Perspectives on implementation challenges at the national level

Key challenges

- Setting baselines – data collection
- Conducting cost-benefit analysis for specific policies and measures
- Establishing multi-stakeholder task forces and/or national committees
- Support from key stakeholders, government, academe, NGOs, private sector, civil society

Perspectives on implementation challenges at the national level

Panelists:

- Peter Kaigwara, Energy Regulatory Commission, Kenya
- Asawin Asawutmankul, Department of Alternative Energy Development and Efficiency, Thailand
- Diana Leandro, Ministry of Environment and Energy, Costa Rica
- Wenjing Yi, Energy Research Institute, P.R. China
- Ana Petrovska, Regional Environmental Center, Macedonia
- Viridiana Vazquez, CONUEE, Mexico
- Eric, Conception, Ministry of Environment, Peru

Perspectives on implementation challenges at the national level

- Describe your role in establishing fuel economy policies in your countries.
- Describe the institutional framework in setting up fuel economy policies, e.g. which ministry is ultimately responsible, and other ministries that needs to be involved, for example in adopting standards, putting in place feebate systems/ taxation schemes
- Please identify and describe the major challenges that you face in your countries when developing and implementing fuel economy policies
- What kind of support does your country need in order to developing progressive fuel economy policies

Energy Regulatory Commission

THE GLOBAL FUEL ECONOMY INITIATIVE (GFEI) PILOT PROJECT IN KENYA

Peter N. Kaigwara

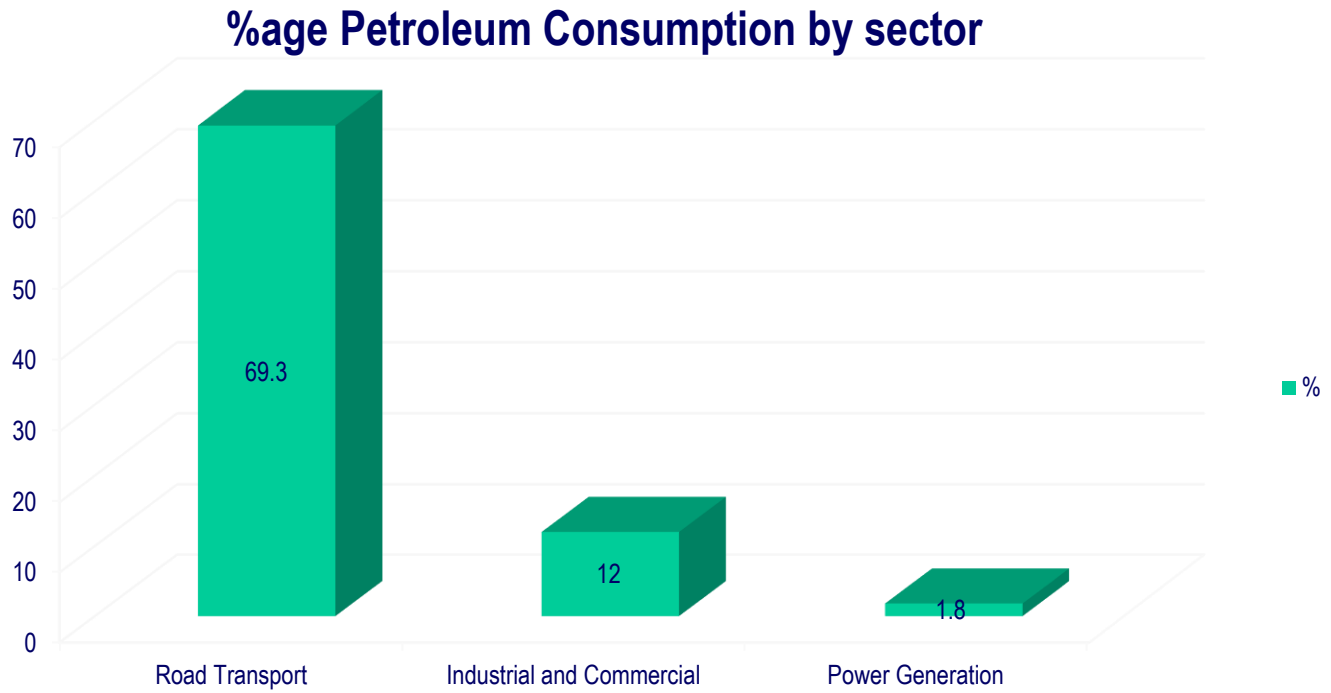
Energy Regulatory Commission, KENYA

GFEI GLOBAL FUEL ECONOMY INITIATIVE

UNEP

gef

Petroleum Consumption by Sector in Kenya



Energy Regulatory Commission

New and Used LDV Population

Year	2010	2011	2012	Grand Total	%
New	728	1,032	1,212	2,972	1.0
Used	92,410	95,452	109,260	297,122	99.0
Total	93,138	96,484	110,472	300,094	100

Fuel Economy and CO_2 emission standards

Year	Average fuel Consumption Metric combined(L/100Km)	Average CO_2 emission (g/Km)
2010	7.4	178.2
2011	7.6	182.0
2012	7.7	185.4
Grand Average	**7.5**	**181.7**

CO_2 (g/km) and fuel consumption (L/100km)

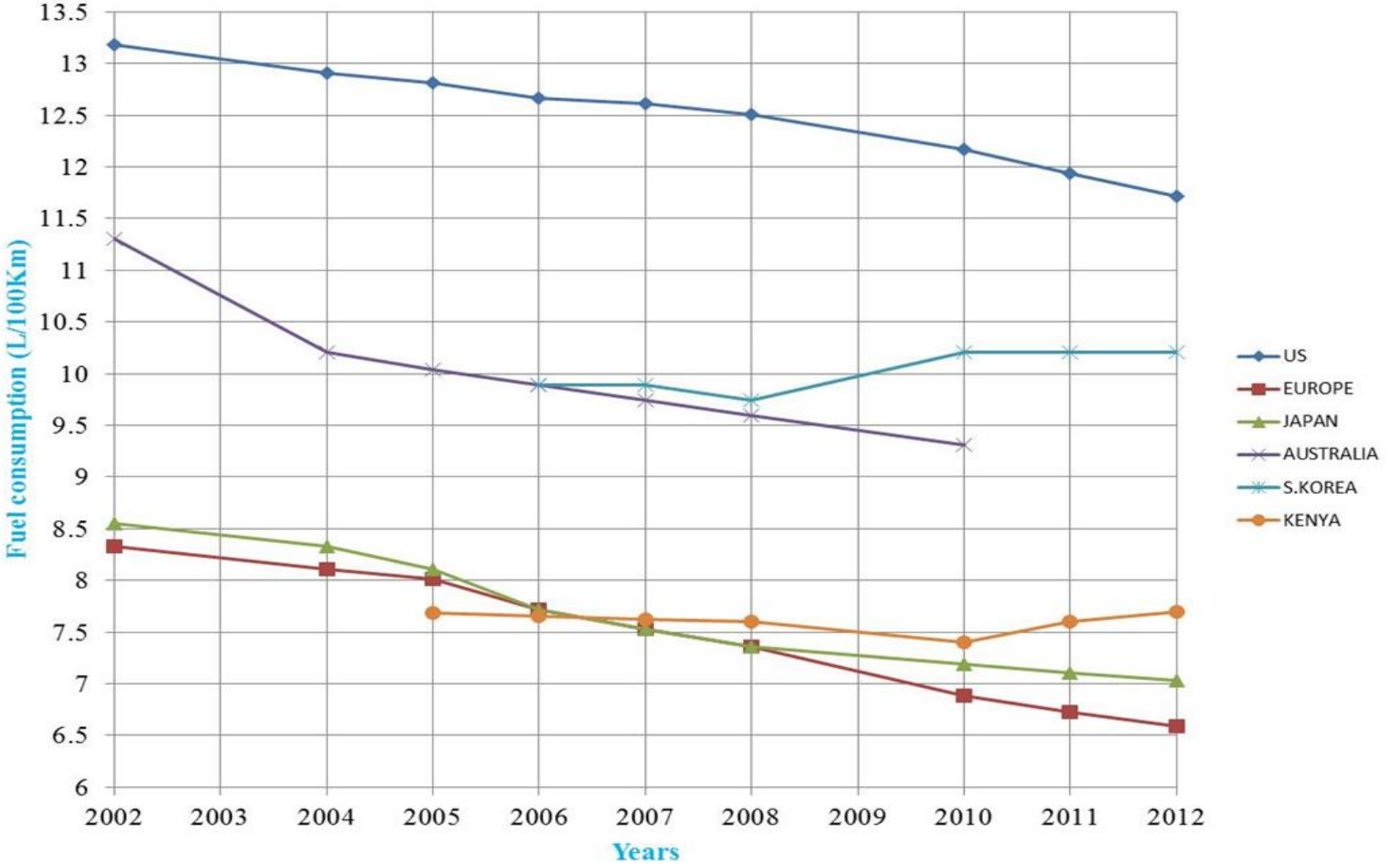
Vehicle Condition	Average of Fuel Consumption (L/100km)	Average of CO2(g/km)
New	7.3	176.2
Used	7.5	181.7
Grand Total	7.5	181.7

Year of vehicle registration	Fuel Type		
	Diesel	Petrol	Grand Average
2010	8.0	7.2	7.4
2011	7.9	7.5	7.6
2012	8.0	7.6	7.7
Grand Average	**8.0**	**7.4**	**7.5**

Comparison of registration of petrol and diesel with hybrid engine type

Fuel Type	2010	2011	2012	Grand Total
Diesel	15,234	13,106	13,300	41,640
Hybrid (Prius)	40	22	26	88
Petrol	77,862	83,356	97,148	258,366
Grand Total	93,136	96,484	110,474	300,094

Comparison of L/100km with select countries



Energy Regulatory Commission

Policies

I. Traffic Act, Chapter 403

II. Integrated National Transport Policy, 2009

III. National Transport and Safety Authority Act, No. 33 of 2012

IV. Standards Act, Cap 496

- KS 1515:2000 – Code of practice for inspection of road Vehicles and limit in importation of used cars (8 years)
- KS EAS 158 (2012) – Motor Gasoline: Specifications Improved RON 93
- KS EAS 177M(2012)– Diesel Fuels: Specification – Reduced Sulphur from 500 ppm to 50 ppm

Challenges

- Low uptake of Absence of electric/hybrid vehicles in spite of a favourable taxation regime for them. Lack of awareness.
- Increase of motorcycles has high social cost implications: increased accidents, and environmental degradation – Mostly two stroke engines type.
- Regional integration challenges
- 8 year rule. Penalised importation of newer vehicles which are more efficient.
- Inadequate/lack of emissions testing capacity at MVIU

Challenges (cont.)

- Growing middle class/vehicle population – Infrastructure development not able to keep up
- Socio-economic and revenue considerations in view of 8 year rule elimination
- Lack of coordination framework among relevant laws/institutions

Overcoming the Challenges

- Policy recommendations in support of new technologies, e.g., hybrids – In the Draft Energy and Petroleum Policy, among others.
- Policy recommendations for phase-out of 2 stroke engines
- Work through Customs Union/Regional Integration (EAC)
- Motor Vehicle Inspection Unit (MVIU) now under National Transport Safety Authority (NTSA)

Overcoming Challenges (cont.)

- Finance Bill 2015
  - 8 year rule retained
  - Used cars below 3 years attract 30% tax.
  - Used cars above 3 years attract 150% tax
  - Smaller engines to have less tax
- Supervision of GFEI – Multi-sectoral approach
  - Energy Regulatory Commission (Chair and Implementation), Ministry of Energy and Petroleum, Ministry of Transport and Infrastructure, National Treasury, Ministry of Environment, National Transport and Safety Authority, National Environment Management Authority, Kenya Bureau of Standards, General Motors, Petroleum Institute of East Africa
  - Lobbying – Relied on MOEP, National Treasury, PIEA, ERC

RECOMMENDATIONS OF GFEI STUDY

Vehicle Inspection:

The Motor Vehicle Inspection Unit to develop capacity to do the following:

- Conduct regular inspection inclusive of monitoring of emissions for all vehicles. **(short term)**
- Increase capacity of the Unit or license credible garages to provide the inspection services to all vehicles and motorcycles **(short term)**

Recommendations Cont.....

Taxes:

The state to establish mechanisms to consider the following:

- Fuel tax options / tax rebate systems in relation to CO_2 emissions and fuel efficiency levels **(Medium term).**
- Reduce per capita annual kilometers travelled through travel demand management strategies **(Short term)**

Recommendations Cont……

Vehicle and fuel Standards:

The state to establish a framework to do the following:

- Phase out motorcycles with two stroke engines on account of high pollution and fuel consumption. **(Short term)**
- Implement all existing standards. **(Short term and Medium term)**
- Ensure competency of motorcycle riders, enforce proper loading and regular assessment for road worthiness.

Recommendations Cont.....

Health surveillance:

The state to establish a framework to carry out the following:

- Continuous surveillance of total suspended particulate (TSP) matter and elemental concentrations.**(Short term / Continuous)**
- Conduct periodic estimation of economic burden of vehicle emission related illnesses to plan and implement control and prevention policies and programs. **(Short term / Continuous)**

Recommendations Cont.....

Public Awareness:

The state to establish mechanisms to do the following:

- Public awareness on vehicle usage and vehicle efficiency implications to environment. **(Short term)**
- Improve competencies to screen diseases related to air pollutants. **(Short-term / Continuous)**
- Implement vehicle labeling for consumer information. **(Short-term)**
- Public awareness of social costs associated to motorcycles in the form of accidents and increased pollution. **(Short term)**

END

THANK YOU FOR LISTENING

China Energy Efficiency Framework

Energy Efficiency Competent Departments of Central government

NGOs

National Energy Conservation Center

Standards and Labeling

Energy Efficiency Service Associations

Energy Efficiency Competent Departments of Provincial and local level

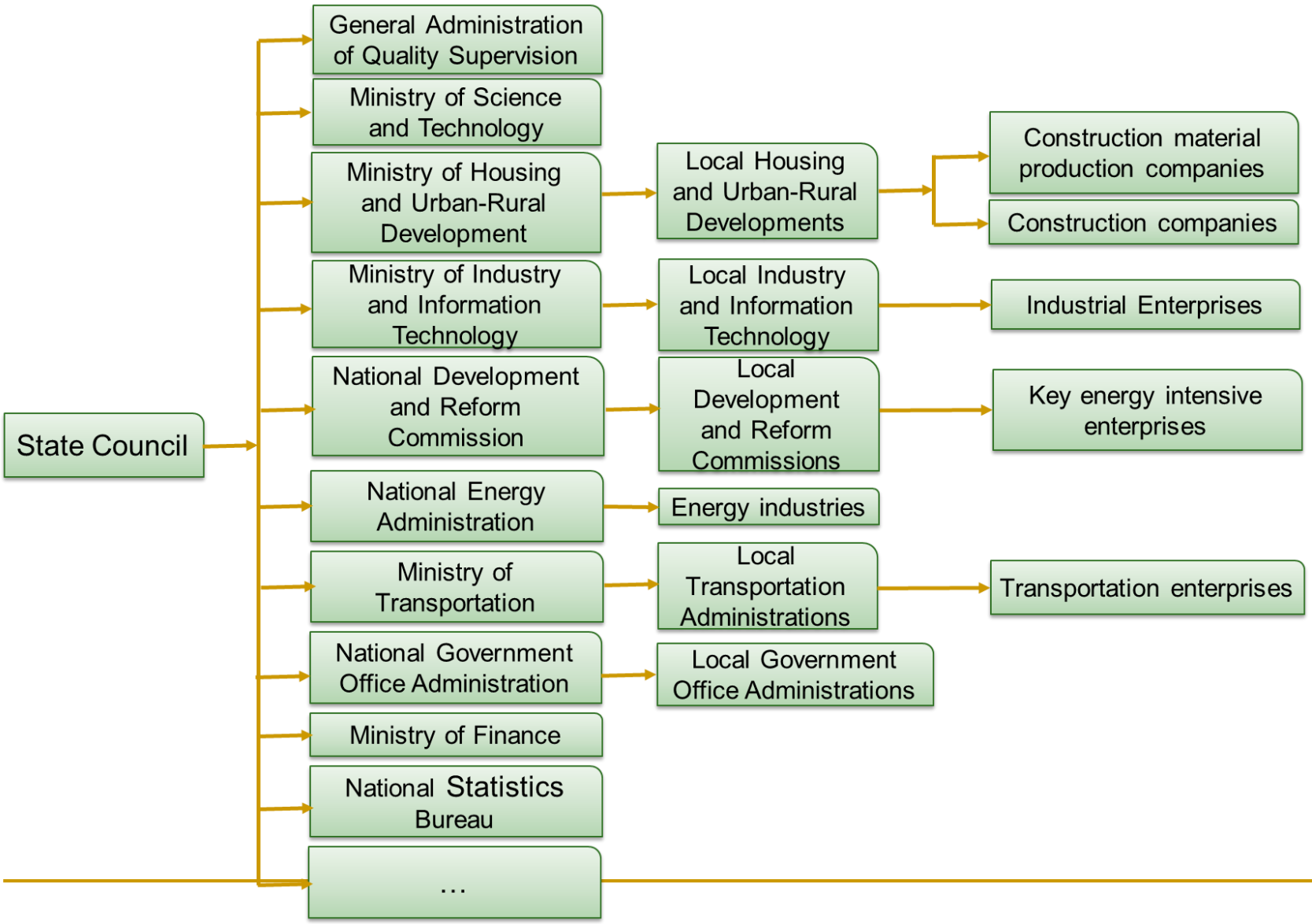
Local energy efficiency supervision organizations

Local energy efficiency centers

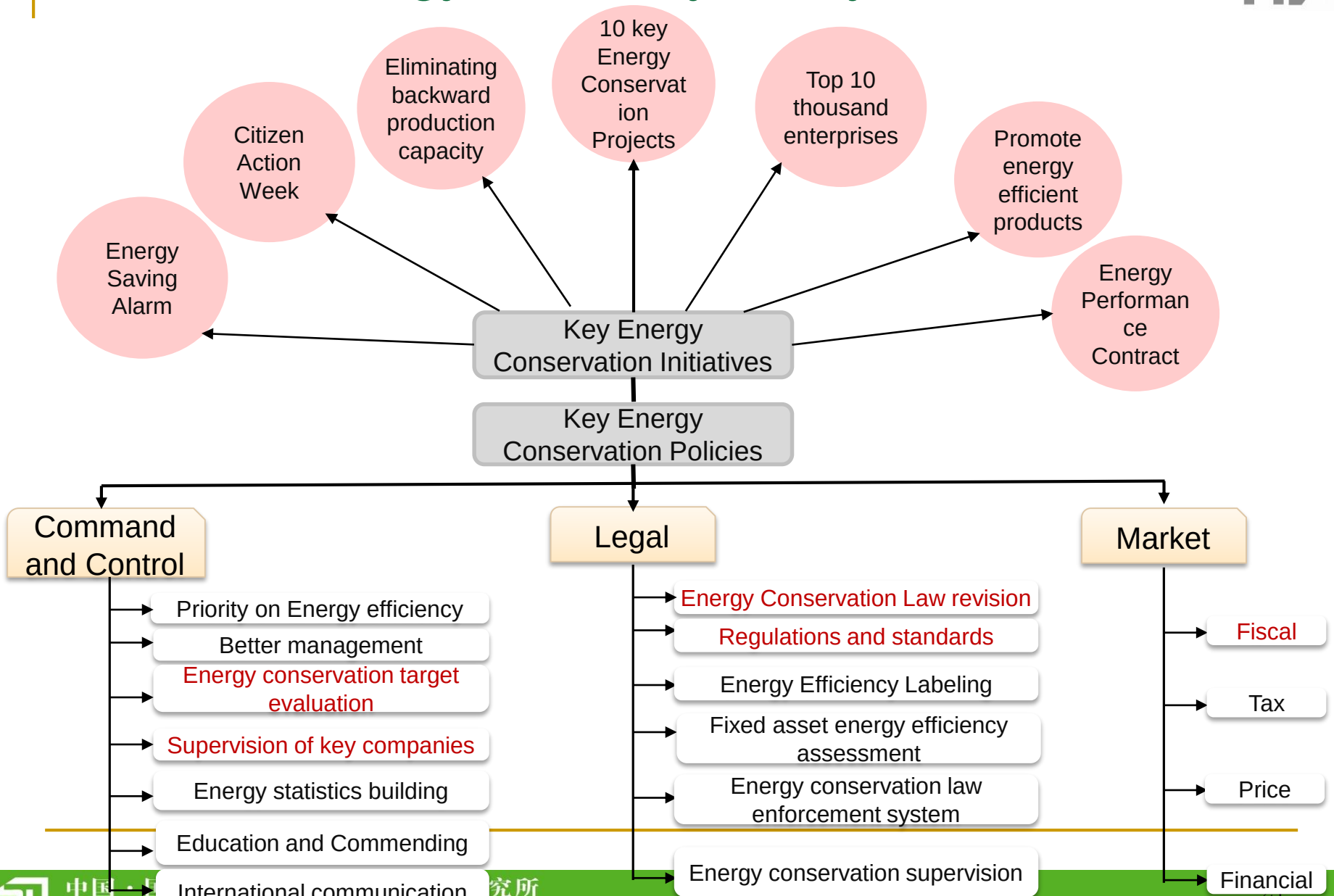
Enterprises and Individuals

Energy Conservation Law

Government Energy Efficiency Institutional Structure



China Energy Efficiency Policy Framework



Future trends…

- ✓ Most challenging economic and energy conservation phase for China during the 13th Five Year Plan
- ✓ Market oriented energy efficiency policies v.s. reforms
- ✓ Addressing climate change pressures as the top 1 emitters in the world

China's Fuel Economy Standard Improvements

Stage I
2005-2008

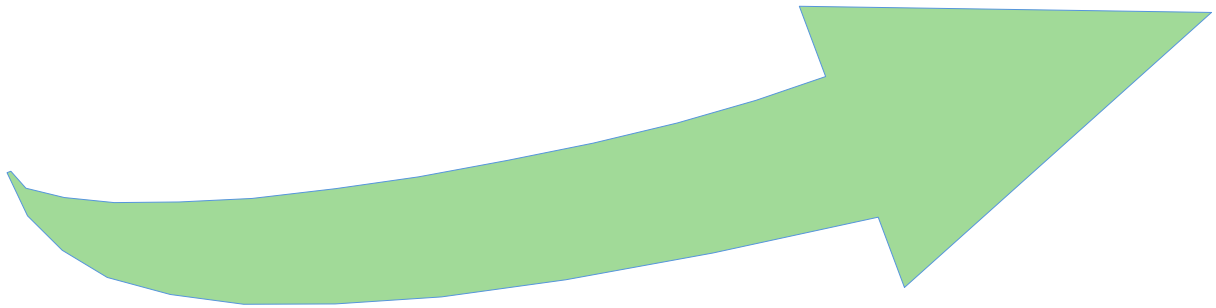
Stage II
2008-2013

Stage III
2013-2016

Stage IV
2016-2020
5L/100km

MEPS

CAFE



5L/100km

Pre-study and comparison carried out by MIIT since 2011

Energy efficient and new energy vehicle development planning in 2012

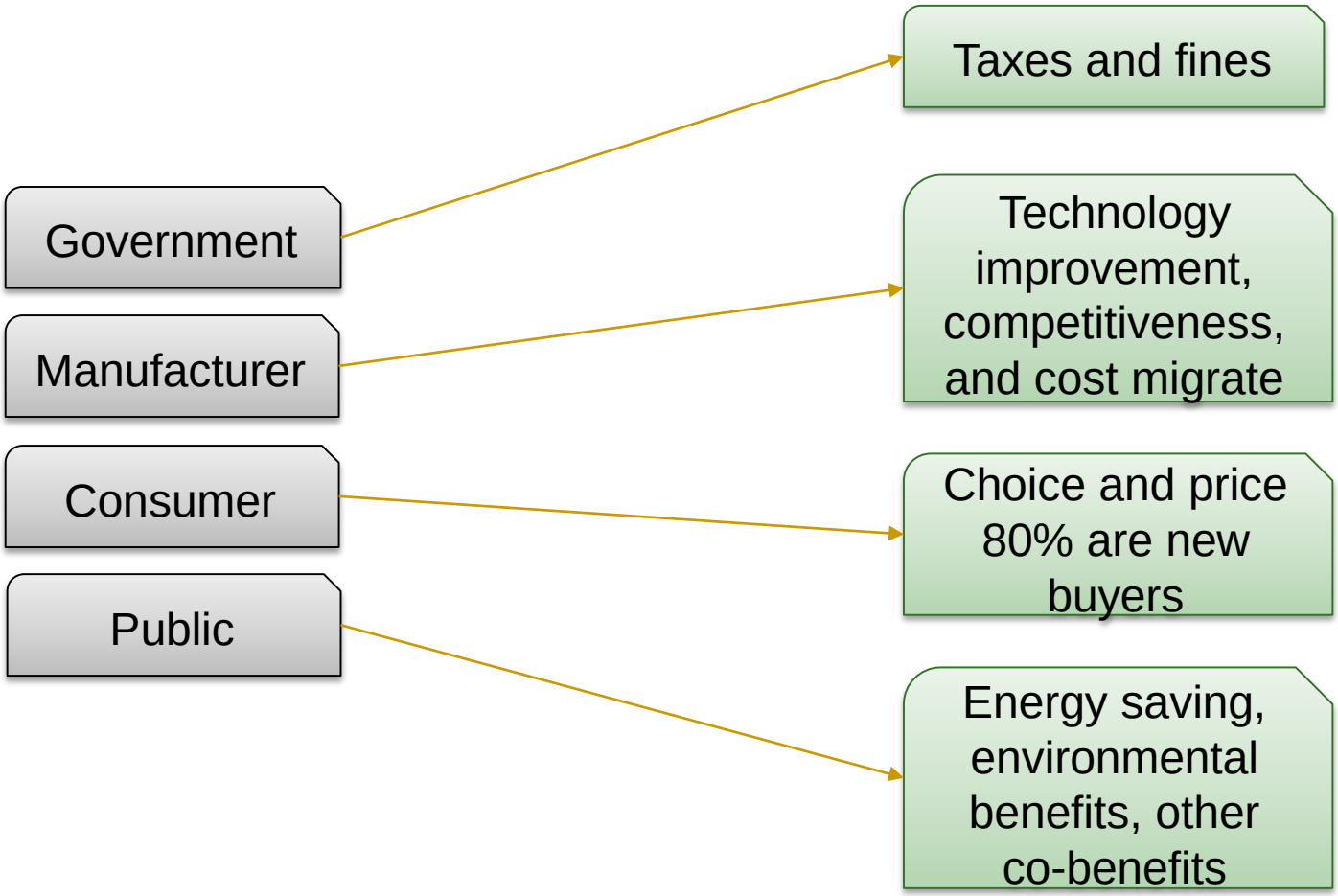
Standardization Administration claimed the revision demand in 2014

CATARC undertook the executives (National Technical Committee of Auto Standardization)

How to improve and expected results

- ✓ To promote the development of new energy vehicles, the non-fossil fuel consumed is not counted before year 2020,and can be subtracted when calculating corporates' fuel economy.
- ✓ According to the study by CATARC, the Stage 4 Fuel Economy Standard will contribute to 35 million tons of oil equivalent savings and 113 million CO2 emissions reduction.

Stakeholders



MEXICO
SENER
SECRETARÍA DE ENERGÍA

CONUEE
COMISIÓN NACIONAL PARA EL USO EFICIENTE DE LA ENERGÍA

Economy Policies

- SHCP Secretary of Finance
- SE Secretary of Economy
- SENER Ministry of Energy
- PEMEX Regulatory Commission Energy
- CRE Regulatory Commission Energy
- CONUEE National Comisón for Efficient Use of Energy.

In 2014 consumed 18 million fuel savings and 17.3 million had fuel.

** Programa Sectorial de Energía (Sexenio)
**Plan Nacional de Desarrollo - PND (Sexenio)
**Estrategia Nacional de Energía - ENE (largo plazo)

MEXICO
SENER
SECRETARÍA DE ENERGÍA

CONUEE
COMISIÓN NACIONAL PARA EL USO EFICIENTE DE LA ENERGÍA

The authorities assumed

- Payment of vehicular endorsement (refrendo)
- Be in good standing with the Treasury of the Federal District for taxes and local services (property, water or backward holdings, for example).
- Card count to force Circulation Chip

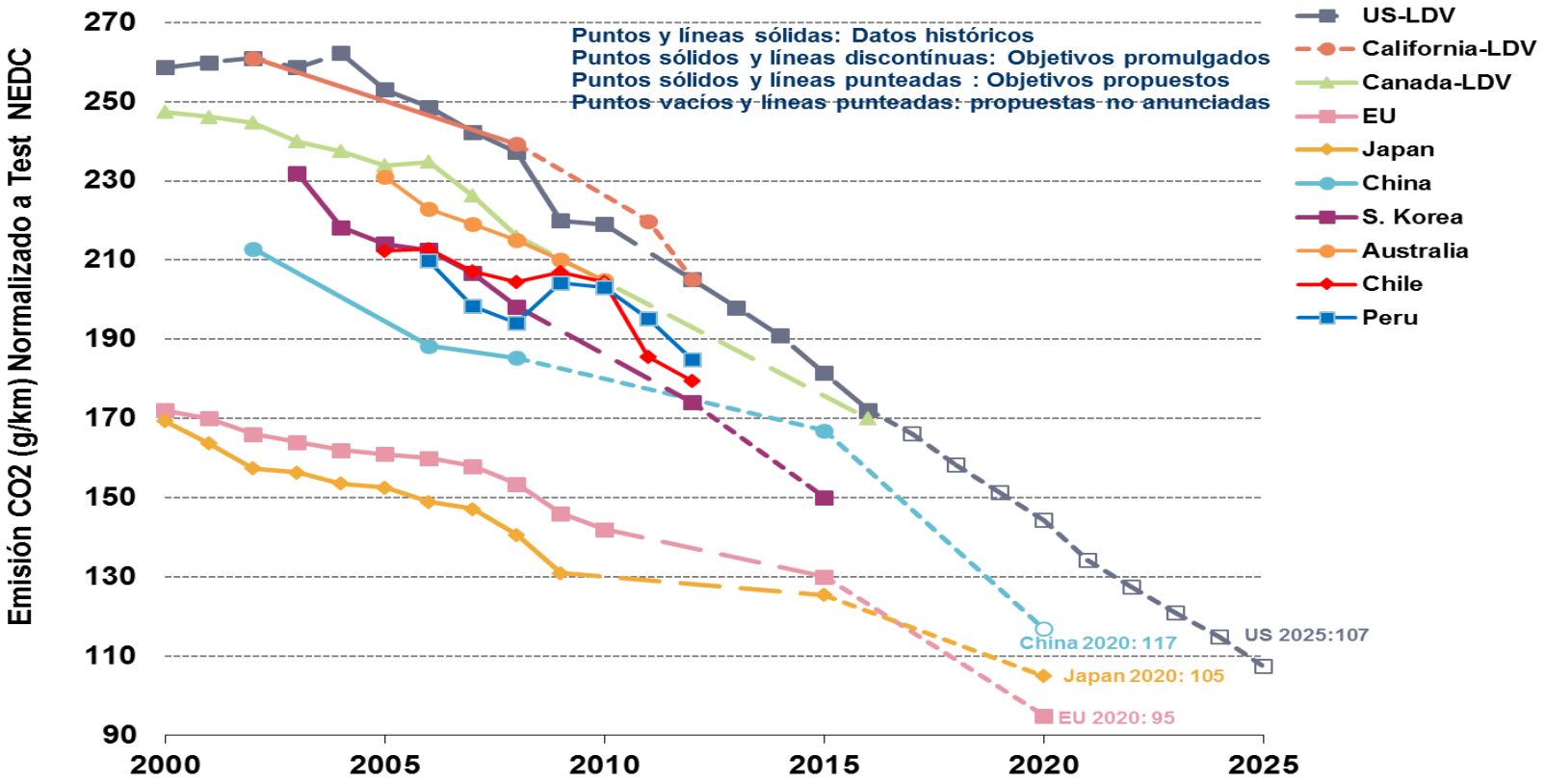
What tax pay hybrids or electric cars?

Electric cars or hybrids will be subsidized 100% payment of tenure and without prejudice to the obligations that apply in your case.

The importation of used vehicles from the United States has been a major factor in this growth, since it has led to an increase in the average age of the park and has generated concerns as to the low average kilometers per liter gasoline and increasing emissions of greenhouse gases. (GEI)

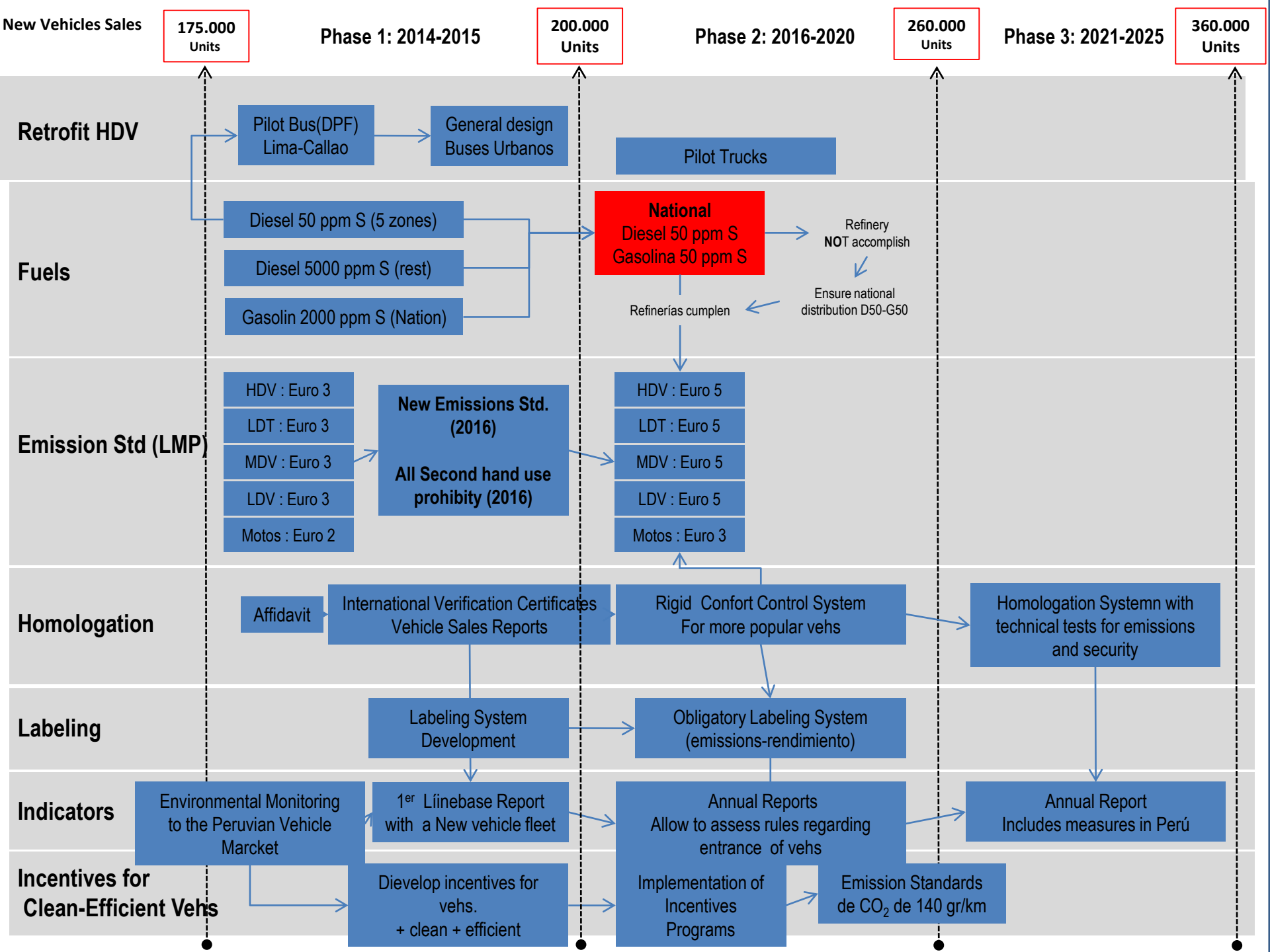
PERÚ Ministerio del Ambiente

CO_2 Emissions New Vehicles



[1] El Objetivo de China correspondeal escenario de la flota a gasolina. Si se incluye otro tipo de combustible, el objetivo sería más bajo.
[2] Estados Unidos y Canadá light-duty vehicles incluyen light-commercial vehicles.

Resultado: Altas emisiones de CO_2 en vehículos nuevos


New Vehicles Sales
175.000 Units
Phase 1: 2014-2015
200.000 Units
Phase 2: 2016-2020
260.000 Units
Phase 3: 2021-2025
360.000 Units
Retrofit HDV
Pilot Bus(DPF) Lima-Callao
General design Buses Urbanos
Pilot Trucks
Fuels
Diesel 50 ppm S (5 zones)
Diesel 5000 ppm S (rest)
Gasolin 2000 ppm S (Nation)
National Diesel 50 ppm S Gasolina 50 ppm S
Refinery NOT accomplish
Ensure national distribution D50-G50
Refinerías cumplen
Emission Std (LMP)
HDV : Euro 3
LDT : Euro 3
MDV : Euro 3
LDV : Euro 3
Motos : Euro 2
New Emissions Std. (2016)
All Second hand use prohibity (2016)
HDV : Euro 5
LDT : Euro 5
MDV : Euro 5
LDV : Euro 5
Motos : Euro 3
Homologation
Affidavit
International Verification Certificates Vehicle Sales Reports
Rigid Confort Control System For more popular vehs
Homologation Systemn with technical tests for emissions and security
Labeling
Labeling System Development
Obligatory Labeling System (emissions-rendimiento)
Indicators
Environmental Monitoring to the Peruvian Vehicle Marcket
1er Líinebase Report with a New vehicle fleet
Annual Reports Allow to assess rules regarding entrance of vehs
Annual Report Includes measures in Perú
Incentives for Clean-Efficient Vehs
Dievelop incentives for vehs. + clean + efficient
Implementation of Incentives Programs
Emission Standards de CO_2 de 140 gr/km