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Multi-Trillion Dollar Health, Social and Economic Benefits of Global Leaded Petrol Phase-Out Spotlited in New Report

New York/Nairobi, 27 October 2011 – Improvements in IQ, reductions in cardiovascular diseases, and decline in criminality are among the annual US\$2.4 trillion benefits linked to ridding the world of leaded petrol.

These economic benefits, outlined in a new scientific study backed by the UN Environment Programme (UNEP), may prove to be even higher if other diseases and factors such as cancer and rising urbanization—where the impacts of lead pollution are higher—were brought into the calculations.

“When the first draft report came out we all felt that these numbers were too high - how can removing lead from petrol result in benefits equal to four per cent of the GDP? It was too good to be true. However, we found independent corroboration of our approach in the literature, and we have had our work peer-reviewed by some of the leading experts in the field. When viewed over the decades of progress in phasing out leaded fuel, it is more appropriate to speak of the global benefits in trillions of dollars, not billions, but trillions,” stressed Professor Thomas Hatfield, Chair of the Department of Environmental and Occupational Health at the California State University, Northridge, who co-wrote with researcher Peter L. Tsai the study, *the Global Benefits of Phasing Out Leaded Fuel*.

The phase-out of leaded petrol began in developed countries such as the United States in the 1980s but in developing countries the additive was still being used until recently.

UNEP, as an outcome of the 2002 World Summit on Sustainable Development, was tasked with leading the final elimination of leaded petrol through a public-private partnership that helped most developing and transitional countries go unleaded.

The Partnership for Clean Fuels and Vehicles (PCFV), involving civil society, governments and the private sector including major oil and vehicles companies, has supported over 100 countries to phase-out lead in transport fuel.

Under the initiative, involving 120 partners, the small handful of countries¹ still using small amounts of leaded petrol, are expected to make the switch over the next year or two.

¹ Myanmar, Yemen, Algeria, Afghanistan, Iraq, North Korea

“Yet again, here is a clear body of analysis that demonstrates that far from being a burden on economies, acting on environmental challenges generates multiple Green Economy benefits right across countries and economies. Although this global effort has often flown below the radar of media and global leaders, it is clear that the elimination of leaded petrol is an immense achievement on par with the global elimination of major deadly diseases. This will go down in history as one of the major environmental achievements of the past few decades. It is a triumph of diplomacy and public-private collaboration,” said Achim Steiner, UN Under-Secretary General and UNEP Executive Director.

“This successful partnership has all but completed the lead phase-out and in time-scales perhaps presumed overly ambitious in 2002. But its work is far from over and action is now underway to tackle other health hazardous vehicle emissions, such as the unacceptably high levels of sulphur still found in fuels on continents like Africa,” he added.

Background

Lead poisoning has been one of the world’s most serious environmental health problems, with impacts including increased blood pressure, higher risk of cardiovascular disease, delayed mental and physical development, reduced attention span (including attention deficit hyperactivity disorder or ADHD) and increased crime rates.

The World Health Organization (WHO) estimates that between 15 and 18 million children in developing countries currently suffer from permanent brain damage due to lead poisoning and according to the results of the research, leaded petrol was responsible for some 90 per cent of human lead exposure.

Lead pollution, even in very low concentrations, is seen as one cause for developmental impairment in children. Furthermore, the use of lead in petrol prevents the introduction of vehicles with emission controls, such as catalytic converters, that can reduce harmful emissions by up to 90 per cent. Catalytic converters are now standard in all new petrol vehicles worldwide.

The UNEP-led campaign over the past decade has resulted in a near-global elimination of leaded fuel and the new study shows the massive benefits of these efforts:

- *Health Benefits* - Over 1.2 million premature deaths avoided per year (of which 125,000 are children) and blood testing has shown that the elimination of leaded petrol results in lead in blood levels dropping dramatically – 90 per cent or more – particularly in cities.
- *Social Benefits* – lower crime rates: 58 million less crime cases and higher IQs. Research has indicated that children with lots of lead in their blood are much more likely to be aggressive, violent and delinquent.
- *Economics* – US\$2.4 trillion (or 4 per cent of global GDP) costs saved per year.

Developed countries, including the United States and parts of Europe, banned the use of leaded-vehicle fuels in the 1980s and 1990s when it was found that inhalation of lead particles released from vehicle tailpipes is extremely toxic. Moreover, leaded petrol prevents the introduction of cleaner-vehicle technology.

However, the majority of developing countries have continued using leaded fuel until recently with major negative health, environmental and economic impacts.

“Although much work needs to be done to look at all of the impacts and benefits to society (for example, we may actually find additional benefits through reduced cancer and hearing problems), these are the best estimates we can come up with at the moment based on current research and data,” said Professor Hatfield.

The study will be published in the *Journal of Environmental Health* in December 2011.

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Notes to Editors

An advance copy of the Hatfield article in the Journal of Environmental Health is available from the authors, or UNEP, from 7 November 2011.

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