

PART 2

A: ACTIVITIES/ PROJECTS REPORTS SUMMARY

(Please provide one page summary for each of the completed activities/ projects)

Project no. / Project name: Integrated Waste Management in Western Africa (IWWA)

Grant agreement no.: 244188 – IWWA- CSA - CA

Project duration (in months): 24 Months **Start and end dates:** - -/06 -/2010 - to - -/06 - /2012- - - -

Beneficiary Parties: Verein zur Förderung des Technologietransfers an der Hochschule Bremerhaven e. V. (TTZ), Germany; Bioazul (S.L. BIOAZUL), Spain; Eidgenoessische Materialpruefungs – Und Forschungsanstalt (EMPA) Switzerland; Sveriges antbruksuniversitet (SLU), Sweden; Öko-Institut e.V. – Institut für angewandte Ökologie (OEKO), Germany; Fundación Gaiker (GAIKER), Spain; Technische Universität Berlin (TUB), Germany; Enda Tiers Monde (ENDA), Senegal; Regional Council of Matam (MATAM), Senegal; Institut Africain de Gestion Urbaine (IAGU), Senegal; Zoomlion Ghana Limited (ZOOM), Ghana; Kwame Nkrumah University of Science and Technology (KNUST), Ghana; Basel Convention Regional Coordinating Centre for Africa (BCRC), Nigeria; Environmental Law Research Institute (ELRI), Nigeria; University of Abobo Adjamé (UAA), Côte d'Ivoire; Centre for Environment and Development for the Arab Region and Europe (CEDARE), Egypt; Icando (ICANDO), South Africa; Centre for Environmental Impact Analysis (CEIA) Ghana

Performance of the core functions of the Basel Convention regional and coordinating centres identified in appendices I and II to decision VI/3 of the Conference of the Parties (refer to the core functions mentioned in the Annex)

Total project budget (in US\$): EUR 999.884,35

List the funding sources and the corresponding amounts:

1. EC Contribution	EUR. 999.884,35.
2.....	US\$...
3.....	US\$...

Please provide a brief summary on the project activities and the outcomes in quantifiable terms in the space given below:

IWWA project examined the current solid waste management practices in 4 target countries in Western Africa, representative of countries in the region: Côte d'Ivoire, Ghana, Nigeria and Senegal. Information was gathered through desk study , administration of questionnaire etc. and

inputs from stakeholders participatory workshops held in the target countries were incorporated into the development of guidelines and recommendations:

- Guide for identification of Integrated Waste Management Systems adapted to target countries regional situation
- Guide for implementation of Integrated Waste Management Systems
- Guidelines for participatory planning processes in Integrated Solid Waste Management (ISWM).
- Recommendations for the development of National and Regional Action Plans in each target country

These tools were developed to empower stakeholders in two ways: providing technological and organizational solutions adapted to their necessities, and setting up the basis of a policy framework for a long-term implementation of improved and sustainable solid waste management systems.

Please indicate if there is possibility to obtain the detailed information on this project in any other location e.g., submitted reports/websites, etc

www.iwwa.eu

<http://www.malagahoy.es/article/malaga/734830/una/firma/pta/participa/proyecto/africa.html>

www.slu.se/energyandtechnology

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A: ACTIVITIES/ PROJECTS REPORTS SUMMARY

(Please provide one page summary for each of the completed activities/ projects)

Project no. / Project name: SV/4030-06-01-2206/ Stockholm Convention funded “Preliminary Assessment of New POP’s PentaBDE, OctaBDE and HBB Entering Africa Via Used Electronics/E-Waste; Development Of Methodology For Sampling And Analysis of PBDEs In E-Waste “

Project duration (in months): **Start and end dates:** 19/05/2011- to 30-/09-/2012

Beneficiary Parties: Basel Convention Coordinating Centre for Training and Technology Transfer for the African Region in Nigeria (BCCC-Africa)

Performance of the core functions of the Basel Convention regional and coordinating centres identified in appendices I and II to decision VI/3 of the Conference of the Parties (refer to the core functions mentioned in the Annex)

Total project budget (in US\$):

List the funding sources and the corresponding amounts:

1....Stockholm Convention Secretariat	US\$ 34,000.00
2.....	US\$...
3.....	US\$...

Please provide a brief summary on the project activities and the outcomes in quantifiable terms in the space given below:

In May 2009 certain congeners contained in commercial Pentabromodiphenyl ether (c-PentaBDE)¹ and commercial Octabromodiphenyl ether (c-OctaBDE)¹ were listed in Annex A of the Stockholm Convention (POP-PBDEs) which prohibits production, use, import, and export. As there is no longer any known production the main challenge is the identification and treatment of existing stockpiles and wastes containing POP-PBDEs.

The project exemplifies synergy between the Basel and Stockholm conventions.

The project objectives were:

- To get a first insight into POPs PBDE and PBB levels entering Africa via Electrical and Electronic Waste (WEEE)/ and used EEE (UEEE).
- To assess the POPs PBDE levels in different key electronics product groups (TVs, computers, possibly others) to understand for which groups action is necessary.
- To assess if there are regional differences of PBDE levels between WEEE imports from Europe, America and Asia.

¹ PentaBDE and OctaBDE refer to the commercial mixtures in this review and the associated appendices. When reference is made to the congeners listed in the Stockholm Convention these are described as the POP-BDE. Where reference is made specifically to particular homolog groups the lower case is used as ‘triBDE to pentaBDE’.

- To undertake capacity building of the Basel/Stockholm Convention Regional Center in Nigeria on the determination of POPs in plastic from WEEE.
- To develop methodological guidance on sampling and analysing POPs PBDE/PBB in WEEE.
- To get a very preliminary idea if manual sorting could reduce or avoid POPs PBDE/PBB in final plastic fraction possibly being considered for recycling

The following expected outcomes of the project were accomplished :

- Methodological guidance on sampling and analysis of POP-PBDEs (and PBB) from WEEE;
- Preliminary baseline data of POP-PBDE and PBB in plastic from electronic waste entering Nigeria/Africa;
- Data for key electronics entering Nigeria/Africa;
- Indication if manual separation of old electronics could lead to a significant reduction of POP-PBDE (and PBB) in WEEE plastics;
- Preliminary conclusion on the relevance of POP-PBDE imported and present in Africa from different world regions via WEEE;
- Capacity building : One Nigerian PhD student trained in BFR analysis at Fraunhofer Institute Germany for 3 months in 2011 and University of Umea, Sweden for 6 months in 2012

Publications from the project

Short paper and presentation at global POPs conference 2011

A short paper was presented at the 31st International Symposium on Halogenated Persistent Organic Pollutants POPs (www.dioxin2011.org):

Sindiku O, Babayemi J.O, Osibanjo O, Schlummer M , Schlupe M, Weber R (2011) Screening E-waste plastic in Nigeria for brominated flame retardants using XRF – towards a methodology for assessing POPs PBDE in E-waste exports. *Organohalogen Compounds* 73. 785-788 (2011)
<http://www.dioxin20xx.org/pdfs/2011/1909.pdf>

Short paper and presentation at global POPs conference 2012

Sindiku O, Babayemi JO, Osibanjo O, Schlummer M, Schlupe M, Weber R (2012) Assessing POP-PBDEs and BFRs in E-waste polymers in Nigeria. *Organohalogen Compounds* 74 (accepted).

Please indicate if there is possibility to obtain the detailed information on this project in any other location e.g., submitted reports/websites, etc.

The full project report is available with the Secretariat of Stockholm Convention

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(Please provide one page summary for each of the completed activities/ projects)

1.1 Project no. / Project name: : BD/6010-10-01 (BDL-1514-2661-2C28) ,
BD/6010-10-41(BDL-1514-2661-2C29) **Building local capacity to address the flow of e-wastes and electrical and electronic products destined for reuse in selected African countries and augment the sustainable management of resources through the recovery of materials in e-wastes; components one, two, three and four of the project**

Project duration (in months): 22 months **Start and end dates:** --/06-/2010- - - - to - -/
04/2012- - -

Beneficiary Parties: Benin, Côte d'Ivoire, Egypt, Ghana, Liberia and Nigeria

Performance of the core functions of the Basel Convention regional and coordinating centres identified in appendices I and II to decision VI/3 of the Conference of the Parties (refer to the core functions mentioned in the Annex)

Total project budget (in US\$): 492,003

List the funding sources and the corresponding amounts:

1. Cost to the European Commission (BD/6010-10-01)	US\$ 358,503.	
2. Programme Support Cost (7%)	US\$.25,095	
3. Cost to Other Donor (BD/6010-10-41)	US\$.95,934	
4. Programme Support Cost (13%)	US\$ 12,471	
Total cost of the project to the BD Trust Fund		US\$ 492,003

Please provide a brief summary on the project activities and the outcomes in quantifiable terms in the space given below:

Overall objective(s) of the project.

The project goal is to enhance environmental governance in selected African countries. The seven African countries involved are Benin, Egypt, Ghana, and Cote d'Ivoire, Liberia, Nigeria and Tunisia. A brief summary of the overall objective of the project is to equip Africa to be able to tackle the growing problem of e-waste, including imports coming from Europe and the developed world, and thereby protect the health of citizens particularly children while providing economic opportunities resulting in less impact on environment and human health from the handling of e-waste and e-equipment in countries covered.

Specifically the Programme aimed to :

- Improve the level of information available on flows of EEE and e-waste imported into West Africa
- Assess the baseline situation in terms of the amounts of EEE imports, EEE in use and e-waste and environmental impacts of the e-waste sector
- Study the social-economic aspects of the increasing volumes of used EEE and e-waste
- Strengthen national capacities to monitor and control transboundary movements of e-waste
- Cooperation between African countries and the adoption of a regional approach (e.g. ECOWAS) supporting environmentally sound management of e-waste as well as control of illegal traffic in West and Central Africa appears to be important in pursuing the solution to e-waste in Africa.

The four components of the project were as follows:

- I A study on flows of used EEE and e-waste imported into Benin, Côte d'Ivoire, Ghana, Liberia and Nigeria, from European countries
- II National assessments and national environmentally sound management strategy
- III A socio-economic study on the e-waste sector in Nigeria and a feasibility study of international cooperation between African SMEs and European recycling companies
- IV Enforcement programme in Benin, Egypt, Ghana, Nigeria and Tunisia to prevent illegal transboundary movements of e-waste

Project Outcomes :

- Reports produced of e-waste country assessment for Benin, Ghana, Cote d'Ivoire, Liberia and Nigeria.
- Production of a socio-economic research study on the informal sector including a feasibility study for establishing environmentally sound materials recovery operations and opportunities for public-private partnerships and investment in Nigeria. (English, 80 pages).
- An enforcement training programme is developed and put in place in five African countries as output 5 reports containing measures for prevention and control of imports of e-wastes are published
- Training of 19 African officers from Benin, Ghana, Egypt Cote d'Ivoire, and Nigeria for weeks in Netherlands and Belgium by IMPEL took place for 2 weeks in September 2010. Follow-up national training workshops in Benin, Nigeria, Ghana, Egypt occurred between July and October 2011.
- Training manual on inspections of e-waste and the ESM of e-waste, including a training curriculum as CD ROMs (500 copies) are produced.

Please indicate if there is possibility to obtain the detailed information on this project in any other location e.g., submitted reports/websites, etc

The reports of the project are available on SBC website. There is also the project output publication “Where are WEEE in Africa ‘

<http://www.basel.int/Implementation/TechnicalAssistance/EWaste/EwasteAfricaProject/tabid/2546/Default.aspx>

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Project no. / Project name:

Project duration (in months): **Start and end dates:** - -/ - -/ - - - - to - -/ - -/ - - - -

Beneficiary Parties:

Performance of the core functions of the Basel Convention regional and coordinating centres identified in appendices I and II to decision VI/3 of the Conference of the Parties (refer to the core functions mentioned in the Annex)

Total project budget (in US\$):

List the funding sources and the corresponding amounts:

- 1..... US\$...
- 2..... US\$...
- 3..... US\$...

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