



環境部
Ministry of Environment

13th Annual Asia-Pacific Mercury Monitoring Network Partners Meeting

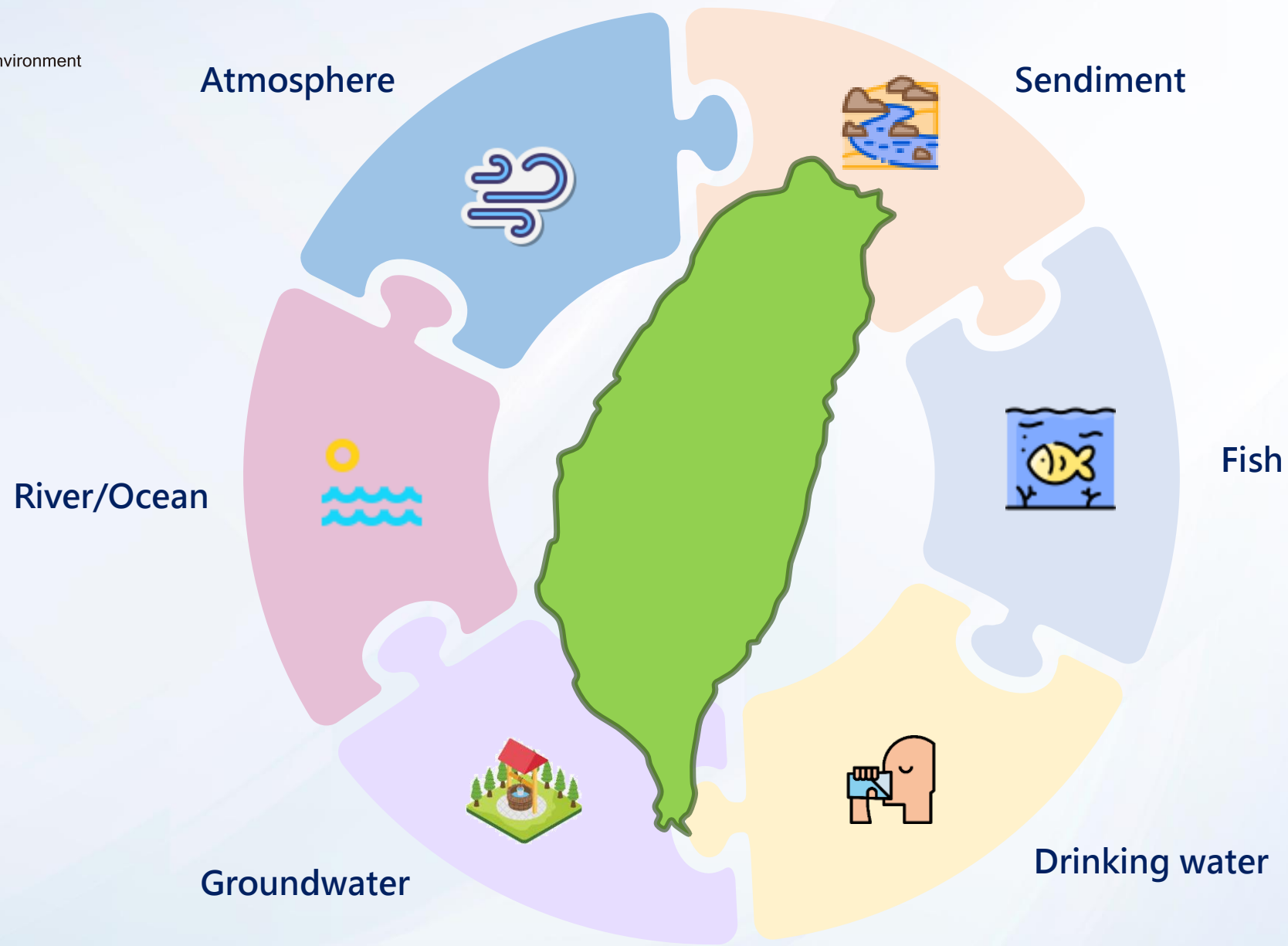


Environmental Mercury Monitoring in Taiwan

MOENV

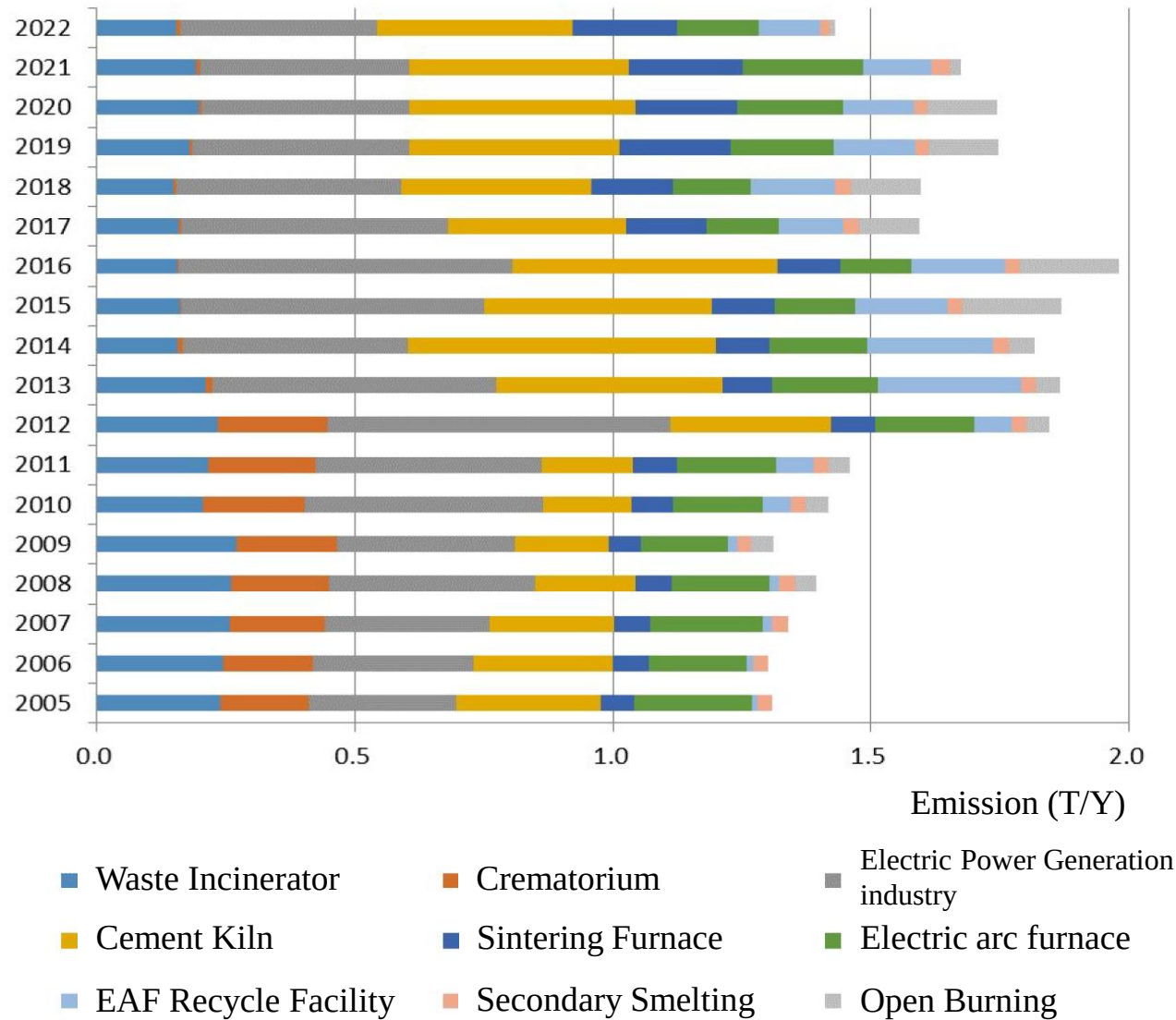
Department of Monitoring and Information

Ting-Yu Yeh

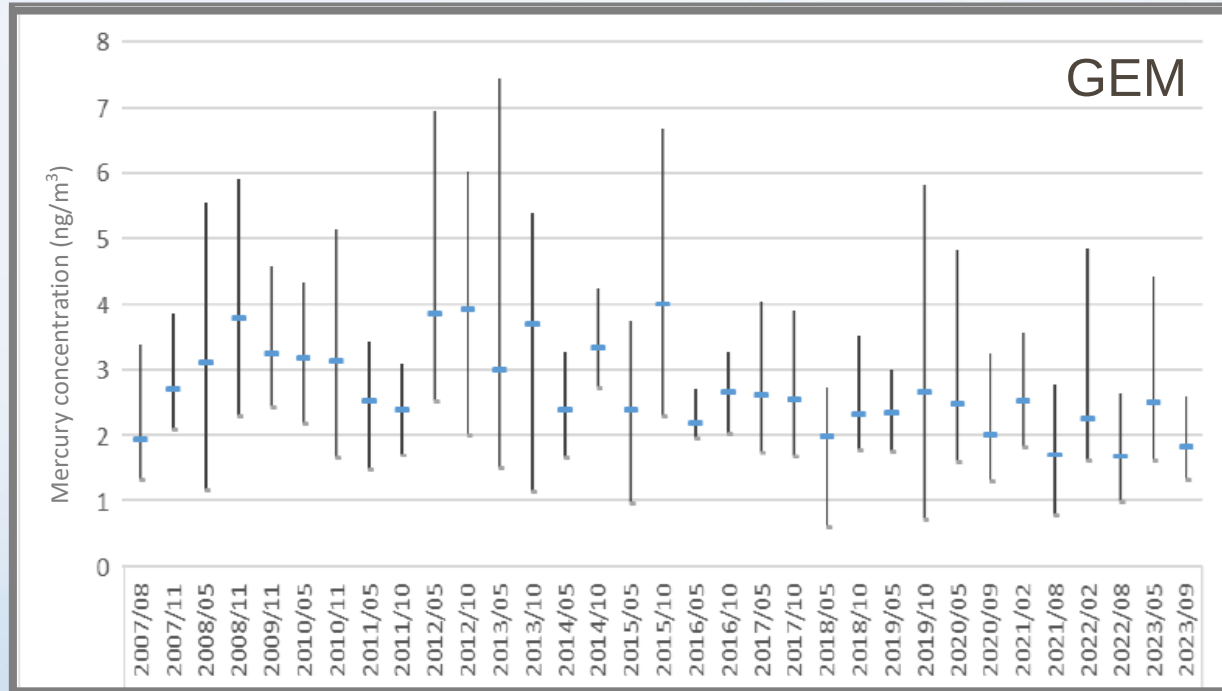
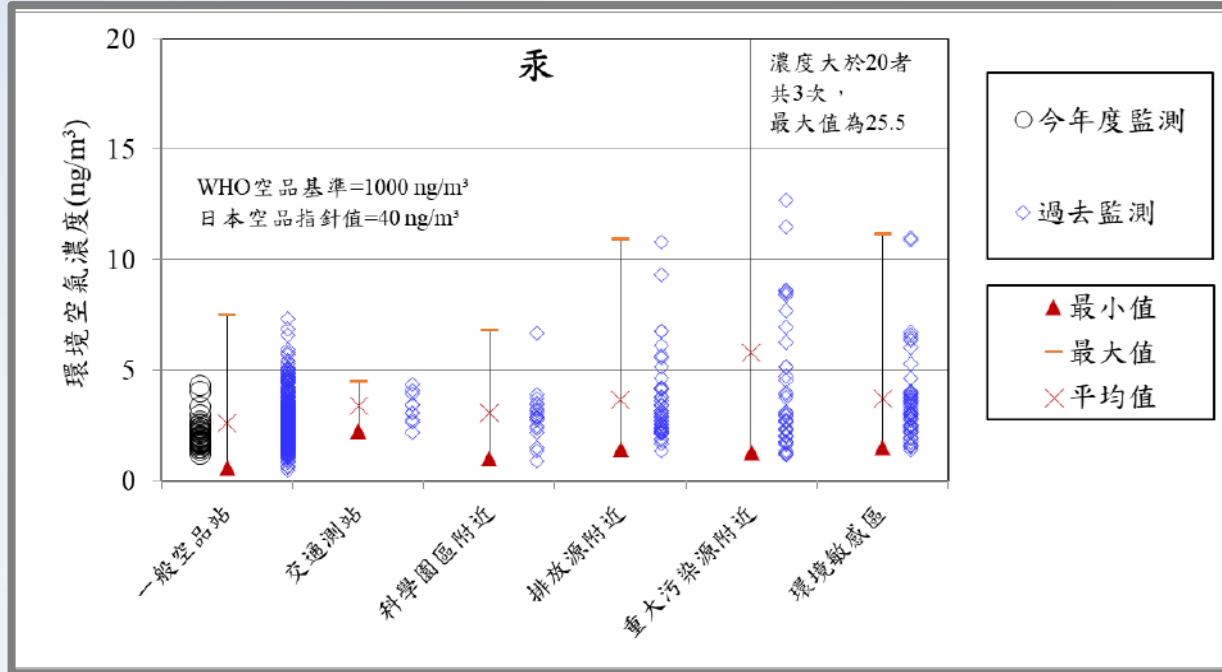


The Minamata Convention on Mercury (2017) Article 19 Research, development and monitoring
(e) Information on the environmental cycle, transport (including long-range transport and deposition), transformation and fate of mercury and mercury compounds in a range of ...

Atmosphere Emission Inventory



- In 2022, the atmospheric mercury emission inventory was around 1.44T.
- Power generation and cement kiln remain the two main sources of atmospheric mercury contributors.

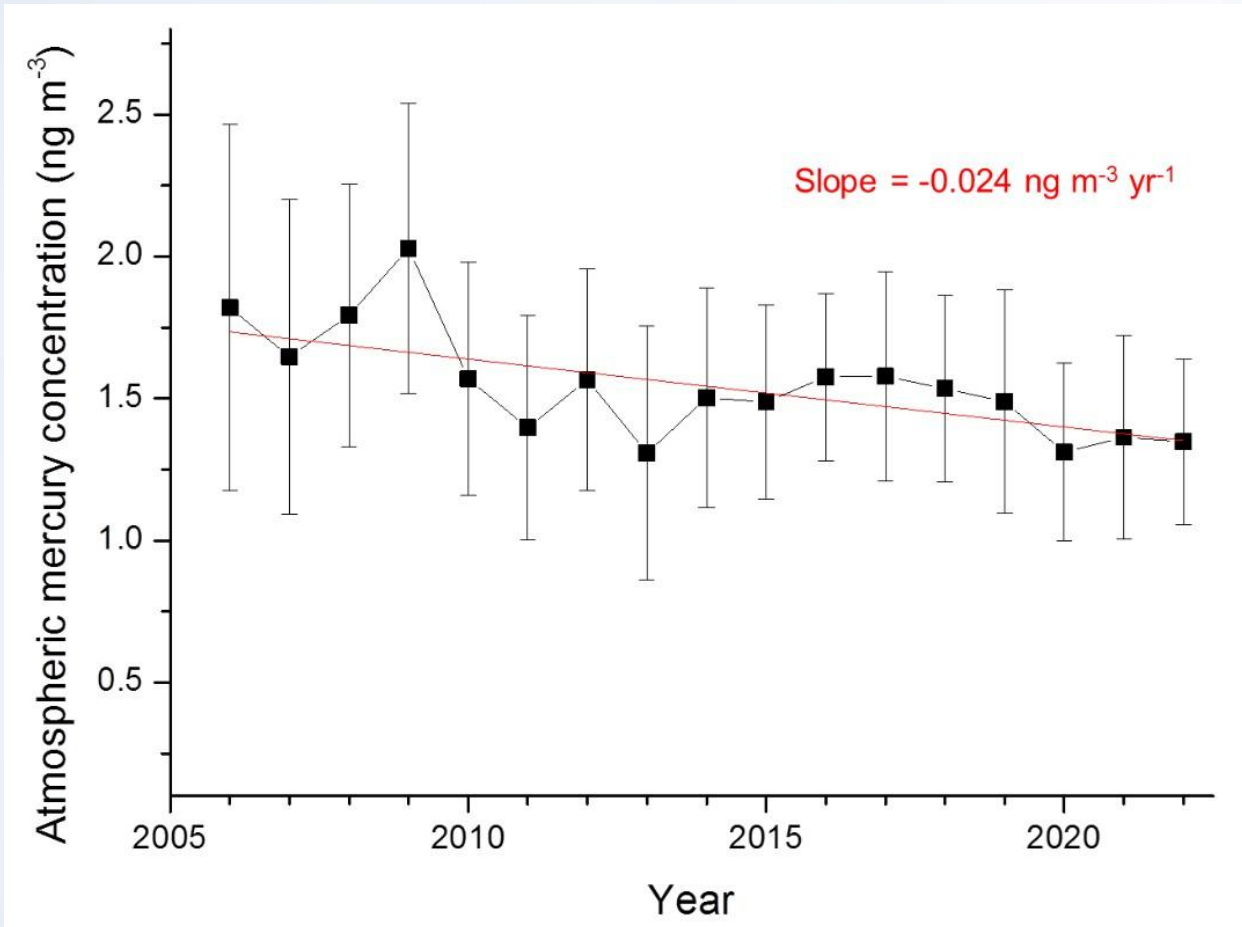


- In 2023, the air monitoring station reported ambient GEM: 1.3-4.43 ng/m³.
- The annual average GEM concentration between 2007-2023 ranged from 1.67 – 3.99 ng/m³, well below the standard of
 - 1,000 ng/m³ per WHO
 - 40 ng/m³ as agreed upon with Japan

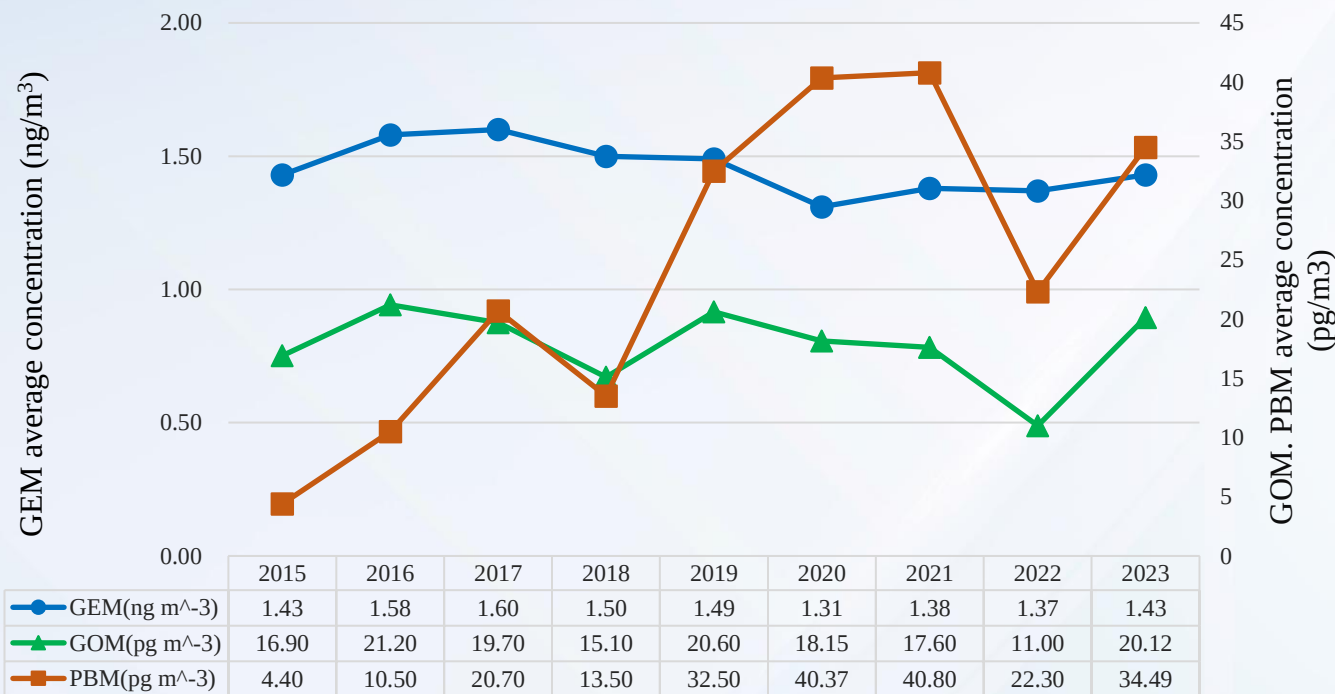


The Lulin station

- Purpose: To track the trans-boundary transport of atmospheric pollutants.
- International cooperation with NOAA, NASA and USEPA.
- Continuous measurement of species composition and concentration, including GEM, GOM and PBM.
 - GEM data every 5min.
 - GOM&PBM datas every 3 hour.



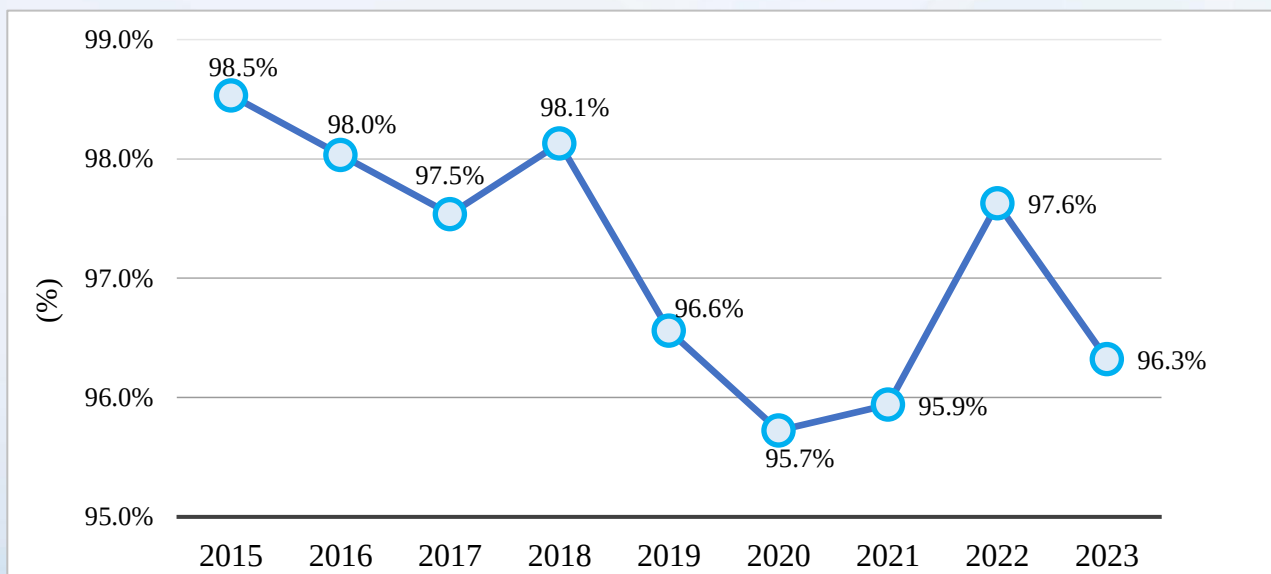
- The Lulin station reported an annual average atmospheric mercury concentration between 1.31 – 2.03 ng/m^3 since 2006, yielding a downward slope of -0.024 ng/m^3 .



- According to the monitoring data in 2023, the average concentration of:

- GEM: 1.43 ng/m³
- GOM: 20.12 pg/m³
- PBM: 34.49 pg/m³

- The main proportion is the GEM.
- GEM appears to decrease since the implementation of Minamata Convention on Mercury.

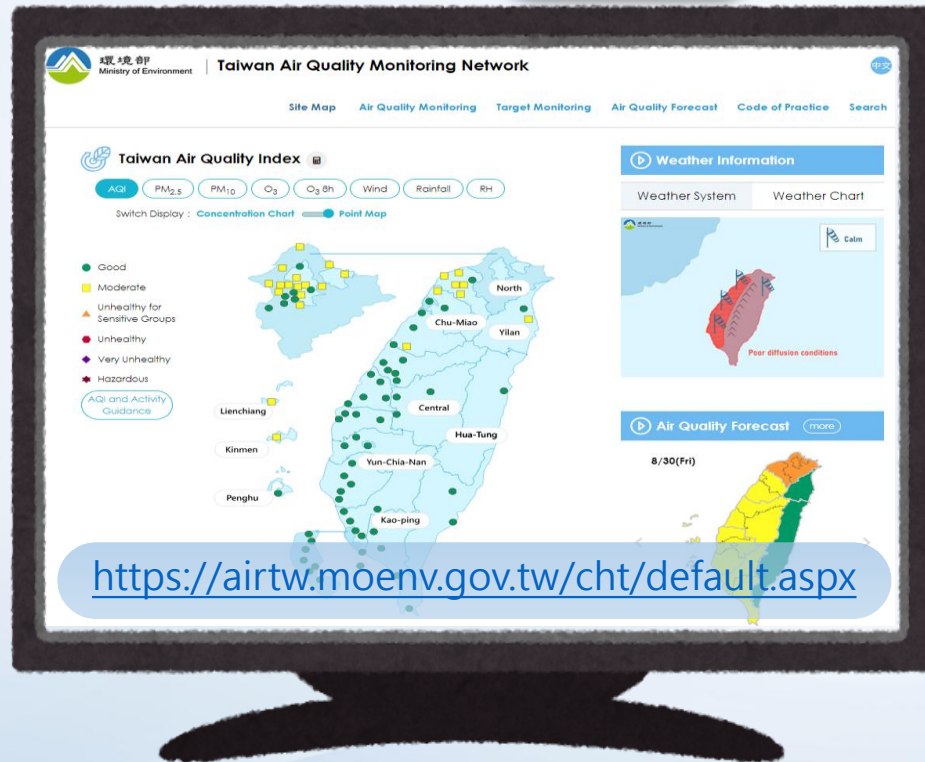


Historical ratio of GEM to total atmospheric mercury concentration

APMMN Site setup in Palau

- Sampler arrived at Palau in 2020. Due to the pandemic, the sampler setup has been delayed and cannot be activated.
- There was an opportunity to visit Palau last year, and completed the setup and installation of the sampler.





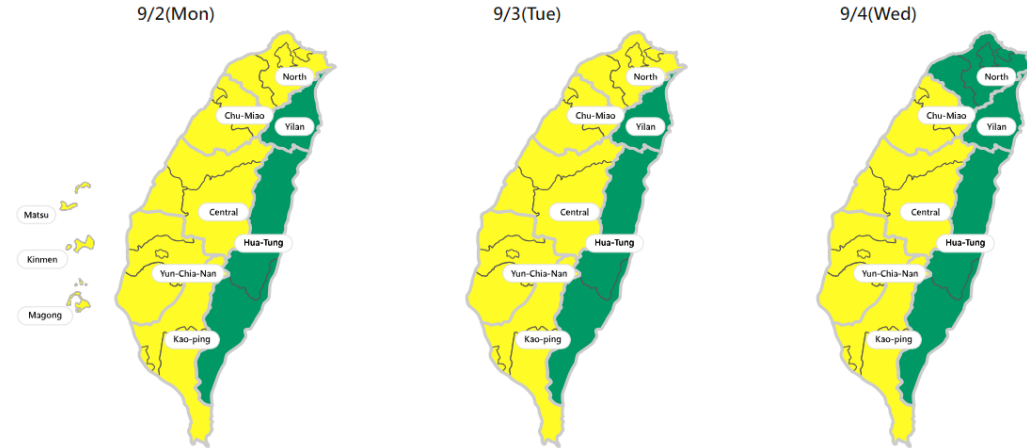
3-Day Air Quality Zone Forecast Report



AQI forecast report of each air quality zone around Taiwan

Published : 2024/09/01 22:00

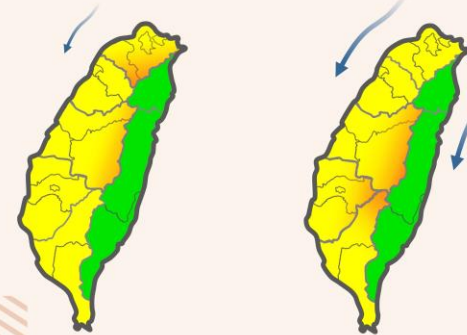
Next Forecast : 2024/09/02 10:30



未來一週空氣品質預報

8/31~9/5

113年8月30日17時發布



空氣品質重點說明

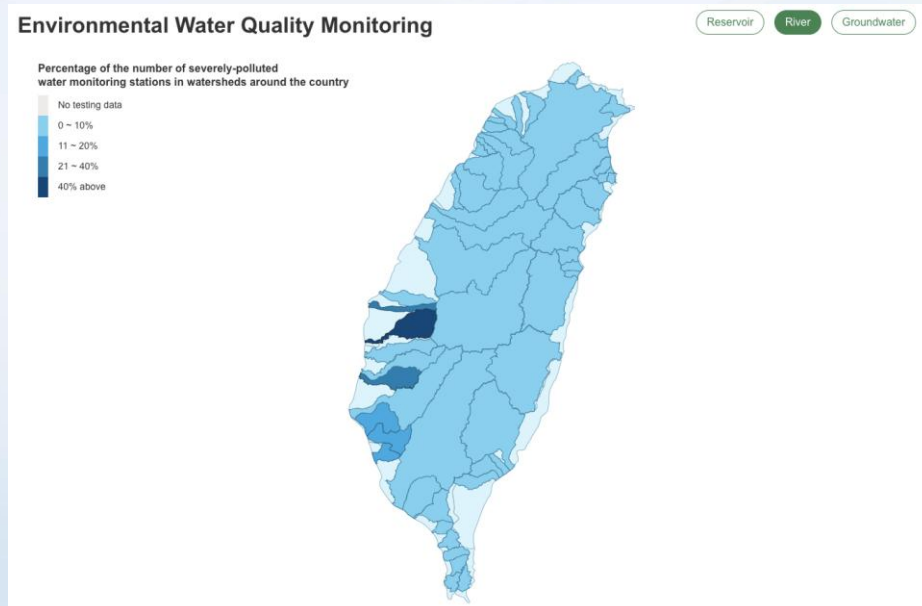
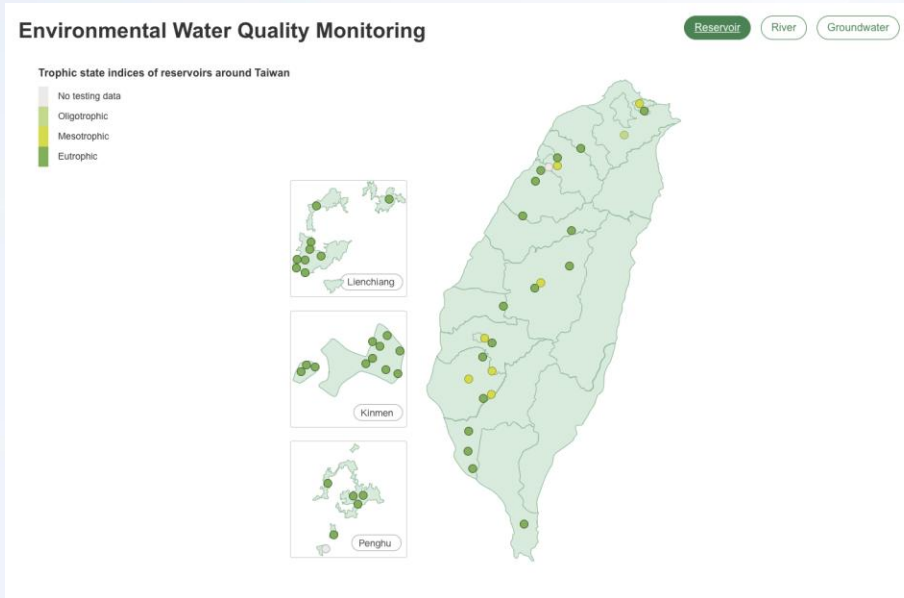
8/31(六)~9/3(二)

全臺風速稍弱
擴散條件稍差
午後臭氧濃度稍易上升

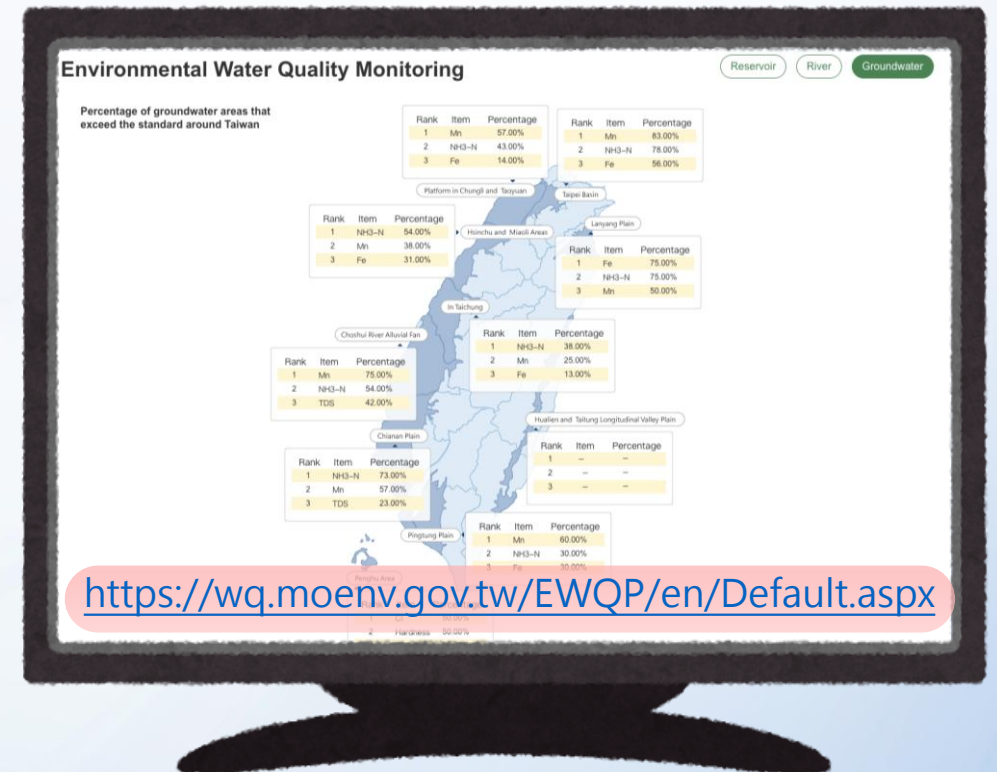
9/4(三)~9/5(四)

環境風場轉為東北風
中南部污染物稍易累積
午後臭氧濃度稍易上升

⚠ 低壓靠近天氣不穩定，空氣品質受氣象條件影響大，仍有其不確定性，請隨時留意環境部最新空氣品質資訊。



Water Quality Monitoring



Summary

- MOENV has solid experiences and numerous resources available in monitoring mercury in different medias.
- We would like to continue to cooperate on international efforts to help reduce the global mercury pollution.



Thank You for your attention.

