



a toxics-free future

www.ipen.org

ipen@ipen.org

International SAICM Implementation Project (ISIP)

In 2010, in an effort to demonstrate SAICM implementation via IPEN Participating Organizations, IPEN launched an International SAICM Implementation Project, also known as ISIP. ISIP aims to mobilize resources for initial enabling activities pertaining to national priorities, in keeping with the work areas set out in the strategic objectives of section IV of the SAICM Overarching Policy Strategy.

In particular, the ISIP supports the Governance objective of SAICM's Overarching Policy Strategy paragraph 26, which calls for enhanced "cooperation on the sound management of chemicals between Governments, the private sector and civil society at the national, regional and global levels."

In addition, ISIP builds on the 2008-2009 Global SAICM Outreach Campaign to raise awareness about SAICM and strengthen collaboration among the public interest, health and labor sectors.

ISIP Objectives

ISIP's four objectives include:

- Promoting the need for sound chemicals management
- Advancing National SAICM Implementation
- Promoting global SAICM implementation by global civil society
- Building capacity among NGOs developing countries and countries with economies in transition

Title of activity: Impact Assessment of Electronic Waste Handlers and Livelihood in Lagos, Nigeria

NGO: Sustainable Research and Action for Environmental Development (SRADev Nigeria)

Country: Nigeria

Date: March 2011

Elements of SAICM Covered:

Activities relating to identification and assessment of where issues relating to the sound management of chemicals arise during the lifespan of electrical and electronic products, including the design of such products, green chemistry, recycling and disposal, in particular in the context of the requirements of the Basel and Stockholm conventions, participation in the workshop on electronic waste be held in the margins of the meeting of the Open-ended Working Group meeting of the Basel Convention and follow up recommendations and options for the SAICM OEWG and ICCM3 (ICCM2 decision II/4)

Definition of e-waste and near end of life items and the hazardous chemicals contained in them:

E-waste, the short form of Electronic waste or Waste Electrical and Electronic Equipment (WEEE), refers to old, end-of-life or discarded electronic items. These electronic appliances are numerous, ranging from products like personal computers, mobile phones, laptops, televisions, household appliances like washing machines, vacuum cleaners, toasters, dryers, refrigerators, irons, air-conditioners, coffee machines, fax machines, printers, telephones, DVD players, etc.

Note that this ISIP project focused only on computers and mobile phones.

In summary, in Nigeria we can define e-waste as:

1. An electrically powered appliance that no longer satisfies the current owner for its original purpose.
2. Anything with a printed circuit board and its associated peripherals.
3. Any appliance using an electrical supply that has reached its end-of-life.

Hazardous chemicals contained in e-waste include: Lead, Cadmium, Mercury, Hexavalent Chromium (Cr VI), Barium, Beryllium, Plastics including PVC, and Brominated Flame Retardants (BFR).

Description of the situation with regard to e-waste that is generated in the country vs. waste that enters the country:

The number of electronics that filter through the borders monthly is quite alarming. According to a Basel Action Network (BAN 2005) study, in conjunction with Basel Convention Coordinating Centre for the African Region (BCRCC) Nigeria, Nigeria imports about 500,000 used computers annually through the Lagos port alone. About 25% of the imports are functional used computers while the remaining 75% is junk or unserviceable. The junk has no value and therefore ends up being discarded before any re-use takes place. Likewise, in a recent survey, it was estimated that by the end of 2007, there would be at least 30 million cell phones in use in Nigeria, and at least 20 million older models stockpiled in drawers awaiting disposal, if the rate of market explosion recorded by the telecommunication industry in Nigeria continues at the current pace.



Figure 1: Map of Nigeria showing Lagos State

The non-functional equipments discovered after testing are however re-assembled and re-packaged to find use elsewhere. The poorest people in the country, especially the youth, are engaged in breaking apart television sets, computers, mobile phones, game consoles and other electronic items in order to extract the components in them.

The unprofessional disassembling process is a harmful and dangerous process for human health and for the health of the ecosystem. Plastics, rubber, and print boards are set on fire in order to obtain and sell the leftover metals. These dangerous processes cause massive air pollution and make people (often children 6 years and older) breathe in harmful smoke.

Description of the current practices for dealing with e-waste and near end of life electrical equipment:

As much as 45% of electronic shipments from all over the world enter Lagos, and most of the imported items that are tested as non-functional get discarded almost immediately as e-waste. They end up in dumpsites where they are eventually burned. Moreover, the current practice carried out by the informal recycling units (e.g. technicians, recyclers, waste pickers/scavengers) involves breaking/dismantling, repair, repackaging /recycling of e-waste. The health and environmental impacts from handling, disposal and burning of e-waste are significant and a cause for concern.

Nigeria, as a Party to the Basel Convention, is obliged to control the importation of used electronics when they are deemed as hazardous or other waste under the Basel Convention. To date, such imports have not for the most part been controlled in accordance with the Basel Convention. Although locally some key policies issues have been carried out by Federal Ministry of Environment towards addressing this problem through the development of its *National Action Plan on E-waste* and finalizing its *Policy on Importation of Used Electronic and Electrical Equipment*, and institutional capacity and frameworks are also being put strategically in place, the absence of an enforceable legislation results in all these efforts not yielding any result. As far regulation is concerned, there is yet any legal instrument on management of e-waste at the national and state levels. The drafted “*Electrical and Electronic Sector Regulation on E-waste Management*” by the National Environmental Standard Regulatory and Enforcement Agency (NESREA) is over-delayed and yet to be passed into law. Notwithstanding, all key stakeholders including government, informal and formal sectors are being mobilised in some local efforts to ameliorating the situation.

The Lagos state government, in a strategic attempt to contain the rising trend of indiscriminate disposal of electronic wastes especially at dumpsites, has set up an e-waste committee within the Lagos State Environmental Protection Agency (LASEPA). This committee is made up of key stakeholders and meets regularly in an effort to finalise an e-waste action plan for the state, but their efforts are yet to yield any result. Temporarily and very recently, the Lagos State government, through the LASEPA, has engaged the services of a consultant to establish a waste recycling facility in preparation to mopping up all obsolete and faulty electronic equipments within the metropolis.

Description of any contaminated sites that have resulted from e-waste:

A typical site is Olushosun dumpsite, located in Ikeja local government, which was originally on the outskirts of Lagos metropolis but is now within a developed locality of the metropolis and surrounded by residential, commercial and industrial neighbourhoods due to rapid urban development. The site hosts all manner of solid waste, which was indiscriminately disposed of without any attempt to seclude them over the years. The waste includes infectious medical wastes, toxic industrial solid wastes and domestic wastes, all co-mixed together. This practice of co-disposal of toxic and hazardous materials with the other refuse increases the likelihood of exposure to toxic and hazardous compounds.

People living and working in the Ojota/Ikeja vicinity have been impacted directly and indirectly as the environment has been characterized by its obnoxious smell day in and day out. The decomposition of the waste (the non-electronic waste) produces methane, which could cause fire and explosions; while leachates from e-waste could pollute surface and ground water. Likewise, the ensuing smoke that fills the air from the uncontrolled burning of solid waste constitutes serious environmental pollution, adversely affecting solid waste workers and pickers. Toxic and hazardous wastes, when burnt with other solid waste like asbestos fibre, may introduce potential carcinogenic fibre to the smoke plume. There has been a stronger association to liver cancer than to the other cancers.

The effect of the open burning of solid waste at the Olushosun is quite enormous, although plans are underway by the state government to rehabilitate the site and convert it to a recreation centre in the near future.



Continuous burning at Olushosun dumpsite

Project Outcomes:

Description of the activity conducted:

1. Preliminary Baseline Survey:

A Project Implementation Team (PIT) was set up and an implementation action plan was drawn. Data were gathered through literature review, visits were made to e-waste trading sites, photo-documentation of e-waste was made and consultations with key stakeholders like Lagos State Environmental Protection Agency (LASEPA), Lagos State Waste Management Authority (LAWMA), Computer and Allied Products Dealers Association of Nigeria (CAPDAN), Nigeria Ports Authority (NPA), Nigerian Customs Service (NCS), and Electronic Traders' unions took place.

2. Assessment Fieldwork:

Direct beneficiaries/Traders' Associations were interviewed, questionnaires were administered to stakeholders at work on April 15 & 16, 2010, photo-documentation was carried throughout the project life-cycle and alongside focus group discussion (FGD). Oral interviews were also conducted with key stakeholders like the importers, distributors, marketers, retailers, technicians, cart pushers and the scavengers.

Photo-documentation:

The fieldwork assisted on the spot assessment of the e-waste business stream producing a detail photo-documentation (Photo-speak) of the fate of e-waste covering: *the point of entry into the country; distribution chain; end of life and ultimate disposal*. This was printed into a roll-up banner format and used for exhibition and as an IEC material.

3. Stakeholders' Sensitization Workshop:

The awareness raising/sensitization workshop took place on October 22, 2010 at Lagos Airport Hotel, Ikeja, Lagos. The programme commenced in earnest at 11:00 a.m. as Professor Awele Maduemezia (SRADev Board member) chaired the occasion. Fifty-eight (58) participants attended, cutting across the major stakeholders, such as government agencies like Ministry of Environment, National Environmental Standards and Regulations Enforcement Agency (NESREA), Lagos State Waste Management Authority (LAWMA), Lagos State Environmental Protection Agency (LASEPA), Electronics Dealers' Association, private sectors, journalists and students, amongst others.

In his welcome address, Mr. Leslie Adogame, SRADev Nigeria Executive Director, stressed the importance of the workshop and gave an overview of the outcome of the project survey to prepare the participants for the need of the workshop. The evidence that used computing equipment, for instance, is attributable to health and environmental problems, stirred the participants' attention. He also highlighted best environmental practices (BEP) with regards to

environmentally sound management (ESM) of e-waste. The first paper focuses on *An Overview of the International SAICM Implementation Project (ISIP)/Findings*. The paper highlighted the results of the survey, justifying that e-waste business has untold health impacts on workers (as perceived by them).

The second paper was on the *Status and Management of Used Electronics and Electrical Equipment (UEEE) in Nigeria - Towards an Environmentally Sound Management* delivered by Mrs. Bolanle Ajai, who stood in for Professor Oladele Osibanjo, Director, Basel Convention Regional Coordinating Centre in Africa, University of Ibadan (BCRCC).

The last paper, on *Lagos State E-waste Recycling Initiative*, was presented by Engr. Adekilekun Haroon (Consultant, Lagos State e-waste re-cycling initiative) who exposed the state's recycling plan and called on all to join hands with the government to achieve its desired objective.

The presentations were followed by participants sharing practical experiences. Mr. John Oboro, the Secretary, Computers and Allied Products Dealers' Association of Nigeria, also remarked in his speech that, 'the effects of e-waste could be disastrous and very costly, so, Nigerians should beware'. 'The indiscriminate dumping of e-waste either as second-hand product or for charity purpose has reached an alarming rate in the country and calls for urgent resistance by his colleagues and other stakeholders', he concluded. Contributions also came from Traders' Association on the need for checks and balances on the importation of second-hand electronics.

Photos:



Project team during Questionnaire administration session Cross section of participants at the workshop

Impact on target groups:

The target groups identified were all engaged through participatory methods and consulted at different times, and briefed on the objectives of the project. At first letters providing a brief of the project were sent and appointments were made with each of them at their convenience to give them a detailed brief on the purpose, role and expectations during the project implementation.

The results of the activities include:

- 1) Readiness to associate with all other events of organization and willingness to be available for collaboration
- 2) Increased knowledge of prevention/protective measures to avoid future exposure
- 3) Increased knowledge of best environmental practices in their occupations
- 4) Acceptance of information on safe handling of e-waste and assurance to employ internal check and balances
- 5) Assurances on change in behavioral practices
- 6) Reduction in unsafe handling practices
- 7) Voluntary acceptance on their role within the project
- 8) Stakeholders accepted the study report presented, and the revealing information therein in which formed the basis of their decisions in the activities above.

Impact on target policies:

The target policy is towards an environmentally sound management regime in Nigeria and the outcome of the project sufficiently created the needed basis for achieving this goal. On the

overall it helped to identify the activities involved in e-waste business, level of exposure to risk by those involved in the informal business of e-waste, increasing the awareness of all key (primary and secondary) stakeholders towards appropriate measures to be adopted in achieving this policy, identifying the institutional gaps and policy weakness that can militate against the achievement of the goal, as well as providing sufficient knowledge-based information to key sectors for conscious policy drive of the process. It is envisaged that this activity would to a large extent help to fast track the enactment of the E-waste Bill.

Outreach to stakeholders:

Stakeholders are members of Computers and Allied Products Dealers Association of Nigeria (CAPDAN), technicians, recyclers, peasants, waste-pickers, scavengers and e-waste vendors/marketers, and the National Association of Refrigerator and Air condition Practitioners (NARAP). Others including academia, government agencies like Nigerian Customs Service, Ministry of the Environment, Lagos State Environmental Protection Agency (LASEPA), Nigeria Ports Authority (NPA), law-makers and the media were actively engaged in the activity.

The strategy adopted for immediate follow up was in two ways:

- (i) Networking with other NGOs with an interest in e-waste and holding a “*Roundtable meeting*”
- (ii) Advocacy to government on the urgent need of a legislative framework for e-waste management.

An NGO meeting was held to identify NGOs with interest on e-waste and to brief all on the need for a strong advocacy group. This meeting was very successful, with the roundtable producing an immediate press document, a communiqué and an open petition signed by over 15 notable national NGOs and sent to the government (Minister for Environment, Federal House of Assembly, NESREA, Nigeria Customs, Standards Organisation of Nigeria and Nigeria Ports Authority). This singular event was well reported and has continued to be the turning point towards Environmentally Sound Management (ESM) of e-waste in Nigeria.

Deliverables, outputs and/or products:

1. Documented report/information on levels of risk associated with e-waste/reference-able database on e-waste trading practices.
2. An NGO model for e-waste management awareness/communication strategy.
3. Awareness material for NGOs, media and e-waste handlers on best practices.
4. Roll-up banners, audio-visual CDs (VCD on e-waste status in Nigeria)
5. Two well researched papers presented during the workshop circulated etc.
6. Workshop report

Communication efforts:

The project from inception developed a communication strategy/plan which involved some identified media (electronic/print) and some private environment / technology quarterly magazines. At first, a **press release** was held for media personnel prior to the workshop detailing what the project’s aims and objectives were. The briefing was well reported among Nigeria’s foremost broadcasting stations, Nigerian Television Authority (NTA) and Africa Independent Television (AIT). Likewise, popular newspapers covered the event:

Other communication materials and efforts employed are:

- ✓ Use of Nigerian focused video documentary during the workshop and at different consultative opportunities titled “Digital Dump in Africa” – *developed by Basel Action Network (BAN)*
- ✓ Display of e-waste posters from NESREA
- ✓ Display of roll-up banner on e-waste photo-speak produced
- ✓ Circulation of papers delivered during workshop to key stakeholders

Find below some newspaper publications that could be tracked on-line following the wide coverage of events:

1. <http://www.punchng.com/Articl.aspx?theartic=Art20101025225248>
2. <http://www.nigeriamasterweb.com/paperfrmes.html>
3. <http://234next.com/csp/cms/sites/Next/News/Metro/5635509-146/story.csp>
4. <http://hotnewsoncommodities.blogspot.com/2010/10/ngos-press-for-urgent-passage-of-e-bill.html>
5. http://www.ngrguardiannews.com/index.php?option=com_content&view=article&id=27417:stakeholders-ask-govt-to-ban-importation-of-electronic-waste-&catid=31:business&Itemid=562
6. <http://www.vanguardngr.com/2010/10/stakeholders-lobby-fg-to-ban-e-waste-imports/>
7. <http://pmnewsnigeria.com/2010/10/29/group-urges-nassembly-to-pass-the-e-waste-bill/>
8. http://www.dailytrust.dailytrust.com/index.php?option=com_content&view=article&id=5900:environmental-groups-ngos-want-e-waste-bill-passed&catid=10:environment&Itemid=11

NGO Recommendations for next steps:

- 1) The need to provide more sustained support and build capacity of national NGOs with a view of maintaining this momentum towards an effective ESM of e-waste and towards strengthening the coalition already established;
- 2) Capacity building of the informal sector (handlers) to harness potential employment generation, economic and entrepreneurship opportunities through training workshops in repair, refurbishment, dismantling/disassembling, and recycling of electrical and electronic products, including the identification of hazardous and toxic components in electrical and electronic equipment, including components that are recyclable;
- 3) Urgent establishment of "Refurbished Computer Programme Initiative" as alternative SMEs schemes in each of the e-waste hotspots (Ikeja computer village, GSM village, Alaba International market and other hotspots identified across the country) as a green recycling industry for a sustainable livelihood;
- 4) The need to support intense awareness-raising activities and projects for all major stakeholders and sectors including the general public, informal sector, politicians, civil society, industry and government;
- 5) Urgent capacity building and collaboration on compliance and enforcement for regulatory agents and law enforcement officials like the Green Customs Initiative;
- 6) Putting in place programmes for advocacy on legislative and voluntary extended producer's responsibility and free take-back programs, including provisions for employment generation and poverty alleviation in the informal sector; and
- 7) The Lagos State government (LASEPA) has made assurance to collaborate with and support the NGOs in awareness raising activities for the primary key stakeholders, hence SRADev was invited to join the state e-waste technical committee and to submit a brief proposal.