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Pollution and the Poor

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The following article was originally published in Murdoch News on 1st December 1999.

It is still amazingly relevant today, and a good read!!

Abstract: Lead pollution arising from the combustion of leaded petrol by automobiles represents a significant environmental and health concern. However the complexity of economic and social issues is making the eradication of lead pollution far from simple.

MURDOCH researchers have long been at the fore front of the quest to increase community knowledge of environmental issues, as well as providing data on how government and public agencies can best protect the earth's natural resources. The following paper was prepared by the Director of Murdoch's Institute for Science and Technology Policy, Associate Professor in City Policy Peter Newman, in response to the 1993/94 federal budget proposal to raise fuel prices. Professor Newman was invited to present the paper at a special interest meeting of the Australasian Teleconferencing Association on The Environment: Our Fragile Earth, conducted last month [November 1993?]. It should be noted that some aspects of the federal budget referred to in the paper were subsequently changed by the government, however to retain the thrust of the argument proposed by Professor Newman they have been retained.

Raising the price of leaded petrol by 5c and then 10c/litre and raising all petrol immediately by 3c/litre were recently announced as part of the 1993/94 Federal budget (initial proposal). Nothing seems to have been so unpopular, so outrageous, so profane in recent political history as this move. Roundly condemned from all the predictable sources such as oil companies, motoring bodies, the transport industry and the Coalition, the clamour was joined by a collection of social justice groups who saw nothing but pain for the battlers in society with their old vehicles and houses scattered on the urban fringe. What profanity to attack the very people, the true believers indeed, who had re-elected the ALP. The sacred nature of petrol prices and the ageing Australian automobile fleet was not even taken on by most environmental groups, the Democrats nor the Greens. The attack on the Australian way of life, or at least their driving habits, was too important.

Having been part of the campaign to remove lead from petrol which has been going on for 20 years, this reaction by the Australian community has been disappointing though predictable. The evidence that lead in petrol is causing brain damage in our children was quite convincing 20 years ago but each year since then it has been becoming more and more solid.

The NHMRC finally recognised early this year [June 1993] that the health standard for lead in blood needed to be reduced from 25 to 10 µg/dl (micrograms per decilitre) with measurable impacts being

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found at levels down as low as 5. At this new level of IQ $\mu\text{g/dl}$, 50% of inner Sydney children were estimated to be suffering some degree of intellectual impairment. A recent Perth study showed 20% of children above the limit.

One would have expected in a clever and caring country that the brains of our children were the most sacred element in this whole debate. Even with this new and obviously unpopular move we will not have phased out most leaded petrol until 2004. The majority of western countries are almost there in phasing out lead. Thus as well as having little in place to help with the social justice impacts, the Government has not been able to demonstrate a coherent lead reduction strategy. Its programme seems to have been based on the timetable of oil companies to provide the necessary refinery capacity for unleaded fuel rather than any health requirement. Hence to many commentators the petrol price rise has appeared as just an excuse to raise revenue. Can this clash between environmental reform and social justice be resolved? Are there not important gains in this carbon tax which should be retained in the hue and cry over the attack on our sacred cars? Can the social impacts be mitigated by new programmes that also help to wean us off our rather profane dependence on low priced petrol? Australia was one of the first countries to begin the phasing out of lead from petrol though this was, like the present situation, never really done for the sake of our children's health. Rather, it was a necessary technological step in the reduction of smog as vehicles needed catalytic converters to reduce emissions of other harmful pollutants, but these converters are poisoned by lead. Despite this early start in Australia the process of phasing out lead has been interminably slow - taking much longer than most European countries who began well after us. The reason seems to be because although we were buying new lead-free cars we were not scrapping the old clunkers. Over the past decade the Australian vehicle fleet has become on average the oldest in the western world. And this touches the reason for our sacred attitudes revealed by the reaction to the budget petrol price rises: our cities have become more and more car dependent, so as well as the new vehicles, the old clunkers have become a necessity of life particularly for working wives, younger people and those on lower incomes. In many cities around the world these are people who rely heavily on good public transport systems, not worn out cars. The basic economics of raising the price of petrol is good.

The external costs of petrol use (accidents, smog, etc) were calculated by Peter Martin recently to be around 46c/litre; at present we tax it by 26c/litre so rather than a 3c rise it should have been a 20c/litre increase if we were being economically rational. As we tend to only apply such rationality to public transport deficits and not private transport deficits, Australians screamed about the profanity of the price rise on equity grounds. One of the clear aspects of the Australian transport situation to come out of this debate is that no one knows much about the Australian vehicle fleet. We are told that somewhere between 60% and 90% of the pre- 1986 vehicles can run on unleaded fuel, though motoring bodies tend to suggest much fewer.

We are also hearing that you may even be able to switch to unleaded and either intersperse it with an occasional tank of leaded fuel or mix the unleaded fuel with a bit of leaded super at each fill to ensure the valve seats don't wear out. This has been well known to environmentalists for a long time but no-one would ever officially confirm it. No study has ever been done to see if there is any impact on engines from using unleaded/lower octane fuel - thus it is left to trial and error and opinion. The resulting confusion adds to the anger experienced by the general public. The lack of knowledge about how the older Australian vehicle fleet can operate under different fuel regimes is an astonishing admission. There should be an immediate investigation and the results conveyed to the general public, particularly garage mechanics.

Perhaps a Hotline can be created by the Commonwealth EPA immediately and be used to help provide information as well as to receive it back as people experiment with the change over to unleaded fuel. There also needs to be a reassessment of the role of the oil companies in this issue.

They have spent a lot of time and effort over the past decades reassuring the public that there was nothing wrong with lead in petrol. They were able to pressure government in the 1980's to keep unleaded and leaded fuel at the same price instead of there being a differential. Rather than investing in new refinery capacity to enable a more rapid lead phase-out - which would have raised petrol prices- they chose to keep fuel cheap. The obvious dependence of Australians on cheap petrol which has been so emotionally demonstrated in the budget reaction, should be seen to some degree at least, as a responsibility of the oil companies. The sacred nature of cheap petrol in Australian society is as much the planned result of oil companies as it is a cultural imperative. Oil companies should thus be required to participate more in the solution to this problem. The first step ought to be a mutually agreed date for the phase-out of leaded petrol that is equivalent to other western countries - this is still not clear despite all the profanities being expressed about the price rise. This date and the strategy to get there should be seen as the start of a process to begin weaning Australians off their excessive petrol dependence.

The geopolitical context of the oil situation is a backdrop that must be considered. We are in the last decade before global oil supplies will peak and begin to decline. Several important geological assessments have now confirmed this picture. Not only is the remaining oil going to be harder to extract and therefore cost a lot more, remaining reserves will be increasingly focussed on the volatile Middle East. Any country that continues to provide cheap petrol in the 90's is not looking far into the future. To overcome the lead problem quickly and to begin to address the longer term issues concerning our cities I believe we need to take every opportunity for educating the public on why they should phase out leaded fuel and use less fuel in general. The differential between leaded and unleaded petrol could if anything be increased as when everything settles down, one to two cents per litre differential may not be enough to keep the momentum of the phase-down going. As well as this we need to recycle some of the new petrol tax back into two programmes: a) An 'Accessible Cities' programme which builds new transit systems to unserved suburbs and new low-cost housing in accessible locations. This programme should be clearly based on the single criterion of improved accessibility for the poor. This could be modelled on the 'Better Cities' programmes but should have a much greater emphasis on finding community-based options for rebuilding our cities. Such options have already been developed by many groups in each Australian city; and, b) A 'Cash for Clunkers' programme designed to phase out the polluting, gas guzzling old vehicles which are no longer acceptable in our cities and country towns. This should be paid for jointly by government and by oil companies based on a vehicle inspection programme that isolates and removes the most polluting vehicles first. Evidence that lead is a problem for children in all Australian cities and country towns is available. We can no longer institutionalise poverty or threaten our children's futures by giving such vehicles sacred status. The possibility of amendments to the Budget Bill by Greens and Democrats in the Senate is now a real possibility. Perhaps it provides us with an opportunity to do the right thing on lead in petrol and the right thing for the poor whilst still retaining the basic thrust of the budget.