

Documentation

Senior Officials Meeting International Progress in Reduce, Reuse, Recycle (3R) 4 to 6 October 2007, Bonn

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Introduction

1. The Senior Officials Meeting on the 3R Initiative was held in Bonn, Germany on October 4-6, 2007 hosted by the Ministry of the Environment, Nature Conservation and Nuclear Safety of Germany. There were 18 participating countries (Brazil, Canada, Chile, China, France, Germany, Indonesia, Italy, Japan, Mexico, Nigeria, the Republic of Korea, the Russian Federation, Singapore, South Africa, the UK, the USA, and Viet Nam), the European Commission, five participating international organizations and networks (the Asian Development Bank (ADB), the Organization for Economic Co-operation and Development (OECD), the Secretariat of the Basel Convention (SBC), the United Nations Centre for Regional Development (UNCRD), the United Nations Environment Programme (UNEP)).
2. This documentation was not negotiated and does not represent consensus texts. It highlights the discussions, taking into account participants' comments on the Issue Paper handed out to the participants at the beginning of the meeting. (The resulting Chair's Summary with the revised version of the Issue Paper is Annex 1).

Opening Session

3. Dr. Helge Wendenburg, Directorate-General Water Management, Waste Management and Soil Conservation, opened the meeting by citing that environmental policy and climate protection are two sides of the same medal. The two key elements are resource efficiency and recycling management which form the basis of the 3R policy.

After summing up the process of the 3R Initiative Dr. Wendenburg described the basic fields of action:

- Reduce waste, reuse and recycle resources and products
- Reduce barriers to the international flow of goods and materials
- Encourage cooperation among various stakeholders
- Promote science and technology
- Cooperate with developing countries

He put them into perspective with the decisions taken at former G8 summits and meetings.

With the example of waste management in Germany Dr Wendenburg highlighted different aspects of 3R appropriate resource management. With the vision of a recycling society he showed how much material recycling could contribute to resource savings and resource efficiency. The decoupling of economic growth is an important target in striving for a sustainable society. Climate change is incorporated in these goals and reveals its potential by cutting down the emission of landfill gases and ruling all types of waste into recovery.

Finally Dr. Wendenburg expressed the targets of the Senior Officials Meeting in

Bonn to exchange information, exchange views of basic fields of action and discuss elements of possible future actions by the G8 countries.

(Full text of the presentation see Annex 2)

Plenary Sessions 1, 2 and 3

4. Each national delegation made a brief presentation regarding the domestic progress of the 3Rs. Many delegates reported new legislation and strategies for promotion of the 3Rs since the Senior Officials Meeting of the 3R Initiative held in March 2006 in Tokyo. Delegates from each international organization also reported projects and programs to promote the 3Rs now being implemented in various parts of the world. (Presentations are summarized in Annex 3; Powerpoint slides are provided separately)

Discussions in the Working Group Sessions

5. Discussions in four (two at a time respectively) Working Groups were held on national (I.1 and II.1) and international (II.1 and II.2) aspects regarding the 3R Initiative. Each Working Group started with an introductory presentation and was moderated by selected delegates.

In Working Group I.1 the national 3R progress was reviewed, especially regarding the reduction of waste generation. Discussion points were related to the Issue Paper chapters "I. Development of 3R" and "II Partnership - cooperation among actors". In Working Group II.1 national aspects according to clean and efficient 3R technologies were discussed with reference to the Issue Paper chapter III. International aspects were topics in the Working Groups II.1 and II.2, the first dealing with international flows of 3R-related goods, materials and products with reference to the Issue Paper chapter IV, the second containing the improvement of standards for the environmentally sound management of waste with reference to the Issue Paper chapters V and II. The introductory presentations of the Working Groups are made available separately.

Co-chair's summaries of the Working Groups, Plenary Session 4

The Co-chair's summaries of the Working Groups were presented in Plenary Session 4 and are summarised in the following (full text presentations see Annex 4).

Working Group I.1: National Aspects - Review of the 3R progress, esp. regarding reduction of waste generation (Moderator: Mr. Neil Thornton, DEFRA, UK)

The Working Group Session was started with an introductory presentation by Prof. Heinz Baum. The basis of the discussion was point I of the Issue Paper. Selected issues were prepared but supplemented by inputs from the previous discussions of the plenary sessions. As it was found difficult to concentrate only on waste reduction

as previously planned the discussion was widened to the development of the whole 3R process. The following points were made and reported to the plenary session:

- The 3R process seems of considerable value as a way of information exchange between countries. Especially policies of countries which might affect be the domestic situation of other countries. Then it is possible to learn how the same kind of problems is addressed.
- The 3R process should add value to other fora, not duplicating them. The 3R process is not a negotiating forum like the WTO, the OECD or the Basel Convention, but the 3R process can give political guidance to these fora.
- Everybody agreed to integrate the life cycle concept as a holistic view within the 3R policy. The concept is the same although countries use different expressions like circular economy, sound material recycling, sustainable consumption and production, resource efficiency.
- It was recognised that countries need to be clear in their objectives for resource and waste policies whether they use the 3R language or not. The motivation is to have common understanding of 3R. Statements from a national background are helpful for further communication but need a set of clear definitions.
- Everybody accepts that 3R has to integrate climate change policies. It was also agreed that other environmental impacts shall not be omitted in the 3R and waste policy.
- It was acknowledged that some way of working with economic realities, the price mechanisms, the behaviour according to demand and supply, must be found.
- This is also the reason why people in general and the consumer behaviour are so important. Public information from governments is one possibility to intervene.
- Additionally, public procurement was seen as an important issue as it gives examples for good practice.
- It was stated that indicators and targets for policies have been of benefit nationally and are useful to drive action of governments and of economic players.
- Using consistent economic indicators and measurement systems was recognised as important. They should be consistent with other fora (e.g. OECD).

Working Group I.2: National Aspects - Clean and efficient 3R technologies (Moderator: Dr. Magnus Bengtsson, IGES, Japan)

Prof. Klaus Fricke and Heike Santen gave an introductory presentation with a focus on biological treatment. Basis of the working group discussion was chapter IV of the Issue Paper which includes information sharing, R&D promotion, technology transfer and bio-based materials. Key issues mentioned were:

- The large difference between the situation of developed and developing countries was emphasised at the beginning. It shall be reminded that discrepancies exist not only at a technical level but also on an organisational level. For instance many countries neither have statistics about the amount of waste nor of waste

fractions. Hence it is very difficult to set reliable targets and to follow up the effectiveness of their policies.

- The need for appropriate solutions was recognised not concentrating on high tech options. In general education was emphasised as a key element to promote technology development. Governments can play an effective role on that.
- It was also mentioned that market players need clear signals or rules from governments as a basis for their decisions on investments.
- Additionally, governments can set quality standards for recycling materials. Either setting them in a legal framework or establish warrants for market actors who set such standards voluntarily.
- The importance of governments for R&D activities at all stages was expressed. Governments can identify research needs, direct research projects and support demonstration projects and its dissemination. It was also stated that technology being implemented and widely used in one country can still be unfamiliar in another country. Demonstration projects might be needed to prove that this technology also works in a different national context.
- Green procurement was regarded as a tool for governments both to increase the market share for environmentally appropriate products or resource efficient technologies and to push technology development towards resource efficient solutions which are not yet available.
- Finally, the need for methods to assess the sustainability of emerging technologies was mentioned. The value of including different stakeholder in these assessment processes was recognised as a key element.

Working Group II.1: International Aspects - International flows of 3R-related goods, materials and products (Moderator: Mrs. Katharina Kummer-Peiry, Secretariat of the Basel Convention)

The introductory note to this working group was given by Dr. Wuttke responsible for issues of transboundary movements of waste at the German Federal Environmental Agency. The Working Group concentrated on points outlined in the Issue Paper in chapter IV. The major part of the discussion focussed on the first issue dealing with the legal distinction between waste and non-waste. Those main points were made:

- A strong support was expressed for the using existing work on definitions of waste and products etc., like the work done by the OECD, the Basel Convention, the European Union and the International Maritime Organisation (IMO).
- The question “what are definitions needed for” should be answered before entering in any kind of definition work. A distinction shall be made between a domestic and an international context but convening these if they have to be combined.
- Criteria are needed to continue the development of definitions. Not only general criteria shall be identified but also their application to specific cases would be helpful.

- Remanufactured products should be included into the range of definitions for products, waste and other items.

The further issues besides the definition were discussed:

- Everybody accepted that the provisions of the Basel Convention should be respected and supported. Some opinions stated that the ban amendment of the Basel Convention should be considered in the 3R context. Also the involvement of industry in the Basel Conventions work should be welcomed and supported. Additionally it was discussed on how the Basel Convention provisions can be enforced in the different countries.
- Everybody agreed to support the prevention of illegal traffic of waste and materials.
- It was noted that it is important to promote proper management of recyclables and to facilitate transboundary movement but only if such transboundary movements and its related recovery actions are done in an environmentally sound way.
- The question came up how environmentally sound management is defined. Again references were made to existing definitions.
- As requirement for transboundary movement it was stated that the infrastructure and capacity must be available. Also the existence of markets for recyclable goods should be considered as one factor for these movements.
- A warning was expressed since the transboundary movement of recyclables could have an effect by discouraging recycling within the country itself. This aspect should be considered on a national and international level.

Working Group II.2: International Aspects - Improvement of standards for the environmentally sound management of waste (Moderator: Dr. Andreas Jaron, BMU, Germany)

The introductory note was made by Mr Pierre Portas, France. The objective of the Working Group was to focus on the transfer of technology and standards. The basis for the discussion was chapter V of the Issue Paper. The main findings were:

- It was recognised that the principles and standards for environmentally sound waste management exists, e.g. under the Basel Convention and the OECD. The main purpose of the international waste cooperation should be to support the application of these standards.
- The elements to enforce standards and to promote the transfer of know-how and technology are the following: organising the process as such, cooperation between countries, using existing partnerships, establish pilot projects. The Basel Convention is one forum for this purpose and the 3R Initiative can provide added value to this challenge. G8 countries have a specific responsibility.
- The improvement of standards should not only address technology but also information, services, financial instruments and also measures for waste prevention, remanufacturing, refurbishing etc. Again the cooperation with the Basel

Convention is considered as helpful since partnership programs exist like e.g. on mobile phones including industry and NGOs.

- According to e-waste it was noted that regional centres could play an important role in strengthening existing international rules but also for transfer of know-how and technology.
- There was a short discussion about terminology. It was concluded that definitions are important in the international communication but that discussions on definitions should not dominate the international activities.

Discussion of the G8 Senior Officials

6. Based on the results the Working Groups the Issue Paper was revised by the G 8 Senior Officials. The resulting Chair's Summary is attached as Annex 1.

Side events: Presentations and Excursions

7. The three excursions to selected facilities that took place on the first day of the SOM were appreciated by the participants. With excursion A the Centre for industrial environmental services in Lünen was visited. Excursion B contained the visit of two different sites, a biogas plant in Mülheim and a paper sorting facility in Cologne. Excursion C went to a manufacturing plant for recycling technologies in Bad Marienberg. A brief description of each excursion is given in Annex 3.
8. Further side events at the SOM were presentations by Japan, the USA and by the Federation of the German Waste Management Industry (BDE). The presentations are summarised in Annex 3. The presentations are available separately.

Annex 1 – Chair's Summary

G8 Senior Officials Meeting (SOM) on the 3R Initiative Bonn, 4 - 6 October 2007

The SOM discussed the progress and history of the 3R initiative since the G8 Sea Island summit 2004. The SOM highly appreciated the contribution of the participating countries and international organisations to the discussions of the Meeting.

Developments of the 3R Initiative:

1. Sharing importance of the concept of the 3Rs.
2. The progress of the 3Rs in certain regions is recognised.
3. The Initiative process is recognised as a milestone forum to share the progress of the various on-going 3R-related processes.
4. The G8 SOM discussed the development of a proposal for a G8 3R Action Plan to be decided at the G8 Environment Ministers Meeting in Kobe, May 2008.

The next steps towards a possible G8 3R Action Plan (Process towards G8 Summit 2008) are as follows:

1. A G8 Preparatory meeting in Japan, April 2008
2. The G8 Environment Ministers Meeting in Kobe, May 2008
3. The G8 Summit in Japan, July 2008

The G8 states are expected to give their suggestions for a G8 3R Action Plan on the basis of the following issues of the 3R initiative by the end of January 2008. Based on these suggestions, Japan will, in cooperation with the other G8 states, come up with a draft G8 3R Action Plan for the consideration of the G8 preparatory meeting in April 2008.

Major points to be considered among the G8 states and other participating states and organisations:

- The 3R Initiative may function as a process e.g. for the coordination and monitoring of various 3R-related processes both domestically and internationally.
- Further efforts of each country especially focusing on waste prevention and reduction elements.
- Concerted efforts among the G8 for international cooperation for capacity building and assistance for the non-G8/non-OECD countries (transnational regional level cooperation).

Issues of the 3R initiative

Background:

The volume of waste is increasing worldwide in the industrialising regions, especially in countries with economies in transition.

The environment's capacities to absorb waste deposits are limited; soils, waters and drinking water and the atmosphere are becoming increasingly polluted;

Poor waste management contributes to greenhouse gas emissions from landfill gases, wastage of energy carriers in landfill and the inefficient use of resources; a modern system of waste management makes a major contribution to reducing these emissions through the expansion of biological and thermal waste treatment, energy recovery and an increase in material recycling;

In many countries [in the world], technical standards of waste treatment and disposal are low. As a result, the risks to human health and the environment remain high; global demand for 3R technologies is increasing;

Natural resource availability is essential for the sustainable development of the economy, society and ecological bases in every country;

The quantity of raw materials being wasted as a result of inefficient resource and waste management worldwide is immense; these raw materials are permanently lost to the global economy and lead to increased scarcity and hence rising prices for these inputs; for certain strategic raw materials, e.g. tantalum, vanadium, etc., which are needed for the production of electronic components, the availability and use of resource recovery technologies are vital in order to prevent resource scarcity in the next 20 years; the relevant technologies are available, but due to relatively low raw materials' prices in the short to medium term which may not internalise external impacts such as future scarcity, these technologies are not being deployed to an adequate extent;

The worldwide increase in resource scarcity must be counteracted through improved resource use efficiency;

Significant decoupling of resource consumption and waste generation from economic growth may be achieved through innovative production technologies and product design which assist the reuse and the recycling of materials;

Sustainable resource and waste management policies should seek to encompass the entire product life cycle, starting with resource inputs and including the production process, consumer choices, product use and reuse/recycling (sustainable production and consumption);

The avoidance of hazardous waste through the use of less toxic materials and low-waste production processes, environmentally sound waste treatment and the monitoring and control of the movement of waste are priority objectives for environmental policy;

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal provides an important framework for the promotion of environmentally sound management of waste worldwide; a future-oriented global environmental policy must aim to develop and enhance this framework;

The OECD work on material flows and resource productivity, sustainable materials management, economic instruments and environmental country reviews makes a key contribution to the development of the 3R Initiative - Reduce, Reuse and Recycle - in an environmentally effective and economically efficient way.

Newly industrialising and developing countries are believed to hold major potential to pursue an approach to industrialisation which facilitates environmentally sound and sparing use of natural resources while achieving economic growth and prosperity at the same time;

Resource and waste management policy is a potential driver of innovation and jobs in all countries; In the industrialised and newly industrialising countries, the consistent application of regulatory, economic and other instruments results in the development of a wide range of technologies, organisations and applications in all areas of 3R, including waste logistics, waste sorting, waste treatment and processing; at the same time, this gives rise to new job opportunities with higher skills requirements;

For developing countries, a well-structured and tailored waste management system above all helps to protect human health and the environment, to ensure the availability of affordable raw materials, to open up new fields of business and to create jobs.

Elements of possible future actions by G8 countries:

I. Development of 3R (Reduce, Reuse and Recycle)

To champion the sustainable integration of 3R in all policy areas, especially industrial and consumption policy, energy supply and resource policy, trade policy and in product design;

To take account of the 3R concept in developing national waste management and resource strategies;

To set, as agreed at the St. Petersburg Summit in 2006 by the G8 leaders, self committing targets as appropriate taking account of resource productivity in furthering efforts for the promotion of 3Rs, taking also into account the work of the OECD, and report regularly to the G8 on the status of establishment and achievement of such targets; a set of consistent targets and indicators is desirable¹.

To strive for optimised utilisation of the inputs, materials and energy which are contained in waste; in this context, to support in particular activities related to waste separation, waste pre-treatment and the biological and energy use of waste, and to ensure that waste management processes maintain high standards of protection of the environment and human health;

To work to ensure that the individual countries' waste management systems make a significant contribution and achieve the co-benefit of reducing greenhouse gas emissions and thus contribute to global climate protection; in particular, to encourage the use of the organic matter contained in waste through an increase in composting, fermentation and energy recovery in treatment plants with high emissions standards;

Together with individual business sectors, to identify the latter's various potentials to reduce greenhouse gas emissions by analysing the status quo and establishing programmes to reduce each sector's contribution to greenhouse gas emissions;

¹ Possible targets are e.g. resource productivity, abiotic raw materials used, total waste, hazardous waste, municipal waste, waste per capita, recycling rates, energy intensity.

To determine the greenhouse gas emissions as well as other environmental impacts of their own waste management systems, identify reduction potentials, and establish programmes to harness these potentials;

To aim to carry out joint projects in this area, for example through cooperation within the Joint Implementation and Clean Development Mechanism framework.

To support measures in developing and newly industrialising countries aimed at

- institution-building and policy implementation through the provision of administrative advice,
- the introduction of separated waste collection systems, mindful of the need to involve the informal sector,
- the introduction of collection and processing systems for e.g. electronic waste, used batteries and end-of-life vehicles,
- the application of appropriate waste treatment technologies,
- the promotion of environmental awareness among citizens, public agencies and industrial emitters,
- compliance with occupational health standards in waste recovery and disposal facilities,
- monitoring the movement of waste and the trade in secondary raw materials in terms of their compliance with environmental standards;

Use price signals and market mechanisms to internalise as much as possible external costs through economic and other instruments.

To monitor and share experience about all these activities at regular intervals from 2010;

To specifically share information about

- key developments in the field of legislation and administration,
- public procurement to achieve 3R objectives,
- impacts on human health and environment,
- the use of economic and other instruments,
- national cooperation with major players,
- new technological developments and innovations,
- the effectiveness of waste management processes as well as strategies and opportunities to improve their application in the individual countries,
- innovative processes and modern systems,
- own contributions to capacity-building in developing and newly industrialising countries.

To support the establishment and maintenance of an internet-based information and knowledge network for the 3R Initiative starting with existing activities.

II. Partnership - Cooperation among actors

To promote policy dialogue with all actors involved in the 3R Initiative at national and international level;

To develop strategies to increase the involvement of the business community, especially with a view to improving resource efficiency and low-emission waste treatment;

To support the promotion of innovative recycling and efficiency technologies and low-waste generation processes;

To adopt measures to support small and medium-sized enterprises which develop innovative 3R processes;

To inform industry, NGOs and citizens about 3R-related activities at national and international level;

To promote the introduction of training programmes which include 3R-related measures (e.g. on remanufacturing, efficient industrial technology);

III. Clean and efficient 3R technologies - Development of science and technology for 3R

To cooperate internationally to share information and build understanding on common priorities and opportunities for more innovation in product eco-design;

To collect data on 3R-related technological innovations in the fields of operational environmental protection, processing techniques, low waste production and waste disposal technologies, and inform the public;

To promote research and development programmes, which aim to identify, develop and assess 3R technologies, and support the use of sustainable raw materials in production and consumption;

To support dissemination, adaptation and implementation of recycling and low-waste generation technologies in bilateral and multilateral technical cooperation;

To recognise that green public procurement can increase the market for 3R-related technologies and promote development of more eco-efficient products.

IV. International flows of 3R-related goods, materials and products

To seek joint solutions to issues concerning the legal distinctions between waste and non-waste within the framework of international activities and agreements; in this context, the work undertaken by the OECD is especially important;

To put top priority on the promotion of environmental sound management of re-usable and recyclable resources within each country in conformity with appropriate regulations;

To prevent the illegal transboundary movement of re-usable and recyclable resources (as waste or non-waste) and to respect and support the provisions of the Basel Convention and work together to curb the illegal transboundary movement of hazardous wastes and other wastes;

Where the above three elements are achieved, to facilitate the transboundary movement of 3R-related goods, materials, products including services, re-usable and recyclable resources and remanufactured products which contribute to the reduction of environmental impacts and the effective use of resources without discouraging domestic efforts to improve re-use and recycling;

To engage in and recognise the ongoing Doha agreement on multilateral trade in clean technologies, environmental services and sustainable products;

V. Improvement of standards for the environmentally sound management of waste by international co-operation

To welcome international 3R-related activities within the United Nations, the Basel Convention, UNCRD, UNEP and the OECD;

To underline the importance of the Basel Convention and the Basel Declaration on Environmentally Sound Management of waste, and to support ongoing work on cooperation and coordination with the Rotterdam, Stockholm, IMO, Montreal and other conventions, bearing in mind the importance of coherence among international agreements on 3Rs issues;

To welcome the work undertaken by the OECD in relation to material flows, resource productivity and sustainable materials management;

To work to ensure that waste is treated and disposed of in facilities which comply with high environmental and technical standards;

To welcome all endeavours aimed at promoting international cooperation with other governments, international organisations, NGOs and scientific establishments to achieve further progress in 3R;

To promote the transfer of environmentally compatible technologies, management and know-how on 3R technologies and low-waste generation processes to developing countries, in order to initiate innovative reforms there;

To find ways to ensure that multinational cooperation is efficient, e.g. through encouraging cooperation at regional level or between G8 members and regions, and through adequate cooperation with international organisations: UNEP, BC, EC, UNCRD.

Annex 2 – Opening speech of Dr. Wendenburg

International Progress in Reduce, Reuse, Recycle (3R) Introduction to the conference

Dr. Helge Wendenburg,

The development of the 3R Initiative up to the present day was primarily shaped by five key events: the G8 Summits in the US, the UK, Russia and Germany between 2004 and this year, and the Ministerial Conference and the Senior Officials Meeting held in Japan in 2005 and 2006.

A cornerstone of the 3R Initiative was the proposal of the Japanese Government at the G8 Summit held at Sea Island, US, in June 2004. The Summit adopted the “Science and Technology for Sustainable Development: ‘3R’ Action Plan and Progress on Implementation” as part of the G8 Action Plan.

While political support for the 3R Initiative was clearly expressed during further G8 meetings, a fruitful dialogue on the 3Rs was held at other relevant meetings and with the participation of a broad circle of participating states and international organisations.

The Summit at Sea Island decided to officially launch the 3R Initiative at a Ministerial Conference to be hosted by the Japanese Government. The 3R Action Plan set forth five basic fields of action to be pursued through the 3R Initiative. It was stated that the G8 will launch the Reduce, Reuse, and Recycle (“3R”) Initiative at a Ministerial Conference and, in cooperation with relevant international organisations such as the OECD, will seek through this initiative to:

- Promote the 3Rs to the extent economically feasible;
- Reduce barriers to the international flow of goods and materials in relation to recycling and remanufacturing;
- Encourage cooperation among the various stakeholders;
- Promote science and technology for the 3Rs and
- Promote cooperation between the developed and developing countries in this field.

The Ministerial Conference held in 2005 in Japan discussed these five action fields and recognised the need to promote related policies and measures through concerted efforts by the participating countries and organisations. Moreover, the conference decided to organise a follow-up meeting at senior official level in Tokyo. This was held as a follow-up to the Ministerial Conference, in the spring of 2006.

The outcome of the ministerial conference was fed into the G8 Summit meeting at Gleneagles in the UK in July 2005. The “Gleneagles Plan of Action - Climate Change, Clean Energy and Sustainable Development” evaluated the 3R Initiative as “an important step towards encouraging more efficient use of resources and materials, which increases economic competitiveness whilst decreasing environmental impacts.”

The importance of the 3R Initiative for the G8 states was reaffirmed in 2006 in St. Petersburg, particularly regarding targets for resource productivity and at this year's summit in Heiligendamm, particularly in the context of energy efficiency.

The first Senior Officials Meeting on the 3Rs, which took place in Japan last year with the participation of several countries, the European Commission and international organisations, produced valuable insights on the value of the 3R Initiative in an international context.

The delegates supported the continuation of this process and welcomed the proposal of Japan to initiate regional activities in Asia.

A few international organisations announced activities to promote the 3Rs. I am particularly pleased that so many of these organisations are here today and very much look forward to their reports.

It is no exaggeration to say that the 3R Initiative has met with a great response and major international approval within a very short period of time. This is not least due to the fact that the 3Rs Initiative has direct links to a number of internationally and nationally important strategies, concepts and instruments. These include environmentally sound waste management, sustainable materials management, waste management hierarchy, product design and life cycle assessment, which will be addressed over the course of this event. This list alone illustrates the high connectivity of the 3R Initiative, which thus becomes a hub for synergies in the field of international waste management and resource conservation.

A further outcome of the Senior Officials Meeting in Tokyo is that common ground clearly exists among countries at the regional level, and that continued work on the 3Rs, particularly in a well-structured forum, would prove valuable. Delegates emphasised that regional cooperative efforts are one of the areas where further efforts are clearly needed.

Waste management can no longer be seen as an isolated problem area. Instead, it can - as our experience in Germany has shown - be successfully integrated into overarching policy areas. I would like to highlight in particular the link between an integrated and sustainable waste management and

- social structures,
- preservation of ecological foundations, including resources and the global climate
- the development of our economic systems.

In my view it is important to see the 3Rs in the context of these links.

As you know the "3Rs" address reduction of waste, reuse and recycling of resources and products. In this context, one ultimate goal is to establish a sound material-cycle society. This is very close to the long-term goal, as stated in the European Commission's thematic strategy on waste, for the EU to become a recycling society, which seeks to avoid waste and uses waste as a resource. Preventing waste generation and promoting recycling and recovery of waste will increase the resource efficiency of the European economy and reduce the negative environmental impact arising from the use of natural resources. This will contribute to maintaining the resource base, essential for sustained economic growth.

Waste policy is one of the great success stories of German environmental policy. Over the past 20 years a complete transformation has taken place. Starting as the simple disposal of waste, it has transformed into a closed cycle management which is based on the principle of product responsibility on the part of manufacturers and distributors of products and which conserves resources and protects the climate. At the same time it has developed into a high-tech economic sector based on division of labour. Thus there has been a clear shift of waste volumes from disposal to separate collection and recovery. The share of municipal wastes being recovered totalled 58 percent up to 2003. Moreover, in 2003, around 42 percent of production wastes were recycled. My colleague Dr Rummler will talk about this in more detail in his presentation.

However, waste volumes in most countries are still increasing. Too many raw materials are being lost because wastes are not being recycled. The EU Commission's waste strategy is geared to an approximation of the very different recovery quotas in the Member States and to an increase in the overall quota, since the potential is far from exhausted. Together with many other Member States we are advocating a Biowaste Directive as around 25 percent of municipal wastes in Europe can be turned into humus and fertilisers rather than being landfilled or incinerated.

We in the industrialised countries represent just one quarter of the world population, but we currently consume around 80 percent of energy and raw materials. The per capita consumption of natural resources in Central Europe is around 10 times higher than in Africa or Vietnam.

As you all know, resource scarcity is expressed in the price of raw materials. Between 2000 and 2005 global market prices of imported raw materials to the Euro area rose in total by 81 percent. Resource demand and consumption are increasing worldwide, and this means that an increase in material and energy efficiency is essential. In all our societies, we must consider how we can produce more from less – in other words, how we can minimise material and energy use per unit produced. But this is only one side of the coin. The rise in the global population, the course being taken by newly industrialising countries and the industrialisation process and demand in countries which are not yet as developed, also mean that existing raw materials will become scarcer. Resource availability will thus play an increasingly important role. Ferrous and non-ferrous metal recycling and the recovery of rare earths already play an important role. Often the availability and recovery of these scrap metals are higher than in ores.

Decoupling economic growth from resource consumption not only makes economic sense, it is also feasible. Model scenarios for Germany show that a 20 percent increase in energy and materials efficiency in German industry can be achieved in the near term. With normal wage level development, this efficiency increase would be accompanied by the creation of up to 760,000 jobs. The per capita resource consumption of OECD countries cannot be transferred to China and India, and certainly not to the whole world. New, sustainable consumption and production models are a must.

Total domestic waste in Germany remained constant over a long period (1992 to 2001). In the same period, the economy grew by 15 percent. Thus waste generation has clearly been decoupled from economic growth.

Modern waste management has made a spectacular contribution to climate protection: in Germany alone, the waste industry's emissions from plastics producing greenhouse

gases sank over the past 15 years by 30 million tonnes CO₂ equivalent per year. From the entry into force of the Closed Substance Cycle and Waste Management Act in 1996 up to June 2005, there was a gradual move away from the landfilling of untreated organic wastes. The considerable increase in separate collection and recovery, as well as waste avoidance and more efficient waste treatment and disposal methods, enabled fossil energy sources and raw materials to be replaced. These developments count towards climate protection and lead to concrete climate relief, to savings of climate-damaging emissions and reductions in the use of fossil energy sources.

Between 1990 and 2003, greenhouse gas emissions in Germany were reduced by around 18 percent in total (to 1,017 million tonnes CO₂ equivalent). The National Inventory Report credits the waste sector with savings of 20 million tonnes CO₂ equivalent arising from the ban on landfilling alone. Thus the waste industry achieved its expected contribution to the reduction target laid down in the National Climate Protection Programme of 2000. By 2012, further savings of 8.4 million tonnes CO₂ equivalent from the decommissioning of landfills are forecast. The National Climate Protection Programme adopted by the German Government on 13 July 2005 thus attributes a reduction of 28.4 million tonnes CO₂ equivalent to the landfilling sector for the period 1990 to 2012.

The Senior Officials Meeting on the 3R Initiative, which I have the pleasure of opening today, has three objectives:

Firstly: to continue the exchange initiated in Japan on developments in the 3Rs between the participating countries, the European Commission and international organisations. I would like to take this opportunity to point out that, in the framework of the preceding conference, the Japanese Government compiled and published a comprehensive body of information. This offers an excellent overview of the status of the parallel activities at national and international level. The presentations being given today and tomorrow morning will bring this information base up to date.

Secondly: to continue and intensify the discussions on the five fields of action, as laid down in the G8 Action Plan adopted in Sea Island. The Senior Officials Meeting in Japan last year already carried out important preliminary work, especially highlighting the areas where there is a need for discussion. In preparing the programme which you have before you today, we felt it was important to conduct this discussion in four working groups dealing with all the fields of action referred to earlier. Stakeholders participating in the respective actions must also be involved, and I am particularly pleased to welcome our guests, who have agreed to participate in tomorrow's discussions.

Thirdly: to elaborate recommendations for the G8 from the presentations and discussions taking place today and tomorrow. As you can see from the conference documents, the plan of the working group sessions in particular is based on an issue paper. The issue paper provides a specific approach for the possible future development of the five fields of action, and this approach will be up for discussion. Comments we have received so far indicate that many elements of this paper are welcomed in principle, others still need further intensive discussion.

Annex 3 – Additional Documentation

Background of the 3R initiative

At the G8 Summit held at Sea Island, Georgia, USA, in June 2004, Prime Minister of Japan Junichiro Koizumi proposed the 3R Initiative. The Summit adopted the “Science and Technology for Sustainable Development: '3R' Action Plan and Progress on Implementation” as a part of the G8 Action Plan.

The Ministerial Conference on the 3R Initiative was held in Tokyo in April 2005, in order to formally launch the 3R Initiative agreed upon at the G8 Sea Island Summit, with the purpose of the Initiative being to disseminate 3R activities on a global basis. The Ministerial Conference welcomed a proposal by Japan to organize a meeting at the senior official level in Tokyo as a follow-up to the Ministerial Conference.

The announced Senior Officials Meeting was held in Tokyo in March 2006, in order to share knowledge of advanced activities from participating countries, to communicate future directions of activities between participating countries and organizations, and to consider the transboundary movement of 3R-related goods, materials, and products.

The SOM in Tokyo was followed by the here documented Senior Officials Meeting held in Bonn. Apart from further sharing knowledge of advanced activities from again and newly participating countries and international organisations, the purpose of the SOM was to discuss elements of possible future actions by the G8 Countries as proposed in the Issue Paper handed out to the participants of the meeting.

Summaries of Presentations by the Participating Countries and International Organisations¹

Participating countries:

Brazil

Brazil supports the activities and conditions of the Basel convention as an important basis for avoiding hazardous waste movement. The 525 cities are responsible for 80 % of the waste which sets a focus on the urban settlements. A national law for waste management was forwarded to the National Congress in September 2007. It was mentioned that an exchange on clean technology and BAT standards would be most welcome. The concept of producer responsibility is discussed.

¹ Presentations are made available separately.

Canada

In Canada a shared responsibility is implemented between all levels of national, regional and municipal governments. Concern had been expressed by the rise of waste generation at a rate of 3% to 7%. Regional initiatives have been promoted to counteract that constant increase.

Chile

In 2005 a waste program has been established which will lead to a new waste management law. The informal sector is included in this waste program. Complete and harmonized regulations are an objective for the legal framework.

China

China is stated that it is striving for a environmentally friendly society. A new Circular Economy law will be established applying 3R as a basic principle. This goal is part of the 11th 5 year plan and backed up by a strong political will. A underlying policy mix will be used for promoting sustainable consumption and production as a national policy. In this context indicators will be chosen and adapted to the Chinese situation.

France

In 2004 a National Plan on Waste Prevention has been implemented which sets new objectives for reduction (5kg/Inhabitant*year). The current status is 40% landfill, 30% incineration and 30% recycling. A goal is to limit final disposal at a rate of 360 kg/inhabitant*year. Recycling shall be increased to 50%. The instruments for achieving the goals and which are discussed are: taxes, counting the real costs, producers responsibility, handling organic waste. Decisions will be taken at the end of October this year.

Germany

Germany is not focussing on objectives but on instruments. The legal framework for instance is promoting extended producer responsibility but also working with voluntary agreements with industry. No waste-tax is applied in Germany but the real costs have to be known and paid. The landfill ban for untreated waste is in force since 2005 and about 70 incinerators are operating. Waste management shows its possibilities to contribute to the saving of greenhouse gases under the Kyoto protocol.

Indonesia

A national Municipal Solid Waste Management Act had just been established in October 2007. It is base on the 3R National Strategy and the National Action Plan 2008 - 2015. One important aspect is that the import of waste is prohibited. Another focus is to encourage the private sector to increase recycling activities.

Italy

Politics in Italy about waste management is driven by the EU, OECD and recycling conventions. The objectives are along with the EU to recycle 40% in 2007, 50% in 2009 and 60% in 2011. No decoupling of economic growth and waste generation has been achieved so far.

Japan

Large problems in the past had been overcome by reforms in the last decade. The basis is the fundamental plan of the Sound Material Cycle Society. 3 goals in the material management have been taken into focus: to act on the input, recycling and output of materials from society. Japan's strategy for a sustainable society has been established in June 2007. The transboundary movements shall be regulated by regional contracts which focus on recyclable materials. Japan is acting internationally to promote the 3R society.

Mexico

In Mexico the responsibility for municipal solid waste is at the level of the 2.500 municipalities. In 2003 the new waste management law had been adopted by the parliament. A special focus is to include all possible actors involved in the waste management program which contribute to the political consultation. Now federal state laws on MSW management will be promoted. Glass, paper, PET, liquid packaging board are recycled. German and Japanese waste management experts support the activities in Mexico.

Nigeria

Littering in cities was stated as one problem of waste management in Nigeria. A continuing waste program emphasises especially the private-public partnership where the private sector is bringing in 80% of the investments and the public sector 20% for instance as land owner of facilities. Composting is promoted with the participation of farmers. Reporting of hazardous waste is mandatory in industry as part of the implementation of the Basel Convention.

Republic of Korea

The amount of waste for disposal in Korea is constantly decreasing. This is an achievement due to an increased recycling rate which is over 50% for the time being. Now there are activities to promote the real cost which occur in waste management. A legal framework for promoting Green Product Purchasing is on its way and will soon be established.

Russian Federation

Russia has many natural resources. Market mechanisms are applied for the use and the recycling of natural resources. Private Public Partnership is one important aspect in this area. A legal framework for Recoverable Resources has been proposed in 2006 and is currently discussed. The licensing of hazardous waste treatment and disposal is in force.

Singapore

No landfill is available anymore on the main land of Singapore. Therefore activities are promoted like a waste minimization plan and the increase of the recycling rate to over 60%. Singapore has adopted the Green Plan 2012 which includes all activities and goals in this aspect.

South Africa

A Waste Management Bill will be put into force at June 2008 which is currently prepared. Initiatives have been started for priority waste streams like glass, tyres, paper and PET. This is part of the greening initiative 2010 (year of hosting the World Championship of football).

United Kingdom

A national plan on sustainable consumption and production has been set up. Challenging objectives have been formulated to reduce landfilling. Landfill allowance trading is one instrument to achieve these goals. Priority materials have identified like paper, food and garden waste, aluminium and glass which are in a focus for recycling. The Basel convention is regarded as very helpful.

United States of America

USA promotes the ideas of 3R which is interconnected with the concept of sustainable manufacturing and consumption. It is considered that material management is better than waste management. For instance 95% of the electronic goods shall have a green label which is an objective for the green procurement. The US is advocating for a liberalisation of trade of recyclable goods. The idea of remanufactured products is promoted.

Viet Nam

Vietnam is trying to increase the separation of waste in the individual households which is especially important for all electric and electronic devices. Besides that the craft villages are a significant sector which is in the focus of interest. A program for the management of waste in the 1.450 craft villages is set up and 5 challenges have been formulated.

European Commission

The European Commission has issued a thematic strategy on waste management which had been commented by stakeholders and member countries. It is used to prepare a new framework directive. Specific issues like electric devices (WEEE and ROH) and end of life vehicles have been addressed in the past. An action plan on sustainable consumption and production will be set up as part of the strategy for saving natural resources.

Participating organisations

OECD

OECD has expanded the scope of its work with several new projects like to promote integrated approaches to waste and materials management by implementing the corresponding Council Recommendation adopted in 2004. A respective guidance manual is close to being released. One focus is on trade issues, on how to reduce non-tariff barriers to trade in recyclable materials with focus on non-hazardous materials and selected material flows. A scoping paper will be available later this year. A further project dealt with promoting sustainable manufacturing, taking a closer look at technologies and BAT.

Secretariat of the Basel Convention

170 parties have committed themselves to the implementation of the BC and have carried out significant work in order to implement the provisions of the Convention. Since 1999 there has been a move towards more practical approaches like the partnership program under the Basel Convention that aims to bring industry and NGOs more closely into the work of the BC e.g. the partnership program on mobile phones and a new one on end-of- life computers. The 1995 ban amendment is not yet in force but needed as shown from the incident at Ivory Coast.

UNCRD

UNCRD conducted needs assessment missions to ten Asian countries in 2004 to assess the real needs of developing countries in the areas of 3R. . In order to address these needs and priorities UNCRD has initiated several actions to promote 3R which have three pillars (1) to assist developing countries in Asia to develop their national 3R strategies, (2) to build awareness and capacities in 3R in the context of regional development through the training programs of UNCRD, (3) to conduct need based pilot demonstration projects. . In the process of national strategy development the UNCRD puts its importance on the involvement of all the stakeholders.

UN Environmental Program

UNEP was involved with the 3R Initiative from the beginning. UNEP sees a main focus to assist the developing countries in implementing 3Rs, moving from acceptance of the 3R Initiative in principle to action in reality. The main activities encompass to enable policy frameworks on sustainable production and consumption and capacity building and technology support. The experience from projects are summarised into an interactive training package. The key on UNEPs future programs on 3R is to enable local authorities to develop pilot demonstration projects rather than delivering them from outside with external experts.

Asian Development Bank

ADB is working on a 3R Asia report where a preliminary version is available. ADBs overall goal is poverty reduction and ADB believes that the 3R Initiative is a key element to improve resource efficiency to reach this goal. ADB initiated many programs to support developing countries in the sectors of water, energy, urban development, transport and agriculture e.g. a program on energy efficiency and on environmentally sound transport systems. ADB creates a 3R knowledge hub to collect and provide knowledge.

Excursions in more detail

Excursion A: Center for industrial environmental services in Lünen

The center for environmental services of REMONDIS was visited in Lünen. A presentation at the beginning gave an overview of the activities of REMONDIS. The company has an annual turnover of 2.3 Billion Euro with more than 15,000 employees. REMONDIS is active in whole Europe and overseas in Japan, China and Australia.

Lünen is one of the major operation sites of REMONDIS and related companies. Since the 1990ies the company integrated several services at Lünen.

The group had a closer look at the following facilities:

- plastics recycling plant
- electric and electronic device sorting plant
- wood waste sorting plant
- biomass incineration plant
- clay recovery plant

The single plants had been explained in detail and it was communicated which challenges existed to run each of the technologies. Questions were asked about the conditions of the technologies and the operation prices.

Excursion B: Biogas production plant in Mülheim and Paper sorting facility in Cologne

The biogas production plant in Mülheim started up in 2003 and is operated by the MEG Mülheimer Entsorgungsgesellschaft. The plant works with the BTA process®, a wet-mechanical pre-treatment (BTA pulper) followed by anaerobic digestion. With a capacity of 22.000 tonnes annually source separated biowaste from households, commercial organic waste from supermarkets or food processors, liquid materials, restaurant and catering waste, etc. are treated. The delivered solid waste is transferred in to a screw mill for rough chopping of the packed materials, then passes an overhead magnetic separator and is finally fed into two BTA pulpers and mixed with process water. With the specifically developed wet-mechanical pre-treatment in the BTA pulpers a high quality and reliable separation of harmful substances is possible that would otherwise interfere negatively with the following anaerobic digestion step.

The resulting homogenised suspension is fed in to the digester for methanisation over a retention time of about 18 days. The digested residue is sanitised (70°C, 1 hour) to meet legal regulations, dewatered and further aerobically treated in an external composting plant. The resulting compost is certified and marketed. The generated biogas is used in two CHPS with electrical capacity of 622 kW in total. The produced energy is used for the plant itself and the associated Service-Centre, the surplus electricity is sold and fed into the public grid. The BTA (Biotechnische Abfallverwertung) company was founded in 1984. The BTA process® was developed and tested in the mid-80ies and optimised over the following years in a pilot plant near Munich. Meanwhile the BTA process® is patented and severally proven, more than 25 plants have been designed according to the overall BTA process® or with key components from the wet-mechanical pre-treatment worldwide.

The paper sorting facility in Cologne combines two firms on neighbouring sites working in close cooperation, "Bruckmann Entsorgung GmbH" and "Reisswolf Deutschland GmbH". Reisswolf, founded in 1985 as a first European service provider in the area of data security, is represented today in 18 countries with 49 partners. Reisswolf is specialist for a safe and standardised data destruction system. For collection of confidential documents or data carriers Reisswolf offers a pickup and delivery service with special security containers. The collected documents are delivered to hermetically sealed destruction facilities like in Cologne and treated in a multiple-stage shredder under constant external inspections.

The whole process, delivery and destruction, is operated by specially trained employees. The output of the shredder, small sized paper stripes, is directly transferred to the neighbouring Bruckmann facility via air-stream-pipe where the stripes are further mixed due to security reasons, and then pressed and packed for delivery to a paper mill. Bruckmann, founded almost seven decades ago, started paper recycling before the expression even existed.

Nowadays, waste paper is treated using the most modern technologies and in compliance with all safety regulations. The processes and services are in accordance with DIN ISO 9001:2000. The waste paper input mainly derives from the commercial sector and is treated in different processing lines depending on the input quality. Thus also the high quality fraction coming from Reisswolf is treated separately and makes up about 15% of the total amount waste paper treated. The sorted waste paper is finally pressed into bales and sent to paper factories at home and abroad.

Excursion C: Manufacturing facility for recycling technologies in Bad Marienberg

VECOPLAN, founded in 1969, is a successful company in the field of special machine and plant building. The company is working worldwide successfully with more than 350 employees. Vecoplan provides solutions for the treatment of several waste types e.g. waste wood, biomass, municipal waste, industrial waste, waste paper and plastic. All around the world are more than 30.000 systems made by Vecoplan in operation like shredding, separating and recycling technology. The product range comprises systems and processing technologies for the following steps:

- shredding machines: pre-shredder, re-shredder, chipper, hammer mills
- conveying technology: drag chain conveyor, tube conveyor, belt conveyor, vibrating conveyor
- screening technology: drum screen, disc screen, star screen, oscillating screen
- separation technology: air separator, overbelt magnet, permanent magnet
- dosing technology: push rod discharger, conveyor for loading and unloading, drag chain discharger
- storage technology and reception.

The production area in Bad Marienberg is more than 15.000 m² wide and 43 tons of steel are moved and handled on daily base. In the show room new processes developed by our R+D department as well as customer-specific requirements are tested under realistic conditions.

Summaries of Side Event Presentations

Presentation Japan: Outlook for the 3R Initiative

An overview was given on past developments and the current situation in Japan, the Asian region and on global level according to the 3R Initiative. Recyclable resources are moving across borders. Therefore, it is necessary to establish a sound material cycle society across the Asian region through coordination and cooperation between countries. For further steps to promote the 3R Initiative three important principles should be met: (1) placing priority on the improvement of the domestic 3R capacity, (2) simultaneously enhancing and reinforcing the activities to prevent illegal import and export of waste, (3) when the first two aspects are successfully implemented the import and export of circulative resources should be facilitated.

At the St. Petersburg summit in 2006 it was agreed to set targets on resource productivity. Such targets have been already implemented in Japan and in Germany. In Japan a set of indicators with numerical targets to be met until 2010 were set to establish a sound material cycle society.

Three of these indicators have been set as material flow targets e.g. 40% increase in resource productivity and 50% reduction in final disposal amount. Also targets related to stakeholders' efforts are set for promoting each entities efforts which contribute to improvement of material flow targets e.g. 20% reduction of household garbage discharged per day and per capita and doubling market size and employment in material cycle related businesses.

The achievement of the targets is reviewed every year. Currently, Japan will establish a new plan with new numerical targets by March 2008. In order to use makro-indicators for international comparison some adjustments may be needed. However, they will be useful to evaluate the trend of the domestic resource productivity. Furthermore, the introduction of meso- and micro-indicators may be helpful. For the future perspective of the 3R process international cooperation is important as well as domestic efforts to establish material cycle society in each country.

Considering unclear distinction between second hand goods and recyclable resources such as used electronic appliances and used cars it will be also possible to consider the formulation of guidelines to narrow the gap in criteria for regulated materials and goods in each country in cooperation with international organisations. This SOM will be followed by a G8 preparatory meeting which will cover entire G8 issues including climate change as well as the 3Rs, possibly in April 2008. The G8 Environmental Ministers Conference will be held in May 2008. In parallel to the preparatory meeting Japan will organise an Asian dialogue on the 3Rs to incorporate the opinion from developing Asia into the discussions.

Presentation BDE (The Federation of the German Waste Management Industry): Waste management in Germany: Lessons learned -- An outlook for other countries

The BDE is a federation for private waste and water management. Its memberships cover large waste management industries, global players and more than 600 small and medium enterprises. Activities are undertaken on the European (legislative aspects),

federal and regional level. Especially standard regulations throughout the EU 27 Countries are the objective of a level playing field.

One of the key interests of the BDE is the promotion of recovered materials and secondary fuels ("urban mining"). The waste and water management sector in Germany has undergone an immense development in the last years, from just landfilling or incinerating waste to source separation and provision of secondary resources. Germany is believed to have achieved an environmentally sound waste management, but still has to unlock the potentials for resources.

Success stories in Germany are for example the recycling of waste paper and glass, where high recovery rates are achieved and the recycling market is self supporting. The recovery and reuse rate of other materials like metals or plastic also increased. Although, the prices of raw materials augmented distinctly in the past, still the recycling of many materials is only incited by fees and regulations. The hope is to have recycling as a self supporting resource management one day.

Presentation USA: Remanufacturing technologies

The US defines a remanufactured good as a non-agricultural good that is entirely or partially comprised of parts that have been attained from disassembly of used goods and that have been process cleaned, inspected or tested to the extent necessary to ensure the original working condition. The US has long been an advocate of remanufacturing practices primarily due to their economic, environmental and developmental benefits.

By using parts of used goods businesses can save significant amounts on raw materials and natural resources, and consumers can get high quality products at lower prices. Additionally, businesses consume less energy and keep used products save landfills. And since the disassembly of products is a labour intensive process, businesses create more jobs. In order to promote the practice of remanufacturing and the trade of remanufactured products the US has proposed a work program in the WTO council on trade and goods.

In response to several questions, e.g. how the US protects consumers from defective goods, the US has submitted an answers to frequently asked questions brief within the WTO in May 2007. In the US remanufactured products have to meet the same quality standards as new products. In general, remanufacturing provides an as good as new product with the same quality level guaranteed as a new product. Remanufacturing or product recycling is part of each of the 3Rs, and it provides more benefits than reprocessing or material recycling as less natural resources and less energy is needed.

Remanufacturing consists of five processing steps: disassembly, cleaning, testing, reconditioning and reassembly. Up to today there are more than 80.000 remanufacturers worldwide and more than 50 essential product categories. In terms of economic growth remanufacturing offers still two-digit growth rates annually.

Annex 4 – Presentations of Working Group Moderators

Mr. Neil Thornton, Director Head, Sustainable Consumption and Production & Waste Directorate, DEFRA for Working Group I.1: National aspects - Review of the 3R progress, esp. regarding reduction of waste generation:

The first thing I would like to explain is the basis on which we carried out our discussion which we had discussed extensively with colleagues from the German Ministry of Environment first, so I hope that we were working on the right ground. We were endeavouring of course to provide useful input for discussion of the G8 paper tomorrow.

So we were directed to section two point I of the paper for some of the issues that should be addressed. We identified issues that we felt were worthy of discussion and had come up both in the working group discussion this morning but also in the plenary sessions yesterday and earlier this morning. So we didn't restrict ourselves to things that were said in the room. We added things that seemed to us to have grown out of people's presentations yesterday.

We also stressed that it was very important that we had inputs from non G8 members. Although tomorrow's paper is negotiated amongst G8 colleagues, it is about 3Rs and 3Rs encompasses and embraces other nations and it embraces international organisations and the G8's behaviour and attitude and trade and relationships with those countries as important. So everybody views on the paper were important to us.

We found it extremely difficult because our task we were told was to concentrate on reduce rather than just to go around the 3Rs. I have to say despite an extraordinarily incisive and brisk presentation by Heinz Baum beginning with, we found that quite difficult to do. So we did actually really talk about the whole 3R process.

The German Ministry are intending as I understand it to revise the Issues Paper that you have in front of you in a light of the four discussion groups this morning, in the light of written comments that had already reached them from some delegations and in the light of this plenary session. So we can anticipate those of us who are here tomorrow a revised paper which we hope will reflect some other things I and other colleagues will be saying just now.

That's not fair because that's nicked out of my five minutes. Most of those general remarks will apply to the rest of you I think as well.

I have just listed I think it's about nine or ten issues that seemed to us to stand out, needed to be in the paper, most of them we think are but we didn't go through the paper line by line to do the negotiation. First of all, the 3Rs process seems to us all of considerable value as a way of information exchange providing information to each other and opinions to each other about policies that we run in our own countries but which might be applicable to or relevant to the domestic situations of other countries.

So we are not just talking about trade, we are not just talking about international negotiation, we talking about how do we all address the same sets of problems. We all thought it was important that 3Rs process should add value to other international fora not duplicate them that I think is very common ground. In most cases that will mean 3Rs is not a negotiating forum in most cases there are fora where negotiations take

place, the WTO, the OECD, the Basel Convention and so on. But we are capable of giving political guidance in many cases if we are not at least ministers are able to do that. So we think the process will help that. Said by almost everybody in their own ways - I was going to say their own language but unfortunately they will be using my language - everybody agrees that they are due to integrate the life cycle concept with 3Rs some are using circulative language, circular economy, sound material recycling, some others talk about sustainable consumption, production, some others talk about resource efficiency but they are the same senses that you link the whole thing together.

And then to some specifics on instruments, everybody recognized that we needed to be very clear about what our story was on 3Rs. Whether we use the 3Rs terms, some do some do not domestically. We all need to be very clear in our purposes in our resource and waste policies so that our nations, our production sectors and our consumers have common understandings. It was clear that many of us find a value in having some kind of a national statement about these matters. Whether it's a strategy, whether it's a draft law, what it is, almost everybody yesterday was saying we quite recently written or we wrote last week or something, those national statements are valuable in communications at least.

Everybody accepts that 3Rs has to integrate with climate change policies and many people have talked about the climate change benefits of the 3R process and I think there is no doubt about that. But we are also reminded by at least one colleague that we must not loose sight of the other environmental and human health intentions in the 3Rs and waste policies.

Most people were acknowledging that you have to find some way of working with economic realities because you can take a refurbished good to market but you can't make anybody buy it. You can say that you want to use recycled materials but if the price mechanisms don't work then nobody is going to build the products that you need.

That of course is another reason why people are so important because we are saying at least in some countries increasing consumer behaviour which is actually beginning to work with markets. And public information from governments are the role to play there.

There was a light discussion in my group but a longer discussion in the second group on public procurements, so I will not steel the thunder of the next presentation but that was seen as an important issue.

Many said that indicators and targets have been of benefit nationally and are useful to drive behaviours of governments and of economic players.

There was a recognition that it helps if you are using consistent economic indicators and you are using measurement systems that people recognize and there are some methodological issues there. Some of those are now are being addressed in OECD fora more or less as we speak, so the issue for us is not to rethink that but to insure there is political input. And again that is not necessarily talking about target setting at a supranational level, it's about the kind of measurements that we all interested in.

And I think that's covered by the 11th and the 12th point of my presentation so that's all I have to say. Many thanks.

Dr. Magnus Bengtsson, Institute for Global Environmental Strategies (IGES), for Working Group I.2: National aspects - Clean and efficient 3R technologies

The objective of this Working Group was to discuss technologies which save materials and make the recycled materials available for good reuse. This was the objective as indicated in the Issue Paper in section two point IV. The first slide shows a short summary of these issues in the Issue Paper. The text for our Working Group is quite short. Actually only four bullet points we can say and they deal with the following issues: information sharing, R&D promotion, technology transfer and bio-based materials. We had discussions about the first three of these points. There were no comments from the participants on the fourth of these points.

Rapidly summing up what was mentioned in the Working Group, this is a summary which is made completely on my responsibility, it has not at all been negotiated with the participants. So please after we finished the presentations here, I invite the participants to make their comments and their additions to my review of what was discussed in the Group.

It was emphasised on the huge differences we have between the situations of the developed and the developing countries. I mean, it's obvious but still it needs to be repeatedly reminded so we don't lose that perspective that many countries are in the situation that they don't even have the statistics on the amounts of waste and the different kinds of waste. And it's very difficult to set targets and to follow up the effectiveness of their policies. Well, all the countries are in a different situation. So we are working with countries with very different capacity.

The importance of higher education to promote technology development was emphasised also, that this is a way where governments can effectively promote the 3Rs. Also related with the first point here the need for maybe what we can call non-high-tech and situation adapted solutions was recognised. And our participant from UNEP suggested some specific text here and the secretary took notice of that and it will be brought to the meeting tomorrow.

It was also mentioned in the discussions that the market players need clear signals from the governments and they need rules that are stable over time so that they can invest with a reasonably low risk for their investments. If they invest money in resource efficient technology they want to know that the rules will stay the same for some time at least, so they can get return on their investments.

Another area that was indicated where national governments can play a role was the setting of quality standards for recycling materials. Either more actively directly setting those standards or also to work together with the market actors. The market actors themselves they set the standards and the government works more as a guarantor for this system.

And of course the government role for R&D at all stages was emphasised. All the way from the identification of where more technological research is needed to direct the research in the right direction, all the way through the support of innovation systems into demonstration projects and commercialisation. And it was also mentioned here in relation with this point that even if a technology is implemented and widely used maybe in one country it can still be unfamiliar in another country. And it might be a need for demonstration projects to prove that this technology actually works in the context of that country.

Like Neil mentioned in his presentation here before, green procurement is seen as a tool for the government, both to increase the market share for what we can call environmentally adapted products, resource efficient technologies but also to push technology development to actually demand products that are not yet available on the market. This is for two reasons we can say that governments should maybe show that they are good guys and they set a good example and they should also get the good benefits that they promote the technology development and make more efficient technology available.

Finally, there was a discussion about the need for methods to assess the sustainability of emerging technologies, to look at whether these technologies have potential. And in this context was mentioned also the value of including multi-stakeholder in this kind of assessments. And there was a specific suggestion from Japan to include the word assessment in the Issue Paper text in the bullet point two here, which the secretary took note of.

I'd like to finish my presentation there. Thank you very much

Ms. Katharina Kummer-Peiry, Executive Secretary, Secretariat of the Basel Convention/UNEP, for Working Group II.1: International aspects - International flows of 3R-related goods, materials and products

Our Working Group had before it the points that are outlined in the Issue Paper roman IV. And we grouped these points in a way as to put the most emphasise the major part of the discussion focussing on the first one, the first point which was seeking joint solutions to issues concerning the legal distinction between waste and non-waste. That of course is a big issue and quite a lot of the discussion focussed on that. We had as a basis for our discussion a presentation which I thought served as a very good basis from Joachim Wudtke, setting out a number of the key factors and our discussion proceeded on the basis of that.

I would just like to go through a few of the outcomes as I noted them and I ask the same as previous speakers, these are sort of my recollection of what took place and were not negotiated with people who participated in the Working Group. I assume in the following discussion people will have a possibility to correct this if necessary.

So, on the issue of how to distinguish between waste and non-waste I retained the following points that came out. First was, that there was quite a lot of support for using existing work on definitions of waste and products etc. rather than as it was expressed starting from scratch. It was acknowledged that quite a lot of work is out there, has been done, and in the 3R initiative this work should be used and taken advantage of and be build upon rather than starting again. Work that was mentioned in particular was that done by the OECD, the Basel Convention, the European Union and IMO, the International Maritime Organisation, which could be usefully associated or build upon in this context.

The second point that I retained was the issue that before developing definitions or possibly as a basis for developing definitions it would be important to note what the challenges are. So, in other words, what do we actually need these definitions for, what are the problems and start on that basis when working on definitions. And in this con-

text it was also noted that there should be a distinction between domestic and international context as obviously the challenges are quite different if you look at them in a national context than when you look at them in the context of international transfer.

The third point that I retained on that issue was that it would be useful again in developing or working on definitions to work on criteria. And the key notes presentation that we had already outlined a number of criteria that were considered quite useful to work on. Some comments were made on them. The presentation is of course available and I am sure the group tomorrow would if it wished have the opportunity to look at that.

So, here in the development of the criteria it was noted that there might be a need for a case by case basis, that it would not necessarily be possible to just identify general criteria for what is a waste and what isn't, but there would be a need to look at it on a case by case basis. And there was also an input to the fact that remanufacturing practices and processes should also be included in the range of the products, waste or the range of items to be included in the definition and the reason for that probably became a bit clearer to everybody when listening to the presentation that was made just now by the US.

Then we looked at a group of other issues more or less lumped together. Those are, and I would just again like to go through them point by point, the question of respecting and supporting the provisions of the Basel Convention. This is the second point in the list of items that the group was asked to look at. There was quite a lot support for this. Indeed I did not here anybody say that the Basel Convention provision should not be respected and supported.

There was a mention of the ban amendment of the Basel Convention that might be considered as well in this context when looking at respecting and supporting the Basel Convention. There was a mention that the involvement of industry in the Basel Conventions work should be welcomed, that that should be considered a welcome development and supported. And there was a mention made to the problem of enforcing the Basel Convention that should also be looked at. So, when talking about respecting and supporting the Basel Convention provisions the question of how to better enforce those provisions should also be looked at.

The next point was support for preventing illegal traffic. There was no question really about that. That item did receive the support of the group. And then there are two further items that the group more or less looked at together which was promoting the proper management of recyclables and facilitating transboundary movement of recyclables. Of course two separate items but they were pretty much looked at in one. There was support for that but of course with a number of provisos and I would just quickly like to go through these.

One issue that was highlighted was that, yes indeed it is important to promote proper management of recyclables and facilitate transboundary movement but only if such transboundary movements or recycling is done in an environmentally sound manner, so, people felt that it shouldn't just be supported unconditionally but only if this requirement was met. And in that context the question was also raised how do we define environmentally sound management. Do we have sufficient definitions for that or is that also something that would have to be looked at further.

The second issue, still under this issue of recyclables, was that the infrastructure and capacity are available. If this is to be promoted then it should of course be contingent on the fact that the necessary infrastructure is there and the necessary capacity is there. I assume this is in some way linked to the previous point on environmentally sound management. Here also it was mentioned that there is existing work on which the initiative could build and that this should be done. It was mentioned that the existence of markets for recyclables should be considered as one factor. And finally, there was an issue highlighted that if indeed the transboundary movement of recyclables was facilitated this could have an effect of discouraging recycling within the country itself and that that was an item that might be considered as well when looking at the possibility of facilitating and supporting transboundary movement of recyclables.

So, that is as much as I retained from the discussion and as I mentioned I am sure people will be able to enlighten us further on any points that I might have missed out on or not presented accurately. Thank you.

Dr. Andreas Jaron, Division Head, Principle Matters of Waste Management, Federal Ministry for Environment Germany, for Working Group II.2: International aspects - Improvement of standards for the environmentally sound management of waste

Most of the things discussed in our group were already mentioned in the previous presentations. The objective in our Working Group was the transfer of technology and standards. We heard first a very interesting key note speech of Pierre Portas highlighting that the principles and standards in waste management exist. We have them under the Basel Convention and also under the OECD, there is a standard for environmentally sound management.

But the main purpose of the international waste cooperation should be the application of these standards. And that is nothing new but the role of the Basel Convention which is seen as a basis for international waste cooperation and policy can't be doubled by the 3R and the G8 initiative. That's completely clear. There is no doubt that we have to think about the added value of the G8 waste policy. And that if we talk about application of the standards and transfer of know how and technology and other things we have to think about how to organise this, how to cooperate, how we use partnerships, pilot projects, how to strengthen the existing international rules. And the Basel Convention is the forum to do so. The added value of course is that we have in the G8 an economic potential, but also responsible states with the G8. And we have strong and let's say willing partners to work together with in this field in a smaller and let's say stronger cooperation.

If we talk about standards we should not only talk about technology but also about information, services were mentioned, financial instruments and also measures for waste prevention like remanufacturing, refurbishment standards. And there also we can learn from the Basel Convention with their partnership programs on mobile phones where we learned a lot about partnerships and the inclusion of industry and NGOs in our work. E-waste is starting, it was mentioned that the regional centres could play an important role in this strengthening of existing international rules but also in transfer of know how and technology.

We had a short discussion about terminology which is important if we communicate internationally. But also we found the danger which is in a discussion of terminology. We had, I remember 10 or 15 years ago, in the OECD a trial and error process to find a common waste definition which was impossible. We found, I think, 70 different criteria to distinguish waste from non-waste. What we want to solve is not a terminology problem, we want to solve environmental problems, and therefore, we should not go too deep into these questions of terminology. But when we are talking about waste we are talking about possibilities for states to regulate and to control. Therefore, the legal point is not unimportant but there are dangers when we start to discuss this.

At the end we got some valuable input for our Issue Paper. We tried to include all these inputs and I hope that the revised Issue Paper will be distributed tonight or tomorrow morning, I think tonight hopefully, and will reflect all this. Thank you very much.