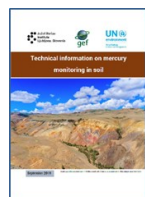


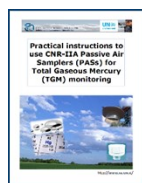
Mercury Monitoring in:



Biota—2019



Soil—2019



Air—2018



Humans—2018



Interlaboratory 2018

Highlights and conclusions

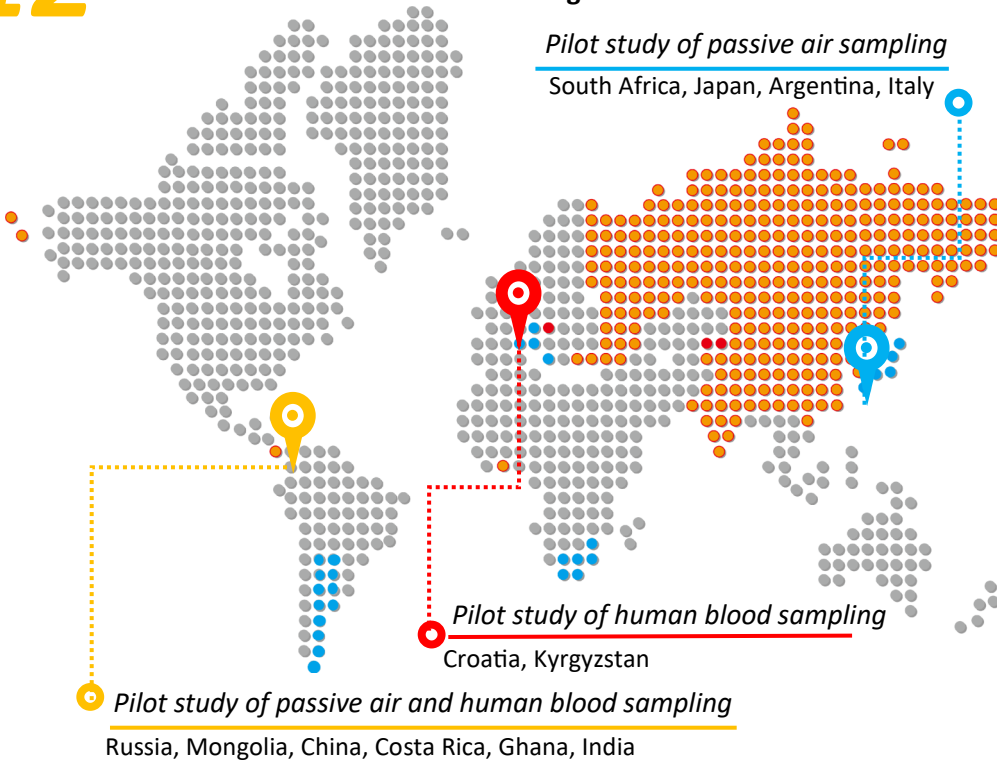
GLOBAL MONITORING OF MERCURY

Highlights and Conclusions of the Project

- Biota is a key bioindicator that reflect the potential harm of emissions and releases of mercury to air, water and land;
- Soil is a very complex matrix, mercury monitoring in soil need further science-based development for achieving comparable and cost-effective data;
- Cost-effective methodologies to assess human exposure (human biomonitoring) to and environmental (air sampling) concentration of mercury are well-established;
- A global monitoring plan for mercury can be built on already existing initiatives, however long-term capacity building strategies, especially in some regions, (i.e. Africa, South Asia, Pacific and Latin America) and due consideration of long-term sustainability are still needed; and
- The performance of laboratories undertaking mercury analyses in various parts of the world shows potential of building on already existing analytical capacities and networks.

Outcomes from the GEF-funded project :
“Develop a plan for global monitoring of human exposure to and environment concentration of Mercury”

12 Countries participated in the pilot study for mercury monitoring in ambient air and human biomonitoring



The key deliverables included:

- A report on elements to consider when designing monitoring plan for Mercury;
- A global review of monitoring networks and worldwide laboratory capacities
- Standards Operating Procedures (SOPs) for the assessment of prenatal exposure to mercury including survey protocols;
- Guidance for passive air sampling of mercury in ambient air;
- A global assessment of laboratories analysing mercury;
- A report on the review of technical information on mercury monitoring in biota;
- A report on the review of technical information on mercury monitoring in soil.



Global Assessment of Laboratories Analysing Mercury

38 Laboratories from all UN Regions participated in the first round interlaboratory assessment—2018

Results received per matrix, and percentage of laboratories reporting satisfactory results

| Type of samples | Labs delivering data | % of satisfactory results* |
|-------------------|----------------------|----------------------------|
| standard solution | 34 | 79.4 % |
| fish sample | 32 | 84.4 % |
| human scalp hair | 28 | 82.1 % |

*Considered satisfactory results if the z-scores were in the interval > -2 and $< +2$.

Databank of Laboratories

210 laboratories from all 5 UN regions registered in the mercury laboratory data bank.

Laboratories with Quality Control System: 182

Laboratories with Quality Assurance Programme: 152



More details can be found at the Information document: [UNEP/COP.3/INF/19](https://www.unenvironment.org/en/infocentre/infodoc/19)