

# CENTRE FOR SCIENCE AND ENVIRONMENT

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April 29, 2004

James D. Wolfensohn  
President  
World Bank  
1818 H Street, N.W.  
Washington, D.C. 20433

Re: Urban Air Pollution: Policy Framework for Mobile Sources

Dear Mr. Wolfensohn,

We are writing to express our strong reservations about some of the assumptions of the World Bank's handbook on "*Urban Air Pollution: Policy Framework for Mobile Sources*". The handbook is a comprehensive effort to present a wide array of mitigation measures to address mobile source pollution in the developing countries. There have been wide technical reviews of this handbook since its release last year and we do indeed appreciate the modifications to the original draft in response to the learned comments solicited from around the world. But at the same time we are deeply concerned and disappointed to note that the original bias against allowing technology forcing standards in the developing regions remains so resolute. As a civil society group working on clean air issues in India, we are extremely worried that such guidance could seriously undermine policy initiatives in the region.

**We would like to bring to your notice issues in the handbook with which we disagree.**

*We do not agree with the advice to policy makers in developing countries to delay improvements in fuel and vehicle standards.* The handbook has taken a firm stand against an early introduction of ultralow sulphur fuels in developing countries and censures the idea of leapfrogging and declares it as inordinately expensive and inappropriate model for developing countries. The argument is also based on the premise that the refinery sector in developing countries is protected and inefficient and cannot attract investment. Under such circumstances mandating ultralow sulfur fuels will be extremely costly and therefore other options for reducing transport emissions should be explored first. This is not a reasonable premise to justify why refineries and by natural corollary the automobile industry cannot be persuaded to meet tighter emissions targets.

Serious reservations have been expressed from around the world on this issue. We in fact note with interest that the latest version of the handbook has incorporated some of these concerns. But we must underline that they are not sufficient as they do not alter the earlier bias. For example, the handbook now agrees that it is imperative to treat fuels and vehicles as a joint system since cleaner vehicle technology requires improved fuel quality. It states that industrial nations are adopting ultralow sulphur fuels to enable adoption of sulphur intolerant emissions control devices to achieve dramatic reductions in pollutants especially PM and NOx. (P19). And it even adds developing countries and cities that have already moved to 500 wt ppm sulphur can aim for a threshold of 50 ppm, conceding that the primary objective of ultralow sulphur limits is to simultaneously meet stringent PM and NOx standards. Those developing countries that are willing to pay for these changes may initiate action. (P52). But these observations add up to little if the Bank continues to resist the 'early push' for better quality fuel at the same time. In fact, it only makes the Bank's position inconsistent.

The Centre for Science and Environment is a non-governmental, non-profit organisation registered in New Delhi, set up to disseminate information about science and environment

LEAVES  
OF  
IMPORTANT  
SURVIVAL  
TREES  
IN  
INDIA —  
MAHUA,  
CHEJRI,  
ALDER,  
PALMYRA  
AND  
JAK

**PATRON**  
SHRI K. R. NARAYANAN

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WILLIAM BISSELL

We also wish to bring to attention that there is mismatch still between the way the problem has been defined and solutions that have been prescribed. For example, the handbook recognizes correctly that pollution reduction measures must focus on most damaging and toxic pollutants. It states that the particle size fraction are now considered most damaging to public health and diesel exhaust poses serious cancer risks. Even recognizes that the current understanding of pollution impacts shows that fine particulate matter should be a major focus of control efforts. But we are at loss to understand why this is not used as the basis to urge the policy makers to tighten fuel and technology measures that could drastically reduce particulate emissions from vehicles.

On the contrary, in a seeming attempt to discourage the policy makers from enforcing stringent technology measures the discussion on fuels and technology become highly inconsistent. It is difficult, for instance, to understand especially in view of the state-of-the-art peer reviewed science on vehicle technology and fuels, why the transition in developing countries should be so arbitrarily defined as moving from carbon based particulate emissions phase to sulphate based particulate emissions phase? From health perspective science does not justify such distinction or brings out in any way why any country should dwell for too long in any of these phases. The handbook cites the US experience to demonstrate how it moved from carbon based particle phase during the 1980's to sulphate based phase during the nineties when 500 ppm wt fuels dominated the US market and sulphates constituted more than half of particulate mass. But it completely ignores the raging concerns in the 1990s in the US over the particulates especially toxicity of diesel particulates that ultimately provoked the most stringent standards of this decade. The handbook should have, thus, prescribed that developing countries move with alacrity towards rigorous standards instead of slowing down and compartmentalizing change in phases.

We urge you to ensure that the handbook captures the lessons from the industrialised North more holistically. Changes in emissions regulations in the industrial North gathered speed with a deeper understanding of health impacts of air pollution and firmer grip on the science of air pollution. Accordingly, new emission standards were speedily designed for drastic reductions. The future challenges are formidable for the United States and Europe as they attempt to address simultaneously urban toxins and greenhouse gas emissions from the transport sector and at the same time meet fuel economy targets. Most developing countries are not yet addressing these issues with urgency but need to understand the future challenge. This needs acceleration of stringent technology measures and the handbook should be able to convey this message. Countries can then determine appropriate action timelines.

*The handbook makes sector reforms conditional to action on fuel quality improvements. This is not acceptable.* The handbook makes the case for establishing fair, healthy and transparent competition and market based fuel pricing is an integral element of the policy for cleaner fuels. But it also argues that as fuel quality specifications improves worldwide it will be increasingly difficult for the inefficient and small refineries to survive and would require even greater protection (P 54).

The handbook glosses over the fact that even with partial reforms underway countries such as India, Thailand and Malaysia among others have reached and even crossed the threshold level of 500 ppm sulphur fuels. We suggest that the handbook review country-specific cases to arrive at ways to hasten the process of improvements in fuel quality even while sector reforms are underway.

We have learned from our experience in India that it is important to link investments to stringent standards even during the reform process. Or it will be a case of missed opportunity. Major expansion in refining capacity has occurred in India since 1999 and nearly 58 per cent of the total existing refining capacity has been created only in last three to four years. But the new investments are not being tied up to leapfrogging standards. This means compounded costs to catching up with standards later. Allowing privatisation sans tightening up the standards would spell disaster. At present, many refineries in India are investing in desulphurisation facilities to meet Euro III fuel quality targets and some of them admit that vaulting to stringent norms would be far more cost-effective. Policy recognition of this dynamics is critical. This is not the time to wait to think whether these countries should implement strict controls, or if it will work, but how soon these can be implemented.

The handbook voices apprehensions about old refineries being pushed to the brink of extinction if there is an insistence on a stringent roadmap. But it is typical of the global trend -- larger refineries take over the market share of the smaller, less competitive refineries and this cannot be held against fuel quality improvements. In any case a process of merger (especially of small and stand alone refineries and vertical integration of major segments of the chain -- exploration, production, refining, and transportation) is part of the reform process and is very much in evidence in India.

We also wish to point out that the handbook exaggerates the hurdles of costs, and uncertainties associated with experimental technologies to argue against the developing countries taking aggressive steps forward. It contests the conclusion of studies that demonstrate the cost-efficacy of making a swift and direct transition from several thousand ppm sulphur to near zero sulphur that also provides greater benefits than reducing it in steps. It holds that the fully built up per litre costs of producing sulphur free fuels are expected to be much higher and unaffordable especially for the small refineries than reflected in studies done so far. The handbook should review the refinery experiences of the US and Europe to show how costs are consistently falling and expose how industry estimates are much higher than the real world experience.

The handbook should be able to indicate the way differentiated fuel taxes could be designed even in developing countries to offset the incremental cost in a revenue neutral manner. This is consistent with what the handbook highlights in the section on designing of supportive fiscal framework. Fuel switch is possible with differentiated taxation but it must not be in conflict with environmental objectives. This comes through in the example cited in the handbook itself. It states, "The common combination of high gasoline tax and a low diesel tax may encourage vehicle owners to switch from gasoline to diesel. While clean diesel in the EU and North America may mitigate the impact of such fuel switching, the same phenomenon in developing countries would most certainly mean much higher particulate emissions." (P 101).

*We also do not agree with the way the handbook downplays the relative significance of health impacts of urban air pollution by juxtaposing inter-sectoral comparison to claim that the total and absolute health burden are still very high from traditional risks in our countries (water, lack of sanitation etc). Therefore, Aggressive steps are not required in the air pollution sector.* While it is true that urban air pollution is responsible for comparatively fewer deaths and illness compared to traditional diseases, the handbook's presentation detracts policy makers in the developing countries from understanding the latency period of modern risks (which is still not fully assessed and can pose serious dangers in future if not reversed immediately.) Policy makers need to be clear that while the burden of traditional burden of disease remains overwhelmingly large, modern diseases enhanced by the growing toxicity of the environment is spiraling rapidly. This in policy action terms translates into swift, incisive action and divergence from the risk transition pathway followed by developed countries. Risk transition has important implications for monitoring and mitigation strategies and demonstrates the need to evoke precautionary principles as the basis of strong regulatory action

*We also find the 'theory of short-term significance of diminishing returns' misleading:* The fact that toxic emissions also require expensive mitigation strategies should not be used to argue against stringent technology solutions. The cost of early controls can be comparatively lower while showing larger initial impact on pollution load. But shortening the time lag to implement advanced controls will have longer-term benefits. We probably need to reinvent the approach altogether – estimate the health cost and the pollution load that can be avoided with early introduction of tighter standards and contrast it with the cost of delayed action.

We are writing to you to share our concerns and to stress the need for a greater understanding of the local dynamics in developing countries. Emissions from vehicles are growing more rapidly in Asia than the region's capacity to mitigate it. Reprieve for Asian cities lies in leapfrogging to cleaner vehicular technologies and fuels to avoid aftershocks. Instead of Asian countries trying to follow and always remain behind the industrialized North in the technology ladder, policies must be designed to help these countries to avoid the polluting pathways of the North.

Despite spectacular levels of economic and vehicular growth, industrialized countries have been able to reduce the aggregate emission of key pollutants. The improvement in emissions of criteria pollutants in the United States has taken place despite an increase in population, vehicles miles travelled and an increase in energy consumption. But despite aggressive efforts to reduce pollution, there still exist areas where emission levels are high and do not conform to health-based standards for certain pollutants. The same circumstances hold true for Europe.

There is a lesson for Asia in this experience. The developed countries have come a full circle. They have followed a toxic model of economic growth, introduced a huge amount of toxins in the atmosphere and then unleashed stern pollution abatement measures to control pollution. The challenge for Asia is far more difficult. It would have to avoid the damage to the environment as far as possible even during the early stages of growth. Its policies should be such that they stimulate economic growth, ensure equitable access to mobility and clean transportation while protecting the environment. It is a difficult balance and Asia needs to weave in both the precautionary and preventive principles. The handbook must recognise this and not be a partner in prejudice.

We, therefore, strongly urge you to integrate our concerns into the document in the interest of the developing world.

Yours' cordially

A handwritten signature in black ink, appearing to read 'Anumita Roychowdhury', with a horizontal line extending to the right.

Anumita Roychowdhury  
*Right To Clean Air Campaign*  
Centre for Science and Environment