



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

**Building Capacities, Strengthening Policies, and Financing Technologies**

## **Framing Presentation**

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Research Director

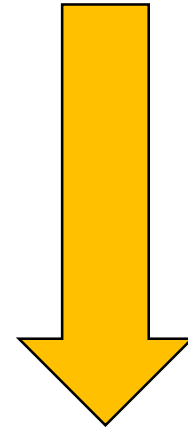
Institute for Global Environmental Strategies (IGES)



## Diffusion and Scaling

### Pilot & Prototype

### Idea Generation



1. Lack of Finance
2. Fragmented Policy
3. Limited Capacity

# Asian Co-benefits Partnership

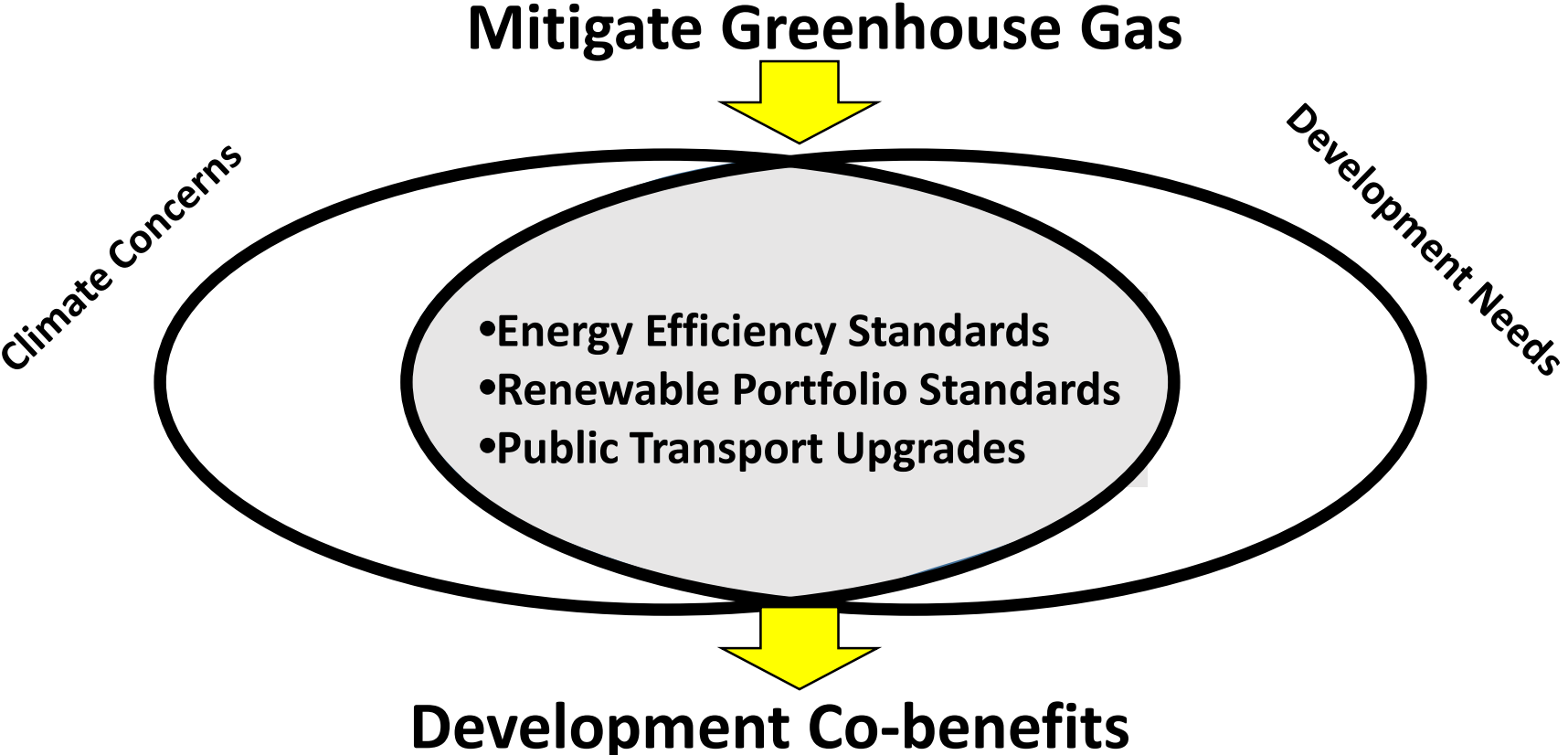
- Launched at BAQ conference in 2010
- to enable a variety stakeholders to work together on co-benefits
- to support the mainstreaming of co-benefits into decision-making processes in Asia



# Major Functions of ACP

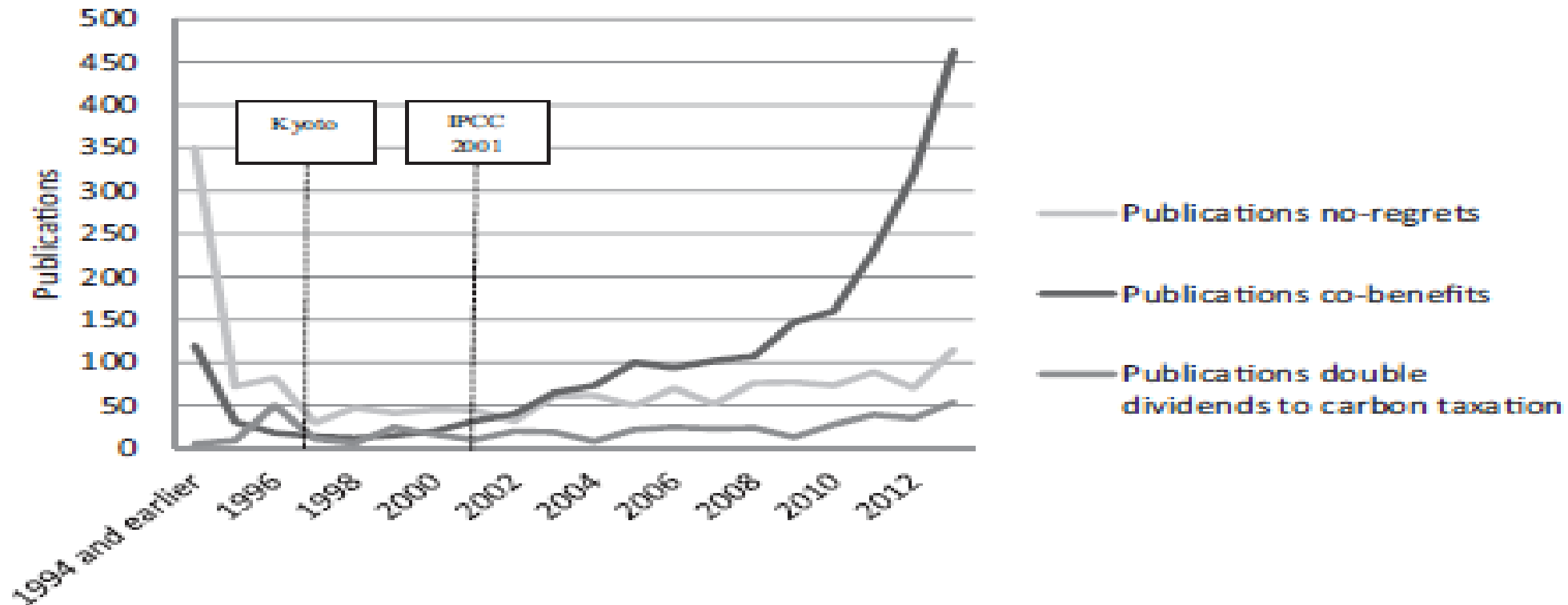
- Information sharing and knowledge management
- Enhanced communication among ACP members
- Support for co-benefits policies and projects in Asia
- Strengthening of regional cooperation to promote co-benefits

# Interest in co-benefits focused on GHGs and other development benefits



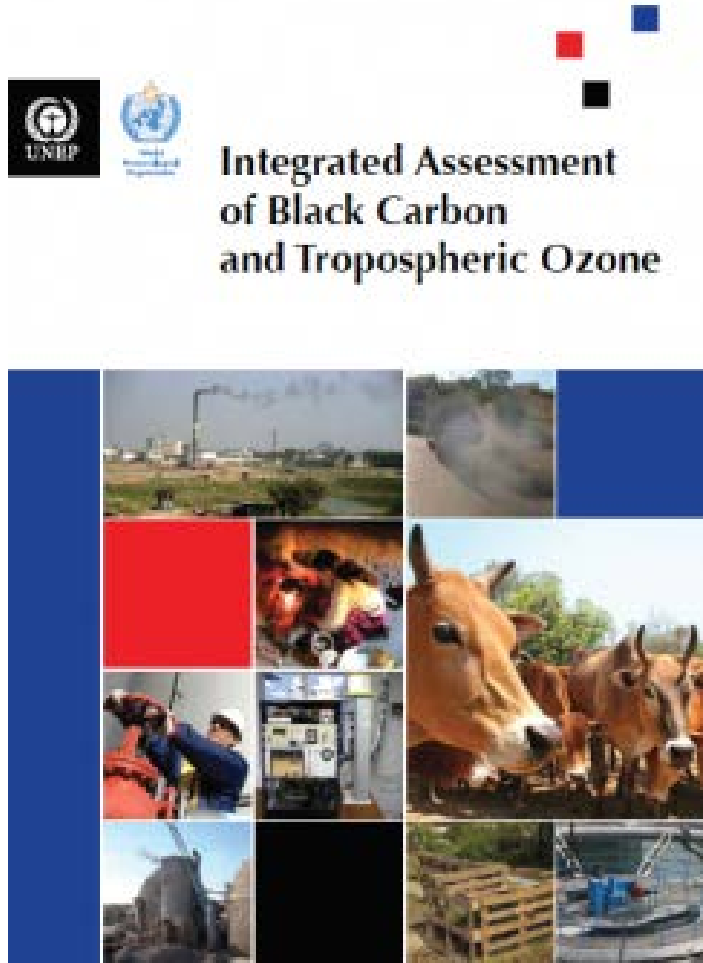
Economic	Environmental	Social
<ul style="list-style-type: none"> <li>•Cleaner Technologies</li> <li>•Faster Commutes</li> </ul>	<ul style="list-style-type: none"> <li>•Improved Air Quality</li> <li>•Reduced Waste</li> </ul>	<ul style="list-style-type: none"> <li>•Greater Energy Access</li> <li>•Enhanced Mobility</li> </ul>

# Interest in co-benefits has grown considerably over the past 10 years

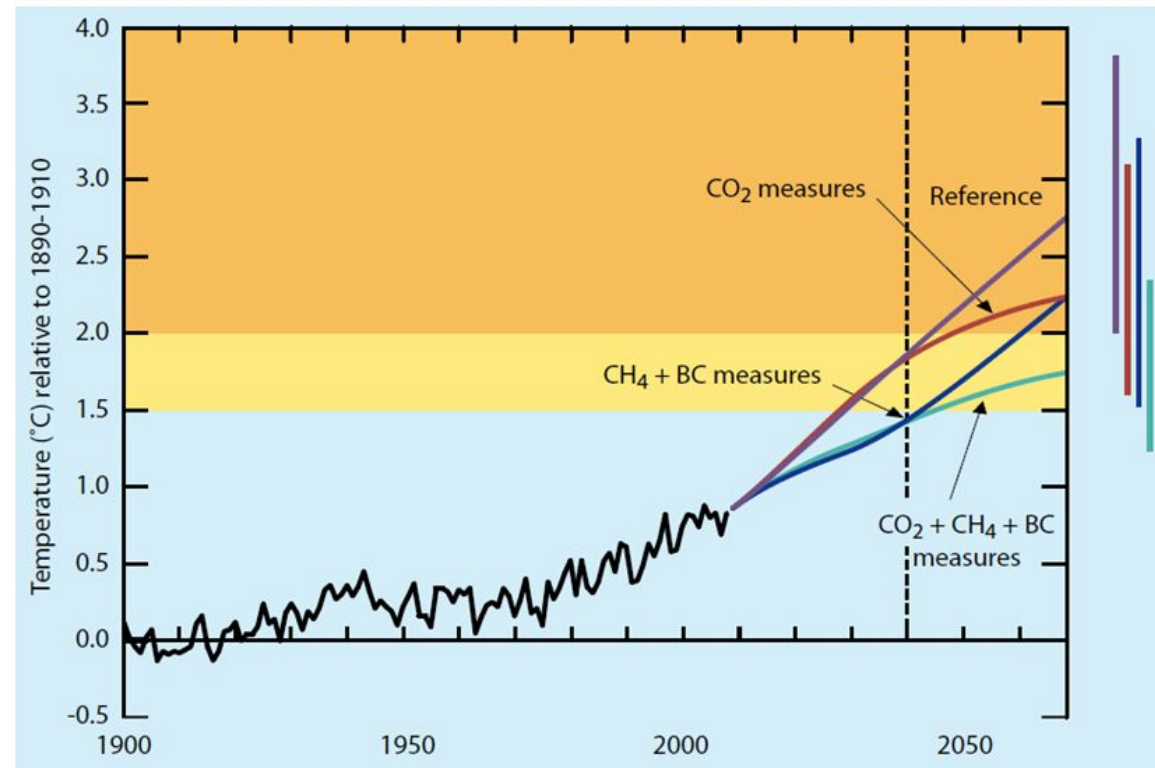


**Fig 2. Publications using co-benefits and related concept in the ScienceDirect database.**

# New air pollution perspectives on co-benefits also emerge over the past decade

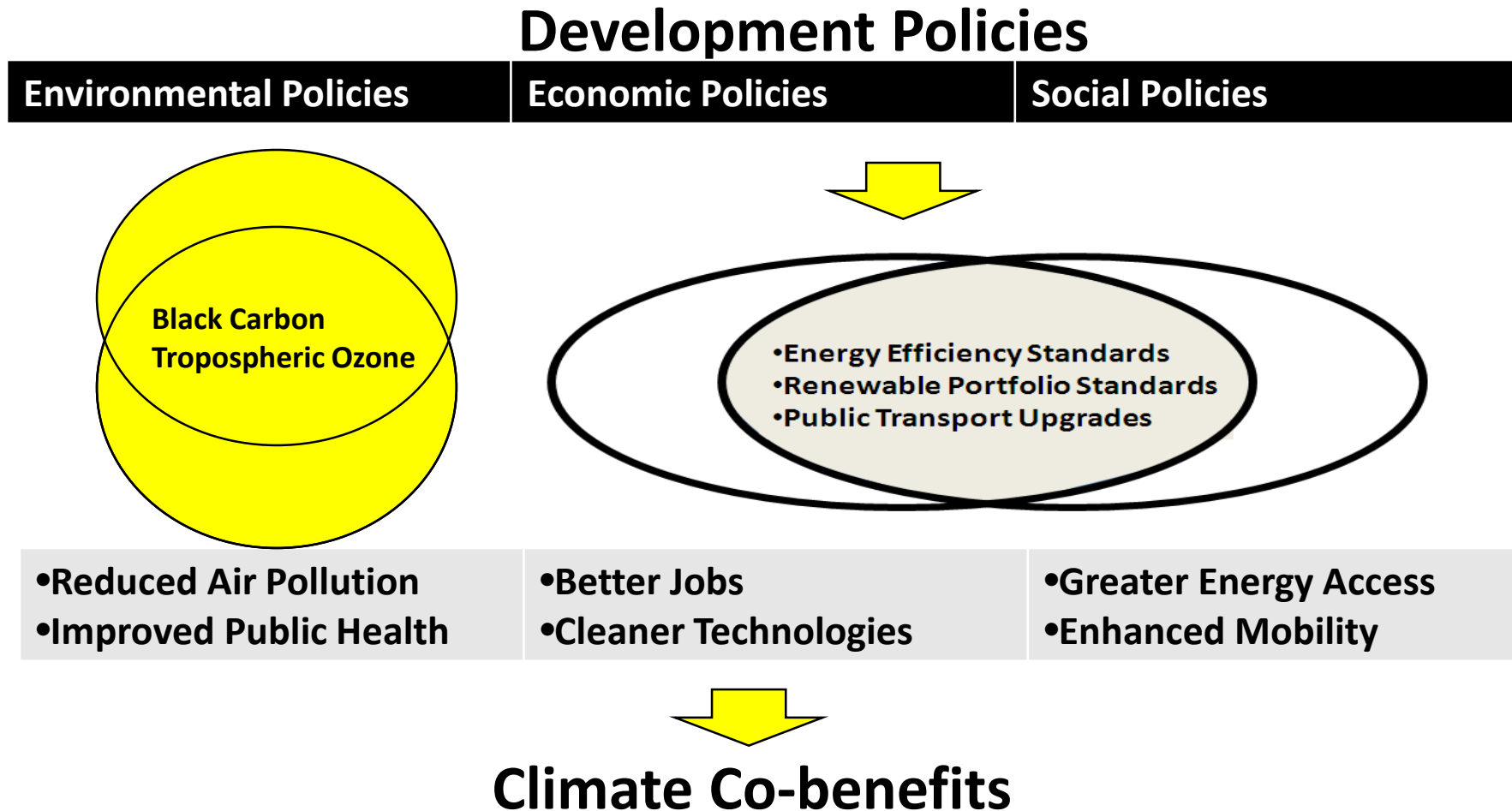


## Temperature evolution for the scenarios



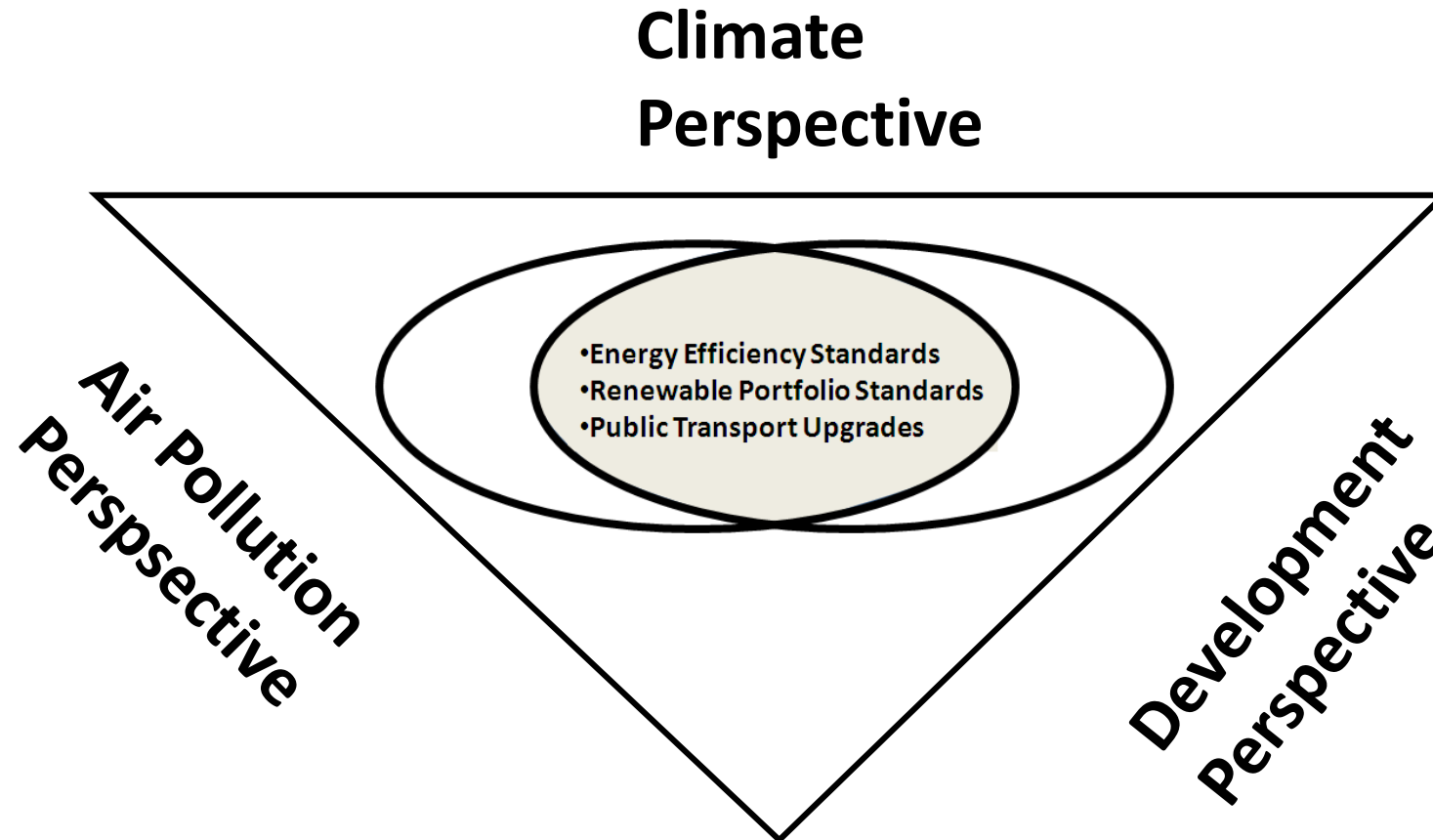
UNEP and WMO 2011 – Integrated Assessment of Black Carbon and Tropospheric Ozone: Summary for Decision Makers.

# Newer Perspectives on Co-benefits





# Viewing co-benefits from other perspectives can also enhance the usefulness of the concept



The background of the slide is a photograph of the Indian national flag (Tiranga) flying on a tall pole. The flag is positioned on the left side of the frame. Behind the flag, a cityscape is visible, including several multi-story buildings and a road that curves through a hilly area. The overall scene is somewhat hazy, suggesting a clear but slightly overcast day. The text is overlaid on the upper right portion of the image.

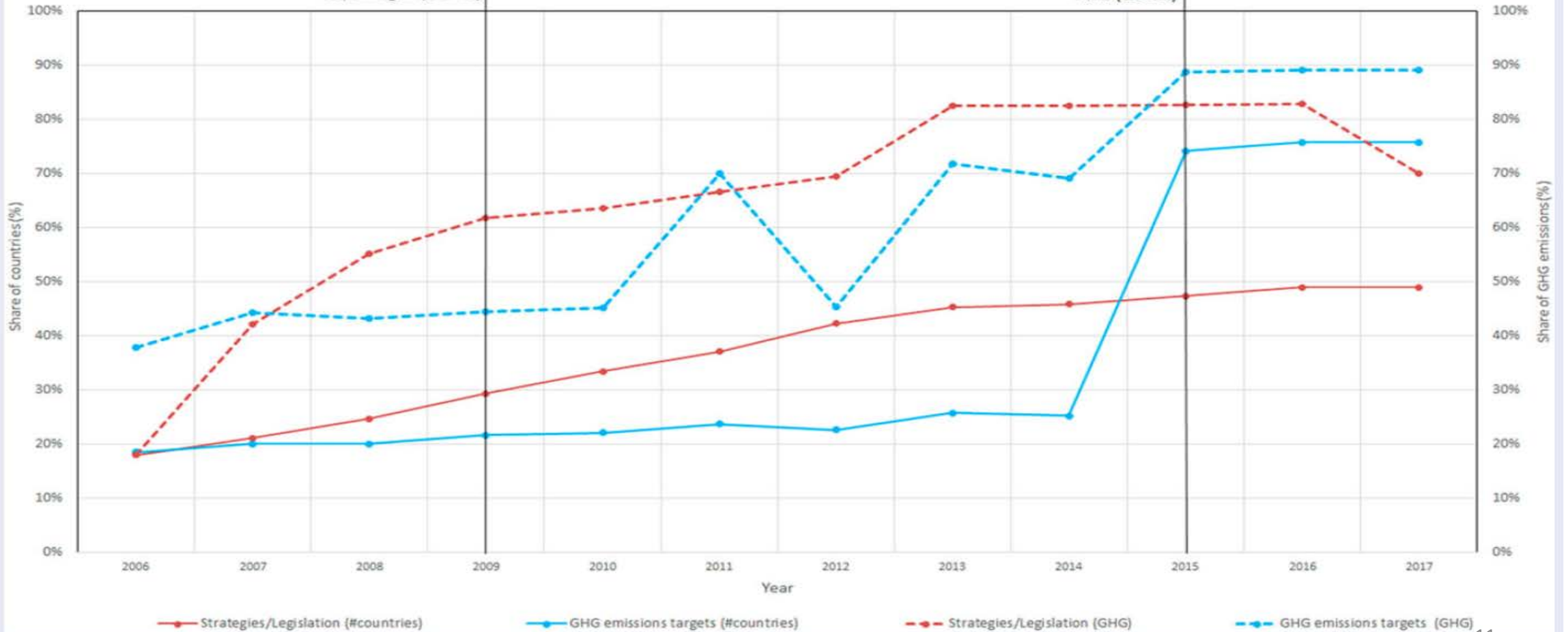
# **Air Quality Episodes Have Generated Even Greater Interest in Co-benefits**

# Increased Coverage of Climate Policies Have Also Added Interest

Global coverage of climate mitigation legislation, strategies and targets

Copenhagen (COP15)

Paris (COP21)



# Recent report helped unify views on co-benefits: *Air Pollution in Asia and the Pacific: Science-Based Solutions*

## Three main chapters:

1. **Why decisive action is needed to combat air pollution in Asia and the Pacific**
2. **Scenarios & Solutions (GAINS)**
3. **Closing the implementation gap: bringing clean air to the region**

- [English](#)

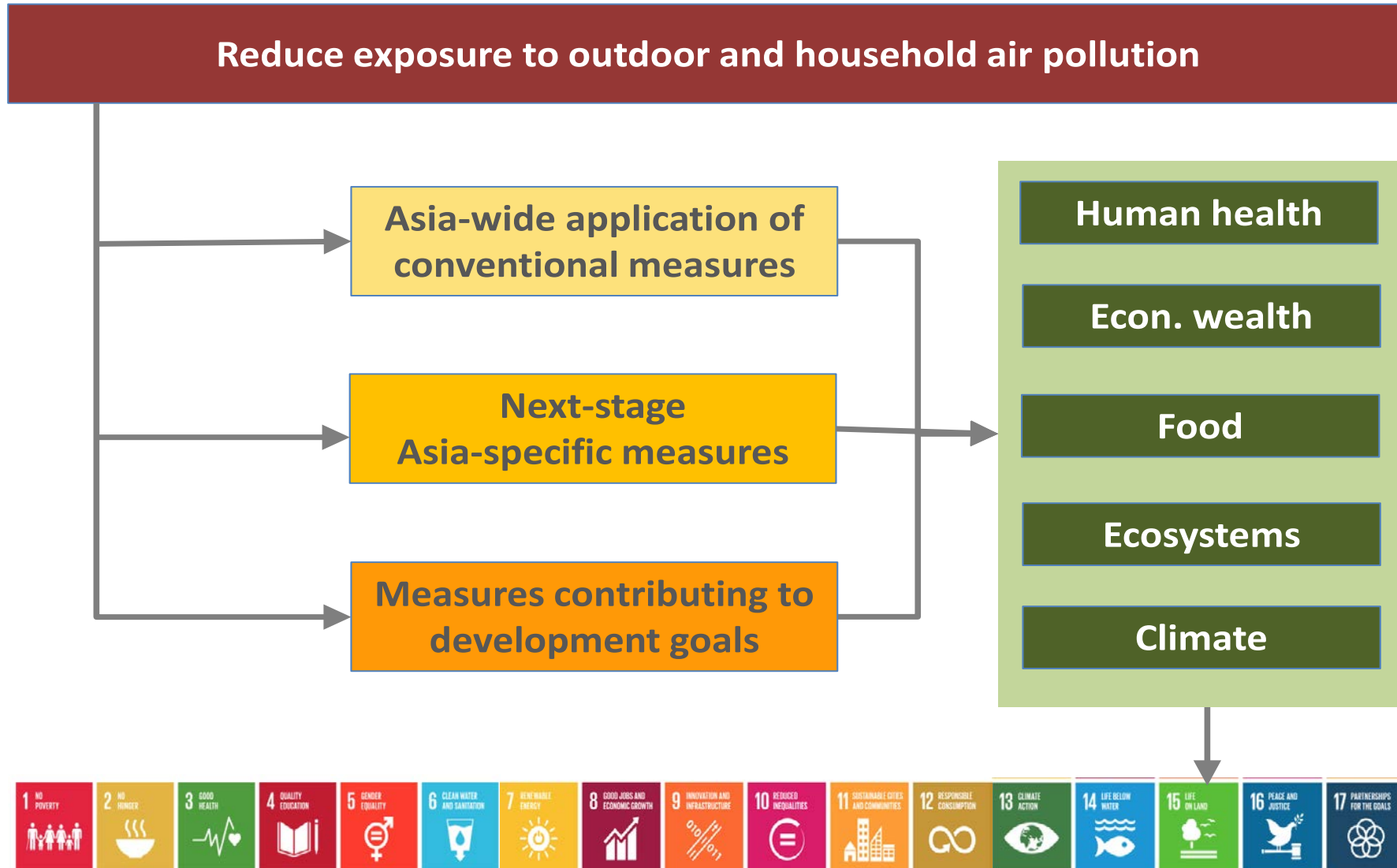
<https://www.unenvironment.org/asia-and-pacific/asia-pacific-clean-air-partnership/25-clean-air-measures>

- [Japanese](#)

[https://pub.iges.or.jp/pub/solution\\_report\\_summary\\_j](https://pub.iges.or.jp/pub/solution_report_summary_j)

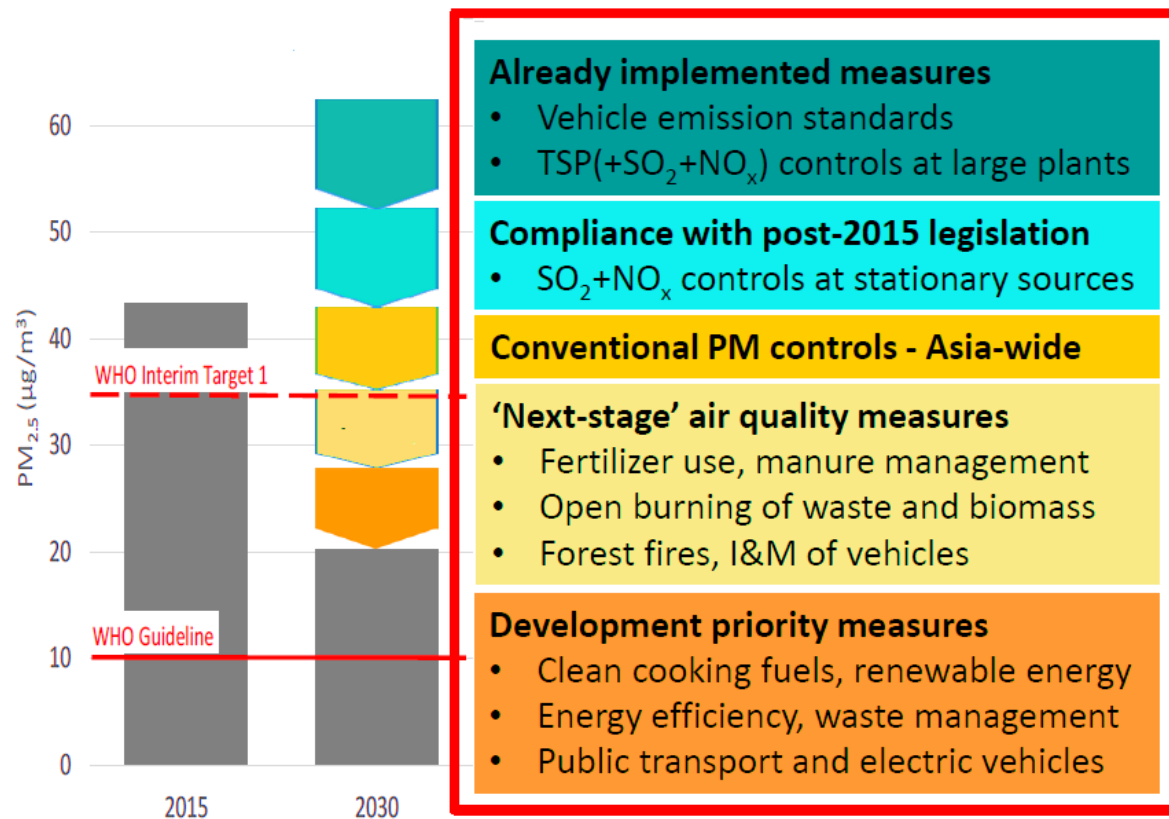


# Conceptual Framework



# 25 Clean Air Measures by UNEP in 2019

## Potential Contributions of the Measures to Population-weighted mean exposure to PM<sub>2.5</sub>



- Already implemented measures**
  - Vehicle emission standards
  - TSP(+SO<sub>2</sub>+NO<sub>x</sub>) controls at large plants
- Compliance with post-2015 legislation**
  - SO<sub>2</sub>+NO<sub>x</sub> controls at stationary sources
- Conventional PM controls - Asia-wide**
- 'Next-stage' air quality measures**
  - Fertilizer use, manure management
  - Open burning of waste and biomass
  - Forest fires, I&M of vehicles
- Development priority measures**
  - Clean cooking fuels, renewable energy
  - Energy efficiency, waste management
  - Public transport and electric vehicles

(Source: IIASA 2019)



# The solutions report identified in the report fall into three main categories

**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

# Key question: how can these solutions be implemented in Asia?

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OF CONVENTIONAL  
MEASURES**

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**Financing  
Technologies**

# **Implementing Solutions**

**Strengthening  
Policies**

**Building  
Capacity**

# Building Capacity

- Audience: Policymakers, international organizations, and private sector
- Evidence-based assessment tools
- Institutional and organizational design

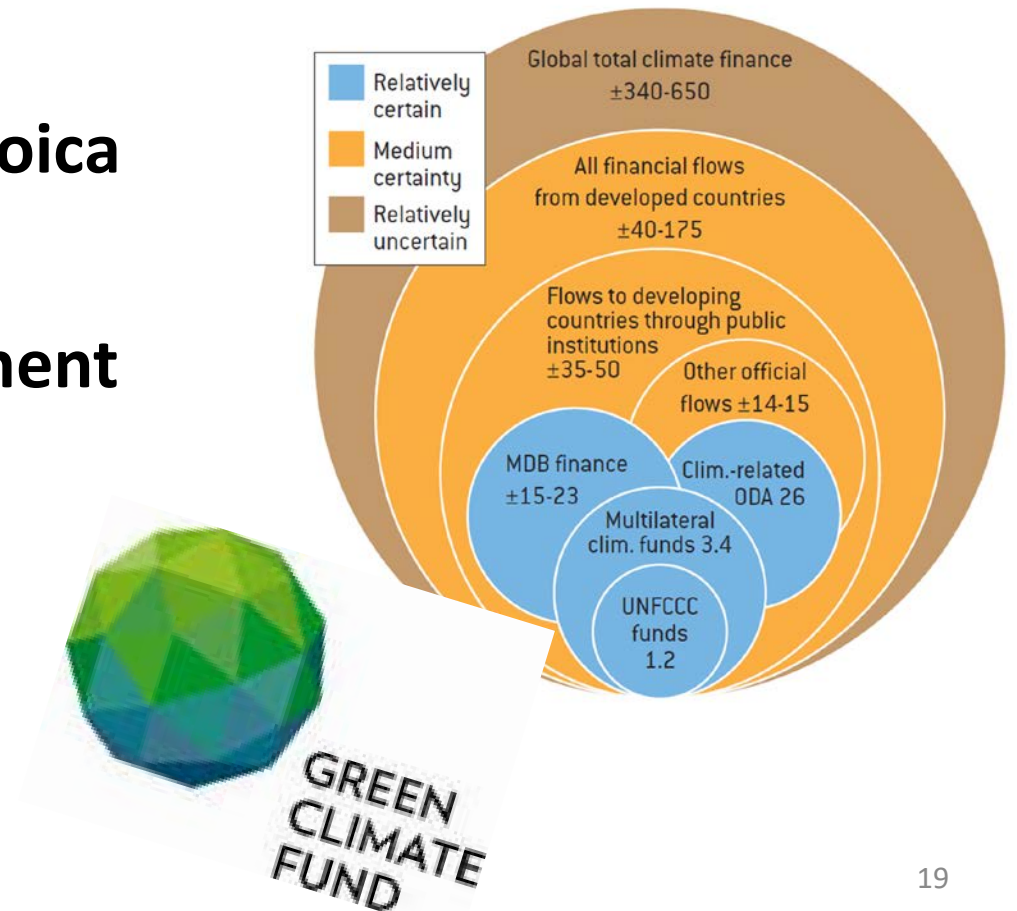


# Financing Technologies

- **Climate finance: Green Climate Fund; JCM**
- **Development assistance: ADB; JICA; Koica**
- **National accounts and private investment**
- **Blended finance**

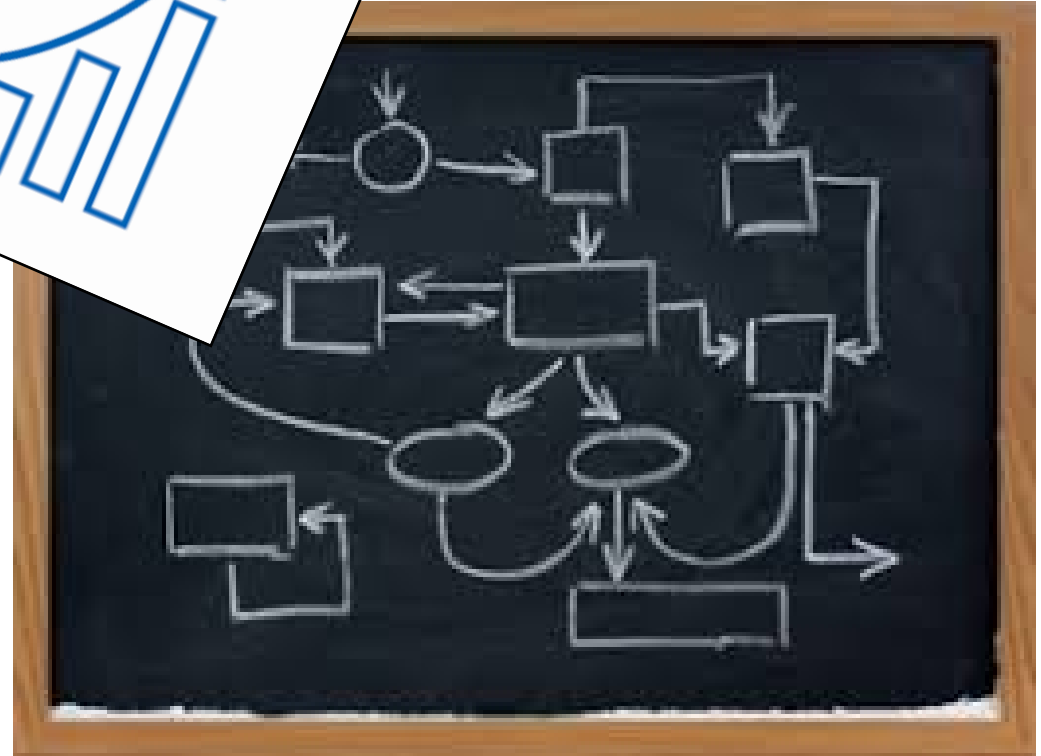


International climate finance, \$ billions

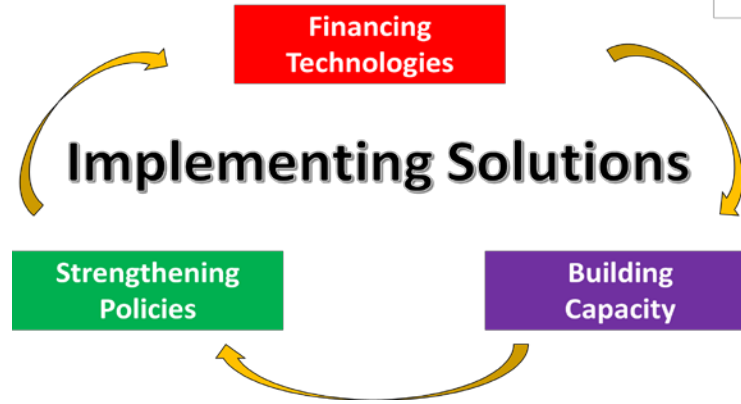


# Strengthening Policies

- **Multi-Solutions Strategies**
- **Enabling Policies**
- **Co-production and Policy Learning**



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