Int Environ Agreements (2016) 16:493–508
DOI 10.1007/s10784-014-9261-6

ORIGINAL PAPER

Obstacles to preserving precaution and equity in global hazardous waste regulation: an analysis of contested knowledge in the Basel Convention

Cristina A. Lucier · Brian J. Gareau

Accepted: 10 September 2014 / Published online: 19 September 2014

Abstract The Basel Convention is regaining attention for the potential entry into force of the heretofore stalled Ban Amendment. In this paper, we draw parallels between the current debate surrounding the Ban Amendment and contestations that occurred in the early years of the Basel Convention's Technical Working Group (TWG) over defining 'hazardousness.' Like the present debate, TWG deliberations involved a contestation between two divergent discourses concerning how hazardous wastes should be regulated—as ideally managed versus actually managed in the global South. Scholars have shown how the TWG is a site for industry to press for a definition of hazardousness favorable to their economic interests. However, explorations of the specific processes by which this occurred—particularly, how a framework for defining hazardousness that privileges private technical expertise over concerns of precaution and equity was successfully institutionalized within the TWG—have yet to be completed. We show that it is important to reexamine this debate today in order to better understand current Basel Convention developments.

Keywords Basel Convention · Hazardous waste · Global environmental justice · Technical discourse · Knowledge creation

1 Introduction

The global hazardous waste trade has become a topic of increasing concern, particularly with the rising tide of electronic waste (e-waste) being exported from the industrialized to

C. A. Lucier
College of Arts and Sciences, Lynn University, 3601 North Military Trail, Boca Raton, FL 33431, USA

B. J. Gareau (✉)
Sociology Department, Boston College, 140 Commonwealth Avenue, Chestnut Hill, MA 02467, USA
e-mail: gareau@bc.edu

less-developed countries (LDCs). At the same time, The Basel Convention on the Control of the Transboundary Movement of Hazardous Wastes (hereinafter the Basel Convention), the global environmental agreement regulating the global waste trade, has experienced a significant moment policy-wise. In October 2011, a Decision was passed that would allow the major amendment to the Convention—the Ban Amendment—to enter into force after being stalled by two decades of controversy.[1] This amendment would ban all exports of hazardous wastes from industrialized to non-industrialized countries.[2] Because of this ban, the Basel Convention is considered the first global environmental convention with an explicit environmental justice (EJ) component (see ban.org). Have the powerful waste-exporting countries and industry lobbies that have historically opposed this Amendment suddenly agreed to facilitate its entry into force? We investigate this question through historical and current evidence. This evidence suggests that there will be a contestation as to whether the export ban will be based on the original 'North/South' economic distinctions or whether it will be based on whether a country possesses sufficient technology and expertise to manage wastes in an 'environmentally sound' way.

In the first part of our analysis, we situate these current developments in the context of the earlier contestations over the definition of 'hazardousness' that took place in Basel's Technical Working Group (TWG) in the early 1990s. Like the present debate, the debate in the TWG involved a contestation between two divergent discourses concerning the ways in which hazardous wastes would be regulated. On the one hand, wealthy waste-exporting countries and industry lobbies employed a discourse of 'proper' technical facilities and expertise. This approach, which was ultimately successfully institutionalized, considers the risks posed by a material when it is handled with the appropriate technology and expertise. That is to say, if a material is deemed to pose no risk to humans or the environment when it is managed under ideal conditions (such as those that exist in wealthy waste-exporting countries), then it should not be defined as hazardous under the Basel Convention. On the other hand, EJ activists (led by Greenpeace) and countries in the global South embraced a discourse of different and unequal socioeconomic contexts in the North and South, known as the 'risk management' approach to defining hazardousness. As we will show, activists and delegates from countries in the global South viewed the 'risk management' approach as based on precautionary concerns in that it would have considered the conditions under which imported hazardous materials were *actually handled* in poor countries (i.e., the worse-case scenario in terms of health and safety technologies and conditions). This approach was also believed to prevent the environmental inequities of the waste trade that arose from the differential waste management capacities in industrialized versus less-developed countries. Additionally, as we show below, the 'intrinsic' definition of hazardousness that was institutionalized in the TWG successfully exempted some of the most economically valuable waste streams (e.g., lead scrap) that could have been subject to Basel regulation at the time.

Scholars have shown how the TWG is a site for industry to press for a definition of hazardousness favorable to their economic interests (e.g., Clapp 2001). In addition, scholars have begun to explore the implications of the current ban amendment controversy in terms of a process of contestation and compromise between different 'epistemic communities' (Kamigawara 2013). Our work incorporates and extends both of these lines of scholarship as we consider the role of both political-economic factors and knowledge

[1] UNEP.CHW.10/5.

[2] Industrialized countries include those in the Organization of Economic Cooperation and Development (OECD), the European Union (EU) and Lichtenstein.

creation processes as intertwined in shaping policy debates in the Basel regime. As we argue, the broader realignment of governance to more centrally includes private/corporate interest groups in the realm of scientific and technical expertise presently serves to delegitimize the role of public and/or government experts operating in global environmental governance while legitimizing 'private knowledge' over other forms of expertise/knowledge (Cashore 2002; Mansfield 2004; Goldman 2005; DuPuis and Gareau 2008; Park et al. 2008; Gareau and DuPuis 2009; Bakker 2010; Gareau 2013). This more general process takes on two very specific forms, firstly in the debate over the intrinsic hazards versus risk management frameworks and presently in the discussions surrounding the future of the ban amendment.

We present our findings in two main sections. Firstly, we examine the TWG's 1994–1995 debates over crafting a definition of 'hazardousness,' focusing particularly on the case of lead scrap. Lead scrap was initially indicated as a hazardous material, but was later redefined as non-hazardous according to the 'intrinsic hazards' framework. Secondly, we examine the recent adoption of a Decision crafted by the Basel Convention's Country-Led Initiative, which allows the Ban Amendment to finally enter into legal force, but which may also amend the Ban by replacing its 'North/South' component with the criteria of 'Environmentally Sound Management.' We suggest that the current situation with the Ban Amendment is similar to the earlier TWG debate. Just as with the TWG, powerful (waste exporting) actors employ a discourse revolving around the possession of 'proper' technological facilities and know-how in order to delegitimize the EJ advocates' claims of 'unbridled free trade' resulting in 'toxic colonialism.' Finally, we conclude with suggestions for further research on the Basel Convention and the potential pitfalls and benefits of these recent developments in the toxic waste trade.

2 Methods

Our data comes from three sources. We adopted a qualitative approach to our data analysis, meaning that we read the archives, interview transcripts and field notes with attention to understanding the process by which 'hazardousness' was defined. This analysis is reported in Sect. 4 of this article. Adopting a reflexive approach with regard to the analysis, we noted the repeated linkages between past debates over the Basel Ban and current debates over Environmentally Sound Management. Our qualitative analysis of this aspect of the case informs Sect. 5 of this article. Firstly, we examined archives of Basel's Technical Working Group (TWG) as well as the Open-Ended Working Group (OEWG) meetings from 1992 to 2010. These working groups meet in between the Convention's Conferences of the Parties (COPs), and they are responsible for drafting the decisions that are adopted at the COPs. Following the dissolution of the TWG in 2002, the OEWG took up its work. While the TWG focused strictly on 'technical' issues such as defining hazardousness, the OEWG also works on 'legal' issues such as the Country-Led Initiative and documents for public–private partnerships. These archives, available on www.basel.int, are third-person summaries of the happenings in the meetings and also include all documents presented and debated in the meetings.

Secondly, we draw from twenty-five interviews with key actors from national delegations in the USA, the EU, Africa region and the Middle East, and from NGOs in industry and environment as well as the Basel Secretariat and representatives of UNEP. These interviewees were selected because they played central roles[3] in the debates over the

[3] As identified by analysis of meeting archives, and also based on recommendations of previous interviewees.

definition of hazardousness that occurred from 1994 to 1995 and/or in the debate over the Country-Led Initiative occurring from 2009 to present. Finally, we draw on first-hand observations of the proceedings at the 10th Conference of the Parties (conducted as an Observer), primarily in the plenary meetings and in working groups focused on the CLI. The recent Decision regarding the entry into force of the Ban Amendment was debated and approved at this COP, which was held in October 2011.

3 The Basel Convention: a brief history

In the 1980s, the toxic waste trade became a topic of international importance in the wake of several public incidents of waste shipments gone awry (Pellow 2007; Clapp 1994, 2001; Krueger 1999; Rublack 1989). Such calamities fostered outcry—mainly from environmental groups—about the toxic waste trade as a manifestation of global environmental injustice. While the majority of hazardous wastes have been (and continue to be) traded among industrialized (OECD) countries, a significant portion of them wind up in less-developed countries (LDCs) where they are disposed of or recycled under conditions that pose great danger to humans and the environment. Given the historically low generation of these wastes within LDCs, it is argued that vulnerable communities in the global South are being disproportionately burdened with toxic wastes not of their making, thus supporting the charges of global environmental injustice (Pellow 2007).

A central argument, then and now, used to frame the drivers of the waste trade vis-a-vis its relationship to global environmental injustice can be summed up as follows: (1) increasingly stringent national regulations in industrialized countries led to increasing costs for hazardous waste disposal at home, and corporations characteristically acted to externalize their costs and maximize profits by disposing of wastes in the cheapest way possible; and, compounding this, and (2) 'globalization' has not only reduced the costs in transporting wastes, it has also fostered increased production of hazardous wastes in industrialized nations, as well as an increased need for fiscal relief in developing countries (Pellow 2007; Clapp 1994, 2001). The image of rich nations in the global North not only enjoying all of the benefits from global economic activities, but also dumping the 'negative externalities' of such activities on those in the South led to charges of 'toxic colonialism,' especially among African nations (Kitt 1995; Pellow 2007).

By 1989, calls for global regulatory action to thwart this form of environmental injustice resulted in the Basel Convention on the Transboundary Movement of Hazardous Wastes.[4] Going into the Convention, there was division between the positions of industrialized countries and the LDCs. The environmental NGO Greenpeace played an especially prominent role as organizer, technical expert and consciousness-raiser among the LDCs.[5] From the beginning, the members of this alliance pushed for a 'global ban' on waste transfers between the global North and South. On the other hand, industrialized (i.e., hazardous waste exporting) countries

[4] Prior to this, both the OECD and the UNEP were already working on draft frameworks for regulating the transboundary movement of hazardous wastes, but the OECD halted work on its internal framework (which was based on the principle of PIC, or Prior Informed Consent) with the calls for a global convention.

[5] In the Basel literature, the period between 1989 and the mid-1990s is characterized by a clear North–South divide. Our interview data suggest that, more recently, there have been disjunctures within both of these camps, particularly between the EU and other developed countries, and between countries with economies in transition and LDCs (Pellow 2007; Clapp 2001). In particular, there is an increased desire in rapidly industrializing countries to develop a more extensive recycling infrastructure and hence to encourage the importation of certain hazardous wastes.

wanted the Convention to merely *regulate* the waste trade, relying instead of the principle of prior informed consent (PIC). PIC requires parties that are exporting wastes destined for final disposal to obtain an explicit statement of willingness to receive the wastes from a 'competent representative' of the party who is importing the waste.[6]

In the negotiations leading up to the adoption of the Convention, the interests of waste dealers and companies that produced high volumes of waste were represented by groups such as the International Chamber of Commerce and the International Precious Metals Institute. Along with many industrialized countries, these groups lobbied for the adoption of regulations on the waste trade, rather than a ban. In the end, threats from industrialized countries to pull out of the Convention (thus threatening to undermine its legitimacy) were taken very seriously (Clapp 2001:69). Thus, the Basel Convention, operating through the mechanism of PIC, was established in March 1989, entering into force on May 5, 1992 when the required number of twenty ratifications was reached. To date, the USA and Haiti are the only countries that have signed but not ratified the Convention.

Although LDCs[7] and environmental NGOs framed the actions of the Convention in terms of global environmental injustice from the beginning, the original goals of the Convention (based on the PIC principle) point to an indirect targeting of production processes that generate hazardous wastes. Specifically, the initial objective of the Basel Convention was to reduce the production of hazardous wastes by imposing burdens on its movement. As UNEP's former Executive Director Mostafa Tolba said in 1989: 'The ultimate goal of the convention… is to make the movement of hazardous wastes so costly and difficult that industry will find it more profitable to cut down on waste production and re-use and recycle what waste is produced' (in Land 1989). This logic of 'incentivizing' business to adopt more environmentally friendly technologies (while simultaneously attempting to avoid the most egregious incidents of 'toxic colonialism') can be seen in the context of the increasing salience of norms of 'liberal environmentalism,' later to be embodied in sustainable development. Sustainable development attempts to merge the otherwise irreconcilable frameworks of a neoliberal economic order and environmentalism (Bernstein 2001). Most mainstream accounts of the Basel Convention seem pleased with its ability to reach this 'compromise,' as can be seen in the quote below:

> 'In as far as the goal was to eliminate the worst forms of hazardous waste dumping on developing countries, the trade restrictions of the Convention can generally be deemed a success… the objectives of trade liberalization and environmental sustainability are not mutually incompatible, and [global environmental governance] still offer the best way forward in striking the appropriate balance between the two' (Krueger 1999, xviii, xix–x).

[6] http://www.basel.int/text/17Jun2010-conv-e.pdf.

[7] More recent research (Marcoux and Urpelainen 2012) has suggested that the environmental injustice rhetoric was strategically employed by less-developed countries as a means for securing access to capacity development resources to improve the control (as opposed to the elimination) of hazardous waste imports. Indeed, this claim seems to be very relevant in the current time, particularly in light of less-developed countries' recent endorsement of revising regulations to improve hazardous waste management capacity within their own countries (see Sect. 5). However, as we will see below, when efforts in the 1990s to control hazardous waste imports largely failed due to Basel Convention loopholes, the less-developed country delegates did vote to ban North/South hazardous waste transfers. Indeed, during the debate to define hazardousness in the 1990s (see Sect. 4), the less-developed country delegates argued that the classification of a waste as hazardousness or not should be based on the processing context, rather than the "inherent" qualities of the waste as it was being transported, which would lead to a higher number of wastes potentially being subject to the Basel ban.

Thus, the early decision to base the Basel Convention on the principle of PIC is consistent with the broader norms of sustainable development in that it attempts to 'strike the appropriate balance' between free trade and environmental protection. However, as can be seen below, attempts to limit the trade in toxic wastes to a profitable trade stream based on PIC had adverse effects that pushed EJ concerns back into the forefront.

3.1 The re-emergence of a North/South export ban

After the Convention's adoption, developing nations' push for a global ban was scaled down at first with the creation of regional agreements, most notably Africa's Bamako Convention. Within a couple of years, these regional actions facilitated a renewed call to action on the global stage (Oberthür 2009). This time, activists and LDC delegates rallied against the emergence of a 'recycling loophole' in the Convention, insisting that the Basel Convention still needed to incorporate a global waste export ban (ban.org; Clapp 1994, 2001). Briefly, the 'recycling loophole' refers to the practice of waste exporters labeling their shipments as destined for recycling (as opposed to disposal) in order to avoid even the modest PIC requirements. This practice of 'sham recycling' was in addition to 'dirty recycling,' which refers to the actual recycling of hazardous materials in LDCs, but under conditions that are highly unsafe for health and the environment (Pellow 2007). As pointed out by Krueger (1999), '[t]he percentage of OECD hazardous waste destined for final disposal *decreased* from 53 to 41 % from 1990 to 1993, while the share destined for recovery or recycling *increased* from 46 to 58 % over the same period' (16).

In 1995, most of the non-industrialized countries (with the added support of the European Union, see Kamigawara 2013 for a brief synopsis) took industrial interests by surprise in prevailing on a consensus vote to adopt the Basel Ban (Decision III/1). The amendment imposes an outright ban on the movement of hazardous wastes for disposal *and* recycling from OECD countries to non-OECD (less-developed) countries. It should be noted that although the ban was approved as an Amendment to the Convention, it is not yet a legally binding Amendment, due to a controversy that will be discussed in the section below on Environmentally Sound Management. Figure 1 illustrates the key meetings and policy developments that have taken place from 1989 until the present.

Staying with the events in the 1990s for now, the adoption of the Basel Ban signaled an escalation in the EJ discourse surrounding the Convention, including some of its more progressive elements about the role of governance as a servant of public over private business interests. For instance, Kevin Stairs of Greenpeace called the ban 'a striking victory for global environmental justice' (Ward and Begley 1994). The dramatic fluctuations in Convention policy that took place over a relatively short period of time in the early 1990s perhaps explain how scholars can simultaneously lament the Basel Convention as a legitimation for environmentally unjust trade practices while at the same time speak about unusually strong role of and potential for environmental justice discourse within the Convention (e.g., Conca 2000; Clapp 2001; Ford 2003; Okereke 2006; Pellow 2007; Sonak et al. 2008).

4 Case study: contestations over knowledge in the technical working group

As suggested above, up until Basel Ban negotiations, industrialized countries did not take the threat of a global ban seriously, assuming that their own threats to withdraw support for the Convention would be sufficient. Business interests (particularly the recycling lobby) were not heavily engaged up to this point, as the PIC principle did not hamper the waste

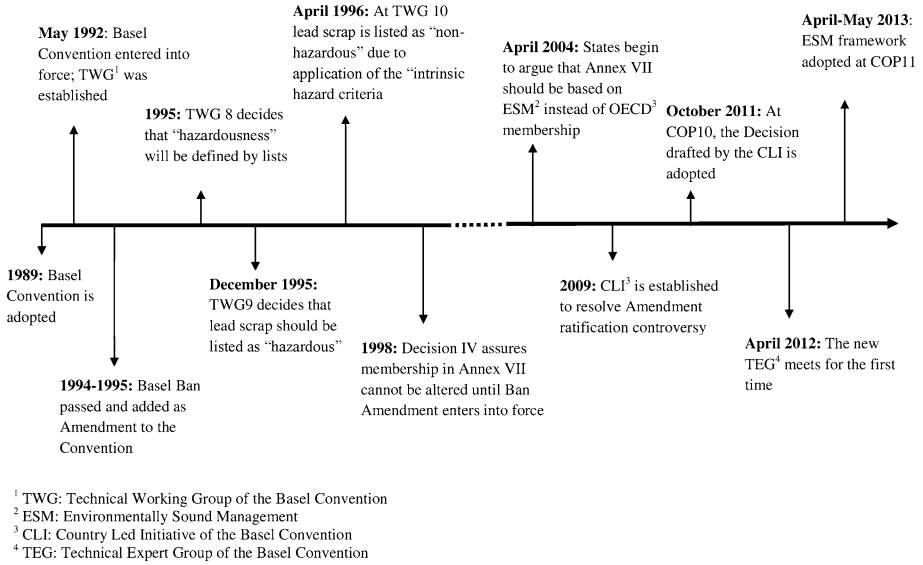

Fig. 1 Key moments in the Basel Convention and the changing basis of the Ban Amendment

trade with LDCs that took the wastes (e.g., China and India, see Clapp 2001, 84–85, 94). Also, the recycling loophole enabled businesses to continue with even the most questionable aspects of business-as-usual. Accordingly, industrial lobbies were hardly represented at the earliest meetings of Basel's Technical Working Group (TWG), which had been charged with developing a more specific definition of 'hazardousness' than was laid out in the Convention. Following the adoption of the Ban, however, these groups came to typically outnumber environmental NGOs by a six-to-one ratio.[8]

The shift in the role of these interests following the adoption of the Basel Ban, particularly in the context of the TWG, illustrates how knowledge about the nature of hazardousness was molded to serve the interests of powerful actors in the context of the Basel Convention (see also Clapp 2001:82). Following scholars who have conceptualized global governance as an ongoing process of knowledge contestation, creation and exclusion (Bernstein 2001; Goldman 2005; Sending and Neuman 2006; Okereke et al. 2009; Gareau 2012; Gareau 2013), we argue that the ideals of defining hazardousness in a manner consistent with the institutionalized aims of the Basel Ban are subsumed under a conception of hazardousness more amicable with the neoliberal goals of free trade in goods and the privileging of private industry's definition of a 'proper' processing context for hazardous wastes. Before this can be explained, however, a brief description of the nature of participation in the TWG is warranted.

The TWG was established in 1992 to prepare 'technical guidelines for the environmentally sound management of hazardous wastes' (Krueger 1999:39). As is the case with other major working groups, any delegation or interested party was permitted to send representatives to these meetings. However, there are some important limitations to this

[8] For instance, at TWG 7, Greenpeace was the only NGO present; at TWG 8, there were three industry NGOs present; at TWG 9, 10 and 13, Greenpeace and seven industry NGOs were present; and at TWG 11, Greenpeace and eleven industry NGOs were present.

attendance. Firstly, participation is limited for LDCs who receive little financial support for sending multiple or even any delegates to such meetings. Secondly, the meetings were held exclusively in English, and given the highly specialized language of the debates, it is understandable that many delegations mounted repeated protests (noted in TWG and OEWG meeting archives) about their limited capacity for involvement. For state delegations, representatives were selected for their technical expertise and they are often state-employed engineers or other types of scientists.[9] However, delegates involved with the process confided that it is the industry delegations that had the most prominent role in these meetings, due to what is seen as their exclusive or superior expertise on highly specific technical issues. Hence, these technical meetings are especially important because it is here that non-Parties to the Convention, notably the USA as well as NGOs and industry lobbies, can exert the greatest influence in the Convention.

Up until the adoption of the Ban Amendment, the TWG was still in the initial stages of defining hazardousness. With the passage of the Ban inevitable, clarifying the definition of hazardousness became an explicit concern of industry and recycling lobbies, as well as industrialized countries such as Canada, who stated that national ratification of the Ban would be impossible until the TWG provided its definition. As the adoption of the Ban Amendment neared, the summary of the 1995 TWG 8 meeting described a decision reached at an 'Informal Advisory Meeting' to begin making lists of materials that could be readily defined as hazardous and non-hazardous, even though 'the development of the lists of wastes *not* covered by the Basel Convention [was] not an intrinsic objective of the Basel Convention.'[10] Those materials deemed hazardous by the TWG would be placed on List A (eventually adopted as Annex VIII) and subject to the Convention. Those materials that the TWG decided were non-hazardous were to be placed on List B (eventually, Annex IX).

According to some observers, this move to explicitly define certain wastes as 'hazardous' (and hence to subject them to the Convention's provisions) and others as 'non-hazardous' was made in the context of threats from industrialized countries and business lobbies to challenge the Convention's trade provisions in the context of the World Trade Organization (WTO) (Krueger 1999). Defining hazardous through the creation of lists can be seen as a way to hold back such threats, possibly providing a partial explanation as to why a WTO challenge to the Basel Convention once appeared imminent but has failed to materialize (Conca 2000). With respect to the issue of a potential WTO challenge, Krueger (1999) argues that 'the Basel Convention… tried to decrease that controversy with respect to hazardous wastes that are subject to Decision III/1 by declaring them exempt (Annex IX) from the Convention or within the scope of the Convention (Annex VIII)' (105).

Either way, following the Ban, it becomes explicit that the role of the TWG has taken on a heightened significance. According to a statement given by the head of the German delegation at the 9th Meeting of the TWG in December 1995, 'It is our first and main responsibility to promote the protection of non-industrialized countries against import of hazardous wastes, *but it is also our responsibility not to create barriers against the worldwide exchange of goods, raw materials and secondary raw materials*.'[11] Here, it becomes apparent that there are competing political interests that will factor into the definition of hazardousness. Specifically, these scientifically trained experts are attempting to incorporate the value of protecting vulnerable populations from unjust health and

[9] Interview with representatives of the Basel Secretariat and the US delegation.

[10] TWG 8 (http://basel.int/meetings/twg/twgrepseng/twg8rep.pdf).

[11] TWG 9 (December 1995) (http://basel.int/meetings/twg/twg9-14/twg-9.pdf), emphasis added.

ecological burdens while avoiding any infringement on free trade, business activities or economic growth.

4.1 Contestations over intrinsic hazard versus risk management criteria: the case of lead scrap

In this section, we focus on the trajectory of one category of wastes as it transitions from 'hazardous' to 'non-hazardous' status as the overall definition of hazardousness is negotiated. It is in the context of this debate over the status of metal scraps (particularly lead scrap) that the criteria for assessing hazardousness known as 'intrinsic hazards' is explicitly codified, while the competing criteria known as 'risk management' is not.[12] That is to say, we have selected lead scrap as a case study because the unclear status of lead scrap in the hazardous materials lists (i.e., List A or List B) is what prompted the decision to classify wastes based on the 'intrinsic hazards,' rather than the 'risk management' framework. As the case study will show, the process of defining 'hazardousness' involved a conflict between the environmental injustice discourse advanced by delegates from LDCs and environmental NGOs (the risk management approach) and the discourse of proper technological expertise promoted by industry associations and wealthy waste-exporting countries (the intrinsic hazards criteria). The distinction between these criteria is exemplified in the following excerpt from the proceedings of the Open-Ended Working Group:

> 'Classification of a waste according to its hazardous properties should be independent of local or regional conditions… Site specific analysis [i.e., a risk management approach] is inappropriate in that context because the result would be different classification determinations at different sites for the same waste, which would be confusing at best. Therefore the system of classification is based upon the principles of intrinsic hazard of the waste or its chemical constituents' (OEWG).

At the 8th Meeting of the TWG in 1995, it was proposed that metal scrap[13] should be defined as non-hazardous, and hence not be subject to the Basel Convention, provided that the scrap is prepared in the country of export to 'specifications,' ensuring that it does not contain any materials in an Annex I (known hazardous) category. In relation to this category of wastes, at the TWG 9 meeting in 1995, it was explicitly stated that lead scrap could not be included in List B because 'lead is in Annex I to the Basel Convention, [and therefore] it could not be listed in a 'negative' list.'[14]

However, the issue of lead scrap re-emerged at the TWG 10 in April 1996 in the context of a debate about the criteria for classifying wastes. While representatives from BAN and some LDCs (it is not clear from the archives which ones) were arguing that *the ways in which a waste would actually be handled following importation* should be accounted for in considering whether it would exhibit hazardous characteristics, a set of criteria that came to be referred to as 'risk management,' others countered that the assessment of the presence of hazardous characteristics should only be based on the inherent qualities of the material while being traded. This set of criteria is eventually labeled 'intrinsic hazards.' Jim

[12] For a general discussion of the importance of the classification of metal scraps in deciding the definition of hazardousness, see Clapp (2001 pp. 86–89, 94–95).

[13] This is one of the more economically important waste streams traded globally: Clapp (2001, 86–89); OEWG 1 (2003); OEWG 2 (2004).

[14] TWG 9 (http://basel.int/meetings/twg/twg9-14/twg-9.pdf).

Puckett, former European Waste Coordinator for Greenpeace and now the head of BAN, explained the debate this way:

> 'The metals industry pushed hard for dispersibility of waste to be a factor of hazardousness—making metals that were in big chunks suddenly less toxic by virtue of being in big chunks, which might have made sense if the only concern was over transport but the concerns of Basel is also about processing hazardousness.'[15]

The intrinsic hazard framework was being promoted by the industry groups themselves (there were seven in attendance) to support the argument that lead scrap be defined as non-hazardous:

> 'Many [industry representatives] argued that the Convention should not allow issues of workplace health and poor management control to dictate waste status… The Co-Chair reminded the group that this group should use the technical inputs and clarify the position of waste only on a technical basis… Discussion focused on the case of lead … Industry offered an illustrative summary of the case for lead scrap being assigned to the B list … After preliminary discussions… a need was felt to arise [sic] at a consensus in consultation with Parties. Accordingly, the Chairman requested observers to leave the meeting so that his proposal could be debated by national delegates only.'[16]

At the conclusion of the closed-door meeting, it was decided that 'lead scrap' (which is prepared to specifications by the exporting party) is non-hazardous and hence not subject to the Basel Convention or the Ban Amendment.

According to Bob Reiley, the head of the US delegation to the TWG meetings at the time, the case of lead scrap was far from isolated. Speaking to a conference of US Department of Defense officials, Reiley explains:

> '…the US actively participated in a Basel Technical Working Group. The solution was to develop lists… Some materials are included in both lists, and the distinguishing characteristic is whether the material exhibits specific characteristics. *Industry has been successful in influencing the move of many items of concern from being banned to the "good list," thereby allowing international trade in those items*' (DOD 2000, emphasis added).

These statements point firstly to the economic interests that are served by waste exporters' involvement in the definition of hazardousness. Specifically, the particular definition of hazardousness promoted by some industrialized countries and business interests is one that prioritizes the characteristic of these materials as integral to profitable free trade ahead of the characteristic of these materials as harmful to human health and the environment. In this way, the spirit of the Basel Ban is subverted for the material gain of these powerful actors and at the expense of the LDCs who are no longer protected from the import of these wastes.

Moreover, the strategy by which these actors accomplished their material aims also involved the creation of a particular discursive framework around the seemingly technical/scientific conception of hazardousness. This occurs when the expertise of industry (with the support of major waste-exporting countries) is privileged over the expertise of LDC delegates, and the environmental justice NGO in defining the waste processing context on

[15] Interview with Jim Puckett.

[16] TWG 10 (April 1996) (http://basel.int/meetings/twg/twg9-14/twg-10.pdf).

which the definition of hazardousness is based. A later statement from the Latin American and Caribbean Group (GRULAC) highlights the implications of attempting to define hazardousness in the 'intrinsic' manner favored by industry, as removed from the context in which the material would actually be processed:

> 'GRULAC considers the classification of wastes that are not under the scope of the Basel Convention as non-hazardous, should not be just related to its nature, but also relays on appropriate management capabilities based on risk management. *This means, a waste considered as not hazardous by developed countries, could perfectly be classified as such by countries without the same technical and scientific advances*… This situation is worsen[sic] when, based on limited access to scientific and technological [sic] related developments, these wastes are classified in list B of Annex IX [non-hazardous], which implies that exporters could be released from the obligation [sic] notify the import country.'[emphasis added][17]

As seen in the excerpt regarding metal scraps, with the notion of an 'intrinsic' level of hazard, specific waste classifications are made without reference to so-called 'poor management conditions.' However, when the industry representatives argue that these conditions should not be taken into account, they must by default be taking into account the notion of a 'proper' processing context, and according to the perspective of GRULAC, this context presumes the kind of 'technical and scientific advances' that are typically only found in developed countries. As we will suggest below, this privileged waste processing context underlies the concept of environmentally sound management (ESM) being discussed currently, a concept which could potentially supersede the EJ-based economic distinctions (i.e., North/South) that are currently the basis of the Ban Amendment.

5 Implications: parallels between the TWG in the 1990s and the potential 'resolution' of the Basel Ban controversy today

As suggested in the Introduction, the institutionalization of the 'intrinsic hazards' framework in the 1990s has even greater significance in light of recent developments within the Convention. These developments center on the controversy surrounding the entrance into legal force of the Ban Amendment and the formation of the Indonesian-Swiss Country-Led Initiative (CLI). As shown above, though the Basel Ban was adopted as an Amendment in 1994, it has yet to become legally binding, pending a controversy about the minimum number of Parties that would be required to ratify the Ban into their national legislation. While the first objective of the CLI appears to promote the entry into force of the Basel Ban (Kamigawara 2013), our interviews with North American and EU delegates and additional data suggest that this move is part of an extended plan to shift the basis of the trade ban from one of the economic distinctions (i.e., North/South) to a distinction based on whether a country is capable of managing wastes in an Environmentally Sound Manner (ESM).

Over the years, there has been a heated debate (led mainly by the USA, along with Japan, Canada, Australia and New Zealand) over the number of countries that would be required to ratify the Ban into their national legislation before it would become legally binding. Using the interpretation known as the 'current time approach' (meaning that the ban would have to be ratified by ¾ of the *current* Parties to the Convention) promoted by

[17] TWG, 17 (October 2000) (http://basel.int/meetings/twg/twg17/predocs/twg17_15.pdf).

these powerful actors, the ban would need such a high number of ratifications (currently, 133) that it would be unlikely to enter into force for at least 20 more years. However, in 2009, the CLI drafted a proposed Decision to (among other things) interpret the Convention rules in a way that was favorable for the ban to enter into force as quickly as possible. This is known as the 'fixed time approach,' meaning that the Ban Amendment would need to be ratified by ¾ of the number of Parties to the Convention at the time it was adopted in 1994, thus only requiring 68 ratifications. This Decision was adopted in October 2011 by the 10th Conference of the Parties, a surprising turn of events considering that this resolution had been staunchly opposed by wealthy waste-exporting countries for at least the past decade.

When we interviewed national delegates (kept anonymous here) from a variety of countries (including the USA and the EU), asking why the most powerful countries essentially gave up the fight, they explained that once the ban is in force they can begin to amend it.[18] Their hope is that the 'North/South' distinction that is the basis of the original ban can be shifted into a distinction between those who have the capacity for ESM of wastes and those who do not. ESM is a concept largely defined in relation to the implementation of the technical guidelines and the future certification of facilities or countries as capable of meeting these guidelines. For most materials, these guidelines are still in the episodic, pilot project stages. In practice, these guidelines have thus far been co-created and implemented in public–private partnerships with industry actors. For example, the authors of the guidelines on the ESM of metal scraps for the purpose of recycling or reclaiming raw materials include: Australia, Canada, Chile, Israel, the USA, Bureau of International Recycling (BIR), European Association of Metals (EUROMETAUX) and the International Precious Metals Institute (IPMI). Industry lobbies, particularly the Bureau of International Recycling, have broadly expressed support for the CLI and its interest in assisting with any proposed certification 'scheme.'[19] This sentiment was echoed in *all* interviews with industry lobbyists and delegates from waste importing countries in the global North. The prioritization of these guidelines was also favored by the policy-oriented 'think tank' that was convened by the Executive Sectary.[20] Most recently, a general framework defining the concept of ESM was drafted by a Technical Expert Group, which had been created at the behest of the 'anti-total ban group' (Kamigawara 2013). This framework was passed at the 11th COP in Geneva in April 2013.

Although a shift to an ESM-based Convention has been suggested by wealthy waste-exporting countries since 2003,[21] it was not until the Country-Led Initiative took actions for allowing the ban to enter into force that this became possible. As Executive Director of UNEP, Achim Steiner explains in the 'COP 10 Bulletin:'

> '… if the Convention is to retain its relevance in the 21st century it is necessary to identify a practical approach that provides protection to countries that need it, while

[18] A 1998 Decision (IV/8) stipulated that membership in Annex VII (those countries forbidden from exporting hazardous waste into non-Annex VII under the Ban Amendment) could not be altered until entry into force of the Ban Amendment.

[19] http://basel.int/Portals/4/Basel%20Convention/docs/convention/cli/documents/Comments-BIR.pdf.

[20] The outcome of this 'think tank,' a 2011 non-paper titled 'Shifting Paradigms: From Waste to Resources,' is an interesting avenue of study in itself; available: http://archive.basel.int/convention/shiftparad.html.

[21] E.g., Japan argued in 2004 that: '…some parties, in view of the importance of a mutually supportive relationship between trade and the environment supported the listing of parties in Annex VII [countries permitted to import] based on the parties' waste management capacity rather than OECD membership.'

> at the same time supporting the realization of economic incentives and benefit s of environmentally sound recycling and resource recovery operations in those countries that are in a position to do so… Twenty years ago, there was a clear differentiation between North and South in terms of hazardous waste generation and capacity to manage recovery efforts in a sustainable manner. The reality today is different. Technologies are evolving rapidly in terms of products, waste streams, and recovery processes… *The entry into force of the Ban Amendment will allow Parties to address changes to the existing legal regime to accommodate such new developments and realities'* [emphasis added].

This statement reflects the arguments made by those delegates and industry representatives we spoke to in interviews, who described the current Ban as out-of-date given the industrialization processes taking place in important LDCs such as China and India. They argue that LDCs no longer need command-and-control, precautionary style protections from wastes, rather, they need infusions of expertise and technology in order to manage the increasing levels of waste generated within their borders, as well as for the potential to profit from the import of valuable hazardous wastes such as e-waste.

Numerous documents produced by Basel working groups stress the growing amount of hazardous wastes that are being generated within, and are being traded among, LDCs. The situation is obviously different for various waste streams, but at least for electronic wastes (which are the fastest growing stream of hazardous waste globally), it seems to be the case that the majority of waste transfers are not from rich-to-poor countries and that they increasingly occur among LDCs (e.g., Lepawsky and McNabb 2010). These data support the argument that the development of recycling infrastructure in LDCs is necessary and that the Basel Convention should be supporting these developments. Further, it is often noted with respect to e-waste that there is a growing potential to profit from e-waste recycling, so TNC actors have taken a greater interest in developing a formalized recycling infrastructure (UNEP 2012; UNEP/StEP 2009).

However, picking up on these sentiments, the environmental NGO BAN warns in a pamphlet distributed at COP 10 that

> '*If* the economic Annex VII distinctions are erased, a Pandora's Box will be opened, and the demons of waste colonialism the Basel Convention Parties fought so hard to contain will again be unleashed… By trying to focus our attention on the capabilities of non-Annex VII importing countries instead of their own, the Ban opponents would like us to believe that the waste crisis is the fault of non-Annex VII countries for their failure to possess "end-of-pipe" treatment and recycling technologies to deal with wastes not of their making.' (BAN 'Briefing Paper 3', 2011. Available: www.ban.org/basel-convention-meetings/#tenth).

Based on the discourse employed by BAN within the Basel context as well as on interviews, it appears that EJ discourse of 'unbridled free trade' resulting in 'cost externalization' and even 'toxic colonialism' is still being employed as a counterpoint to the technocratic discourse of waste exporters. This discourse also has substantial resonance with academic findings on continued environmental injustice in waste trading (e.g., for e-waste, see Iles 2004).

It is important to note that the contours of this discursive conflict did not originate in the politics of hazardous waste trading, however. As Goldman (2005) points out, the strategy of implicating a lack of Northern technical capacities on the part of the South as a reason for the unfortunate 'externalities' of globalization and development is common among

those who subscribe to the neoliberal agenda. According to this view, '[t]he problem lies not within the world capitalist economy and the power dynamics of the world system, but in those elements of the South that are unable to adapt to and accommodate the infusions of capital, technology and know-how offered to them by the West' (Goldman 2005:214). This insight parallels a recent declaration at COP 10, which is repeated in the draft guidelines on ESM: 'harm to human health and the environment continues to be caused throughout the world *by inadequate waste management procedures.*'[22] Similar to the outcome of the contention over defining hazardousness, then, with the North/South versus ESM-based export ban debate, there is a process by which populations in poor countries usually portrayed in EJ discourse as 'vulnerable' or 'exploited' are being reconceived as incapable of 'proper management' of environmental problems.

6 Conclusion

Our case illustrates a suppression of the EJ concerns that initially drove the passage of the Basel Ban when these concerns threaten to hamper the free trade in economically important materials. However, the case of lead scrap is more than just another example of powerful corporate interests advancing their immediate material objectives. This case also points to a contentious process of knowledge creation/suppression, where there was conflict between the environmental injustice discourse advanced by delegates from LDCs and environmental NGOs (the risk management approach) and the discourse of proper technological expertise promoted by industry associations and wealthy waste-exporting countries (the intrinsic hazards criteria). This conflict was resolved through the 'institutionalization' of the intrinsic hazards criteria, which proclaims an objective scientific assessment of hazardousness but in reality presumes a highly technical and specialized processing context in order to determine the level of hazard presented by a material. As delegates and EJ activists debated, this presumed processing context is at odds with actual processing contexts in LDCs. In this way, knowledge claims made by waste importing countries and EJ advocates about the actual conditions under which these materials are handled are suppressed by a presumption that waste importing countries possess the sort of technological capacities that were in reality only available in waste-*exporting* countries.

It is important to note that we do not provide a definitive prediction on the material outcomes of these debates. While the present paper has centralized the discursive and knowledge-based contestations taking place in regulating the global trade in hazardous waste, it is equally important for future studies of the Basel Convention to engage in understanding how these discursive and policy shifts will materially affect the global waste trade, human health and the environment in the North and South. For instance, it is certainly possible that the new ESM-based ban would provide enhanced safety and entry into the formal economy for workers in some LDCs, assuming that the standards were actually enforced (see, e.g., UNEP/StEP 2009; Secretariat of the Basel Convention 2011; Wang et al. 2012). Whether this would eliminate the cost-saving incentive for Northern countries to export their wastes remains to be seen, and we imagine it would depend on the type of waste as well as country-specific conditions. Importantly, at least for the present, the specific elements of an ESM-based Basel Convention remain informed speculation and there is still at least the potential for future contentions from LDC delegates and EJ activists to reshape the contours of this process.

[22] UNEP-CHW-OEWG.8-INF-8.English.doc.

Acknowledgments The authors wish to thank Sarah Babb and Juliet Schor for their insights and guidance on drafts of this paper. Special thanks to the Boston College Environmental Sociology Working Group for allowing us to present this paper, and for their useful comments. An earlier draft of this paper was presented in 2011 at a roundtable session of the Political Economy of the World-System section on "The Political Economy of Global Environmental Governance," Annual Meeting of the American Sociological Association. We are also very grateful for the comments of two anonymous reviewers. We have no financial interest or benefit arising from the direct applications of this research to disclose.

References

Bakker, K. (2010). Limits of 'Neoliberal Natures': Debating green neoliberalism. *Progress in Human Geography, 34*(6), 715–735.

Bernstein, S. (2001). *The compromise of liberal environmentalism*. New York: Columbia University Press.

Cashore, B. (2002). Legitimacy and the privatization of environmental governance: How non-state market-driven (NSMD) governance systems gain rule-making authority. *Governance, 15*, 503–529.

Clapp, J. (1994). Africa, NGOs and the waste trade. *The Journal of Environment and Development, 3*, 17–45.

Clapp, J. (2001). *Toxic exports*. Ithaca and London: Cornell University Press.

Conca, K. (2000). The WTO and the undermining of global environmental governance. *Review of International Political Economy, 7*(3), 484–494.

DOD (US Department of Defense). (2000). HQ Defense Logistics Agency. *Overseas hazardous waste disposal and readiness*: *What Basel means to DOD*. 13–14 July, Fort Belvoir VA.

DuPuis, E. M., & Gareau, B. J. (2008). Neoliberal knowledge: The decline of technocracy and the weakening of the Montreal Protocol. *Social Science Quarterly, 89*, 1212–1229.

Ford, L. H. (2003). Challenging global environmental governance: Social movement agency and global civil society. *Global Environmental Politics, 3*(2), 120–134.

Gareau, B. J. (2012). The limited influence of global civil society in the Montreal Protocol. *Environmental Politics, 21*(1), 88–107.

Gareau, B. J. (2013). *From precaution to profit*. New Haven: Yale University Press.

Gareau, B. J., & DuPuis, E. M. (2009). From public to private global environmental governance: Lessons from the Montreal protocol's stalled methyl bromide phase-out. *Environment & Planning A, 41*(10), 2305–2323.

Goldman, M. (2005). *Imperial nature*. New Haven: Yale University Press.

Iles, A. (2004). Mapping environmental justice in technology flows: Computer waste impacts in Asia. *Global Environmental Politics, 4*(4), 76–107.

Kamigawara, K. (2013). Comparative typological study of change in global environmental regimes. *International Environmental Agreements*. doi:10.1007/s10784-013-9229-y.

Kitt, J. R. (1995). Waste exports to the developing world: A global response. *Georgetown International Environmental Law Review, 7*, 485.

Krueger, J. (1999). *International trade and the Basel Convention*. London: Earthscan Publications.

Land, T. (1989, June 5). Toxic waste exports face ban: Companies step up shipments to beat coming restrictions. *The Financial Post*, Section 1, p. 11 (Toronto, Canada).

Lepawsky, J., & McNabb, C. (2010). Mapping international flows of electronic waste. *The Canadian Geographer, 54*(2), 177–195.

Mansfield, B. (2004). Rules of privatization: Contradictions in neoliberal regulation of north pacific fisheries. *Annals of the Association of American Geographers, 94*(3), 565–584.

Marcoux, C., & Urpelainen, J. (2012). Capacity, not constraints: A theory of North-South regulatory cooperation. *Review of International Organizations, 7*, 399–424.

Oberthür, S. (2009). Interplay management: Enhancing environmental policy integration among international institutions. *International Environmental Agreements, 9*, 371–391.

Okereke, C. (2006). Global environmental sustainability: Intragenerational equity and conceptions of justice in multilateral environmental regimes. *Geoforum, 37*, 725–738.

Okereke, C., Bulkeley, H., & Schroeder, H. (2009). Conceptualizing climate governance beyond the international regime. *Global Environmental Politics, 9*(1), 58–78.

Open-Ended Working Group of the Basel Convention. Meeting documents available: http://www.basel.int/TheConvention/OpenendedWorkingGroup(OEWG)/ReportsandDecisions/tabid/3413/Default.aspx.

Park, J., Conca, K., & Finger, M. (2008). The death of rio environmentalism. In J. Park, K. Conca, & M. Finger (Eds.), *The crisis of global environmental governance* (pp. 1–12). London and New York: Routledge.

Pellow, D. N. (2007). *Resisting global toxics: Transnational movements for environmental justice*. Cambridge and London: The MIT Press.

Rublack, S. (1989). Controlling transboundary movements of hazardous waste: The evolution of a global convention. *Fletcher Forum for World Affairs, 13*, 113–124.

Secretariat of the Basel Convention. (2011). *Where are WEEE in Africa?: Findings from the Basel Convention E-Waste Africa Programme.*

Sending, O. J., & Neuman, I. B. (2006). Governance to governmentality: Analyzing NGOs, states, and power. *International Studies Quarterly, 50*, 651–672.

Sonak, S., Sonak, M., & Giriyan, A. (2008). Shipping hazardous waste: Implications for economically developing countries. *International Environmental Agreements, 8*, 143–159.

Technical Working Group of the Basel Convention. Meeting documents available: http://www.basel.int/meetings/frsetmain.php.

UNEP. (2012). "Foresight Report: 21 Issues for the 21st Century" Available: http://www.unep.org/publications/ebooks/foresightreport/Portals/24175/pdfs/Foresight_Report-21_Issues_for_the_21st_Century.pdf).

UNEP/StEP. (2009). "Recycling: From E-Waste to Resources" Available: http://www.unep.org/PDF/PressReleases/E-Waste_publication_screen_FINALVERSION-sml.pdf.

Wang, F., Huisman, J., Meskers, C. E. M., Schluep, M., Stevels, Ab, & Hagluken, C. (2012). The Best of 2 Worlds philosophy: Developing local dismantling and global infrastructure network for sustainable e-waste treatment in emerging economies. *Waste Management, 32*(11), 2134–2146.

Ward, M. & Begley, R. (1994). Treaty bans exports of hazwaste to developing countries. *Chemical Week*. 6 April, *154*(13), 15.