

Workshop on Promotion of Clean Fuels and Vehicles

July 22, 2008, Addis Ababa, Ethiopia

**Organized by FfE in partnership with UNEP,
MoT&C, FEPA, AAEPA, EPE and ENDA Ethiopia**

1. Background

Air pollution is reaching crisis proportions in cities of the developing world. According to the World Health Organization, only 15% of the largest cities in developing countries have acceptable air quality. It is estimated that poor air quality causes approximately three million deaths each year.

Urban air pollution in developing countries is caused by mobile and stationary sources necessitating an integrated approach in addressing the challenge. The growth of motorized transport in urban areas of the developing world will further exacerbate air pollution unless concrete steps are taken to reduce emissions.

Vehicles, both gasoline and diesel, emit significant quantities of nitrogen oxides, sulphur oxides, particulate matter, carbon monoxide, and hydrocarbons. These pollutants can be reduced by using lower-sulphur and lead-free fuels and by introducing the new vehicle technologies and emission control devices that require such fuels.

The rapidly growing numbers of second-hand vehicles coupled with poor road networks has led to traffic congestion in most African cities. This results in fuel wastage and increased air pollution with consequent negative impacts on human health and the environment.

In Ethiopia, the recognition that noxious emissions from vehicle exhaust pipes have adverse effects on human health and environment has catalyzed different actors to engage in practical initiatives to address the situation. In this regard, efforts by the government that led to elimination of leaded fuel as of 2004 can be cited as a commendable achievement. Further to this, the FfE has spearheaded the formation of a multi-stakeholder task force on air pollution in the country.

To consolidate the gains from previous activities, a one day workshop was held in Addis Ababa on July 22, 2008. The workshop was organized by the Forum for Environment with financial assistance from United Nations Environment Program – Partnership for Clean Fuels and Vehicles (UNEP/PCFV). Participants were drawn from both the government and non-state actors including: Ethiopian Petroleum Enterprise (EPE) – the sole government importer of petroleum in the country; Ministry of Transport and Communication (MoT&C); Federal Environmental Protection Authority (FEPA); Addis Ababa Environmental Protection Authority (AAEPA); Environment Development Action Ethiopia (ENDA-Ethiopia); and other relevant government ministries.

The aim of the workshop was to assess the current status of vehicles and fuels in the country and chart out the way forward in promoting the adoption of clean fuels and

vehicles. This would further strengthen strategies to reduce urban air pollution and foster key partnerships between government, industries, NGOs, and other interested partners in the country. The close collaboration between the government and non-governmental stakeholders ensured the success of the workshop.

The introductory speeches were made by Dr. Strike Mkandla – UNEP Representative to the African Union, UNECA and Ethiopia. The welcome speech was given by Mr. Negusu Aklilu, Director of the Forum for Environment. This was followed by plenary presentations of four papers and open discussions after the presentations.

2. Papers Presented

2.1 Improving Urban Air Quality through Clean Fuels and Vehicles: The experiences of Sub-Saharan Africa and Global Trends: By Ms. Jane Akumu, Program Officer, Urban Environment Unit, UNEP/PCFV

The first presentation highlighted the rate of urbanization in Sub-Saharan Africa, Africa in general, and world urbanisation trends by region. This was followed by an analysis of the major sources of ambient air pollution and average vehicle age (in Ethiopia 65% of vehicles are 15 year and above). Examples cited were drawn from case studies in Accra, Ghana and Dar-es-salaam, Tanzania. The mandate, goals and activities undertaken by the Partnership for Clean Fuels and Vehicles (PCFV), were also presented.

The focus shifted to the progress made in the phase out of leaded petrol in Sub-Saharan Africa and the status of diesel fuel sulphur levels both globally and in Africa. Examples on country and international experiences with regard to fuels and emission standards were drawn from the EU, India, Brazil and South Africa. The presentation concluded by a review of the availability of low sulphur fuels in the world market and recommendations on the way forward.

2.2 Environmental and Health Benefits of Low Sulphur Fuels: Mr. Berhanu Genet, Programme Development, Monitoring and Evaluation Officer, ENDA Ethiopia

A detailed introduction of the environmental and health benefits of low sulphur fuels was made. This was followed by a presentation on the major urban air quality issues in developing countries, major pollutants, and impacts of motor vehicle emissions. A review was then made of the health and environmental impacts of high sulphur fuels and the main reasons for categorising sulphur based emission as a major concern. Conclusions were drawn and recommendations made.

2.3 The Role of EPE in the Promotion of Low Sulphur Fuels in Ethiopia, Mr. Manaye Balcha Petroleum Chemist and Mr. Tsegaw Yoseph Petroleum Analyst, Ethiopian Petroleum Enterprise

The introduction focused on the definition of the concept environment. Clarifications were made on the reasons for categorizing sulphur based emissions from fuels as an environmental pollutant. The overall changing patterns of SO₂ emissions from petroleum were also highlighted.

The discussion next covered the contribution of fossil fuels (Petroleum and Coke) to sulphur emissions and also the determination of sulphur levels in imported petroleum products.

The Role of Ethiopian Petroleum Enterprise in controlling the sulphur content of imported fuels was assessed and the participants informed of how the lessons learnt, by the enterprise, in the successful phase out of leaded gasoline in the country could be applied to the reduction and control of sulphur pollution.

Alternative energy options in the control of sulphur pollution were discussed and participants challenged to come up with solutions that ensured a 'moderate balance point' between environmental and economic goals. Conclusions were drawn and recommendations made.

2.4 Environmental Policy and Legal Aspects in the promotion of Clean Fuels in Ethiopia, Mr. Misikir Tesfaye, Air Pollution Control Team Leader, Federal Environmental Protection Authority

The presentation covered the legal and policy aspects on the promotion of clean fuels as set out by the country's constitution and environmental policy. The speaker revealed that at the time the Environmental Policy of Ethiopia was legislated, transport emissions were not a concern; hence, there is no single legislation that addresses the issue directly. Many of the environmental legislations, however, do embrace it by implication.

Mr. Miskir further clarified some of the measures that have sought to rationalize the Environmental Legislations of the country in order to address air pollution from transport emissions. He also explained the type of Environmental Laws needed to further enforce policy objectives and identified two Environmental Standards that have so far been prepared in this regard – industrial emission standards and ambient environment standards.

3. Discussion Points

3.1 Questions and Answers

Question I.

Queries were raised regarding the amount of fuel that Ethiopia imports from the Gulf Region as compared to the amount imported from Sudan. It was clarified that Ethiopia imports all its petroleum products requirements from the Gulf Region (Middle East) with the exception of regular gasoline which is imported mainly from Sudan (80%) and the remaining 20% from Saudi Arabia.

Question II.

Clarification was sought on the pre-hand preparations that have been made to minimize the sulphur emissions from increased amounts of imported pet-coke fuel. This arose from the observation that the amount of imported pet-coke fuel was projected to double or triple in the next one or two years, as the result of the growth in number and size of industries using the fuel – mainly the cement factories. It emerged that no specific strategy had been designed so far, but future efforts would be made in that regard.

Question III.

Details were sought on the follow up mechanism set up by UNEP/PCFV to ensure the realization of the principles and policy objectives at country or city level with regard to emissions. Participants were informed that UNEP/PCFV addresses many related issues around this topic. There are many on-going improvements in neighboring countries like Kenya, which could be cited as outcomes of the collective efforts made.

Question IV.

Queries were raised on the government's commitment to reduce sulphur emissions from fuels. This was in consideration that from the government side there seemed to be no plan to reduce the sulphur levels in fuels due to economic reasons, while on the other hand air pollution from sulphur emissions resulted to increased environmental and social costs. The meeting was informed that the government was taking an integrated approach in-order to address the environmental and health costs of air pollution.

Question V.

An enquiry was made on the role of the Quality and Standards Authority of Ethiopia with regard to the quality and standard of fuels imported, given the fact that the authority was mandated to enhance quality control. The meeting was informed that a committee had been established to work on this specific issue of fuels. The committee was spearheaded by the Quality and Standards Authority, and

comprised of the concerned government body/agencies. In this regard, a draft law/policy on quality and standard of fuels had been circulated to the public for comments. Interested persons could get the draft law from the Authority's website or from the Quality and Standards Authority offices.

4. Comments and Suggestions

Following the presentation of the papers and discussions held by the participants of the workshop, a summary of the main points is outlined below:

- Given the fact that the issue of clean fuels and vehicles has not been given due attention by all stakeholders in the past, the workshop marked the start of awareness creation activities which were expected to improve future decision making.
- There was need to seek the views of the public before commencing with the proposal to remove old vehicles from the transport system. This would also provide information on the public response and possible timing of such an initiative.
- Reducing the sulphur content in fuels would solve most of the emissions concerns without having to retire old vehicles, which we would be too expensive in Ethiopia's context. There is need to consider the adoption of import regulations and standards which would ensure that only cleaner vehicles are imported.
- A Cost-effective way of dealing with urban air pollution through clean fuels and vehicles should be sought in the process of addressing such a national concern.
- Efforts should be made to foster contributions of individuals in minimizing the level of the problem. Such efforts would complement the policy provisions from the government that are being sought through this exercise.
- Significant undertakings in terms of research on air pollution due to vehicular emissions and its impact on public health and the environment is of paramount importance. This ensures that policy and decision makers have a clear understanding of the problem.
- Demographic factors in terms of urban population growth and increase in city size have serious bearings on the air pollution issues, hence, the need for more research in-order to address the problem.

5. Recommendation/ The way forward

Following a thorough discussion the following recommendations were made by the participants of the workshop:

- To identify other governmental and non-governmental stakeholders to be included in the national steering committee.
- To engage in advocacy and awareness raising activities in-order to influence public thinking and policy makers on the issue of clean fuels and vehicles.
- Networking and collaborating with governmental and non-governmental stakeholder institutions in-order to promote collaborative effort and engagement in addressing the issue.