

**Committee on Trade and Environment Special Session****MARKET ACCESS FOR ENVIRONMENTAL GOODS**The Environmental, Trade and Developmental Benefits of Remediation and  
Clean-up of Soil and WaterNon-Paper by New Zealand**I. INTRODUCTION**

1. This non-paper has been prepared in the context of the Chair of the Committee on Trade and Environment Special Session's request that Members "provide as far as possible a description of the environmental, trade and developmental benefits of the products/systems in question."<sup>1</sup> The paper elaborates on these aspects and notes how improved market access for products that can assist in the remediation and clean-up of soil and water will contribute to achieving improved environment, trade and development outcomes. The paper also responds to the Chair's request that contributions to the technical discussion "indicate products/systems of single environmental-end use". This non-paper is therefore submitted for the purpose of facilitating technical discussions and the attached annex contains all of the items proposed to date by the Membership in the category of remediation and clean-up of soil and water.

**II. CATEGORY DEFINITION**

2. One definition of the category of remediation and clean-up of soil and water that has been used internationally is "any activity that produces equipment or specific materials to reduce the quantity of polluting materials in soil and water, including surface water, groundwater and seawater. It includes absorbents, chemicals and bio-remediators for cleaning-up as well as cleaning up systems either in situ or in appropriate installations."<sup>2</sup> These definitions have already been used internationally to identify specific environmental goods.<sup>3</sup> New Zealand drew extensively on this definition and on the outcome of its application in other negotiations<sup>4</sup> to help inform the preparation of its list of environmental goods.<sup>5</sup>

**III. ENVIRONMENTAL BENEFITS**

3. The environmental benefits of the items proposed to date by the Membership in the remediation and clean-up of soil and water are detailed in the annex to this paper. This annex is based on the Secretariat's Non-Paper.<sup>6</sup> In addition to the environmental benefits, it updates, where possible, the internationally-agreed descriptions for the harmonized system references.

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<sup>1</sup> Committee on Trade and Environment in Special Session (2006) *Convening Fax for Technical Discussion under Paragraph 31 (iii) of the Doha Declaration, 12-14 June 2006*, 22 May 2006.

<sup>2</sup> OECD/Eurostat (1999) *The Environmental Goods and Services Industry: Manual for Data Collection and Analysis*, OECD/Eurostat, Paris.

<sup>3</sup> Many APEC Members, including New Zealand drew extensively on the OECD/Eurostat manual to develop a list of environmental goods as a contribution to the early voluntary sectoral liberalisation initiative.

<sup>4</sup> TN/TE/W/46 of 9 February 2005 refers.

<sup>5</sup> TN/TE/W/49 of 26 May 2005 and TN/TE/W/49/Rev.1 of 12 October refer.

<sup>6</sup> Job(06)162 of 31 May 2006 refers.

#### IV. TRADE BENEFITS

4. The following is data drawn from an updated analysis of the items New Zealand has proposed for the negotiation on environmental goods<sup>7</sup>:

- In 2004, exports of environmental goods on New Zealand's list accounted for 3.6% of total exports from developing countries globally, compared to 4.7% for all countries combined;
- Between 1998 and 2004, the trade in environmental goods on the New Zealand list by OECD members rose at a per annum rate of 0.7%. For developing countries, however, the growth rate was nearly 12% per annum;
- For a large number of developing countries the growth rate in the trade in items on the New Zealand list exceeded an average of 16% per annum and for at least a handful of developing countries the growth rate averaged nearly 40% per annum; and
- Of the items on the New Zealand list which New Zealand currently imports, nearly 45% are already being supplied by developing countries. Projections suggest that, within the decade, more than half and possibly as many as 65% of New Zealand's imports of environmental goods will come from developing countries.

5. In terms of the specific category of remediation and clean-up of soil and water, the data is similarly revealing:

- OECD Member exports in the category are growing at less than 0.5% per annum. Overall developing country exports are growing at over 20% per annum;
- In many of the specific items, developing countries already dominate the trade. They account for more than 80% of the global trade in erosion control matting (HS460120) and more than half of the trade in absorbent articles made of non-wovens in the forms of sheets rolls, pads, pillows sweeps (HS630790); and
- More than half of New Zealand's imports in this category are derived from developing countries. In 2004, for instance, they accounted for nearly 75% of New Zealand imports of other electric space heating and soil heating apparatus (HS 85162909).

6. In short, an examination of the dynamic trends and the static results indicates that developing countries have a significant and fast growing commercial interest in the trade in environmental goods.

#### V. DEVELOPMENTAL BENEFITS

7. Internationally, Governments have established a wide range of targets that are relevant to the category of remediation and clean-up of soil and water. Many of these have already been identified in earlier technical submissions.<sup>8</sup> Perhaps the most directly relevant international target in terms of the soil-related products listed in the annex is that contained in paragraph 38 (d) of the World Summit on Sustainable Development (WSSD) Plan of Implementation (2002). This urges, inter alia the

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<sup>7</sup> This data updates the information provided in TN/TE/W/49/Suppl.1 of 16 June 2005.

<sup>8</sup> See in particular JOB(06)/140 of 8 May 2006.

promotion of programmes and activities that would “enhance in a sustainable manner the productivity of land”.<sup>9</sup>

8. The *water-related environmental goods* listed in the annex contribute to an even broader range of targets many of which have also already been identified in an earlier contribution to these negotiations.<sup>10</sup> Perhaps the most significant, however, is that outlined in paragraph 7 (a) of the *WSSD Plan of Implementation*. This seeks to halve, by 2015, the proportion of people without access to safe drinking water.

9. The development-related benefits of the items listed in the annex include the contribution they make towards:

- sustainable use of soil and water;
- improved quality of life with provision of basic human needs such as water;
- reductions in preventable disease and death from inadequate drinking water supply and poor water quality;
- healthier environments for people, reducing illness allowing reallocation of medical resources to other priorities;
- enhanced and expanded use of land for agriculture and forestry providing additional income earning opportunities and resulting in more and healthier food;
- management of water supplies for human needs and ecosystem functions;
- clean up and management of contaminated sites; and
- clean-up and management of oil-spills.

## VI. SINGLE ENVIRONMENTAL END-USE ITEMS

10. In most of the categories proposed for the current negotiations, there are generally less than a handful of products which could be defined by the narrower criteria of what some Members describe as “single environmental end-use items”. It is also worth noting that, based on recent technical exchanges, there are a range of views on how precisely this particular criteria can be applied. The exchanges to date have underlined the point therefore that this range of perspectives means that it may not be possible to secure a consensus on which items might readily be identified on this basis.

11. In the case of the category of remediation and clean-up of soil and water, this situation is particularly acute. It is difficult to identify any items that would secure a consensus as to whether they fall into the highly contested single environmental end-use grouping. What *is* known about the category is that *all* of the products that have been listed in the annex are currently being used for soil and water-remediation. These products have clear and measurable positive effects on the environment and on development. They are also products of commercial trading interest to the wider Membership and many of these items have already been identified as environmental goods in other international processes.

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<sup>9</sup>The WSSD Plan of Implementation may be accessed at:  
[www.johannesburgsummit.org/html/documents/summit\\_docs/2309\\_planfinal.htm](http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.htm)

<sup>10</sup> JOB(06)/140 of 8 May 2006.

12. In this context, products with dual or multiple uses that have environmental benefits are an intrinsic part of the environmental goods negotiation. They have a critical role to play in measuring, preventing, limiting, minimising or correcting environmental damage to water, air and soil as well as problems related to waste, noise and eco-systems. Many environment-related activities such as those related to the remediation and clean-up of soil and water simply cannot be undertaken without access to dual or multiple use products.

13. New Zealand considers therefore that a practical approach is required. Dual or multiple-use items should be included if these negotiations are intended to ensure that Members can adequately deal with the range of environmental and development-related issues many are grappling with both domestically and internationally. Further, a broad scope is necessary to ensure that the economic benefits of liberalising trade in environmental products will be as widespread as possible. In this regard, New Zealand's analysis of the Secretariat's Synthesis Document<sup>11</sup> suggests that with two exceptions, developing country Members do not have commercial interests in any of the very small number of what some Members have in previous discussions described as items which may fall into the "single environmental end-use" category. The main beneficiaries of such an approach are likely to be four, possibly five, major OECD economies and two developing country Members.

14. In sum, in order to maximise the environmental, trade and developmental benefits from these negotiations products that have direct environmental benefits should be liberalised. As indicated above, these products are so critical to securing important environment and development outcomes that excluding them from the negotiation would sharply reduce the sustainable development outcomes expected from this negotiation. For this reason, New Zealand considers it more appropriate to utilise a broader conceptualisation that tests the environmental credentials of products. Specifically, this would be to assess whether the product has a 'direct environmental benefit'.<sup>12</sup> Applying this test would mean that it is possible to argue that many of the items falling into the scrap and waste materials category proposed by New Zealand<sup>13</sup> may not necessarily meet the 'direct environmental benefit' criteria. On the other hand, as the annex to this paper indicates, the items identified in the category of remediation and clean-up of soil and water would meet this standard.

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<sup>11</sup> TN/TE/W/63 of 17 Nov. 2005.

<sup>12</sup> TN/TE/W/64 of 20 February 2006 refers.

<sup>13</sup> For instance, items 60-63 in TN/TE/W/63 of 17 Nov. 2005.

ANNEX

LIST OF PRODUCTS FOR THE REMEDIATION AND CLEAN UP OF SOIL AND WATER

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEP <sup>14</sup>	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
7.	251200	Siliceous fossil meals (for example, kieselguhr, tripolite and diatomite) and similar siliceous earths, whether or not calcined, of an apparent specific gravity of 1 or less	Siliceous granules that facilitate growth of bio-organisms	X	A type of growth medium for bio-organisms used for bioremediation (the use of plants, fungi, bacteria or other micro-organisms to break down or remove pollutants).	OECD	New Zealand
43.	300290	Human blood; animal blood prepared for therapeutic, prophylactic or diagnostic uses; antisera and other blood fractions and modified immunological products, whether or not obtained by means of biotechnological processes; vaccines, toxins, cultures of microorganisms (excluding yeasts) and similar products; - Other cultures of micro-organisms (excluding yeasts) and similar products	Micro-organism cultures for bio-remediation, water treatment	X	Bioremediation is the use of plants, fungi, bacteria or other micro-organisms to break down or remove pollutants (hydrocarbons, pesticides etc).	OECD	New Zealand
48.	340219	Organic surface active agents, whether or not put up for retail sale: Other than Anionic, Cationic or Non-ionic	Oil spill dispersant chemicals	X	Chemicals (mixtures of surfactants and solvents) that convert oil on sea/water surface into small droplets that disperse in the water column to low concentration, reducing the impact on wildlife and speeding up natural decomposition processes.	OECD	New Zealand
49.	340290	Surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 34.01; Biodegradable surface-active preparations for emulsifying hydrocarbons in water or soil.		X	Used to solubilise pollutants in petroleum hydrocarbons so they can be degraded by microbial cells		European Communities
51.	350790	Enzymes; prepared enzymes not elsewhere specified or included: Other than rennet and concentrates thereof - Cultures of micro-organisms and enzymes for soil remediation		X	Bio-remediation. Also used for the biological treatment of wastewater		European Communities

<sup>14</sup> Direct Environmental Benefit

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEB <sup>1</sup>	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
57.	382490	Products, preparations and residual products of the chemical or allied industries, incl. those consisting of mixtures of natural products, not elsewhere specified (excl. binders for foundry moulds and cores; naphthenic acids, their water-insoluble salts and their esters; non-agglomerated metal carbides mixed together or with metallic binders; prepared additives for cements, mortars and concretes; non-refractory mortars and concretes; sorbitol; mixtures containing perhalogenated derivatives of acyclic hydrocarbons containing two or more different halogens)	Oil spill dispersant chemicals	X	Chemicals (mixtures of surfactants and solvents) that convert oil on sea/water surface into small droplets that disperse in the water column to low concentration, reducing the impact on wildlife and speeding up natural decomposition processes.	OECD	New Zealand
67.	3920	Other plates, sheets, film, foil and strip, of plastics, non-cellular and not reinforced, laminated, supported or similarly combined with other materials: -Plastic or paper sheeting for water and heat saving.		X	Plastic sheets for agriculture and horticulture, laid on the ground to retain the sun's heat, saving water and fertilisers and reducing infiltration into the groundwater.		European Communities
68.	392010	Other plates, sheets, film, foil and strip, of polymers of ethylene, non-cellular and not reinforced, laminated, supported or similarly combined with other materials: -Plastic geomembranes for soil protection, watertightness, anti-erosion of soil.		X	E.g. PVC or polyethylene plastic membrane systems to provide an impermeable base for landfill sites and protect soil under gas stations, oil refineries, etc. from infiltration by pollutants. Reinforcement of soil.		European Communities
70.	392043	Other plates, sheets, film, foil and strip, of polymers of vinyl chloride, non-cellular and not reinforced, laminated, supported or similarly combined with other materials: Containing by weight not less than 6 % of plasticisers: Plastic geomembranes for soil protection, watertightness, anti-erosion of soil.		X	E.g. PVC or polyethylene plastic membrane systems to provide an impermeable base for landfill sites and protect soil under gas stations, oil refineries, etc. from infiltration by pollutants. Reinforcement of soil.		European Communities
71.	392049	Other plates, sheets, film, foil and strip, of polymers of vinyl chloride, non-cellular and not reinforced, laminated, supported or similarly combined with other materials: Containing by weight less than 6 % of plasticisers: Plastic geomembranes for soil protection, watertightness, anti-erosion of soil.		X	E.g. PVC or polyethylene plastic membrane systems to provide an impermeable base for landfill sites and protect soil under gas stations, oil refineries, etc. from infiltration by pollutants. Reinforcement of soil.		European Communities

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEBT	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
73.	392112	Other plates, sheets, film, foil and strip, of plastics: Cellular: Of polymers of vinyl chloride: Plastic geomembranes for soil protection, watertightness, anti-erosion of soil.		X	E.g. PVC or polyethylene plastic membrane systems to provide an impermeable base for landfill sites and protect soil under gas stations, oil refineries, etc. from infiltration by pollutants. Reinforcement of soil.		European Communities
77.	392510	Reservoirs, tanks, vats and similar containers, of a capacity exceeding 300 l Flexible tanks for the storage of recovered oil or chemicals.		X	Used to store oil recovered from polluted water		European Communities
78.	392690 (Other)	Other articles of plastics and articles of other materials of headings 39.01 to 39.14; -Other	Pollution protection booms, oil containment booms, oil absorbent booms.	X	Assists in the prevention of costly maintenance and additional pollution problems associated with floating debris.		European Communities
90.	460120	Erosion control matting, biodegradable		X	Erosion control matting can reduce erosion and assist the establishment of vegetation. When made of organic materials such as jute, wood, coir (coconut husk), straw, the matting is biodegradable. Ground covers can be used for environmentally friendly weed control.		European Communities
99.	482370	Moulded or pressed articles of paper pulp: Oil absorbent materials and kits of recycled paper and wood fibres, including in compressed format.		X	Additional source of fibre for papermakers, reducing deforestation.		European Communities
115.	5603	Non wovens, whether or not impregnated, coated, covered or laminated: Absorbent articles made of non-wovens, in the forms of sheets, rolls, pads, pillows, sweeps.		X	Absorption and containment of oils spills		European Communities
116.	560314	Non wovens, whether or not impregnated coated, covered or laminated: Of man-made filaments: weighing more than 150g/m <sup>2</sup> : Pollution protection booms, oil containment booms, oil absorbent booms.		X	See entry 78.		European Communities
125.	6210	Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07: Personal protective clothing and accessories (clothing, gloves, boots, helmets)		X	Protects workers using equipment for remediation and clean up of soil.		European Communities

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEB <sup>2</sup>	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
127.	630710	Floor-cloths, dish-cloths, dusters and similar cleaning cloths: Absorbent articles made of non-wovens, in the forms of sheets, rolls, pads, pillows, sweeps.		X	See entry 115.		European Communities
128.	630790	Other made up articles, including dress patterns: Other: - Absorbent articles made of non-wovens, in the forms of sheets, rolls, pads, pillows, sweeps.		X	See entry 115.		European Communities
156.	701990	Glass fibres (including glass wool) and articles thereof (for example, yarn, woven fabrics): - Personal protective clothing and accessories (clothing, gloves, boots, helmets)		X	See entry 125.		European Communities
246.	8418	Refrigerators, freezers and other refrigerating or freezing equipment, electric or other; heat pumps other than air conditioning machines of heading No. 84.15	Ion refrigerators able to dispose of germs	X	To be used for hygienic purposes.		Japan
255.	8421.19.00	Oil skimmer, and parts thereof.		X	Removes oil from water. Skimmed oil can be recycled and used as lubricant or fuel.		European Communities
259.	8421.39.09 (other)	Filtering or purifying machinery and apparatus for gases; other	Soil vapour treatment system (oil-water separator)	X	For the removal of volatile and semi-volatile organic compounds.		Chinese Taipei
260.	8421.91.00	Oil skimmer, and parts thereof.		X	Tool for removing oil, grease and other hydrocarbons from water. See entry 255.		European Communities
291.	8479.89.00	Machines and mechanical appliances having individual functions, not specified or included elsewhere in this Chapter: Other: -Equipment and apparatus for cleaning or stabilizing the soil -Soil sampling equipment		X	Stripping, oil-water separator, catalytic oxidisers, ultrafiltration apparatus, bio-remediation equipment, soil stabilization and solidification equipment, etc.  Including entire oil recovery systems and harvesters that have the ability to move on land and on water.		European Communities

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEB <sup>14</sup>	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
327.	8516.29.09	Other electric space heating and soil heating apparatus; other.		X	Use heat to disinfect or remove organic compounds (e.g. pesticides, hydrocarbons) from soil, and to dry contaminated soil prior to treatment processes.	OECD	New Zealand
346	8543.89.90 (other)	Electrical machines and apparatus, having individual functions, not specified or included elsewhere in this chapter; other	Ozone production system  Ultraviolet water disinfection/treatment systems	X	Ozone (O <sub>3</sub> ) can be used as an alternative to chlorine for water disinfection.  UV light is extremely effective in killing and eliminating bacteria, yeasts, viruses, moulds and other harmful organisms. UV systems can be used in conjunction with sediment and carbon filters to create pure drinking water.		Korea
82.	8907.10.00	Inflatable rafts	Inflatable oil spill recovery barges Inflatable rafts (specifically inflatable oil spill recovery barges) Inflatable oil spill recovery barges	X	Floating barriers to oil can prevent an oil slick from reaching sensitive locations or spreading out further.	APEC APEC	New Zealand United States
383.	8907.90.00	Inflatable oil spill recovery barges and tanks  Other floating structures Other floating structures; other Floating structure except inflatable rafts	Pollution protection booms, oil absorbent booms  Pollution protection booms Floating structure except inflatable rafts (specifically pollution protection booms)	X	Floating barriers to oil can prevent an oil slick from reaching sensitive locations or spreading out further. Oil absorbents soak up and remove the oil.		Canada New Zealand Korea Japan Chinese Taipei
386	901320	Lasers, other than laser diodes	Pollution protection booms, oil containment booms, oil absorbent booms.			APEC	United States European Communities Korea

ENTRY	HS	MEMBER'S DESCRIPTION	EX-OUT / ADDITIONAL PRODUCT SPECIFICATION	DEP <sub>1</sub>	REMARKS / ENVIRONMENTAL BENEFIT	OTHER LISTS	MEMBER
404.	9027	Parts, instruments and apparatus measure/check variables liquids/gas.		X	Analysis of hydrocarbons and heavy metals in the soil		European Communities
418.	903010	Instruments and apparatus for measuring or detecting ionising radiations and radioactivity and parts thereof		X	Equipment used in the measurement, recording, analysis and assessment of environmental samples or environmental impact		European Communities
424.	9030.90.00	Instruments and apparatus for measuring or detecting ionising radiations and radioactivity and parts thereof		X	See entry 418.		European Communities