

E-waste management in Vietnam. Sida PDC grant

Progress Report 1. November 2012

General Background

The objective of the project funded by Sida's PDC facility is to identify business and cooperation possibilities along the e-waste value chain between stakeholders in Sweden and in VietNam.

Ref. Invitation Letter dated September 2012, attached as Appendix 1

The first fact finding mission to VietNam was made 22 October to 1 November 2012. Preparations were made since the project's inception by contacting various stakeholders in Sweden including private sector producers such as Ericsson and Electrolux, a number of recycling companies and with Boliden, the world's largest smelter of electronic scarp . Contacts were also made with relevant authorities such as the Swedish Environment Protection Agency and several research institutions. A list of contacted Swedish stakeholders is attached, Appendix 2. This list also includes updated contacts with stakeholders in VietNam.

Centec VietNam provided valuable support to arrange a meeting program including interpretation at many of the meetings. The last part of the mission in VietNam was spent on follow up meetings and with a number of stakeholders that came up as relevant during the beginning of the mission. The meeting schedule for the first part is attached as Appendix 3.

Approach

It is considered important to address e-waste management in a holistic way and consider and include the whole value chain from EEE (Electrical & Electronic Equipment) reaching its end of life until new raw materials have been produced. Sweden has an established, if not absolutely perfect, but a well functioning e-waste recycling management system based on cooperation and competition between authorities, municipalities, trade organizations and private sector recycling companies and producers. Sweden is thus well placed to offer system solutions to VietNam as well as to other countries which lack a proper e-waste management system today.

It needs to be borne in mind that e-waste is a valuable resource and that recovery of this resource has a substantial positive effect on environment and climate. Recycling of e-waste fits well into the EU's Raw Materials Initiative (RMI).

General E-waste situation in VietNam

The e-waste situation in Vietnam is similar to many developing countries and economies in transition. There is an extensive informal business and trade going on without much control and environmental concern. The awareness is generally very low both re the environmental damage that is caused by the current practices and the value contained in the EEE. The current “recycling” is a cherry picking practice by which only those materials which is of known value is being recycled and/or traded, with limited disassembly, to a very great extend in the black market. It is said that much of the value material is going to China while difficult material of little and no value is dumped in nature.

The relevant authorities in VietNam seems to be aware of the problems while less so of the opportunities. The existing Environment Law does not address e-waste in any specific way while the law is under revision.

VietNam is becoming another manufacturing spot of the world with a number of big companies investing to set up their factories not least of EEE. Samsung and most of the large Japanese EEE manufacturers have/will have much manufacturing in VietNam. This will probably help to increase awareness and also boost the market for seriously operating recycling firms.

Contrary to many countries in developing Africa VietNam has a number of formal recycling companies keen to learn and become specialized also in treating e-waste. It is probably true to state that there is no e-waste specialized recycling company in VietNam today.

Conclusions and Proposed way forward

There are at least three specific links in the e-waste value chain in which Swedish competence can contribute to improve the current status.

1. Revision/amending the new environment law

The Ministry of Environment and Natural Resources MONRE is currently working to revise and amend the existing Environment law and seems to be serious about addressing also specifically e-waste. It was said that the objective is to present a revised law to the National Assembly by October 2013. MONRE was glad to receive already concrete inputs and showed interest in getting support from Sweden. From the perspective of the fact that we are living in a globalized world and that big companies/manufacturers are present worldwide and wants to apply their producer responsibility everywhere they operate it would be important that any new legislation in VietNam would mirror the EUs WEEE Directive to the greatest possible extent. If a new law will be based on principles contrary to such principles (which are governing sustainable e-waste recycling today) it will take long to change and make it difficult for producers to apply their global policies. It is also important that a new law will include regulations that incorporates the collection and treatment of all e-waste, not only the valuable components but also the less valuable and difficult ones.

An idea is therefore to design an intervention to assist MONRE with participation and part funding from Swedish industry, with expertise from for examples Swedish EPA and with part funding from Sida's B4D

facility. The interest from Swedish industry is based on the fact that a non-conforming law is a market distortion to their global take back policies and thus prevents them to reduce their costs in the end of life treatment value chain.

A group of ICT companies, several of which with representatives based in Singapore have engaged in supporting VietNam to improve its regulations on collection and treatment of discarded products This group has submitted already certain inputs to the MONRE. The group is also preparing some kind of study to map numbers and volumes of various end of life EEE in VietNam. It would be advisable to seek cooperation with this ICT group on improving the new environmental law.

2. Establishing up to standard recycling company(ies)

According to information received there are some 40 recycling companies which are formally established and registered in VietNam today collecting/buying various types of waste including hazardous waste. Few, if any, of these companies have any particular knowledge of e-waste. Many of them are however aware that there is business in e-waste and want to learn and begin doing business also with e-waste. Discussions with two of these companies and visits to their so called factories revealed that resources are available and that operations are relatively organized and tidy but that there is a lack of knowledge of treatment methods and of the market for processed materials. At both these factories there was only one type of e-waste that was treated: fluorescent lamps. The companies however did not know what to do with the powder that came out of the machines they were using!

One can think of training and other type of support to these companies while the alternative of a foreign reputable recycler willing to form a JV with one of these local companies most likely will speed up the learning process and help to find the markets to be able to sell the processed material.

An idea would be to begin on a pilot scale using as much manual labor as possible the main investment being in human capital and not primarily in too sophisticated or large scale machinery.

It is not foreseen that the required investment would be huge while a model could be to attract Swedfund as partner, providing 1/3 of the necessary capital.

3. Recycling equipment

Irrespective of what is said above re focus on manual labor there may be need for certain types of equipment to treat for example toxic and highly hazardous e-waste material such as those containing mercury, lead, cadmium and beryllium including also ozone depleting gases.

Swedish manufacturers of equipment for treatments of fluorescent lamps and CRTs could set up a demonstration plant in VietNam that could be a show case to all recycling companies and to the authorities in the country and also to neighboring countries as applicable. Such a demonstration plant could be supported by the Demo environment facility.

Other initiatives related to e-waste

The only other initiative on e-waste by foreign interests that were found was a proposal by UNIDO to the Global Environmental Fund GEF. This proposal was however seeking to find co-funding from bilateral sources as well as from the private sector.

First it needs to be said that it would be extremely important to coordinate various initiatives in order to avoid overlaps and gaps. UNIDO's initiative could be worth supporting. It is however quite academic in nature focusing on a selection of toxic substances while it is questionable if the results would be practically applicable. It is recommended to engage in a concrete and open dialogue with UNDO to explore how a common ground could be found focusing on workable interventions on the ground rather than theoretical and academic themes.

The EU Commission

The project has been presented to the EU Commission in VietNam. There may be reason to follow up with the EU office to explore any form of coordination and/or co funding knowing that environment is high on EUs agenda in Vietnam.

The way forward

Detailed discussions and meetings will now be held in Sweden with a number of stakeholders to map their possible interest and to modify the proposed interventions as necessary. These discussions will be open for expanding the possible approach and also reducing the scope of the next step.

It is proposed to arrange a seminar/workshop on e-waste in VietNam and South Africa in Sweden in the beginning of 2013. Following that it is envisaged that some interested parties would travel with Georange to Vietnam and also later to South Africa to meet and discuss in more depth possible engagement with relevant parties in these two countries. Centec and Chamber Trade Sweden may support the arrangement of workshops with parties in Vietnam and South Africa respectively.

The approach is still holistic keeping the whole value chain intact while interventions may be stronger and more focused at certain links and less so in others.

The most challenging idea would be the establishment of a strategic alliance, bringing together players from industry, trade associations, unions, government, academia, development aid organizations and civil society (primarily Swedish but open also to stakeholders from other countries), to assist developing countries to improve their e-waste management systems. With a holistic approach focusing on the entire EEE end- of-life value chain such an alliance would offer its experiences on a transnational basis with replicability as guiding objective.