

**b**asel  
**a**ction  
**n**etwork

**turn back  
the toxic tide**



[www.ban.org](http://www.ban.org)

# **The Quest for Responsible Electronics Recyclers**

Jim Puckett, Basel Action Network (BAN)

**ITU/UNEP Central American  
e-Waste Summit**

**March 19-21, San Salvador, El Salvador**

# OMG: What have we Done?











# Massive Growth in IT Hardware

## Growth in Computers / USA

Year	Computers /1000 people	Rate of Increase	Number of Computers
1965	.1	--	19,430
1975	.9	9	200,000
1985	99	110	21,000,000
1995	342	3.5	90,093,000
2005	715	2.1	210,000,000
2009	900	1.25	274,500,000

**Globally 2 billion personal computers by 2015**

# Massive Growth

## INTERNET USAGE STATISTICS

### The Internet Big Picture

### World Internet Users and Population Stats

#### WORLD INTERNET USAGE AND POPULATION STATISTICS

#### March 31, 2011

World Regions	Population (2011 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000- 2011	Users % of Table
<a href="#">Africa</a>	1,037,524,058	4,514,400	118,609,620	11.4 %	2,527.4 %	5.7 %
<a href="#">Asia</a>	3,879,740,877	114,304,000	922,329,554	23.8 %	706.9 %	44.0 %
<a href="#">Europe</a>	816,426,346	105,096,093	476,213,935	58.3 %	353.1 %	22.7 %
<a href="#">Middle East</a>	216,258,843	3,284,800	68,553,666	31.7 %	1,987.0 %	3.3 %
<a href="#">North America</a>	347,394,870	108,096,800	272,066,000	78.3 %	151.7 %	13.0 %
<a href="#">Oceania / Australia</a>	35,426,995	7,620,480	21,293,830	60.1 %	179.4 %	1.0 %
<a href="#">WORLD TOTAL</a>	6,930,055,154	360,985,492	2,095,006,005	30.2 %	480.4 %	100.0 %



# Rapid Obsolescence









# 50 Million Metric Tonnes of e-Waste Generated Globally Last Year





# Significant Toxicity

- ***Toxic Metals***  
Lead, Cadmium, Mercury, Beryllium, Selenium, Lithium, Antimony, Arsenic
- ***Brominated Flame Retardants***  
TBBA (tetrabromo-bisphenol-A)  
PBDE (polybrominated diphenyl) etc.
- ***Other Halogenated Hydrocarbons***  
PVC (polyvinyl chloride)  
CFCs (chlorofluorocarbons)
- ***Rare Earth Elements***  
Yttrium, Europium, Americium



# 50 Million Metric Tonnes of **Toxic** Waste Generated Globally Last Year





# Divert from landfill to...recycling?



**ELECTRONICS-RECYCLING.COM** 12197 Industrial Road  
Tel: 604-582-8087

# **ELECTRONICS RECYCLING**

**PH: 604-582-8087 FAX: 604-582-8211**

**www.electronic-recycling.com**









ance Center

PARKING IN RE



MTZ 508381

24.19728

Green Map  
Clean!

METRO POOL

TRAC

TRAC



An aerial photograph of a large green container ship, the Evergreen Ever Radiant, sailing on the ocean. The ship is heavily loaded with multi-colored shipping containers (red, green, blue, and white). The name 'EVERGREEN' is printed in large white letters on the side of the hull, and 'EVER RADIANT' is visible on the bow. A white tugboat is moving alongside the ship, leaving a white wake. The text 'Out of Sight...' is overlaid in the upper right corner.

Out of Sight...

Out of Mind?



**In USA 50-80% of e-Waste delivered to “recyclers” is exported to developing countries**



# Exporting Harm: The Dirty Little Secret of e-waste recyclers





# China



















# West Africa





















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## Lead levels in children linked to rise in e-waste profits

Updated: 2011-11-16 07:59

(China Daily)



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PROVIDED TO CHINA DAILY

A study shows 88 percent of children in Guiyu had lead poisoning in 2010.



### THE WEEK

THE WEEK Dec 2  
Goat Loves Deer

#### Hot Topics

HIV/AIDS, Egypt  
change, global e  
high-speed railw  
situation, Weekly



¥ 758



家居轻时

# Basel Convention

Adopted 1989



BASEL CONVENTION

# Basel Ban Amendment

Adopted 1995



UNEP

10 Years of the Basel Convention

One World, Don't Waste It



[www.basel.int](http://www.basel.int)

LAC Progress	Basel Convention	Basel Ban Amendment	Score
<u>Antigua / Barbuda</u>	✓		1
<u>Argentina</u>	✓	✓	2
<u>Bahamas</u>	✓		1
Barbados	✓		1
Belize	✓		1
Bolivia	✓	✓	2
<u>Brazil</u>	✓		1
<u>Chile</u>	✓	✓	2
Colombia	✓		1
<u>Costa Rica</u>	✓		1
<u>Cuba</u>	✓		1



<b>LAC Progress</b>	<b>Basel Convention</b>	<b>Basel Ban Amendment</b>	<b>Score</b>
<b>Dominica</b>	✓		<b>1</b>
<b>Dominican Rep.</b>	✓		<b>1</b>
<b><u>Ecuador</u></b>	✓	✓	<b>2</b>
<b><u>El Salvador</u></b>	✓		<b>1</b>
<b>Grenada</b>			<b>0</b>
<b><u>Guatemala</u></b>	✓		<b>1</b>
<b>Guyana</b>	✓		<b>1</b>
<b>Haiti</b>	✓		<b>1</b>
<b>Honduras</b>	✓		<b>1</b>
<b>Jamaica</b>	✓		<b>1</b>
<b><u>Mexico</u></b>	✓		<b>1</b>

<b>LAC Progress</b>	<b>Basel Convention</b>	<b>Basel Ban Amend.</b>	<b>Score</b>
<b>Nicaragua</b>	✓		<b>1</b>
<b><u>Panama</u></b>	✓	✓	<b>2</b>
<b>Paraguay</b>	✓	✓	<b>2</b>
<b><u>Peru</u></b>	✓		<b>1</b>
<b><u>St. Kitts and Nevis</u></b>	✓	✓	<b>2</b>
<b><u>St. Lucia</u></b>	✓		<b>1</b>
<b>St. Vincent/Grenadines</b>	✓		<b>1</b>
<b>Suriname</b>	✓		<b>1</b>
<b><u>Trinidad and Tobago</u></b>	✓	✓	<b>2</b>
<b><u>Uruguay</u></b>	✓	✓	<b>2</b>
<b>Venezuela</b>	✓		<b>1</b>



# The Market Solution: The e-Stewards® Initiative



# e-Stewards® Standard for Responsible Recycling and Reuse of Electronic Equipment®

Version 2.0  
November, 2012



The "e-Stewards®" name and logo are registered trademarks of the Basel Action Network. Use of these marks is controlled by a licensing agreement. The ISO 14001:2004® standard is reproduced with the prior written approval of the Geneva office of the International Organization for Standardization (ISO), and the American National Standards Institute (ANSI) acting on its own behalf and that of ISO.



# The ISO 14001 EMS Framework



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# Geographic Expansion -- 2013



e-Stewards

**e-Stewards**

**THE GLOBALLY RESPONSIBLE WAY  
TO RECYCLE YOUR ELECTRONICS**

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# Features of e-Stewards Certification

- **Is only Standard supported by over 70 environmental organizations**
- **Is only Standard supported by over 50 major corporations and governments (Enterprise Program)**
- **Currently available all over the world**
- **Utilizes Accredited 3<sup>rd</sup> Party Certifying Bodies to conduct audits**
- **Compliant with Basel Convention and Basel Ban Amendment, PACE/MPPI Guidelines**

# Features of e-Stewards Certification

- **Comprehensive: data security, occupational exposure, due diligence, reuse etc.**
- **Has a multistakeholder Leadership Council and holds Annual Face to Face meetings.**
- **Has an independent dedicated training program (3 days) for auditors**
- **Requires all company sites to be certified**
- **Has a Technical Committee open to all members to help improve the Standard**
- **Has an active promotion and Enterprise campaign to drive market to e-Stewards.**





# Makes businesses better

- Preparation/meeting e-Stewards requirements helps identify business strengths and weaknesses
- Auditors provide unbiased look into your business
- Certification process helps educate all employees on conformance
- Having an EMS significantly improves operations
- EHS/ergonomic requirements reduce injuries/liabilities
- Conformity with International Trade Law keeps companies out of the wrong kind of headlines
- Win best customers as the best customers demand the best recyclers

# Enterprise Program

Companies and Cities: 55 and Growing!



**Bloomberg**







e-Stewards

# e-Stewards

## THE GLOBALLY RESPONSIBLE WAY TO RECYCLE YOUR ELECTRONICS

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# e-Stewards.org

Dioxins In Guiyu, China

have been estimated at 5000% of safe levels.

### Latest News:

- Environmentalists Prepare for Spin-Off of e-Stewards® e-Waste Certification Program
- Placentia, California Joins Effort to Tackle Electronic Waste
- Abington Reldan Metals, LLC Becomes First e-Stewards Precious Metal Refiner and Recycler in

### Find an e-Stewards® Recycler



### The Story of Electronics





aking global  
responsibility





**Say NO to...**



**global e-waste dumping**

**Say YES to...**



**global e-Stewardship**



*Thank You!*



