Assess to air pollution by EANET

Introduction on projects in 2022 and 2023 in relation with perspective of EANET

EANET/IIASA International Workshop

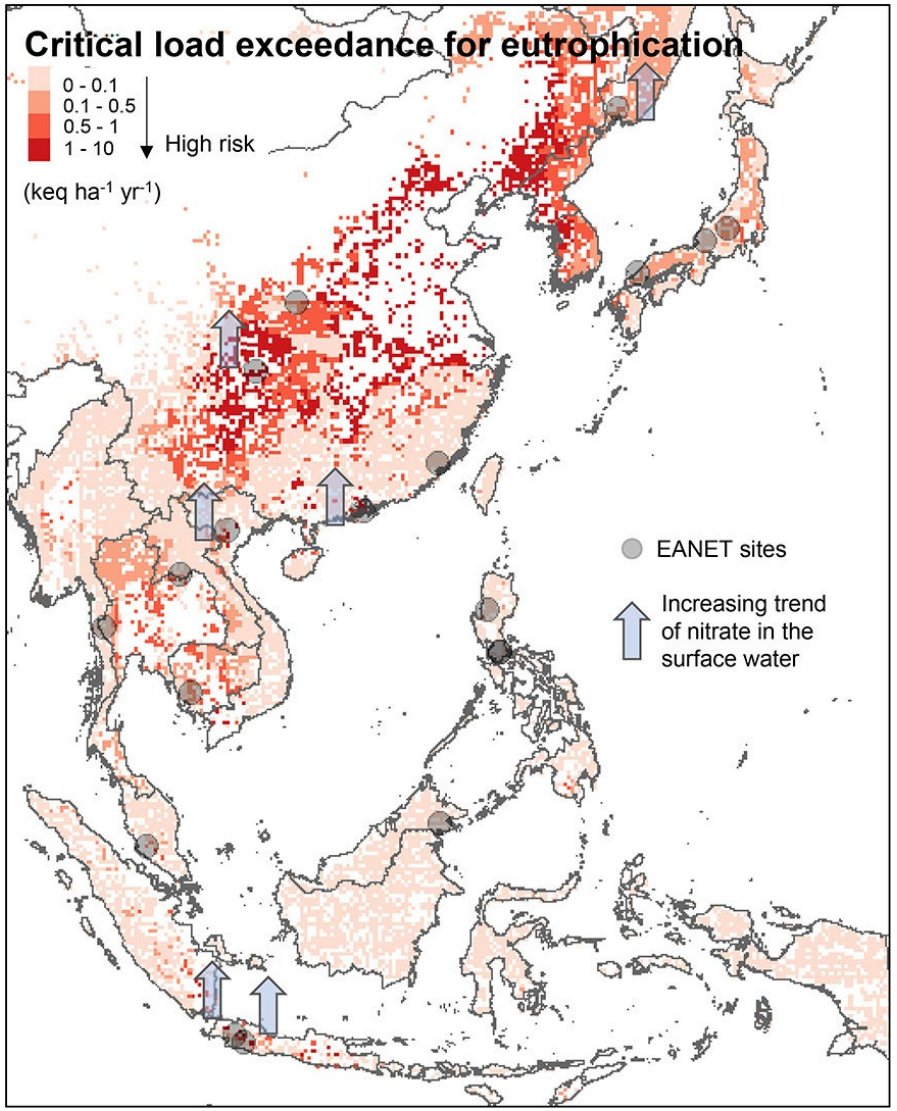
Strengthening the Science-Policy Interface for Clean Air and a Sustainable Future in Asia

Ken Yamashita, ACAP

19 December 2022, Hybrid (on-site/online), Tokyo, Japan

Risk of air pollution/acid deposition in East Asia

(source: WHO, 2020)



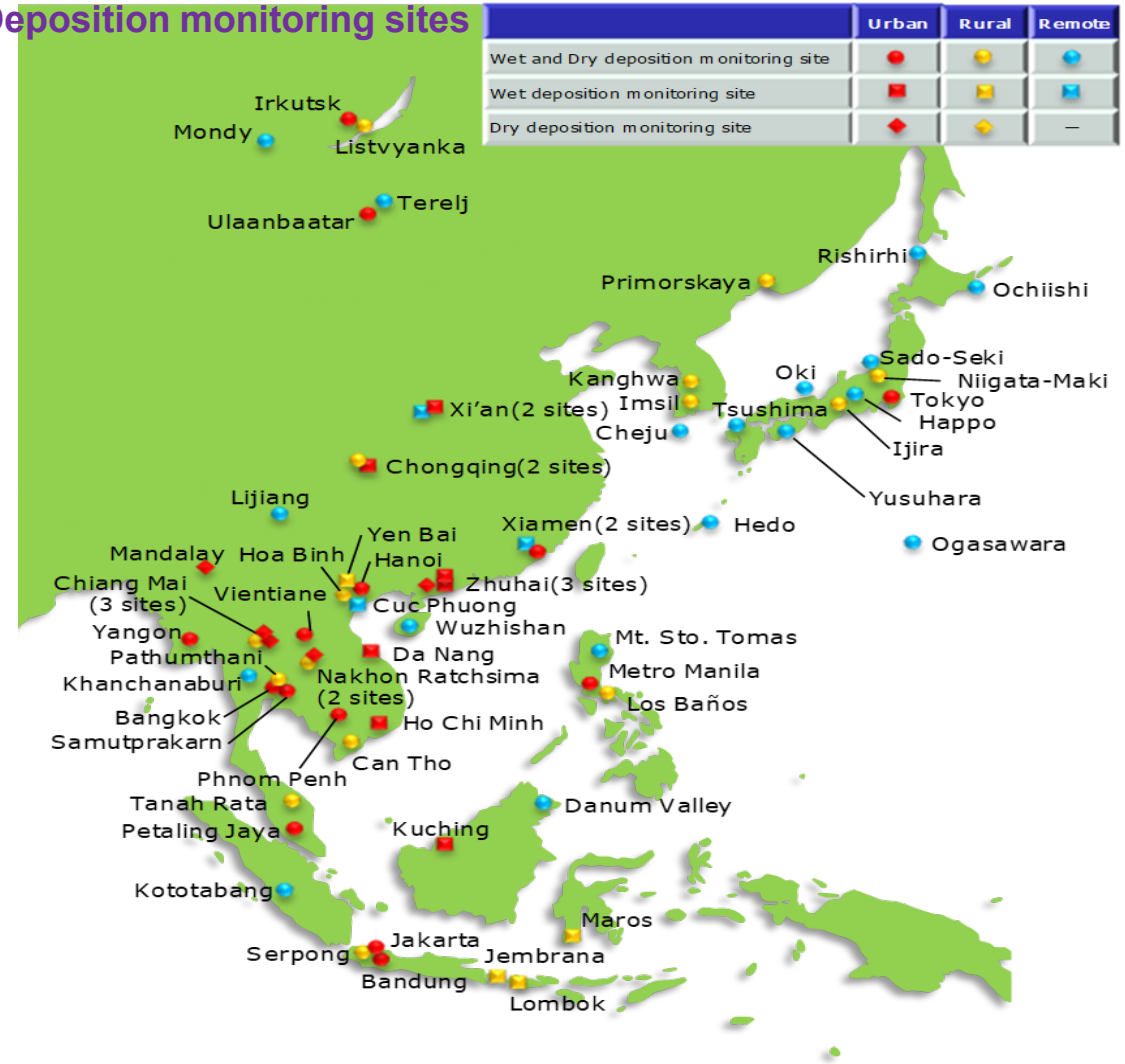
(source: Yamashita N et al., 2022)

The monitoring sites of **EANET** in 2019

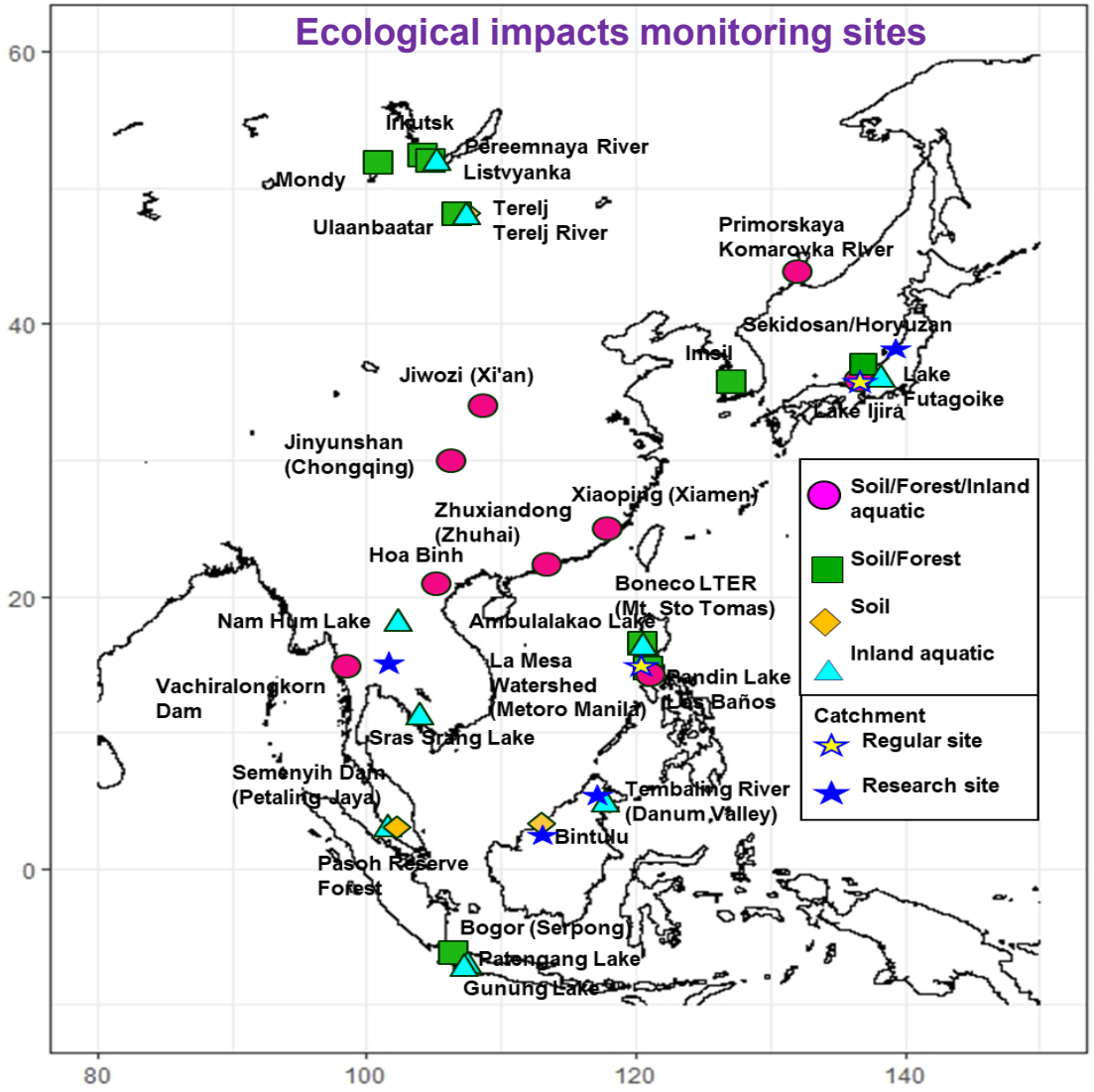
EANET Fact Sheet

- Wet deposition (61 sites)
- Dry deposition (54 sites)
- Soil and vegetation (20 areas)
- Inland aquatic environment (19 lakes/rivers)
- Catchment scale (2 sites)

Deposition monitoring sites



Ecological impacts monitoring sites



Supplementary Document (Annex) to the Instrument for Strengthening the EANET

Attachment: (Expanded) Scope of EANET

Atmospheric Environment-related Substances		Item 4 Monitoring and Reporting	Item 5 Assessment	Item 6 Research Activities	Item 7 Education and Training	Item 8 Public Awareness	Item 9 Exchange of Information
SO_2		√	√	*	√	√	√
NO_X		√	√	*	√	√	√
NH_3		√	√	*	√	√	√
PM	PM2.5	√	√	*	√	√	√
	PM10	√	√	*	√	√	√
	TSP	√	√	*	√	√	√
	[DSS[a]]	√	√	*	√	√	√
	PM(inorganic ions)	√	√	*	√	√	√
	PM(metallic elements)	-	-	*	√	√	√
	PM(organic aerosols)	-	-	*	√	√	√
Precipitation Chemistry (ions, pH, EC)		√	√	*	√	√	√
Surface Ozone		√	√	*	√	√	√
CO		-	-	*	√	√	√
VOCs		-	-	*	√	√	√

[√: Applicable], [-: Not applicable], [*: Partly applicable]: see Item 3, para 4

[aNote: Dust and Sand Storms(DSS) are suspended dust and sand caused by dust and sandstorms.]

[Item 3, para 4]
4. On research activities (Item 6 of the Instrument), scientific research activities related to emission inventories, modeling, and human health effects shall include only methodological research and capacity building of the research activities. (Supplementary Document (Annex))

EANET Project Cycle and Procedure for Its Approval

The EANET Project Cycle

1. Preparation Stage

The Project Lead develops a project proposal including objectives, activities, required resources, the requested amount from the Project Fund, implementation arrangements, and other key factors.

2. Approval Stage

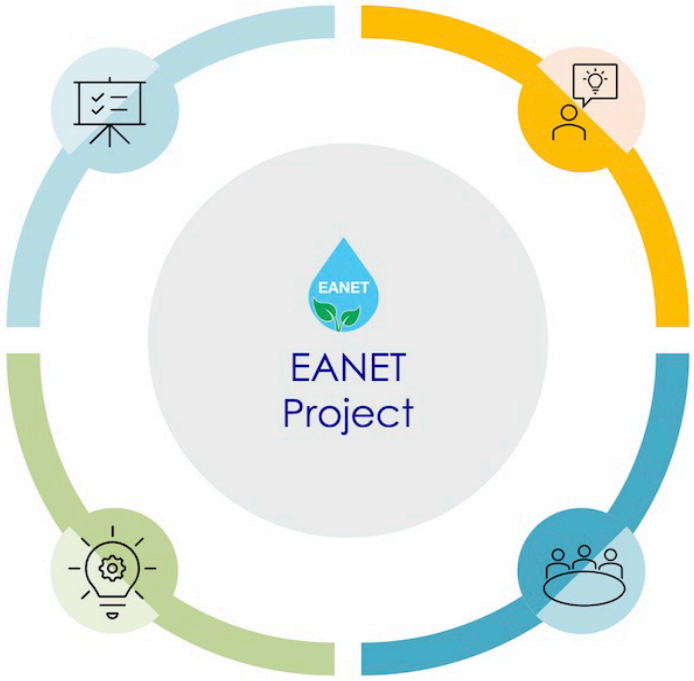
The Intergovernmental Meeting on the EANET (IG) reviews the project proposal, and approves it if appropriate, as the Project Plan of EANET Project, including the allocated amount of the Project Fund.

3. Implementation Stage

Activities specified in the Project Plan will be implemented in line with it, and using the resources allocated from Project Fund.

4. Completion Stage

Implemented activities, outputs and outcomes of the Project shall be reported to IG and relevant stakeholders, and then evaluated by IG.



Project Proposal Submission to the Secretariat

↓ Preliminary review by the Sec and NC for the EANET

Reviewed and Discussed at EANET Working Group Meeting (WG)

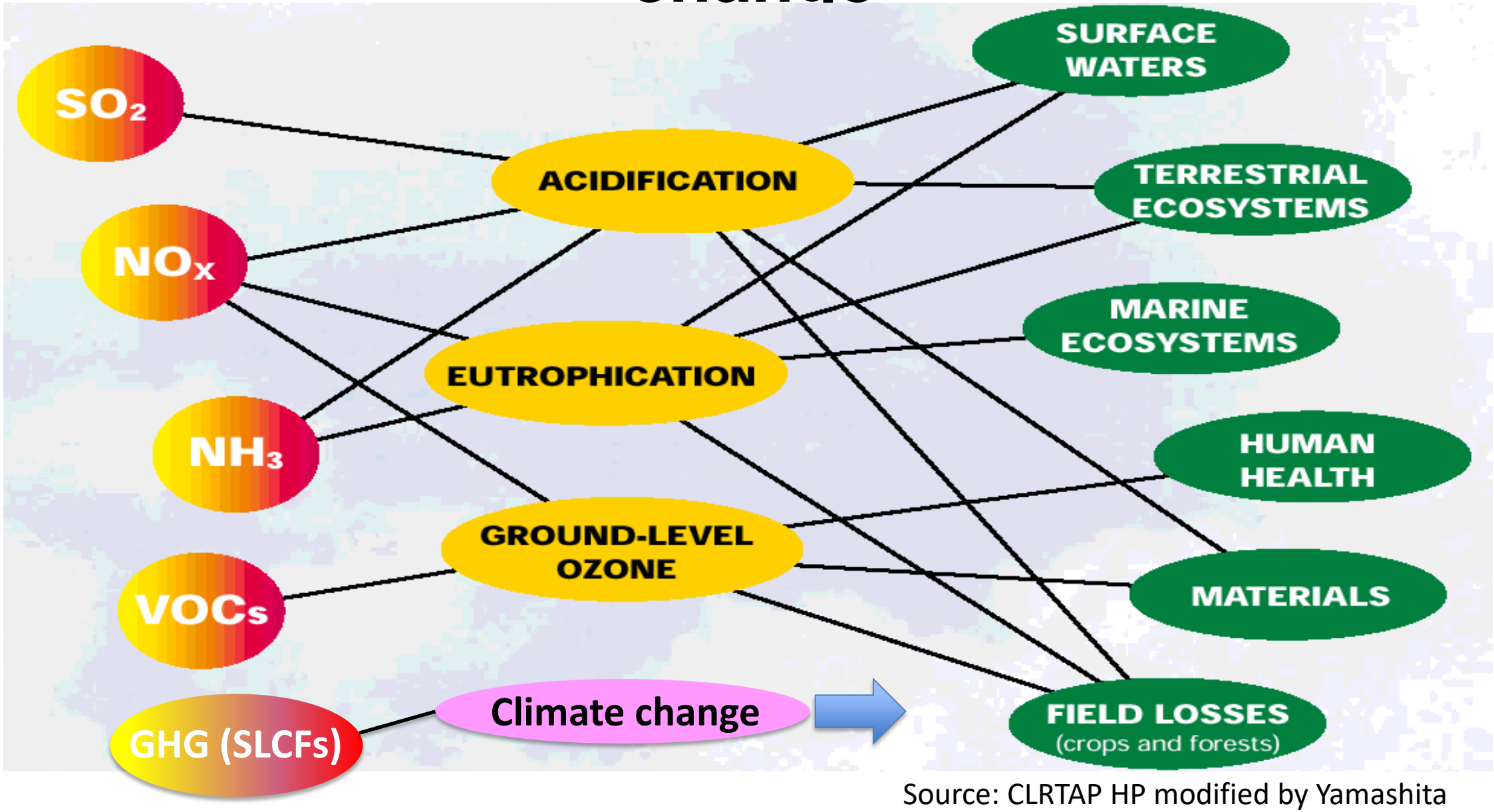
↓

Reviewed and Discussed at EANET Scientific Advisory Committee Meeting (SAC)

↓

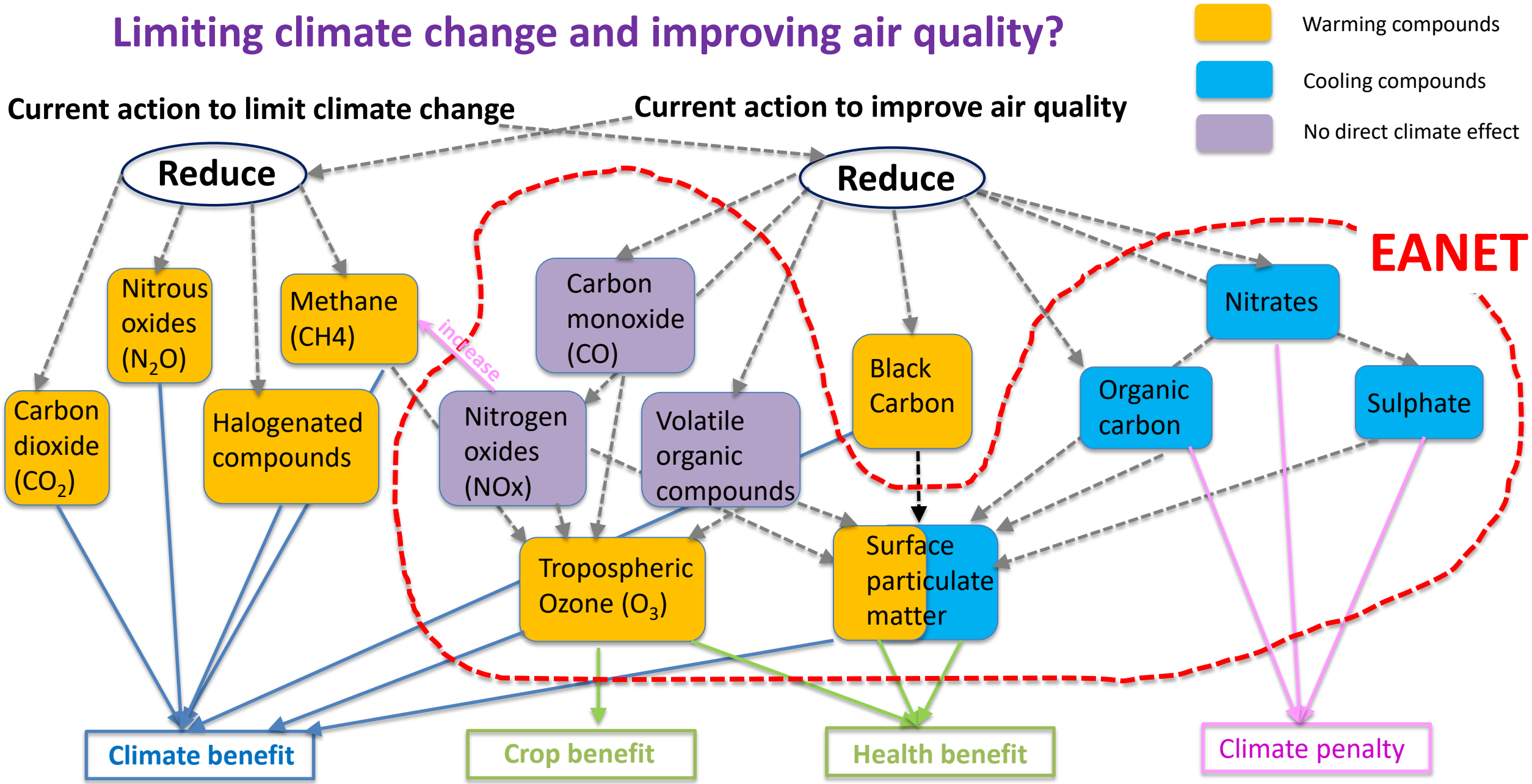
Reviewed, Discussed and Approved at EANET Intergovernmental Meeting (IG)

Multi-effect, multi-pollutant + climate change



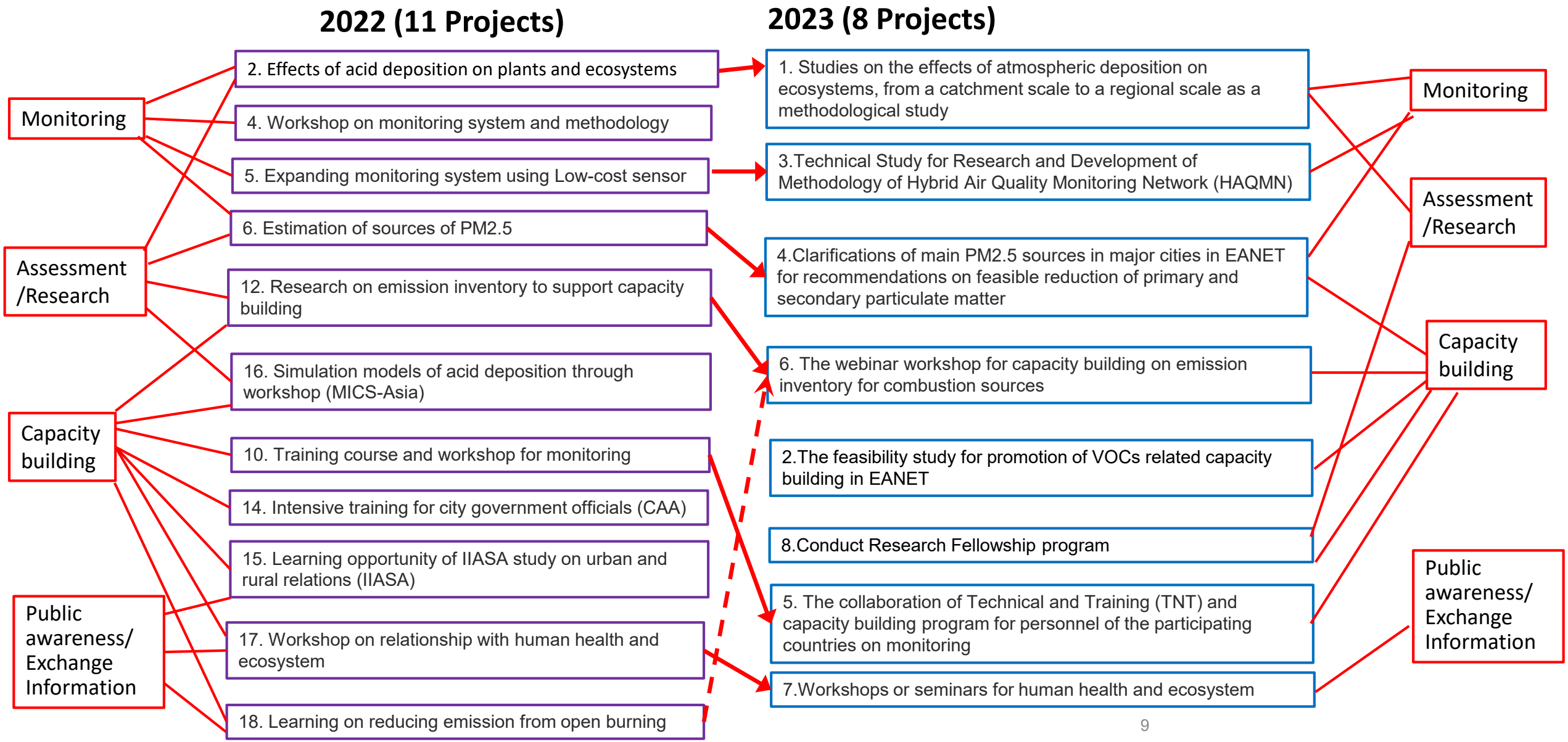
Source: CLRTAP HP modified by Yamashita

Limiting climate change and improving air quality?

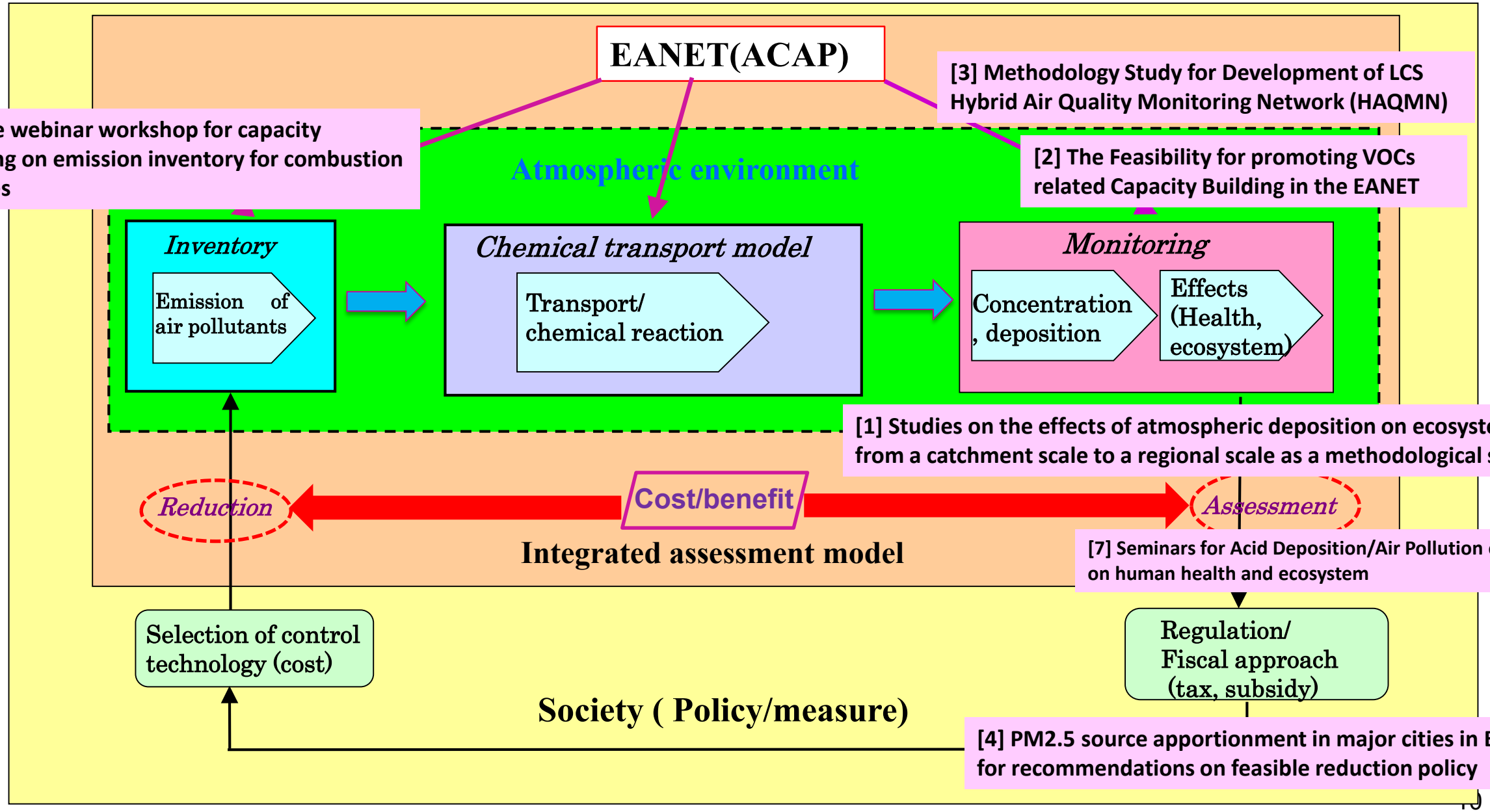


Source: IPCC, AR6 (2021) modified by Yamashita

EANET Projects in 2022 and Proposed Project Plans in 2023



Integrated Approach of Atmospheric Management



The New Task Forces of EANET

Expert Group on revision of the Technical Manuals for Dry Deposition Flux Estimation and Air Concentration Monitoring

Scientific Advisory Committee (SAC)

Task Force on Monitoring and Assessment of Atmospheric Environment

- To develop and improve the atmospheric monitoring methods and QA/QC of atmospheric monitoring in the scope of EANET;
- To elaborate the appropriate atmospheric EANET monitoring sites data evaluation methods (atmospheric deposition estimation, trend analysis, etc.) in the scope of EANET;
- To promote and review research activities on analysis and evaluation of atmospheric monitoring data of EANET sites, monitoring instrumentation and monitoring methodologies in the EANET;
- To provide recommendation on the **future research direction** of the EANET regarding atmospheric monitoring and evaluation in the scope of EANET.

Task Force on Monitoring and Assessment of Environmental Effects

- To discuss the monitoring methods for assessment methodology of ecological impact of atmospheric environment as necessary in the scope of the EANET;
- To promote and review research activities on ecological impacts in the scope of the EANET;
- To review research activities in the view point of methodology and promote the capacity building such as workshop/seminar **of ecosystem impacts** and **human health**;
- To provide recommendation on the **future direction of the EANET on environmental effects**.

Task Force on Atmospheric Environmental Quality Management

- To consider and recommend the methodology of application of **emission inventory** and **model simulation** for air quality management in pilot cities in the scope of the EANET;
- To discuss on the suggestions of **future atmospheric environmental management** based on outputs from other TFs of the EANET;
- To review and consider the methodology of **co-benefit/co-control approaches for air environment and climate change;**
- To consider the evaluation methods of policy effects on the atmospheric environment in the EANET;
- To facilitate exchange of information, support pilot projects as well as **clean air technology** cooperation and transfer; and
- To summarize and share the experience of **air quality control policies** among EANET participating countries.

Thank you

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