

Acid Deposition Monitoring Network in East Asia - recent progress -

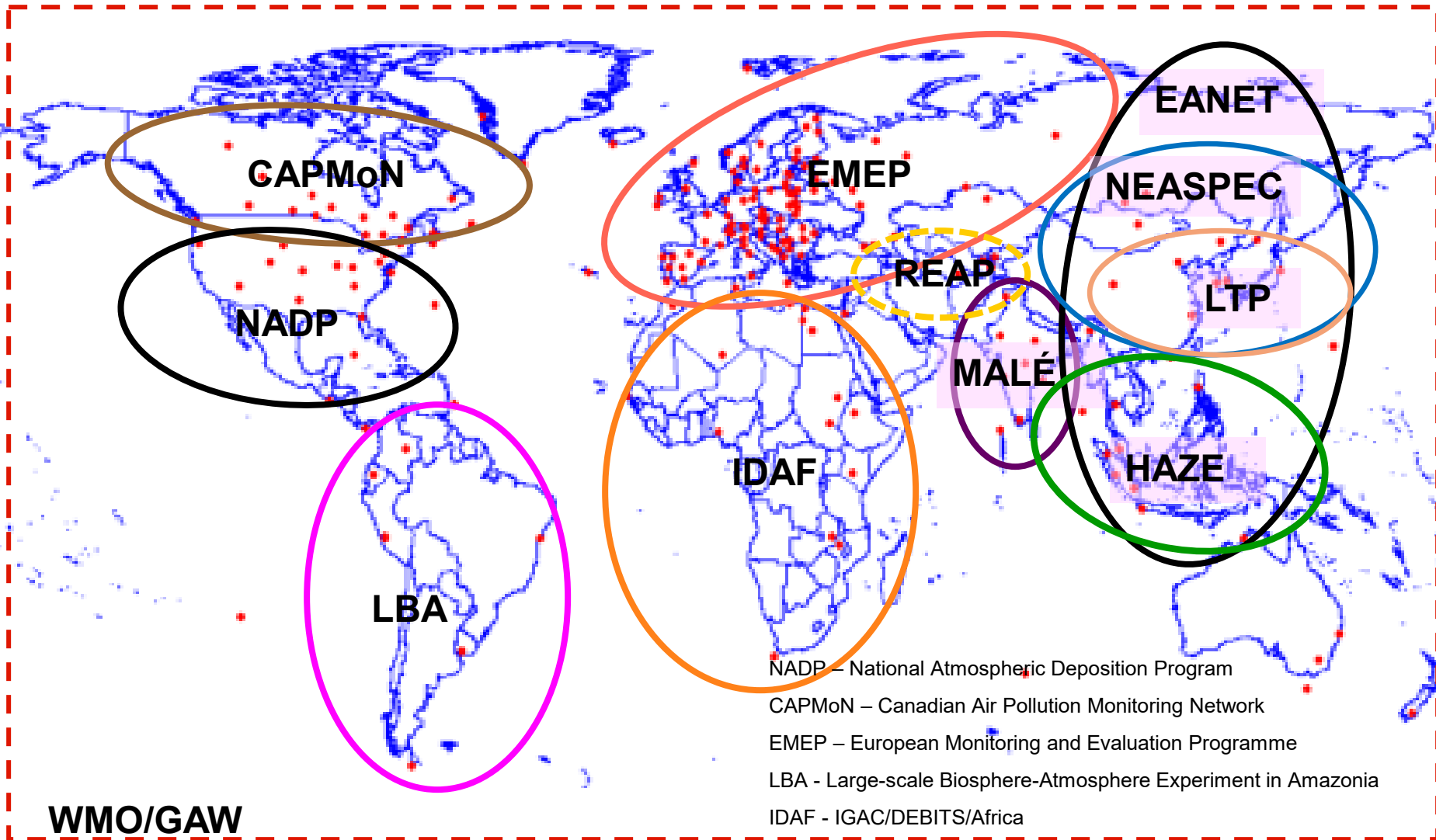
Network Center for EANET

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Asia Center for Air Pollution Research



Regional Air Pollution Monitoring Networks



WMO/GAW

NADP – National Atmospheric Deposition Program

CAPMoN – Canadian Air Pollution Monitoring Network

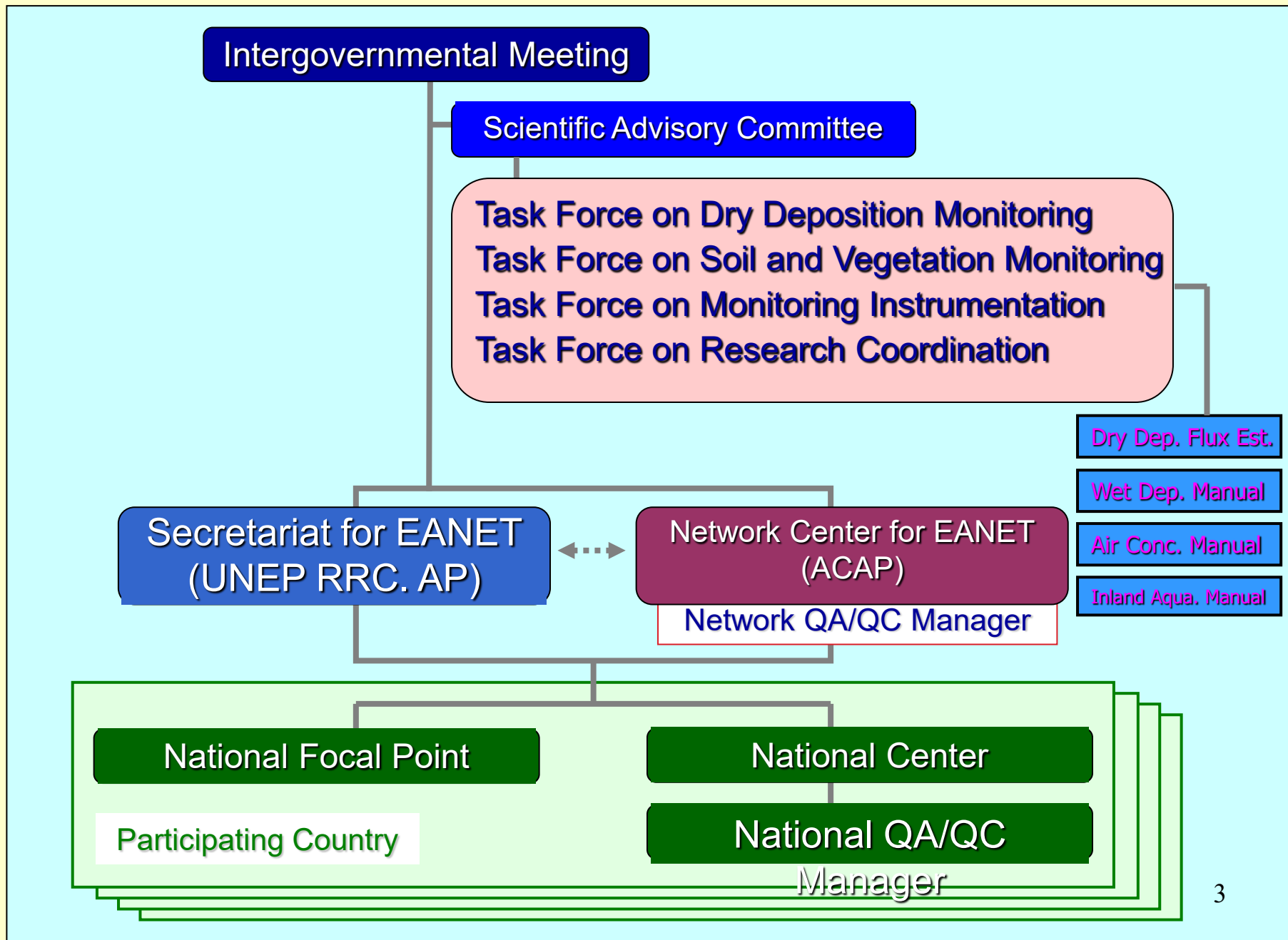
EMEP – European Monitoring and Evaluation Programme

LBA - Large-scale Biosphere-Atmosphere Experiment in Amazonia

IDAF - IGAC/DEBITS/Africa

REAP: Framework Convention on Environmental Protection for Sustainable Development in Central Asia

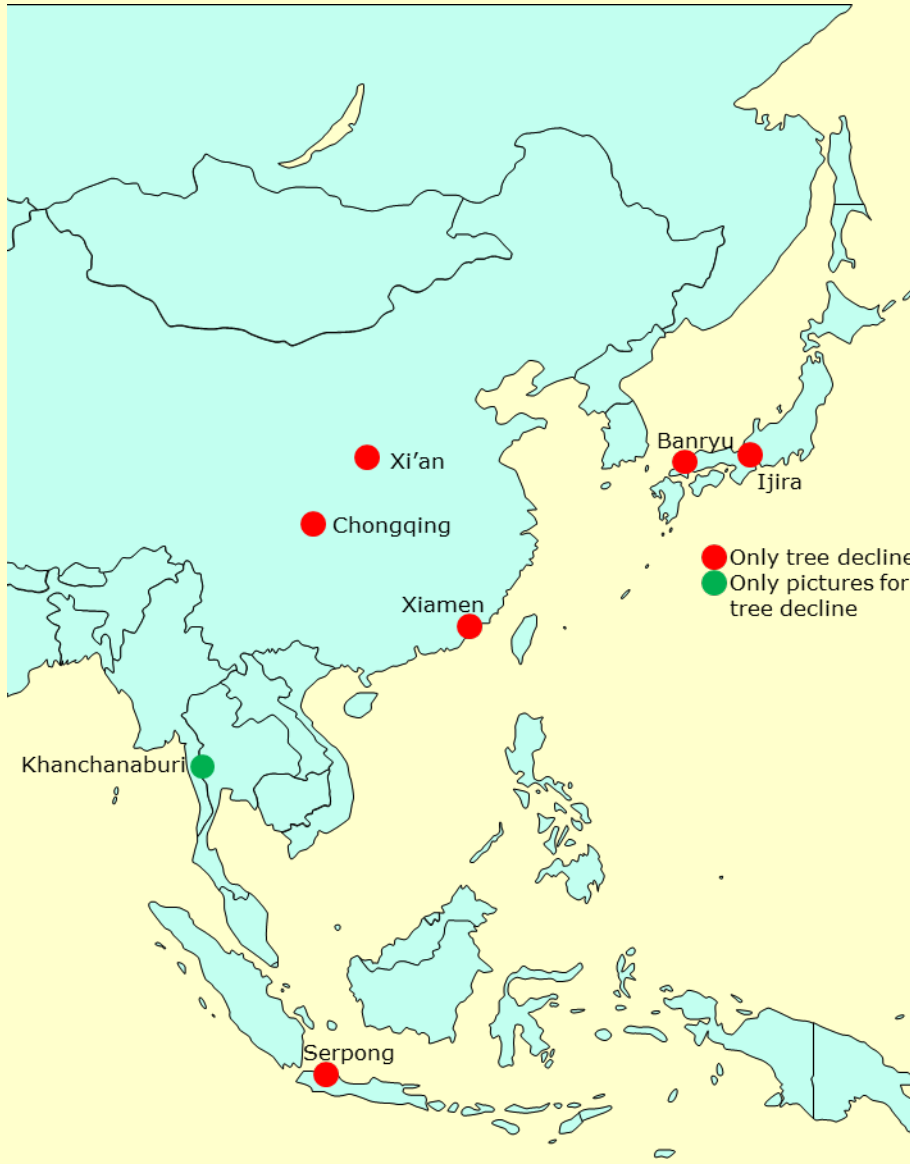
Institutional Framework for EANET (Tentative Design)



Location of wet and dry deposition monitoring



Location of Soil and Vegetation, Inland Aquatic Environmental monitoring

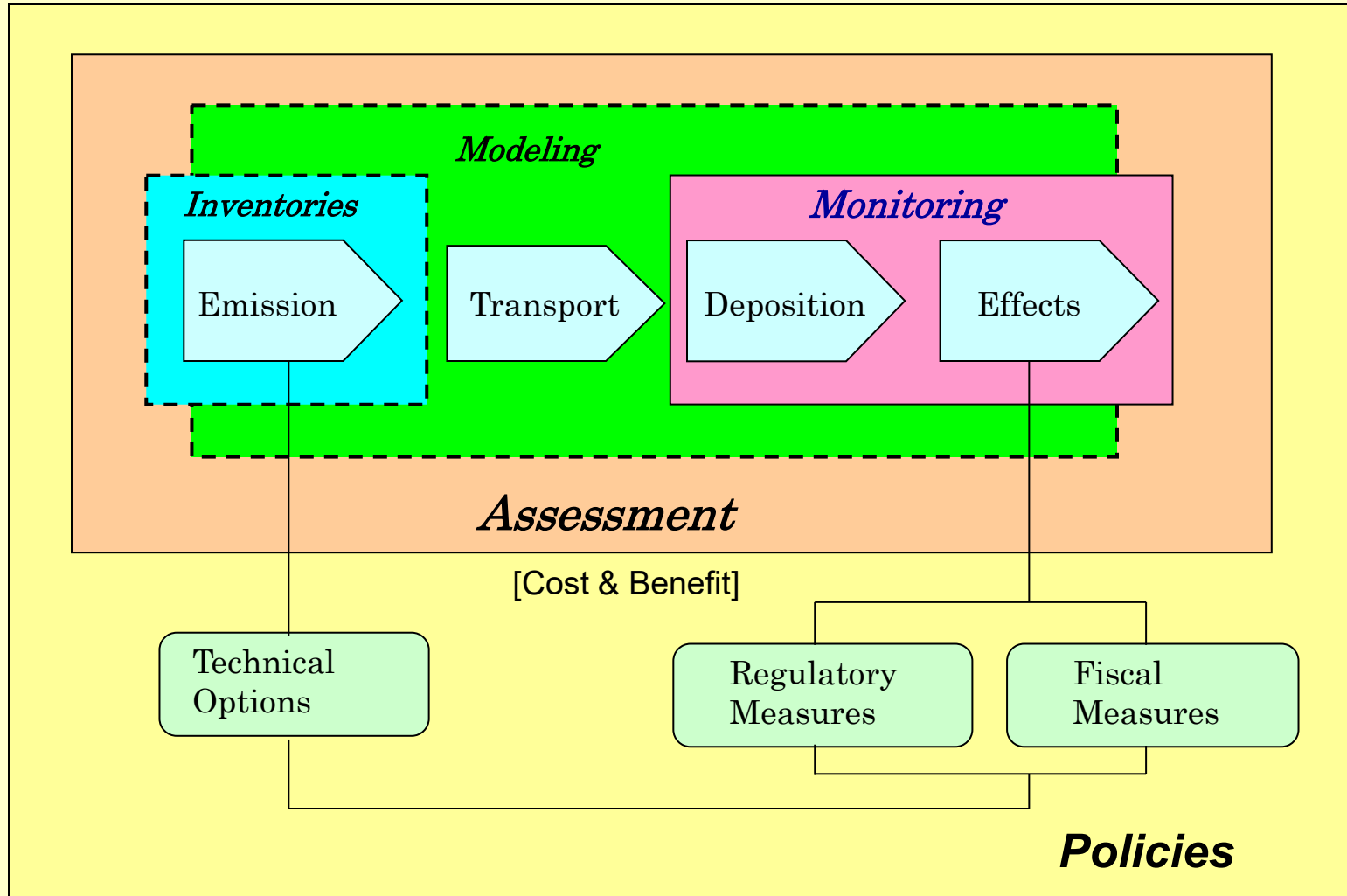


Major activities of EANET(tentative design)

- **Promotion of acid deposition monitoring (national monitoring plan)**
wet deposition, dry deposition, soil, vegetation and inland aquatic environment
- **Compilation, evaluation, storage and provision of data**
development of periodic reports
- **Promotion of quality assurance and quality control (QA/QC)**
inter laboratory comparison project
- **Technical support and capacity building**
dispatch of technical missions
training activities, technical assistance
- **Research activities**
directions of research activities by SAC
joint researches with participating countries
- **Promotion of public awareness**
- **Cooperation with other international bodies**

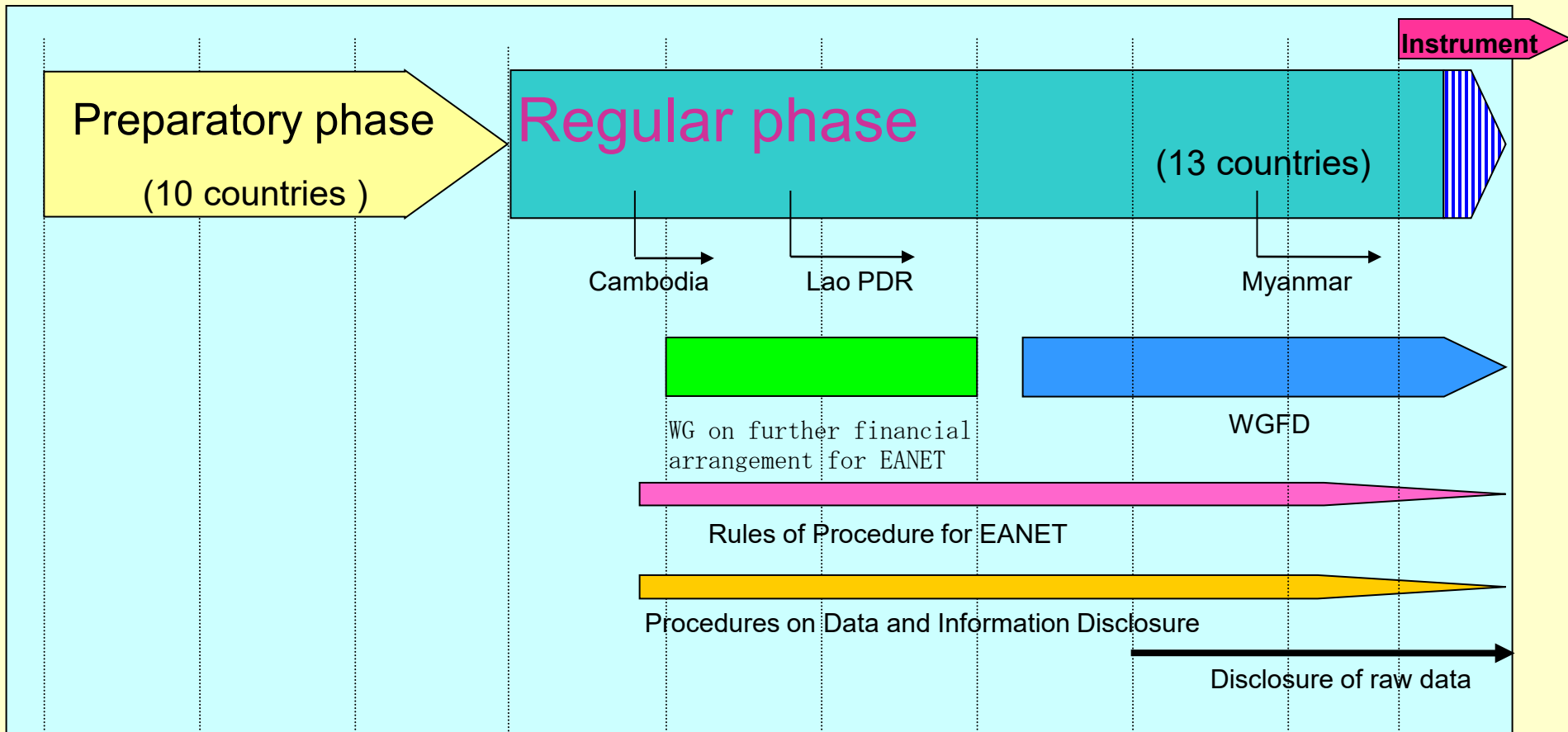


An integrated approach to air quality management for a better environment in East Asia



Development of EANET

1998 1999 2000 2001 2002 2003 2004 2005 2006 2010 2012



Institutional and Administrative Arrangement

• Instrument for Strengthening EANET

Decision 1/IG 12

1. Adopts the “Instrument for the Strengthening the Acid Deposition Monitoring Network in East Asia (EANET)” for signing in the High Level Segment during IG12 and thereafter, (attached to this decision);
2. Decides that the Instrument will become operational on the date on which all participating countries have signed it, or on 1st January 2012, whichever is earlier;
3. Encourages participating countries that will not be able to sign the Instrument by the specified date to communicate in writing with the EANET Secretariat before IG13 expressing their willingness to continue their EANET activities;
4. Decides that IG13 will consider the nature of involvement of the countries that are unable to sign by the specified date.

Institutional and Administrative Arrangement

• Instrument for Strengthening EANET

Summary of Signatures on the Instrument for Strengthening EANET

Country	Date
Cambodia	Nov.23, 2010
China	Jun. 15, 2011
Japan	Nov.23 & 25, 2010
Mongolia	Nov.23, 2010
Myanmar	Nov.23, 2010
Philippines	Nov.23, 2010
Republic of Korea	Nov.23, 2010
Thailand	Nov.23, 2010
Vietnam	May. 30, 2011

Implemented/Implementing Activities

- **International Cooperation**

**First meeting of the
Asian Co-benefits
Partnership (ACP)
Advisory Group**

- **The Secretariat of EANET presented the progress of the regional and sub-regional networks/programs on atmospheric issues in Asia and the Pacific including EANET.**

Implemented/Implementing Activities

• International Cooperation

**Joint Forum on
Atmospheric
Environment in Asia and
the Pacific**

**Capacity Building
Workshop**

- Patumthani, Thailand
- Jul. 21-22, 2011
- Participants: some participating countries of EANET and Male Declaration
- Topics: International agreements, good practices

Recruitment procedure for DDG of ACAP

1. Vacancy announcement for the Deputy Director General (DDG) of ACAP in charge of the NC:
Circulated to all NFPs on 31 March 2011 and issued on ACAP website.
2. Only **Dr. Jesada Luangjame**, the current DDG submitted the application through the NFP of Thailand by the deadline.
3. Secretariat sent the information of application to NFPs and asked comments on 30 May 2011. Philippines sent their comment.
4. President of JESC decided Dr. Jesada to be the next DDG on 4 July 2011.
5. Term of Dr. Jesada as the DDG was effective on 1 October 2011.



Institutional and Administrative Arrangement

• Staff Hiring

Coordinator of the Secretariat

“Review of the Status of the EANET Secretariat (EANET/IG 6/11)”

-One term for period of 2 years;

-Maximum 2 terms.

Dec. 31, 2011 → End of 2nd Term

Aug. 8, 2011 → Circulated Vacancy Announcement

Sep. 30, 2011 → Deadline of Applications

Monitoring activities (1)

(Development/review of technical manuals, etc.)

1. Three Technical Manuals

Adopted at the IG12:

- **Dry Deposition Flux Estimation**
- **Wet Deposition Monitoring (revised)**
- **Inland Aquatic Environment Monitoring (revised)**

Will be issued on the EANET website soon.

2. Expert Group on Preparation of Technical Manual for Air Concentration Monitoring (EG/MAC):

- First meeting was held on 11-12 August 2011, in Niigata.
- Discussed Table of contents, author(s) of each chapter and future schedule.



1st Meeting of EG/MAC

Monitoring activities (2) (QA/QC activities)

1. Inter-lab comparison projects

2009: Published the report in Jan. 2011.

2010: Distributed samples in Oct. 2010.
The report is now being developed.

2. Inter-comparison by ICP-Waters, etc.

NC and several national centers and EANET laboratories took part.



Compilation verification, evaluation storage and provision of Data and dissemination

1. Data Report

2009:

- Finalized following the comments at SAC10.
- Distributed in January 2011.

2010:

- NC developed Preliminary Draft for STM12.

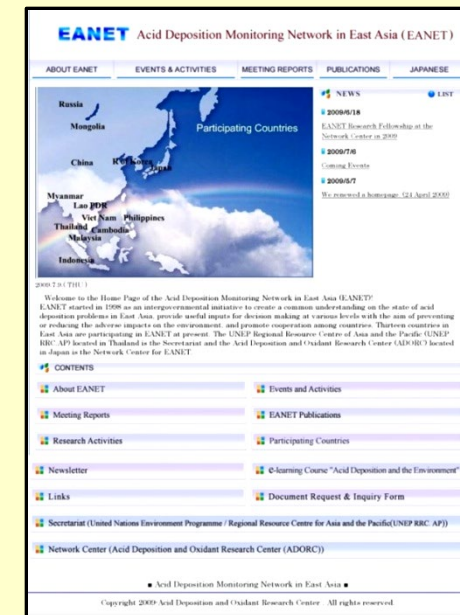


EANET Data Reports

2. EANET raw data

2000-2008:

- Have been disclosed outside **through website** in accordance with the “Detailed Mechanism of Article 4 of the Procedures on Data and Information Disclosure for EANET” endorsed/adopted by SAC3/IG5.



EANET website 17

Enhancement of data analysis and assessment (Drafting Committee (DC) for PRSAD2)

(1) 2nd Meeting of DC2 for the Second Periodic Report on the State of Acid Deposition in East Asia (PRSAD2):

- Held in June, 2011 in Pathumthani, Thailand.
- Attended by DC members or alternates from 13 participating countries.

(2) DC2:

- Discussed contents of Part I (Regional Report).
- Revised schedule to finalize the PRSAD2 within this year, if possible.
- Decided to submit Part I/II and Executive Summary to IG13 for endorsement.



EANET Meetings (1)

12th Senior Technical Managers' Meeting (STM12)

**Held on 21-22 Sep. 2011
In Kuala Lumpur, Malaysia.**

[Discussion issues]

- (1) Progress of EANET after STM11
- (2) Data Report 2010
- (3) Updated National Monitoring Plans
- (4) Inter-laboratory comparison projects 2010
- (5) Quality Control procedures in the participating laboratories
NC will start to discuss preparation of the technical document on Quality Management of EANET including QA/QC program as appropriate.
- (6) Proposals for the technical and instrumental innovation of the laboratory
- (7) Progress report on the technical activities of EANET
Developed (Revised) Technical Manuals of EANET were introduced.
- (5) "Progress of the PRSAD2



EANET Meetings (2)

TF and EG Meetings

(1) TF on Research Coordination

- 4th Meeting was held on 11 Oct. 2011 in Ho Chi Minh City, Vietnam.
- The procedure of application be revised to be more effective program, new high priority project be recommended by other task forces, development of document for fund raising.

(2) EG on Preparation of Technical Manual for Air Concentration Monitoring

- First Meeting was held on 11-12 Aug. 2011 in Niigata, Japan.



Report of TF/RC

Capacity building activities (2)

2. JICA Third Country Training Course

Training of the trainers will be planned in 2012.



Mr. Zhang, China

3. NC Individual Training Course

Implemented taking into account situations in the participating countries.

(1) Duration: **14 February-11 March 2011** (1 month)

(2) Trainees: **China, Malaysia, Russia (Totally 3)**

(3) Contents

- Wet, dry deposition monitoring
- Soil/vegetation monitoring
- Inland aquatic environment monitoring
- Data management, etc.



Mr. Jahaya, Malaysia

4. Questionnaire Survey for National Training Activities

Various national training activities were Implemented in 2010.



Mr. Ivanov, Russia

Support to participating countries

1. NC technical mission

Russia (Aug 2011)
Lao PDR (Sep 2011)
Cambodia (Oct 2011)
Myanmar (Nov 2011)



Discussion with
Cambodian Staff



Monitoring site in Malaysia

2. Technical support

Provided consumables
and/or equipment (filter
pack sampling kits, etc.).

To: Cambodia, China, Lao
PDR, Mongolia,
Myanmar, Vietnam

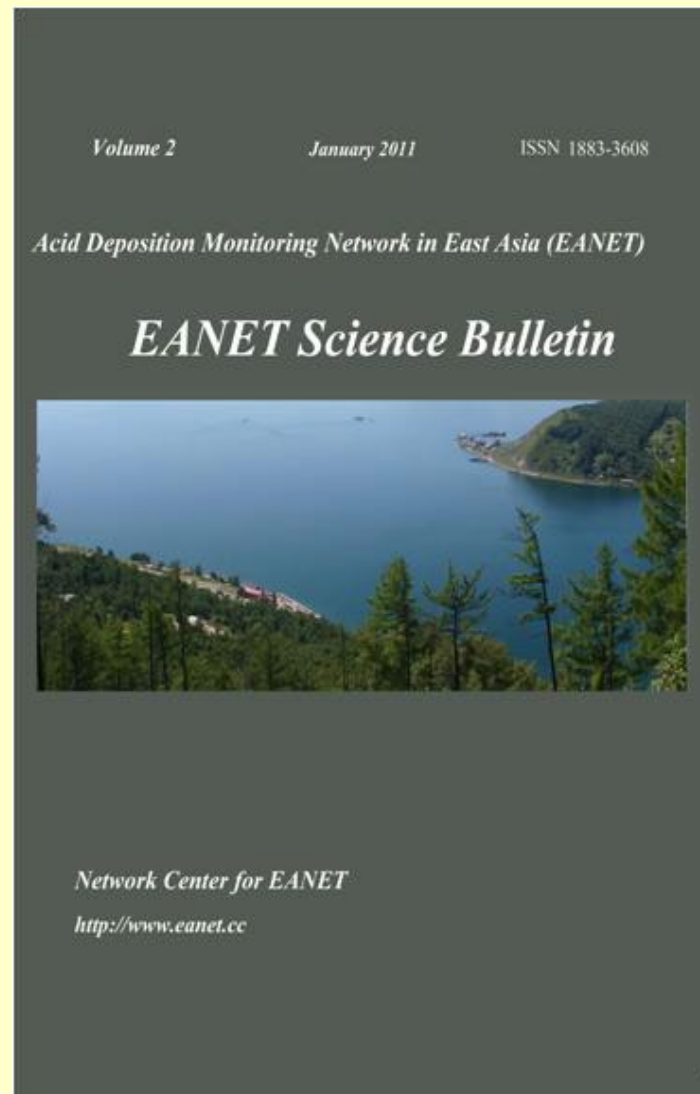


Technical support to staff of China (Chongqing)

Research activities (1)

EANET Science Bulletin (Vol. 2)

- (1) Purpose: To share research findings among the participating countries.
- (2) Published in January 2011, and distributed to the contributors, the NFPs, SAC members, Heads of National Centers, and other relevant experts in April 2011.
- (3) Also issued on EANET website.



EANET Science Bulletin (Vol. 2)

(141 pages)

Research activities (2)

EANET Fellowship Research

In 2011

Application: Among 7 Application from 5 countries (China, Indonesia, Malaysia, Mongolia, Thailand), China and Malaysia were selected.

China: Improvement of sampling methodologies for wet and dry deposition, including QA/QC

Malaysia: Potential effect of acid deposition on carbon, nitrogen, phosphorus and sulfur turnover in forest soils, and the effect on selected plants growth

Research activities (3)

EANET high priority research projects

Projects have been implemented using EANET budget.

1. Aerosol Deposition Studies in Forests for Improvement of Estimation Method for Dry Deposition (Leader: Dr. Pojanie, Thailand)
2. Feasibility Study on Low Cost Methodologies for Monitoring Air Concentrations (Leader: Prof. Wang, China)



Passive
sampling in
Chongqing,
China



Experimental tower
equipped with meteorological
instruments in the
deciduous tree forest in
Thailand for Aerosol
Deposition Studies

Research activities (4)

■ 1. Joint research projects with Thailand/Malaysia/Japan (catchment monitoring)

Although the financial support from the MOE Fund was finished, the some parts of the project have being implemented among the relevant organizations after April 2011.

■ 2. Joint research projects with R. of Korea

The project has been carried out with the aim of comparison of the 3-stage filter pack method in R. of Korea and 4-stage filter pack method in Japan.

■ 3. International Workshop on Atmospheric Modeling Research in East Asia

International Workshop on Atmospheric Modeling Research in East Asia was held in September 2011 in Chengdu, China. Research plan on MICS-Asia, Phase 3 activities were developed: (i) Multi-scale integrated models of global, regional and urban scales, and model inter-comparison, source/receptor analysis, and collaboration among MICS-Asia activity members, (II) Inter-comparison of emission inventories, etc.



Catchment research site in Malaysia

Public Awareness Activities

■ Joint project with Indonesia to support their environmental study activities

In 2011, NC has started to implement joint project on environmental study with Indonesia to understand problems of acid deposition and think over actions by school children.



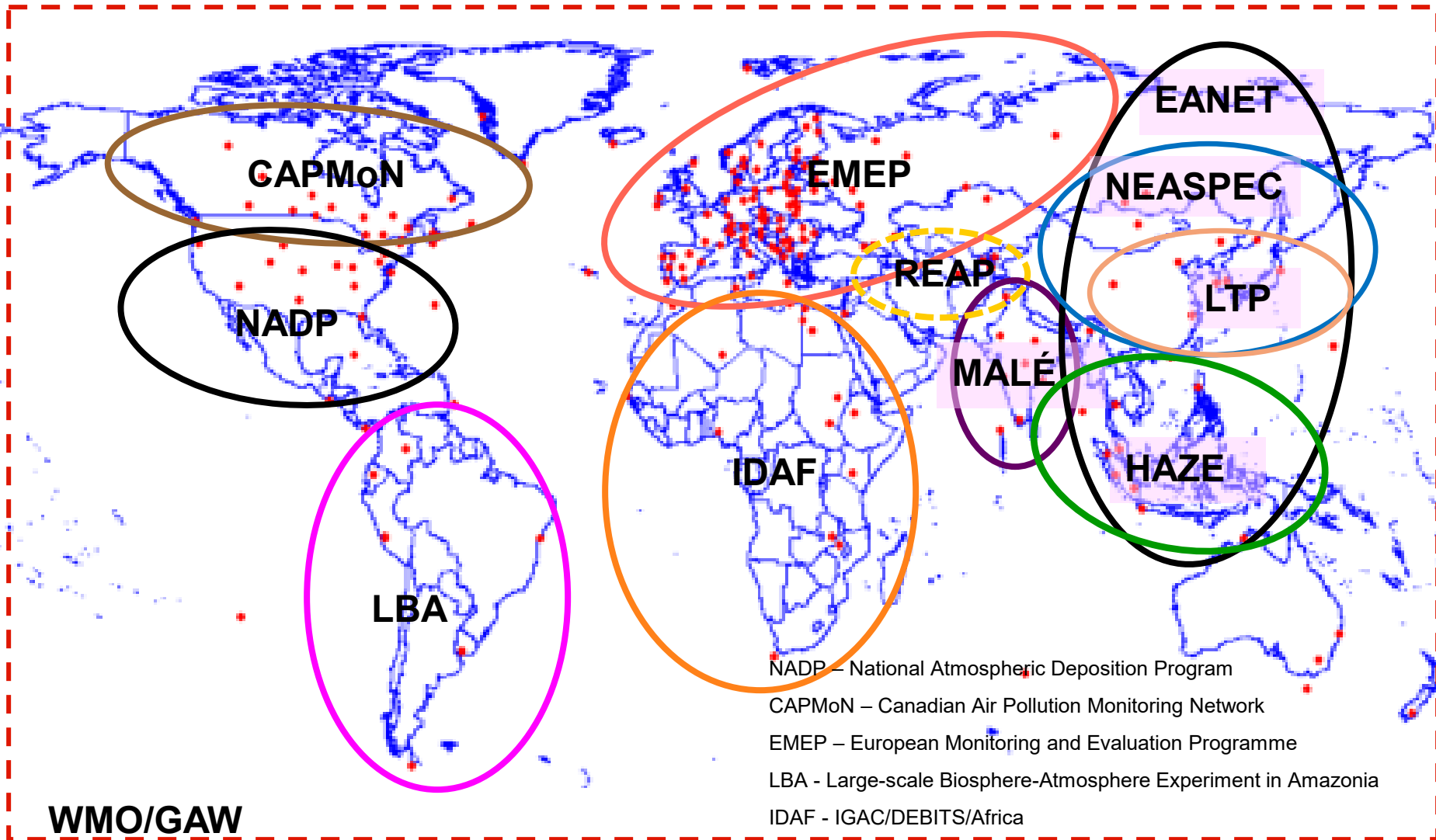
International Cooperation

■ Acid Rain 2011

- (1) Held on 16-18 June 2011 in Beijing, China as an International scientific conference.
- (2) Participants: Around **350 experts**.
- (3) Secretariat and NC also participated in the conference and made their respective presentations, and exchanged information and views on the current status and future perspective of the air quality issues including future development of EANET.
- (4) Next conference will be held after four or five years.

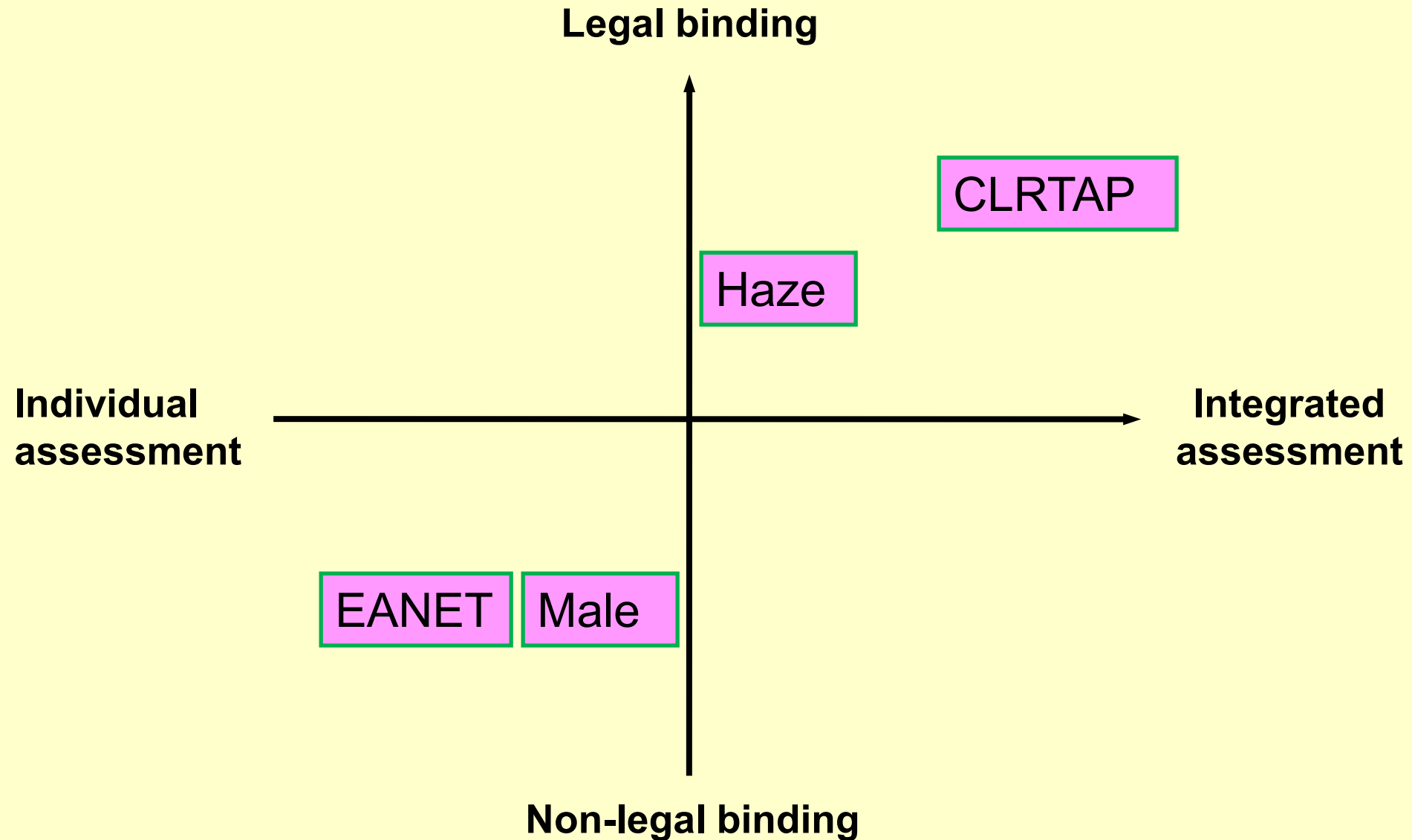


Regional Air Pollution Monitoring Networks

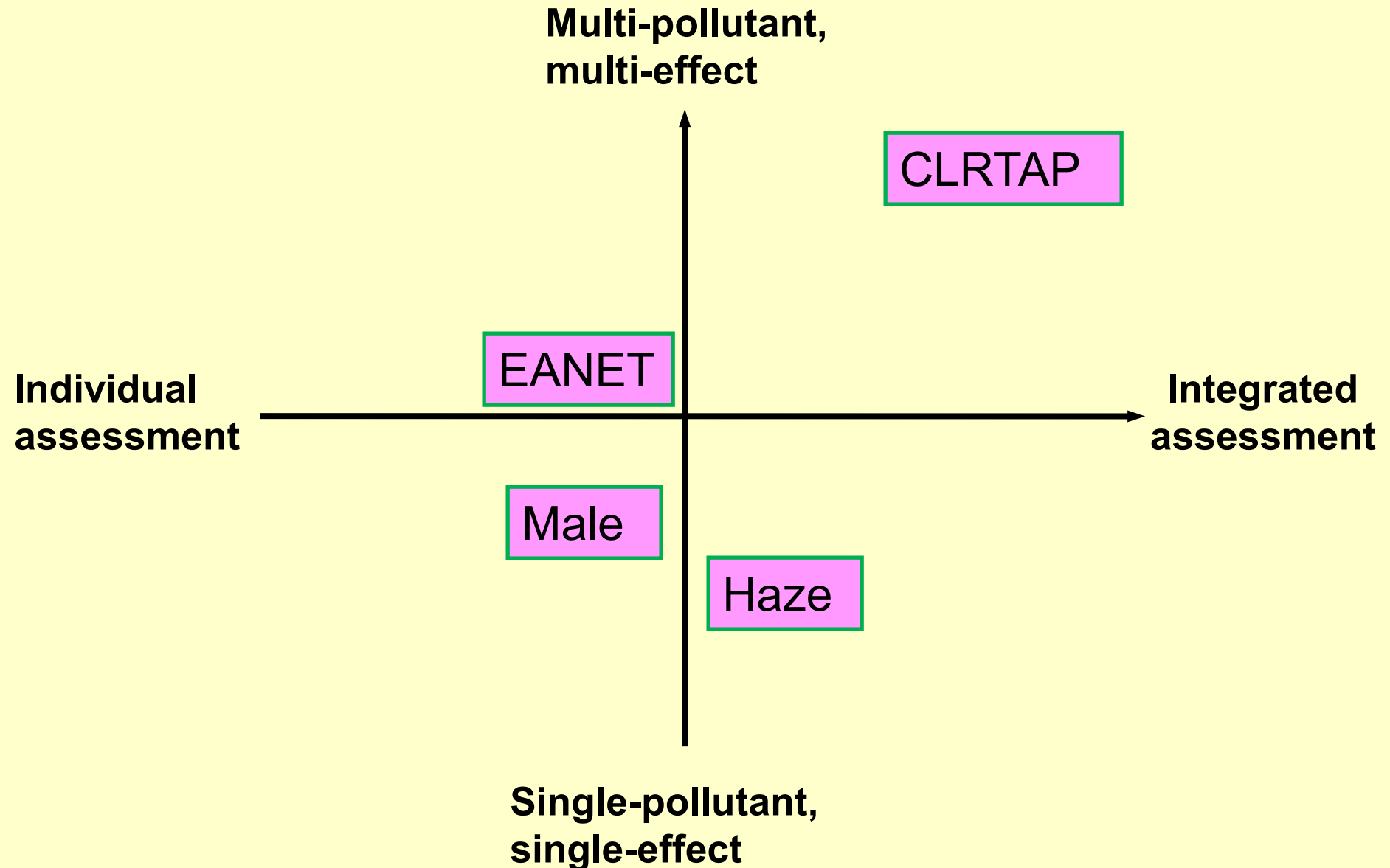


- NADP – National Atmospheric Deposition Program
- CAPMoN – Canadian Air Pollution Monitoring Network
- EMEP – European Monitoring and Evaluation Programme
- LBA - Large-scale Biosphere-Atmosphere Experiment in Amazonia
- IDAF - IGAC/DEBITS/Africa
- REAP: Framework Convention on Environmental Protection for Sustainable Development in Central Asia

Character of International initiatives 1



Character of International initiatives 2



Thank you for your attention!!
Network Center for EANET

