The Lead Recycling Africa Project – Newsletter # 01

Dear Reader,

This is the first edition of a series of e-mail newsletters of the recently started Lead Recycling Africa Project. We launched this newsletter series, because we would like to create awareness for the health and environmental problems in lead recycling activities among all the stakeholders involved in African countries. Furthermore, we want to establish a platform for all people seeking independent and reliable information on the current status of the African lead recycling industry, as well as on problems and improvement options.

In the first part of this edition, we would like to inform about the project, its history as well as its partners and aims. In the second and third part, we want to show why lead is an important issue and highlight past incidents related to unsound lead-acid battery recycling in various African countries. It is noteworthy that this collection is of anecdotal nature and probably only represents the 'tip of the iceberg'. Last but not least, the fourth part contains a short report about Mrs. Phyllis Omido who was recently awarded the Goldman Environmental Prize for her brave and successful grassroot campaign against the pollution of a secondary lead smelter in Mombasa, Kenya. We congratulate Mrs. Omido on her great work and the 2015 Goldman Environmental Prize!

We hope that this newsletter will meet with your interest. If you have any comments or feedbacks, please do not hesitate to contact us via newsletter@econet.international.

Kind regards,

Your Lead Recycling Africa Project Team,

May 2015

Content

1. About the Lead Recycling Africa Project

The Lead Recycling Africa Project was initiated in 2014 after various scientists and environmental groups in Germany and several African countries had collected a substantial body of evidence suggesting that unsound lead-acid battery recycling causes severe pollution and has serious public

health implications in many metropolitan areas in Africa. Although lead-acid battery recycling has long been practiced all over the world, rapid urbanisation, a growing vehicle fleet and an unbroken demand for lead has spurred the rapid growth of domestic lead recycling industries in many African countries. As illustrated in the third section of this newsletter, there are various known cases were lead recycling had terrible consequences for workers and local communities. Unfortunately, there is as yet no comprehensive picture of the African lead recycling industry and its impacts on human health and the environment. Furthermore, in most African countries, the general level of awareness amongst industry, decision-makers, intergovernmental agencies and the wider public is still insufficient to drive forward the implementation of effective minimum standards or ensure the respect of the Basel Convention.

The objective of the Lead Recycling Africa Project is to identify, monitor and mitigate potentially polluting practices in the lead recycling industries of African countries. Improving the knowledge base on lead-acid battery recycling practices, the project aims at stimulating public debates about health and safety and pollution control standards at the local, national and international levels. Furthermore, the project wants to facilitate information and skills exchanges as well as networking amongst groups working on sustainable industrial development in African countries and beyond.

Project activities encompass:

- Fact-finding studies on lead recycling industries in selected African countries
- Dissemination of knowledge on standards and effective mitigation measures
- Dialogue with decision-makers in African countries and at international level aiming at the reduction of health and environmental risks associated with substandard lead recycling.

Currently, the project is being implemented in Cameroon, Ethiopia and Tanzania, involving the following research organisations:

- AGENDA for Environment and Responsible Development (AGENDA-Tanzania)
- Pesticide Action Nexus Association (PAN-Ethiopia)
- Research and Education Centre for Development (CREPD-Cameroon)
- Oeko-Institut e.V. (Germany)

The project is financed by donations that were collected between late 2014 and the beginning of 2015. Further donations are welcome and will be used to extend the above listed project activities.

All information gathered in this project will be published on the project website. Additionally, this newsletter series will inform about all project-related news, as well as on other developments around lead recycling in Africa and globally.

2. Why is lead recycling an important issue?

Lead is considered as one of the most toxic heavy metals that causes harm to several organ systems in the body. Lead is most easily taken up into the body through inhalation or ingestion. The efficiency of oral uptake of lead can vary depending on various factors such as particle size and the iron- and calcium status of the individual. The organs potentially most affected are the brain and the nervous system, kidneys, blood, and the reproductive system of both sexes. Once taken up into the body, lead is not metabolized. However, it will distribute to various tissue compartments

such as blood, soft tissue and bone. Some clinical symptoms are usually found in individuals who have been submitted to continuous exposure (for example, individuals who are exposed at work like in substandard lead batteries recycling facilities, paint industries, etc.). Today, this mostly occurs in developing countries and countries with economies in transition, though not always acknowledged. Inter alia, under the Strategic Approach to International Chemicals Management (SAICM), the use of lead is banned in gasoline additives and its use in paints is considered as emergent policy issue to promote a phase-out.

One of the significant applications using lead is the manufacture of lead acid batteries. At the end of its life, the lead acid battery is classified as a hazardous waste under the Basel Convention and should be handled accordingly in order to prevent damage to human health or to the environment. The Basel convention has developed technical guidelines for the recycling of lead acid batteries, however in practice these guidelines are often not respected, resulting in proliferation of substandard lead acid battery recycling businesses in developing countries, with consequence to environmental pollution.

3. Past incidents of unsound lead-acid battery recycling in Africa

In the following section, we present some cases of the recent past where unsound lead acid battery recycling has led to severe health and environmental problems in Africa. While some of these cases – in particular the mass poisoning in Dakar between 2007 and 2008 – have attracted considerable international media attention, others were only reported about by the local media. On top of these known incidents, it seems quite likely that there are various comparable cases still unknown across the continent.

The closure of Metric International Lead Acid Battery Recycling, Tanzania

In 2005, the company Metric International Lead Acid Battery Recycling registered with the Tanzanian authorities and started recycling operations in March 2007. The facility was located about 10 km from the centre of Dar es Salaam and only about 200 metres from a densely populated area. Although production did not reach full capacity, workers in the plant and the surrounding industries, as well as local residents soon complained about choking smell and fumes causing coughing and skin rashes. The local research and advocacy group AGENDA – that is also part of this project consortium – carried out an on-site assessment. As a result of this, the National Environment Management Council (NEMC) conducted a facility inspection. Because of substantial improvement requirements set out by NEMC and due to increasing pressure from other stakeholders, the facility was closed in August 2007.

The mass poisoning in Dakar, Senegal

Between November 2007 and March 2008, 18 children under the age of five died from acute lead poisoning in a neighbourhood of Dakar, Senegal. The poisoning was caused by informal recycling and disposal of lead-acid batteries that were carried out in the area since around 1995. The situation escalated after local residents developed the side business of recovering small lead particles from the highly contaminated soils in the area, a process that was often carried out in the homes of residents. After the deaths became known, clinical and laboratory assessments were performed on 81 individuals living in the affected area. All of the tested persons suffered from lead poisoning,

some of them severely. Blood lead level tests revealed that 41 out of 50 surveyed children had life-threatening poisonings requiring immediate hospitalization and therapy. In total, the study estimated that 950 inhabitants were subject to lead poisoning with many children suffering from severe chronic forms, including neurologic, developmental and behavioural disorders.

In response, the Senegalese government closed the informal recycling workshops. Since that time, various efforts have been made to decontaminate the site and to raise awareness amongst local residents.

The scale of unsound lead-acid battery recycling

In 2012, the US-based Blacksmith Institute and the Green Cross Switzerland published a ranking of "The World's Worst Pollution Problems". According to this study, sub-standard lead-acid battery recycling is the world's No. 1 worst polluting industry. Geographically, the problem primarily exists in Southeast Asia, Africa, Central and South America, and also South Asia and China. The ranking uses the metrics of disability-adjusted life years (DALYs), which is a scientific way to assess the impacts on public health. The study claims that unsound lead-acid battery recycling causes the loss of almost 5 million healthy life years globally.

The closure of Metal Refinery EPZ LTD, Kenya

In March 2014, the Kenyan government shut down a lead-acid battery recycling facility in Mombasa. The decision followed a campaign of local activists who were able to prove that at least five workers have died from lead poisoning. Further blood tests carried out on some of the 3,000 residents revealed that elevated blood lead levels are a severe local health risks, in particular for children. More information about this incident is provided in section 4 of this newsletter on the Goldman Environmental Prize for Phyllis Omido.

Recent accident in Accra, Ghana

An accident in a lead-acid battery recycling facility in Accra (Ghana) caused three fatal casualties in December 2014. As reported by Myjoyonline.com, the accident happened at a facility of Blankomet Recycling when sanitary workers were trying to empty a septic tank. According to the news report, the victims have presumably inhaled acid fumes.

4. Goldman Environmental Prize for Phyllis Omido, Kenya

Very recently, Mrs. Phyllis Omido was awarded the Goldman Environmental Prize 2015 for her outstanding engagement in the campaign leading to the closure of the mentioned lead smelter in Mombasa, Kenya. Being directly affected as a lead poisoned baby's mother, she realized that her child was not the only one suffering from the poisoning in her community. The smelter emitted fumes laden with lead and released contaminated water that – without any treatment – was discharged into streams where residents took water for washing, cooking and cleaning. The people most affected, however, where the workers at the plant that were directly exposed to lead. Apart

from thin cotton gloves that disintegrated after a few days, no protective gear was handed out to the workers. Most of the time, they had to use their bare hands for work.

Phyllis Omido launched a campaign organising the people around the lead refinery and founded the Center of Justice, Governance and Environmental Action (CJGEA). Together with a team of experts, one of her first tasks was to compile an environmental impact report of the situation around the plant. It showed that the local residents around the smelter were exposed to very dangerous chemicals. Presumably, the operation of the plant was also illegal. Not only her son, but also other children in the community were suffering from severe lead poisoning. Blood tests revealed that blood lead levels of the tested children in the community exceeded the average blood lead levels by almost factor 20. However, only after a very long, hard struggle and the overcoming of considerable resistance, she and her team achieved that the factory was closed by the national authorities.

The Goldman Environmental Prize honours grassroots environmental heroes from the world's six inhabited continental regions: Africa, Asia, Europe, Islands & Island Nations, North America, and South & Central America. The Prize commends the sustained and significant efforts of individuals to protect and enhance the natural environment, often at great personal risk.

The Team of the Lead Recycling Africa Project congratulates Phyllis Omido for her great work and winning the Prize in 2015!

In one of our next newsletters, we intend to provide a detailed feature on Phyllis Omido's outstanding achievements during her campaign in Kenya.

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