

PCFV Relaunch

Clearing House Proposal
for

a Strengthened Focus of the PCFV
on Low Sulphur Fuels and Vehicles
Emissions Standards



Decision 9GPM

- Complete leaded petrol elimination;
- Strengthen work to support a move to 50ppm or less fuel sulphur levels;
- Strengthen work to support countries put in place vehicle standards
 - To include a phased systems & EURO-like approach
 - And a technology specific approach – ensure catalytic converters are mandatory where unleaded fuel available



Today's proposal

Translating decisions into a PCFV workplan for the coming years:

- How do we **combine fuels (50 ppm) and vehicles targets (vehicle emmissions)** into one campaign?
- What will be our **targets**?
- What **strategy** will we follow?
- What does this mean for the **work of the PCFV** in the short, medium and long term?
- What would be the **demand for support** by countries to achieve this?
- How would we **communicate** this PCFV campaign?
- What would be the **resources** (people and funds) needs?
- What would be the **involvement of Partners**?
- Which **other programs** are working on this, and should we cooperate/ coordinate with them?



Completing the elimination of leaded petrol

Leaded Petrol Elimination Status

Country	Fuel source	Leaded status
Afghanistan	<ul style="list-style-type: none"> Imports 100% most likely from Iran and Pakistan 	Limited information but could already be unleaded
Algeria	<ul style="list-style-type: none"> 3 large refineries and 2 small ones 	<ul style="list-style-type: none"> Arzew refinery to phase out in June 2012 Skikda refinery to phase out in July 2013 Alger refinery to phase out in March 2014 Lead replacement being considered for the other refineries In May 2012, 42% of stations selling unleaded
Iraq	<ul style="list-style-type: none"> 11 refineries 	<ul style="list-style-type: none"> Some refineries produce unleaded C-H aiming at regionally adoption of unleaded where possible
Myanmar	<ul style="list-style-type: none"> Imports leaded fuel mainly from China and Singapore 2 government refineries 	Has both leaded and unleaded
North Korea	<ul style="list-style-type: none"> 2 government refineries Imports from China and Russia (both crude and refined) 	Very little leaded petrol that is reserved for “high quality vehicles”. The rest of fuel colored differently and has no additives
Yemen	<ul style="list-style-type: none"> 2 refineries 	11% of petrol sales are unleaded

Remaining activities to support completion

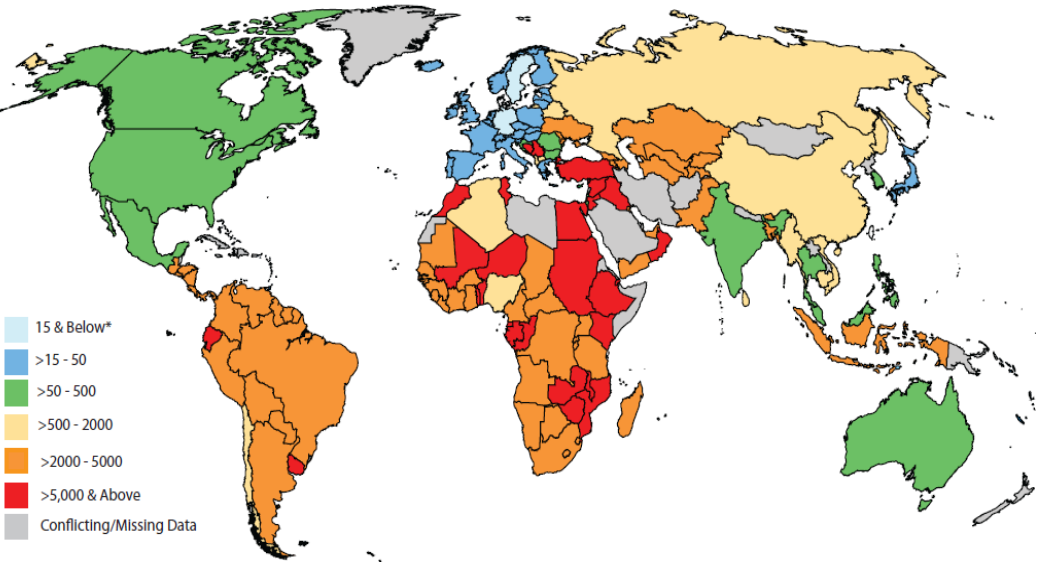
Country	Activities	Phase-Out Date
Afghanistan	<ul style="list-style-type: none"> Dialogue with Ministry of Environment Blood lead testing C-H met with Afghan official at UNEP HQ 	Unknown
Algeria	<ul style="list-style-type: none"> Ministerial commitment to phase-out Sub-regional workshop in November 2011 with Morocco and Tunisia National Media Sensitization Workshop in May 2012 PCFV partners Afton and the African Refiners Association (ARA) participated at both events Roundtable meetings and media awareness on-going 	March 2014
Iraq	<ul style="list-style-type: none"> Discussions with US State Dept National workshop in Cairo in April 2011. Follow up workshop planned for Dec 2012 National task force activities being followed up by C-H and UNEP regional office 	2015
Myanmar	<ul style="list-style-type: none"> C-H and UNEP regional office held Discussion Forum in June 2010 Follow-up planned with the National Commission for Environmental Affairs on cleaner fuels and vehicles road map 	Unknown
North Korea	<ul style="list-style-type: none"> C-H and UNEP regional office held a training workshop in Jan 2011 Follow-up planned to prepare lead phase out action plan 	Unknown
Yemen	<ul style="list-style-type: none"> Several national activities supported - Blood lead testing, workshop, public awareness campaign Supported to participate in PCFV workshops (Beirut 2004, Cairo 2006 and 2010, Bahrain 2008, Tunis 2008 and 2009) Planned meeting with Prime Minister and Refinery Technical Expert postponed during uprising 	Unknown

Strengthened focus on low sulphur fuels and vehicles emissions standards



Introduction 50 ppm diesel fuels – progress to date

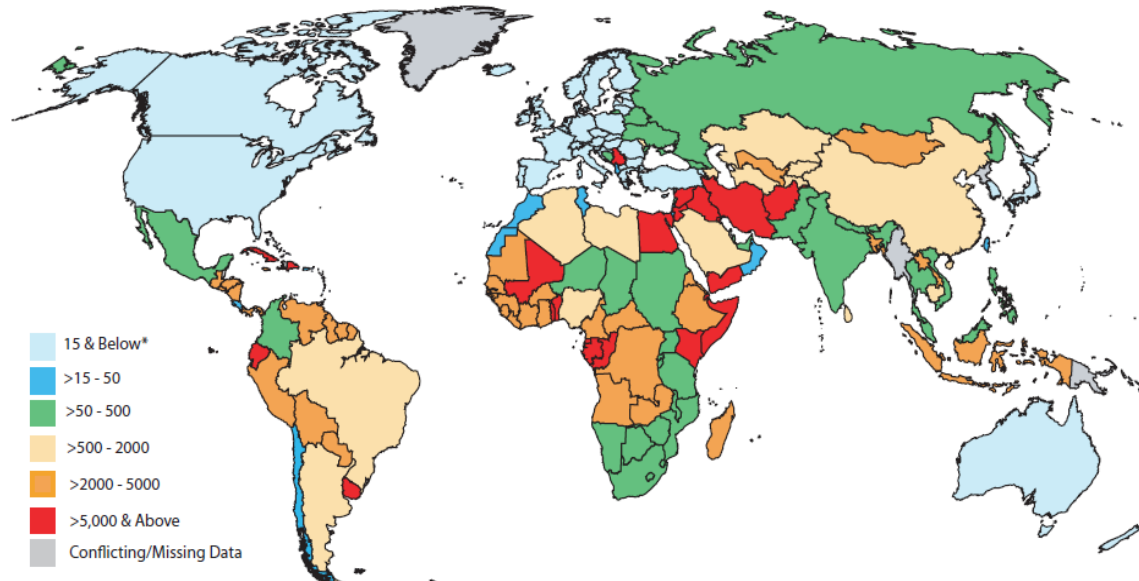
**50 ppm introduction 2005
(the **blue** countries)**



**Diesel Fuel Sulphur Levels: Global Status
June 2012**

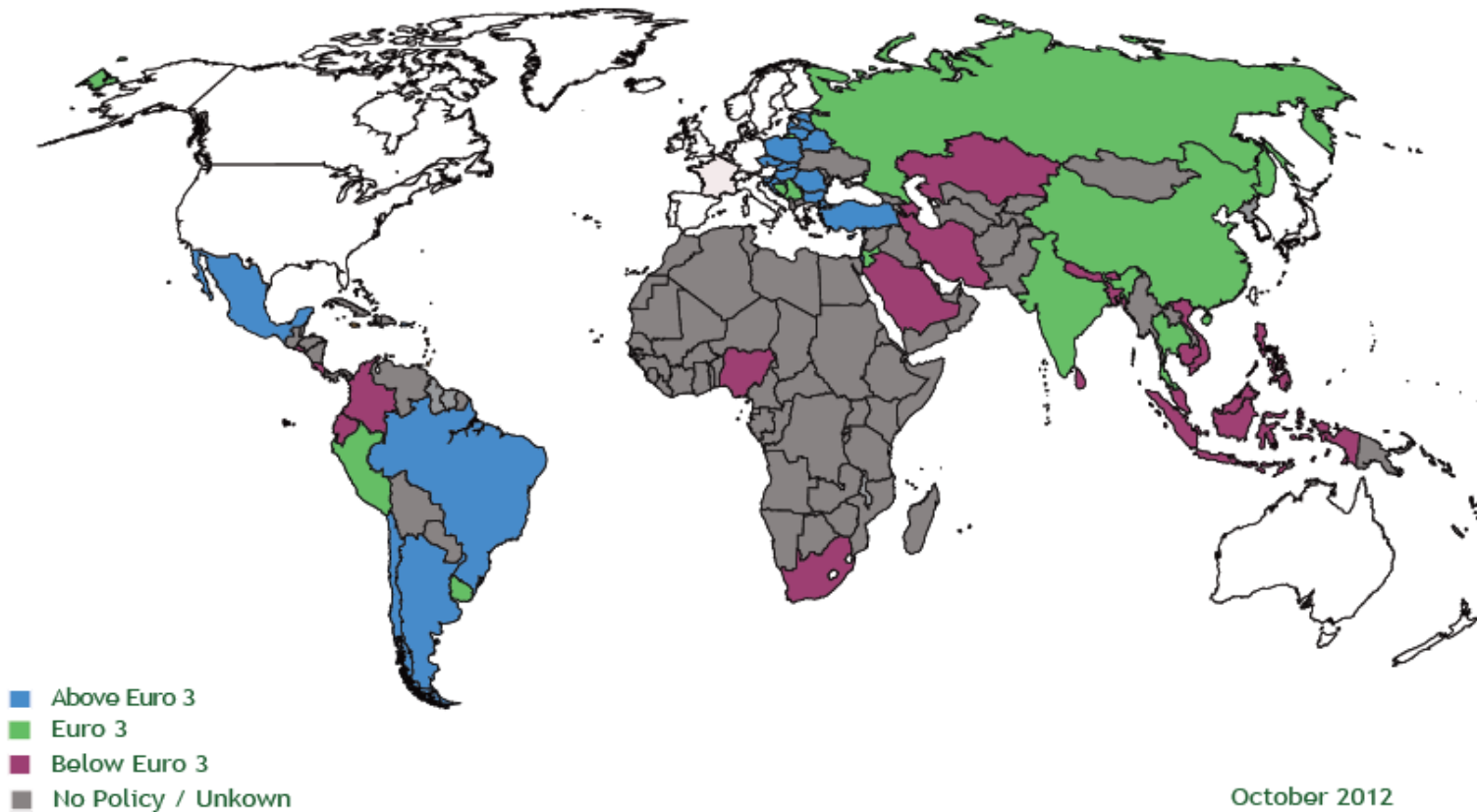
* Information in parts per million (ppm)
Sulphur levels are maximum allowable as of July, 2005. For additional details and comments per country, visit www.unep.org/pcfv.

**50 ppm
introduction 2012**



Vehicles emissions standards – progress to date

Vehicle Emissions Standards



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Expanded PCFV campaign with
focus on PM through
introduction of low sulphur fuels
and vehicles emissions
standards



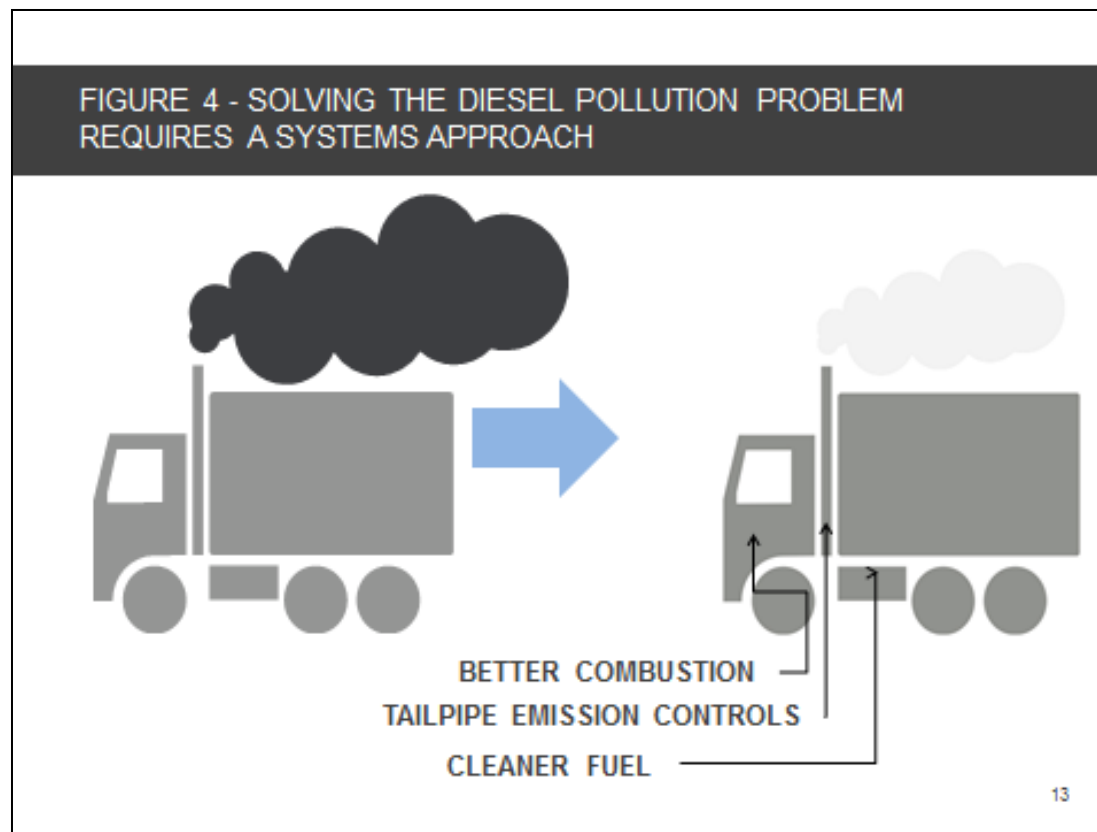
PCFV campaign

Combining 50ppm fuels work with vehicles work in one systems approach global campaign:

- Build on existing PCFV mandates to promote 50 ppm or less
- and vehicles emissions standards
- for PM and other pollutants
- Stronger emphasis systems approach
- Stronger emphasis on overall benefits: benefits for health and climate
- Stronger links with other global initiatives working on this – esp. CCAC



Combining low sulphur fuels and vehicles emissions standards – systems approach

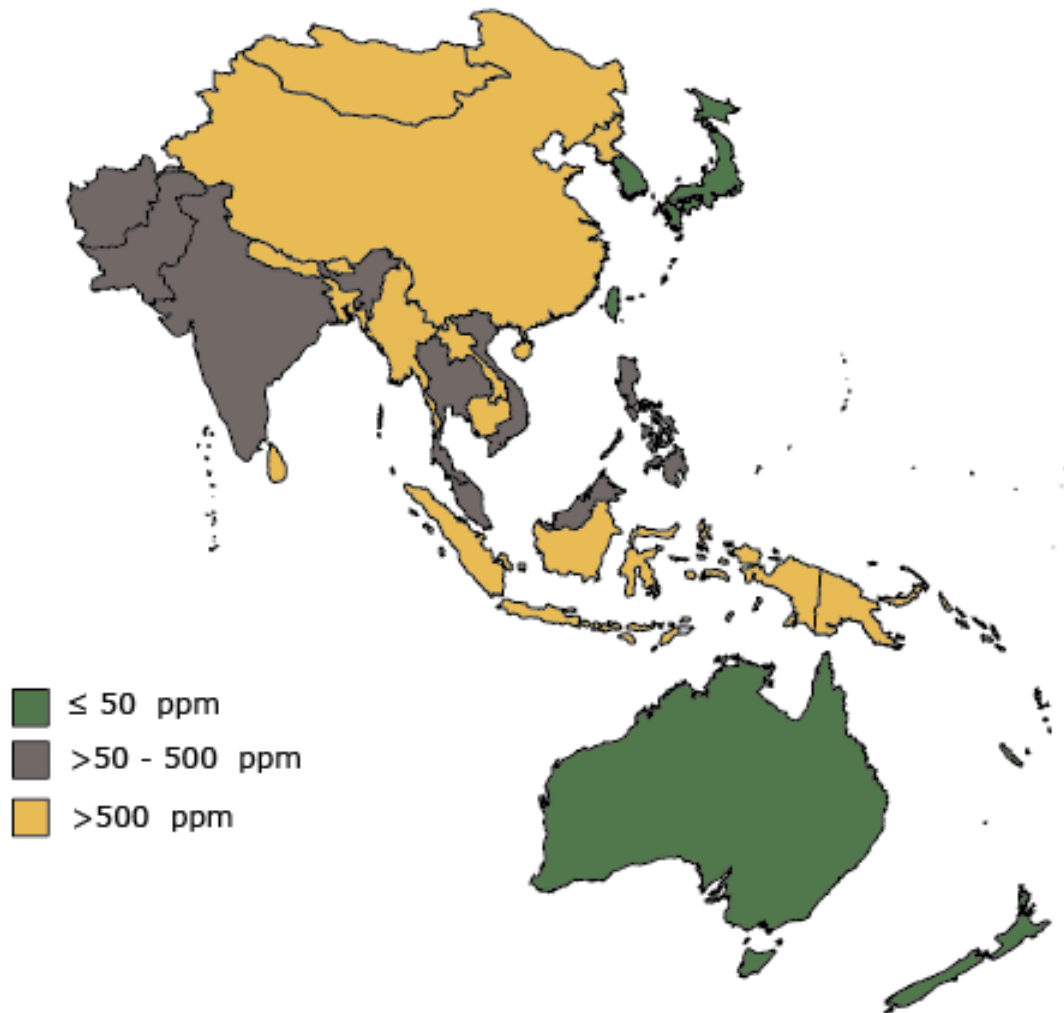


PCFV campaign

- Following the successful model of the lead campaign - outline of such a campaign:
 - Regional - plans for support and change
 - National - support key countries
 - Scale up to (sub) regional level
 - Demand driven, local priorities
 - Low sulphur fuels and vehicles emissions standards hand in hand
 - Two three year periods; 2015 (short), 2018 (long)
 - Heavily based on lessons learned lead campaign
 - Budget ~3+ mln/yr (total ~18+ mln)



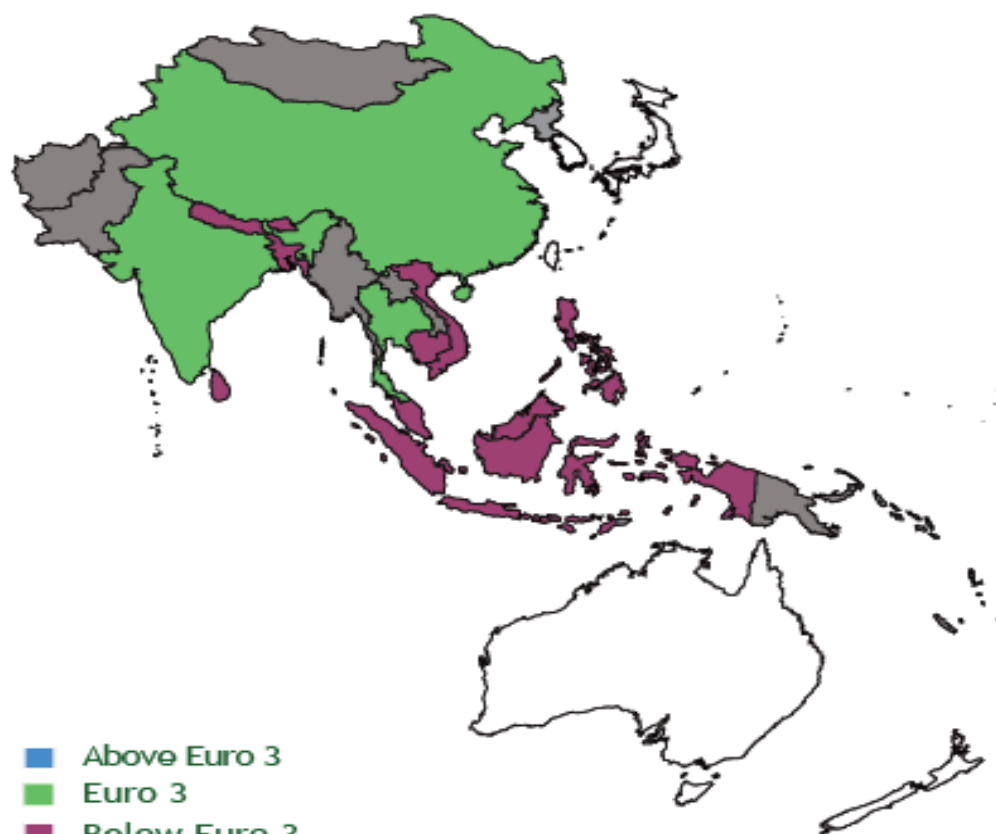
Asia – 50ppm situation



Asia – Vehicles Standards Situation

Vehicle Emissions Standards

Asia-Pacific



- Above Euro 3
- Euro 3
- Below Euro 3
- No Policy / Unknown

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Asia – PCFV Focus

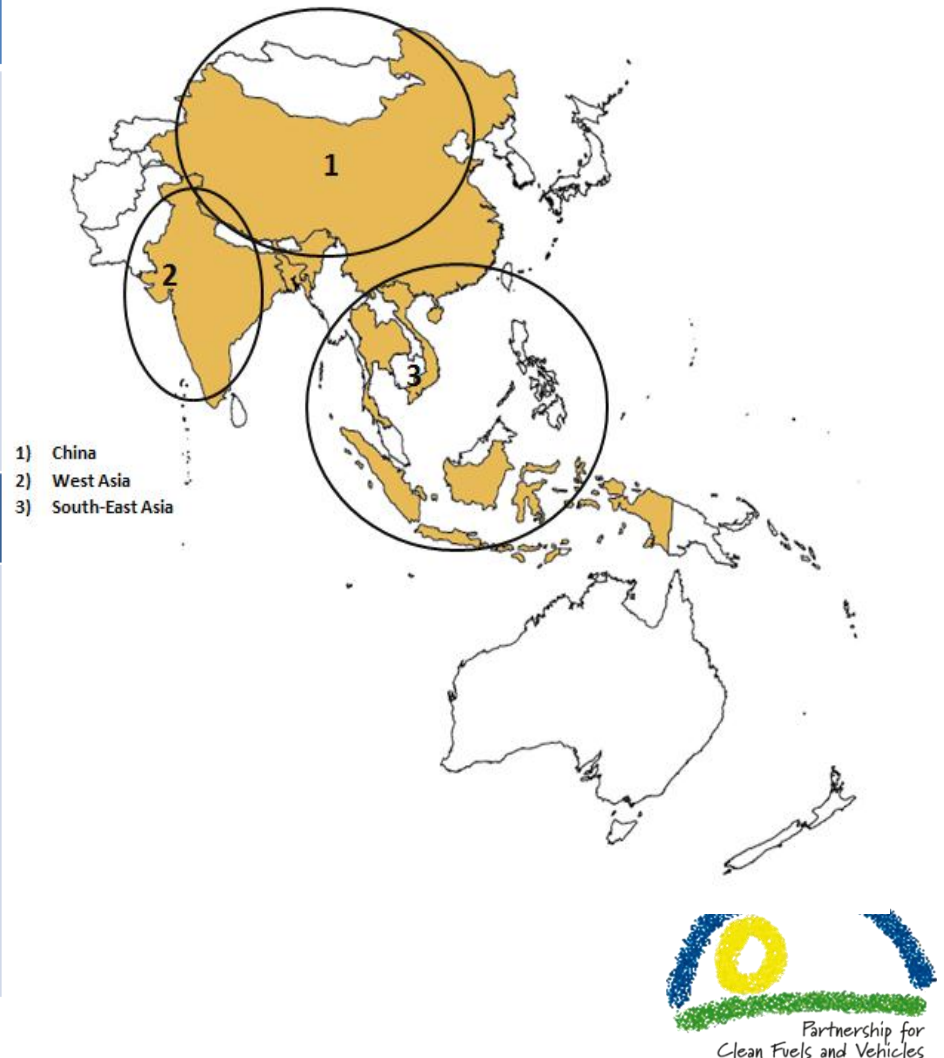
Focus

Work in three countries/ sub/regions:
China; India and Bangladesh; and in
Southeast Asian countries (Thailand,
Indonesia and Viet Nam)

Work with **ASEAN** Secretariat - ASEAN
fuels and vehicles group

Targets

- *China implements nationwide 50 ppm sulphur and adopts Euro 4 equivalent standards in 2018
- * India/Bangladesh - 50ppm fuel sulphur in 2017, Euro 4 equivalent standards in 2018
- *Indonesia - 50ppm fuel sulphur in 2016, Euro 4 equivalent standards in 2017
- *Viet Nam- 50ppm fuel sulphur in 2014, Euro 4 equivalent standards in 2015
- * Thailand - 50ppm fuel sulphur in 2013, Euro 4 equivalent standards in 2014



LAC – 50ppm situation



LAC – Vehicles Standards Situation

Vehicle Emissions Standards

Latin America and Caribbean Region



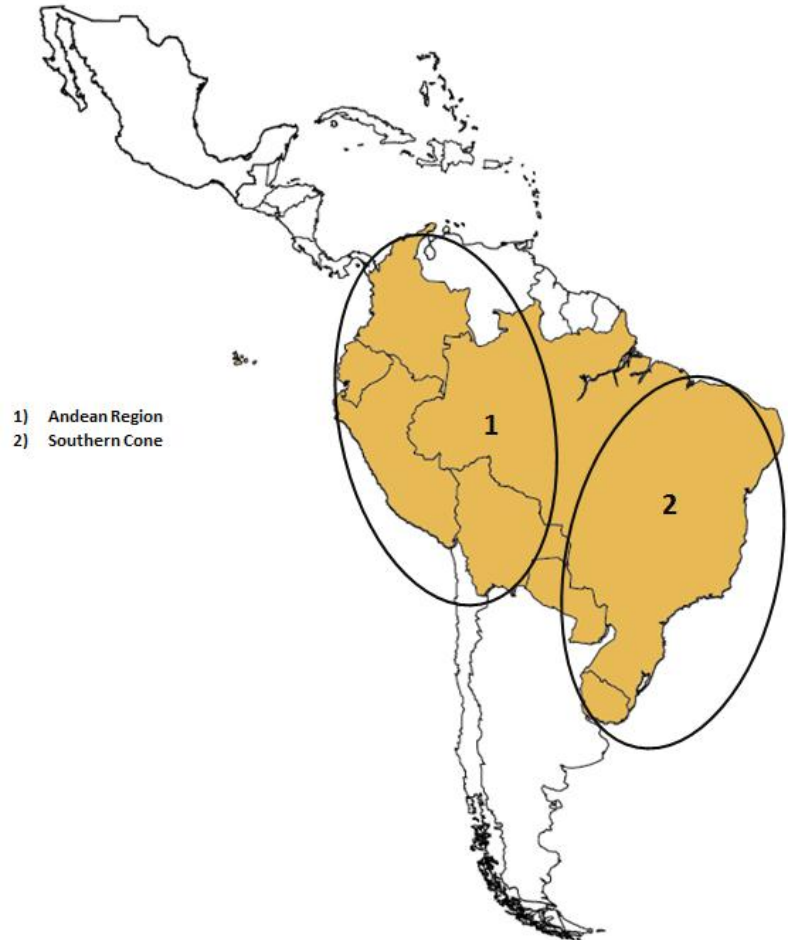
LAC: PCFV focus

Focus

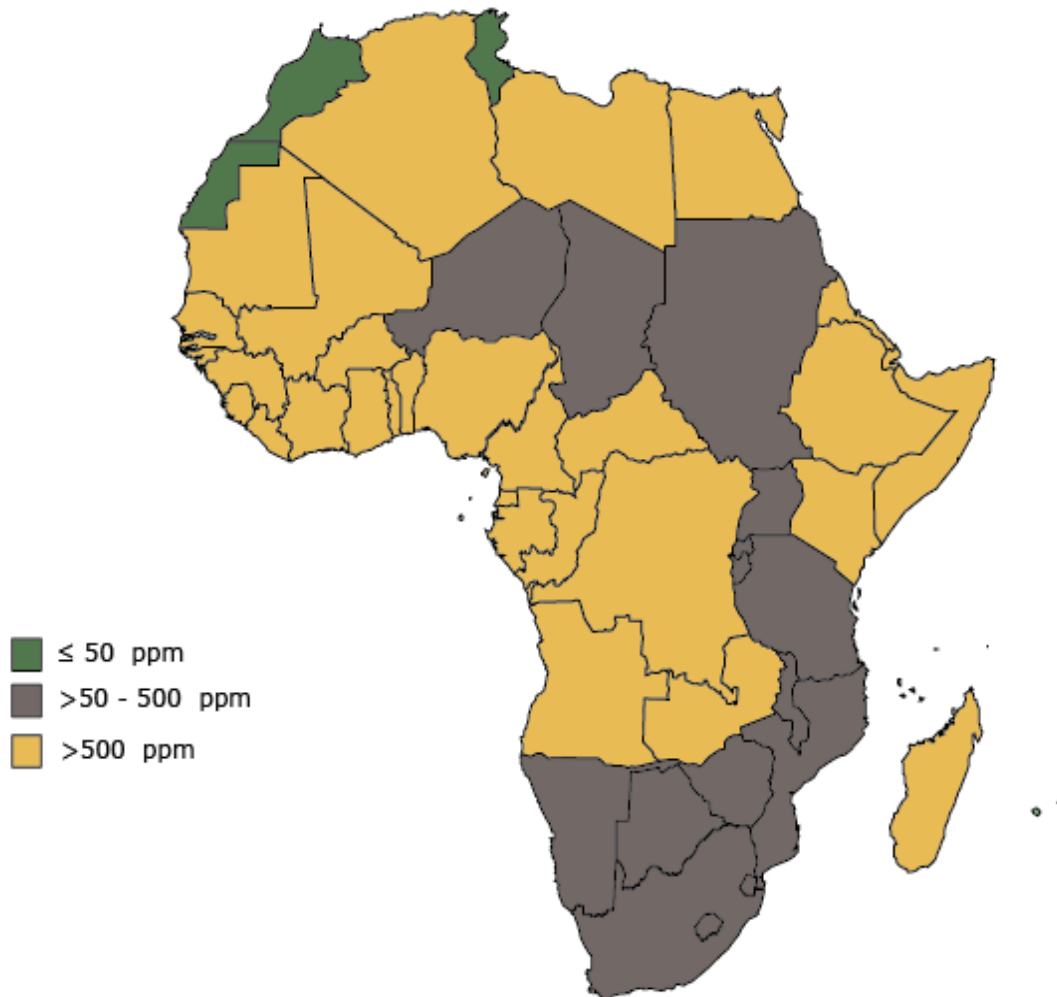
Work in two sub-regions/ countries:
Southern Cone (Brazil, Paraguay and Uruguay), **Andean Region** (Colombia, Peru, Ecuador and Bolivia)

Targets

*50 ppm in Peru in 2016 and Euro 4 emission standards for 2017, 50 ppm in Colombia for 2013 and Euro 4 by 2015, Ecuador and Bolivia to set targets for 50 ppm and Euro 4 standards
*50 ppm in Uruguay for 2013 and Euro 4 emission standards by 2016, Paraguay to set 50 ppm and Euro 4 standard targets, Brazil to set 50 ppm target



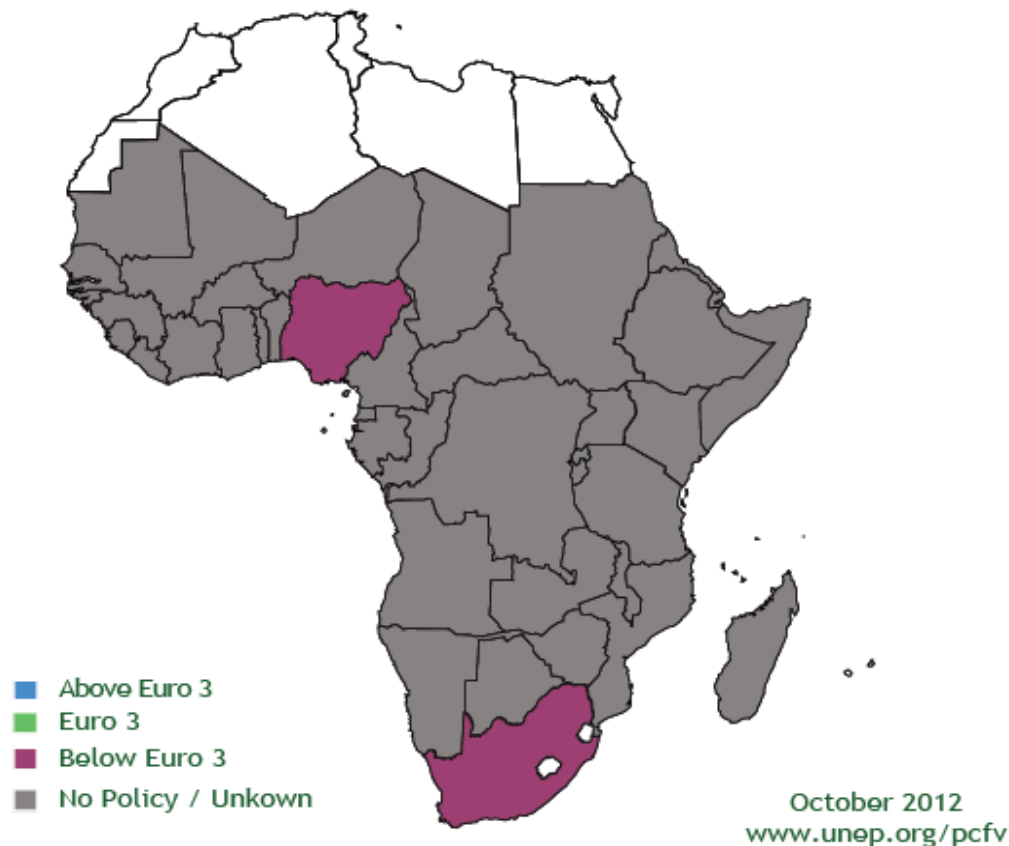
Africa – 50 ppm situation



Africa – vehicles standards situation

Vehicle Emissions Standards

Sub-Saharan Africa

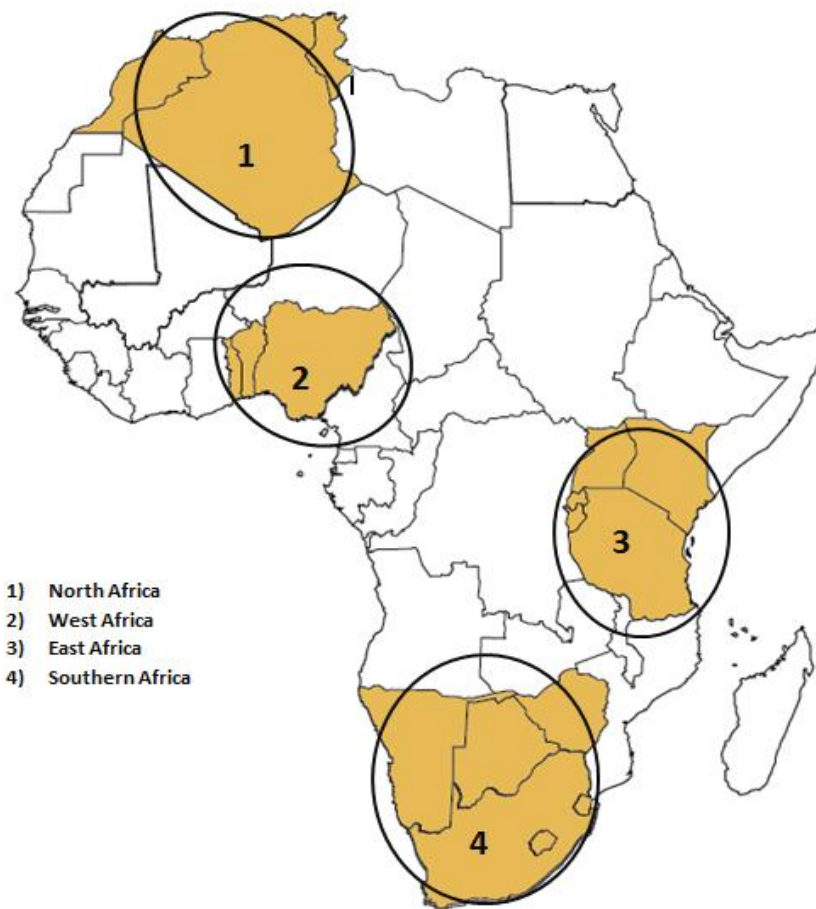


Focus

Work in four sub-regions: **North Africa** (Algeria, Morocco & Tunisia), **West Africa** (Nigeria, Benin & Togo), **East Africa** (Kenya, Uganda, Tanzania, Rwanda & Burundi) and **Southern Africa** (South Africa, Swaziland, Mozambique, Botswana, Namibia & Zimbabwe)

Targets

- *50 ppm in Algeria in 2014 and Euro 4 emission standards for North Africa region in 2016
- *50 ppm in East Africa in 2015 and Euro 4 emission standards in 2018
- *10 ppm in Southern Africa in July 2017 and Euro 4+ in 2018
- *50 ppm in West Africa by 2020 and Euro 4 emission standards



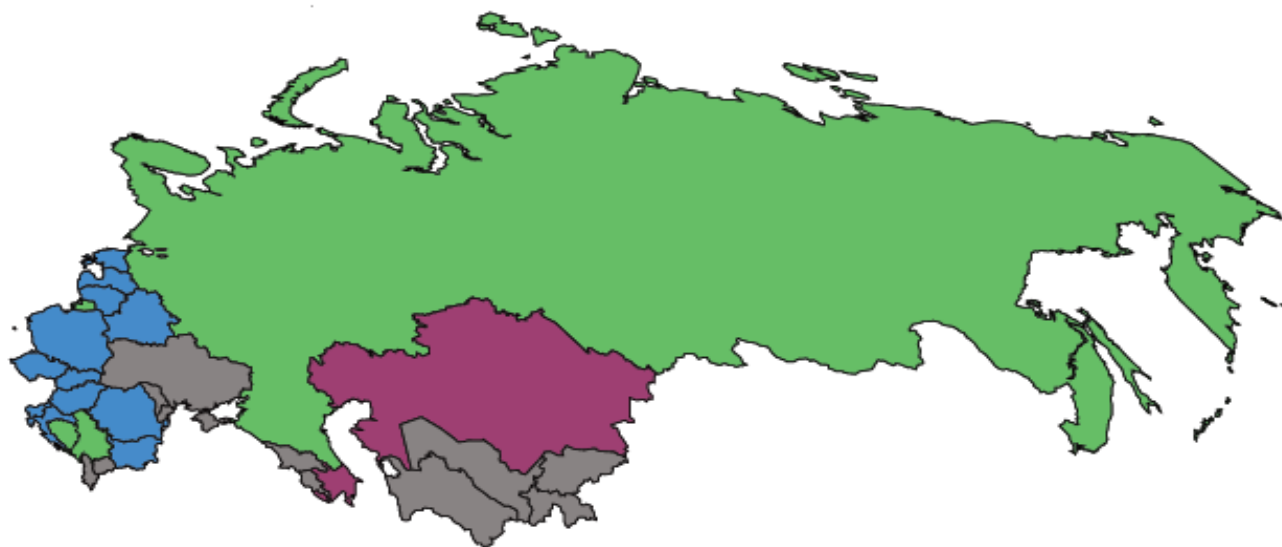
Central and Eastern Europe – 50 ppm situation



CEE – Vehicles Standards Situation

Vehicle Emissions Standards

Central and Eastern Europe, Caucasus & Central Asia



- Above Euro 3
- Euro 3
- Below Euro 3
- No Policy / Unknown

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Central and Eastern Europe – PCFV Focus

Focus

Work in three sub-regions: **East Europe** (Russia and Moldova), **South East Europe** (Serbia, Bosnia & Herzegovina); **South Caucasus** (Georgia and Azerbaijan)

Targets

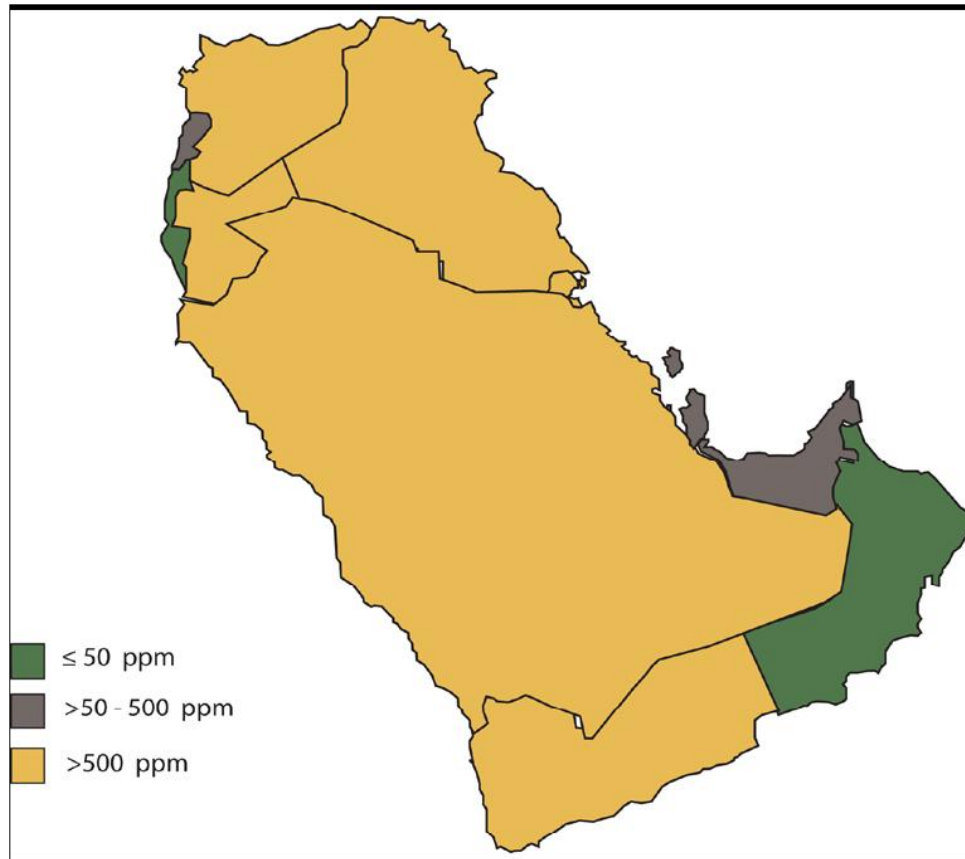
*Moldova adopt Euro 5 LDV standards in 2018 while Russia adopt low sulphur fuels (10-50 ppm) in 2017

*Serbia and Bosnia & Herzegovina adopt 10-50ppm fuels in 2014-2015 followed by Euro 5 LDV standards in 2016

* Georgia move to 50 ppm by 2017, Azerbaijan adopt 50ppm in 2018, both adopt Euro 4 LDV standards in 2018



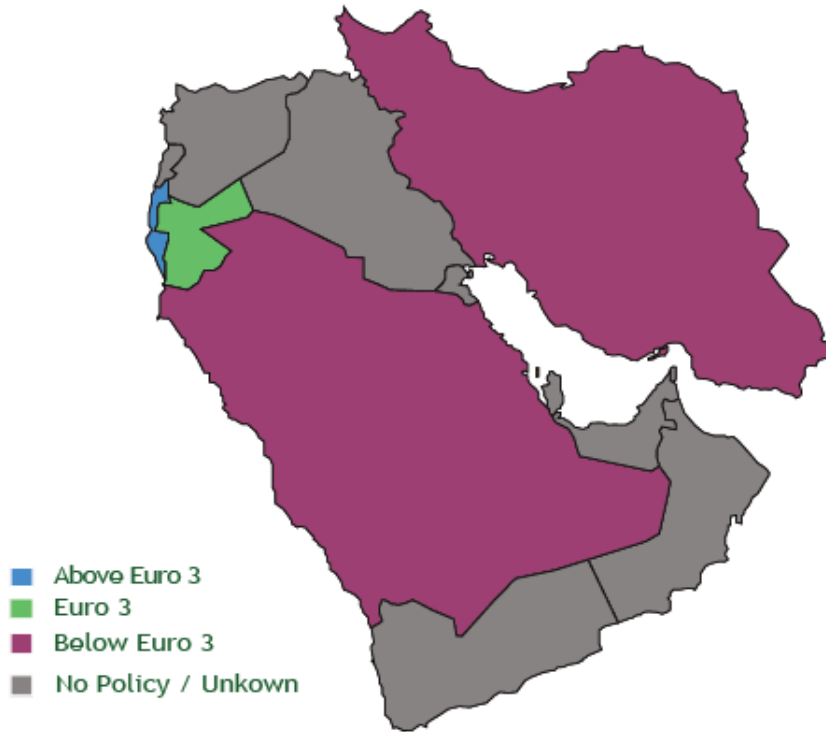
Middle East – 50 ppm situation



Middle East – Vehicles Standards Situation

Vehicle Emissions Standards

Middle East & West Asia



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Central and Eastern Europe – PCFV Focus

Focus

Work in three countries/ sub/regions:
Saudi Arabia; Bahrain and Lebanon;

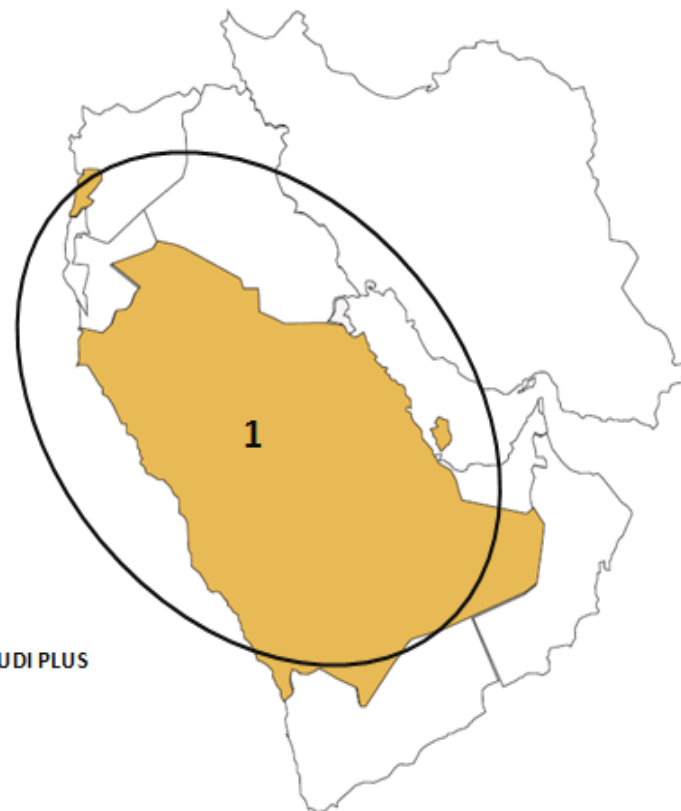
Work with **Gulf Cooperation Council(GCC)** – the Gulf Standards Organization (GSO), Fuels Committee which is GCC's organ for standards development in the 6 countries. Lebanon relies on Saudi imports.

Targets

*Saudi at 500 ppm nationwide in 2011 except for a few regions with 800ppm in 2011. Plans to go 50 ppm sulphur or lower by 2013/2014 and adopt Euro 3 equivalent standards in 2012. To be at Euro 4 equivalent by 2017.

* Bahrain – at 500ppm . 10ppm fuel available for export only due to vehicle crossover traffic from Saudi . To move in tandem with Saudi and GCC and be at Euro 4 equivalent standards in 2017

*Lebanon - 50ppm fuel sulphur in 2015, Euro 4 equivalent standards in 2017



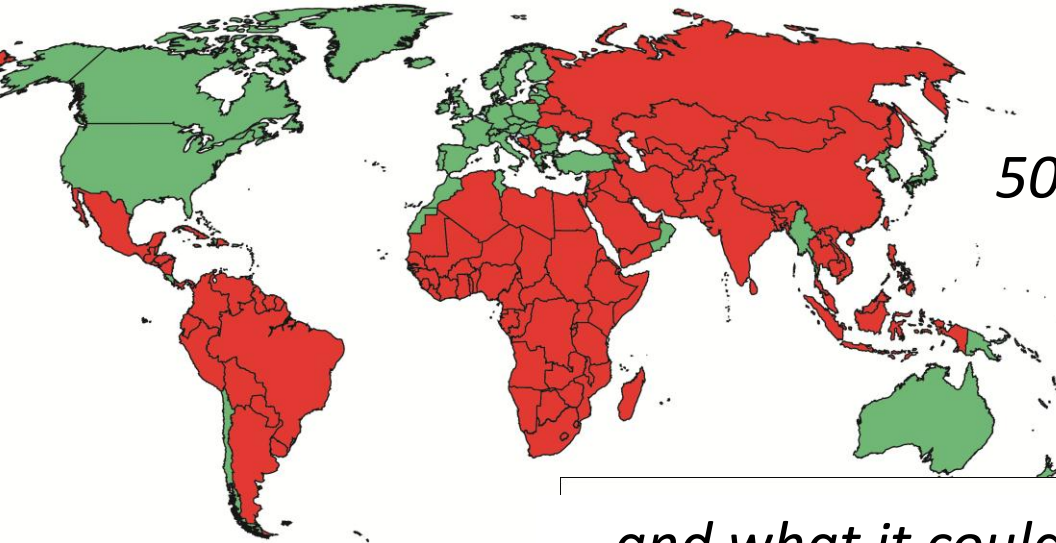
1) SAUDI PLUS



Targets for a 6-7 yr PCFV campaign

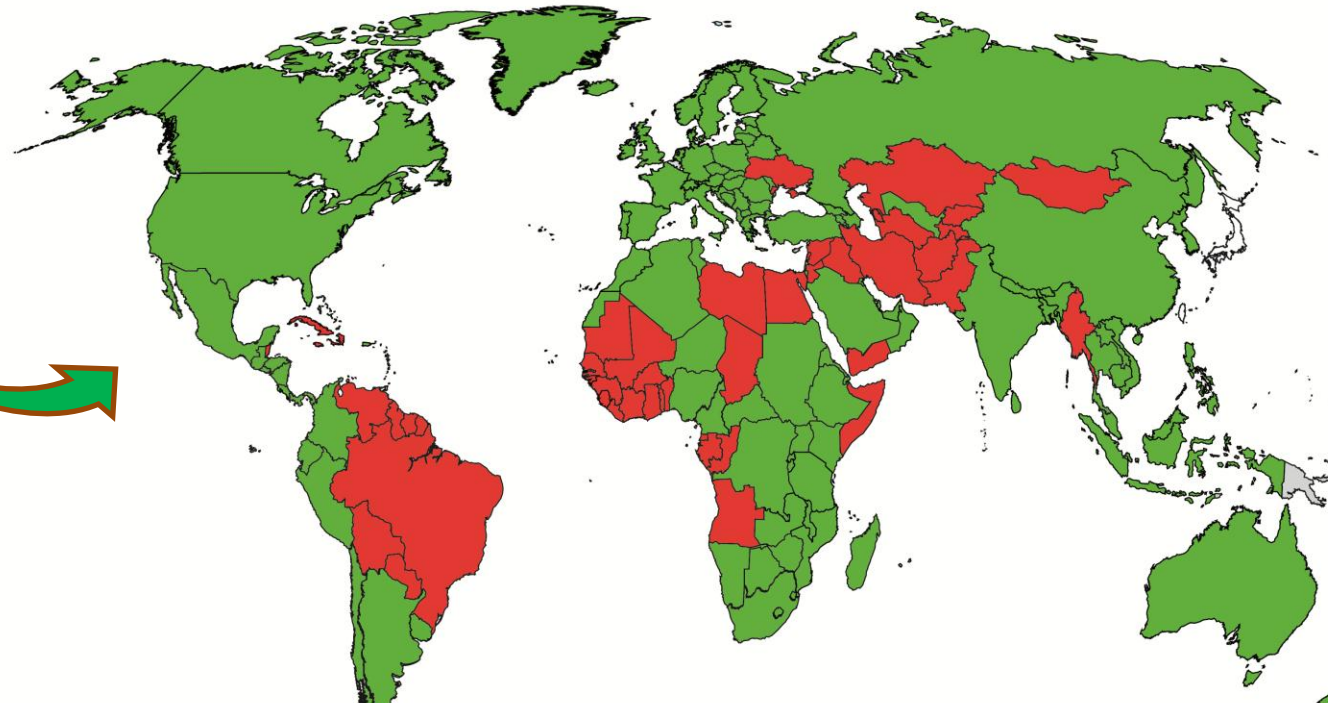
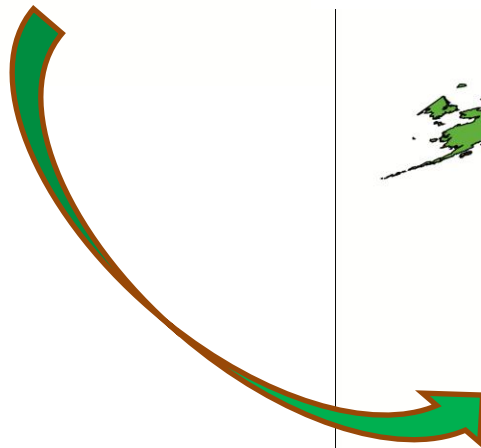
- Introduction of low sulphur fuels in 13 sub-regions, comprising of 40 countries;
- Vehicle emissions standard introduced or under development by at least half of these 40 countries;
- All regions (5) will have an active programme replicating to other countries in the region;
- City projects (incl. captured fleets like busfleets or ports projects) – at least 8 city projects.

Possible World Map Fuels after 3-5 years



50 ppm today (green).....

... and what it could be after a 6-7 yr campaign...



Benefits in Numbers

Region	Total urban population (2012)	Total urban population with 50 ppm (2012)	Total urban population (2018)	Total urban population with 50 ppm - WITH INTERVENTION (2018)	Ratio of urban population with 50 ppm - WITH INTERVENTION (2018)
Africa	346,611,797	26,917,494	427,701,881	256,337,317	60%
Asia	1,592,477,144	45,656,518	1,818,189,465	1,438,194,901	79%
LAC	481,227,434	22,888,254	519,838,992	370,484,892	71%
MEWA	192,617,252	9,120,218	219,909,626	30,414,073	14%
CEE	219,321,678	58,797,865	224,816,716	118,168,532	53%
TOTAL	2,832,255,305	163,380,349	3,210,456,680	2,213,599,715	69%

