

GEF-funded UN Environment project on

# Global Monitoring of Mercury

GEF-funded project "Development of a Plan for Global Monitoring of Human Exposure to and Environmental Concentrations of Mercury"

## Outcomes and Lessons Learnt

**Objectives** To harmonize approaches and strengthen capacity for the accurate monitoring of mercury concentration in humans and the environment at global level

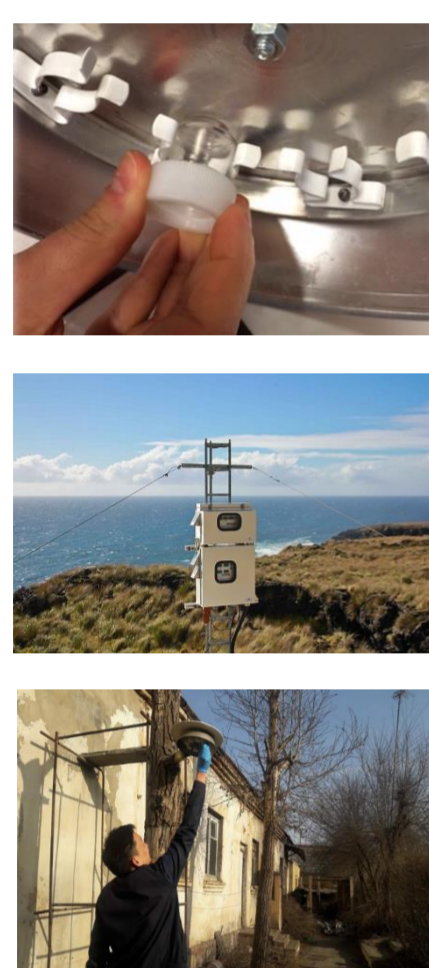
**Partners**



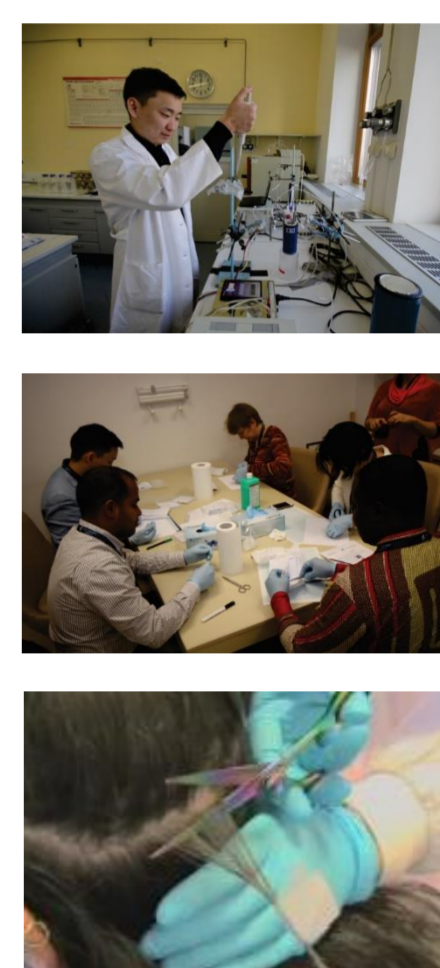
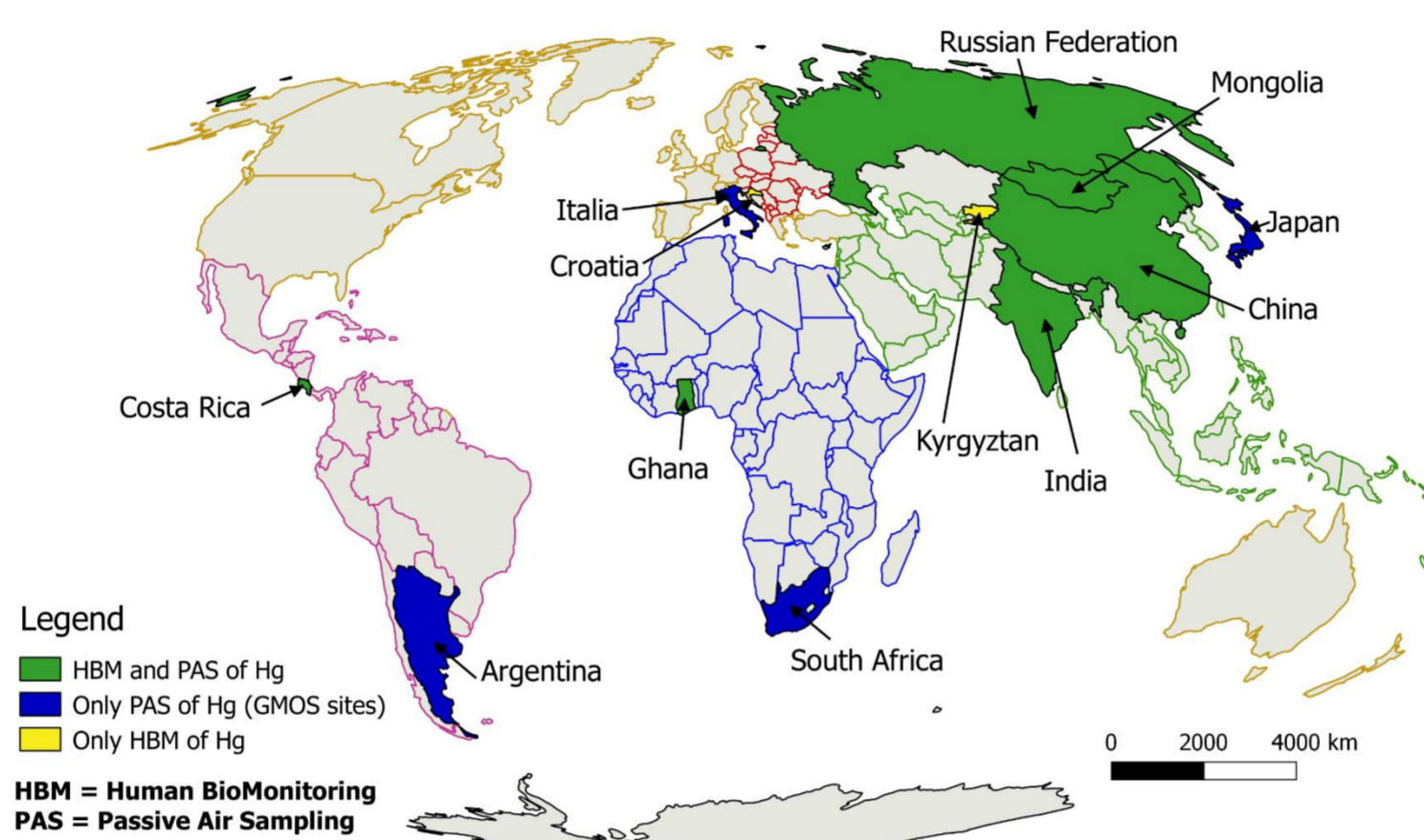
World Health Organization European Centre for Environment and Health

Italian National Research Council - Institute of Atmospheric Pollution Research

### Pilot Study of Environmental Monitoring and Human Biomonitoring



Selected Pilot Sampling Sites for a Global Monitoring Network

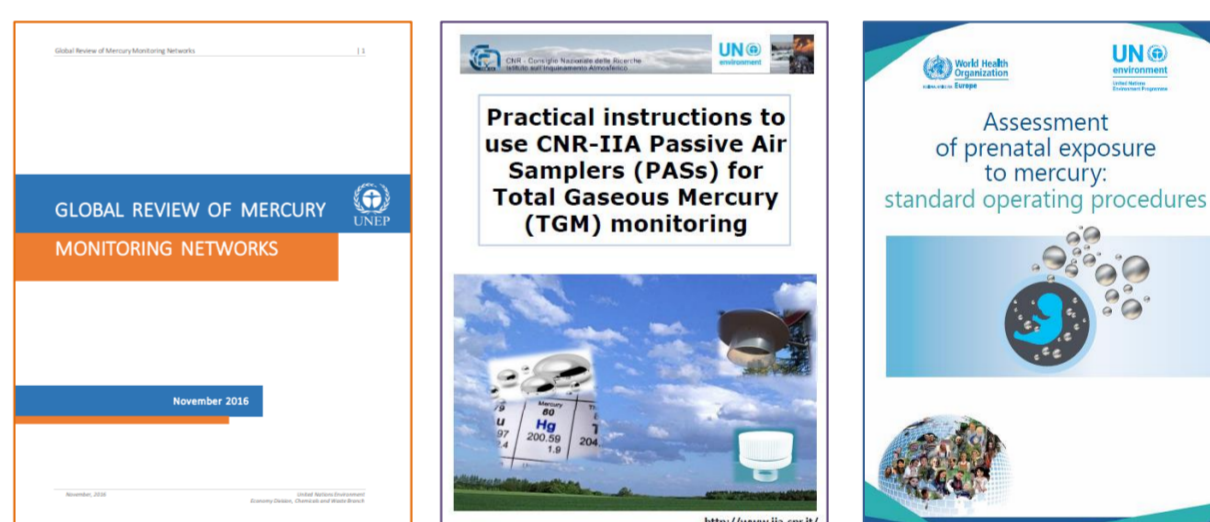


### Key Outputs



- ❖ Global Review of Mercury Monitoring Networks
- ❖ Global inventory of Mercury analytical capacities
- ❖ Report: Workshop – Elements towards a Global Monitoring Plan for Mercury

- ❖ Standard Operating Procedures:
  - ❖ Assessment of prenatal exposure to mercury
  - ❖ Monitoring of mercury and methylmercury in fish and shellfish
- ❖ Manual for passive air sampling monitoring
- ❖ Survey Protocol guide for assessment of prenatal exposure to mercury using biomarkers in cord blood, maternal urine and hair

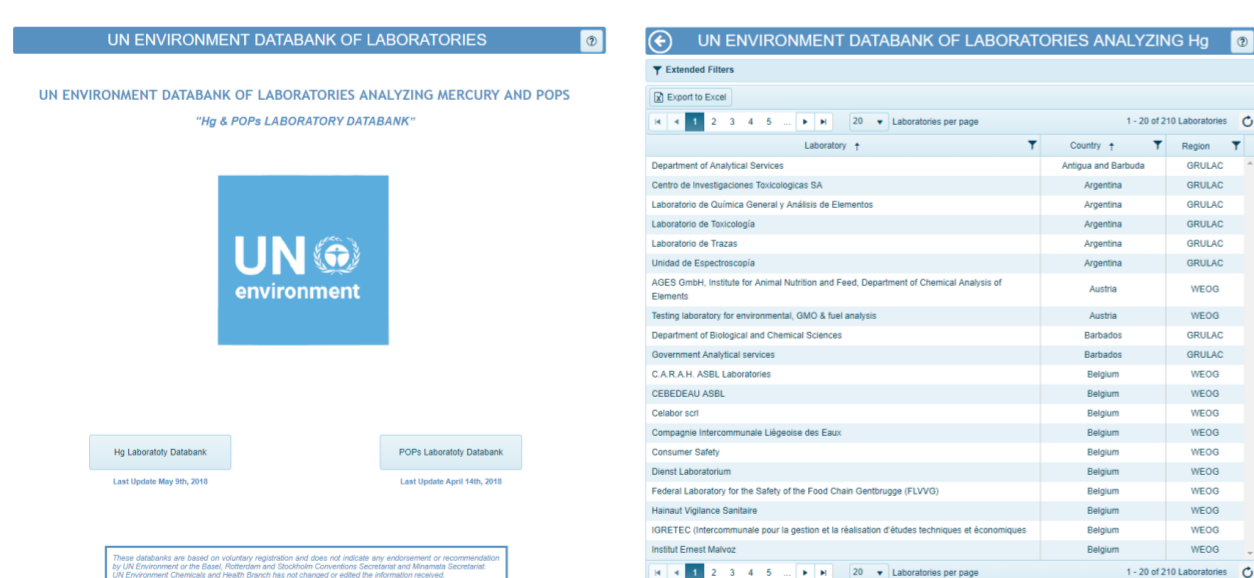
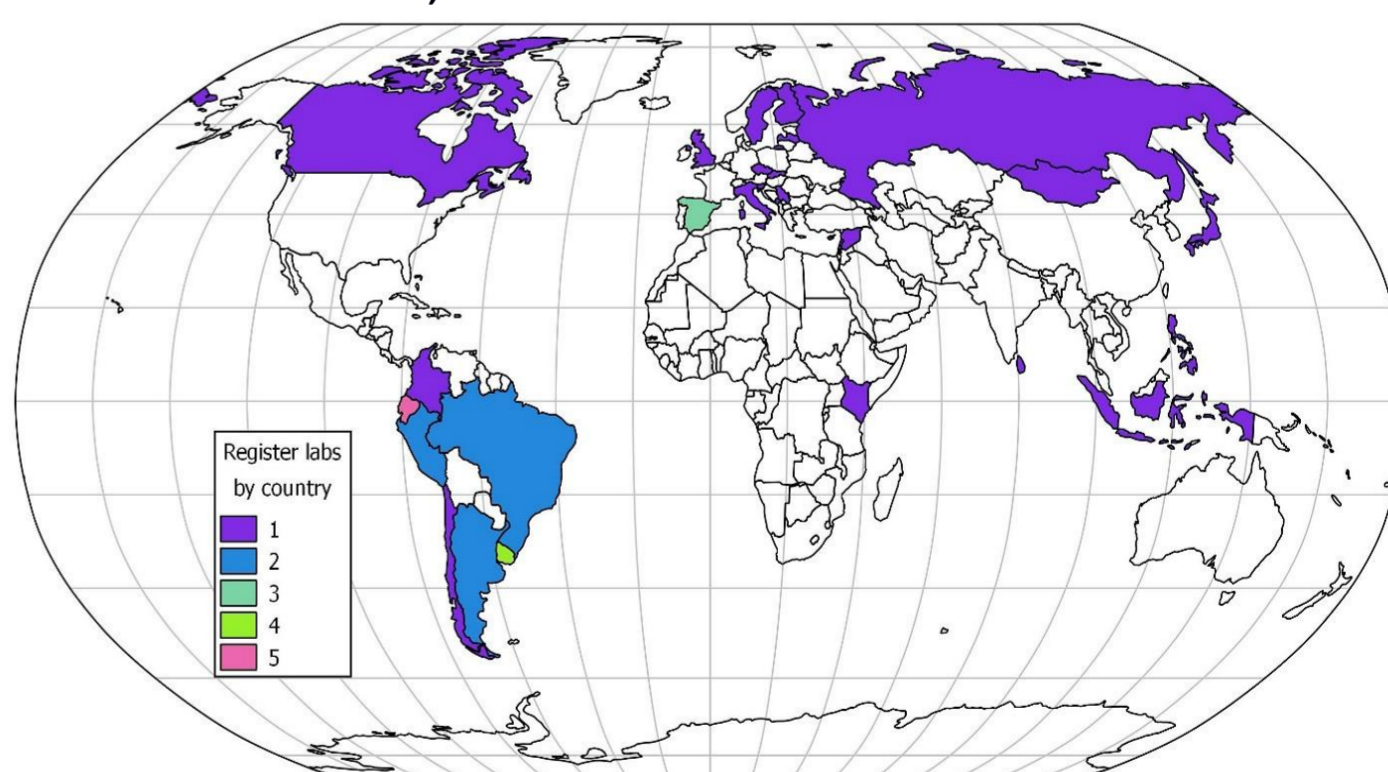


### Interlaboratory assessment of laboratories analysing Mercury

- ❖ 210 Labs rostered in the UN Environment Databank of Laboratories Analyzing Mercury.
- ❖ The databank and the user guide are available online. Please use the QR code.



- ❖ 38 Laboratories from all UN regions sent back the results for the first round global interlaboratory assessment
- ❖ Three matrices analysed: Standard Solution, Human Hair, Fish.



### Highlights



- Further supports needed to establish and ensure a long-term capacity-building program to improve the transfer of knowledge, with particular regard to developing countries.
- Mercury Human Biomonitoring and passive air sampling of mercury are well established cost-effective instruments to assess human exposure to mercury.
- Pilot study highlighted the need, bases on existing initiatives already established, to build a coordinated a global monitoring plan for mercury monitoring.
- The project produced a sound scientific basis for harmonised collection of data in overall assessment of the background concentrations of mercury with a high potential for ensuring global scale data comparability.

