

Toward the Sustainable Nitrogen Management

Yu Kamei
Director for International Cooperation
Environmental Management Bureau
Ministry of the Environment, Japan

UNEA Resolutions on Sustainable Nitrogen Management

UNEA 4/14. Sustainable nitrogen management (Mar 2019)

1st meeting of the UNEP Working Group on Nitrogen (Jun 2020)

2nd meeting of the UNEP Working Group on Nitrogen (Jan 2023)

UNEA 5/2. Sustainable nitrogen management (Mar 2022)

Noting with concern that excessive levels of nutrients, in particular reactive nitrogen and phosphorus, have a significant impact on species composition in terrestrial, freshwater and coastal ecosystems, with cascading effects on biodiversity, on the quality of soil, water and air, and on ecosystem functioning and human well-being,

1. Encourages Member States to accelerate actions to significantly reduce nitrogen waste globally by 2030 and beyond through the improvement of sustainable nitrogen management;
2. Also encourages Member States to share information on national action plans, as available, according to national circumstances;

3rd meeting of the UNEP Working Group on Nitrogen (Apr 2023)

4th meeting of the UNEP Working Group on Nitrogen (Sep 2023)

5th meeting of the UNEP Working Group on Nitrogen (Jan 2024)

UNEA 6. (Feb 2024)

Relevant Ministries Liaison Meeting on Sustainable Nitrogen Management

Meeting to facilitate communication and information sharing and promote discussions among relevant ministries

- *Ministry of the Environment*
- *Ministry of Agriculture, Forestry and Fisheries*
- *Ministry of Land, Infrastructure, Transport and Tourism*
- *Ministry of Economy, Trade and Industry*
- *Ministry of Health, Labour and Welfare*

Advisory Committee on Sustainable Nitrogen Management

Committee to obtain scientific and technical advice

Consisting of experts and researchers in related fields

- *nitrogen cycle, denitrification technology, nitrogen inventory, nitrogen footprint, enclosed seas, lakes, groundwater, atmospheric environment*



**Formulation of the National Action Plan
on Sustainable Nitrogen Management**

Synergistic Approach on Sustainable Nitrogen Management

Synergistic Approach on Sustainable Nitrogen Management

Water and Atmospheric Environment Management

- Advanced treatment (denitrification) in factories
- Dealing with nitrate and nitrite nitrogen in groundwater, eutrophication of lakes

Carbon Neutral

Expanding the use of fuel ammonia and hydrogen, reducing emissions to the air

Circular Economy

Expanding the use of compost and sewage sludge

Nature Positive

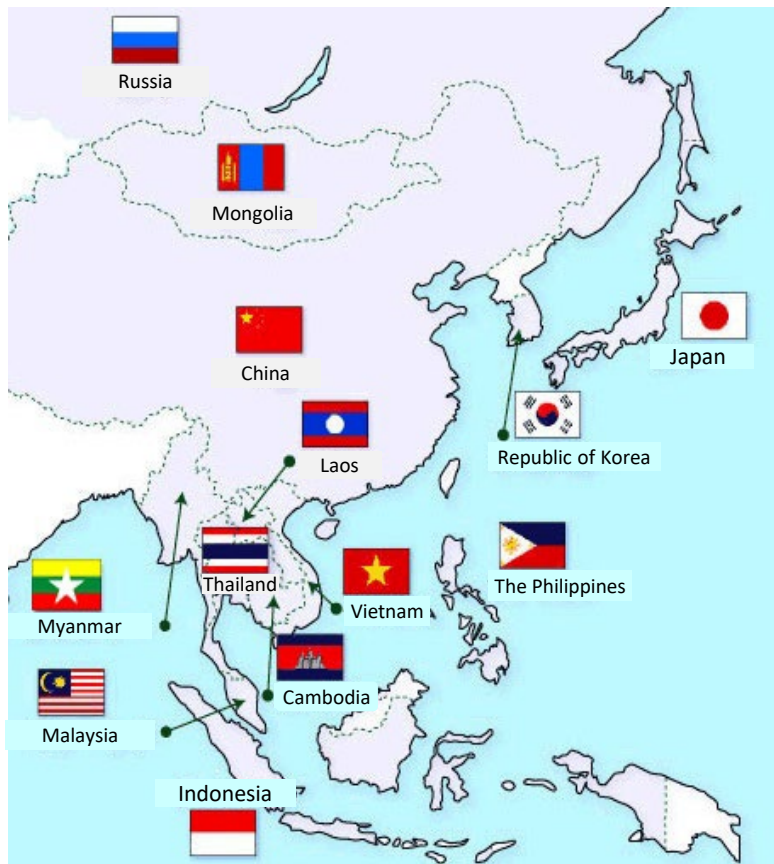
Creating ocean rich in fishery resources through appropriate nutrient management

International Cooperation on Sustainable Nitrogen Management

Sharing knowledge and experience, capacity building and support introduction of technologies, such as

- *Sharing knowledge and experience through the EANET Project*
- **Capacity building through the WEPA**
- **Support introduction of technologies by the water improvement model project**

Acid Deposition Monitoring Network in East Asia (EANET)



- Started operation in January 2001 with the aim of establishing a regional cooperation mechanism on acid deposition problems in East Asia.
- Currently 13 countries are participating.

Scope Expansion

- At the Intergovernmental Meeting held in 2020, it was agreed to expand the scope of activities to address **wider atmospheric environment-related issues** from the acid deposition.
- At the Meeting in 2021, the specific atmospheric environment-related substances and activities to be covered by the expanded scope and the guidelines for the new EANET Project Fund were adopted.

- **EANET** has been monitoring wet and dry deposition, soil, vegetation, land water, and catchments for many years in the East Asian region, and **has a lot of data, knowledge and experience on reactive nitrogen**.
- **Japan plans to hold seminars on sustainable nitrogen management** as the EANET project in 2024(16th Feb and after UNEA6), to share international trends, and sharing information, knowledge and experience of EANET.

Programs to Improve Water Environment in Asia

Water Environment Partnership in Asia (WEPA)

Partnership aims to improve the capacity of government officials in Asian countries by sharing issues and experiences related to water environmental governance

WEPA consists of partners in 13 Asian countries



Model Project for Improvement of Water Environment in Asia

Project aims to promote the improvement of the water environment by disseminating appropriate water treatment technologies

Feasibility Study



Pilot Project



Developing Business Models



Water Environment Improvement Project by Introducing Advanced Johkasou System in the World Heritage City in Laos, 2020-2023

- WEPA has a lot of knowledge and experience on capacity development.
- To promote the sharing information, knowledge and experience on sustainable nitrogen management through WEPA activities.