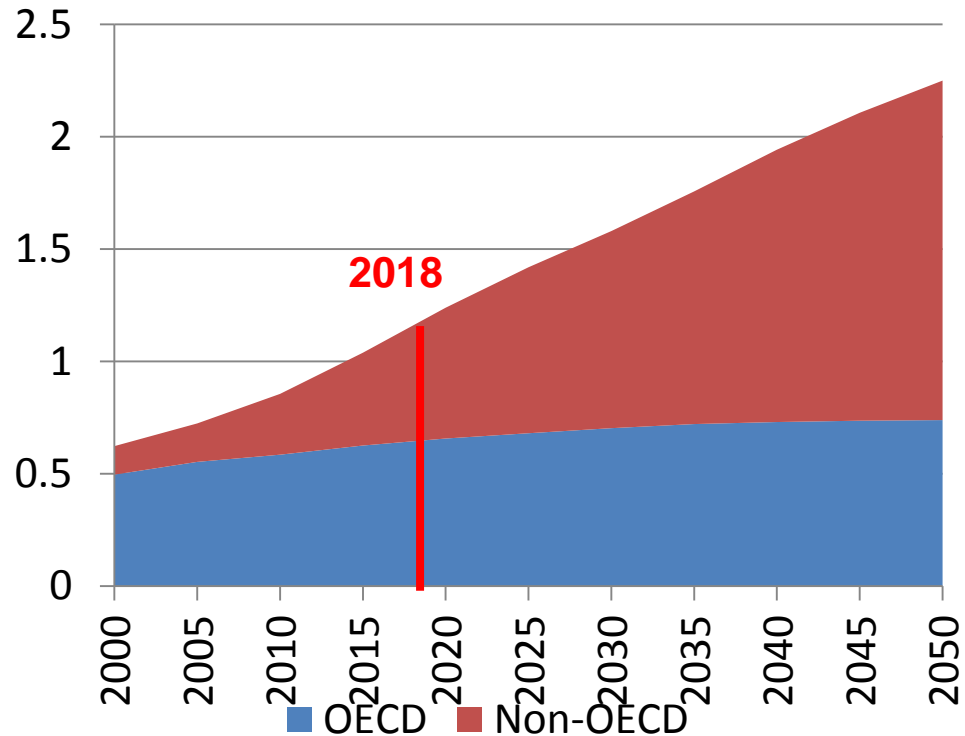
Cleaner and More Efficient Fuels and Vehicles

Purpose is to underline the sense of urgency to act and to bring discussion on measures to combat **air pollution and climate change** from the **transport sector**.

To support **Jamaica** to move forward on **implementing cleaner and more efficient fuels and vehicles regulations** and to provide an opportunity for dialogue and decision-making on fuel quality (sulphur), vehicle emissions, cleaner vehicle technology and auto fuel economy

Almost all vehicle fleet growth will take place in developing countries

Growth of light-duty vehicles between 2005 to 2050



Vehicle fleet to *triple* by 2050 (from ~1 million to ~2.5+ billion)

90%+ of growth in non-OECD countries

Very few non-OECD countries have policies

Countries have to act now, while opportunities still exist, to leapfrog to cleaner, more energy-efficient transport and invest in non-motorized infrastructure and public transport

Combining low-sulfur fuels with the latest vehicle technology means:



500,000 fewer deaths by 2050



85% reduction in annual black carbon emissions from on-road vehicles in developing countries by **2050**



\$18 trillion gains in **health** by 2050

Did you know?



1/5 of **global** black carbon emissions come from the **transport sector**



4.2 million people died of outdoor air pollution in 2016



4.1 billion people in 120 countries have **zero or limited access** to **low-sulfur fuel**



90% of air **pollution-related deaths** happen in low and middle-income **Asian and African** countries



50% of countries are still using **high-sulfur fuels**, at levels 50 to 1,000 times **above international levels**



90% of **black carbon emissions** from the transport sector come from **diesel vehicles**

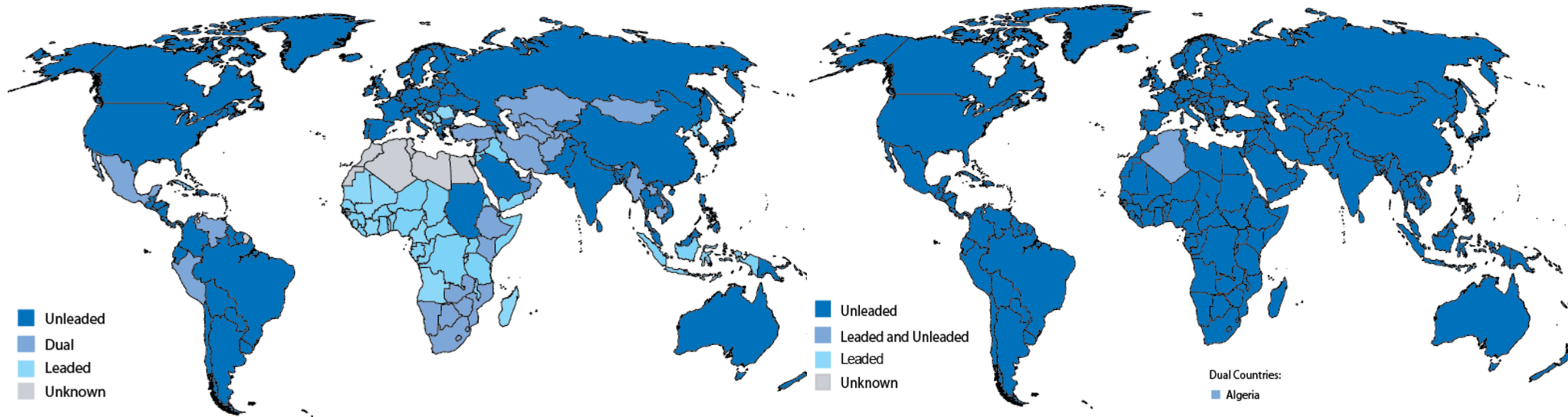
The Transport Sector: A Major Contributor to Global Energy- Related CO₂ Emissions & Air Pollution

- Transport CO₂ emissions will jump from 1/4 today to 1/3 by 2050 of energy related emissions
 - **Increasing more rapidly than any other sector**
- Diesel engines are a major contributor to black carbon- a potent short lived climate pollutant
- Air pollution causes more than 7 million deaths around the world each year (1 in 9 deaths worldwide)
 - 80% of people in cities breath air outside WHO Guidelines
 - 90% of deaths from outdoor air pollution occur in low – and middle- income countries

Partnership for Clean Fuels and Vehicles global initiative to promote lead free, low sulfur fuel and vehicle emission standards for **Light duty vehicles**



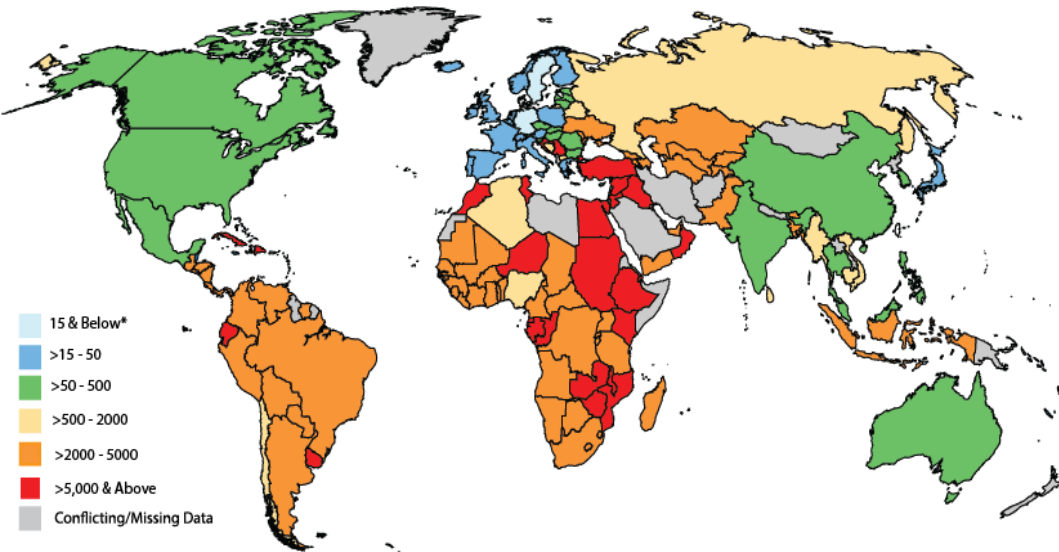
Lead reduction 2002 - 2018



Support developing countries to reduce air pollution caused by vehicle emissions through the promotion of **unleaded** and **low sulfur fuels** and the adoption of **vehicle emissions standards** and **cleaner vehicle technologies**

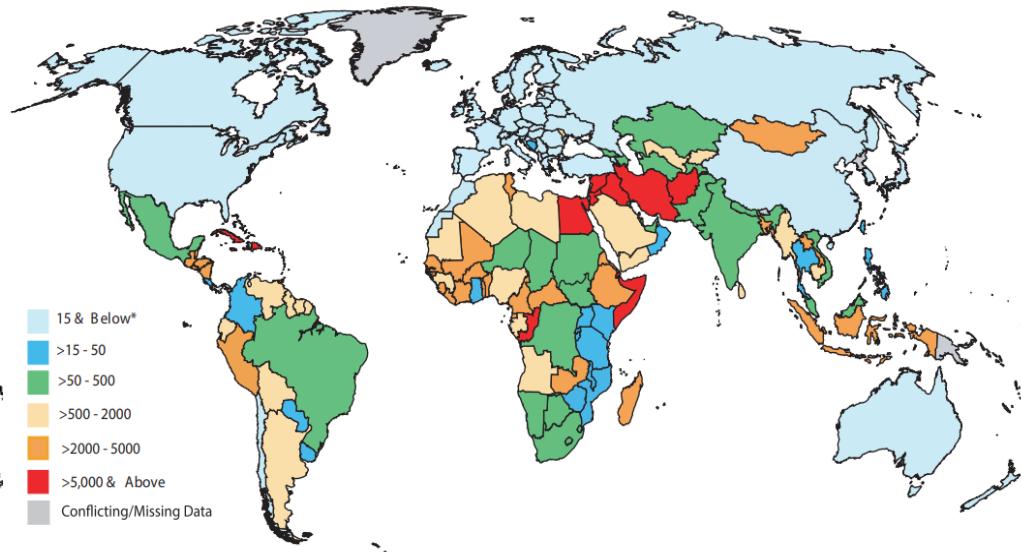
Diesel Sulphur Standards Worldwide

2005 - 2018



* Information in parts per million (ppm)

Sulphur levels are maximum allowable as of July, 2005. For additional details and comments per country, visit www.unep.org/pcfv.



* Information is in parts per million (ppm)

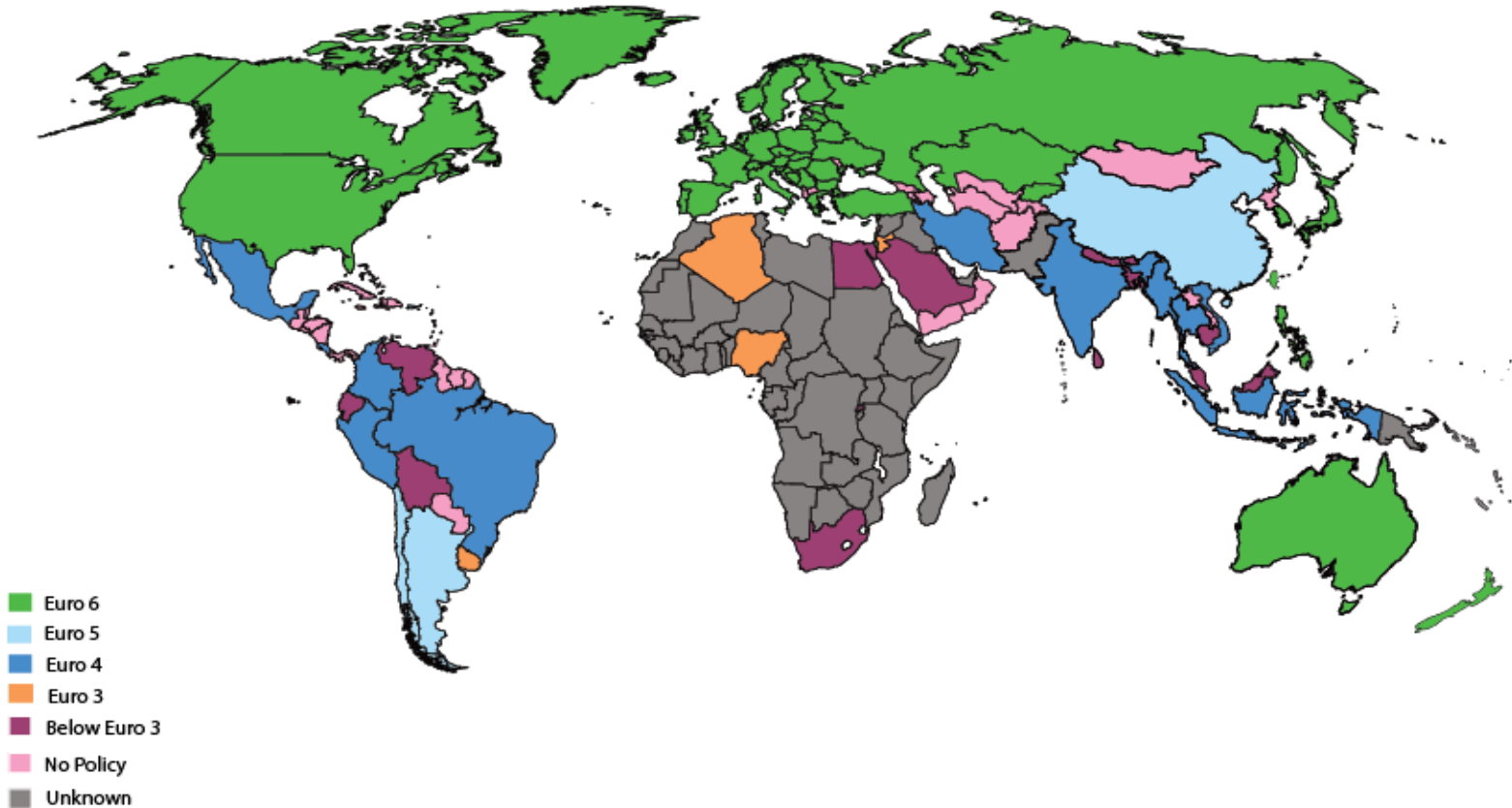
For additional details and comments per country, visit www.unep.org/transport/

Diesel Sulphur Standards - Caribbean

2014 → 2018



Vehicle Emission Standards Worldwide 2018



Country	Diesel Sulphur	Petrol Sulphur	Vehicle Emission Standards	Refine	Used Vehicle Regulations	Air Quality Monitoring	Air Quality Standards
Antigua&Barbud	5,000	500	No	0	LDV 5yr	No	No
Bahamas	5,000		No	0	No		No
Barbados	15		No	0	LDV 4yr	No	No
Belize	None	None	No	0	No	No	No
Bermuda	15	15	No	0	Banned	Yes	Yes
Dom Republic	7,500	1,500	No	2	No	No	No
Dominica	None	None	No	0	No	No	Yes *
Guyana	None	None	No	0	LDV 8yr	No	No
Jamaica	5,000	1,500	No	1	LDV 5yr HDV 10yr	Yes	Yes *
Montserrat	None	None	No	0	No	No	No
St. Kitts & Nevis	500	400	No	0	No	No	No
St. Lucia	5,000	500	No	0	No	No	No
St. Vin&Grenad	None	None	No	0	No	No	No
Trinidad&Tobago	1,000	500	No	0	LDV 4yr	Yes	No
Trinidad & Tobago	1,000	500	No	0	LDV 4yr	Yes	No

A global transition to **Euro 6/IV vehicles & 10ppm fuels by 2030** would...

Reduce global vehicle PM emissions by 90 % and total adverse health outcomes by 75% (from 2000 levels)

Despite a projected 150 % increase in vehicle fleet growth

Combining low-sulfur fuels with the latest vehicle technology means:



500,000 fewer deaths by 2050



85% reduction in annual black carbon emissions from on-road vehicles in developing countries by **2050**



\$18 trillion gains in **health** by 2050



Ask your **government** to adopt the **latest fuel vehicles standards**



Choose **cleaner fuel** at the pump



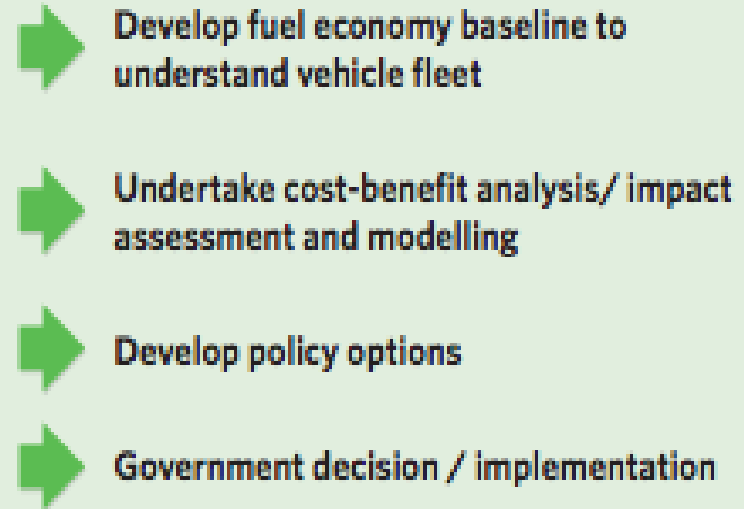
Choose **efficient, low emission** cars, trucks, buses

Global Fuel Economy Initiative

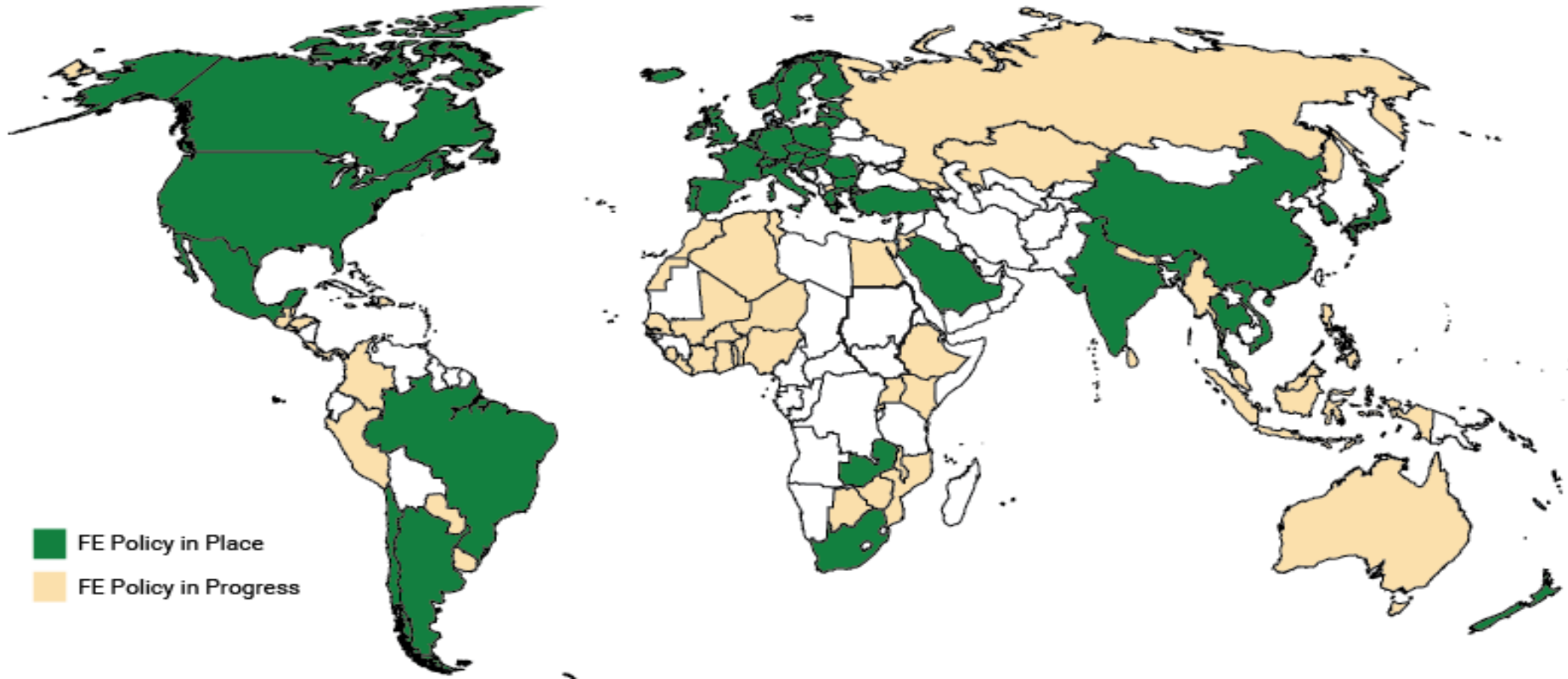
Improve the energy efficiency of vehicles



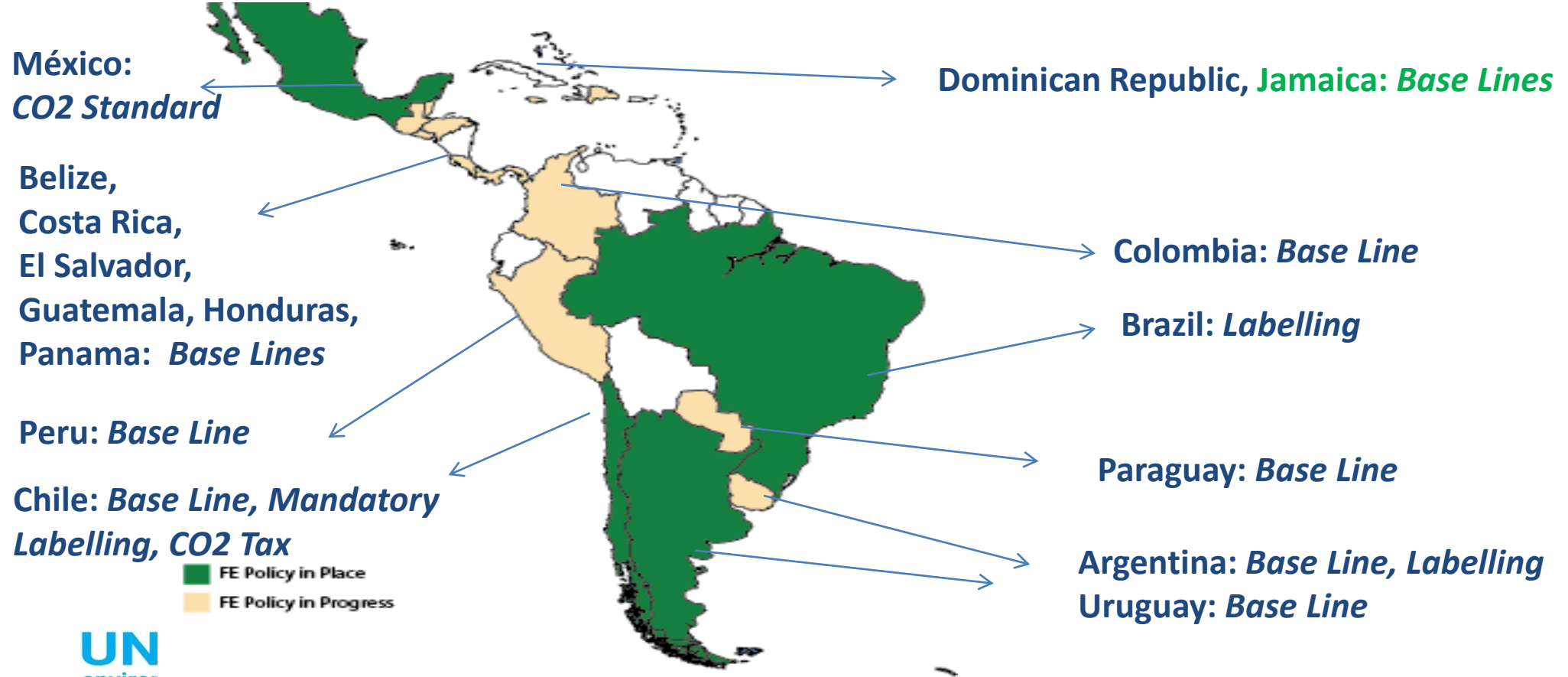
- Key to address climate change
- Allows improved air quality by reducing conventional emissions and black carbon
- Leads to foreign exchange savings and reduced oil import bills
- Reduce fuel costs for consumers
- One of the best ways to reduce vulnerability to high oil prices and improve energy security



GFEI: Policy Progress 65 + countries



16 national projects in Latin America and the Caribbean













































KEY

-  New GFEI country
-  GFEI Baseline completed
-  Policy proposals developed
-  Policy implemented

 G20 (Transport group Participants: Australia, Brazil, Canada, China, the European Union, Germany, India, Italy, Japan, Mexico, Russia, United Kingdom and the United States.)

AFRICA

Algeria					
Benin					
Botswana					
Egypt					
Ethiopia					
Ghana					
Ivory Coast					
Kenya					

Liberia					
Malawi					
Mali					
Mauritius					
Morocco					
Mozambique					
Nigeria					
Rwanda					
Senegal					
South Africa					
Tanzania					
Togo					
Tunisia					
Uganda					
Zambia					
Zimbabwe					

ASIA PACIFIC

Australia					
Bangladesh					
China					
Fiji					
India					
Indonesia					
Malaysia					
Myanmar					
Nepal					
Philippines					
Sri Lanka					
Thailand					
Vietnam					

KEY












New GFEI country





















Policy proposals developed


GFEI Baseline completed


Policy Implemented


G20 (Transport group Participants: Australia, Brazil, Canada, China, the European Union, Germany, India, Italy, Japan, Mexico, Russia, United Kingdom and the United States.)

LATIN AMERICA AND CARIBBEAN	Argentina					
	Belize					
	Brazil					
	Chile					

	Colombia					
	Costa Rica					
	Dominican Republic					
	El Salvador					
	Guatemala					
	Honduras					
	Jamaica					
	Panama					
	Paraguay					
	Peru					
	Uruguay					

GFEI in the Caribbean

2014 Caribbean sub regional event

National projects: Jamaica, Belize,
Dominican Republic

Baselines, policy proposals,
awareness raising, capacity
building



UNEP's Electric mobility program supports the shift from fossil fueled to electric vehicles



- ~ A global program with over 50 countries
- ~ Focus on transitional & developing countries
- ~ Together with regional partners, UN Environment supports the **development of policy packages**, the **set-up of pilot projects** as well as strategies to **finance** a shift towards electric mobility
- ~ The program focuses on regional replication and outreach
- ~ Establishing an industry partnership



Electric Light- Duty Vehicles

Electric Two & Three Wheelers



Electric Buses

UN Environment's eMob Program focuses on the most promising electric mobility applications

GEF 7 Electric Mobility Programme

- First ever global Electric Mobility Programme
- Focused on the introduction of electric mobility in low and middle income countries
- Policy development, EV demonstration, business models and finance schemes as part of national electric mobility projects
- 20 to 25 countries with USD 40 to 50 million from GEF STAR and USD 300 million co-finance
- Lays the ground for large scale market introduction of electric mobility
- Includes Antigua & Barbuda and Chile from LAC

THANK YOU



Environment and
Climate Change Canada



Ariadne Baskin, ariadne.baskin@un.org

Air Quality and Mobility Unit Programs and Initiatives



Partnership for Clean Fuels and Vehicles (PCFV)

<https://www.unenvironment.org/explore-topics/transport/what-we-do/partnership-clean-fuels-and-vehicles>

Global Fuel Economy Initiative (GFEI)

<https://www.globalfueleconomy.org/>

Climate and Clean Air Coalition (Heavy Duty Vehicles) (CCAC)

<http://ccacoalition.org/en/initiatives/heavy-duty-vehicles>

Electric Mobility Program (Emob)

<https://www.unenvironment.org/explore-topics/transport/what-we-do/electric-mobility>

Non Motorized Transport – Share the Road (StR)

<https://www.unenvironment.org/explore-topics/transport/what-we-do/share-road>

Air Quality

<https://www.unenvironment.org/explore-topics/air/about-air>