

VOLUME OF ELECTRONIC WASTE SET TO RISE BY A THIRD

The amount of electronic waste produced globally is set to grow by a third between 2012 and 2017, according to a forecast made by experts at a global partnership created to tackle e-waste.

The forecast was made as the Solving the E-Waste Problem (StEP) Initiative launched an interactive, online world map depicting the amount of electronic waste produced in different countries across the globe and a report showing the amount of e-waste shipped from the United States to developing countries.

On average, each person on the planet produced seven kilograms of e-waste in 2012, that is 48.9 million tonnes in total, and StEP estimates that this will rise to 65.4 million tonnes in 2017.

A lot of this potentially hazardous waste ends up in developing countries, where governments still do not pay enough attention to the rising problem, which also offers business opportunities, according to Ruediger Kuehr, executive secretary of StEP.

He tells *SciDev.Net* that the aim of the online map and the report, which were launched last month (16 December), is to allow governments, industry and other organisations to plan e-waste management and recycling of discarded mobile phones, laptops, televisions and computer monitors.

The map is based on 2012 data from 184 nations. As well as the amount of e-waste generated in each country, it shows how much electrical and electronic equipment was put on the market and contains national regulations regarding e-waste's management.

Kuehr says he hopes the map will raise awareness of the scale of the problem of poor e-waste management, particularly in developing countries that lack regulations about the dismantling of these products.

StEP E-waste WorldMapThe United States produced the largest total amount of e-waste in 2012 — nearly 9.4 million tonnes — followed by

China, which generated almost 7.3 million tonnes.

Per capita, however, Qatar topped the list with 63 kilograms per person, nine times the world average, with the lowest global production per person coming from Ethiopia (680 grams), and the Democratic Republic of the Congo (210 grams).

US e-waste exports

The report on US e-waste generation and exports was written by experts from the Massachusetts Institute of Technology (MIT), United States.

Mobile phones, televisions and computer monitors are the most common type of e-waste shipped from the United States, it finds.

“Several regions are still to this day processing used electronics in ways that are harmful for the workers, themselves and for the environment.”

Part of that electronic rubbish then travels illegally to developing countries, where it is dismantled “in conditions that could be hazardous

to the workers, their health or the environment,” according to Jeremy Gregory, a co-author of the report.

Most e-waste that arrives at landfills in the developing world without clear rules for dealing with this type of waste is treated as general refuse, and so heavy metals, dioxins and other polluting and even carcinogenic compounds are released during its processing.

Economic opportunities

Gregory believes improved transparency and government controls are needed to combat the illegal shipping of e-waste.

“Governments should start investigating a bit more about this type of trade,” he says. “You basically have to either ask the exporters for more confirmation of what is the exact format of the products that they are shipping or open their containers to verify what is inside. There has to be some enforcement of regular shipping laws that they already have in place.”

Gregory also proposes creating trade codes that describe the characteristics of goods traded. These could function as labels for e-

waste during shipping to other countries, potentially enabling easier tracking. Additionally, allowing more open access to shipment level trade data would enable more accurate analyses of export flows.

He is also concerned about the management of the hazardous components of these products, such as the gasses within LEDs, and about the acids used to extract valuable metals such as gold, silver and aluminium from circuit boards.

“Several regions in China and India, and some other places in Africa, are still to this day processing used electronics in ways that are harmful for the workers, themselves and for the environment,” Gregory says.

Yet used electronics that still work can provide opportunities for citizens and small business owners in the developing world, he adds.

“If there is a way in which we can make sure that used electronics can have a second life for people who very much need them at an affordable cost that would be a win-win,” Gregory says.

“We need to make sure that the products that are going to the developing world are actually functioning and operational products and not just

trash.”

And countries such as South Africa are dealing with unwanted e-waste in recycling facilities like the Cape Town Pilot.

But apart from the initial economic investment that developing nations would need to start processing e-waste in a profitable way, Dr.

Suthipong Sthiannopkao, assistant professor at Dong-A University in South Korea, and author of several papers on this issue, is also concerned about the repercussions for workers’ rights in those countries.

“Safe disposal requires large initial investments in equipment and training of personnel as well as supporting regulations concerning disposal of e-waste,” he tells *SciDev.Net*. “If it can be profitable in developing countries, it will likely be because of lower labour and land costs.”

Source: <http://www.scidev.net/global/pollution/news/volume-of-electronic-waste-set-to-rise-by-a-third.html>