Introduction

From April 28 to 30 of this year, the latest G8 waste action plan, the 3R Initiative, held its first Ministerial Conference in Tokyo, Japan. Twenty countries participated, including eleven developing countries, the Basel Convention, and three other intergovernmental organizations. The 3Rs, which stand for reduce, re-use, and recycle, are the core of the action plan adopted by the G8 leaders at their 2004 Sea Island Summit, supposedly aimed at shifting the global mass production and consumption patterns to more sustainable patterns.

Prior to attending the Conference as an NGO observer, BAN articulated three major concerns we had identified regarding the agenda and procedures of the 3R Initiative:

1) The Initiative’s primal goal to reduce barriers to the international flow of goods and materials for recycling and remanufacturing, will undermine the obligations and decisions of Basel Convention;
2) Its primary focus on the third R—Recycling, despite the globally acknowledged waste management hierarchy which prioritizes the first R—Reduce; and
3) Minor involvement of NGOs in developing the 3R Initiative policy and programs.

To address these concerns, we suggested that the 3R Initiative integrate a 4th R, Responsibility, which requires all stakeholders to take responsible and sincere actions to deal with waste problems. A more detailed discussion can be found in BAN’s Briefing Paper No. 9, available at http://www.ban.org/Library/briefingp9.pdf.

BAN flew to Tokyo in the hopes of finding solutions with all participants at the Conference. What we actually witnessed there and what we gained from our participation was a mix of positive and negative results. In terms of NGO involvement, we would like to acknowledge the efforts of the Conference organizers for giving us the opportunity to speak out at the fourth session and at the informal press conference.

However, the crucial aspects of the three concerns remain unresolved. We now have amid growing fear that the promoters of the 3R Initiative are seeking to turn back the clock to pre-Basel notions of free trade in wastes without the imperative of developing national self-sufficiency in waste management through minimization and prevention of waste generation. We also suffer frustration as we still find the doors to all stages of policy-making and decision making processes closed for NGOs from developing countries as well as from developed countries.
The commentary below on the 3R Ministerial Conference uses excerpts from the Chair’s Summary (noted in the square with yellow background) as points of departure for our discussions. We will explore these in order of the five issue areas as follows:

**Issue I: Promotion of the 3Rs**

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4. The view was shared that the promotion of the 3Rs, an action to share the spirit of mottainai all over the world, is a key to realize in the 21st century a society in which sustainable consumption and production patterns are established in both developed and developing countries.

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The Japanese principle of *mottainai* which reminds people to consider the value of objects before disposing of them, and to think of alternative way to use them instead is noble. Unfortunately, this principle cannot be applied in all cases, particularly in the area of hazardous wastes. Its broad usage under the 3R Initiative creates a “one size fits all” policy tool that blurs the distinction between “goods” and “wastes.” The ambiguous distinctions in a government waste policy may lead people to think that no distinction needs to be made between “goods” and “hazardous wastes”, because everything can be considered a “good.” This misleading policy would result in environmentally disastrous consequences, and at the same time, erect a strong disincentive for upstream solutions, particularly the elimination or reduction of toxic inputs in products.

Under *mottainai*, a hazardous waste such as incinerator ash contaminated with dioxin, a highly carcinogenic substance which requires proper handling, could instead be considered as a “good” or “raw material” and used as road fillers or mixed in concrete for industrial applications. In this scenario, there is a strong disincentive for the generator of the incinerator ash in halting the generation of the hazardous waste because there is a ready and accepted usage for it downstream. The problem is exacerbated when the downstream industry using the incinerator ash becomes reliant on it for its “raw material”. An untenable cycle is eventually created, where the hazardous waste, instead of being minimized is then produced in increasing quantities to meet the demand for its usage as a “good” or “raw material” and is passed on to unsuspecting users or consumers.

There is fundamental justification why substances are defined or are considered “hazardous wastes” and not simply labeled “goods”, and this is because of the grave threat that hazardous wastes pose to human health and the environment. This is a well-known global reality and the reason why, international laws, like the Basel Convention on the Control and Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) and its amendment, the Basel Ban, have been established to protect the global community from the pernicious impacts of hazardous wastes. The Basel Convention was adopted in 1989 to address the rampant toxic waste dumping on developing countries that occurred in the late ‘70s to the mid ‘80s. To curtail the problem, the Basel Convention, besides creating a control mechanism for hazardous
waste movements, obligated parties to minimize the transboundary movement of hazardous wastes, and to develop self-sufficiency in managing the hazardous wastes they generate.

The Basel Ban Amendment or Decision III/1, driven primarily by developing countries, passed as a decision of the Conference of Parties of the Basel Convention in 1995. The Basel Ban Amendment recognized two crucial truths about waste trade: first, there is a high probability that developing countries would not deal with the wastes in an environmentally sound manner, and second, developed countries have the responsibility not to export their hazardous wastes to those countries that are not in the position to deal with the wastes. Thus, Decision III/1, supplementing the existing Basel control, prohibited country members of the Organization for Economic Cooperation and Development (that is, the G8 nations), the EU, and Liechtenstein, from exporting hazardous wastes to non-OECD/EU countries.

Moreover, the Basel Ban Amendment is the sole beacon in international law that respects the principle of environmental justice, which states that no people or community should bear the disproportionate burden of environmental harm by reason of their economic status, religion, or gender.

As a consequence of the global acknowledgement of the dangers of hazardous wastes, hazardous substances have either been banned from usage, prohibited from being produced or from being exported, or closely controlled by governments.

Thus, for the 3R Initiative to use such a “one size fits all” policy as mottainai to blur the distinction between “goods” and “wastes,” particularly “hazardous wastes,” is to erode the international regime of protection created by laws like the Basel Convention, and can be perceived as a reckless attempt by the G8 to evade responsibility and pass it on to developing countries, and simultaneously profit from these toxins.

Before the 3R Initiative is integrated in any country’s 10-year framework and implemented, it is important to reflect and examine the viability of the Initiative as a global policy.

The 3R Initiative from our perspective appears to suffer from three major flaws: first, there is a disconnect between its goal and the means of achieving it; second, the reduce, re-use, recycle methodology is a failed policy in making any dent in the global waste
generation problem; and third, the lack of additional Rs, Responsibility and Rights, in the
Initiative.

The Disconnect

The G8’s 3R Initiative is obviously aimed at developing countries, as gleaned from its
discussions on promoting of the 3Rs globally. All too frequently, the discussions in the
Ministerial emphasized the importance of advancing infrastructures, technologies, and
markets for recycling and remanufacturing materials and goods or wastes in developing
countries to facilitate their international flow. By drawing attention to developing
countries, the G8 countries underscore that problems lie in the fact that developing
countries lack adequate waste management programs and technology. This helps
perpetuate the myth that the mass consumption and production problem primarily lies
with the developing world.

If there is any good faith effort in truly addressing the unsustainable mass consumption,
production, and disposal patterns, then the Initiative should shift its focus towards and
clearly emphasize the responsibility of G8 nations first and foremost.

The developed countries have a great responsibility to take, since most of the
unsustainable patterns that need to be urgently addressed are occurring within the G8
nations themselves. The United States is a prime example. The US comprises 6% of the
world’s population, yet, the US consumes 30-40% of the earth's resources. Compare the
US’ consumption patterns to Ethiopia or any other African or Latin American nation and
the “disconnect” between the 3R Initiative’s goal and the responsibility it places on
developing nation becomes glaringly clear.

On the disposal side as well, the “disconnect” is obvious. The United Nations
Environment Programme estimates that close to 90% of global hazardous wastes are
produced by developed countries, and yet more and more of these wastes are finding
themselves being exported to developing countries for recycling and other disposal
operations. Clearly, the G8 should be able to better deal with their waste than dispose of
it via export to developing countries.

The 3R Initiative can achieve a strategic impact on global unsustainable patterns if it
addresses these problems within G8 countries’ borders, instead of passing this
responsibility to developing countries. A G8 commitment to reducing all hazardous
waste generation to a certain level, creating mandatory environmental product criteria, etc.
can immediately make a significant impact on the problem, which developing countries
can follow.

Fixated on the Downstream

The 3R Initiative alludes to the need for reusing and recycling “wastes”; in essence a call
for the global society to be less wasteful. Problems and solutions are therefore framed in
terms of strictly downstream problems and solutions, which actually diverts attention
away from upstream problems and solutions, e.g. elimination of toxic inputs, manufacturer responsibility, green designs, etc.

The concept of reduce, re-use, and recycle has proved to be a flawed exercise in dealing with wastes. In spite of the established hierarchy in prioritizing waste management, the third R, recycle, is too often emphasized while the first two Rs are ignored. Some developing countries, such as Indonesia, recognizes this failure, and has in fact been promoting 5Rs (re-think, reduce, reuse, recycle, and recover), instead of 3, expanding the upper and downstream boundaries of the 3Rs. A more detailed discussion of this point can be found at BAN Briefing Paper No. 9 at http://www.ban.org/main/library.html#briefing.

The 4th R— Responsibility and Rights

Responsibility and rights go hand-in-hand, thus the need to be taken as one. The absence of “Responsibility” in the overall fabric of the 3R Initiative is evident. Every sector, every actor, from consumers all the way to the highest echelon of power in society, have very distinct responsibilities to uphold in ensuring that the unsustainable patterns we are all facing is addressed. A more detailed discussion of this point can be found at BAN Briefing Paper No. 9 at http://www.ban.org/main/library.html#briefing.

Furthermore, as responsibility is sought among all stakeholders, it is paramount that rights of the marginalized populations are respected. Women, children, laborers, indigenous people, and others who are less likely to be heard at any level of politics and who tend to suffer from the direct and negative impacts of inappropriate waste treatment, toxic products, etc. must be protected.

The 3R Initiative needs to recalibrate its policies both for upstream and downstream solutions, and more importantly to place the proper emphasis on the responsibility of manufacturers in reducing waste generation, if it honestly wishes to tackle the problems of mass consumption and production patterns. Developing countries would therefore be wise to consider the flaws the 3R Initiative suffers from, before proceeding to promote, much less integrate the G8’s Initiative into their framework.

Issue II: Reduction of barriers to the international flow of goods and materials

10. It was noted that participants recognized barriers to the international flow of goods and materials for recycling and remanufacturing, and recycled and remanufactured products, such as higher tariff rates and non-tariff barriers for those products. It was noted that markets need to be opened for goods and materials so they do not become wastes and that this is an opportunity that can be fostered by the 3R Initiative.
Given the US and Japan’s known opposition to classifying materials as wastes which are destined for recycling destinations, in contradiction to the Basel Convention, it can be expected that the US and Japanese definition of “recycled and remanufactured goods” or “goods and materials for recycling and remanufacturing” is broad indeed and likely includes Basel controlled wastes for which barriers to trade have been erected. Certainly, there is reason to believe that a not so hidden agenda of the US and Japan is to use the 3R initiative to circumvent the Basel rules which they have objected to in other fora. Paragraph 10 seems the most desired objective of promoting the 3R Initiative.

In spite of the broad usage of the terms by these two G8 nations, developing countries like China were aware of the allusion of this term to toxic wastes, when China firmly asserted that financial and other resources for the environmentally sound management of wastes are needed by developing countries, but not imported toxic wastes.

As we discussed earlier, the blurring of the distinction between “goods and materials” and “wastes” creates a combustible mixture that will disrupt and undermine existing international laws, particularly the Basel Convention and its Ban Amendment.

BAN is concerned that by reducing barriers to economically motivated waste export, one perpetuates externalizing real environmental costs/liabilities and serves as a disincentive for clean production and green design of products and processes. In other words, allowing developing countries to be the repositories for much of the world’s waste works in direct contradiction to the first of the 3Rs – Reduction, while promoting human rights abuses by disproportionately burdening the poor with the world’s toxic waste.

There is thus compelling justifications for the Basel Convention and the Basel Ban Amendment to erect the barriers that they have created. It is disconcerting and alarming to see the 3R Initiative mixing the definition of “goods and materials” with “wastes”, and proposing the reduction of barriers to waste trade, which essentially throws more than two decades of work under Basel out of the window and threatens to relegate the Basel Convention and its Ban Amendment to the international dust bin of irrelevance.

12. It was also pointed out that development of the list of environmental goods and services under the WTO Doha Mandate would offer win-win opportunities in terms of both the environment and the economy.

The development of the list of environmental goods and services under the WTO is not necessarily a win-win opportunity, because the WTO rules do not recognize the crucial distinction of whether such “goods or services” are environmentally beneficial or not. Thus, any technology, even if it’s highly polluting, will be treated equally with better or beneficial technologies incorporated in the WTO list, and are allowed to compete in the same market. A country will thereby have to face a situation where it would have to welcome companies peddling polluting technologies and thereby discourage those companies offering more environmentally beneficial goods. The
situation engendered by the WTO list creates an incentive for bad technologies to prosper, and a disincentive against the development of newer and more sustainable technologies.

13. Participants affirmed the importance of Parties’ full compliance with their obligations under the Basel Convention and the Rotterdam Convention on PIC.

The affirmation of complying with international law is well and good. However, mere affirmation does not deter from the reality that any attempt to reduce the barriers of the international flow of hazardous wastes will be in contravention of these laws, particularly the Basel Convention and its Basel Ban Amendment.

The proposal to reduce trade barriers will run counter to the Basel Ban Amendment, and violate Art. 4(2)(d) of Basel, which obligates Parties to the Basel Convention to ensure that the transboundary movement of hazardous wastes are reduced to the minimum consistent with the environmentally sound management of such wastes.

Moreover, the proposed reduction will compromise, among others, the following Basel obligations:

1. Art. 4(2)(a), Parties must ensure that the generation of hazardous wastes and other wastes within it’s own borders are reduced to a minimum.
2. Art. 4(1)(b), which requires Parties to prohibit the export of hazardous and other wastes to the Parties that have prohibited the import of such wastes.
3. Art. 4(2)(b), which requires Parties to ensure of the availability of adequate disposal facilities for the environmentally sound management of such wastes in the importing country.
4. Art. 4(2)(e), prohibiting the export of such wastes to countries who have prohibited through their legislation the import of such wastes, or if the exporting party has reason to believe that the wastes in question will not be managed in an environmentally sound manner will be negated.

Further, the reduction of barriers to the flow of hazardous wastes, will also threaten the prohibition of trading between a Basel Party and a non-Party. Worst of all, this approach would lead to a complete throwback to the waste anarchy that the Basel Convention and its Ban Amendment have been created to halt.

The conflict is clear, and the G8 cannot create any rhetoric that can mask how the 3R Initiative’s proposal to reduce trade barriers in the flow of hazardous wastes will violate the very core of the Basel Convention and its Ban Amendment.

14. Participants noted various concerns regarding the cross-border transfer of wastes or near-end-of-life products to developing countries, such as in the form of donations.
Most of the developing countries in attendance clearly expressed serious concerns on the negative impacts and implications of promoting waste trade and urged the ratification of the Basel Ban Amendment instead. The most significant remark was made by South Africa, which decried the current global regime for unjustly allowing transporting of toxic materials and products such as second-hand computers and almost-expired pesticides in the form of donation to African nations.

Despite the concerns raised by many developing countries and BAN over the negative aspects of reducing barriers to waste trade, the Chair of the Conference attempted to railroad the summary which emphasized the need for waste trade barrier reduction. It was through the strong intervention of South Africa and Malaysia that postponed the Initiative’s decision regarding the promotion of trade barrier reduction.

With these interventions, there is no mistake that the developed and developing countries are clearly divided on the issue of reducing trade barriers on wastes. This difference in position will fester unless the 3R Initiative respects the international definition of wastes clearly segregating it from products, and until it supports the barriers erected by the Basel Convention and its Ban Amendment to protect the environment and human health.

15. Participants recognized a need for developing criteria and capacity, as well as sharing experiences amongst and between developed and developing countries to distinguish waste from non-waste.

Any attempt to distinguish waste and non-waste should be conducted in the appropriate fora, which is the Basel Convention. The Basel Convention has jurisdiction over the issue of hazardous and other wastes, and it is improper for the 3R Initiative to manipulate waste definitions outside of and in contravention of the Basel Convention.

16. It was noted that for many countries the first priority should be placed on minimization of wastes within the country in which the wastes are generated. Participants expressed the view that transboundary movement of wastes may take place only when safe and appropriate use and environmentally sound management are possible in the receiving country.

It is important to point out here that all countries, especially industrial developed countries, must make it their priority to minimize waste generation at source, within their own borders, and any transboundary movement must be in accordance with the Party’s Basel Convention obligations, and not simply be based on whether there is an ESM facility in the recipient country.

ESM under the Basel Convention is more rigorous than how it is being used by certain sectors. ESM is defined under Basel as “taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such
wastes.” This definition takes into account not just technological solutions, but “all practicable steps” as well, from social, financial, even legal considerations. See our discussion on the next section on ESM.

**Issue III: Cooperation between developed and developing countries**

BAN has grave concerns with the pronouncement quoted above, as this perpetuates a myth that developing countries are the primary source of global waste problems. As we have discussed earlier, what primarily accounts for the problems is over-consumption and profligate wastefulness of developed countries. For instance, the mass of obsolete and historical waste computers and their peripherals, TVs, mobile phones, and other electronic products that are inundating Africa, Asia, and Latin America all come from the developed countries. These wastes are exported under the guise of recycling or charitable donations and are then dumped or left to become obsolete in the developing countries that receive them. This paragraph could have been an excellent place where developed countries make a commitment to promote the 3Rs within their countries first, prioritizing the first R, reduction of waste generation at source.

Further, to placate the growing concern expressed by developing countries on toxic waste trade, the Conference asserted the need to support developing countries to develop technical capacity in waste management in order to prevent environmental impacts caused by importing of recyclable goods and materials.

While building technical capacity is a crucial element for developing countries in managing wastes, too much emphasis on technological solutions tends to obscure the social, financial, and legal aspects of the toxic waste problem. Toxic waste is not simply a technological issue. By its very nature, it is imbued with other concerns, such as occupational health and safety, free speech protections, workers right to form unions, workers and community rights to know what toxic effluent is produced in the recycling plant, the legal capacity of communities or workers to seek redress for any offending multinational companies, etc. These non-technical issues are often ignored, and yet are at the core of toxic trade.

We suggest that the first priority of the 3R Initiative is to promote cooperation between developed and developing countries with equal and proportionate efforts by developed and developing countries to reduce waste generation at source and to eliminate toxic
inputs in production processes. All of these problems require sincere efforts and concomitant responsibility of G8 countries, coupled with ensuring social, legal, and financial support for developing countries.

In addition to these concerns, another criticism on the overemphasis on technology is that for the most part the emphasis is placed on the wrong area, downstream. A great deal of waste that the world is dealing with at the moment can be effectively addressed by upstream solutions. The elimination of toxic inputs, life-cycle design, materials efficiency, etc. all occurs before the product is even made. We suggest that the 3R Initiative put its first priority on developing strategic cooperation among developed, developing countries, and industry for upstream/design solutions wherever and whenever it can do so.

23. **Regarding capacity building, issue-specific and country-driven approaches were especially recommended, taking into account that there is no unified approach that is applicable globally. Priority areas for capacity building may include (i) the establishment/improvement of legal frameworks, (ii) the development of national strategies, and (iii) the sharing of best practices undertaken in developing countries as well as developed countries. It was suggested that the transfer of technologies could be efficiently promoted through a regional center approach.**

The idea of issue specific and country-driven approaches must not only be applied in the area of capacity building, but most importantly should be utilized to modify the “one size fits all” approach of eliminating or reducing trade barriers to the international flow of hazardous wastes. Hazardous wastes should not be considered goods, and should be dealt with more carefully, in accordance with the Basel Convention and the Basel Ban Amendment.

24. **The Millennium Development Goals (MDGs) should provide a basis to promote 3R-related activities. In particular, 3R initiatives should have clear linkage with poverty eradication and development as well as health issues, such as by creating new job opportunities and facilitating more efficient use of resources, including energy.**

Linkage to job creation should not be a license to exploit workers by passing toxic technologies and toxic wastes on to them, nor should it be a reason to exploit lax or weak environmental standards in developing countries. Unfortunately these have been the practice in the continuing struggles with toxic trade.

In developed countries, the cost of meeting strict environmental regulations, the observance of occupational health and safety standards, and the higher minimum wage have become strong incentives for dirty industries to exploit cheaper/lax markets in developing countries. Toxic wastes follow the path of least economic resistance downhill to poorer countries.
The 3R Initiative must not perpetuate the injustice of exploitation. Instead, it must curb it and allow developing countries the chance to leapfrog the industrial blight developed countries have experienced in the course of their path towards industrialization.

The rhetoric given that the Basel Convention is an instrument to promote the 3R Initiative misleads people into thinking that there is full symbiosis between the two. In fact, as we have often discussed in this commentary, the 3R Initiative appears to be undermining the Basel Convention. The G8 nations who have launched the Initiative, particularly the few who are actively promoting it, must be held accountable for their actions to ensure that they will not violate the principles and obligations of the Basel Convention which 165, including almost all G8 countries, have obligated themselves to uphold.

How much can be expected from the G8? In its past actions it has excluded NGOs and other stakeholders from participating in the deliberations of the Initiative. BAN is concerned that open, transparent, and full engagement with other stakeholders will continue to be ignored, and much of the decision on where the Initiative will be going in the future will simply be handed down to other countries and stakeholders.

This is not global democracy as it should be, and much more should be expected from G8 countries.

**Issue IV: Encouragement of cooperation among various stakeholders**

26. **Major instruments to promote 3R initiatives include multilateral environmental agreements (MEAs) such as the Basel Convention and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and other existing initiatives such as the Global Environmental Facility (GEF) and the Clean Development Mechanism (CDM).**

29. **The meeting welcomed and endorsed a meeting at the senior official level as a follow-up to the 3R Initiative proposed by Japan.**

30. **The participants agreed that it is important to create partnerships utilizing the strengths of all stakeholders, namely central and local governments, the private sector, academia, NGOs, and consumers, to promote the 3Rs and waste management. There is a need in this regard for information sharing among stakeholders and for environmental education and awareness raising. It is necessary to promote partnership-based actions to advance environmentally-sound recycling and treatment at all levels.**
First of all, partnerships among all stakeholders should be sought in all processes of promoting the 3Rs, not only in implementation of policies and plans but also in policy making and decision making pertaining to the 3Rs. It is also worth noting that partnership-based actions to advance downstream environmentally sound management are already occurring in the Basel Convention. The 3R Initiative should support these Basel activities and not duplicate similar efforts in a different sphere. More importantly, what is clearly needed is to establish partnerships with manufacturers to eliminate toxic inputs in the production process. There is no global partnership on this area, and is high-time that developed nations seriously address this upstream problem.

Our concerns over the application of the principle of mottainai is equally placed with the idea of “industrial symbiosis” or “by-product synergy” if applied in the realm of hazardous wastes. Hazardous waste generation must not be encouraged through the creation of downstream industries that will pass these wastes as products on to consumers. Hazardous wastes are not products or goods, and the 3R Initiative should very well keep this distinction intact.

This paragraph is significant for it highlights one of our earlier concerns for the 3R Initiative, the low involvement of NGOs. Given that the Conference recognized the importance of NGO participation in policy making process, it is clear that the extent to which NGOs have been allowed to get involved in the entire process of shaping the 3R Initiative was far from satisfactory. NGOs should have been informed ahead of time and invited to all phases of developing the 3R Initiative policy and programs, organizing the ministerial conference, and writing the documents prepared for launching the 3R Initiative.

Moreover, there was no attendance of NGOs from developing countries at the Conference despite the profound relevance of the 3R Initiative to developing countries, as far as we know. Decisions made under the Initiatives will have serious influences on the environment, economy and society of developing countries. Future participation of NGOs from developing countries is therefore essential to make the initiative truly contribute to establishing a environmentally sustainable and just world.
Clearly NGOs do not exist for the G8 organizers simply to say yes or no to their political decisions, which have already made out of NGO’s reach. NGOs have an important role to play in both policy making and decision making processes so as to make a new policy or program as appropriate, balanced, and effective as possible by providing different perspectives and thoughts on issues from those of governments and private sectors.

NGOs bring the perspectives of minorities into policy making processes, the voices of women, labor, consumers, indigenous people, and other marginalized sectors who are less likely to be heard at any levels of political discourse. It is definitely an advantage for policymakers to listen because it would help a new policy gain support from a larger, more diverse population. Besides, when it comes to the global waste problems, it is essential to pay great attention to concerns of minorities, who tend to suffer from such negative impacts of inappropriate waste treatment as environmental pollution.

Overall, the 3R Initiative appears to undervalue the need to foster partnerships between NGOs and governments, or NGOs and the private sector. Only the first paragraph mentions, though vaguely, that NGOs can strengthen the Initiative’s effort to promote the 3Rs and environmentally sound waste management. Civil society groups have indeed the ability to network internationally to share good practices of waste managements as well as to monitor cross boundary movements of wastes. As paragraph 37 noted, international networking of NGOs is a crucial part of implementation of 3R policies and programs.

At the same time, however, civil society groups need cooperation with/from governments and industries as well, in order to fully realize this ability. This may mean that citizen groups and NGOs should be invited to any future decision making process of the 3R Initiative, where, for instance, governments and NGOs discuss how to advance the infrastructure and mechanism for monitoring transboundary movement of wastes in the strict compliance with the Basel Convention and its Ban Amendment.

**Issue V: Promotion of science and technology suitable for the 3Rs**

39. Participants agreed that research and technological innovations need to be promoted particularly for (i) cleaner technologies such as those for remanufacturing, waste minimization, recycling, recovery and treatment, and (ii) eco-designing technologies for resource efficiency and reducing product-related environmental impacts. Governments need to develop partnerships with producers. Eco-design provision needs to stipulate product design outcomes rather than technology specifications mandated by the government. Sharing eco-design information of products with consumers and recyclers can promote markets for those products and further enhance efficiency of recycling. There is also a need for exploring possibilities of the potential contribution of new technologies such as nano-technology and biotechnology for the promotion of the 3Rs.
Cleaner technology is not a concept simply for downstream applications. In fact the concept of cleaner technologies applies to production processes or upstream applications as well. The 3R Initiative should expand its notion of cleaner technologies, in fact, a clear definition of cleaner technology is needed. For example, waste-to-energy incineration under the excuse of energy recovery is promoted in certain developed countries as a clean recycle technology. It is however not appropriate at all because burning of waste transfers the hazardous characteristics of waste from solid form to air, water and ash, releases toxins, and generating heavy metals. Incineration is unambiguously polluting. Technology transfer and cooperation promoted under the 3R initiative should therefore not include support for building any state-of-the art incinerators in developing countries.

There are, however, positive points which the Participants have raised under this issue. Indeed, eco-designing, and more importantly the sharing of these eco-design information to consumers and recyclers are much welcome, for these types of synergies or sharing is greatly amiss in the present, and this is an area which the 3R Initiative can truly help.

The Ministerial Conference was on the mark when it considered technological innovations on eco-designing technologies for resource efficiency and reduction of product-related environmental impacts, and sharing eco-design information of products with consumers and recyclers. These are upstream solutions that can be fitted well within the 3R Initiative. Further, it is also a positive step for the 3R Initiative to acknowledge that understanding the life cycle of products is required for taking a systematic approach for improving the environment.

Efforts in dealing with the waste problem from a holistic perspective, taking into consideration aspects of production all the way to their consequences after disposal, is much welcome and should be vigorously pursued by the 3R Initiative, if it hopes to be a positive force in dealing with the waste crisis the world is facing.
Once more we raise the caution of what type of technology is being allowed to flow freely. As we have discussed previously, toxic technology or those type of technology that are highly environmentally destructive should never be taken at par with environmentally beneficial technologies. Much like between goods and toxic wastes, a clear distinction between toxic and environmentally beneficial technology should be consistently drawn.

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