

Consultation Meeting on the North-East Asia Clean Air Partnership (NEACAP)

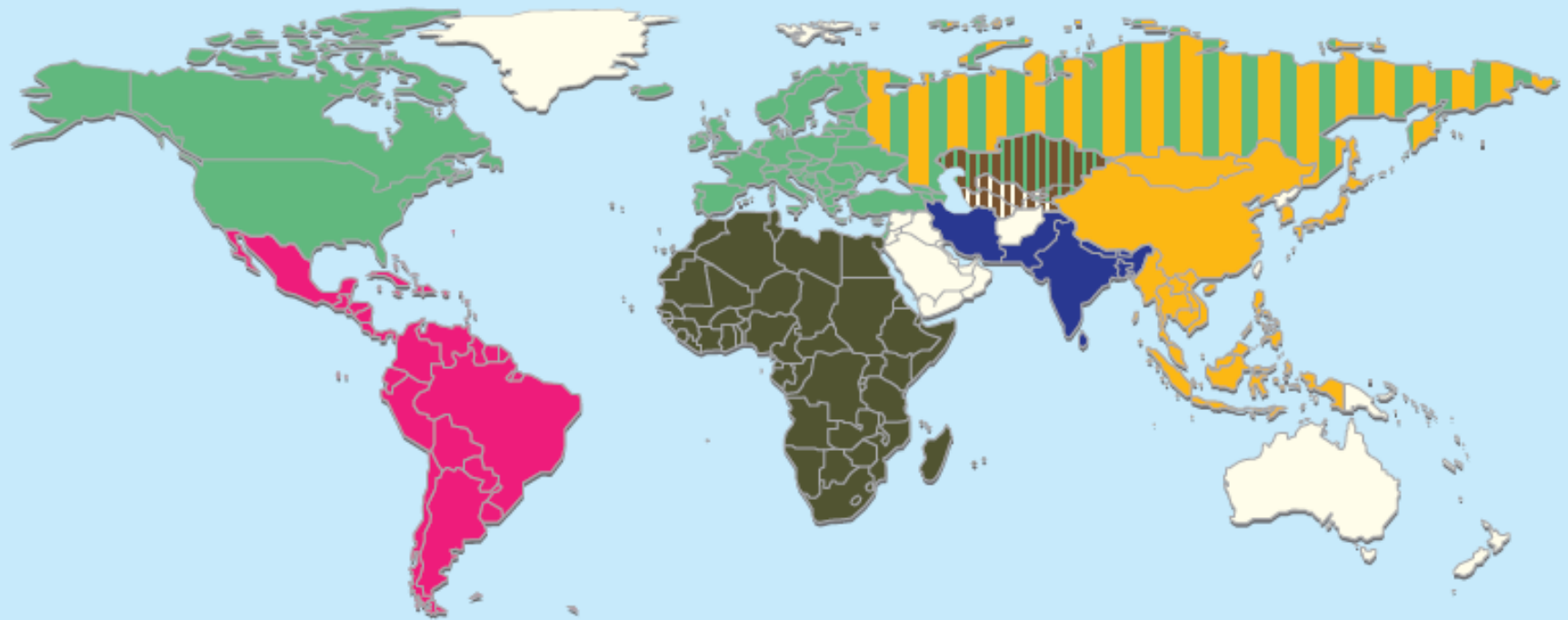
13 October 2017 in Busan, ROK



North-East Asian
Subregional Programme for
Environmental Cooperation

Multilateral platforms for addressing air pollution

Regional/Subregional Mechanisms on Transboundary Air pollution

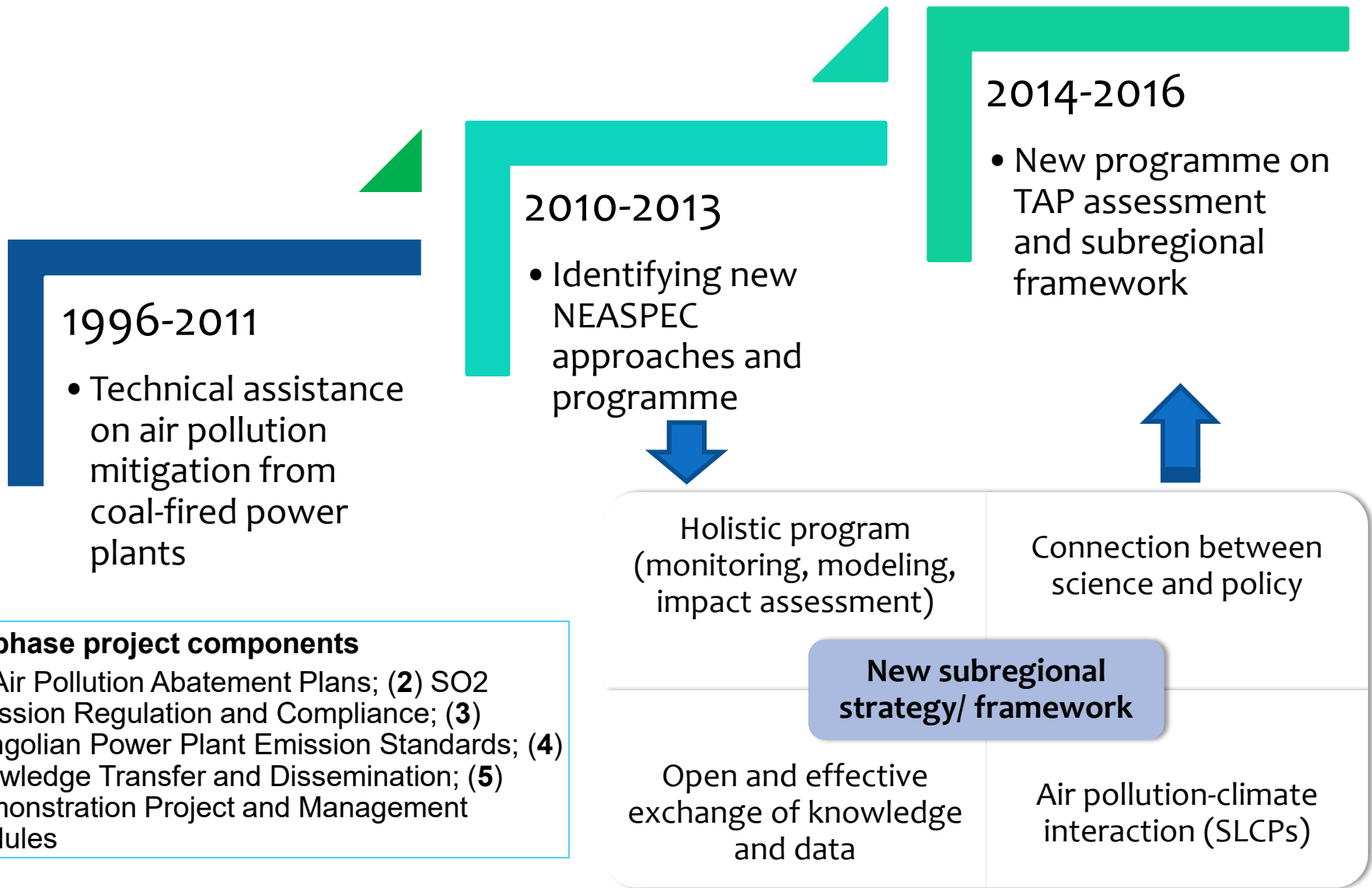


APINA (Air Pollution Information Network Africa)
LRTAP (Long Range Transboundary Air Pollution)

EANET (Acid Deposition Monitoring Network in East Asia)
CAP (Central Asian Republics)

LATCIN (Latin America and the Caribbean Intergovernmental Network)
MD (Malé Declaration)

NEASPEC: building the foundation for collaboration on transboundary air pollution through technical projects, and now moving onto the next stage



Development of the technical and policy frameworks for transboundary air pollution assessment and abatement

Proposal by the Russian Government as follow-up to the Review project in 2012

Presented to SOM-17 (Dec. 2012) and endorsed at SOM-18 (Nov. 2013)

Goals: Assess options for establishing a science-based and policy-supported cooperation framework in North-East Asia for the assessment and mitigation of transboundary air pollution

Key Work Components

- Modeling of source-receptor relationship of transboundary pollution (PM_{2.5} and PM₁₀)
- Formulating recommendations on science-policy linkage and developing of the concept of the cooperation framework
- **Priorities of the framework:** (a) modeling of source-receptor relationship of transboundary air pollution, (b) policy scenarios, (c) emission inventory, (d) abatement technology assessment, (e) impact assessment, etc.

Implementation of the Project: 2014-2016

Develop a detailed scope and approach of the project (*Expert consultation meeting, May 2014*)

Assess data and technical approaches, and prepare a joint modelling methodology (*Consultation workshop, March 2015/ consultation with LTP experts, Nov 2015/ Nov 2016*)

Carry out modelling of transboundary air pollution and conduct a background study (*mid-2015 - early 2017*)

Formulate the concept of a subregional framework on assessment and mitigation of transboundary air pollution (*2016 and consultation in Dec 2016*)

Intergovernmental consultations and decisions on the framework (*SOM-19 in Sep 2014, SOM-20 in Feb 2016 and SOM-21 March 2017*)

The assessment and consultations have reviewed and considered...

Target pollutants

PM_{2.5}, PM₁₀ and Ozone and their linkages with other pollutants including SO_x, NO_x, Black Carbon, NH₃ and VOCs.

Potential Approaches

Strengthening information sharing through exchanging available and relevant information

Building scientific foundation and a stronger epistemic community through engaging in multidisciplinary research and policy-oriented assessment,

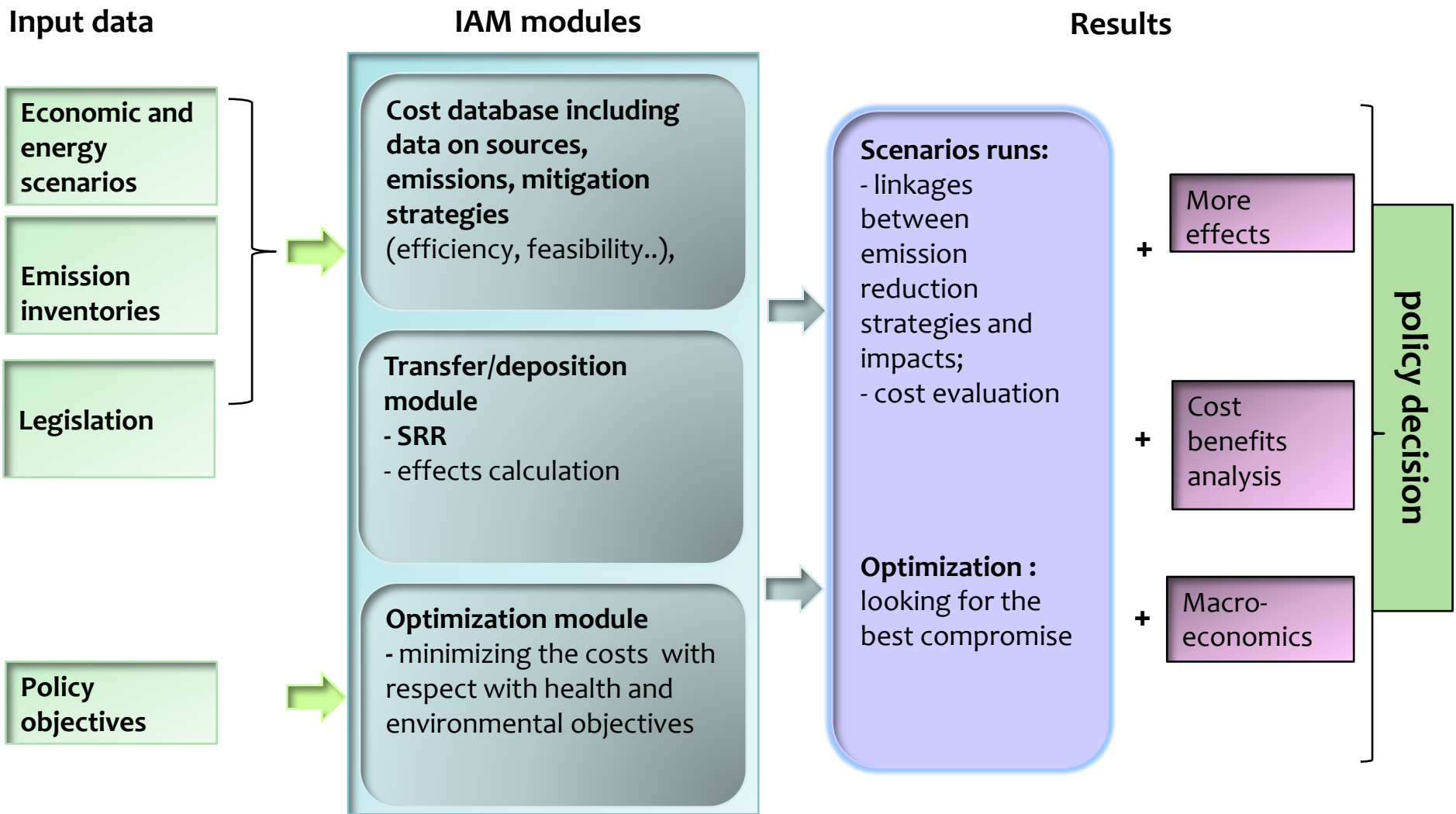
Developing potential measures to enhance cooperation and tackle transboundary air pollution through science-based, policy-oriented consultations,

Promoting voluntary participation and contribution to build a new subregional framework comprehensive but flexible.

Thematic areas

- Integrated Assessment modeling
- Emission inventory
- Modeling of Source-Receptor Relationship (SRR) of transboundary air pollution

Integrated Assessment Modeling

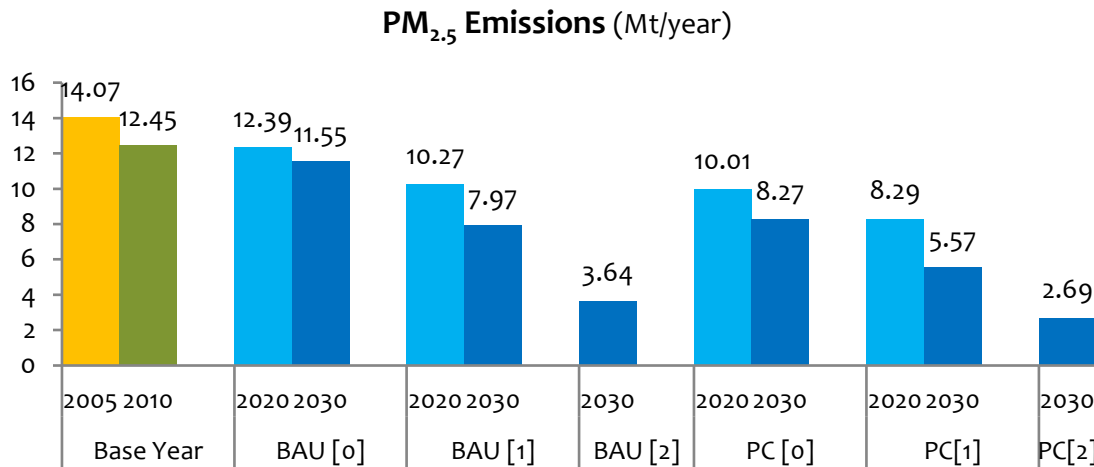


Policy Scenario

Integrated assessment modeling for policy scenario:

- (a) **abatement options** for reducing multiple air pollutants and GHGs, and structural measures in major sectors
- (b) **projections of emissions**
- (c) **assessments of the atmospheric transport** of substances
- (d) analysis and **quantification** of the environmental and health **effects and benefits** of emission reductions

Policy scenario for air pollutions in Northeast Asia

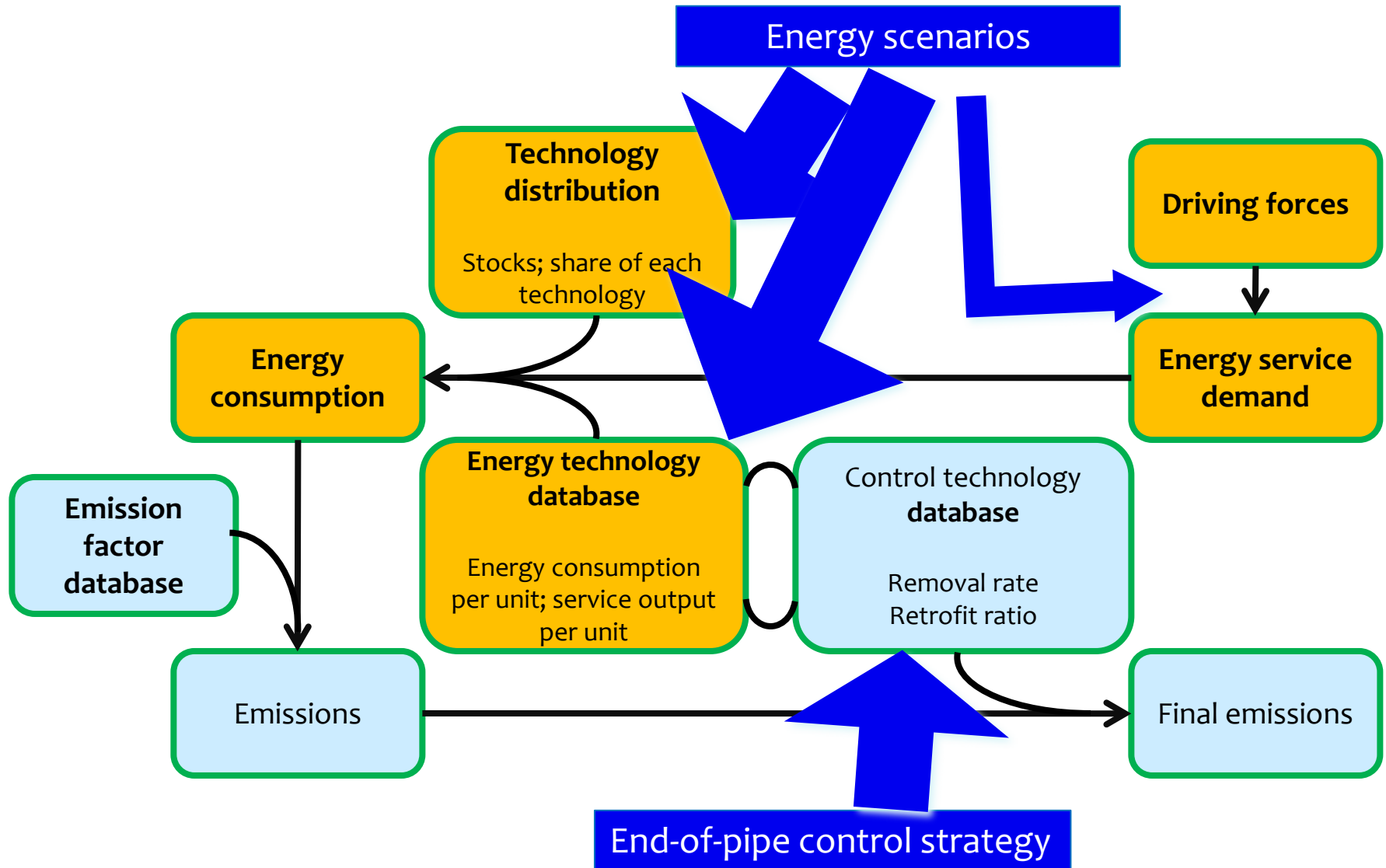


Countries include China, DPRK, Mongolia, Japan and ROK

Scenarios are based on the combination of end-of-pipe control measures and energy-saving policies

Source: Wang S. X. et.al. 2014. Emission trends and mitigation options for air pollutants in East Asia, Atmos. Chem. Phys., 14,

Framework for policy scenario development: data required for the scenario?



National and Subregional Emission Inventories

GLOBAL INVENTORY

EDGAR (Emission Database for Global Atmospheric Research) – HTAP (Hemispheric Transport of Air Pollution) Emission Inventory: REAS, GAINS, EMEP, UNFCCC

REGIONAL INVENTORY pertaining to North-East Asia

Greenhouse Gas-Air Pollution Interactions and Synergies (GAINS) Asia

MIX Inventory: MEIC, JEI-DB, CAPSS and REAS

Regional Emission Inventory in Asia (REAS)

Comprehensive Regional Emissions inventory for Atmospheric Transport Experiments (CREATE)

Intercontinental Chemical Transport Experiment-Phase B (INTEX-B)

NATIONAL INVENTORY in North-East Asia

China Multi-resolution Emission Inventory (MEIC)

Japan Auto-Oil Program Emission Inventory-Data Base (JEI-DB)

ROK Clean Air Policy Support System (CAPSS)

Annual overview of air emissions from major settlements and federal subject of the Russian Federation (by SRI Atmosphere)

Annual compilation of air pollutants (by Mongolia National Agency for Meteorology and Environmental Monitoring)



MIX Asian emission inventory

Anthropogenic emission inventory for Asia for the years 2008 and 2010, developed to support the Model Inter-Comparison Study for Asia Phase III (MICS-Asia III) and the Task Force on Hemispheric Transport of Air Pollution (TF HTAP)

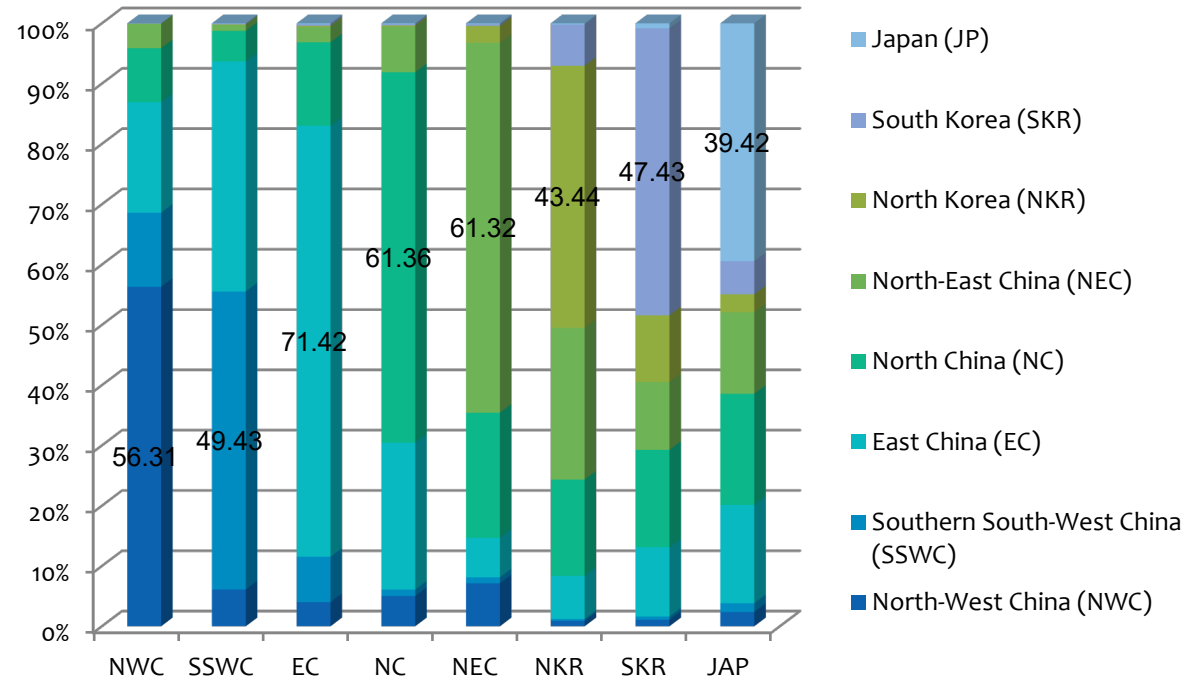
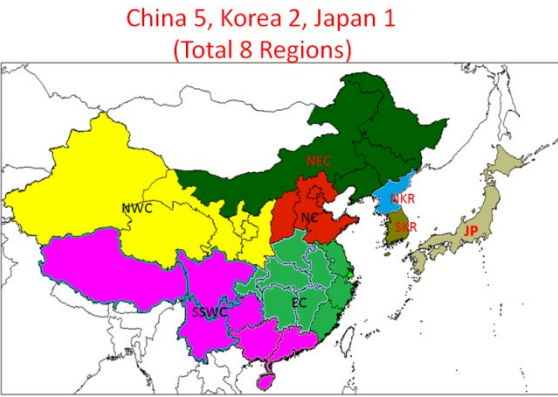
Led by Tsinghua University with input from Asia Center for Air Pollution Research, Konkuk University, Argonne National Laboratory and Peking University.

Target pollutants: SO₂, NO_x, CO, NMVOC, NH₃, PM₁₀ and PM_{2.5}, BC, OC and CO₂

<http://www.meicmodel.org/dataset-mix.html#list-group-list4>

Unit: Gg of PM ₁₀ Year: 2010	Power	Industry	Residential	Transportation	Total
Anhui	46.6	340.5	313.7	23.0	723.7
Beijing	3.7	74.4	45.3	6.5	130.0
Chongqing	15.8	180.4	134.6	8.4	339.2
Fujian	25.1	183.0	61.3	10.2	279.6
⋮	⋮	⋮	⋮	⋮	⋮
Zhejiang	78.0	289.3	48.8	17.4	433.5
China Total	1389.1	9451.0	5246.3	528.6	16615.1
Japan	10.1	33.3	15.7	54.4	113.5
Korea, DPR	56.0	159.1	46.5	2.0	263.6
Korea, Rep of	4.2	88.2	2.4	29.1	123.9
Mongolia	91.9	4.0	12.2	1.3	109.4

Modeling of source-receptor relationship by LTP



The figures indicate the share of PM2.5 originated from its own source in 2013.

By Busan National University, submitted to 19th LTP expert meeting

Cooperation modalities

Operating standing bodies for strengthening scientific cooperation and building science-policy linkage

Operating technical centers for carrying out tangible cooperation and enhancing roles of academic and research institutions in member States:

Operating an open platform for policy-makers and stakeholders

Coordinating with other relevant mechanisms for technical inputs

(DRAFT) Terms of Reference of the NORTH-EAST ASIA CLEAN AIR PARTNERSHIP (NEACAP)

Introduction

provide the basis for strategic cooperation, through exchange of information, scientific, technical and policy collaboration, taking into account various technical and scientific initiatives and instruments that exist in the subregion.

Aims and Objectives

Ensure the protection of the environment and human health from air pollution in North-East Asia.

Objectives of the partnership

- To promote environmental cooperation, including its science, policy and technical aspects,
- To enhance and further develop information and experience exchange
- To act as the key voluntary framework addressing transboundary air pollution issues
- To contribute to the development of relevant national and subregional policies
- To promote knowledge on environmental and human health aspects

Geographic scope and target pollutants

Particulate Matter (PM_{2.5} and PM₁₀), Ozone, and other relevant pollutants, including Sulfur Oxides (SO_x), Nitrogen Oxides (NO_x), Black Carbon, Ammonia (NH₃) and Volatile Organic Compounds (VOCs).

Core Programmes

- i. **Exchange relevant information and data**, covering;
 - a. Emissions data of the target pollutants,
 - b. Transboundary transport of target pollutants, and
 - c. Emissions control technologies and national policies in use and/or under-development;

- ii. **Engage in development of research activity** covering;
 - a. Subregional emissions inventory development and maintenance
 - b. Air pollution monitoring through existing programmes and frameworks
 - c. National and regional air pollution transport and deposition modeling, and
 - d. Integrated assessment modeling

- iii. **Propose potential technical and policy measures to tackle air pollution**, through:
 - a. Science-based, policy-oriented consultations
 - b. Development of common technical and policy scenarios
 - c. Exchange of information
 - d. Sharing of information and lessons learnt on relevant good environmental practices applied nationally.

The core programmes of NEACAP supported through:

- a. Regular meetings;
- b. Annual or biennial subregional review reports;
- c. Technical Projects
- d. Open forums and trainings ; and
- e. Outreach

Organizational structure

Science and Policy Committee, the Science Working Group, the Policy Working Group, the Secretariat, and technical centers.

Budget

Core Fund of NEASPEC. Other funding sources, including the voluntary contributions

Roles of Member States

NEACAP is a voluntary, needs-driven partnership.

21st Senior Officials Meeting (SOM-21) in March 2017

- Noted the outcomes of the Project “Development of the Technical and Policy Frameworks for Transboundary Air Pollution Assessment and Abatement in North-East Asia”, in particular, the proposal of the North-East Asia Clean Air Partnership (NEACAP);
- Recognized the value of NEACAP; and
- Suggested the Secretariat to conduct further consultation with member Governments and relevant mechanisms for its future development

Consultation Meeting on 13 October 2017

Goals

1. To discuss the proposed objectives, core programmes and organizational structures as well as other matters relevant to the effective working of NEACAP
2. To develop the modality of collaboration with relevant mechanisms and programmes including EANET, LTP, MICS-Asia, MIX Asian emission inventory, etc.
3. To revise the draft NEACAP Terms of Reference

What's Next

Submit the revised NEACAP Terms of Reference to the 22nd Senior Officials Meeting (SOM-22) in 2018

THANK YOU 谢谢 та бүхэнд баярлалаа
ありがとうございます 감사합니다 спасибо

NEASPEC
North-East Asian Subregional Programme
for Environmental Cooperation


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TWENTIETH SENIOR OFFICIALS MEETING (SOM)
The 20th Senior Officials Meeting (SOM-20) will take place in Tokyo, Japan during 1-2 February...

Nature Conservation in Transboundary Areas
Transboundary Air Pollution Mitigation
Prevention of Dust and Sandstorms
Eco - efficiency Partnership
Marine Protected Areas

Meetings and Events

 Twentieth Senior Officials Meeting (SOM)
1-2 February 2016, Tokyo, Japan

 International Conference on National Urban Policy: Towards Smarter and Greener Cities
14-15 December 2015, Incheon, Republic of Korea


Publications and Working Papers


 Rason Migratory Bird Reserve: Birds and Habitats


 Eco-efficiency: A Practical Path to Sustainable Development

 Eco-efficiency Indicators

NEASPEC Briefs

 NEASPEC Brochure

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 Nature Conservation