CSE dossier

factsheetdiesel

IF DIESEL IS SO GOOD, THEN WHY ARE OTHER GOVERNMENTS TAKING ACTION AGAINST IT?

INDIAN automobile industry would have us all believe that diesel is the 'fuel of the future' and if the number of diesel cars is increasing in Europe and other countries then why put curbs on it in India? What they deliberately hide or chose to ignore is how governments in Europe, USA, Australia, Japan, and Southeast Asian countries have joined ranks to clamp down on diesel to control air pollution. Clearly, the auto-mobile industry is resorting to disinformation to find support for their short sighted business interest to cash in on cheap diesel in India and throw all concerns over public health to the wind.

These governments have responded fast to the mounting scientific evidence on the harmful effects of diesel particles. They take these evidences as sufficient to take preventive measures to control diesel to protect public health.

TOKYO

● Tokyo leads the fight against diesel pollution, *Financial Times*, August 31, 1999.

"Under the aggressive leadership of its new governor, Shintaro Ishihara, Tokyo has set in motion a city-wide move to "Say No! to Diesel Vehicles."

"Tokyo is calling on citizens to boycott diesel vehicles, which it says emit exhaust gas that is the "single biggest polluter of Tokyo's skies".

"The Tokyo government wants citizens not to ride, buy or sell diesel passenger cars in the metropolitan area and is asking businesses to make compulsory the use of vehicles powered by alternative fuel where such vehicles exist. "We have been concerned about diesel fuel for some time because air pollution in Tokyo has not improved for 10 years,"

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says a city government official. "The primary cause is exhaust gas from diesel vehicles, which accounts for 70 per cent of nitrogen dioxide released and all suspended particulate matter."

"In addition to mobilising resident support for its campaign against diesel vehicles, Tokyo is calling on the central government to speed development of emission control devices and make their use in diesel vehicles mandatory and bring forward the implementation of new restrictions on diesel exhaust emissions scheduled for 2007."

"It also wants the government to redress the special reduced tax rate on diesel vehicles. Japan's tax regime favours diesel fuel, which is used by public transport vehicles such as buses and large trucks. The tax on diesel fuel is less than half that for gasoline powered vehicles, according to a study by the Tokyo government."

"The city government plans to replace 40 per cent of its diesel vehicles in the current fiscal year and will provide low interest financing to residents buying environment-friendly hybrid passenger cars**"**

In California "gasoline and diesel fuelled light duty vehicles to meet tighter emission standards beginning in 2004. ...these requirements will effectively eliminate light duty diesel sales..."

CALIFORNIA

● **Global Trend in Diesel Emissions Control — A 1999 Update by Michael P Walsh, SAE Technical Papers Series, Society of Automotive Engineers, USA.**

"On November 5, 1998, the California Air Resources Board adopted a plan to require gasoline and diesel fuelled light duty vehicles to meet tighter emission standards beginning in 2004. Most notably, for CO, HC and NO_x vehicles will be required to meet identical standards regardless of the fuel used. Most observers believe that these requirements will effectively eliminate light duty diesel sales in California unless there is a significant technological breakthrough"

● **New Rules Alter Plans for Diesel Engines, *New York Times*, November 27, 1998.**

"...the industry's broad plans to start putting diesels into millions of vehicles early in the next century have suddenly been thrown into confusion. California environmental regulators voted...to eliminate the more lenient pollution standards that have long prevailed for diesel-powered vehicles. Instead diesel engines will have to meet the same pollution standards as gasoline-powered vehicles."

"These gasoline engine standards are being tightened, so regulators say that it will be almost impossible to design diesel engines to meet the new rules, despite considerable progress over the last decade in the design of cleaner diesels. The result is a virtual ban on diesel engines in California, which accounts for a tenth of the nation's auto sales once the new rules are phased in between 2004 and 2007."

"General Motors in particular had been counting on diesels to improve fuel efficiency and reduce emissions of so-called greenhouse gases that may contribute to global warming, and the company is particularly upset by the latest setback. "It's a major concern coming out of the California regulations," said John F Smith, the chairman and chief executive of the General Motors Corporation. "It goes to the fundamentals of what is our long-term strategy for dealing with emissions and so forth."

"California regulators say that reducing emissions of greenhouse gases is not their problem, and should be handled by the Environmental Protection Agency in Washington. **"Our clear, unmistakable authority to enact regulations is to reduce urban smog," said Allan S Hirsch, a spokesperson of the California Air Resources Board. "Global warming is an international issue and the US EPA ought to be the agency taking the lead."**

"The California Air Resources Board's

own technical staff recommended a more lenient standard covering diesels, but the board rejected this idea after strong pleas from environmentalists during the hours before the board's final vote on November 5."

"Environmentalists ... warn that converting to diesels will limit opportunities to tighten pollution rules even further someday. And they contend that diesel engines are not the only way to improve fuel efficiency and reduce emissions of greenhouse gases — alternatives include building smaller vehicles, developing advanced technologies like fuel cells or even taking such simple steps as installing multi-valve gasoline engines, said Daniel Becker, an energy efficiency expert...**."**

"The auto industry has a history of saying that further pollution reductions are impossible, only to find ways to comply with new regulations. Patrick E. Charbonneau, the vice president for engine engineering at the Navistar International Corporation, which is designing diesel engine prototypes for the next generation of Ford Expedition and Lincoln Navigator full-size sport utility vehicles, said that research on diesel emissions was not as advanced as research on gasoline engine emissions."

● **Michael P Walsh, CARB designates diesel PM as toxic, *Car Lines*, October 1998.**

"On August 27, 1998, the California Environmental Protection Agency's Air Resources Board (ARB) identified diesel particulate emissions as a Toxic Air Contaminant (TAC). This decision ended a near-decade long investigation into the health effects of exposure to diesel exhaust and discussion between environmentalists, ARB and the diesel engine industry."

"The original ARB proposal targeted the entire "diesel exhaust," an uncontrollable substance, for the identification as a TAC. This initial approach was significantly modified in August... The adopted, more precise formula allows for targeted diesel emission control efforts, as opposed to the original proposal that would lead to a gradual phase-out of diesel engines in California."

● **The fight to dump diesel buses in California, 1999, Website of the Natural Resourse Defence Council**

"Why should anyone consider a Los Angeles bus such a valuable advertising medium that they would sue for the right to slap their message on its flanks? Because the message is about the health hazards of pollution from diesel buses, and it's aimed at the Los Angeles public. So, in a new twist on the well-known advertising adage: the medium is *definitely* the message.

"Which is why on June 17, 1999, **the Natural Resource Defence Council (NRDC) filed a lawsuit against the Los Angeles Metropolitan Transit Authority after the agency refused to run an advertisement that would have entirely wrapped an Los Angeles bus with a dramatic anti-diesel message.** The advertisement, featuring skeletons in the bus windows and the message "Diesel Kills," is one component of a campaign to warn the public about diesel pollution and enlist support for a state-wide ban on future purchases of diesel transit buses — a decision the California Air Resources Board is expected to act on this fall."

"This is not the first time NRDC has challenged a local transit authority over bus advertisements. The organisation launched a similar campaign in New York City in 1995 to encourage the New York MTA to purchase more alternative fuel buses for the city's fleet. The New York MTA also initially refused to run the advertisement and was taken to court by NRDC, but later allowed the advertisements to run. NRDC's campaign helped convince the MTA to begin to convert its fleet of more than 4,000 diesel buses to cleaner fuels, starting with a 500-bus commitment**"**

"On August 27, 1998, the California Environmental Protection Agency's Air Resources Board identified diesel particulate emissions as a Toxic Air Contaminant"

NEW YORK

● **Dump Dirty Diesel Campaign, Natural Resources Defence Council, New York, June 9, 1999.**

"New York City and Los Angeles have the highest particulate matter emissions in the U.S. Over the past three years, we have secured commitments to phase-in thousands of natural gas buses in those cities. NRDC gives priority to public health over global warming. We targeted several trucking firms in Southern California, and sued them under the state's toxic emissions laws. The companies responded by fighting the litigation and by engaging in a media campaign to convince the public that diesel emissions are not a major health threat. Finally, we targeted the major diesel engine manufacturers for producing dirty engines that were designed to cheat on EPA's emission tests. The result was a year-long investigation by EPA and the justice department and the nation's largest out-of-court settlement ever in an air pollution case."

DIESELS IN EUROPE

● **Global Trends in Diesel Emissions Control — a 1999 Update by Michael Walsh, SAE Technical Papers Series, Society of Automotive Engineers, USA, 1999.**

Driven in part by concerns regarding global warming there is a clear trend towards increased sales of light duty diesel vehicles in many parts of the world. This trend can result in many positive environmental benefits including low fuel consumption, and therefore low level of CO_2 and low level of gaseous exhaust CO and HC.. and very low levels of evaporative hydrocarbons. **However, increased diesel sales have a downside, relatively high NOx and particulate emissions. These pollutants continue to receive high priority attention in most areas of the world. As a result, countries around the world are increasingly tightening diesel regulations..."**

"If diesel taxation rises towards that of gasoline... then the popularity of large diesel cars would diminish"

● **Diesels in Europe by Lee Schipper and Celine Marie-Lilliu, International Energy Agency, France, 1999.**

"The wide swings in the shares for Italy, West Germany, and even Sweden deserve some comment at the outset. For Germany and Italy, changes in taxation (and in the former country, emission control requirements) caused the changes**.** ...the leader France started to lose its position in 1994. This could reflect both the threats (now announced) of higher diesel car and fuel taxation and the fiscal stimuli in 1994 of car purchases that affected mainly smaller cars. The recent decline in the U.K. may be a sign of the impact of raising diesel taxation to close to the diesel level."

"The "villain" of course ...is... the lower price of diesel fuel. The important exception is the U.K., where gasoline and diesel recently had become nearly equally highly taxed, a result of recent policy changes."

"The popularity of diesel cars has not gone unnoticed by environmental authorities, particularly in the U.K. and Netherlands. In Germany, new rules make it impossible to drive diesels in certain regions on officially declared smoggy days. In France, the government has announced long-term changes in the pricing of diesel and of the taxation of diesel cars to reverse the share of diesel cars and diesel fuel consumed. The Dutch government has also begun to swing both variable and fixed fees on fuel and vehicles to favour LPG over diesel."

"If diesel taxation rises towards that of gasoline (as the French have announced for both fiscal and environmental reasons, following the *fait accompli* of the UK government), then the popularity of large diesel cars would diminish. The cost advantage of diesel fuel would disappear."

"The Fuel savings are a tempting target of public policy and automobile manufacturers as well. What we find instead is that the present deployment of *diesel cars* leads *to greater, not, lower* energy use, principally because diesel fuel is priced significantly below gasoline."

"We note that diesels now comprise between 8 % to 15 % of the of car fleets in much of Western Europe, and more than a fourth in France. We find that on a global energy basis, fleets of diesel consume 10-15% less energy per kilometre than the corresponding fleets of gasoline automobiles. The difference in this figure is surprisingly small, but we observe that diesels tend to have larger engines than the gasoline powered motor yielding roughly equivalent performance. We also note that on a fleet-wide average, diesels are driven 40-70% more than gasoline cars. Finally, we note that diesel prices per litre are as little as 60% of those of gasoline.

We thus arise at these surprising findings:

- .....drivers of diesel cars select ones that are heavier, with somewhat larger engines than gasoline cars...these characteristics offset much of the potential efficiency gains from diesel engine technology;

- **Diesel cars do not provide energy savings today to countries where they are deployed because the extra driving distance ...attributed principally to the lower price of diesel more than outweighs the lower fuel and carbon intensity of diesel.**

- The differences in driving distance arise both not only because drivers who use their cars more tend to switch to diesel to save money, but also because significantly lower fuel prices are an incentive for car users to drive more.

NETHERLANDS

- **National Environmental Policy Plan 3, Government of the Netherlands, February, 1998.**

"The government will seek to bring about environmental beneficial and cost effective shifts in the fuels used by the road traffic. ....In concrete terms the government will adopt the following measures during the plan period to encourage an optimum fuel mix."

- "The government considers that for most vans a shift from diesel to petrol and possibly LPG or natural gas would be desirable in view of the many kilometres driven in towns. This also applies to distribution lorries (mainly lighter goods vehicles) an collection vehicles such as garbage collection lorries."

- "The government would like to see the large-scale introduction of LPG and/or natural gas for buses. The technology is already available and will have a major impact on urban environmental quality."

- "Diesel-driven passenger cars are economical in fuel terms and score well in terms of national CO_2 emissions, but badly in terms of their urban emissions. Diesel should therefore be used mainly by high-kilometrage drivers. For taxis, which typically drive high kilometrage in towns, LPG and petrol are preferable to diesel**"**

- **Michael P Walsh, Dutch Study Assesses Optimal Fuel Mix, *Car Lines*, October, 1998, pp4-5.**

"A new study evaluating the optimum fuel mix for Dutch road traffic in the year 2010 from an environmental point of view was recently released. The results for the Netherlands are summarised in the table below:"

In percentage of vehicles	Diesel		Petrol		LPG/CNG	
	1997	2010	1997	2010	1997	2010
City buses & coaches	99	40-25	—	—	1	60-75
Distribution trucks	100	70-40	—	—	—	30-60
Refuse-collection vehicles	100	60-40	—	—	—	40-60
Other trucks	100	100	—	—	—	—
Light commercial vehicles	91	60-40	7	40-50	2	2-10
Passenger cars	11	5	82	88-85	7	7-10
Taxis	55	30-20	15	40-50	30	30-40

"The Dutch government has also begun to swing both variable and fixed fees on fuel and vehicles to favour LPG over diesel"

In summary, the fraction of diesel fuel should be reduced while the fraction of gasoline and LPG/CNG should increase.

FRANCE

● **France to change car tax policies, *Reuters*, January 30, 1999.**

"The French government said it has recommended changes in the standard used to calculate car taxes, which have traditionally favoured diesel-powered cars. The joint statement from the environment, transport and finance ministries marked the government's latest move to redress years of policies favouring diesel.

"The French government said that its proposal was in line with a parliamentary study issued in December that recommended incentives to spur motorists to buy cars running on cleaner fuels and an end to the preferential tax treatment for diesel fuel."

"The French government said it has recommended changes in the standard used to calculate car taxes... to redress years of policies favouring diesel"

● **France gets tough on pollution: Dirty air warnings Pit industry, voters, in *Washington Post*, April 7, 1996.**

"The image of Paris as one of the world's most liveable cities was unceremoniously sullied in July 1994, when the authorities reported that the air at the Eiffel tower ...was so polluted by ozone that it was dangerous to breathe. In a recent study the National Society of Public Health said heart problems exacerbated by air pollution account for upto 50 premature deaths a year in Lyon and 350 in the Paris region. Although lead free gasoline have risen sharply in the last five last years, diesel fuel still accounts for nearly half of all sales at the pump. And the car makers have blocked measures to discourage diesel engines in the cars, which one newspaper called "engines of the devil."

"Unlike Germany where environmental groups won strict anti pollution measures last year, environmentalists here are not particularly powerful. But they have been vocal ...Jean-Francois Blet, a Paris city council member from the green party warned recently that air pollution "is a ticking time bomb."

UNITED KINGDOM

● **Thistle Diary in *New Scientist*, March 20, 1999.**

"A major contribution to the nation's health could be made at a stroke by limiting the use of diesel engines in urban areas. Health Minister Tessa Jowell, was clear that diesel engines are a major source of particles and that they have grave effects on our health. The *Report on the Quantification of the Effects of Air Pollution on Health in the United Kingdom,* which the Department of Health's Committee on the Medical Effects of Air Pollution (COMEAP) published last year, reckons that each year up to 8,100 sick people die earlier than they otherwise would because they live in urban areas where they are exposed to particles."

"The minister went on to say that the relative merits of petrol-driven cars and vans over diesel equivalents in urban areas was the focus of a meeting of COMEAP in February**.** ...it concludes that because of the damage to health from particles, petrol vehicles are at present to be preferred to diesel vehicles...."

SWEDEN

● **Peter Ahlvik, Ecotraffic, Sweden, 1999**

"Diesel car sales was very low in Sweden in the early 90s. In the period from 1990 to 1995 the (average) sales were about 3%. After that they increased steadily to 14% in 1998 (which still much lower than the average of 20 per cent in Europe.) One reason is that the so-called km-tax on diesel cars was removed (tax was proportional to the yearly distance travelled.). In 1994 an increase in the annual for diesel cars was introduced instead and was paid according to the weight of the cars. ...Now drivers with

high mileage get a lower cost with diesel fuel than with petrol. ...It is still fair to say that Swedish government still discourage diesel cars, at least private owners who have normal driving habits (driving less than 15,000 km per year) since there is no economical benefit from the reduction in fuel consumption."

"Now there is an investigation going on in Sweden about fuel and car tax and from what I have heard it is very likely that the tax on diesel cars will increase. Thus diesel cars sales will probably drop again."

AUSTRALIA

● **Australian Conservation Foundation, Discussion paper, supported by the Australian Medical Association, 1999.**

"The tax reform package will have a negative impact on air quality in our cities. A dramatic cut in the price of diesel will encourage the increased use of a fuel that is detrimental to human health."

"The boost given to diesel fuel by the new tax package will make more Australians sick from urban air pollution. Worse still, the tax reform package may even lead to an increase in the number of premature deaths caused by fine particle air pollution."

"Diesel vehicles generate exhaust that contains more damaging substances than petrol or gas fuelled vehicles."

"A report prepared for State and National Governments, by the National Environment Protection Council (NEPC 1997) found that fine particulate air pollution accounts for at least 1,000 premature deaths nationally each year. NEPC cites a study recording a 3 per cent increase in emergency room visits for asthma attacks as the levels of particles the air increase."

"NEPC has noted that diesel fuel vehicles contribute up to 80 per cent of all the vehicle-produced particles in major centres. The Air Pollution Inquiry (Urban Air Pollution in Australia — Inquiry by the Australian Academy of Technological Sciences and Engineering) also found that diesel exhaust releases more fine particles than petrol fuelled vehicles, "diesels make a disproportionate contribution to particulate emissions, approximately two orders of magnitude by weight of PM_{10} and for still finer particles, than do petrol vehicles."

"Diesel is the vehicle fuel creating the most worrying health impacts from air pollution. The number of diesel vehicles in the city is already rising. This trend prompted the Australian Academy of Technological Sciences and Engineering to recommend to the Government to urgently improve diesel vehicle standards and preferably curb the growth in the use of diesel by encouraging alternative fuels"

HONG KONG

● **Hong Kong fumes over growing air pollution, website of Planetark.org/-dailynewsstory.**

"There is bad feeling in the air over Hong Kong these days — and it is due to the pollution. Faces shrouded in surgical masks, more than 200 people recently marched to Causeway Bay, a busy shopping belt on the island which is notorious for its filthy air."

"They angrily demanded that the government act immediately to clean up the air."

"Many Hong Kong residents blame the pollution on diesel-powered vehicles, mainly taxis, and on poor emission regulation of cars and trucks."

"In a recent study, the Hong Kong government blamed the air problem primarily on diesel-powered vehicles."

"Complaints about air pollution featured prominently among the irate telephone calls to Chief Executive Tung Chee-hwa during a call-in radio chat show last month."

"In a recent study, the Hong Kong government blamed the air problem primarily on diesel-powered vehicles"

"Tung outlined proposals ...to phase out all taxis not using liquefied petroleum gas by 2005, with gas mandatory for all new taxis from 2001on. But the pressure is growing for quicker action."

● **Diesel engines blamed for 90 per cent of pollution, *South China Morning Post*, June 3,1999.**

"Nearly 90 per cent of air pollution is caused by smoke belching diesel engines, a report has revealed."

SINGAPORE

● **2,000 lorries may be barred from Singapore, *The Star* (Malaysia), July 3, 1999.**

"About 2,000 lorries ...may be barred from entering Singapore from July 17, if the Malaysian Government does not take immediate steps to reduce sulphur content in diesel. From that date, the Singapore Government will not allow diesel-engine vehicles emitting fumes above 75 Hartridge Smoke Units (HSU) on its roads." ■

Because government agencies have failed to protect the public from diesel exhaust, in the US — NGOs like National Resource Defence Council (NRDC) and the Environmental Law Foundation have launched the "Dump the Dirty Diesel" campaign