

THE CO-BENEFITS OF ADDRESSING CLIMATE CHANGE AND AIR POLLUTION



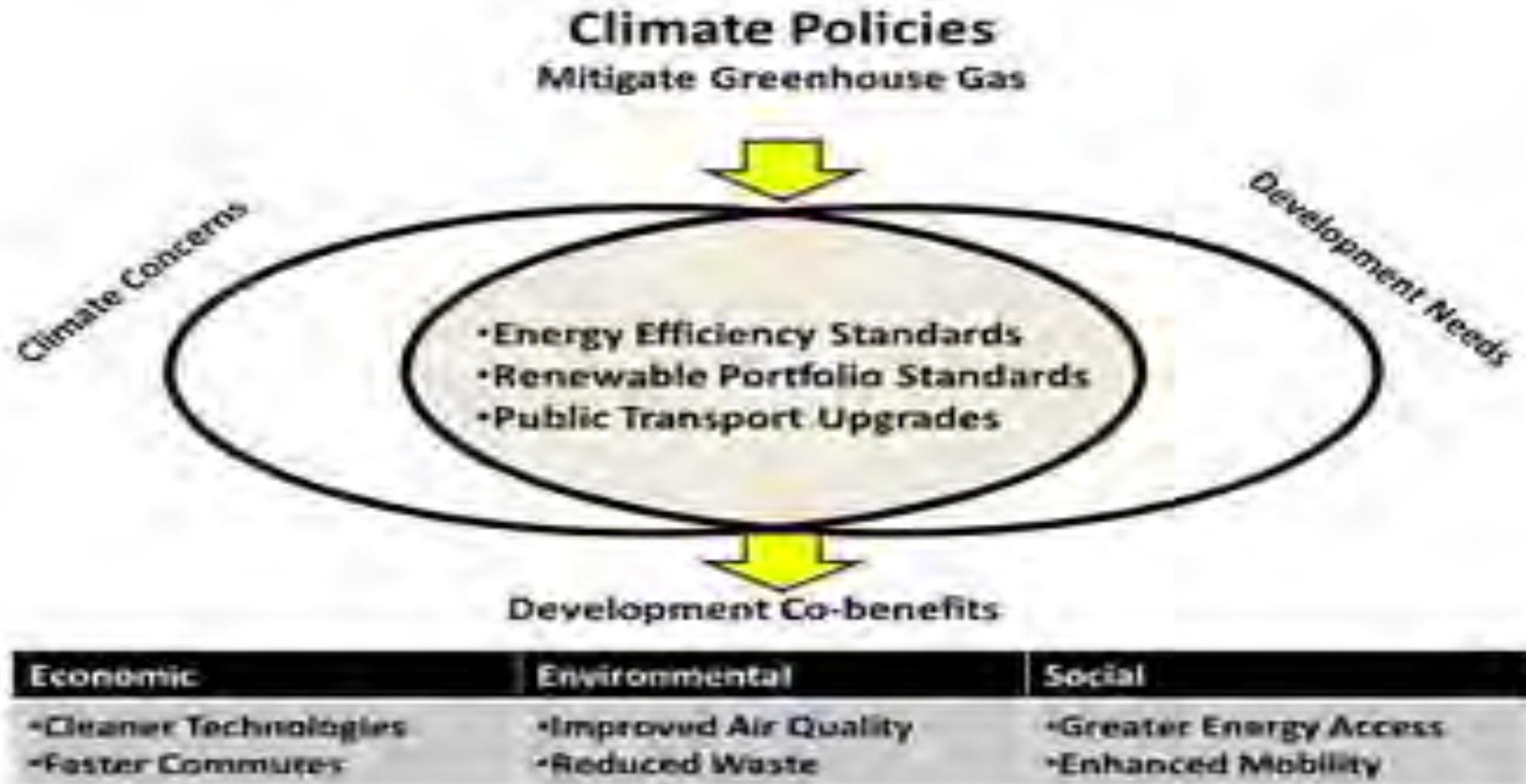
Eric Zusman

Research Director

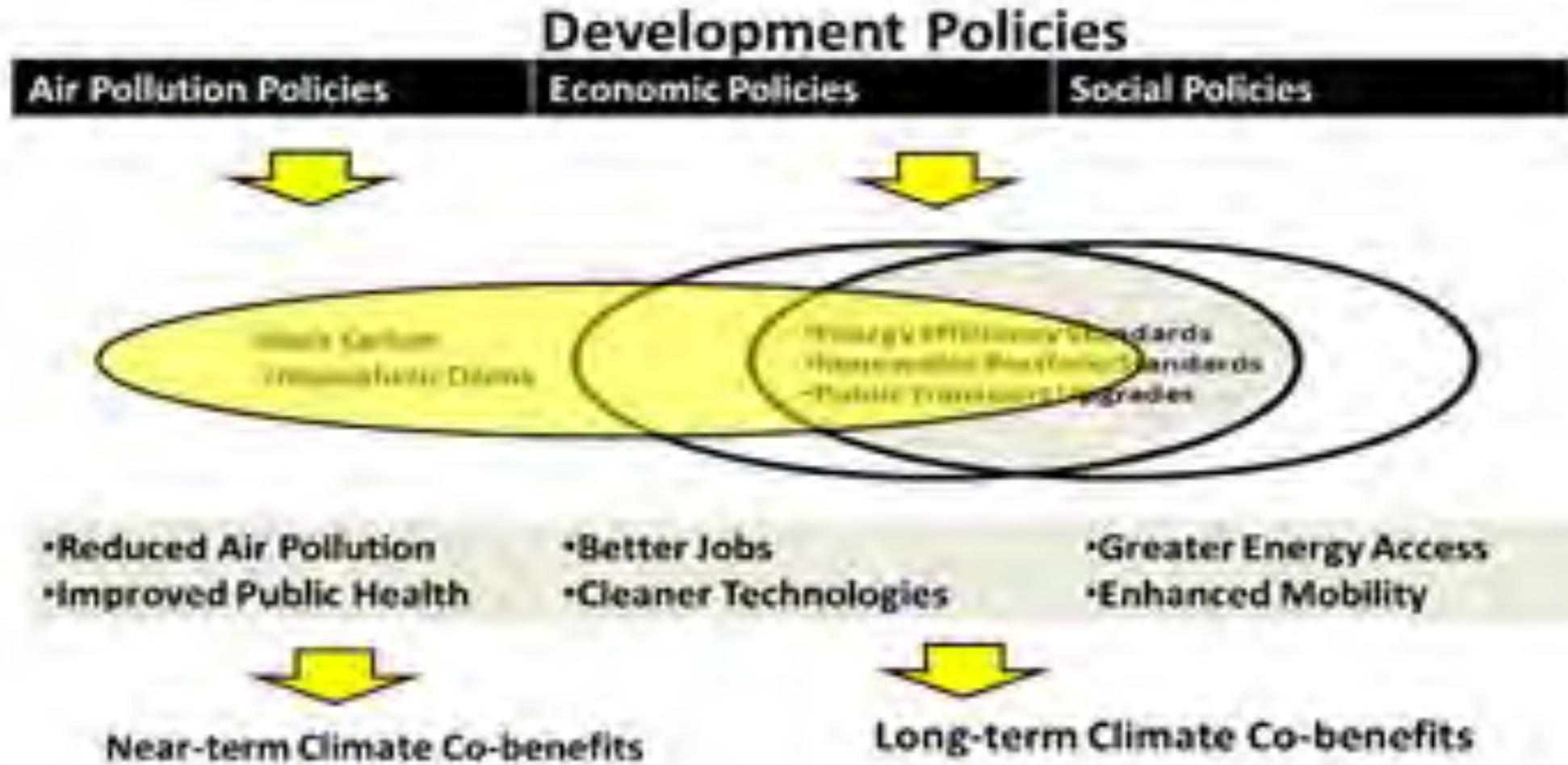
Institute for Global Environmental Strategies (IGES), Japan

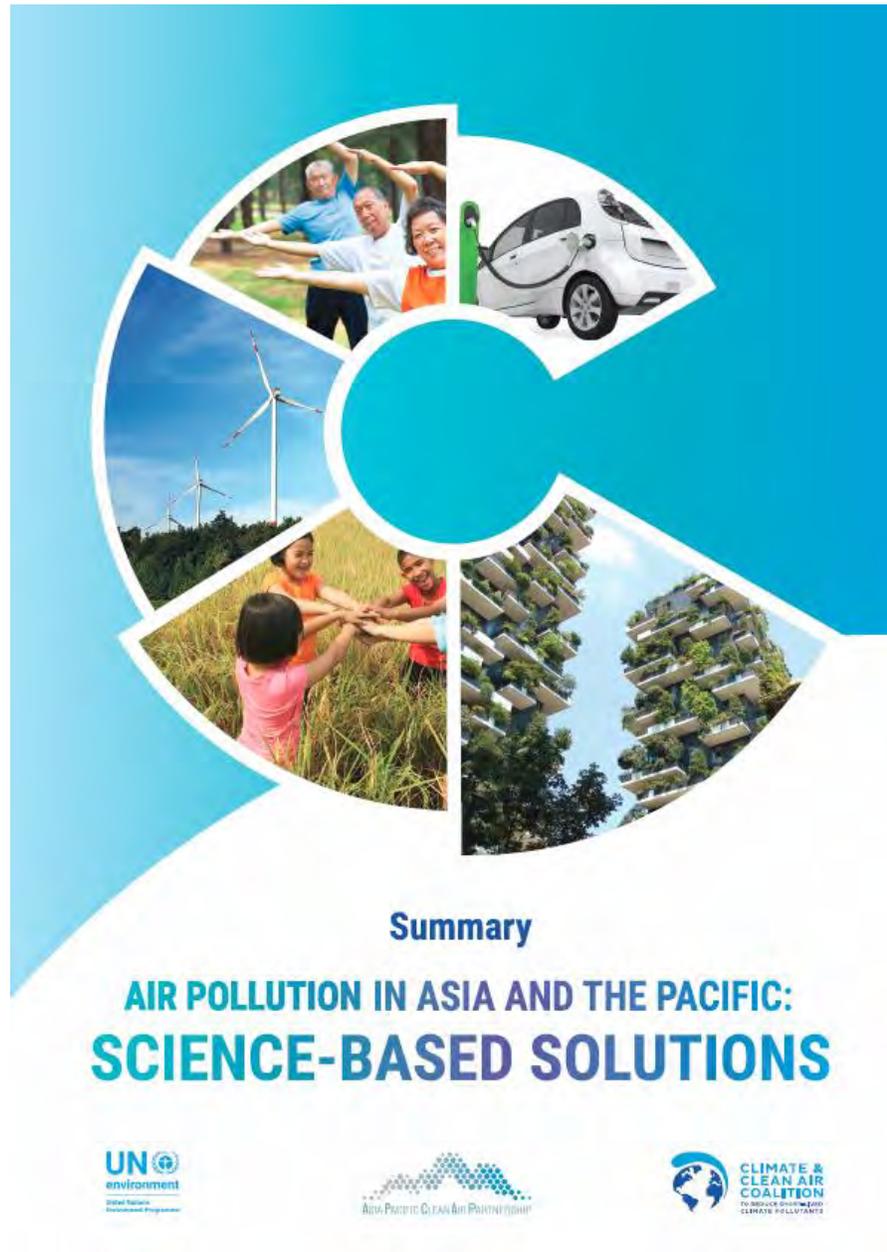
This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

What are co-benefits?



Another view on co-benefits





UN Environment

**Asia Pacific Clean Air Partnership
(APCAP)**

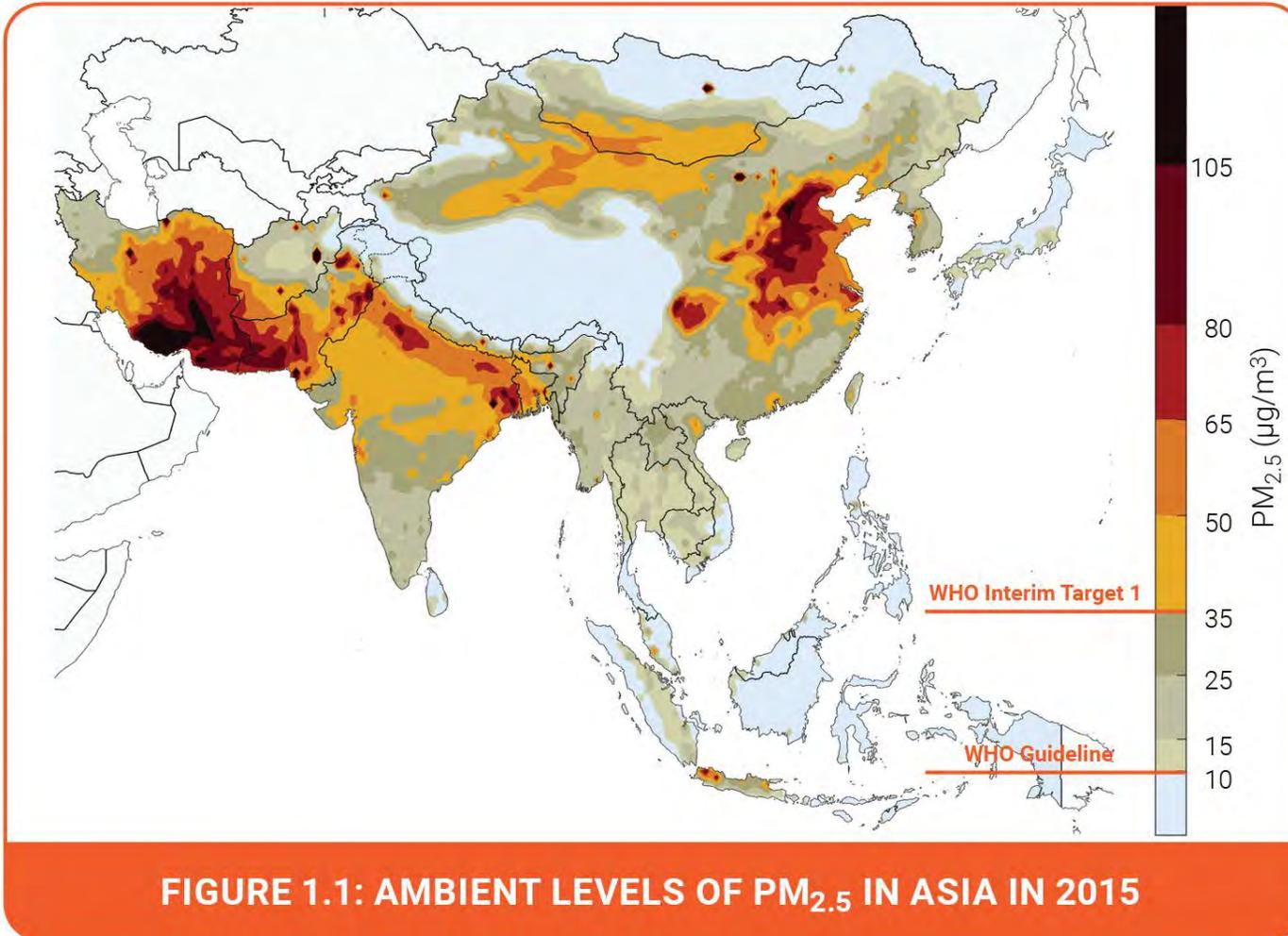
**and the Climate and Clean Air Coalition
(CCAC)**

107 authors

53 reviewers

The report aims to support efforts to address air pollution in Asia and the Pacific by providing options for tackling air pollution in the context of the SDGs.

Air pollution is a serious health crisis across Asia and the Pacific



<8% of people in Asia and Pacific enjoy clean air

In 2015, 4 billion people were exposed to high levels of air pollution

Highest numbers in South and East Asia

So – we need more ambition to reduce health impacts in the next decades

TOP 25 CLEAN AIR MEASURES – a portfolio of options

**ASIA-WIDE
APPLICATION OF
CONVENTIONAL
MEASURES**

**NEXT GENERATION AIR
QUALITY MEASURES THAT
ARE NOT YET MAJOR
COMPONENTS OF CLEAN
AIR POLICIES**

**MEASURES WHICH
CONTRIBUTE TO
DEVELOPMENT
PRIORITIES WITH AIR
QUALITY BENEFITS**

Looking for the measures that lead to the largest reduction in the population exposed to PM2.5 plus methane measures which will reduce tropospheric ozone and HFCs which reduce near-term warming

Full application of conventional measures to all countries in Asia

Post-combustion controls

Introduce state-of-the-art end-of-pipe measures to reduce sulphur dioxide, nitrogen oxides and particulate emissions at power stations and in large-scale industry

Industrial process emissions standards

Introduce advanced emissions standards in industries, e.g., iron and steel plants, cement factories, glass production, chemical industry, etc.

Emissions standards for road vehicles

Strengthen all emissions standards; special focus on regulation of light- and heavy-duty diesel vehicles

Vehicle inspection and maintenance

Enforce mandatory checks and repairs for vehicles

Dust control

Suppress construction and road dust; increase green areas

Next-stage air quality measures [*on dispersed sources*]

Agricultural crop residues

Manage agricultural residues, including strict enforcement of bans on open burning

Residential waste burning

Strictly enforce bans on open burning of household waste

Prevention of forest and peatland fires

Prevent forest and peatland fires through improved forest, land and water management and fire prevention strategies

Livestock manure management

Introduce covered storage and efficient application of manures; encourage anaerobic digestion

Nitrogen fertilizer application

Establish efficient application; for urea also use urease inhibitors and/or substitute with, for example, ammonium nitrate

Brick kilns

Improve efficiency and introduce emissions standards

International shipping

Require low-sulphur fuels and control of particulate emissions

Solvent use and refineries

Introduce low-solvent paints for industrial and do-it-yourself applications; leak detection; incineration and recovery

Measures contributing to priority goals for development [energy, agriculture, urban planning] with benefits for air quality [including methane-related measures] + HFC measures

Clean cooking and heating

Use clean fuels – electricity, natural gas, liquefied petroleum gas (LPG) in cities, and LPG and advanced biomass cooking and heating stoves in rural areas; substitution of coal by briquettes

Renewables for power generation

Use incentives to foster extended use of wind, solar and hydro power for electricity generation and phase out the least efficient plants

Energy efficiency for households

Use incentives to improve the energy efficiency of household appliances, buildings, lighting, heating and cooling; encourage roof-top solar installations

Energy efficiency standards for industry

Introduce ambitious energy efficiency standards for industry

Electric vehicles

Promote the use of electric vehicles

Improved public transport

Encourage a shift from private passenger vehicles to public transport

Solid waste management

Encourage centralized waste collection with source separation and treatment, including gas utilization

Rice paddies

Encourage intermittent aeration of continuously flooded paddies

Wastewater treatment

Introduce well-managed two-stage treatment with biogas recovery

Coal mining

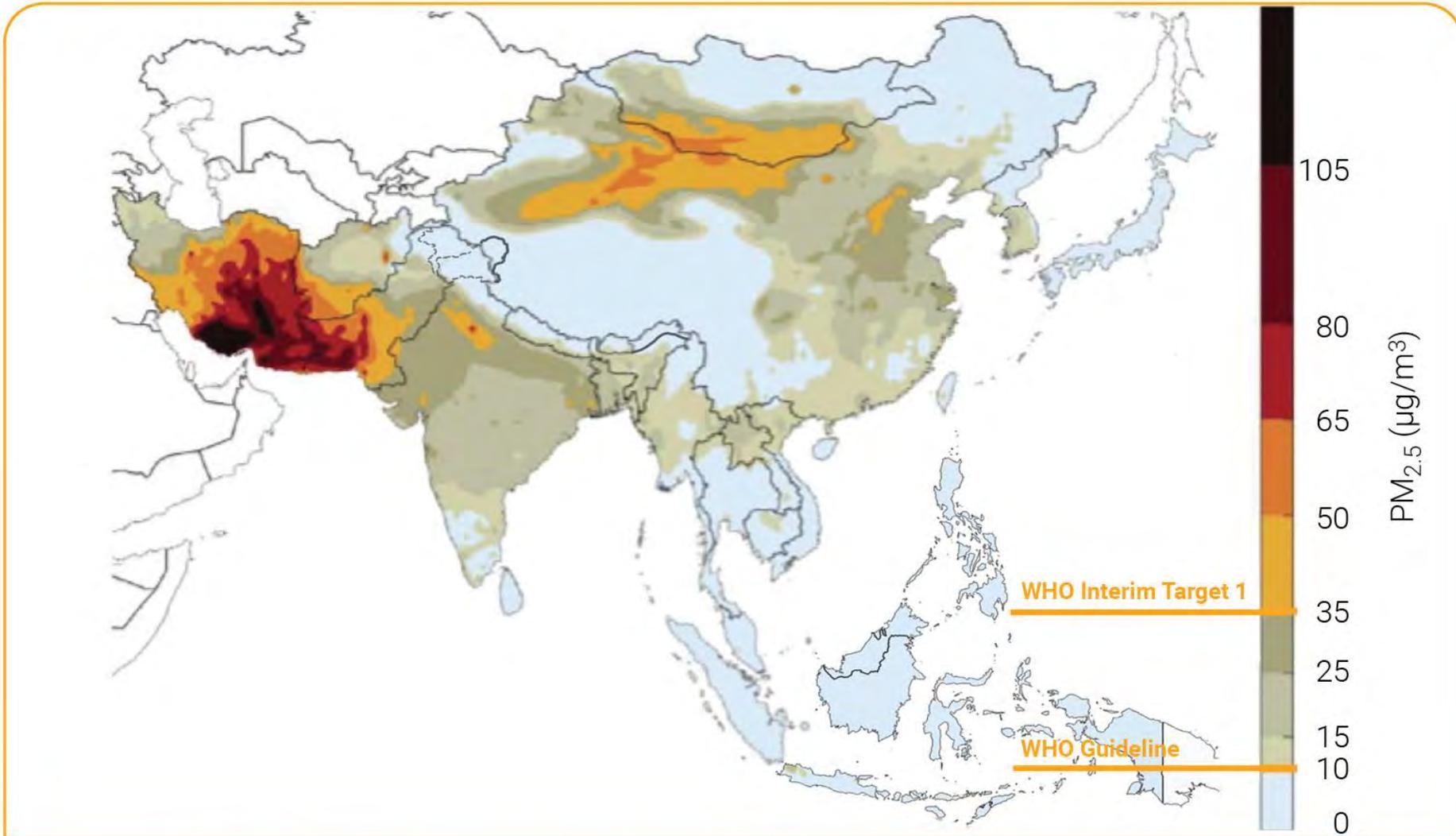
Encourage pre-mining recovery of coal mine gas

Oil and gas production

Encourage recovery of associated petroleum gas; stop routine flaring; improve leakage control

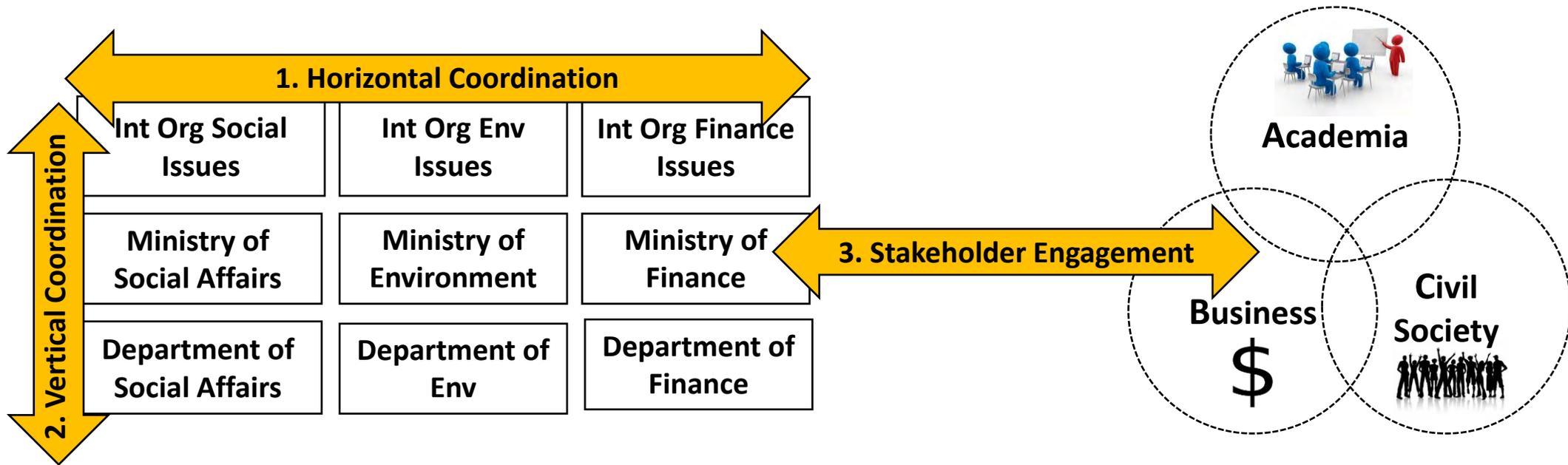
(HFC) refrigerant replacement

Ensure full compliance with the Kigali Amendment



Map showing
PM_{2.5} after
implementation
of the Top 25
Measures

FIGURE 2.5: PM_{2.5} CONCENTRATIONS IN 2030 AFTER IMPLEMENTATION OF THE TOP 25 CLEAN AIR MEASURES



Multilevel governance model

Asian Co-benefits Partnership White Paper 2020



**Implementing Solutions to Climate Change
and Air Pollution in Asia**

Mobilising Finance, Strengthening Policies and Building Capacities

- **Need: standardized and harmonized methods for quantifying climate and development benefits of a range of interventions**
- **Policymakers need tools that can help them quantify benefits.**
- **They also need tools that can help strengthen policy design and enhance interagency coordination.**
- **Quantification is part of the story; the other part is the design of policies and the structure of decision making institutions.**

Asian Co-benefits Partnership

- Launched at BAQ conference in 2010
- To enable a variety stakeholders to work together on co-benefits
- To support the mainstreaming of co-benefits into decision-making processes in Asia
- <https://www.cobenefit.org/>



Asian Co-Benefits Partnership

Bringing Climate and Development Together in Asia

The Asian Co-benefits Partnership is an informal and interactive platform to Facilitate information sharing and stakeholder dialogue on co-benefits in Asia.

What's New?

NEW Asian Co-benefits Partnership White Paper 2020

NEW The Co-benefits Corner Newsletter Vol.19 2020

NEW The Co-benefits Corner Newsletter Vol.18 2019

ABOUT

Activities

Resource

Join ACP

Good Practice Map



White Paper



Co-Benefits Tools

