15th Workshop on
Environmental Monitoring of Persistent Organic Pollutants (POPs)
in East Asian Countries
November 28-30, 2023, Savoy Hotel Manila, Metro Manila, Republic of the Philippines

Chairpersons' Summary
November 30, 2023

Chairpersons: SODENO Reiko
SHIBATA Yasuyuki

(Opening of 15th POPsEA Workshop)

1 The 15th Workshop on Environmental Monitoring of Persistent Organic Pollutants (POPs) in East Asian Countries commenced on November 28, 2023 at Savoy Hotel Manila, Metro Manila, Republic of the Philippines.

2 The workshop was organised by the Ministry of the Environment, Japan (MOEJ) and the Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR), the Philippines. Government officials and technical experts from 9 countries (Cambodia, Indonesia, Japan, Lao PDR, Mongolia, the Philippines, Singapore, Thailand and Vietnam), Secretariat of the Basel, Rotterdam and Stockholm Convention (BRS), United Nations Environment Programme (UNEP, online) and resource person from Environment and Climate Change Canada participated in the Workshop.

3 Dr. SHIOZAKI Takuya, the secretariat of Workshop, Japan Environmental Sanitation Center (JESC) started the workshop by welcoming opening speakers.

4 The opening addresses were delivered by Ms. YOSHIKAWA Keiko, Director of Environmental Health and Safety Division, Ministry of the Environment, Japan and Engr. Esperanza SAJUL, the Assistant Director of the Environmental Management Bureau of the Philippines. They expressed their willingness to contribute to the implementation of the Stockholm Convention.

5 Prof. SODENO Reiko, Shibaura Institute of Technology (SIT) and Dr. SHIBATA

Yasuyuki, Emeritus Researcher, National Institute for Environmental Studies were designated as the chairperson and co-chairperson of the workshop, respectively. The participants confirmed and accepted the draft agenda.

(Background and objectives)

6 Participants noted the following presentations:

(1) Introduction to the 15th Workshop, by Mr. FUKUZAWA Manabu (MOEJ), and;

(2) Overview of the past activities of Environmental POPs Monitoring Project in East Asian Countries (POPsEA Project), by the secretariat.

(Consideration on the Implementation of the Capacity Building under the POPsEA Project)

7 Participants noted the following presentations:

(1) Progress and Future Plan of the Capacity Building under the POPsEA Project, by the secretariat, and;

(2) Status of the Capacity Building of POPs Analysis, by the delegates from Thailand, the Philippines.

8 Participants noted the most challenging issues for the capacity building and recognised the significance of easier procurement of the standards and improvement of the accumulated information on the analytical technologies.

9 Participants also noted the presentation of the Expectation of the Participation in Capacity Building on POPs Analysis, by the delegate from Mongolia.

10 Participants recognised the significance of effective partnership with academia for challenging to expand the scope of monitoring items.

11 Participants noted the presentation of the Outcome and Future Implementation of POPs Analysis Training Course, by Republic of Korea (Video)

(Result of the Third Global Monitoring Report and Future POPs Monitoring for the Effectiveness Evaluation)

12 Participants noted the following presentations:

(1) Summary of Third Global Monitoring Report and Progress of the Effectiveness Evaluation of the Stockholm Convention, by Ms. Kei Ohno WOODALL (BRS

Secretariat), and;

(2) Consideration on the Future Sustainability of POPs Monitoring, by Ms. Haosong JIAO (UNEP).

13 Participants recognised that the continuous collaboration of POPsEA Project with GEF project will be expected.

(Consideration of Future Activities on POPs Monitoring in the Member Countries)

14 Participants noted the presentation of Future Activities on POPs Monitoring in the Member Countries, by the delegates from Cambodia, Indonesia, Japan, Lao PDR, Mongolia, the Philippines, Singapore, Thailand and Vietnam.

15 One participant noted the significance of mutual cooperation and continuous communication among the member countries under the POPsEA Project as a framework of the POPs monitoring network in this region.

16 Secretariat noted the importance of selection of analytical methodology in accordance with the objectives of the monitoring, as for the analysis of PCBs. Furthermore, no requirement on the number of the monitoring isomers and congeners for the monitoring in the Guidance Document of the Global Monitoring Plan (GMP) is also noted.

17 One participant noted the requirement of implementing frequency of POPs monitoring and recognised that the monitoring frequency can be decided according to the capacity of each country.

18 One participant noted the selection of the POPs chemicals for the monitoring survey in Japan and recognised the consideration on the significance of selection of POPs chemicals for monitoring with the proper frequency.

19 One participant noted the interest the utilisation of private testing laboratories for implementing POPs monitoring as a structure of the monitoring framework of Japan.

The workshop was divided into Policy Group meeting and Expert Working Group meeting on the second day.

Participants List

Cambodia

Channarith Ro
Vice Chief Officer
General Directorate of Environmental Protection,
Department of Hazardous Substances
Ministry of Environment
rochannarith.moe@gmail.com

Visal Vat
Chief officer of Chemical Analysis Office
Laboratory, Directorate General of Environmental
Projection (EPA)
Ministry of Environment (MoE)
vatvisal91@gmail.com

Indonesia

Fery Wihastoro
Environmental Impact Control
Directorate of Hazardous Substance
Management
Ministry of Environment and Forestry,
fwihastoro@gmail.com

Yunesfi Syofyan
Environmental Impact Control Officer
Center for Standardization of Environmental
Quality Instrument (CSEQI)
Ministry of Environmental and Forestry
yunesfi74@gmail.com

Japan

Yasuyuki Shibata
Emeritus Researcher
National Institute for Environmental Studies
2019ys0201@gmail.com

Reiko Sodeno
Professor
Department of Architecture and Environment
Systems
Shibaura Institute of Technology (SIT)
sodeno@shibaura-it.ac.jp

Takeshi Nakano
Invited Professor
Research Center for Environmental Preservation
Osaka University
ntakeshi@jrl.eng.osaka-u.ac.jp

Noriyuki Suzuki
Fellow
Planning Division
National Institute for Environmental Studies
nsuzuki@nies.go.jp

Yoshikatsu Takazawa
Head of Environmental Standards Section
Health and Environmental Risk Division
National Institute for Environmental Studies
takazawa@nies.go.jp

Manabu Fukuzawa
Deputy Director
Environmental Safety Division
Ministry of the Environment, Japan
MANABU_FUKUZAWA@env.go.jp

Lao PDR

Phetdala Faykhao
Technical Officer
Department of Natural Resource and
Environment Inspection
Ministry of Natural Resource and Environment

Aloune Sayavong
Deputy Director General
Department of Natural Resources and
Environment Inspection
Ministry of Natural Resources and Environment
alounesv@gmail.com

Mongolia

Enkhtuul Surenjav
Principal Investigator
Institute of Chemistry and Chemical Technology
Mongolian Academy of Sciences
enkhtuul@mas.ac.mn

Undrakh Nergui
Professor
Faculty of Engineering
German-Mongolian Institute for Resource and
Technology
undrakh.nergui@gmail.com

Philippines

Roger Jr. Cayaban Evangelista
Senior Science Research Specialist
Environmental Research and Laboratory
Services Division

Environmental Management Bureau Central Office
Department of Environment and Natural Resources
roger_evangelista@emb.gov.ph

Jose Joel Dedace Maleon
Senior Environmental Management Specialist
Environmental Quality Management Division
Chemical Management Section, Environmental Management Bureau
joel_maleon@emb.gov.ph

Singapore

Natasha Binte Jamali
Deputy Principal Scientific Officer
Environmental Monitoring and Modelling Division
Environmental Quality Monitoring Department
National Environment Agency
natasha_jamali@nea.gov.sg

Jia Lin Nikki Lee
Senior Engineer
Pollution Control 1 Division
Chemical Control and Management Department
National Environment Agency
Nikki_lee@nea.gov.sg

Thailand

Suwanna Boontanon
Associate Professor
Faculty of Engineering, Department of Civil and Environmental Engineering
Mahidol University
suwanna.boo@mahidol.ac.th

Piyanan Udomtang
Environmentalist, Professional Level
Pollution Control Department
Ministry of Natural Resources and Environment
iampiyanan024@gmail.com

Vietnam

Hue Thi Minh Nguyen
Analytical Laboratory for Environment, Dioxin and Toxins
The Northern Center for Environmental Monitoring
Pollution Control Department
Ministry of Natural Resources and Environment
nguyenhue101@yahoo.com

Yen Thanh Nguyen
Deputy Head
Division of Environmental Quality Management
Pollution Control Department
Ministry of Natural Resources and Environment
ngthanhyen@gmail.com

Secretariat of the Basel, Rotterdam and Stockholm Conventions

Kei OHNO WOODALL
Programme Officer
Science and Technical Assistance Branch
Secretariat of the Basel, Rotterdam and Stockholm Conventions
kei.ohno@un.org

United Nations Environment Programme

Haosong JIAO
Associate Programme Management Officer
Economy Division / Chemicals and Health Branch
United Nations Environment Programme
haosong.jiao@un.org

CANADA

Tom Jerzy Harner
Senior Research Scientist
Air Quality Research Division
Environment and Climate Change Canada
tom.harner@ec.gc.ca

Secretariat

Takuya Shiozaki
Senior Manager
Environmental Sciences Department
Japan Environmental Sanitation Center
takuya_shiozaki@jesc.or.jp

Fumio Kaji
Environmental Sciences Department
Japan Environmental Sanitation Center
fumio_kaji@jesc.or.jp

Ayaka Oshikiri
Environmental Sciences Department
Japan Environmental Sanintation Center
ayaka_imamura@jesc.or.jp

Fumiko Kawase
Japan Environmental Sanintation Center
fumiko_kawase@jesc.or.jp

ANNEX II

15th Workshop on
Environmental Monitoring of Persistent Organic Pollutants (POPs)
in East Asian Countries

Policy Group meeting
November 30, 2023
Summary

Chairperson:	SODENO Reiko (Japan)
Cambodia:	Channarith RO
Indonesia:	Fery WIHASTORO
Japan:	FUKUZAWA Manabu
Lao PDR:	Aloune SAYAVONG
Mongolia:	Enkhtuul SURENJAV
Philippines:	Jose Joel Dedace MALEON
Singapore:	Jia Lin Nikki LEE
Thailand:	Piyanan UDOMTANG
Vietnam:	Yen Thanh NGUYEN
BRS Secretariat:	Kei Ohno WOODALL
Resource persons from Japan:	
	NAKANO Takeshi
	SUZUKI Noriyuki
Secretariat:	SHIOZAKI Takuya
	OSHIKIRI Ayaka

After confirming the summary of Plenary Session on November 29, 2023, Policy Group meeting was opening.

(Future Plan of POPsEA)

1 Participants noted the presentation of the Future Implementation Plan of the Background Monitoring under the POPsEA, by the secretariat.

2 One participant clarified the implementation procedures for the POPs monitoring including the site selection and interval and recognised that the contribution level for

the implementation is considered in accordance with the capacity and budgetary preparation of the member countries.

3 POPs sampling in Thailand was planned to implement in 2024 after obtaining the approval of the Thai government. Furthermore, the possibility of implementing overall POPs monitoring activities in accordance with the progress of the capacity building programme was recognised.

4 One participant noted the significance of mutual cooperation in the region.

5 Considering the future implementation of GEF project explained by UNEP in the plenary session, the significance of the preparation for applying the possible member countries to the GEF project was pointed out.

6 Participants clarified that the monitoring data submitted to COP in 2027 would be accommodated with the GMP4, the regional monitoring report.

7 Participants clarified that the monitoring results would be reported to the implementing countries after data quality verification.

8 The relocation of the monitoring sites in Sihanoukville, Cambodia and Tam Dao, Vietnam was considered due to the development of those areas.

9 The future implementation plan of the background monitoring under the POPsEA was adopted as shown in Annex III.

10 Participants noted the presentation of the Future Plan of Capacity Building Activities under the POPsEA, by the secretariat.

11 Participants clarified the procedure for joining the Core Laboratories capacity building programme. The document for nominating the Core Laboratories would be sent to the countries which have willingness to join the programme from the secretariat. The designation of the additional Core Laboratories would be considered with the limitation of the budget of the POPsEA project.

12 Participants recognised that the target POPs chemicals including new POPs focused

on the Core Laboratories capacity building programme were considered in accordance with the priority of each hosting country.

13 Participants recognised the significance of challenge to succeed the obtained skills and knowledge for the sustainability.

14 Participants agreed the future plan of capacity building activities under the POPsEA.

(Re-confirmation of Chairpersons' Summary of the POPsEA Workshop)

15 Participants noted the proposal on the re-confirmation of the Chairpersons' Summary of the POPsEA Workshop, by the secretariat.

16 Participant noted the importance of organising the platform for sharing information including past outcomes, primary agreements and technical documents to be utilised much easier. The secretariat should consider the preparation of website on POPsEA activities for above purpose.

17 Participants agreed the proposal on the re-confirmation of Chairpersons' Summary of the POPsEA Workshop.

(Proposal of Next POPsEA Workshop)

18 Secretariat proposed Japan as the venue of holding next POPsEA Workshop in 2025. Participants agreed the proposal.

The Policy Group meeting was closed.

ANNEX III

Future Implementation plan of the background monitoring under the POPsEA

1. Classification of POPs monitoring activities

The classification of the POPs monitoring implementation is as follows.

- Super-site monthly monitoring (Active sampling)
  Cape Hedo (Japan) and Jeju Island (ROK)
- Super-site quarterly monitoring (Active sampling and passive sampling)
  Khao Yai Natl. Park (Thailand) and Baguio (the Philippines)
- Strategic cooperative monitoring (Active sampling and passive sampling, every 3 years)
  Considering the representativity in the East Asian sub-region
  Kototabang (Indonesia), Terelj (Mongolia) and Tam Dao* (Vietnam)
- Ordinary cooperative monitoring (Active sampling and passive sampling, every 6 years)
  Muda Dam (Malaysia), Na Long Koun Village (Lao PDR) and Sihanouk Ville* (Cambodia)

* Re-locations of the monitoring site are under consideration.

2. Implementation plan

The implementation plan of POPs monitoring under the POPsEA project is shown below.

	2024	2025	2026	2027	2028	2029	2030	2031
Japan	☆	☆	☆	☆	☆	☆	☆	☆
ROK	☆	☆	☆	☆	☆	☆	☆	☆
Thailand	○	☆	☆	☆	☆	☆	☆	☆
Philippines	○	☆	☆	☆	☆	☆	☆	☆
Vietnam		☆			☆			☆
Mongolia			○			○		
Indonesia		●			○			○
Cambodia				●				
Lao PDR			●					
Malaysia							●	

☆: Sampling and analyses are implemented by their own laboratory

○: Sampling is implemented by the country and analysis is done in Japan

●: Sampling is implemented with dispatched Japanese engineer and analysis is done in Japan

ANNEX-IV

15th Workshop on
Environmental Monitoring of Persistent Organic Pollutants (POPs)
In East Asian Countries

Expert Working Group meeting
29 November 2023

Chairperson: SHIBATA Yasuyuki (Japan)
Participants:

Cambodia	Visal VAT
Indonesia	Yunesfi SYOFYAN
Lao PDR	Phetdala FAYKHAO
Mongolia	Undrakh NERGUI
Philippines	Roger Jr. Cayaban EVANGELISTA
Singapore	Natasha Binte JAMALI
Thailand	Suwanna BOONTANON
Vietnam	Hue Thi Minh NGUYEN

Resource persons:

Canada	Tomaz HARNER
Japan	Takeshi NAKANO
Japan	Yoshikatsu TAKAZAWA

Secretariat: Fumio KAJI

Dr. SHIBATA Yasuyuki, the chair of EWG meeting, stated opening remarks and explained outline of the agenda of the meeting.

(Progress and Results of POPs Monitoring under the POPsEA)

1. Participants noted the results of cooperative monitoring in Sihanoukvillle, Cambodia, the sampling activity in Terelj, Mongolia, the results of super-site monitoring in Jeju Island, Republic of Korea, and those of super-site monitoring in Hedo, Japan, reported by the delegates from Cambodia, Mongolia, Republic of Korea (via Video presentation), and Japan, respectively.

2. Participants welcomed the super-site monitoring activities in Republic of Korea and Japan, both of which reported long-term trend data that were qualified through their own QA/QC mechanism and provided basis to support effectiveness evaluation of the

Stockholm Convention.

3. Based on QA/QC assessment, participants agreed to accept majorities of high volume (HV) and passive air sampling (PAS) data on organochlorine pesticides and chlorobenzenes in Cambodia, except those on dieldrin and aldrin by HV. Participants noted inferior reliabilities of chlordanes and γ-HCH data by HV due to their unignorable blank levels.

4. Participants also noted high blank values and inconsistencies in duplicated analysis of some of PCB congeners by HV and PAS, and asked delegate of Cambodia to conduct detailed assessment on all the PCB congeners together with JESC and report the results to the EWG members.

(Evaluation and Consideration of PAS in POPsEA)

5. Participants noted the presentations of the Significance and Availability of Passive Air Monitoring under the GMP, by Dr. Tom HARNER (Environment and Climate Change Canada), and the Results and Future Consideration of the Implementation of Passive Air Monitoring under the POPsEA, by Dr Fumio KAJI (secretariat, JESC).

(Sampling and Analysis Method of HCBD and Dechlorane Plus)

6. Participants noted presentations on the Sampling method of HCBD and possibility to add it to target POPs under the POPsEA, by the secretariat, and Sampling and Analytical Method of Dechlorane Plus and its Trend in Japan, by Prof. NAKANO Takeshi (Osaka University).

7. Delegate of the Philippines asked possibility to monitor HCBD by Canister sampling. Chair pointed out insufficient sensitivity of the canister method for the analysis of ambient air HCBD. Delegate of Vietnam asked availability of Japanese HCBD monitoring method and the secretariat agreed to share the relevant information with delegate of Vietnam.

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Vietnam Hue Thi Minh NGUYEN
Resource persons:
Canada Tomaz HARNER
Japan NAKANO Takeshi
Japan TAKAZAWA Yoshikatsu
Secretariat: KAJI Fumio

(Progress and Results of POPs Monitoring under the POPsEA)

1 Dr. SHIBATA Yasuyuki, Emeritus Researcher, National Institute for Environmental Studies started the Expert Working Group Meeting.

(Progress and Results of POPs Monitoring under the POPsEA)

1 Participants noted the presentation of Progress and Results of POPs Monitoring Under the POPsEA, by the delegates from Cambodia, Republic of Korea(video) and Japan.

(1) Participants: I note that the materials have been uploaded. Also, we note that the hybrid sampling recovery was generally good, but that low recovery for Aldrin. We need more detail and to check the data. Did you compare the data for passive sampling?

(2) Participants: We just got the data but there are another three.
(3) Participants: Container profile is very important for the parts that were higher than the operational blanks. These are related chemicals. These containers can be contaminated and need to be checked properly.
(4) Participants: #7 is is an unstable substance and is therefore unlikely to exist in the atmosphere. It may not be a PCB.
(5) Participants: It may be another chemical reaction. There may be unintentionally produced PCBs in transport, so we need to confirm the source. The data does not show high levels in active sampling.
(6) Participants: We have to compare these also for PCB.
(7) Participants: Some local contamination may only affect some areas. It may be difficult to reach a conclusion here today.
(8) Participants: For the indicator PCBs, do you have results?
(9) Participants: The 4 indicators may have been missed in the presentation. The results were not shown.
(10) Participants: Is the travel blank stored differently? Plastic bags used for containers could be an issue.
(11) Participants: The contamination would be in every trace. We have to check in detail the profile of chemical if it is contaminated during the sampling.
(12) Participants: What about the major contributors? It may be to do with storage in the minor PCBs.
(13) Participants: The blanks would be done during transportation.
(14) Participants: We also had contamination. The hybrid sampler was the problem. the plastics contained a contaminant. There are many possible sources, and we have to check thoroughly.
(15) Participants: Some of our colleagues have difficulty in the high sampling method, so I would like to know if it was done previously.
(16) Participants: They have looked at previous years. from 2022 the Japanese experts have been brought in.
(17) Participants: Even in Viet Nam, there is difficulty for importing from Europe.
(18) Participants: In 2020, what is the minimum level for the data to be considered? I noted that the recovery was low. This is unconventional as this is air.
(19) Participants: In Japan, we usually accept data at 120%. We will accept a 30% difference from the average. Other countries may do it differently.
(20) Participants: Those are similar to us. But some chemicals are very volatile, notably Aldrin. We also do duplicate sampling.

(21) Participants: On slide 18, there is a low value recovery. Do you recalculate these results in such cases?

(22) Participants: We have a criterion for recovery at 50-120%. We would finally reject the data. We tried to change the recovery.

(23) Participants: Air is passing through during the sampling for 24 hours.

(24) Participants: Is there another way to solve this?

(25) Participants: We would like to continue this discussion and circulate the results for your consideration.

2 Participants noted the presentation of Mongolia on Cooperative Air Monitoring in Terelj, Mongolia.

3 Participants noted the presentation of Results from the super-site monitoring in Jeju Island, Republic of Korea from 2021)

4 Participants noted the presentation of Results of the Super-site Monitoring at Cape Hedo in Japan from April 2020 to March 2022

(Evaluation and Consideration of PAS in POPsEA)

7 Secretariat noted the presentation of Significance and Availability of Passive Air Monitoring under the GMP.

(1) Participants: PM2.5 and climate are the trend, but how do we get attention?

(2) Participants: I was not aware of the site in Philippines. Most are established through other monitoring programs, and it is not official government data.

(3)Participants: I agree with your recommendations.

8 Participants noted the presentation of Results and Future Consideration of the Implementation of Passive Air Monitoring under the POPsEA.

(1) Participants: It is difficult to interpret the result.

(2) Participants: We should be careful interpreting from low volume. There are also many non-detects. You should not expect to see good correlation between such samples.

(3) Participants: We need to increase the number of sampling and to see if they are applicable for certain region. We need a different sampling period for each chemical.

(4) Participants: You cannot compare without correction.

(5) Participants: We ought to combine the data more efficiently. We hope to improve

our observations.

(Sampling and Analysis Method of HCBD and Dechlorane Plus)

9 Secretariat noted the presentation of Sampling method of HCBD and Possibility to Add it to Target POPs under the POPsEA.

(1) Participants: I would note that the price of thermal desorption system is estimated at 10 million yen.

(2) Participants: We do not yet have the thermal adsorption system. We are set to acquire one next year for the TPA-TO15 method. Is this also an acceptable alternative method?

(3) Participants: The problem is that the sensitivity is not enough to detect in air.

(4) Participants: In that case, we have the option to upgrade the system. Will this also be part of the cooperative scheme?

(5) Participants: We plan to include it in future.

(6) Participants: Will you submit the standard method?

(7) Participants: We have a Japanese standard method. The government is translating it to provide the standard method to others.

(8) Participants: We are interested in the standard method.

(9) Participants: We published papers on a similar method, SIP, that may be useful for future passive monitoring.

10 Participants noted the presentation of Sampling and Analytical Method of Dechlorane Plus and its Trend in Japan.

(1) Participants: The particulate percentage is very high. The relative and absolute amounts are high.

(Preparation of EWG Meeting Summary)

(1) Participants: We will confirm the summary of this working group. I shall clarify which of Cambodia's data will be accepted. The POPs pesticide for HV can be accepted but that of Aldrin and Dieldrin cannot be accepted. The results for POPS pesticide HV sampling can be accepted but there are reliability issues therein. The POPS pesticide by passive sampling can be accepted. For the PCBS, its duplicated analysis has issues, and it needs further discussion.

(2) Participants: For pesticides, some detail would be rejected. How do we decide when the level is acceptable?

(3) Participants: When the data becomes 0, it cannot be detected at all. The analysis of

blanks tells us the detection level of the chemical. But we do not know the fluctuation level of the blanks in this case. Therefore, we should note this.

(4) Participants: Will both the blanks be subjected?

(5) Participants: In this case the blanks do not change too much. But only two data is not enough. It could be used as an estimate.

(6) Participants: The operational blank is 0.6. The travel blank is 0.8.

(7) Participants: The travel blank includes the operational blank.

(8) Participants: I support this activity.

(9) Participants: Aldrin and Dieldrin are in a relationship which may affect their ratio.

(10) Participants: We checked the coefficient product. There was no sign of oxidation when using hybrid samplers. We tried to check why the recovery was low and expected carbon 13 to drop.

(11) Participants: The lower amount of oxidation was checked.

(12) Participants: It was checked but we do not know the reason.

(13) Participants: We shall bring the expert working group to a close. Please refer to the Google Drive for the documents.