



United Nations Environment Programme



**Government of The Gambia
Energy Department**

REPORT ON THE

**NATIONAL CONSULTATIVE WORKSHOP OF STAKEHOLDERS TO DEVELOP
A STRATEGY AND ACTION PLAN FOR THE PHASING OUT OF LEADED
GASOLINE IN THE GAMBIA**

**ORGANISED BY
THE GAMBIA GOVERNMENT
AND THE
UNITED NATIONS ENVIRONMENT PROGRAMME**

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At

**The KAIRABA BEACH HOTEL
KOLOLI**

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Background

Air pollution in many cities in the developing world including the Gambia is reaching crisis proportions. Lead, a toxic air pollutant, is extremely harmful to human especially children. Eighty percent of the lead pollution in developing countries is attributed to leaded Gasoline. In 2001, Sub Saharan African Countries signed the Dakar declaration in Dakar Senegal resolving to phase out leaded Gasoline by December 2005. In September 2002 at the WSSD in Johannesburg South Africa the Partnership for Clean Fuels and Vehicles (PCFV) was launched. This global partnership was aimed at helping developing countries to reduce vehicular air pollution through the promotion of cleaner fuels and vehicles specially by eliminating lead and sulfur in fuels.

Gasoline does not naturally contain lead. The additive Tetra-ethyl lead (TEL) is a metal-organic compound that improves the octane number of Gasoline. The octane number is a measure of the antiknock performance of gasoline i.e. its resistance to abnormal combustion such as pre-ignition that causes a knocking sound in the engine. Lead additives improve the octane number of Gasoline. Leaded Gasoline was used from the early 1920s until recently as the most cost effective way of raising octane number. The move to phase out leaded gasoline started in the USA in 1969 with the introduction of catalytic converters. Currently 90% of the fuel produced worldwide is unleaded. During the past ten years an increasing number of countries have phased out leaded Gasoline in a bid to bring down the airborne levels of lead from the transport sector to zero.

Overview Of the Petroleum Sub Sector

The petroleum sub-sector in The Gambia essentially consists of two sub sectors. Upstream (petroleum exploration and production) and downstream (petroleum products, marketing and storage). The upstream is regulated by the Petroleum Exploration and Production Act of 2004 and the downstream sector is mainly self-regulating with no effective legislation. Although recent studies have indicated the presence of offshore oil, The Gambia still relies mostly on imports to meet its energy requirements. Petroleum products account for about 16% of the total energy balance. This includes the generation of electricity, which is done entirely by thermal power plants located across the country using heavy fuel oil (HFO) and diesel as fuel. On the whole the nation is on a serious energy crisis, and energy is amongst Government's top priorities.

The Department of Energy, which has developed the National Energy Policy, aims to bringing the downstream petroleum sub-sector in line with modern international standards, and as envisaged in the Policy Document so that consumers can get the most benefits.

Petroleum products represent a very strategic and important part of the Gambian economy. The Downstream sector is mainly concerned with marketing and four companies are involved in the retail of liquid fuels. They are

Shell Marketing Gambia Ltd
TotalFina Elf Ltd
Elton Oil Ltd
Castle Oil Ltd.

The last two companies are local indigenous companies. There is no refining and all the products are imported from regional refineries.

Shell Marketing owns and controls the sole bulk storage depot in the country. This oligopolistic position gives Shell an advantage over the other players and Government has been trying over the years, to relocate the depot outside Banjul on a shared ownership basis through a Public Private Partnership, to ensure equal access to the storage facilities but without the necessary legal instruments this has been difficult.

The price of liquid fuels is controlled by the Department of State for Finance & Economic Affairs through a formula agreed with the companies. The Gambia remains one of the only countries without a legal framework to regulate the petroleum sector. There are no licences to import, market or store petroleum products. As a result the industry lacks standards in every field. The quality of the products can equally be questioned most of the time. Liquid fuels are very dangerous and there is evidence that the right government initiatives would an advantageous impact on the industry.

Lead In Gasoline

Lead in the form of tetra-ethyl lead (TEL) has been used in vehicles because of its antiknock properties. Commercially introduced in the United States in the 1920s, leaded gasoline soon became a standard worldwide. The effects of lead exposure have been extensively studied and evidence linking it to affecting the development of children lead to its phasing out in the US in the 1970s. The development of catalytic converters also meant that leaded fuels could no longer be used as lead 'poisons' the catalyst. Most western countries have ban the use of leaded gasoline but the picture is different in the developing world where above 70,000 tons of lead are added annually. The reasons for this has been the fact that most countries rely on imports and regional refineries often lack the necessary capital required to invest in newer technologies.

The Gambia is no different with all its fuel being imported. The lead content was indeed very high with maximum levels of 0.8g/L.

Objective of Workshop

The objective of the workshop, amongst others, is to solicit the comments and contribution of major stakeholders in developing an action plan to phase out leaded gasoline and to sensitize stakeholders on the need to phase out the importation and use of leaded Gasoline in the Gambia.

Proceedings Of The Workshop

The workshop was basically a combination of technical presentations from resource persons, and representative of the stakeholders as well as national experts and group discussions.

At the end of the presentations a discussions sessions were held. This report gives a summary of the presentations and the issues (comments, answers to questions) arising from the discussions.

The Opening Session of the workshop was chaired by the Permanent Secretary, Office of The President - Mrs. Teneng. M Jaiteh

SESSION 1: OPENING

Chairman's Welcome Remarks by Mrs. T. M Jaiteh, Permanent Secretary Office of the President:

In her opening remarks, she said the workshop was another milestone in the energy and environment sectors in The Gambia. The programme was a significant step in bringing The Gambia inline with international standards for a lead free environment as agreed at the World Summit on Sustainable Development in 2002. At WSSD governments committed themselves to phasing out leaded gasoline and a global partnership for clean Fuels and Vehicles, coordinated by UNEP was born. However WSSD was in fact preceded by a regional conference in Dakar in 2001 where it was decided to phase out leaded gasoline in sub-Saharan Africa by December 2005.

This workshop is a result of the national follow-up to implement the Dakar Declarations and other conferences on the issue in which The Gambia has been actively participating.

She also thanked UNEP for their support and welcomed Ms Jane Akumu of UNEP to The Gambia and wished her a pleasant stay. Finally she gave a brief outline of the schedule of events.

Remarks by Ms Akumu, Representative of UNEP

In her introductory remarks, Ms. Akumu thanked the Chairperson and welcomed the strong response from stakeholder. She give a brief history of the role of UNEP in phasing out leaded gasoline in Africa and touched on some of the general health effects of lead. She also mentioned that the program included eliminating not only lead in petrol but also high sulphur in diesel. She asked the participants to actively take part in the discussions.

Keynote Address By The Secretary Of State (SOS) For Fisheries Natural Resources And The Environment Hon. Bai Mass Taal

SOS Mr. Bai M.Taal firstly welcomed Ms. Akumu a former colleague at UNEP and wished her a pleasant stay in The Gambia. He spoke on the UNEP program to phase out lead and also mentioned his personal involvement here in The Gambia. He further elaborated on the effects of leaded fuel on new vehicles and how it destroys the microchip and catalytic converters. He spoke of the success of Dakar and Nairobi meetings and informed the workshop that today more than 50% of gasoline consumed in Africa is lead free. He commended the Department of Energy as well as other stakeholder like the National Environment Agency for organizing this workshop. He noted that in fact some of the major importers have already started importing lead free gasoline into The Gambia.

In conclusion he thanked UNEP for their continued support and reiterated government's commitment to sound environmental management and thanked all the collaborators in this vein. He declared the workshop open thereafter.

Overview of the Energy Sector, by Bah Saho, Director of Energy

- The presentation gave some basic economic and demographic statistics on The Gambia
- The Gambia's energy resource base and import dependency
- Energy balance and forms of energy used – fuelwood (>80%), electricity (2%), petroleum (16) & renewable energy (<1%)
- Energy Policy and National strategies
- Government's role in the energy sector and incentives for alternatives
- Current programs and projects
- Finally he urged everyone to use energy wisely.

Leaded Gasoline and its Health Effect, by Momodou Sarr, Executive Director NEA

The presentation focused on the following points

- Main uses of Lead
- Points of exposure to lead
 - Paint, plates cans etc
 - Petrol Stations
 - Sporadic burning of waste
 - Vehicle emissions
- What is leaded petrol
- Health Effects / Acute Effects
- Health Effects / Chronic Non – Cancer Effects
- Health Effects / Reproductive Effects
- Cancer Risks
- The Dakar Declaration.

Global and sub-Saharan Africa progress in Phasing out Leaded Gasoline and other Air Quality issues – Case Studies by Jane Akumu, UNEP

This presentation gave an overview of the wider global picture and some interesting statistics

- Why lead was added
- Why the need to phase it out
- Health effects (example in air quality in Cairo, Egypt and vehicle population in Uganda)
- Urban Air pollution a key issue
- The benefits of unleaded gasoline
- Experience so far, and progress in sub-Saharan Africa
- The way forward.
- Case studies and other

Petroleum and Motor Vehicle Importing Industry, by Lang Conteh (SHELL), Mr. Kanteh Manjang (SAMadi & Sons) and William Dukureh (CFAO)

The representative of Shell said Shell is aware of the global lead phase out and illustrated the following

- Shell in The Gambia
- Types of Fuels used
- Lead content on fuel imported
- Dependence on regional refineries
- Need for sensitization to avoid confusion

He also spoke on the dangerous habits like petrol sniffing and washing oil from the skin by local mechanics.

The representatives from S.A.Madi & Sons and CFAO both indicated that their companies bring vehicles equipped with catalytic converters but are damaged by leaded petrol, even though CFAO brings fewer vehicles with catalytic converters.

Petroleum sub-Sector Legislation Report finding by Almami Taal
Mr Taal was asked to

- Assess the regulatory mechanism in place
- To look at enforcement and compliance issues
- To evaluate the pricing and competition questions
- To review the different components of the sector,
 - i. Procurement
 - ii. Storage & transport
 - iii. Marketing
 - iv. HSE & Quality Control
- Consult with stakeholders on the constraints of the industry and recommendations for improvement.

In presenting his findings Mr. Taal,

- Highlighted the role of the Department of Energy with regards to policy issues considering all liquid fuels are imported
- He said the petroleum products are controlled by an old piece of legislation through the Petroleum Act of 1921 (Cap 65.01) last amended in 1983.
- The Act and regulations deal with importation, transportation, storage and health as safety issues. However the issue of tariffs or pricing is left out. He also said the Act may be old, but it is still law and gives the necessary framework for regulation of the petroleum industry and also set standards including quality standards and fuel specifications.
- Situational Analysis: although the laws are in place the Licencing procedure is not complied with. This is partly due to the fragmented roles and responsibilities of the various government departments hence regulation is weak.

His Recommendations were:

- Amend the existing regulations to prohibit the importation and marketing of leaded gasoline and put in place an enforcement mechanism.
- Draft comprehensive regulations for the downstream sector to complement to complement the upstream sector.
- Regulation are quicker to develop than legislation and this should be done first.

Issues Arising From Discussions:

- The need for public sensitization especially transport workers and petrol station attendants
- Impacts of the change to unleaded fuel on the national economy considering that there are many old cars
- How to monitor the importation of petrol after the phase out to ensure compliance by importers.

Gambia Phase Out Strategy And Action Plan By Mr. Bah F M Saho

In an attempt to phase out the use of leaded gasoline, the following strategies were proposed:

1. Development of legislation for the sub-sector. This includes the establishment of a legal and regulatory framework for the whole segment of the downstream activity;
2. Develop standards for the products to be used,
3. Strategize importation options using one importing agent, who would be licensed and all players to deal directly with the imported;
4. Monitoring and enforcement of the standards through the establishment of a standards laboratory for testing for compliance before importation;
5. Establish firm dates for stopping importation of leaded gasoline into the country by Government pronouncement;
6. Encourage vehicle importers to incorporate Catalytic Converters in all new cars imported into the country and firm up a date;
7. Sensitize the population on the harmful effects on the use of leaded gasoline and the benefits of using unleaded through:
 - i. the various media: TV adverts, Radio, Posters, T-Shirts, and Billboards.
 - ii. training for mechanics and pump attendants on the hazards of lead in gasoline

Recommendations For The Phase Out Strategy And Action Plan

Three working groups were formed after the presentation on the draft strategy and action plan to phase out lead in gasoline in The Gambia. Working groups were namely Government, civil society and oil companies to deliberate on the following points:

1. Policy and Legislation
2. Standards
3. Strategic importation
4. Monitoring and enforcement
5. Firm date to stop the importation of leaded gasoline
6. The role of Vehicle importers
7. Sensitization of shareholders and the general public

At the end of the working group sessions, each group presented a report to plenary and the following consensus was reached and adopted:

1. There is need for a legislative review of the whole petroleum sub sector including importation, storage and distribution to be followed by the development of new relevant Regulations.
2. The Department of Energy is to initiate and lead this exercise between March and December 2005 to develop a new Petroleum Products Act preferably to be administered by an independent body like the Gambia Public Utilities Authority (*the PURA Act mandates them to regulate 'energy services' including petroleum*)
3. It was also agreed that standards need to be developed for the petroleum sub sector which should be harmonized with sub regional standards.
4. The petroleum importation process of using a single importer for all dealers in the Gambia was agreed but the process must be open and transparent and open to all interested companies and in accordance with the GPPA rules.
5. The Standards and Consumer Protection Unit needs to be revitalized to implement a product certification system. The need for a standard national laboratory serving all the institutions in the long term was agreed;
6. It was unanimously agreed to ban the importation of leaded gasoline into the Gambia by 31st July 2005. The announcement of the ban date to be made on the 1st May 2005, marking the beginning of the sensitization campaign.
7. It was agreed that after 31st December 2005 any vehicle imported into the Gambia must have catalytic converter. Government should seriously consider putting age limits on vehicles imported
8. Sensitization program on the phase out program and the health and environmental impacts of lead pollution is to begin on May 1st 2005 using electronic and print media, seminars, flyers, billboards etc.

ANNEXES:

- Introduction by the Permanent Secretary – Office of the President and Chairperson of the Opening Session, Mrs. Teneng M. Jaiteh, on the Stakeholders Workshop to Phase Out Leaded Gasoline Use in The Gambia
- Opening Remarks By The Honourable Secretary Of State For Fisheries, Natural Resources And The Environment – Mr. Bai Mass Taal - On The Stakeholder Workshop On The Phasing Out Of Leaded Gasoline In The Gambia
- Overview Of The Energy Situation by Mr. Bah F. M. Saho – Director of Energy, Office of the President
- Leaded Petrol: Environmental & Health Effects By Momodou B. Sarr, Executive Director, National Environment Agency
- Progress Made In Leaded Gasoline Phase-Out In Sub-Saharan Africa By Jane Akumu, United Nations Environment Programme
- Case Studies By Jane Akumu, United Nations Environment Programme
- Leaded Gasoline Phase Out By Lang K. KONTEH, Operations Manager – Shell Marketing Gambia Ltd
- Petroleum Sub-Sector Legislation Report Findings And Recommendations (Legislations) By Almamy F. Taal
- Gambia Phase Out Strategy And Action Plan By Mr. Bah F M Saho
- Agenda on The Workshop on Modalities and Action Plan for the Phasing Out of Leaded Gasoline Use in The Gambia, 8th & 9th March 2005 at Kairaba Beach Hotel
- Participant List