

Draft Concept Note

Sustainable e-waste management in Southern Africa

Background

E-waste, so called WEEE (Waste electrical and Electronic Equipment), is the fastest growing waste stream in the world. If not collected and treated properly it causes huge environmental damage and exposes human life to serious health and safety risks. But e-waste is also a resource (secondary raw material) that needs to be recycled so that valuable metals, plastics etc are reused and reentered into the raw material stream. Extraction of metals from secondary source also significantly reduces the climate footprint compared to primary source extraction (mining of virgin ores).

The use of EEE is increasing rapidly also in developing countries while end of life EEE is increasing both as result of internal generation and illegal import. The fast growing volumes of e-waste in developing countries thus constitutes an enormous environmental risk as well as a huge potential to create jobs and business for disadvantaged and underprivileged people, provided that it is done according to accepted and available best practices and highest possible standards.

It is probably correct to state that the EUs WEEE Directive is today's best practice policy platform and that many EU member states operate a reasonably effective and environmentally acceptable e-waste recycling system in which the private sector plays an important role including the practice of producer responsibility.

In the western world there is a certain degree of awareness about the growing problem of e-waste in developing countries. Greenpeace and many other environmental groups and non-governmental organizations point out the problems but seldom advice on potential solutions while there seems to be greater interest in presenting the problems at international conferences than taking action on the ground.

WEEE recycling is business. People have scavenged for and collect metal scrap for centuries, however in an unsustainable way. In developing countries much of this business happens in the informal sector among the poorest of the poor with the objective of surviving the day.

In order to achieve long term sustainable solutions also in the developing world business and private sector (national and international) have a crucial role to play. Metal scrap has since long been a commodity that is traded across borders by transnational companies in a similar way as virgin ores and metal concentrates. "Urban mining", from secondary source such as WEEE, is therefore a trade that must complement traditional mining of virgin ores while reducing environmental impact and climate footprint and creating many new "mining" jobs.

There are several initiatives being taken already, although still greatly insufficient, by some western governments, development aid and funding organizations, the UN and private sector companies (often as Corporate Responsibility interventions) to address today's unsustainable e-waste business in developing countries. A problem with all these initiatives however is the lack of coordination and that most of them are being implemented in isolation.

Conceptual idea:

A corporate sector Strategic Alliance for sustainable e-waste management

The way towards sustainable e-waste solutions in developing countries needs to address such issues, among others, as relevant legislation and law enforcement capacity, awareness raising among all groups in society, allowing level playing fields for local and transnational EEE producers including responsible trading across borders, building local recycling businesses including job creation and avoiding environmentally harmful practices. This variety of diverse issues requires a multi stakeholder approach in order to create a workable and sustainable solution.

The proposal is that we form a Strategic Alliance with a group of globally active companies including Ericsson and Electrolux, representing global EEE producers and Boliden, the world's largest WEEE smelter and Sims Recycling, a leading international recycling company, together representing competencies along the whole e-waste value chain. The task of this strategic alliance is to collectively, and in close collaboration with local and international stakeholders, contribute to establish workable and sustainable e-waste solutions on the ground in Southern Africa.

Most interventions to improve e-waste management in developing countries have so far typically involved academia and consultancies and resulted in various reports. Few if any initiative so far has focused on implementing workable solutions on the ground.

In order to establish sound and true confidence within any country where the alliance would be active it is necessary to identify local corporate partners/stakeholders and work closely with local government and civil society organizations. It would likewise be important to liaise

with relevant labor organizations on this, like for example the Mine Workers Unions and also invite IF Metall to engage in the project.

Geographic coverage

The Alliance would initially focus on South Africa as it is the most mature market which has the potential to generate economic volumes of WEEE at the same time as the employment rate is high especially among disadvantaged groups and the young. The expected engagement by several South African partners adds to the strength of the Alliance. Furthermore South Africa could be a best practice example for other nations on the African continent. Other countries to follow after South Africa need to be discussed and agreed upon among stakeholders but most likely include countries or main cities with large populations (such as Maputo, Lusaka and Nairobi)

Linkage to development specific priorities in proposed co-operation countries

Although the policy priorities in each of the proposed co-operation countries are not known in detail at this stage, the proposed interventions by the Strategic Alliance could briefly be described to focus on the following, priority areas:

- a. Urban environment
- b. Resource efficiency & Secondary raw materials
- c. Energy saving & Mitigation of climate footprint
- d. Poverty alleviation, training and job creation

Urban environment

Most e-waste is generated in urban areas. One priority activity of the Alliance would be to organize waste collection systems in cities and township areas. While this would contribute to a general clean-up of waste that may be scattered around streets it would prevent unsustainable dismantling methods, including burning that currently pollutes air, soil and water and expose human and animal life to hazardous gases and contaminated water.

Resource efficiency & Secondary raw materials

Extraction of metals from secondary source is an example of resource efficiency that complements the extraction of metals from primary source. This is particularly the case of many precious and rare earth metals contained in electronics. The Alliance will take a holistic approach towards recycling of WEEE to avoid “cherry picking” and to include and take responsibility for not only the most valuable and sought after metals but to include also the difficult and costly components in e-waste, such as for example old CRTs .

Energy saving and reduced climate footprint

Extraction of metals from secondary source requires much less energy compared to the extraction of the same metals from primary source. Depending on metal and smelter

technology the energy saving may vary between 50 % up to 99%. The reduced energy can be translated directly to a smaller climate footprint. For example recycling of 1 ton Cu saves 20 tons CO₂. Furthermore, using the energy content in the e-waste material, net energy can be produced in modern smelting processes such as at Boliden's Rönnskär smelter.

Poverty alleviation & Job creation

Collection and dismantling of WEEE in developing countries is in many cases best done by manual methods. With training and provision of simple protection clothes and equipment and hand tools, human hands sort and dismantle WEEE in a technically efficient way. This in turn will thus provide for many jobs and an opportunity of informal jobs becoming formal jobs with registered companies which pay taxes.

What's in it for the proposed initial stakeholders?

Corporate partners:

In addition to general Corporate Responsibility including for example provision of refurbished computers to schools in disadvantaged communities/townships, , more specifically

Ericsson: Reduced costs (logistics and transport) as a result of up to standard recycling activities (according to its global commitment to producer responsibility) in each local market. Contribute to a best practice legal framework, permitting its take back policy without additional costs.

Electrolux: same as Ericsson

Boliden: New reliable up to standard suppliers of WEEE material

Sims Recycling: Organizing effective collection systems, primarily among underprivileged and disadvantaged groups of people. Expanding business networks and increasing volumes of material

Non corporate partners:

IF Metall/Mine Workers Union/Department of Labor: Create new "urban mining" jobs among disadvantaged groups. Transforming informal jobs to formal, including the support and training of labor rights.

Chamber Trade/Chambers of Commerce: Chamber Trade Sweden (CTS) is a non-profit organization running international projects for the chambers in Sweden and other business networks. CTS has a partnership cooperation with the Cape Chamber of Commerce and is ready to facilitate together with Cape Chamber the identification of reliable local partners,

facilitate relations with local authorities and government including Departments of Environment and Department of Labor.

Swedish EPA/Department of Environment: There may be an interest to establish institutional relations and cooperation between the Swedish EPA and its sister organizations in Africa with particular focus on e-waste. Furthermore the alliance may need expertise support from Swedish EPA if and when interventions to support environmental and e-waste legal framework is needed and requested by African countries

Budget & Time Schedule

To be discussed and estimated but tentatively at least 1,000,000 EUR as aggregate amount between private and public sector. This implies at least 500,000 EUR as total contribution from (in cash or in kind) from the group of corporate sector partners, c.f. below

Funding

The basic principle of funding in the proposed private public partnership is that it is shared between private and public sector in principle on a 50/50 basis.

Funding sources

The private sector will commit to fund in principle 50% of the total estimated budget cost. This funding can be either in cash or in kind in the form of the partners own or paid for time, provision of equipment and/or (training) material.

The public sector's funding sources are envisaged to be:

The German government's GIZ ref. www.developpp.de

or

Swedish Sida ref. <http://www.sida.se/English/Partners/Private-sector/Collaboration-opportunities/Public-Private-Development-Partnerships-PPDP/>

or as a combination/co-operation between these government development agencies.