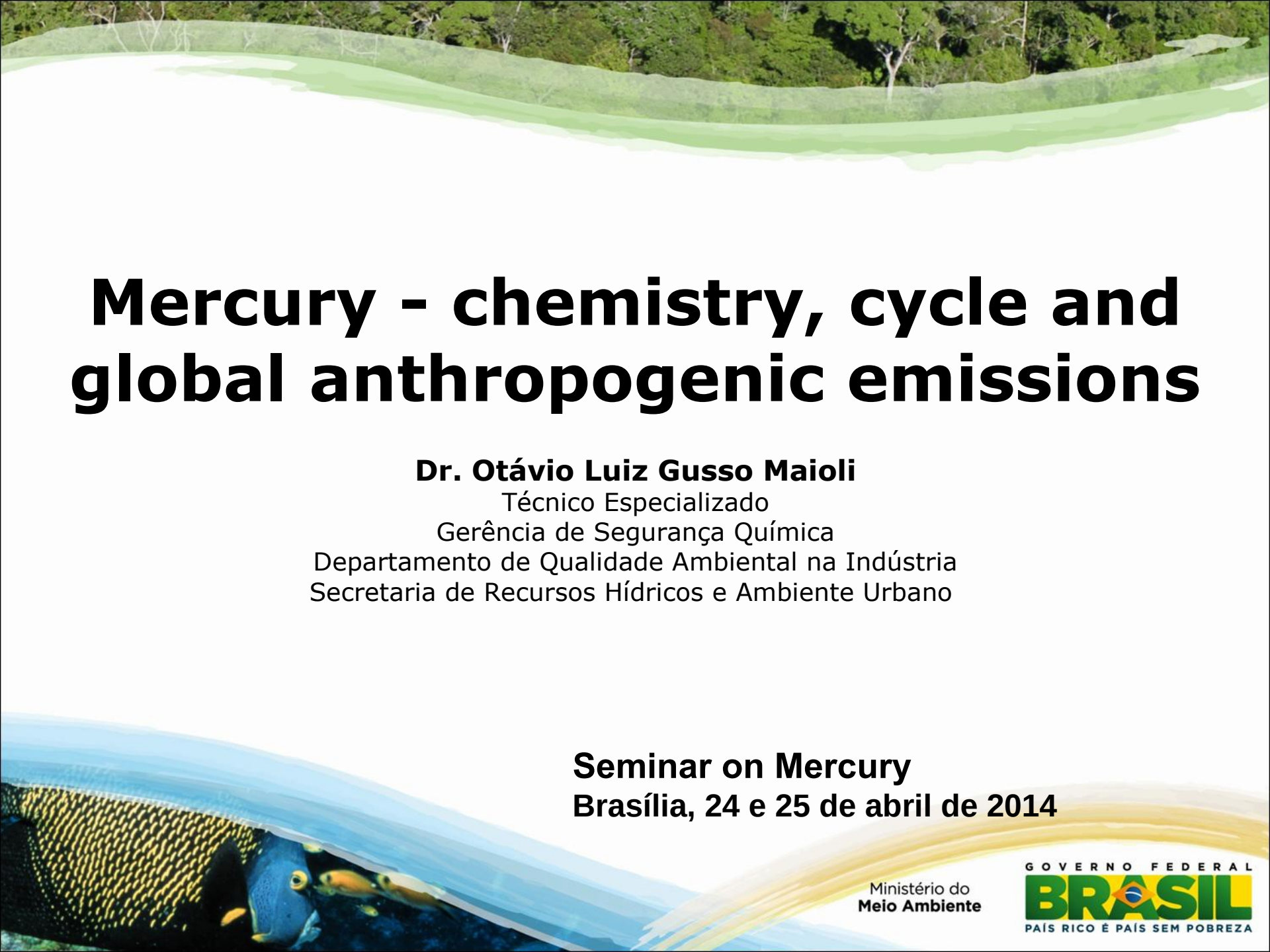




Mercury - chemistry, cycle and global anthropogenic emissions

Dr. Otávio Luiz Gusso Maioli

Técnico Especializado

Gerência de Segurança Química

Departamento de Qualidade Ambiental na Indústria

Secretaria de Recursos Hídricos e Ambiente Urbano

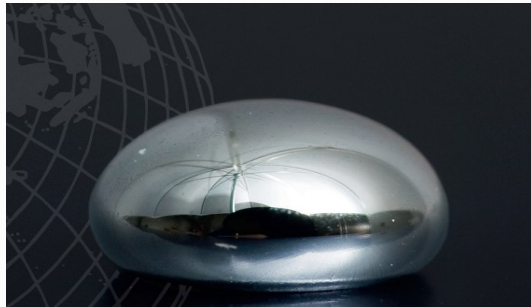
Seminar on Mercury

Brasília, 24 e 25 de abril de 2014

Ministério do
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Mercury



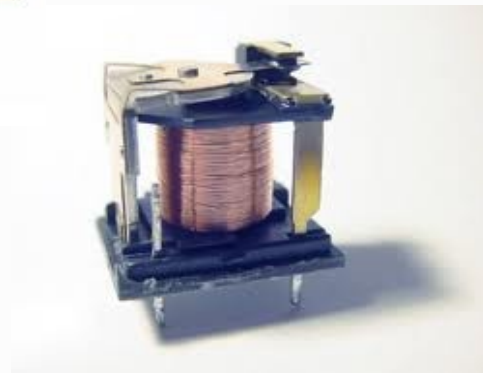
Abundância (mg/kg)	8.5 x 10 ⁻²	Número Atômico	80	Ponto de Fusão (°C)	-39
Estado de oxidação	+1 +2		Hg	Ponto de Ebulição (°C)	357
Configuração Eletrônica	[Xe] 4f ¹⁴ 5d ¹⁰ 6s ²		200.59 (2)	Densidade (g/cm ³)	13.55
				Símbolo	
				Massa Atômica	



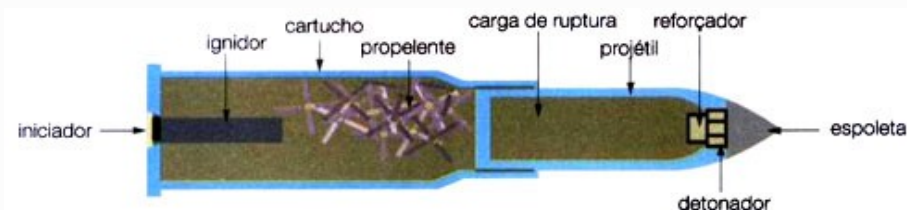
The history



Mercury uses – Mercury-added products



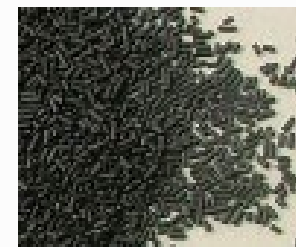
Aplicações do mercúrio – produtos



$\text{Hg}(\text{ONC})_2$



Mercury uses – Industrial process



Mercury uses – Artisanal and small-scale gold mining



Natural mercury emissions



Mercury emissions and releases



Mercury emissions and releases



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Mercury emissions and releases



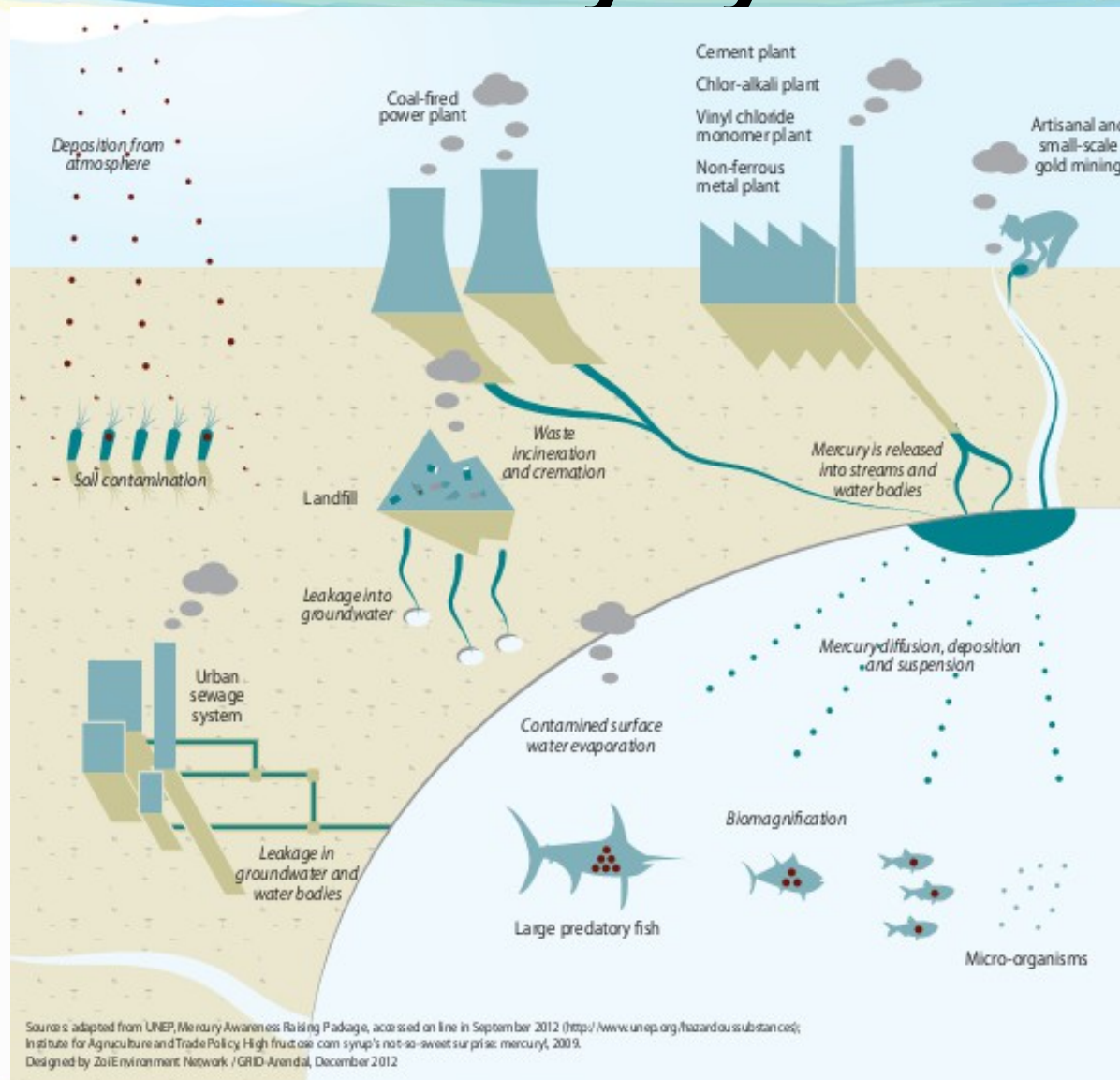
PHOTO CREDIT: GILBERT W. ARIAS/SEATTLE POST-INTELLIGENCER



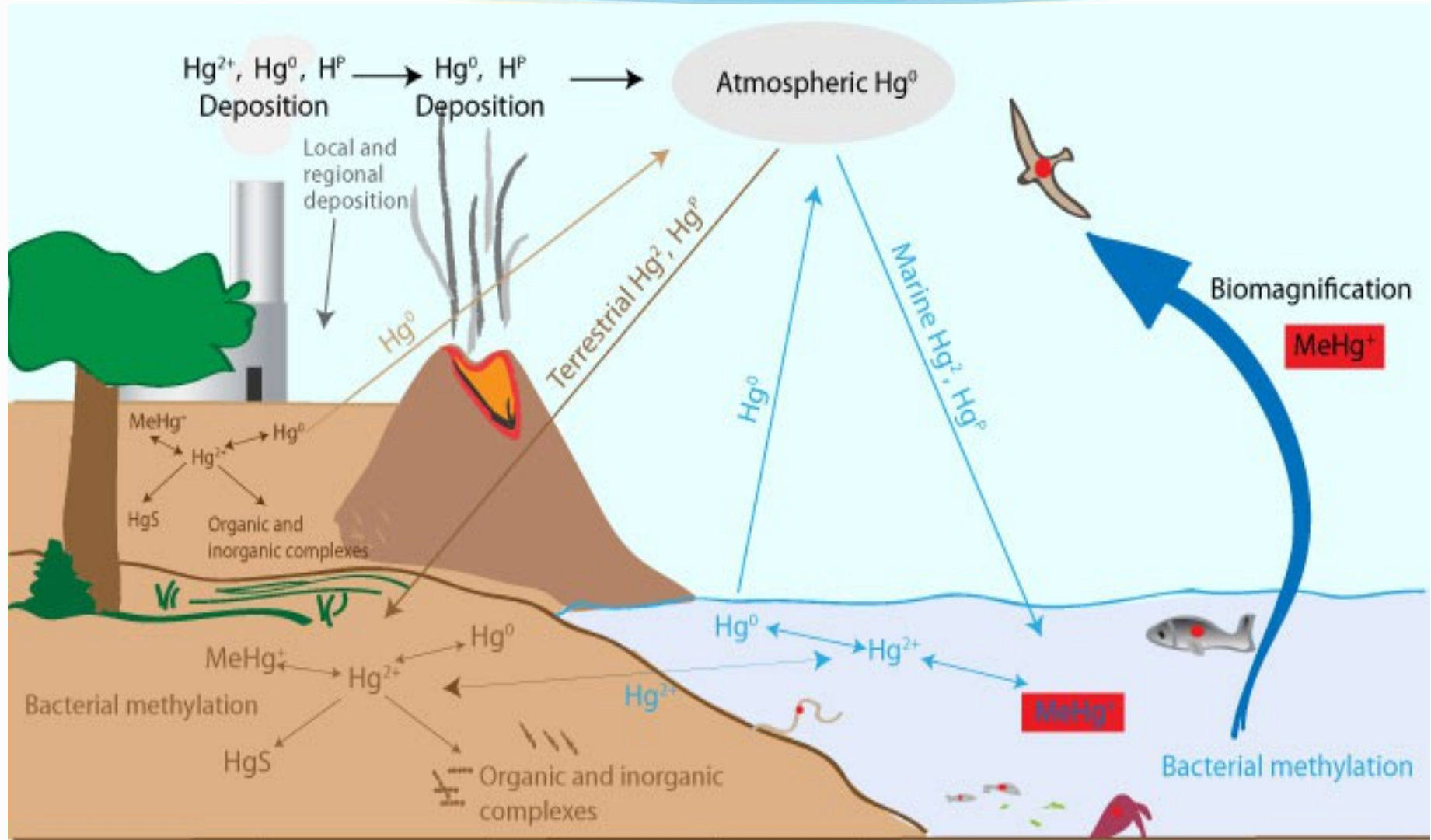
Mercury emissions and releases



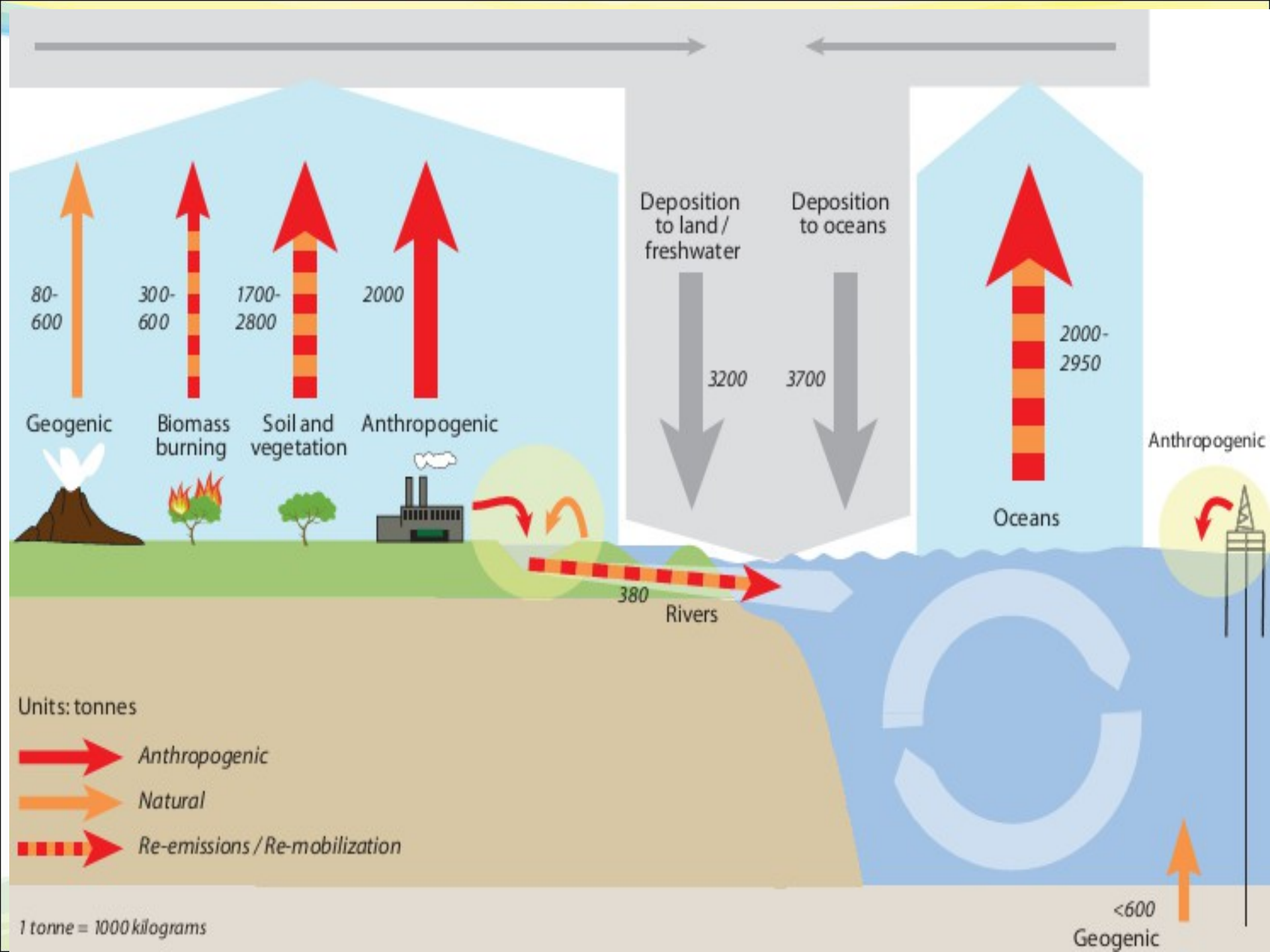
Mercury cycle



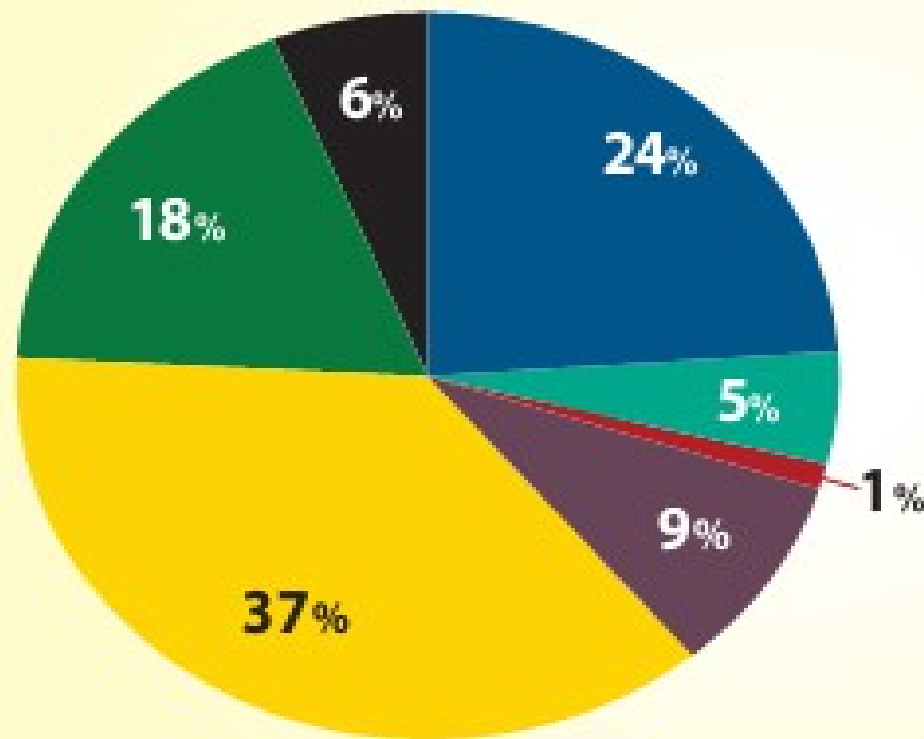
Mercury cycle



Elemental Mercury - Hg^0 | Reactive Mercury - Hg^{2+} | Particulate Mercury - Hg^p | Cinnabar - HgS | Methylmercury - MeHg | Methylmercury Accumulation - ●

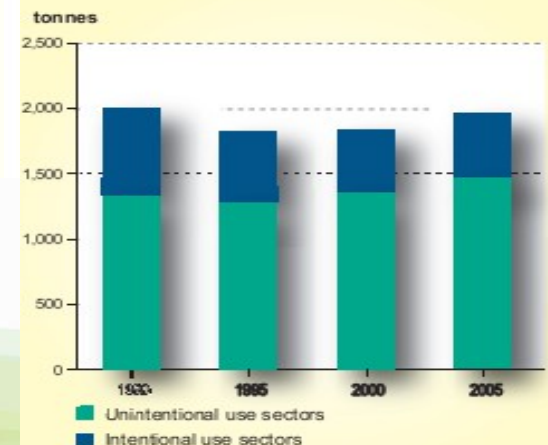


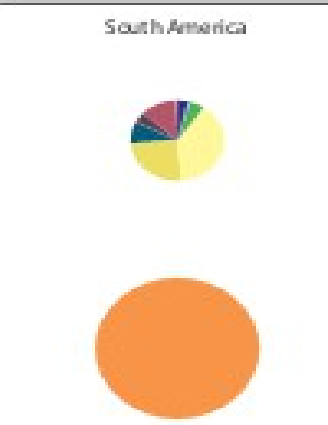
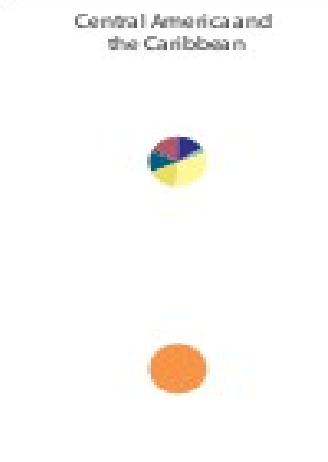
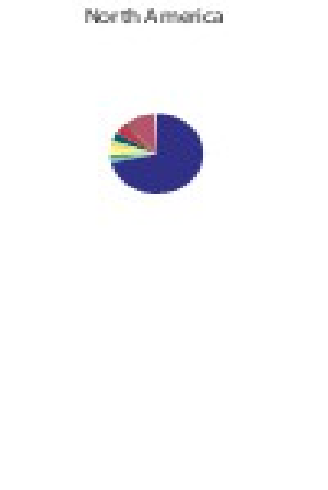
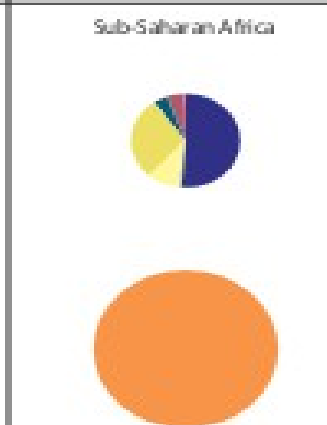
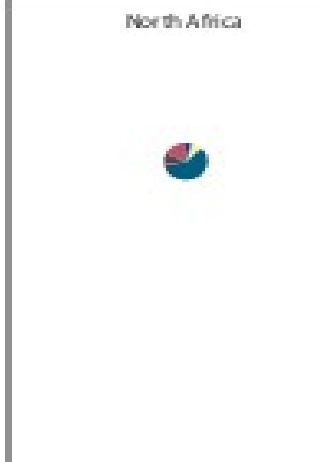
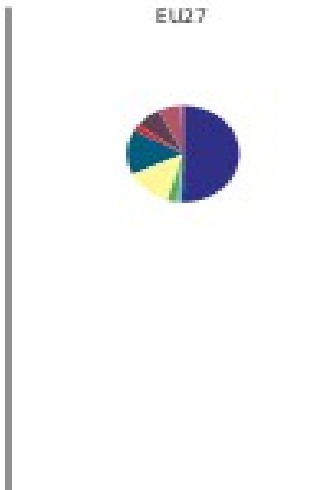
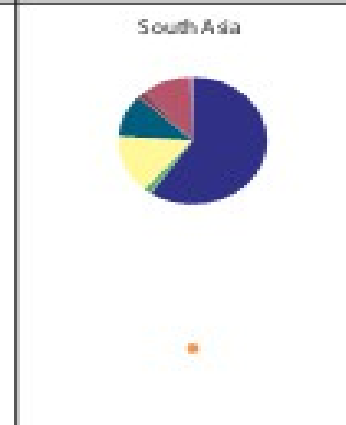
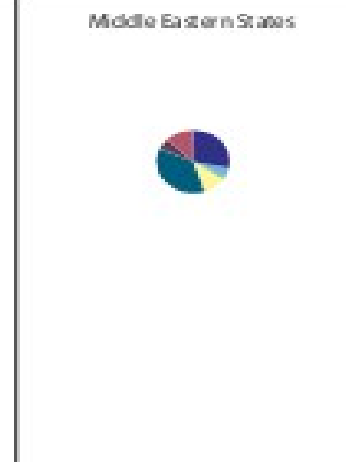
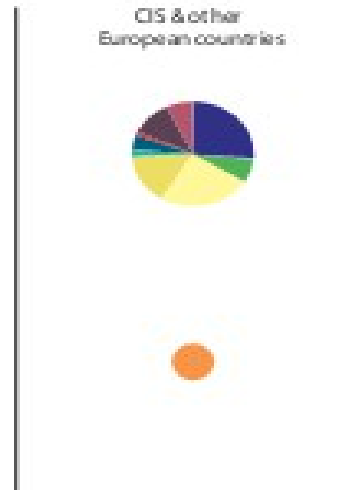
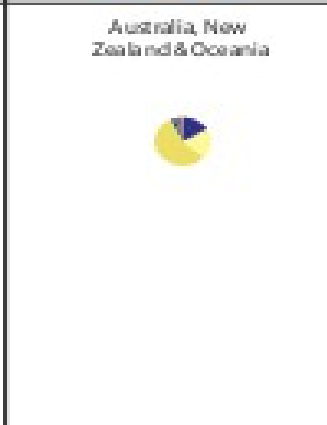
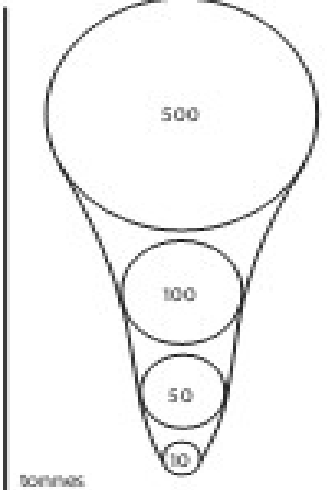
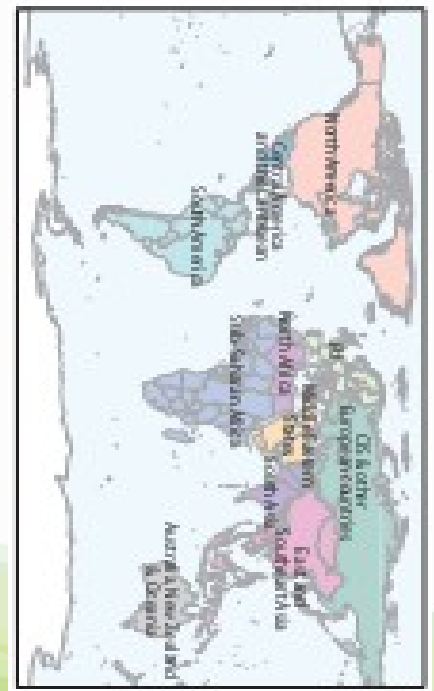
Global anthropogenic mercury emissions in 2010



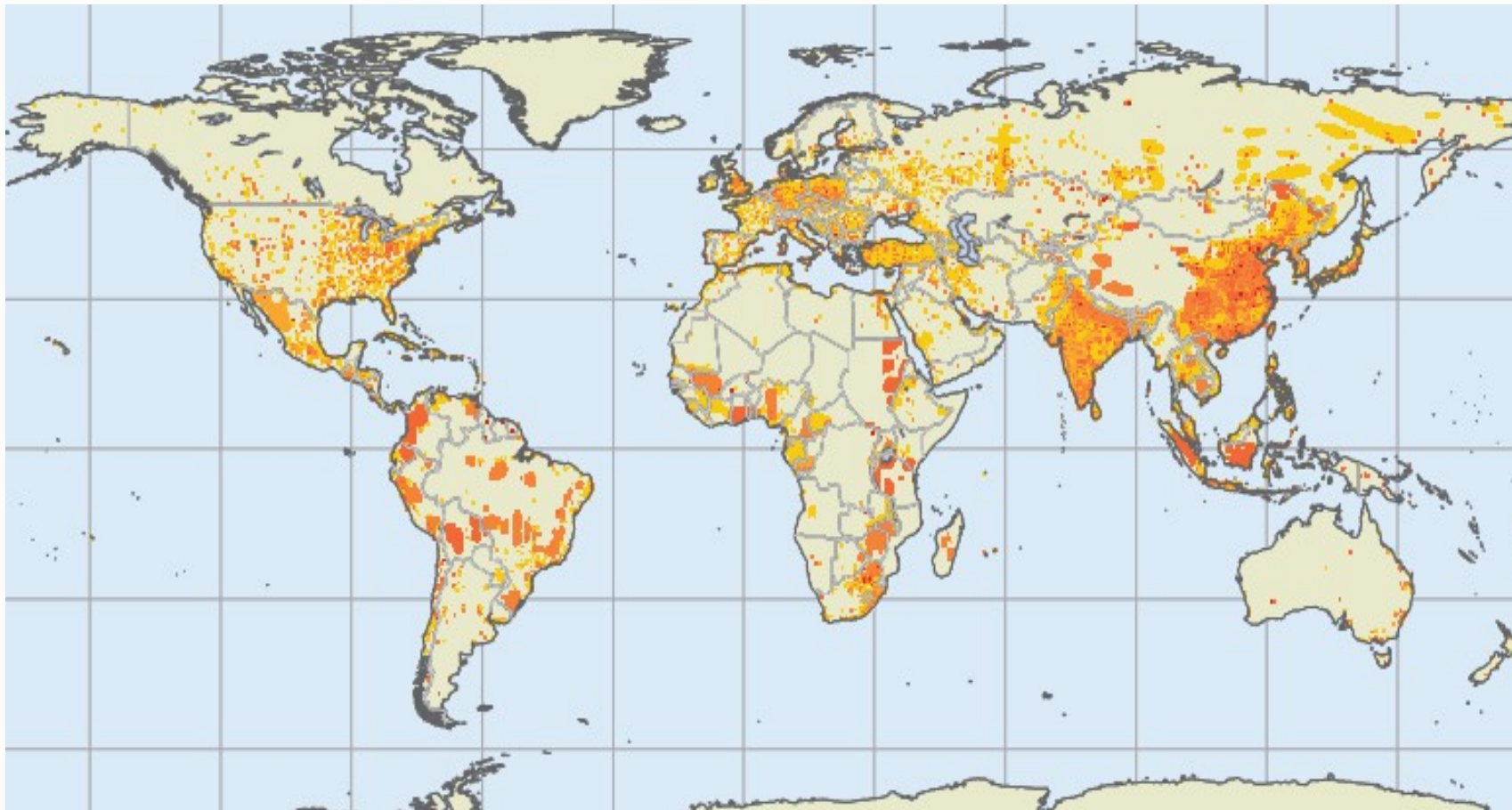
Source: Adapted from UNEP, Global Mercury Assessment 2013: Sources, Emissions, Releases and Environmental Transport, 2013.
Designed by Zoi Environment Network / GRID-Arendal, December 2012.

Emissions to air

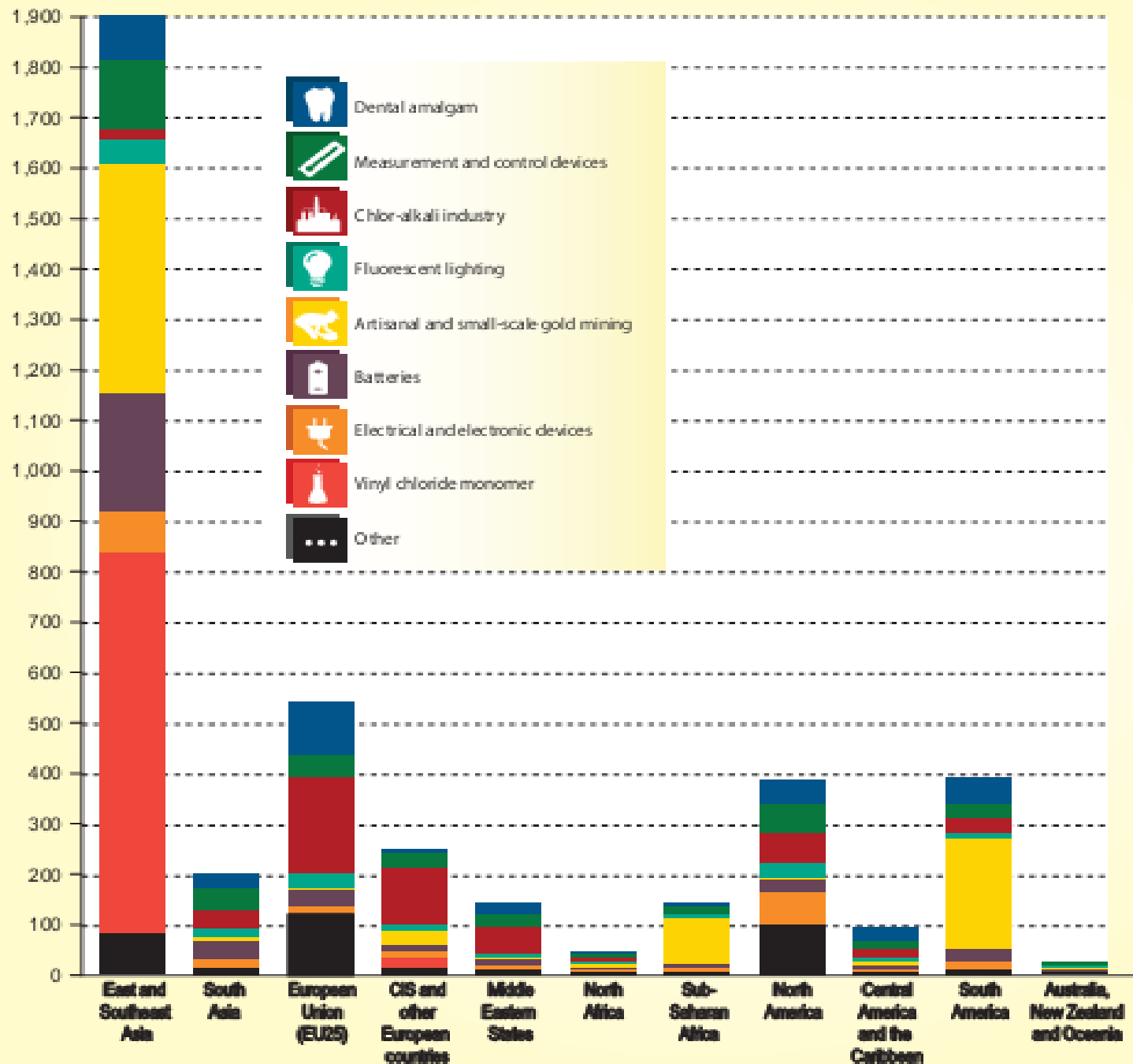




Distribuição global das emissões de mercúrio em 2010



Mercury consumption (tonnes)



Source: Adapted from UNEP, Global Mercury Assessment, 2013: Sources, Emissions, Releases and Environmental Transport, 2013.
 Designed by Zoë Environmental Network / GRID-Arendal, December 2012.



Thank you for your attention!

Dr. Otávio Luiz Gusso Maioli

otavio.maioli@mma.gov.br

(61) 2028-2354