

## AUTO FUEL POLICY

The International Council on Clean Transportation has just released a comprehensive, in-depth analysis of past successes of and future prospects for India's vehicular emissions control program. Highlights of the report:

### VEHICLE EMISSIONS

- » India's vehicle population has grown from 50 million in 2003, when the last Auto Fuel Policy was adopted, to 130 million in 2013.
- » Vehicle PM<sub>10</sub> emissions have fallen 14% since 2003, but emissions will return to 2003 levels by 2017 due to vehicle population growth if new controls are not mandated.
- » Vehicle NO<sub>x</sub> emissions have increased 10% since 2003, and the rate of increase will accelerate in the coming years if nothing is done to curb that trend.
- » Heavy-duty vehicles (trucks and buses) are responsible for 56% of all PM<sub>10</sub> and 70% of all NO<sub>x</sub> emissions from on-road vehicles.
- » ~40,000 premature deaths each year are caused by vehicle PM<sub>10</sub> emissions in India's cities alone.

### VEHICLE EMISSION CONTROLS

- » The 2003 Auto Fuel Policy roadmap through 2010 was implemented according to schedule.
- » Currently, Bharat Stage (BS) IV fuel (50 ppm sulphur) is supplied to about 30 cities. BS III fuel (150 ppm sulphur petrol, 350 ppm sulphur diesel) is used in the rest of India.
- » New light-duty vehicles (cars and SUVs) are mostly BS IV compliant. New light-commercial vehicles and heavy-duty vehicles are mostly BS III compliant. 2/3-wheelers are all BS III compliant.

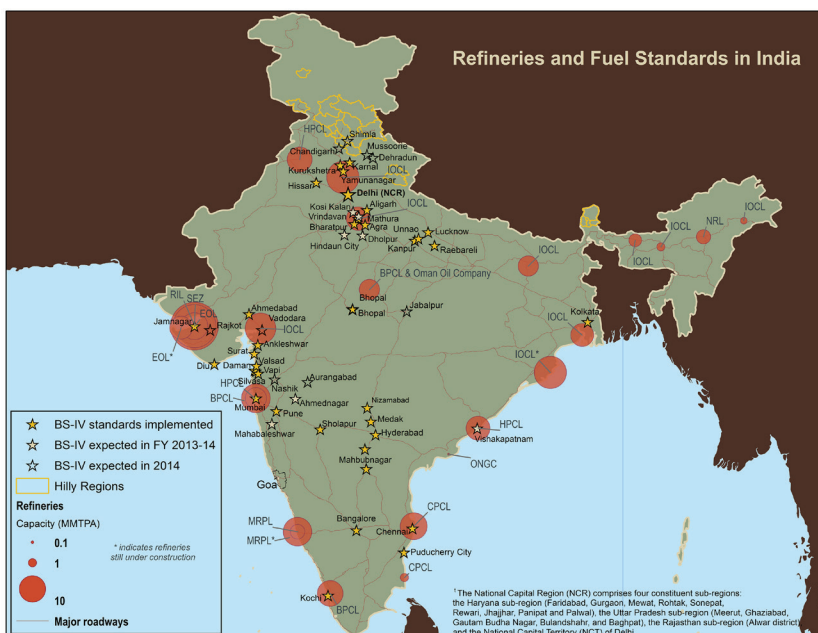
### RECOMMENDATIONS FOR 2013 AUTO FUEL POLICY

- » Establish a roadmap for improving fuel quality and vehicle emissions controls, with a goal of reaching BS VI standards as soon as possible. One plausible timeline:

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Fuel Sulfur content (ppm)	50		10								
LDV Emission Standard	BS Va		BS Vb		BS VI			Euro 7/US Tier 3 equivalent			
HDV Emission Standard	BS V				BS VI			Euro VII/US2010 equivalent			
2/3-Wheeler Emission Standard	BS IV				BS V			BS VI			

All implementation dates are for the beginning of the fiscal year (April 1)

- » Dedicate one extra month of on-going monthly Rs. 0.50 per litre diesel price increases to allow public sector oil companies to raise funds for BS V (10 ppm sulphur) fuel production investments.
  - » Develop a heavy-vehicle scrappage program with fiscal incentives to coincide with the BS VI standard implementation, to reduce the cost of transition.
  - » Increase durability requirements of vehicle emission control equipment to match real-world vehicle usage.
  - » By 2015, establish a national program to test fuel quality at retail outlets to ensure compliance and discourage adulteration.
  - » By 2015, establish a national program to test in-use vehicles against their original emission standards
- to ensure that vehicles are standard-compliant throughout their useful life.
  - » Set clear guidelines for the mandatory recall all noncompliant vehicles.
  - » Mandate annual registration for all vehicle types that is linked to PUC compliance and proof of insurance. This will provide India with more comprehensive data on its vehicle fleet and enable regulations to be streamlined.
  - » Mandate Stage I and Stage II evaporative emission controls at all urban retail fuel outlets by 2017.
  - » Mandate on-board refuelling vapour recovery (ORVR) systems on all model year 2015 and newer 4-wheeled vehicles.



Only about a third of the fuel presently used in India conforms to BS IV standards. Fuel sulphur levels are three to seven times higher in the rest of the country, which blocks implementation of advanced vehicle emission control technologies, such as the diesel particulate filter (DPF). Diesel vehicle PM emissions won't be reduced dramatically unless all new vehicles comply with BS VI standards.

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#### ICCT CONTACTS

Anup Bandivadekar ([anup@theicct.org](mailto:anup@theicct.org)) and  
 Gaurav Bansal ([gaurav@theicct.org](mailto:gaurav@theicct.org))



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