

Final Meeting of the UNEP/GEF projects “Implementation of the POPs Monitoring Plan in the Asian Region” and “Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in Pacific Region”

Meeting Report

**4-5 April 2023
Bangkok, Thailand**

1. Background

1. As a key contributor to the Stockholm Convention effectiveness evaluation, the Global Monitoring Plan (GMP), which monitors the presence of Persistent Organic Pollutants (POPs) in the environment and in humans, aims to identify changes of POPs concentrations with time and assess POPs regional and global transport.
2. The UNEP/GEF POPs Global Monitoring Plan project is implemented for the first time in Asia Region from 2016 to 2023. It focuses on the POPs listed in the Stockholm Convention in core matrices (air, water and human milk) and matrices of national interest to examine the environmental and human exposure of POPs. Detail information can be found in UNEP website [Global Monitoring of POPs](#)¹.
3. With planned project activities completed and with the project coming to an end, the final meeting aimed to present the outputs and outcomes, to discuss with project countries, partners and stakeholders on main findings, lessons learnt, experience gained, and recommendations for future monitoring activities, and to prepare for a successful closure of the project in the Asia and the Pacific Region.

2. Attendance

1. Representatives from 7 countries from Asia and 9 countries from Pacific Islands, members of the GMP Global Coordination Group, representatives of regional monitoring networks, expert labs, representatives of the Basel, Rotterdam and Stockholm Convention Secretariat and the World Health Organization, and representatives of UNEP executing and implementing team as well as the UNEP regional office participated in the final meeting (Annex 3, list of participants).
2. All the documents, including the agenda, the concept note and the presentations of the final meeting can be found and download in UNEP website: [Final Meeting of the UNEP/GEF POPs GMP projects in Asia and Pacific Regions](#)

¹ <https://www.unep.org/explore-topics/chemicals-waste/what-we-do/persistent-organic-pollutants/global-monitoring>

3. Opening of the workshop

1. The final meeting of the GEF-funded projects of the Global Monitoring of POPs in the Asian Region and the Pacific Islands Region” was held in Bangkok, Thailand. Ms. Teeraporn Wiriwutikorn, Ministry of Natural Resources and Environment, Thailand, opened the workshop and welcomed all participants.
2. Mr. Mushtaq Memon, UNEP Regional office for Asia and the Pacific, gave the keynote speech on behalf of UNEP and the regional office. He highlighted the collaboration between UNEP and regional partners on POPs monitoring and the implementation of activities to support implementation of Multilateral Environmental Agreements (MEAs) and emphasized UNEP’s continuous commitment and support in enhanced collaboration with the region and regional countries.
3. Mr. Anton Purnomo, Basel and Stockholm Convention Regional centre for Southeast Asia, on behalf of the BRS Convention Secretariat, gave an opening remark. He highlighted the importance of the UNEP GEF projects of POPs monitoring and its contribution to the Global Monitoring Plan under the Stockholm Convention, for filling in the information gap with valuable data and the importance of continuity.
4. Ms. Jacqueline Alvarez chief of the UNEP Chemicals and Health Branch, participating online from Geneva, thanked Thailand for hosting this workshop, and appreciated the collaboration and support of partner countries and institutes for the implementation of the POPs Global Monitoring Plan projects in the past years. She further introduced UNEP’s strategies and the work of the Chemicals and Health Branch towards tackling the three planetary crises, and highlighted the importance of sustainable monitoring of POPs and the continuous collaboration with regional countries towards effective actions and impacts on the sound management of chemicals and waste.
5. The provisional agenda of the meeting, annexed to this report, was adopted.
6. All participants introduced themselves in turn.
7. Chairs were proposed and selected for the first and the second day of the meeting participants. Ms. Enkhtuul Surenjav, and Mr. Laska Sophal for the first and second days of the meeting respectively.

Day 1

4. Overview of the POPs Monitoring projects in the Asia and Pacific Islands Regions

- 1. Overview of project implementation reports and next steps towards the terminal review**
 - 1.1 An overview of the project implementation reports (PIR), the annual evaluation and next steps towards the terminal review progress of the GMP projects in the Asia and Pacific Islands Region was given by Mr. Jitendra Sharma representing the UNEP GEF project coordinating unit. He indicated which are the objectives to ensure the project achieves its objectives in line with the work plan and/or the logframe, that include: Assess countries progress in implementation, review progress of the project regarding implementation, identified gaps and challenges and plan for closure and recommendations for sustainability and future projects.
- 2. Overview of the UNEP/GEF POPs GMP projects in the Asia and the Pacific region**

- 4.1 Ms. Haosong Jiao from the project execution team of the UNEP Chemicals and Health Branch presented an overview of the activities undertaken in the Asia and Pacific region. In her deliberations, she presented an overview of the project in the Asia and the Pacific Regions including the data generated, the training in national labs undertaken, the meeting and workshops for explaining the results, and the communication campaign being undertaken. Finally, she thanked the national and regional project partners for their excellent support and collaboration in successful delivery of the project activities towards achieving the expected outcomes.

5. Presentations by project countries

- 1. Overview of the outputs and outcomes of the UNEP/GEF POPs GMP project: Countries perspective**

Each of the project countries presented an overview of the activities conducted and outputs and outcomes achieved under the project. The presentations covered the sampling and capacity building activities conducted at national level, results generated, awareness raising and policy engagement, collaboration and synergies with other monitoring initiatives, data usage and dissemination, lessons learnt, and experience gained, as well as considerations for sustainability and future monitoring of POPs.
- 2. The project countries expressed the importance of POPs monitoring in their countries and supported the continuity and sustainability of the monitoring of POPs in the regions. The appropriated transfer of knowledge and technology for a regular basis monitoring was of key importance for the participants.**

6. Key findings on capacity building in the Asia and the Pacific Region

- 1. Contributions of the GEF projects to the Stockholm Convention Global Monitoring Plan and the effectiveness evaluation of the Convention**
 - 1.1 Ms. Key Ohno, presented on behalf of BRS secretariat, the contribution of the project to the SC convention GMP and to the third round of regional monitoring reports of effectiveness evaluation of the convention. She also presented the main findings of the Third Global monitoring Report.**
- 2. GMP Data Warehouse and the 4th cycle of the GMP implementation - upcoming challenges**
 - 2.1 Ms. Katerina Sebкова, RECETOX (host of the GMP Data Warehouse), presented the data warehouse visualizations, and the upcoming challenges for the fourth cycle of the GMP under the Stockholm convention implementation.**
- 3. Capacity Building in Mongolia, Cambodia, Philippines and Indonesia**
 - 3.1 Mr. Jacob de Boer presented on behalf of VU Amsterdam the activities and the trainings that were undertaken for capacity building in the laboratories of Asia region. He also emphasized the importance of regular analysis of POPs and gave some conclusion remarks and suggestions for future enhancement of analytical capacities in countries, including regular POPs analyses, use of GC/MS instruments, preparation of the staff, etc.**
- 4. Summary of interlaboratory assessments**
 - 4.1 Ms. Heidelore Fiedler, on behalf of MTM Örebro, Sweden and VU Amsterdam, presented a summary of the four rounds of interlaboratory assessment, including two rounds from previous projects, and the two rounds for the present set of projects. She acknowledged the increasing numbers of frequent participants from the Asia and the Pacific Regions in the interlaboratory assessment, introduced the main findings, and provided suggestions for laboratories to improve quality control/quality assurance in their analysis.**

5. Key findings on POPs monitoring in air, water, human milk and matrices of national interest in the Asia and the Pacific Region

- 5.1 Mr. Jacob de Boer presented the results obtained during the project on POPs in samples of national interests. He acknowledges the participation and included details about each country from the regions that collected and submitted samples, and their participation to the mirror study.
- 5.2 Ms. Fiedler presented the summary of data generated by MTM Örebro University, Sweden in all four regional projects, including results for dl-POPs in air and PFAS in air, water and human milk, and the comparisons with the previous round of POPs GMP projects. The presentation included the analyses of regional, spatial, and temporal trends.
- 5.3 Mr. Ralf Lippold on behalf of CVUA Freiburg, Germany? presented the key findings on levels of POPs in human milk the Asia-Pacific Region. He presented an overview of the country participation of the Human milk survey from 2000-2019, highlighting the cost-efficiency of the concept of the study. He also presented the detailed results and temporal trend for the POPs that presented the highest values in the study and included a summary of the overall conclusion.

6. Contributions of the UNEP/WHO human milk survey to understand human exposure to POPs

- 6.1 Mr. Luc Ingenbleek on behalf of WHO presented the contribution of the human milk survey to understand human exposure to POPs. He also indicated that WHO will soon publish new toxic equivalency factors for dioxins-like compounds and introduced briefly about the work of WHO on burden of foodborne diseases, he explained that in 2015 WHO estimated for the first time the global burden of foodborne diseases, and that is expected that a second estimation will be release in 2025.

Day 2

- 7. The recap of the first day of the meeting** was presented by Ms. Haosong Jiao.

8. POPs monitoring partnerships in the Asia and the Pacific regions

- 8.1 Mr. Takuya Shiozaki, (Japan Environmental Sanitation Center) introduced the POPs monitoring activities conducted under the POPs East Asia programme, including the organization, scale, background, history and objectives, the capacity building activities conducted, and outcomes achieved, as well as the future considerations of the programme.
- 8.2 Mr. Jochen Mueller, and Mr. Vincent Lal, presented the collaboration between the University of Queensland and the University of South Pacific on POPs monitoring.
- 8.3 Mr. Yasuyuki Shibata, member of the GMP Global Coordination Group and Regional Organizational Group in Asia-Pacific, presented the monitoring of POPs in other matrices of interest beyond the core matrices of the Stockholm Convention.
- 8.4 Mr. Esteban Abad, (Spanish National Research Council- CSIC) presented the data generation and capacity building activities undertaken by CSIC, Barcelona, Spain, in particular on the development of standard operating procedures and active air sampling in Mongolia and other countries.
Furthermore, he presented the pilot study of POPs in recycled pellets which is ongoing in three UN region in Asia, Africa, and GRULAC.

9. Enhancing data usage for informed decision- and policy-making

- 9.1 Mr. Victor Estellano, UNEP Chemicals and Health Branch, presented the UNEP Data dashboard, laboratory databank and their integration in the UNEP World Environment Situation Room. He also introduced how

the three platforms developed by UNEP could contribute to enhancing the data usage and interpretation to better informed decision making.

- 9.2 Ms. Ana Patricia Martinez, regional consultant of the project, participating online from Mexico, gave a presentation on the training on data handling and management to assist the Pacific countries in using and interpreting the results of the GMP project. Relevant online course and guidelines developed were also introduced.

7. World Café: Key messages, lessons learnt and roadmap for sustainable monitoring of POPs

1. Key messages, lessons learnt and roadmap for sustainable monitoring of POPs

- 1.1 Mr. Gamini Manuweera, expert in chemical management, presented the draft road map on strengthening conditions for sustainable monitoring of POPs. The roadmap summarized messages from consultation meetings organized with experts, project countries and stakeholders, included key findings, lessons learnt, and experience gained from past activities, and consolidated thoughts reflected in national, regional and technical reports on strengthening sustainability of POPs monitoring under the Stockholm Convention.

In the world café, participants voluntarily joined three groups based on their expertise and the fields of interests. Each group discussed on the key elements for sustainable data generation, effective interpretation and usage for policy making and action taking, communication, financial availability, and stability, as well as mechanisms to enhance stakeholder engagement (see Annex 1, Summary of group discussion). Outputs of the group discussion were to be accommodated in the roadmap.

8. Closure of the UNEP/GEF POPs GMP projects in the Asia and the Pacific regions

1. Deliverables of the UNEP/GEF POPs GMP projects against the requirements of the project documents according to the different components.

Ms. Haosong Jiao recap the outputs and outcomes of the meeting against the components and expected deliverables as of the project document, seeking for agreement from project partners and countries towards a successful closure of the GMP projects in the Asia and Pacific regions.

The meeting endorsed the project deliverables and approaches towards the closure of the project, as well as the recommendations on ensuring sustainability. The countries also nominated four representatives of the Asia and the Pacific Regions to participate in a brainstorming discussion on future POPs monitoring activities to be held during the Conferences of the Parties in May 2023.

9. Closure remarks

1. Ms. Haosong Jiao thanked all partner countries, institutes and stakeholders for their support and collaboration throughout the implementation of the project.
2. Mr. Jitendra Sharma introduced the procedures and tentative timeline for future project development on behalf of the implementing agency.
3. Mr. Mushtaq Memon gave the closing remark on behalf of UNEP and the regional office.
4. Mr. Vuttichai Kaewkrajang gave the closing remark on behalf of Thailand the host country.

Annex 1. Summary of group discussion

Group 1: Countries with very limited facilities/capacities

In the table is summary the main point raised by the first group.

The generation of high quality and comparable data	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1a. We have extracted a lot of data (a lot were not used) b. due to dissatisfactory quality of samples 2a. Improve data outcome b. Improve data sharing at the regional level 3a. Improve training, strengthen capacities at the national level (understand well location of sample site, collection of samples, install, understand and interpret data) b. Improve storing and packaging of samples for sending to labs c. Improve collaborations with border restrictions to ensure smooth shipment of samples d. capacity building for accredited labs in the region (data analyses) and at the national level as well 4a. Location of data collection (we need to understand with proper reasoning for proposed location) b. Have a long-term plan in terms of training and data collection c. internal collaboration within relevant stakeholders 3. Provide advice to each country based on the results so far on what matrices to focus on and what other matrice can be included
Understanding the data and communication	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1a. We do have some data, most of which are only understood well by scientific people 2. Identify and include other existing eg, research entities with similar priorities in country to assist with understanding the data and interpretation of results. They can also assist with country reports. 3. Strengthening communication to relevant stakeholders, translating to local language or using easy to understand language for school curriculum, the general public and to decision makers at the political level. Mechanism for communication strategy can include talk back show on POPs with students or other target audience, use social media, intergrate into relevant policies
Mechanisms to trigger action and political support (science to action)	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. Far in terms of political support and it may take time to achieve politicians support 2. Bridge gaps in communication 3a. Make known POPs information b. Use media (news/ social media) c. Raise awareness in the general public d. Include in national development plan e. includes activities with waste management
Financial/ resource	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. Lack national financial support, use piggyback approach, we need more funding 2. Secure more funding, lure in private sector eg. establish Environment fund with link to legislations 3a. Divert financial income eg. Pollution fee & EIA fees to cater for POPs monitoring with a legal instrument b. Increase funding from UNEP POPs program 4. i. Use data to develop POP projects with a wider parameters to achieve sustainable POPs monitoring into the future ii. For the Pacific, the levels of POPs are very small, does that affect funding from UN EP to the Pacific Islands countries?
POPs monitoring mechanism	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. Only effective with the current POPs monitoring program 2. Sustainable implementation of POPs monitoring 3a. Continue with GMP3 b. Improve capacities (National, Regional and Labs) i. data collection ii. data analyses

	iii. data communication c. Use the NIP and have in place a monitoring strategy, establish collaborations with larger countries, like Australia. 4a. Need more funding from the program b. Need UNEP POPs program support in terms of sample movements c. Continuation of POPs information sharing
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Group 2: Countries with some capacities and some experience

In the table is summary the main point raised by the second group.

The generation of high quality and comparable data	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. We can only do legacy POPs for core matrices, but not good for new POPs; can only analyze some POPs such as PCBs, OCPs, PFOS, dioxins; data we have is only from GMP1, GMP2, POPsEA projects, proficiency testing 2. Become a regional center of excellence laboratory 3. Need support from government, other stakeholders, expert laboratories, funding agencies 4. Sustainable financing
Understanding the data and communication	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. with support of the experts we can compile, interpret the data and publish it 2. Do it on our own 3. Continued effort to produce reliable data; we need to train the people; knowledge sharing 4. we need dedicated staff and equipment only for POPs monitoring
Mechanisms to trigger action and political support (science to action)	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. we are just starting to do science (some data published) 2. we need more data/comparable data to convince policy makers 3. data driven decision making for POPs; more awareness in national and international level 4. educating society
Financial/ resource	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. we are very dependent on external funding 2. sustainable financing of POPs from different sources (both domestic and international) 3. have a target in the NIP; convince policy makers 4. co-financing
POPs monitoring mechanism	
1. Where are we? 2. Where do we expect to reach? 3. How to get there? 4. Any other important point to consider?	1. apart from GMP, POPsEA some countries have national institute to monitor specific matrices and POPs 2. establish national/regional laboratory for specific matrices and POPs 3. country commitments; consensus building at national and regional priorities on POPs 4. multistakeholder approach

Group 3: Experts, and countries with capacities in place

In the table is summary the main point raised by the third group.

The generation of high quality and comparable data	
Milk Monitoring	++
Air Monitoring	+ (initial spatial trend, change to time trends)
Water Monitoring	Spatial data -> move to trend data Problem: how to define the data sampling point
Interlab. assessment optimize impact and cost efficiency	Establishing of labs is expansive, lab experts must be available and well trained continuously analysing „their“ substances and using their systems -> „regional resource centres“

Cross Cutting, Enhanced data and trend interpretation	+ regions: possible +/- countries: more data points
Understanding the data and communication	
Milk Monitoring	++
Air Monitoring	+
Water Monitoring	+/-
Interlab. assessment optimize impact and cost efficiency	Room for improvement
Cross Cutting, Enhanced data and trend interpretation	Depend on the topic and matrix.
Mechanisms to trigger action and political support (science to action)	
Milk Monitoring	++
Air Monitoring	+/-
Water Monitoring	++
Interlab. assessment optimize impact and cost efficiency	??
Cross Cutting, Enhanced data and trend interpretation	??
Financial/ resource	
Milk Monitoring	++ Country specific: if it is not the regulation, if there is no programme founded by a third party
Air Monitoring	+ Country specific: if it is not the regulation, if there is no programme founded by a third party
Water Monitoring	+/- Country specific: if it is not the regulation, if there is no programme founded by a third party
Interlab. assessment optimize impact and cost efficiency	if it is not the regulation, if there is no programme founded by a third party
Cross Cutting, Enhanced data and trend interpretation	if it is not the regulation, if there is no programme founded by a third party
POPs monitoring mechanism	
Milk Monitoring	++ (global study)
Air Monitoring	+
Water Monitoring	+/-
Interlab. assessment optimize impact and cost efficiency	--
Cross Cutting, Enhanced data and trend interpretation	--

Annex 2. Agenda

Final Meeting of the UNEP/GEF projects “Implementation of the POPs Monitoring Plan in the Asian Region” and “Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in Pacific Region”

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Agenda

Tuesday, 4 April 2023		
8:30–9:00	Registration	
9:00–9:45	1. Opening remarks	Host country, Jacqueline Alvarez, Director, Chemicals and Health Branch, UNEP Mushtaq Memon, UNEP Regional Office for Asia and the Pacific UNEP Representative of the Basel and Stockholm Convention Regional Center for South East Asia
	2. Organizational matters: (a) Nomination of the chair; (b) Adoption of the agenda; (c) Organization of work.	All participants
9:45–10:00	3. Overview of project annual evaluations and next steps towards the terminal review	Jitendra Sharma, GEF unit, UNEP Chemicals and Health Branch
	4. Overview of the UNEP/GEF POPs GMP projects in the Asia and the Pacific region	Haosong Jiao, UNEP Chemicals and Health Branch
10:00–10:15	<i>Coffee break</i>	
10:15–12:00	5. Presentations of project countries: –Overview of the outputs and outcomes of the UNEP/GEF POPs GMP project. –Q&A	Project countries in the Asia and the Pacific region
12:00-12:15	6. Contributions of the GEF projects to the Stockholm Convention Global Monitoring Plan and the effectiveness evaluation of the Convention	Kei Ohno, BRS Secretariat

12:15-12:30	7. GMP Data Warehouse and the 4th cycle of the GMP implementation - upcoming challenges	Katerina Sebkova, RECETOX
12:30-14:00	<i>Group photo and lunch break</i>	
14:00-14:45	8. Presentations of project countries cont.: –Overview of the outputs and outcomes of the UNEP/GEF POPs GMP project. –Q&A	Project countries in the Asia and the Pacific region
14:45-15:30	9. Key findings on capacity building in the Asia and the Pacific Region	Expert laboratories
15:30-15:45	<i>Coffee break</i>	
15:45-16:45	10. Key findings on POPs monitoring in air, water, human milk and matrices of national interest in the Asia and the Pacific Region	Expert laboratories
16:45-16:55	11. Contributions of the UNEP/WHO human milk survey to understanding human exposure to POPs	WHO
16:55-17:00	12. Recap of the day: Key messages from project countries	All participants
17:00	13. Wrap-up of the first day of the meeting	UNEP
17:00 – 18:00	Reception	
Wednesday, 5 April 2023		
9:00-9:10	14. Recap of the first day's meeting	UNEP
	15. POPs monitoring partnerships in the Asia and the Pacific region	
9:10-9:30	(a) Future considerations of the POPsEA project	Takuya Shiozaki, POPsEA
9:30-10:00	(b) Collaboration between the University of Queensland and the University of South Pacific on POPs monitoring	Jochen Mueller, UQ Vincent Lal, Fiji
10:00-10:30	(c) Monitoring of POPs in other matrices	Yasuyuki Shibata, NIES Esteban Abad, CSIC
10:30-10:45	<i>Coffee break</i>	
10:45 – 11:30	14. Enhancing data usage for informed decision- and policy-making	
	(a) Data dashboard, laboratory databank and UNEP WESR	Victor Hugo Estellano, UNEP Chemicals and Health Branch
	(b) Data handling and management	BCRC-Uruguay
11:30-12:30	15. Key messages, lessons learnt and roadmap for sustainable monitoring of POPs	Gamini Manuweera, Expert, previous project manager of UNEP
12:30-14:00	<i>Lunch break</i>	
14:00-15:30	16. World Càfe: Key messages, lessons learnt and roadmap for sustainable monitoring of POPs (con.)	All participants
	(a) Group discussion	

	(b) Plenary	
15:30–15:45	<i>Coffee break</i>	
15:45–17:00	17. Conclusion of the UNEP/GEF POPs GMP projects in the Asia-Pacific Region 18. Other matters	All participants
17:00	19. Closure of the meeting	UNEP

Annex 3. List of Participants

Final Meeting for the UNEP/GEF projects “Implementation of the POPs Monitoring Plan in the Asian Region” and “Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in Pacific Region”

4-5 2023, Bangkok, Thailand

List of Participants

GOVERNMENTS

CAMBODIA

Mr. Laska Sophal
Director
Hazardous Substance Management
Ministry of Environment
Morodok Techno Building, Plots 503, Tonle Bassac,
Chamkarmon
Phnom Peenh, Cambodia
Tel: +855 12 900 470
E-mail: sophallaska.moe@gmail.com

Mr. Sim Vichet
Chief Office
Hazardous Substance Management
Ministry of Environment
Morodok Techno Building, Plots 503, Tonle Bassac,
Chamkarmon
Phnom Peenh, Cambodia
Tel: +855 87 0130
Email: simvichet@gmail.com

INDONESIA

Mr. Anton Purnomo
Director
Basel and Stockholm Regional Centre for Southeast
Asia,
Manggala Wanabakti Complex, Ministry of
Environment and Forestry
10207 Jakarta, Indonesia
E-mail: antonpurnomo@gmail.com; director@rc-sea.org

Ms. Ariyastuti
Environmental Impact Control Officer
Directorate of Toxic and Hazardous Substances
Management
16451 Depok, Indonesia
Email: ariyastuti297@gmail.com
/ariyastuti@alumni.ui.ac.id

LAO PDR

Mr. Virasack Chundara
Director General
Department of Natural Resources and Environment,
Ministry of Natural Resources and Environment
Khunbulom Rd. Chanthabouly District
7864 Vientiane Capital, Lao PDR
Tel: 856(20)-99624999
E-mail: sack_4369@yahoo.com

Mr. Lithsamone Phengphanhuk
Deputy of Division
Department of Natural Resources and Environment
Inspection
Ministry of Natural Resources and Environment
Vientiane Capital, Chanthabouly District,
Lao PDR
Tel: 856(20)-56595351
E-mail: pmrlithsamone@gmail.com

MONGOLIA

Ms. Enkhtuul Surenjav
Principal Investigator
Institute of chemistry and chemical technology
Mongolian Academy of Sciences
Peace avenue 13330, MAS 4th building, Bayanzurkh
district Ulaanbaatar 210351, Mongolia
Tel: +976 88053533
Email: enkhtuulls@yahoo.com

Ms. Bayarmaa Barkhuu
PhD, Head of Laboratory
Laboratory of Food Chemistry
Institute of Chemistry & Chemical Technology
Peace Avenue, 54B, 4th Building of MAS,
Ulaanbaatar 13330, Mongolia
Email: bbayarma@mas.ac.mn

PHILIPPINES

Mr. Roland Omar Tamani (online participation)
Engineer II
Chemical Management Section
Environmental Quality Management Division
Environmental Management Bureau – Department of
Environment and Natural Resources
Air Quality Management Training Center, Building,
DENR Compound, Vlsayas Avenue, Diliman,
Quezon City 1116, Philippines
Email: omar_tamani@emb.gov.ph

THAILAND

Ms. Teeraporn Wiriwutikorn
Specialist on Waste and Hazardous Substance
Management, Waste and Hazardous Substance
Management Division
Pollution Control Department
Ministry of Natural Resources and Environment
92 Soi Phahonyothin 7, Phahonyothin Road,
Sam Sen Nai, Phayathai, Bangkok 10400 Thailand
E-mail: teeraporn.w@pcd.go.th

Mr. Vuttichai Kaewkrajang
Environmentalist
Senior Professional Level
Pollution Control Department
92 Soi Phahonyothin 7, Phahonyothin Road,
Sam Sen Nai, Phayathai, Bangkok 10400 Thailand
Email: kaewkrav@hotmail.com

Ms. Piyanan Udomtang
Environmentalist
Professional Level,
Pollution Control Department,
92 Soi Phahonyothin 7, Phahonyothin Road,
Phaya thai, Phayathai, Bangkok 10400 Thailand
email: iampiyanan024@gmail.com;
piyanan.u@pcd.go.th

Ms. Pensri Watchalayann
Secretariat of the Environmental Engineering
Association of Thailand
Bangkok, Thailand
Email: pensri.watchalayann@gmail.com

VIETNAM

Mr. Duy Khanh Tran,
Official
Pollution Control Department (PCD),
Ministry of Natural Resources and Environment
No. 10 Ton That Thuyet, Nam Tu Liem District Hanoi
city 084, Vietnam
Email: trankhanh1003@yahoo.com

Mr. Hue Nhan Nguyen
Official
Pollution Control Department (PCD),
Ministry of Natural Resources and Environment
No. 10 Ton That Thuyet, Nam Tu Liem District
Hanoi 100000, Vietnam
Email : nguyenhue85@yahoo.com

FIJI

Mr. Vincent Lal
Manager Laboratory Services
The University of the South Pacific
Institute of Applied Sciences
Lower Campus, Laucala Bay,
Suva, Fiji
Email: vincent.vishant.lal@gmail.com

Mr. Philip Gabriel
Laboratory Technician
The University of the south Pacific,
The Institute of Applied Science,
Lower Campus, Laucala Bay,
Suva, Fiji
Email: Philip.gabriel@usp.ac.fj

KIRIBATI

Mr. Teema Biko
Senior Chemical/Hazardous Waste Management
Officer
Waste Management and Pollutions Prevention
Section
Environment and Conservation Division
Ministry of Environment, Lands and Agriculture
Development
P.O. Box 234, Bikenibeu, Tarawa
Kiribati
Tel: +686 28000 / 28211
Fax: +686 28334
E-mail: t.biko@melad.gov.ki

Mr. Taulehia Pulefou
Program Manager, Waste Management and pollution
Prevention
Environment and Conservation Division
Ministry of Environment, Lands and Agriculture
Development
P.O. Box 234 Bikenibeu, Tarawa
Kiribati
Tel: +686 28425
Fax: +686 28334
E-mail: tpulefou@melad.gov.ki

MARSHALL ISLANDS

Mr. Aaron Langinlur (online participation)
Chief
Solid Waste and Pollutions Division
P.O Box 1322
Majuro 96960
Marshall Islands
E-mail: aaronlanginlur@gmail.com

Mr. Jimson Lajkan
ODS/POPs coordinator
Awareness Division
Solid Waste and Pollutions Division
P.O Box 1322
Majuro 96960
Marshall Islands
E-mail: jimson.lj25@gmail.com

NIUE

Mr. Haden Talagi (online participation)
Department of Environment
Ministry of Natural Resources
Government of Niue
Tel: (683) 4021
Email: Haden.Talagi@mail.gov.nu

PALAU

Ms. Kliu Basilius
Manager
Education & Outreach Division
P.O. Box 943
Koror 96940
Palau
Email: kakkan@gmail.com

Mr. Mcquinn Ingais
Technician
Environmental Permitting Division
P.O. Box 8086,
Koror 96940
Palau
E-mail: ingaismac@gmail.com

SAMOA

Ms. Moira Faletutulu
ACEO,
Environment Sector Coordination Division,
Ministry of Natural Resources and Environment
Apia 688, Samoa

E-mail: moira.faletutulu@mnre.gov.ws

Ms. Fiasosoitamalii Siasosi
Principal Chemical and Hazardous
Waste Officer
Division of Environment and
Conservation
Ministry of Natural Resources and Environment,
TATTE Building, Savalalo
Apia 685, Samoa
Tel: +685 67200
E-mail: fiasoso.siasosi@mnre.gov.ws

SOLOMON ISLANDS

Mr. Ezekiel Meinogra Leghunau
Environment Officer
Environment and Conservation Division
Ministry of Environment, Climate Change, Disaster
Management and Meteorology
P.O. Box 21, city center Building, point Cruz,
Honiara, Solomon Islands
E-mail: Eleghunau@mecdm.gov.sb

Mr. Michael Palmer Suinao
Senior Environment Officer
Environment and Conservation Division
Ministry of Environment, Climate Change, Disaster
Management and Meteorology
P.O. Box 21, city center Building, point Cruz,
Honiara, Solomon Islands
E-mail: MSuinao@mecdm.gov.sb;
mykeesui@gmail.com

TUVALU

Mr. Poulaga Vavau
Chemical Management Officer
Department of Environment,
Vaiaku Funafuti
Tuvalu
E-mail: pvavau2k@gmail.com

Mrs. Moe Tuisiga Saitala Paulo
Environment Impact Assessment Officer
Department of Environment
Vaiaku, Funafuti
Tuvalu
Email: qmoe.saitala@gmail.com

VANUATU

Mrs. Annabelle Alilee
Pollution Control Officer
Environmental Protection Division /

Department of Environmental Protection and Conservation (DEPC)
Ministry of Climate Change Adaptation, Meteorology, Geo-Hazard, Environment and Energy
Port Vila PMB 9063
Vanuatu
Email: aalilee@vanuatu.gov.vu;
annabellealilee06@gmail.com

Mrs. Roselyn Bue
Senior Ozone and Chemical officer
Department of Environmental Protection and Conservation (DEPC)
Ministry of Climate Change Adaptation, Meteorology, Geo-Hazard, Environment and Energy
Port Vila
Vanuatu
Email: rbue@vanuatu.gov.vu;
roselyn.bue21@gmail.com

EXPERTS

Mr. Jacob DE BOER
Expert
Emeritus Professor, Environment and Health
Vrije Universiteit
De Boelelaan 1085
1081HV Amsterdam, Netherlands
Tel: +31 62 960 6769
E-mail: jacob.de.boer@vu.nl

Ms. Heidelore FIEDLER
Expert
Professor, MTM Research Centre
School of Science and Technology
Örebro University
701 82 Örebro
Sweden
Tel: +46 19 303153
E-mail: Heidelore.fiedler@oru.se

Mr. Esteban ABAD HOLGADO
Researcher
Laboratory of Dioxins - CSIC
E08034
Barcelona, Spain
Tel: +349 340 06100
E-mail: Esteban.abad@idaea.csic.es

Mr. Ralf Lippold
Director,
Chemisches und Veterinäruntersuchungsamt
(CVUA) Freiburg

79114 Freiburg, Germany
E-mail: ralf.lippold@cvuafr.bwl.de

Mr. Jochen MEULLER
Professor for Environmental Toxicology
Queensland Alliance for Environmental Health Sciences
University of Queensland
39 Kessels Road
Coopers Plains, QLD 4108
Australia
Email: j.mueller@uq.edu.au

Mr. Gamini MANUWEERA
Expert
Previous Programme Management Officer of the UNEP/GEF GMP project
Florida, USA
E-mail: gaminimanu@gmail.com

Mr. Yasuzuki Shibata
Former Vice Director
Environmental Safety Center, Tokyo University of Science (until 31 Mar, 2023)
E-mail: 2019ys0201@gmail.com

Mr. Takuya Shiozaki
Senior Manager
Environmental Sciences Department
10-6, Yotsuyakami-cho, Kawasaki-ku
Kawasaki-shi Kanagawa-ken 210-0828
Japan
E-mail: takuya_shiozaki@jesc.or.jp

Ms. Alejandra TORRE (online participation)
Co Director
BCC-SCRC Uruguay
Avenida Italia 6201
11500 Montevideo
Uruguay
Tel: +598 2601 3724 Ext. 1278
E-mail: atorre@latu.org.uy;
alejandra.torre@latu.org.uy

Ms. Katerina SEBKOVA (Online participation)
Director, National Centre and Stockholm Convention
Regional Centre
RECETOX, Faculty of Science
Masaryk University
Kamenice 753/5
62500 Brno, Czech Republic
Tel: +420 604 683 512
E-mail: sebkova@recetox.muni.cz

10200, Thailand
Email: mitsugu.saito@un.org

INTER-GOVERNMENTAL ORGANIZATIONS (IGOs)

Mr. Vijay Pal Singh (online participation)
Regional Office for South-East Asia
World Health Organization
World Health House
110002 New Delhi, India
Email: vjisingh@who.int

Mr. Gyanendra Gongal (online participation)
Senior Public Health Officer
Regional Office for South-East Asia
World Health Organization
World Health House
110002 New Delhi, India
Email: gongalg@who.int

Ms. Kei Ohno Woodall (online participation)
Programme Officer,
Science and Technical Assistance Branch and the
Governance Branch
BRS Secretariat
Geneva, Switzerland
E-mail: kei.ohno@un.org

Mr. Mushtaq Memon
Senior Programme Management Officer
Regional Coordinator for Resource Efficiency
United Nations Environment Programme Regional
Office for Asia and the Pacific
UN Building, 2nd Floor, Block A
Rachadamnern Nok Avenue Bangkok
10200, Thailand
Email: memon@un.org

Ms. Maria Hughes
Associate Programme Management Officer
Regional Coordinator for Resource Efficiency
United Nations Environment Programme (Regional
Office for Asia and the Pacific
UN Building, 2nd Floor, Block A
Rachadamnern Nok Avenue Bangkok
10200, Thailand
Email: maria.hughes@un.org

Ms. Mitsugu Saito
Programme Management Officer
United Nations Environment Programme Regional
Office for Asia and the Pacific
UN Building, 2nd Floor, Block A
Rachadamnern Nok Avenue Bangkok

Mr. Jitendra Sharma
Programme Management Officer
GEF Unit
Chemicals and Health Branch
Economy Division, UNEP
International Environment House-1
11-13 Chemin des Anemones, Chatelaine
1219 Geneva, Switzerland
E-mail: jitendra.sharma@un.org

Ms. Haosong JIAO
Associate Programme Management Officer
Knowledge and Risk Unit
Chemicals and Health Branch
Economy Division, UNEP
International Environment House-1
11-13 Chemin des Anemones, Chatelaine
1219 Geneva, Switzerland
Tel: +41 22 917 8735
E-mail: haosong.jiao@un.org

Mr. Victor Hugo Estellano Schulze
Programme Management Analyst
Knowledge and Risk Unit
Chemicals and Health Branch
Economy Division, UNEP
International Environment House-1
11-13 Chemin des Anemones, Chatelaine
1219 Geneva, Switzerland
E-mail: victor.estellano@un.org