## The Lepawsky Study: Watchdogging the Truth about the International E-Waste Trade

Basel Action Network, January 20, 2016

Recently, in E-Scrap News, Basel Action Network (BAN) called out a growing trend of waste trade denial. Josh Lepawsky, co-author of a study we critiqued for diminishing the significance of e-waste export from developed to developing countries, responded in the December 2015 E-Scrap News Magazine with a critique of his own. BAN welcomes a fair, fact-based debate about the international trade in electronic waste. We have been closely monitoring e-waste trafficking since we first discovered massive flows to Guiyu, China in 2001. Since that time we have collected more information on this subject from first-hand investigation than any other organization.

The fundamental mistake of Lepawsky's study, "Mapping the International Trade and Traffic of Electronic Waste," is that rather than examining physical evidence of e-waste trade, it relied on an inappropriate interpretation of incomplete paper data. Lepawsky also erred by presenting these findings as fact rather than as a theory in need of testing.

Lepawsky and his co-author based their study on a single global Harmonized Tariff Schedule (HTS) code. Created by the World Customs Organization (WCO), the HTS is used by shippers around the world to declare commodity shipments and by customs agents to collect tariffs on the shipments. Since there are no HTS codes for e-waste, Lepawsky substituted the code for scrap batteries (854810), leaping to the conclusion that it can serve as a useful proxy for e-waste.

We acknowledge and appreciate that Lepawsky readily admits to limitations" and "data issues" inherent in this leap. Nevertheless he persists in his reliance on it and fails to grasp that far beyond mere limitations, his faith in the proxy is blind to decisive legal and economic context surrounding the use of the scrap battery code.

A shallow dive into the scrap battery trade reveals the error of his proxy assumption. Most types of scrap batteries are not traded internationally. Alkaline batteries are worth very little and are routinely managed in steel furnaces prevalent in many countries. Lithium ion batteries are worth little in scrap and are difficult to transport because of their ignitability. And Nickel-Cadmium batteries are considered hazardous waste of little value.

Used lead-acid batteries (ULABs), on the other hand, are highly sought after in much of the developing world as their lead content can be recycled and made into new or rebuilt batteries that are in high demand. As a result, there is a robust international trade in ULABs. As a result, we can expect that ULABs make up the lion's share of the actual weight indicated by the identified customs code 854810. Yet this trade occurs under strict legal restrictions, since ULABs are hazardous wastes controlled by the United Nations Basel Convention.

In all of the 28 countries of the European Union it is *prohibited* to export ULABs and Ni-Cad batteries to developing countries. And with respect to the other waste export gorilla – the United States -- it *is prohibited* for developing countries that have ratified the Basel Convention to import ULABs or Ni-Cad batteries from the US. With developed countries like South Korea, Canada, Japan, Australia, and New Zealand, it is unlikely that the required consent would be granted, due to Basel Convention decisions calling for all countries to end trade in hazardous wastes moving from developed to developing countries (Decisions II/12 and III/1). On the other hand, it is *not illegal* for developing countries to export ULABs to one another, nor does it run afoul of the aforementioned decisions. Thus, between developing countries it's far more likely that export/import permissions *would be* granted.

It's *no wonder* then that, when looking at the customs data of the scrap battery tariff code, Lepawsky and co-author predominately observed trade between developing countries. That trade is legal and conducted above-board with no disincentive for traders to leave a paper trail. And on the contrary it's *no wonder* they didn't find many exporters in developed countries using a designation that would, in effect, serve the purpose of signing their own arrest warrants.

These legal restrictions for batteries do not exist in the same way for the broader definition of e-waste, much of which is not considered hazardous by key countries. For example, the EU and Hong Kong do not consider circuit boards to be hazardous and the US, distinct from all Basel Parties does not consider most e-waste to be hazardous when it is destined for recycling.

In reality, many traders will simply not risk their shipments being halted by using the most proper tariff codes. They will engage in "soft smuggling" by indicating a more innocuous code such as that for "scrap plastic" or "scrap metal". In the case of batteries they might wish to move from a developed country to a developing country they will avoid the proper battery customs code 854810 like the plague.

The Lepawsky study creates a false conclusion as it fails to acknowledge that the restrictions of the Basel Convention create prohibitions, as well as disincentives for accurate code use that make the battery code completely unsuitable as a legitimate proxy for e-waste.

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