



**Asia Pacific Mercury
Monitoring Network**

**The 13th Annual Asia Pacific Mercury Monitoring Network
(APMMN) Partners Meeting**

September 03-06, 2024

Taipei, Taiwan

**Organizers: Ministry of Environment Taiwan
United States Environmental Protection Agency
Environmental Protection Society of Taiwan
National Atmospheric Deposition Program**

Contents

About APMMN	1
Contact Information	2
Metropolitan Rapid Transit (MRT) in Taipei	3
Location Map of Meeting Venue and Hotel	4
Hotel Information.....	5
Meeting Venue	6
Emergency Services.....	7
Meeting Agenda	8

About APMMN

Mercury Concerns in Asia

Mercury (Hg), a persistent and bioaccumulative toxicant of increasing global concern, is dispersed worldwide primarily via long-range atmospheric transport. Methylmercury (MeHg), the most toxic species of Hg, is a neurotoxin that can cause long-term development delays in children. Because consumption of marine fish is the primary exposure route through which people are exposed to MeHg, methylation of inorganic Hg in aquatic environments and its subsequent accumulation in fish are major environmental concerns for human health. However, the main source of inorganic Hg is from the atmosphere for many aquatic systems, such as the open ocean worldwide.

Asia is the largest source region of atmospheric mercury and emissions continue to increase rapidly. The rapid growth of economic and industrial activities in Asia marked by the massive consumption of coal, petroleum, and fossil fuels has resulted in a dramatic increase of atmospheric mercury emissions. It is expected that mercury deposition within Asia will also continue to increase, leading to more mercury health issues in the region.

At present, scientists and decision-makers in the Asia-Pacific region must rely on limited information to understand and quantify the critical linkages between mercury emissions, environmental response, and potential human health concerns. As a primary mercury source region with limited mercury information and data, Asia is a particularly important region to further develop monitoring capacity.

The **Asia Pacific Mercury Monitoring Network (APMMN)** is a cooperative effort involving many different groups, including environmental ministries and federal government agencies, academic institutions, and scientific research and monitoring organizations. The goal of the APMMN is to systematically monitor wet deposition and atmospheric concentrations of mercury in a network of stations throughout the Asia-Pacific region. Objectives of the APMMN include:

- Determine the status and trends in: concentrations of ambient air mercury species - Gaseous Oxidized Mercury (GOM), Particulate Bound Mercury (PBM_{2.5}), Elemental Mercury (GEM); and wet, dry and total atmospheric deposition of mercury.
- Assist partner countries in developing their mercury monitoring and assessment capacity by providing training on multi-media (e.g., air, precipitation, water, sediment, biota) sampling and analytical methods, and best practices.
- Provide a robust dataset for regional and global model input.
- Share data and monitoring information among network partners.



Contact Information

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Route Map

Location Map of Meeting Venue and Hotel



Hotel Information

Taipei Garden Hotel (台北花園大酒店)

Address : No.1,Sec.2,Zhonghua Rd.,Zhongzheng District,Taipei City 10065,Taiwan

Tel : +886-22314-6611

Website : <https://www.taipeigarden.com.tw/en/>

Taking Metropolitan Rapid Transit(MRT) to the hotel :

- **Green Line (Songshan-Xindian Line)** – Get off at Xiaonanmen Station (circled in purple in MRT route map), take the No. 2 Exit and walk for about 5 minutes to the intersection of Zhonghua and Aiguo West Roads.
- **Blue Line (Bannan Line)** or **Green Line (Songshan-Xindian Line)** – Get off at Ximen Station (circled in purple in MRT route map), take the No. 2 Exit and walk for about 10 minutes to the intersection of Zhonghua and Aiguo West Roads.

Meeting Venue

Ministry of Environment Taiwan

Sept. 3rd : Conference Hall, 2nd floor in rear building

Sept. 4th : Conference Room 405, 4th floor in main building

Sept. 5th : Conference Room 405, 4th floor in main building

Address : 83, Zhonghua Rd. Sec. 1, Zhongzheng District, Taipei City 100006, Taiwan (R.O.C.)

Tel : +886-23117722

Website : <https://www.moeenv.gov.tw/en/>

Direction:

1. About 5 minutes on foot from Taipei Garden Hotel
2. Taking Metropolitan Rapid Transit (MRT) to the Ministry of Environment :
 - **Green Line (Songshan-Xindian)** – Get off at Xiaonamen Station, take the No. 1 Exit and walk for about 10 minutes.
 - **Blue Line (Bannan Line)** or **Green Line (Songshan-Xindian Line)** – Get off at Ximen Station (circled in purple in MRT route map), take the No. 2 Exit and walk for about 10 minutes.

Emergency Services

119

Ambulance and fire

110

Police

Agenda of the 13th Annual APMMN Partners Meeting

3rd September, 2024 (Tuesday)

09:00 – 09:30 Registration

09:30 – 09:50 **Opening Ceremony**

Remarked by:

Chi-Ming Peng, Minister, Ministry of Environment, Taiwan

Jane Nishida, Assistant Administrator, Environmental Protection Agency, USA

09:50 – 09:55 Group photo

09:55 – 10:20 Coffee break

10:20 – 11:40 **Invited Presentations**

Chaired by Guey-Rong Sheu

10:20 – 10:40 APMMN: An Update on Progress and Opportunities for the Future

David Schmeltz, Environmental Protection Agency, USA

David Gay, National Atmospheric Deposition Program, USA

10:40 – 11:00 Inter-Laboratory Comparison for Gold Amalgamation Trap Analysis

Mitsugu Saito, Regional Office for Asia and the Pacific, UNEP

11:00 – 11:20 Hg Survey in the East China Sea and Western North Pacific Ocean

Kohji Marumoto, National Institute for Minamata Disease, Japan

11:20 – 11:40 Mercury Management Strategy in Taiwan

Pao-Kuei Hsiao, Chemical Administration, Ministry of Environment, Taiwan

11:40 – 13:30 **Lunch**

13:30 – 14:10 **Meeting Session I. The Asia-Pacific Mercury Monitoring Network**

Chaired by David Schmeltz

13:30 – 13:55 Introduction to the APMMN and State of the Network

Guey-Rong Sheu, National Central University, Taiwan

13:55 – 14:10 Mercury Central Analytical Lab and Site Liaison Reports

Da-Wei Lin, National Central University, Taiwan

14:10 – 14:46	Meeting Session II. APMMN Partner and Stakeholder Updates <i>Chaired by David Schmeltz</i>
14:10 – 14:22	Vietnam <i>Nguyen Huu Thang, Northern Centre for Environmental Monitoring</i>
14:22 – 14:34	Thailand <i>Chanthiraporn Tangsuwan, Environmental Research and Training Center</i>
14:34 – 14:46	Taiwan <i>Ting-Yu Yeh, Ministry of Environment</i>
14:46 – 15:10	Coffee break
15:10 – 16:34	Meeting Session II. APMMN Partner and Stakeholder Updates (continued) <i>Chaired by David Gay</i>
15:10 – 15:22	Sri Lanka <i>Anurudda Karunaratna, University of Peradeniya</i>
15:22 – 15:34	South Africa <i>Lynwill Martin, South African Weather Service</i>
15:34 – 15:46	Philippines <i>Alex D. Jimenez, Environmental Management Bureau</i>
15:46 – 15:58	Palau <i>Darwin Florencio, Environmental Quality Protection Board</i>
15:58 – 16:10	Nepal <i>Ashmita Oli, Department of Environment</i>
16:10 – 16:22	Mongolia <i>Enkhmaa Sarangerel, National Agency for Meteorology and Environmental Monitoring</i>
16:22 – 16:34	Maldives <i>Nafha Abbas, Ministry of Climate Change, Environment and Energy</i>
16:34	Day 1 Wrap-up
16:34 – 18:00	Heading to the Welcome Banquet venue
18:00 – 20:00	Welcome Banquet <i>Hosted by Ministry of Environment Taiwan</i>

4th September, 2024 (Wednesday)

09:00 – 10:34	Meeting Session II. APMMN Partner and Stakeholder Updates (continued) <i>Chaired by Guey-Rong Sheu</i>
09:00 – 09:12	Korea <i>Minjeong Kim, Gwangju Institute of Science and Technology</i>
09:12 – 09:24	Japan <i>Kohji Marumoto, National Institute for Minamata Disease</i>
09:24 – 09:36	Indonesia <i>Ely Rahmy Tapriziah, Environmental Management Center</i>
09:36 – 09:48	India <i>Asif Qureshi, Indian Institute Technology</i>
09:48 – 10:00	Fiji <i>Vincent Lal, University of the South Pacific</i>
10:00 – 10:12	Australia <i>Jennifer Powell, Commonwealth Scientific and Industrial Research Organisation</i>
10:12 – 10:40	Coffee break
10:40 – 11:40	Meeting Session III. Network Directions Discussion <i>Moderated by David Gay, David Schmeltz, and Guey-Rong Sheu</i>
11:40 – 13:30	Lunch
13:30 – 14:30	Training Session by APMMN: Wet Hg Deposition Monitoring <i>Da-Wei Lin, National Central University, Taiwan</i> <i>Chung-Yen Li, National Central University, Taiwan</i>
14:30 – 15:00	Q&A
15:00 – 15:20	Coffee break
15:20 – 16:20	Training Session by IDEA: Manual Active Sampling Method <i>Keisuke Uchida, IDEA Consultants, Inc., Japan</i> <i>Jumpei Okita, IDEA Consultants, Inc., Japan</i>
16:20 – 16:50	Q&A
16:50	Day 2 Wrap-up

5th September, 2024 (Thursday)

MOEJ Training Workshop

09:00 – 09:20 **Housekeeping Information**

09:20 – 10:30 **Presentation**

- Outline and Sampling Operation of Manual Active Sampling
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10:30 – 10:45 Coffee break

10:45 – 12:00 **Presentation**

- Monitoring Data Analysis
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12:00 – 13:30 Lunch

13:30 – 15:30 **Presentation**

- Data Sharing Platform Idea and Challenges
 - Instrument for Atmospheric Monitoring
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15:30 – 15:45 Coffee break

15:45 – 17:30 **Discussion for Future Networking**

17:30 **Day 3 Wrap-up**

6th September, 2024 (Friday)

08:30 – 12:00 **Field trip to visit Xiaoyoukeng fumaroles in Yanmingshang National Park**

12:00 – 14:00 Lunch

14:00 Return to hotel

7th September, 2024 (Saturday)

Departure
