

**Side event - Regional Chemicals Management and Metal
Recycling , 7 May 2015**

UNEP/DTIE: Chemicals Management and Resource Efficiency



UNEP, Division of Technology, Industry and Economics
Geneva (Chemicals Branch) and Paris (International Resource Panel)

Content

- Activities coordinated by UNEP
Chemicals
- Information from UNEP/IRP



By Chemicals Branch

- Jinhui LI, Director SCRCAP , nominated by the Asia-Pacific Group to serve on the Advisory Committee of the PCB Elimination Network;
- Developed '**PCB Inventory Guidance**';
- Developed a '**Factsheet on Information Requirements**'



Established and manages the regional information exchange platform '**PCB Elimination Action in Asia-Pacific**' (<http://pcbs.bcrc.cn>)

The documents are available at:
<http://chm.pops.int/Implementation/PCBs/DocumentsPublications/tabid/665/Default.aspx>



Beijing, Sep 2012



Combined Meeting of the Advisory Committee of the Polychlorinated Biphenyls Elimination Network (Fourth Meeting) and of the Core Teams of the Thematic
7-8 September 2012 Beijing, China

PEN Advisory Committee meetings



Geneva, 2014



Chemicals management

Projects related to new POPs:

1. Under implementation (2014-2015):
“Capacity-Building for Environmentally Sound Management (ESM) of Polybrominated Diphenyl Ethers (PBDEs) and Their Waste in Selected Asia-Pacific Countries” through the China Trust Fund;
2. Under review by the GEF Secretariat:
“Sub-regional Action Plan (Asia) for PBDE Management and Reduction”.



Key Messages of IRP Metal Work (1)

- Global demand increase: Copper and aluminum doubled over last two decades; even stronger demand for specialty metals that is vital to innovative and green technologies, *e.g.*, indium from 1200 tons (2010) to 2600 tons (2020);
- Recycling rate low: only 18 metals, like iron/steel, palladium and platinum, above 50% ; many metals show rates below 25%; most of specialty metals even below 1% ;
- Metal environment impact could be improved in four areas: (i) local impacts of mining; (ii) life cycle energy use, (iii) emissions from non-metal sources, and (iv) final sink and disposal;

Key Messages of IRP Metal Work (2)

- Improved recycling of metals requires moving away from a **material-centric** (MMC) to a **product-centric** approach; depends on mobilization of various actors in the value chain, e.g., operators in primary production of metals/ metal-containing products to recycling and collection industry to consumers;
- Weight-based targets for recycling hinder rather than promote recycling of many critical elements in complex products (usually present in very low concentrations);
- Priorities have to be set for different metals, such as base metals, special metals, critical-technology metals, *etc.* Policies should neither exceed what is physically and thermodynamically possible, nor prioritize one or two metals at the inadvertent expense of other metals found in the input stream.

Recycling

1 H																	2 He				
3 Li	4 Be															5 B	6 C	7 N	8 O	9 F	10 Ne
11 Na	12 Mg															13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr				
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe				
55 Cs	56 Ba	*	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn				
87 Fr	88 Ra	**	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Uub	113 Uut	114 Uuq	115 Uup	116 Uuh	(117) (Uus)	118 Uuo				

* Lanthanides	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
** Actinides	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

<1%
 1-10%
 >10-25%
 >25-50%
 >50%

***Thank you very much for your
attention***

UNEP Division of Technology, Industry and Economics

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