





Implementation status of "POPs Monitoring Plan in the Asia Region" project in Mongolia

Enkhtuul Surenjav Institute of Chemistry and Chemical Technology Mongolian Academy of Sciences

8-10 August 2018 Ulaanbaatar, Mongolia

Project implementation

- ☐ ICCT signed the Small-Scale Funding Agreement with UNEP on 20 February 2017
- ☐ First installment of project funding was received in September 2017

Activity 1. Passive air sampling

Activities undertaken:

Sampling site for passive air sampling was identified at the coordinates of 47°55'06-N, 106°58'15-E in Bayanzurkh district of Ulaanbaatar city



The first PUFs were placed in March 30, 2017- Until now four rounds of samples taken

March 30, 2017 - June 30, 2017

June 30, 2017 - September 30, 2017

December 28, 2017 – March 30, 2018

March 30, 2018 – June 30, 2018

June 30, 2018 - until



Samples had been sent to the expert laboratory on half year basis

Air sampling point



Activity 2. Water sampling

Activities undertaken:

Water sampling site was identified at the coordinates of 47°53'21-N, 106°54'37-E at Tuul river, Ulaanbaatar city



The water sampling campaign started in March 30, 2017 - Until now we

have taken six water samples

March 30, 2017

June 30, 2017

September 30, 2017

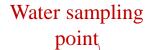
December 28, 2017

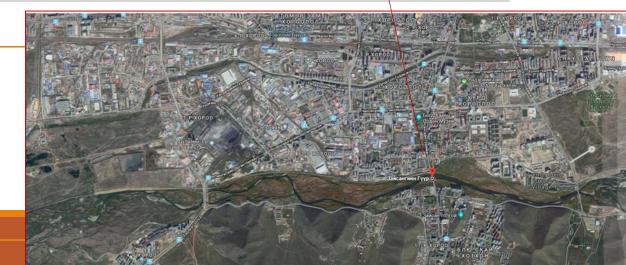
March 30, 2018

June 30, 2018



Samples had been sent to the expert laboratory on a half year basis



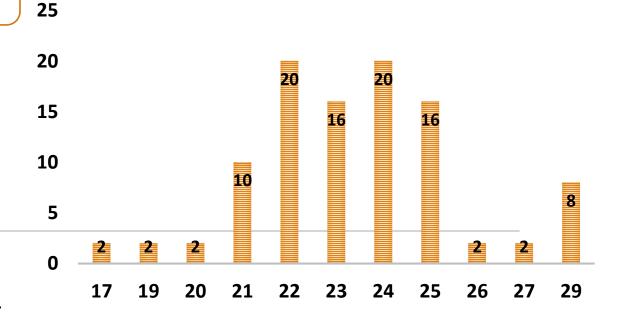


Activity 2. Human milk sampling

Activities undertaken:

- The post-partum method is selected
- Samples are collected and pooled samples were prepared.
- Custom clearance etc. for the pooled samples are done already and the shipment is planned in the next week to the expert lab.

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Activity 4. Capacity building of national POPs laboratory



- □ PCBs laboratory was established at the ICCT in 2011 under PCBs project (GEF/UNIDO/MET)
- □ POPs laboratory was established at the ICCT in 2013, by Joint Order of the Minister of Environment and Green Development and the President of the Mongolian Academy of Sciences

Analytical instruments:

- ☐ GC ECD 7890A from Agilent
- ☐ Thermo Scientific TSQ 8000 (Triple Quadrupole GC-MS/MS)

Analytical methods:

- ☐ IEC 61619: Insulating Liquids Contamination by polychlorinated biphenyls (PCBs) Method of determination by capillary column gas chromatographyand
- ☐ MNS ISO 10382:2012: Soil Quality Determination of organochlorine pesticides and polychlorinated biphenyls with GC ECD
- MNS ISO 6468:2011: Water Quality Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes Gas



chromatographic method after liquid-liquid extraction.

Activity 4. Capacity building of national POPs laboratory

Activities undertaken:

Training

UNEP Chemicals' POPs training on PCB/OCP analysis on Agilent 7890A GC was organized in February 2017 at the POPs laboratory of ICCT- with Prof. Jacob de Boer and Mr. Jacco Koekkoek from the VU University of Amsterdam

Laboratory instrument

□ ILSHIN Freeze dryer and EDWARDS vacuum pump and Hydrogen generator were purchased.

Analytical methods

- □ Selecting analytical methods for POPs analysis by GC-MS/MS
 - translate and approve national standards

Activity 5. 4th round POPs Interlaboratory assessment

- ☐ Test solution of analytical standards: OCP, PCB, PCDD/F, dl-PCB,
- ☐ Test samples: Sediment, Human milk, Air extract (toluene)

Thank you!

