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South - South Knowledge Sharing on Air Quality and Carbon Neutrality

Regional Knowledge Sharing Event

Air Quality and Climate Benefits of Energy Policies

26 June 2023 | 14:00-17:00 (PHT)

Everlyn Tamayo

Air Quality and Climate Change Science Lead
Clean Air Asia



GUIDANCE FRAMEWORK TOWARDS CLEAN AIR AND CLEAN ENERGY IN ASIA

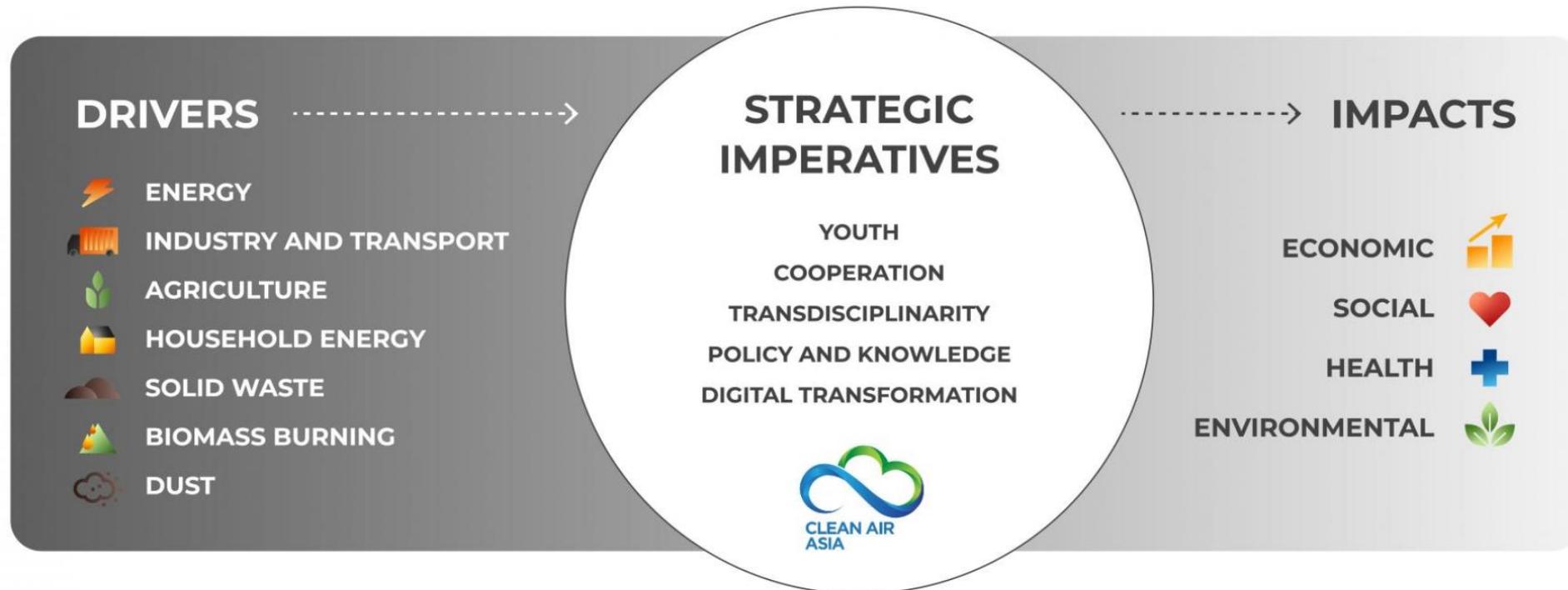


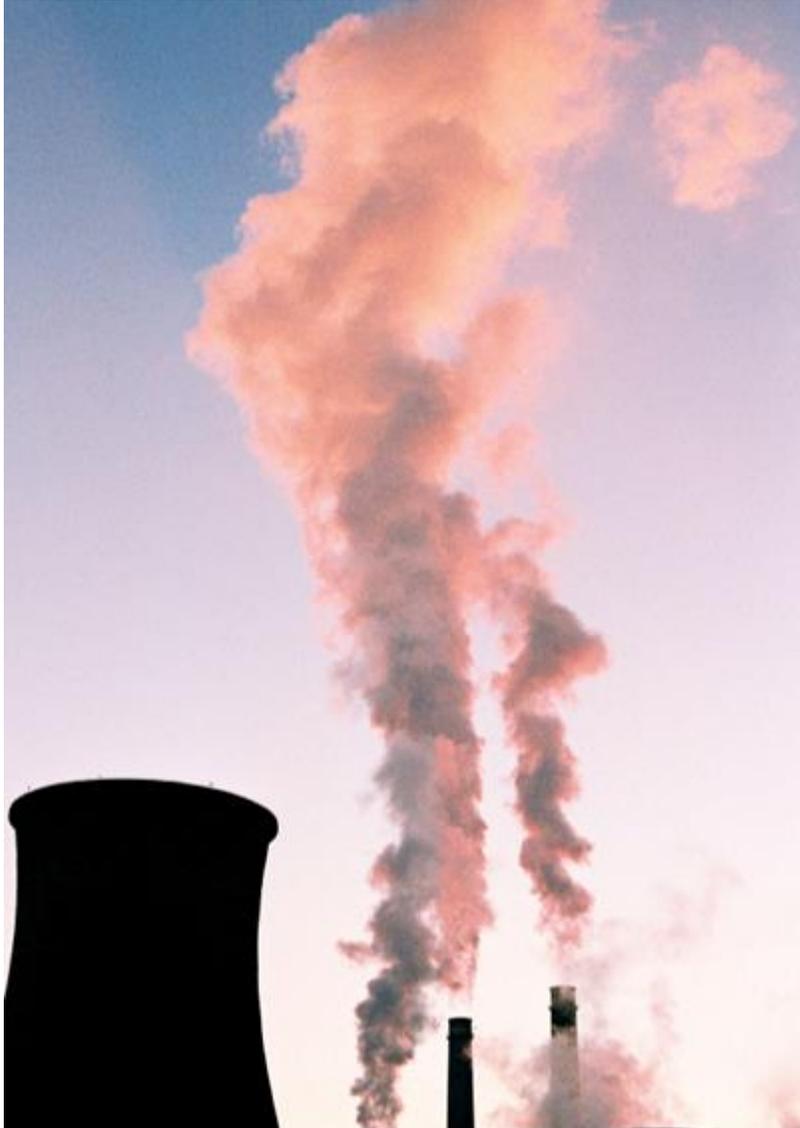
REDUCING EMISSIONS FROM COAL-FIRED POWER PLANTS & HEAVY-POLLUTING INDUSTRIES

Everlyn Tamayo, Dang Espita-Casanova,
Glynda Bathan-Baterina, Cris Beo, Pratik Jha
Clean Air Asia



- Our work focuses on implementing solutions that **reduce air pollution** and its detrimental health impacts, and that **mitigate the climate crisis**.
- Approach: **science-based policy guidance and capacity building towards stakeholder action** at the city, national, and regional levels.





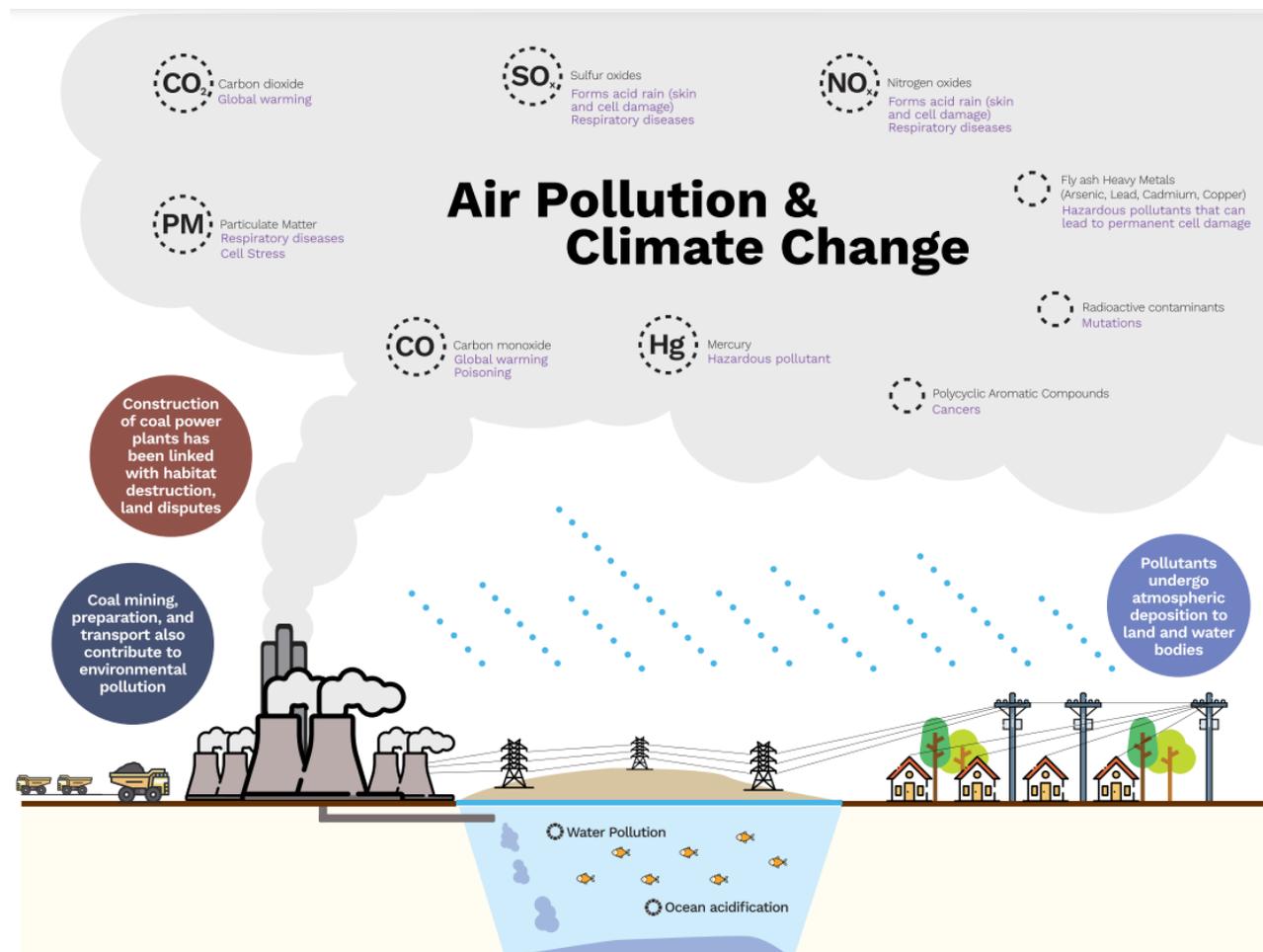
- **Energy** production and use is the **largest source of anthropogenic air pollution** in the world
 - Energy efficiency can reduce both indoor and outdoor concentrations of air pollutants and drive a range of economic, environmental and health benefits associated with local air quality
 - Source: [International Energy Agency](#)
- **Energy accounts for over two-thirds of global GHG emissions**
 - “Energy is at the heart of the solution to the climate challenge”
 - Source: [IPCC \(2020\)](#)
- Asian countries with **higher CO₂ emissions** per capita/higher fossil fuel consumption have **higher prevalence of lung and respiratory diseases**
 - A **1% increase in fossil fuel consumption** may **accelerate lung and respiratory diseases by ~1.38%**
 - Data from 18 low and middle-income Asian countries from 1991-2018
 - Source: Taghizadeh-Hesary et al. (2020). [The Energy-Pollution-Health Nexus: A Panel Data Analysis of Low- and Middle-Income Asian Nations](#). ADB Institute Working Paper

IMPACT OF CFPs/ENERGY SECTOR ON AIR QUALITY, CLIMATE & HEALTH

- Coal-fired power plants (CFPs) pose significant threat to people's health and the environment due to the emission of toxic air and climate pollutants
 - Koplitz et al. (2017), projected an estimated **70,000 total excess deaths due to coal-based power generation by 2030**, which is 50,000 more than the 2011 estimate of 20,000 excess deaths in the region.
 - It was found that **for every 1 kilowatt (kW) increase in coal capacity per person in a country, the relative risk for lung cancer increased by a factor of 59%** (Lin et al., 2019).

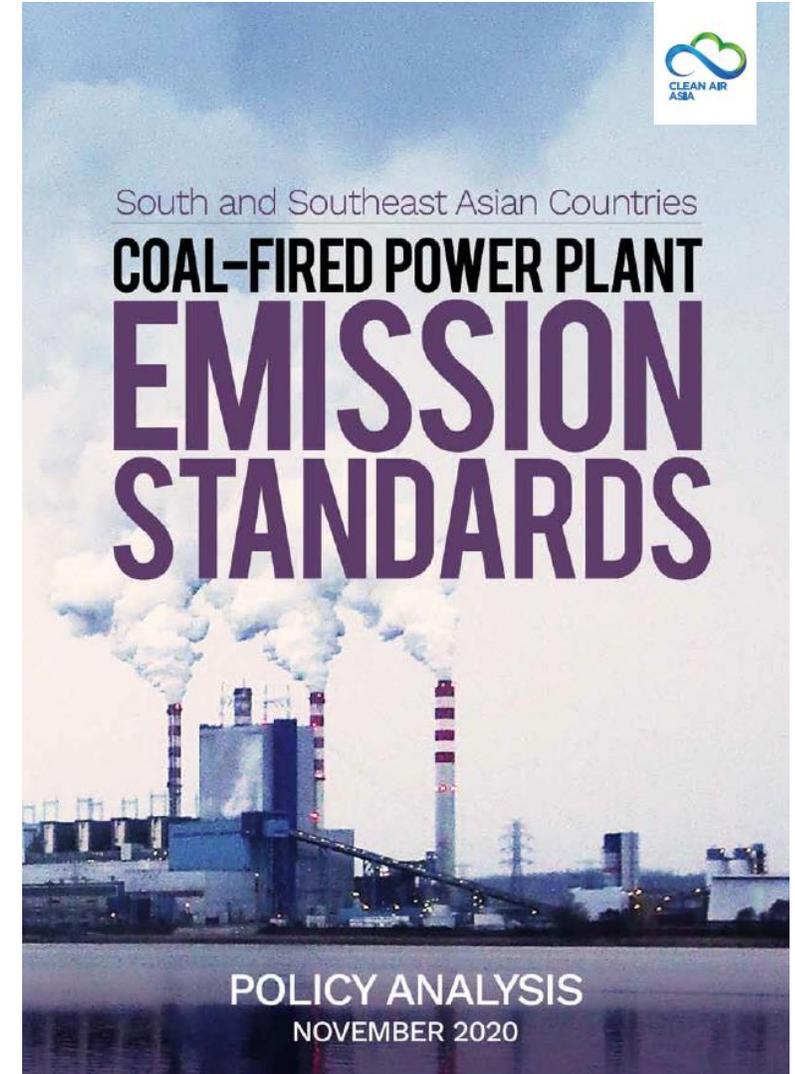
“IN ASIA, WHERE LOW-INCOME COUNTRIES AND COMMUNITIES ALSO FACE THE LARGEST BURDEN OF CLIMATE AND AIR QUALITY IMPACTS, REDUCING EMISSIONS FROM CFPs THROUGH MORE STRINGENT STANDARDS AND RELATED POLICIES CAN IMPROVE THE HEALTH OF CITIZENS.”

Clean Air Asia (2020). [Coal-Fired Power Plant Emission Standards in South and Southeast Asian Countries Policy Analysis](#)



INTRODUCTION: THE GUIDANCE FRAMEWORK

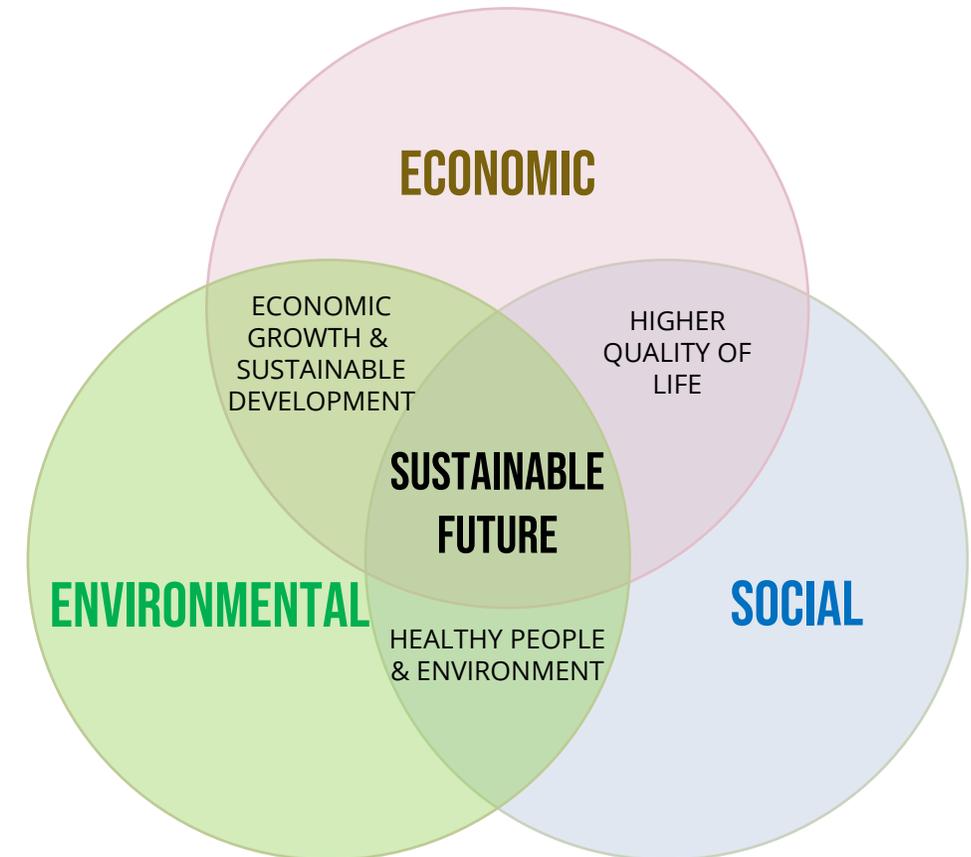
- This Guidance Framework builds on Clean Air Asia's work on international best practices on CFP-related policies vis-à-vis the CFP status quo in *the Philippines, Vietnam, Indonesia, Bangladesh, and Pakistan*, which comprise a third of the total global planned increase in coal dependence.
- In addition to country-level strategies, Clean Air Asia aims to integrate the **Guidance Framework Towards Clean Air and Clean Energy in Asia** in policy development.
 - Approach: co-learning through the **Communities of Practice** and the **Experts Advisory Council**
 - The Guidance Framework aims to provide direction on concrete actions in achieving clean air and clean energy by reducing emissions from CFPs and other heavy-polluting industries and eventual transition to clean energy.



VISION

Clean Air Asia's vision for the decade is a world with clean air, blue skies, and a stabilized climate for people and the planet.

- ✓ To improve air quality and abate climate change while fostering economic growth and higher quality of life for people, aligned with the 2030 Sustainable Development Goals
- ✓ To accelerate the transition to cleaner energy and achieve targets of reduced CFP emissions by 2030 and carbon neutrality by 2050



GOALS

To provide guidance and steer decision makers to attainable steps in **achieving clean air and clean energy in Asia**, aligned with WHO air quality guideline values, NetZero and climate targets

- ✓ Strengthen capacity of countries in **developing and implementing policies** related to emissions control and energy transition
- ✓ Highlight the need for a **science-based (i.e., data driven) approach** to inform policy and decisionmaking
- ✓ Encourage governments to adopt an **integrated strategy** to achieve clean air and clean energy to maximize **co-benefits**

- Clean Air Asia works with policymakers, international and local experts, and community stakeholders at country-level. In this regional platform, the **Guidance Framework** is disseminated as key learning component of the **Community of Practice***.



- In the establishment of the **Community of Practice**, Clean Air Asia is leading the:
 1. Continuous assessment of **policies, regulations, and institutional frameworks** related to CFPs and energy use and transition in Asia
 2. Provision of **technical advice** on the determinants and impacts of policies and actions on emissions reduction and clean energy
 3. Development of the detailed framework towards policies that will **reduce CFP emissions** and lead to more efficient and **sustainable energy** development and use
 4. Facilitation of relevant technical discussions, CoP meetings and consultations with the Advisory Group and partner countries

*A CoP is a group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (UNESCAP, 2020); CoP Components modified from [CDC, 2015](#).

Main role:

Provide advice to governments, in line with the **Guidance Framework Towards Clean Air and Clean Energy in Asia** ('Guidance Framework') which focuses on concrete actions in reducing emissions from CFPs and other industries through stringent controls and energy transition.

Key activities

- ✓ providing feedback to the Guidance Framework and meeting agendas
- ✓ sharing technical expertise through discussion forums, lectures, and consultation meetings
- ✓ review of pertinent documents, reports, and policy drafts

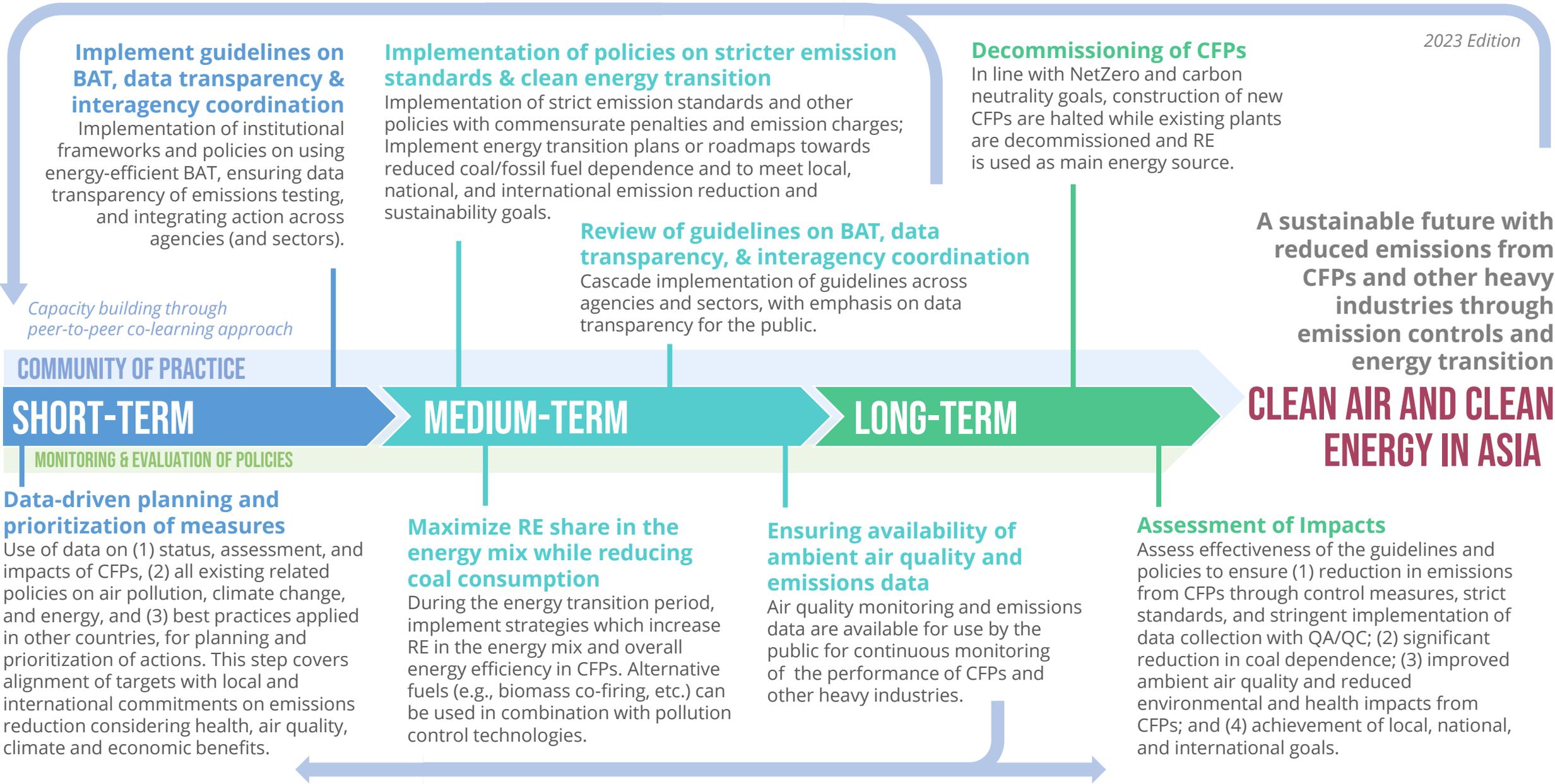
Key topics in activities

- ✓ Review and analysis of baseline emissions data towards revisions of emission standards and other regulations
- ✓ Assessment of existing technologies and policies on monitoring and controlling emissions
- ✓ Preparation needed for the implementation of stricter CFP emission standards and the transition to a Low Carbon Economy

GUIDANCE FRAMEWORK TOWARDS CLEAN AIR AND CLEAN ENERGY IN ASIA



2023 Edition



THANK YOU!

For questions and additional information, kindly e-mail

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