Annex II

Inclusion of new activities relating to the environmentally sound management of nanotechnologies and manufactured nanomaterials and hazardous substances within the life-cycle of electrical and electronic products in the Global Plan of Action of the Strategic Approach

In accordance with the agreed procedure[a] for the addition of new activities to the Global Plan of Action of the Strategic Approach, the following activities relating to environmentally sound management of nanotechnologies and manufactured nanomaterials and hazardous substances within the life-cycle of electrical and electronic products are included in the Global Plan of Action.

Appendix 1 below provides a summary of new work areas and activities relating to environmentally sound management of nanotechnologies and manufactured nanomaterials. Appendix 2 below provides a summary of new work areas and activities relating to hazardous substances within the life-cycle of electrical and electronic products. The two appendices will be included as appendix 1 and appendix 2 to table B of the Global Plan of Action.

The tables in appendices 1 and 2 list the work areas together with possible activities, indicators of progress and implementation aspects, in separate sections corresponding to the relevant categories of objectives listed in paragraph 2 of the executive summary of the Global Programme of Action. Although each work area is listed under a single principal category in the summary table A of the Global Programme of Action, it may appear under several objectives in the detailed tables below. The columns dealing with suggested actors, targets and timeframes, indicators of progress and implementation aspects were not fully discussed and sufficient time was not available to achieve agreement on them during the third session of the Conference. Stakeholders, however, might find them useful in their implementation of the relevant activities. A table listing acronyms and abbreviations used in the tables is set out in appendix 3 below.

---

[a] SAICM/ICCM.2/15, annex II.

Appendix 1

Appendix 1 to table B of the Global Plan of Action

Work activities relating to nanotechnologies and manufactured nanomaterials[a]

WORK AREAS ADDRESSING RISK REDUCTION (OBJECTIVE 1)					
Work areas	**Activities**	**Actors**	**Targets/Time frames**	**Indicators of progress**	**Implementation aspects**
Nanotechnologies and manufactured nanomaterials	1. Contribute to the development, promotion and adoption of internationally recognized technical guidelines and harmonized standards relating to manufactured nanomaterials.	National Governments, intergovernmental and international organizations, industry, NGOs, IOMC, OECD, ISO	2012–2017	Development of internationally recognized guidelines and standards Increased awareness and use of these guidelines and standards	
	2. Develop approaches to protect workers, the public and the environment from potential harm related to manufactured nanomaterials.	National Governments, intergovernmental and international organizations, industry, NGOs, workers organizations	2012–2018	Development of relevant policy, law and regulatory frameworks Development of best working practices	
	3. Increase the active involvement of the health sector in order to enhance understanding of possible short-term to long-term occupational health impacts of manufactured nanomaterials.	IOMC (WHO, ILO, OECD), national Governments, industry NGOs and other interested stakeholders	2012–2020	WHO/ILO project to identify, treat and track diseases potentially caused by occupational exposure to manufactured nanomaterials Number of work-related diseases	Biomonitoring and health surveillance of workers Collaboration of the health sector with worker protection authorities and industry Implementation of preventive interventions, when necessary

WORK AREAS ADDRESSING KNOWLEDGE AND INFORMATION (OBJECTIVE 2)					
Work areas	**Activities**	**Actors**	**Targets/Time frames**	**Indicators of progress**	**Implementation aspects**
Nanotechnologies and manufactured nanomaterials	4. Increase understanding of the environmental, public and occupational health and safety implications, including risk assessment, of manufactured nanomaterials through coordination, support and/or funding for scientifically sound research.	National Governments, intergovernmental and international organizations, industry, academia, NGOs and other interested groups	2012–	Number of publicly available peer reviewed research papers on hazards and risks Funding for public research on nanomaterials Number of funding opportunities available to promote nanomaterial research	Funding Publications
	5. Enhance information and knowledge sharing on manufactured nanomaterials regarding international, national and regional policy and regulatory initiatives.	National Governments, intergovernmental and international organizations, industry, NGOs, academia	2012–	Stakeholder access to information on hazards and risks of nanomaterials Number of national and regional workshops on nanomaterials	Awareness raising Capacity-building
	6. Highlighting possible synergies with activities undertaken under activity 210 of the Global Plan of Action, explore the development of registers/inventories and/or market assessment activities relating to manufactured nanomaterials.	National Governments, intergovernmental and international organizations, industry, NGOs, academia, other interested groups	2012–2018	Number of national or regional inventories developed	Establishment of inventories or registries Legislation
	7. Promote the availability of information on the presence of manufactured nanomaterials within the product supply and use chain and throughout product life cycles, which could include possible labelling, consistent with relevant international obligations, and/or other forms of guidance relating to consumer products containing manufactured nanomaterials.	National Governments, intergovernmental and international organizations, industry, NGOs	2012–2018	Number of products labelled	Legislation Voluntary schemes

WORK AREAS ADDRESSING GOVERNANCE (OBJECTIVE 3)					
Work areas	**Activities**	**Actors**	**Targets/Time frames**	**Indicators of progress**	**Implementation aspects**
	8. Review the applicability of the GHS criteria for manufactured nanomaterials as well as how information on safe use should be included in MSDS.	Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System on Classification and Labelling of Chemicals	2012–2015	Incorporation of criteria for manufactured nanomaterials into GHS Relevant information about nanomaterials included in MSDS	Revision of "Purple Book"
	9. Promote public awareness-raising activities on manufactured nanomaterials in all regions.	National Governments, international organizations, NGOs, industry, trade unions, chambers of commerce	2012–2015		
Nanotechnologies and manufactured nanomaterials	10. Promote the development of country-specific approaches, incorporating life cycle thinking, to nanomaterials in existing national frameworks, policies, regulatory provisions, best practice guidelines and chemical management programmes.	National Governments, intergovernmental and international organizations, industry, NGOs	2012–2018	Number of chemicals management programmes covering nanomaterials Reports on regulatory and institutional gaps Regulatory provisions covering nanomaterials	
	11. Promote producer responsibility for providing appropriate guidance on safe use of manufactured nanomaterials throughout the supply chain, including the waste stage.	National Governments, intergovernmental and international organizations, industry, NGOs	2012–	Relevant legislation or/and best practices Number of countries that have extended producer responsibility (EPR) schemes in place (voluntary or mandatory) Number of manufacturers applying EPR schemes	Development of pilot projects for the sustainable management of waste containing nanomaterials
	12. Promote coordinated international, regional and national policy strategies regarding the opportunities and risks of nanotechnology and manufactured nanomaterials.	National Governments, intergovernmental and international organizations, industry, NGOs	2012–	Number of national policy and institutional coordination plans in place	Involvement of all stakeholders and use of internationally developed and accepted guidelines

WORK AREAS COVERING CAPACITY-BUILDING AND TECHNICAL COOPERATION (OBJECTIVE 4)					
Work areas	**Activities**	**Actors**	**Targets/Time frames**	**Indicators of progress**	**Implementation aspects**
Nanotechnologies and manufactured nanomaterials	13. Promote public and private sectors partnerships for the environmentally sound management of manufactured nanomaterials to assist countries, in particular developing countries, small island developing States and countries with economies in transition, to build scientific, technical, and legal capacity.	National Governments, intergovernmental and international organizations, industry, NGOs, academia	2012–2015	Number of public/private partnerships signed	

[a] The columns dealing with suggested actors, targets and time frames, indicators of progress and implementation aspects were not fully discussed and sufficient time was not available to achieve agreement on them during the third session of the Conference.

Appendix 2

Appendix 2 to table B of the Global Plan of Action

Work activities relating to hazardous substances within the life-cycle of electrical and electronic products[a]

Work areas	Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects
E-products green design	1. Compile and communicate lists of chemicals of concern to human health and/or the environment in e-products.	National and regional authorities, Stockholm Convention, Basel and Stockholm convention regional centres, SAICM secretariat, industry, NGOs, PACE, StEP, UNIDO, academic and research institutions	2012–2015	Database and information freely available on hazards and risks of hazardous chemicals in e-products	IOMC coordination Creation of coordination committees at the national level and networks (global, regional and national) involving all key stakeholders
	2. Promote public and private partnerships, including on product stewardship approaches and extended producer responsibility, for the environmentally sound management of hazardous substances in e-products during production, use and at the end of life.	National and regional authorities, industry, NGOs, Basel Convention, Stockholm Convention, SAICM secretariat, Basel and Stockholm convention regional centres, PACE, StEP, UNIDO, academic and research institutions	2012–2015	Number of partnerships established Number of partnership projects undertaken	Establishment or use of existing private-public partnership initiatives and global, regional and national networks involving all key stakeholders

Work areas	Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects
	3. Assess and fill gaps in existing policies and legal and institutional frameworks addressing design of e products as applicable.	National and regional authorities, NGOs, Basel Convention regional centres, Stockholm Convention, UNIDO, academic and research institutions	2012–2015	Reports on regulatory and institutional gaps in green e-product design Number of countries and regional authorities with relevant policies, laws, regulations and guidelines Relative reduction in toxic chemicals in e-products	Inter-agency and multi-stakeholder committees created
	4. Encourage approaches to green design of e-products by quantifying materials that they could recover and identifying the tools and best practices that advance design for hazardous chemical reduction, elimination and substitution. Work with retailers to raise the range of sustainable products available for consumers.	National and regional authorities, industry, NGOs, StEP, UNIDO, UNEP/IETC, Stockholm Convention, academic and research institutions	2012–2015	Number of green design tools identified Best practices guidance developed	National, regional and global coordination Partnerships in cooperation with industry
	5. Adopt policy instruments taking into account the need to ensure that they addresses the hazard and actions that support hazardous chemical reduction, elimination and substitution in electrical and electronic products. When doing so, consider the work of standardization bodies on the definition of threshold values for the maximum content of hazardous substances in products and measurement methods.	National and regional authorities, industry, NGOs, academic and research institutions	2012–2015	Number of instruments and policy actions adopted and implemented Hazardous chemicals in electrical and electronic products regulated Disclosure of hazardous chemical ingredients across supply chain Green electrical and electronic product procurement initiatives undertaken	Global, regional and national coordination
Environmentally sound manufacturing of e-products	6. Promote sustainable production and pollution prevention and encourage sustainable consumption of e-products.	National and regional authorities, industry, NGOs, UNIDO, UNEP/DTIE, UNITAR, Stockholm	2012–2015	Pollution prevention tools in place Level of compliance with international best practices achieved	Infrastructure Technical capacity

Work areas	Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects
		Convention, Basel Convention regional centres, cleaner production centres		Awareness-raising materials available Pollution monitoring schemes in place	
	7. Prioritize the reduction of exposure; eliminate or substitute hazardous substances of concern[b] in e-products and their production processes; and promote procurement processes that include this objective.	National and regional authorities, industry, NGOs, UNIDO, WHO, ILO, UNITAR, StEP, UNEP/DTIE, Stockholm Convention	2012–2015	Number of effective substitutes and alternatives produced Improvement of the health status of workers and local communities through the use of alternatives and substitutes	
	8. Conduct research and development on safer chemicals substitutes, alternatives and safer production processes for e-products.	National and regional authorities, industry, NGOs, UNIDO, UNITAR, Basel Convention regional centres, UNEP/DTIE, Stockholm Convention, World Bank, academic and research institutions	2012–2015	Number of research outputs Number of research successes achieved Development of safer substitutes and safer production processes	Provision of research and capacity-building assistance, including training and methodologies
	9. Formulate, promote and implement health-based exposure limits for workers handling e-products that provide equal protection in the workplace and the community.	National and regional authorities, industry, NGOs, ILO, WHO, UNIDO, UNITAR, ISO, academic and research institutions, and the World Bank	2012–2015	Number of policies, laws and regulations developed and enforced Number of illegal traffic shipments returned to their countries of origin	Multi-stakeholder participation Coordination of existing initiatives on the control of transboundary movement of e-waste and illegal shipment
	10. Identify opportunities to support the work of the Basel Convention and the Stockholm Convention in developing policies on the environmentally sound management of e-waste and the control of transboundary movements of hazardous waste.				

Work areas	Activities	Actors	Targets/Time frames	Indicators of progress	Implementation aspects
	11. Establish voluntary approaches and use of economic instruments, other incentives and extended producer responsibility, as appropriate, and e-products take-back schemes building on existing national and international activities.	National and regional authorities, industry, NGOs, consumer associations	2012–2015	Number of take-back schemes implemented Extent of infrastructure development promoting the use of economic instruments	
	12. Conduct pilot projects that lead to financially self-sustaining initiatives on socially, economically and environmentally sound management of e-waste without duplicating activities, including activities under the Stockholm Convention and the Basel Convention.	National and regional authorities, UNIDO, SAICM secretariat, Stockholm Convention, Basel Convention, PACE, StEP, Basel and Stockholm convention regional centres, industry, academic and research institutions	2012–2015	Number of informal sector persons successfully trained in environmentally sound management of waste, sustainable collection and dismantling of end-of-life e-products and control of illegal traffic Number of pilot projects undertaken Number of project reports completed	
Awareness-raising for e-products	13. Promote awareness, information, education and communication for all relevant stakeholders along the supply chain of hazardous chemicals within the life-cycle of e-products.	National and regional authorities, UNIDO, UNEP, SAICM Secretariat, UNITAR, UNESCO, Stockholm Convention, Basel Convention, PACE, StEP, Basel and Stockholm convention regional centres, industry, academic institutions, NGOs	2012-2015	Level of awareness among stakeholders increased. Amount of information, education and communication materials produced.	

[a] The columns dealing with suggested actors, targets and timeframes, indicators of progress and implementation aspects were not fully discussed and sufficient time was not available to achieve agreement on them during the third session of the Conference.

[b] Substances of concern include those that are persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, among other things, the reproductive, endocrine, immune or nervous systems; persistent organic pollutants (POPs); mercury and other chemicals of global concern; chemicals produced or used in high volumes; those subject to wide dispersive uses; and other chemicals of concern at the national level.

Appendix 3

List of abbreviations

Basel Convention	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
ILO	International Labour Organization
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
ISO	International Organization for Standardization
MSDS	Material Safety Data Sheets
NGOs	Non-governmental organizations
OECD	Organization for Economic Cooperation and Development
PACE	Partnership for Action on Computing Equipment
Rotterdam Convention	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
SAICM	Strategic Approach to International Chemicals Management
StEP	Solving the e-Waste Problem
Stockholm Convention	Stockholm Convention on Persistent Organic Pollutants
UNEP	United Nations Environment Programme
UNEP/IETC	United Nations Environment Programme/International Environmental Technology Centre
UNEP/DTIE	United Nations Environment Programme / Division of Technology, Industry and Economics
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization