

Putt on the batteries with batteries (Ponte las pilas con las pilas)

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Panama's mercury emissions inventory

(Dic. 2008)

- The main emitters of mercury in Panama are commercial & Health sectors.
- The dispose of mercury containing products & waste are the principal causes for air, water and soil pollution. (Both medical & commercial products)
- Lack of control and / or information in minor mining activities as well as medical procedures are most take in care due its high liberation index.
- Cement production, Land fields and electric switches* are identified as mayor emitters sub categories**.
- Lack of information on medical activities represent a potential risk on handling products containing mercury, as well as lack of information regarding controlled and non controlled landfills

* Electric switches subcategory must have a high error margin due to the estimation process.

** Lack of proper customs index system is a risk for any inventory process as well as an opportunity to up date it and include other products, parts and subcategories relevant to polluters control.

Panama's dry batteries market

- During 2005 the dry batteries imports in Panama were around 571 Kg (National Customs authority)*.
- The mercury entrance factor index in this stage is 320 KgHg/Ton (PNUMA Toolkit)
- This index represent 182.72 KgHg introduce in Panama via dry batteries containing mercury.
- 50% goes to waste treatment facilities (91.36 KgHg), 25% each liberated by air and soil (45.68 KgHg each)

* National Inventory of Mercury Emissions in Panama (Dic. 2008)

Project definition

“Putt on the batteries with batteries”

- This project pretend to promote alternatives to dry batteries use and collect & dispose properly used dry batteries (cell phone, computers and bottom batteries also) from homes, schools, universities as well as businesses in urban and rural areas, using as containers, used plastic bottles (1 Lt. or more).

Objectives

- Reach 250,000 plastic bottles or containers in the first complete round.
- In the same proportion in each country in several countries in Central America & the Caribbean regions.
- Recover 0.05 kg per container and 70% of the total number of containers.
- The total plastic bottles recovered (175,000) and batteries (8,750 Kg – 8.75 tons).
- The amount of mercury recovered equals $8.75 \text{ tons} \times 320 \text{ Kg Hg/Ton} = 2,800 \text{ KgHg} - 2.8 \text{ Tons Hg}$

Period of implementation

- High season for batteries consumption is December to April due to sell of toys for Christmas and their use during summer vacations in Central America & the Caribbean.
- In rural areas the use of dry batteries is all year round.
- The period of the project will be 18 months from July 2009 – December 2010
- The planning and implementation needs to start 4 months in advance (July 1st. 2009)
- The results will be ready one month after the recovery process ends in December 2010

Stake holders

- The Global Compact Network in each country to address businesses with the U.N. millennium goals programs in progress or looking for ways to implement it.
- The retail business structure in each country as well as regional players (Wall-Mart, Carrefour, Cencosud, etc.)
- The Bottling companies of the region (Coca-Cola and/or Pepsi)
- The focal point of the Mercury Project in each country or region
- The local & National governments (Health, Education, Higher education, environment secretaries)
- Local and international NGO´s working on pollutants reductions in the Latin-American & Caribbean region.
- Local Newspapers & other media outlets in the region
- Internet base social networks like Facebook.

“Putt on the batteries with batteries”

Project's Budget (PANAMA)

- Labeling & distribution of bottles, promote campaign for 2 months and recover bottles from their distribution centers US\$20,000.00
- Administrative costs US\$13,000.00
- Other costs US\$ 7,000.00
- Total Costs US\$40,000.00*

*Cost are estimated based on former projects in Panama.

Funding sources

- Bottling plants will contribute with funds for labeling & distribute the bottles, promote campaign for 2 months and recover the bottles from their main distribution centers (50%)
- Large companies will support the administrative cost with the sponsorship of the project using CSR funds (30%)
- Media outlets will donate their space to promote the alternatives to & reduction of battery's campaign (10%)
- Others stake holders will contribute with money or species to cover relate it costs (10%)

Major activities

(roles and responsibilities of stakeholders)

- Development (GPNP*)
- Promote & sale (Ecologic, S.A.)
- Implementation (GPNP / Ecologic, S.A.)
- Media & PPRR (Ecologic, S.A.)
- Recovery & Batteries export (N.A.)
- Local Results presentation (Ecologic, S.A.)
- International Result presentation (GPNP)

* GPNP or Grupo Parques Nacionales Panama

Results/outcome (PANAMA)

- Distribute as much as 20,000 plastic bottles (containers) in Panama.
- Recover 0.05 kg per container and 70% of the total number of containers.
- Total plastic bottles recovered (14,000) and batteries recovered (700 Kg - 0.7 ton).
- 700 kg represent 90% of project it 2010 dry battery's imports. (750 Kg)
- $0.7 \text{ Ton} \times 320 \text{ KgHg/Ton} = 224 \text{ KgHg}$ Mercury recovered.
- $\$40,000 / 224 \text{ KgHg} = \$178.57/\text{KgHg}$ cost per Kg of mercury recovered.

Container at home



Overcome difficulties & factors to success

- This must be considered a joint Public / Private & NGO program.
- The Panama project will serve as a test project for other countries.
- Looking for regional partners will be critical to implement regional RSC programs and reduce the cost per KgHg recovered of the program.
- Adding more containers, increase the weight of each container recovered and / or the number of containers recovered the cost per KgHg will reduce.

Lessons learnt & Experiences to be shared

- Since August 2008 we initiate a test project at home and at my work in La Estrella / El Siglo newspaper's editing rooms.
- The collection of used batteries had been excellent and we already had recovered 1 Kg with just 3 plastic bottles (see pictures).
- Dry batteries are considered a pollutant in the mind of many people and media had play a significant role.
- Bringing any kind of recovery system to the market place will by a positive way to reduce the amount of batteries as waste in the local land fields.
- Promoting alternatives to dry batteries will create new needs and lower priced rechargeable systems.

Let me introduce Our selves

- Grupo Parques Nacionales Panama dated July 2003, actually with 558 local and international members
- Member of the U.N. Global compact program since Sept. 2007
- U.N. Mercury Project partner since Sept. 2008
- Zero Pollution Alliance dated May 26, 2008

GRUPO PARQUES NACIONALES PANAMA

First recycling system in a public park in Panama (Dic. 2007)



Zero Pollution Alliance (15,500 reusable bags in 2008)



“Painting your own reusable bag”

250 Kid's painting Lessons with Gabriela Batista)





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Thank you very much