



## ***Policies and Efforts to Reduce the Persistent Organic Pollutants***

**4 JUNE 2005**

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## ***Chemical Contamination of Humans***

***\*WWW-UK National Biomonitoring Survey 2003***

- Blood samples from 155 volunteers around 13 EU countries to find for 78 chemicals –12 organochlorine pesticides, 45 PCB congeners and 21 PBDE flame retardants
- Found 70 chemicals(90%) of 78 chemicals
- The highest number of chemicals in any one person – 49
- The most frequently detected chemicals – PCB congeners 99, 118 and DDT metabolite p', p-DDE which were detected in all volunteers but one



## ***POPs – Persistent Organic Pollutants***

***POPs are organochlorine compounds of concern to the international community because they are :***

- Highly toxic to humans and environment
- Persistent in the environment, resisting biodegradation
- Taken up and bioaccumulated in soil and aquatic ecosystems
- Capable of long-range transboundary atmospheric transport and deposition
- Affecting plant and animal development and causing reduced reproductive success and birth defects



## ***SOURCES of POPs***

***Intentionally developed and used in wide range of products***

- pesticides, insecticides, insulating oil in industrial machinery

***Unintentionally generated in the processes involving combustion or chlorine***

- Waste incinerators
- Thermal processes in the metallurgical industry
- Chemical manufacture, production of pulp and textile dyeing using or generating chlorine



## ***POPs – ‘The Dirty Dozen’***

### ***Organochlorine Pesticides***

- Aldin, Chlordane, DDT, Dieldrin, Endrin, Heptachlor, HCB, Mirex, Toxaphene

### ***Industrial Chemicals***

- Polychlorinated biphenyls(PCBs), HCB

### ***Industrial By-products***

- Dioxins, Furans, HCB, PCBs



## ***Stockholm Convention on POPs***

### ***Legally binding instrument(LBI) for international cooperation to control POPs***

- 1997, Decision of preparing an international LBI
- 1998–2000, Meeting of intergovernmental negotiating committee(INC) held 5 times to make a draft Convention
- 22 May 2001, Adoption of final Convention and opening for signature
- 17 May 2004, Entering into force of the Convention
- 2–6 May 2005, The 1<sup>st</sup> conference of parties held in Uruguay



## ***Activities to Comply with the Convention***

### ***Measures to reduce or eliminate releases from intentional production and use of POPs***

- Prohibition of production and use of the pesticides and industrial chemicals included in the Stockholm Convention
  - \* Relevant Act : 'Hazardous Chemicals Management Act', 'Pesticides Management Act'
- Preparing for legislation of the 'Special Act for reducing and regulating POPs emission from Industry' by 2006



## ***Activities to Comply with the Convention***

### ***Measures to reduce releases from unintentional production of POPs(UPOPs)***

- Regulation of dioxin emission from the waste incinerators
- Monitoring UPOPs emission from the Industries
- Establishing the National Inventory of UPOPs emission amount on the basis of nationwide monitoring
- Establishing the legal guideline for UPOPs emission from the industrial facilities



## ***Legal Guideline for Dioxin Emission from Waste Incinerators***

(ng-TEQ/Nm<sup>3</sup>)

<b>Capacity of Incineration</b>	<b>New facilities</b>	<b>Existing facilities</b>	
Household wastes (>2ton/hr)	0.1	-	0.1 (After June '03)
Other wastes		(By Dec '05)	(After Jan'06)
> 4ton/hr	0.1	20	1
2 – 4ton/hr	1	40	5
0.025 – 2ton/hr	5	40	10



## ***Activities to Comply with the Convention***

### ***Elimination of the use of PCBs***

#### ***Legal Regulation***

- Prohibition of the production of PCBs and chemical compounds containing PCBs more than 0.005%
- Prohibition of the use of electric equipments containing PCBs compounds

#### ***Voluntary Agreement***

- Among the government, electric companies and NGOs to eliminate PCBs containing electric equipments by 2015



## ***Activities to Comply with the Convention***

### ***Preparing the National Implementation Plan***

- Evaluating the POPs situation
- Establishing POPs inventories
- Priority setting to address the most urgent problems
- Building a national coordination mechanism for the implementation of the Convention
- Action planning to meet the Convention obligations
- Involving key stakeholders in the country
- Rasing awareness and information exchange