

Tuesday 14th October 2025 13h00 - 14h00 CEST

MULTI-COUNTRY INITIATIVES ADDRESSING AIR EMISSIONS OF MERCURY



Prof. Lesley Sloss

Macquarie University in Sydney, Australia



Veronica Villacis




UNIDO



Harinath Appalarajugari Sesha

World Bank

Housekeeping notes

- ▶ If the moderator opens the floor, and if you wish to take the floor, please click the **Raise Hand** icon that appears next to your name on the Participants panel.

- ▶ The moderator will call names based on the order of raised hands and allow you to unmute. When you are named, please **unmute** yourself and speak. When your speaking is over, kindly **mute** yourself and click the **Lower Hand** icon.
 
- ▶ You may also wish to type question(s) in the chat box and send to “everyone”.
- ▶ If you need any **technical assistance**, please put your message in the chat box and send it to the host or co-host.
- ▶ Kindly note that this session is being **recorded** and **broadcast live on YouTube**.
- ▶ Please help us to keep improving the experience by **filling out the survey** at the end of this webinar.

Assessment of existing and future emissions reduction from the coal sector toward the implementation of the Minamata and Stockholm Conventions

Peter Nelson
Edward Archer
Lesley Sloss
Maryam Khalid

*School of Natural Sciences
Macquarie University, Australia*

GEF/UNEP Project
Completed September 2025



MACQUARIE
University





Topics

The report

A short introduction to the study and the published report

The dashboard

A guide to operating the interactive dashboard

Plans?

A quick introduction to potential future project work

The Report

Final report online:

<https://www.unep.org/globalmercurypartnership/resources/report/assessment-existing-and-future-emissions-reduction-coal-sector>



SCHOOL OF NATURAL SCIENCES
Faculty of Science
and Engineering



Assessment of existing and future emissions reduction from the coal sector toward the implementation of the Minamata and Stockholm Conventions

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NSW, Australia

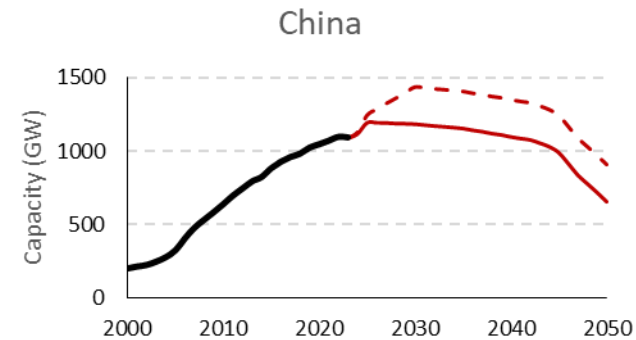
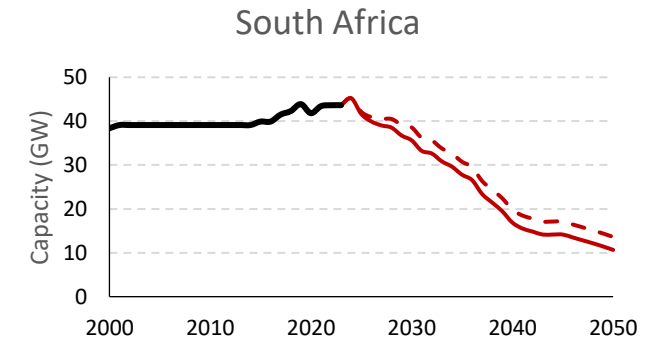
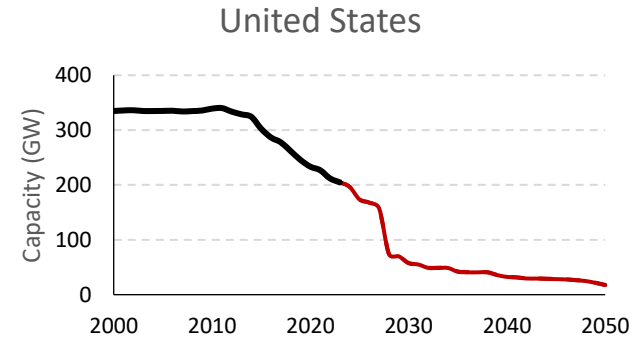
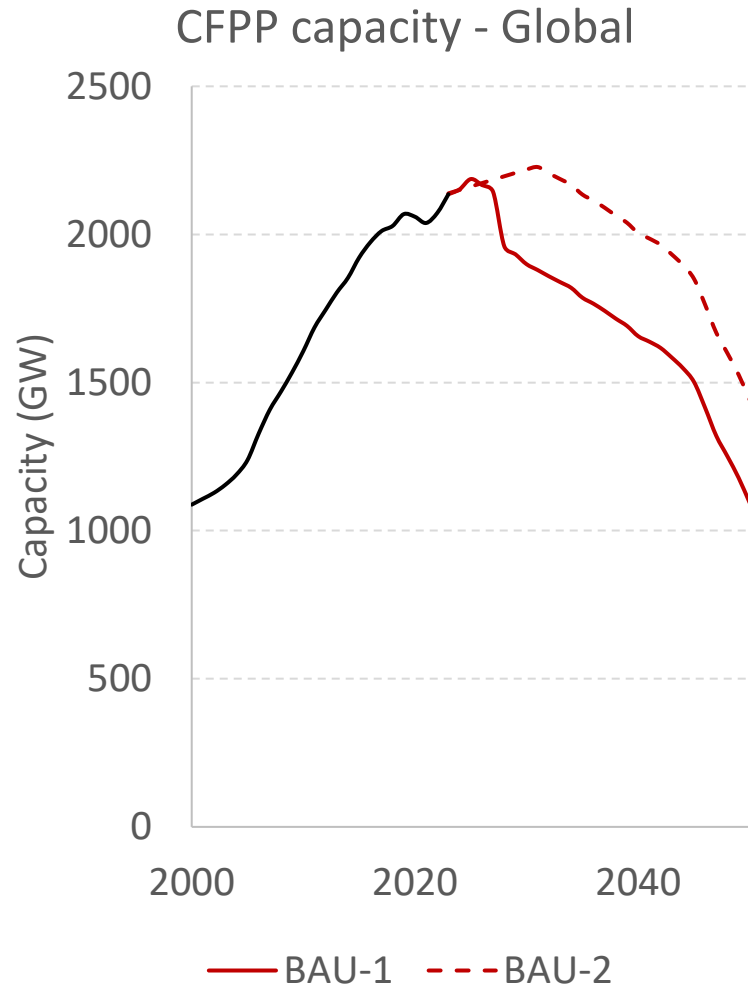


Assumptions



- The status of existing and future CFPPs on a global and country-specific level was taken from the Global Energy Monitor's Global Coal (GEM) Plant Tracker database
- Within the business-as-usual (BAU) scenario, there are 2 separate scenarios:
 - *BAU-1 considers the remaining lifetime of currently operating plants and assumes that only projects under construction will continue*
 - *BAU-2 considers the remaining lifetime of currently operating plants and assumes that all projects under construction and pre-construction will continue.*
- Mercury emission estimates were calculated for each CFPP unit listed on the GEM database using assumptions on coal consumption rates, installed air pollution control devices (APCDs), mercury input factor for the feed coal (mg/kg), and the mercury retention factor according to the installed APCDs. The default mercury retention factors according to different APCD configurations were sourced from the UNEP toolkit and expressed in the following equation:
$$\text{Hg EMISSION (kg/yr)} = \text{CC} * \text{IF} * (100 - \text{RF})/100$$
- Country-specific capacity factors were based on GEM data
- Air pollution control installation data were gathered from numerous sources

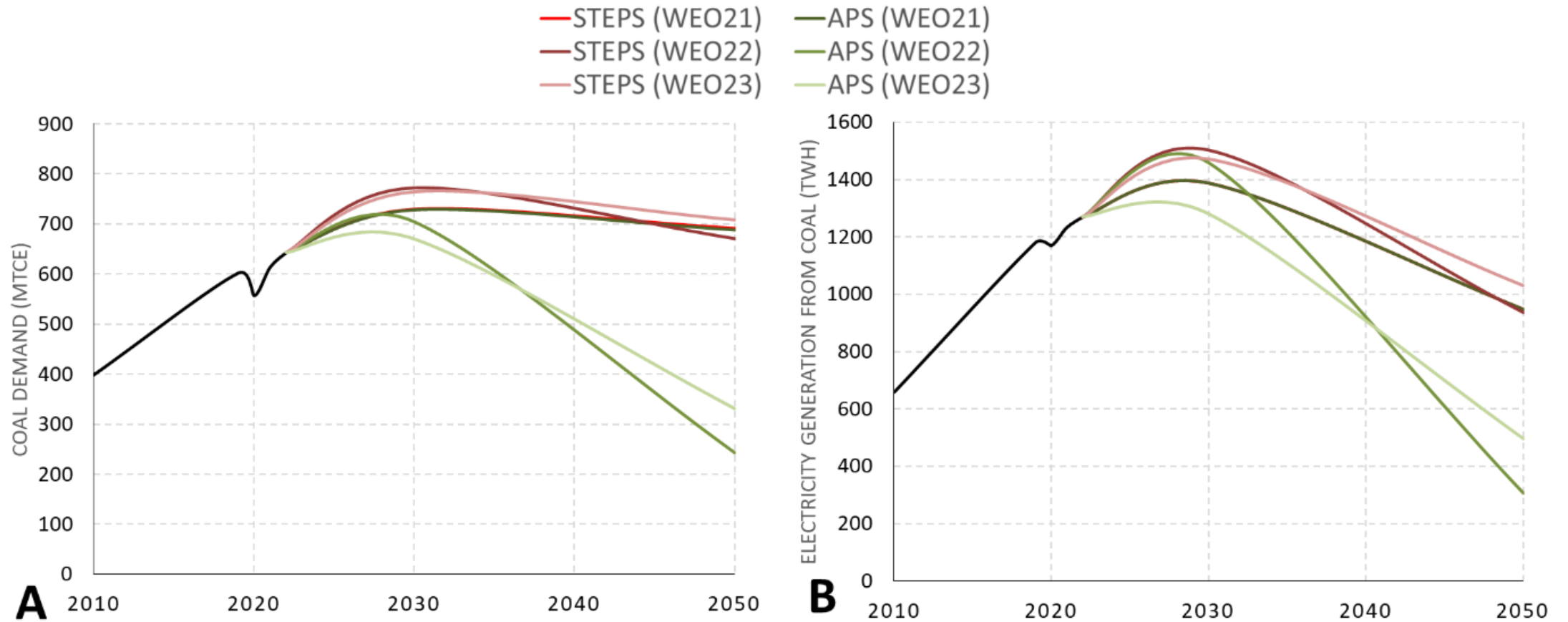
The report: global coal power plant capacity

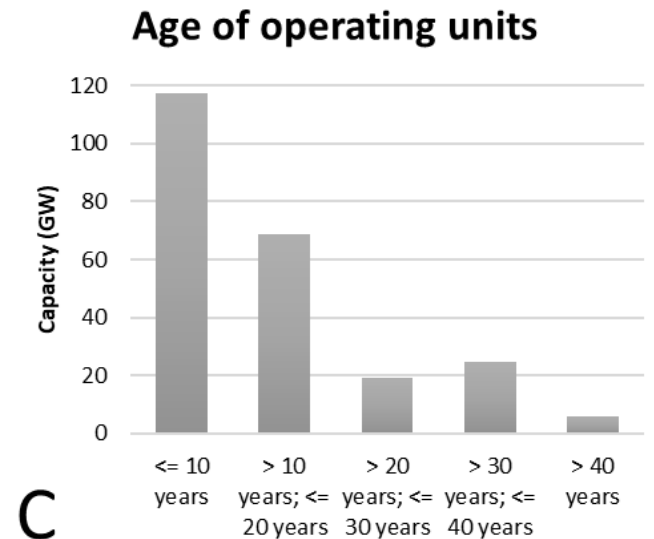
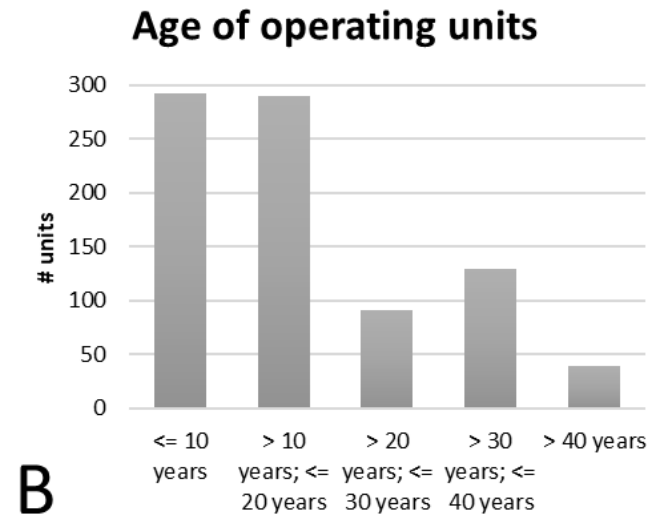
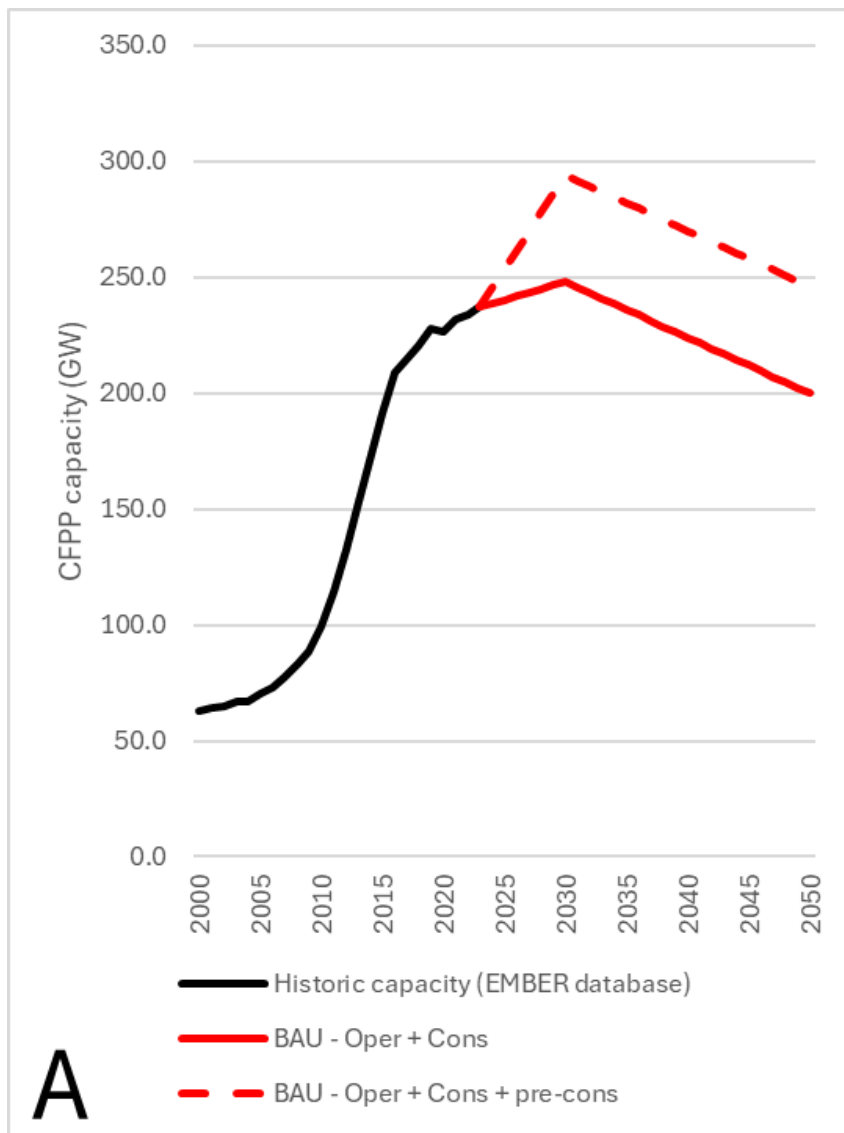


Focus Countries selected – for example:

India

Estimated coal demand (Mt; A) and electricity generated from coal-fired power plants (TWh; B) in India up to 2050 under the stated policies scenarios (STEPS) and announced pledges scenarios (APS)



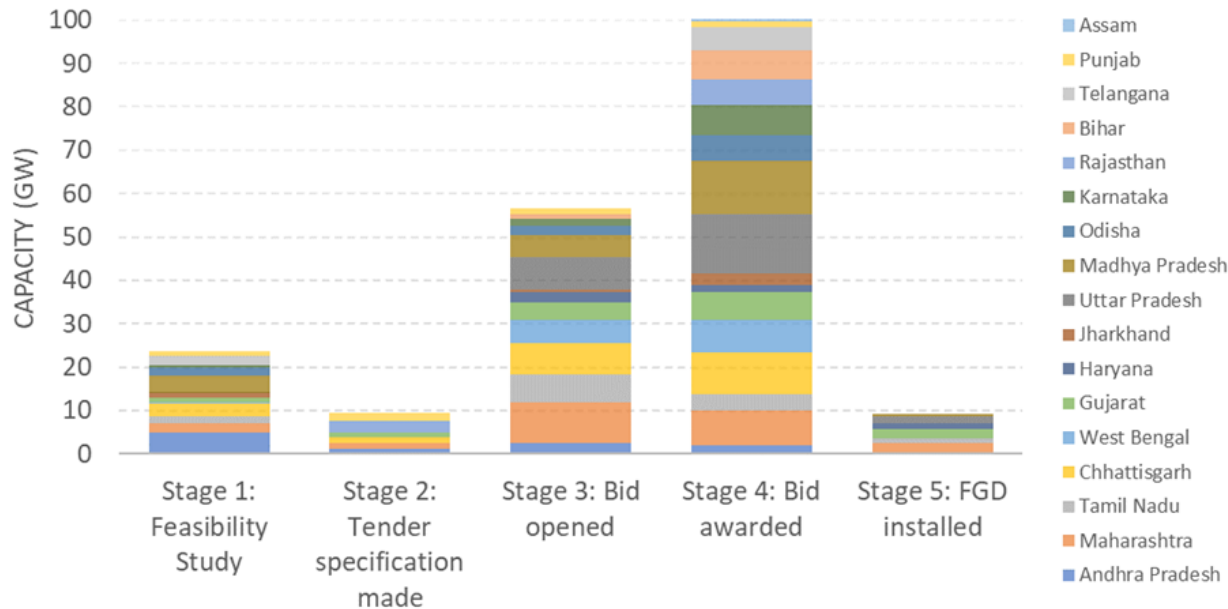




Original Research

Overlooked CO₂ emissions induced by air pollution control devices in coal-fired power plantsPengfei Zhang ^a, Kuishuang Feng ^{a,b}, Li Yan ^c, Yaqin Guo ^d, Bei Gao ^e, Jiashuo Li ^{a,f,*}^a Institute of Blue and Green Development, Shandong University, Weihai, 264209, PR China^b Department of Geographical Sciences, University of Maryland, College Park, USA^c Chinese Academy of Environmental Planning, Beijing, 100012, PR China^d Department of Earth System Science, Tsinghua University, Beijing, 100084, PR China^e School of Business, Shandong University, Weihai, 264209, PR China^f Academy of Plateau Science and Sustainability, Qinghai Normal University, Xining, 810016, PR China

Flue gas desulphurization (FGD) installations in India



Source: Aggarwal, 2023. Compliance status of coal-based power plants: Tracking installation of SO_x control measures, <https://www.cseindia.org/compliance-status-of-coal-based-power-plants-11762>

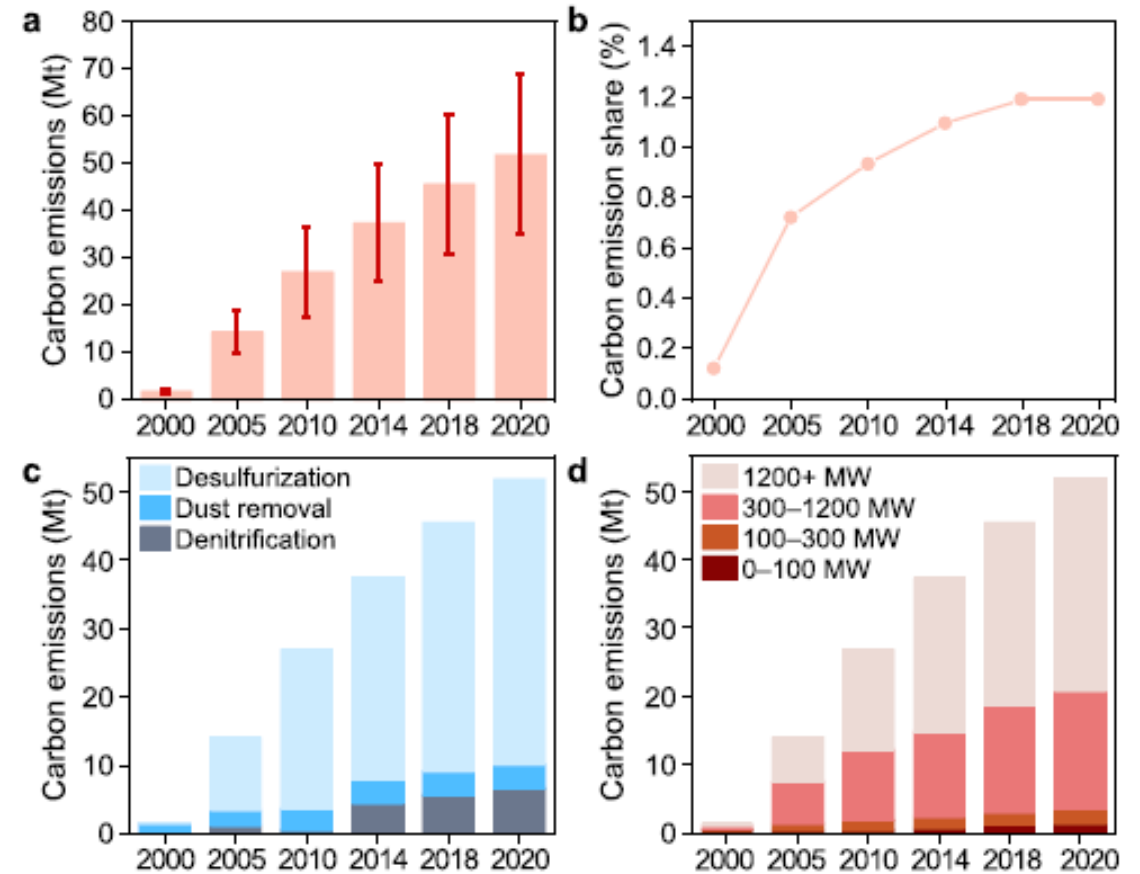
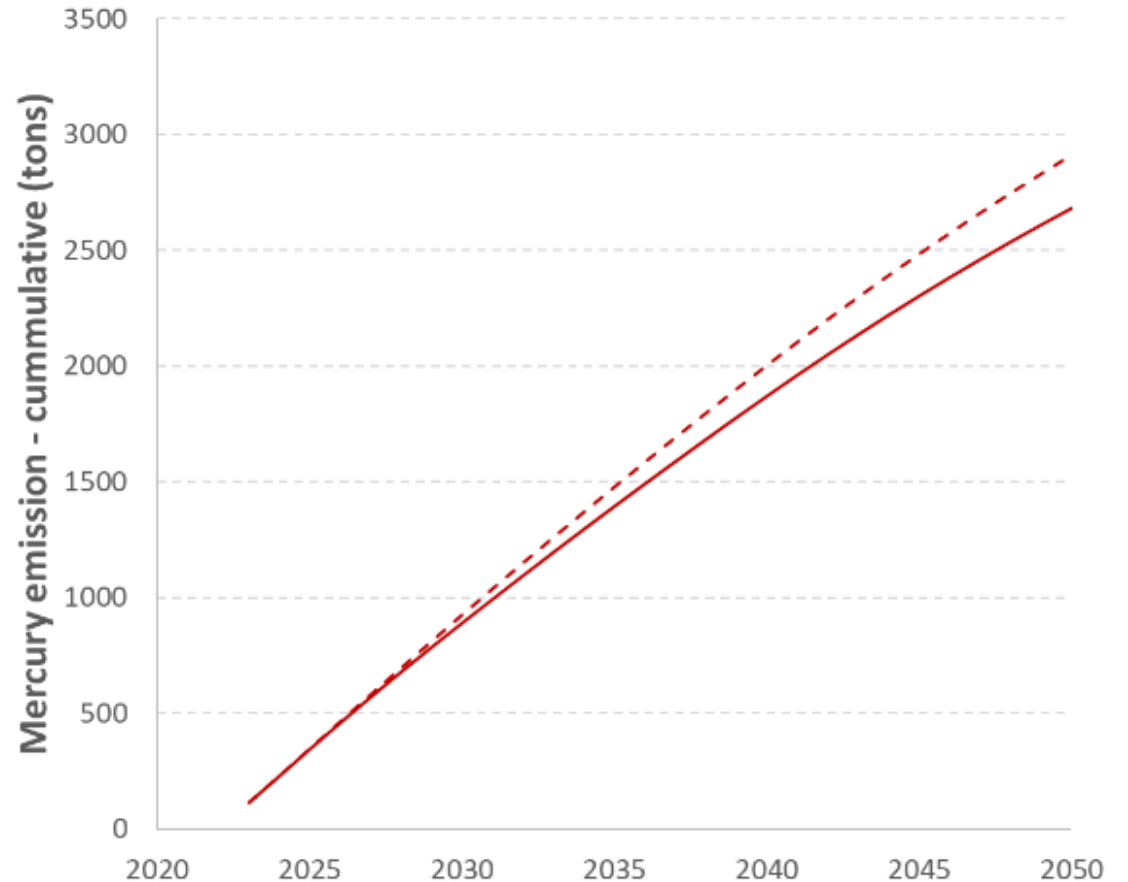
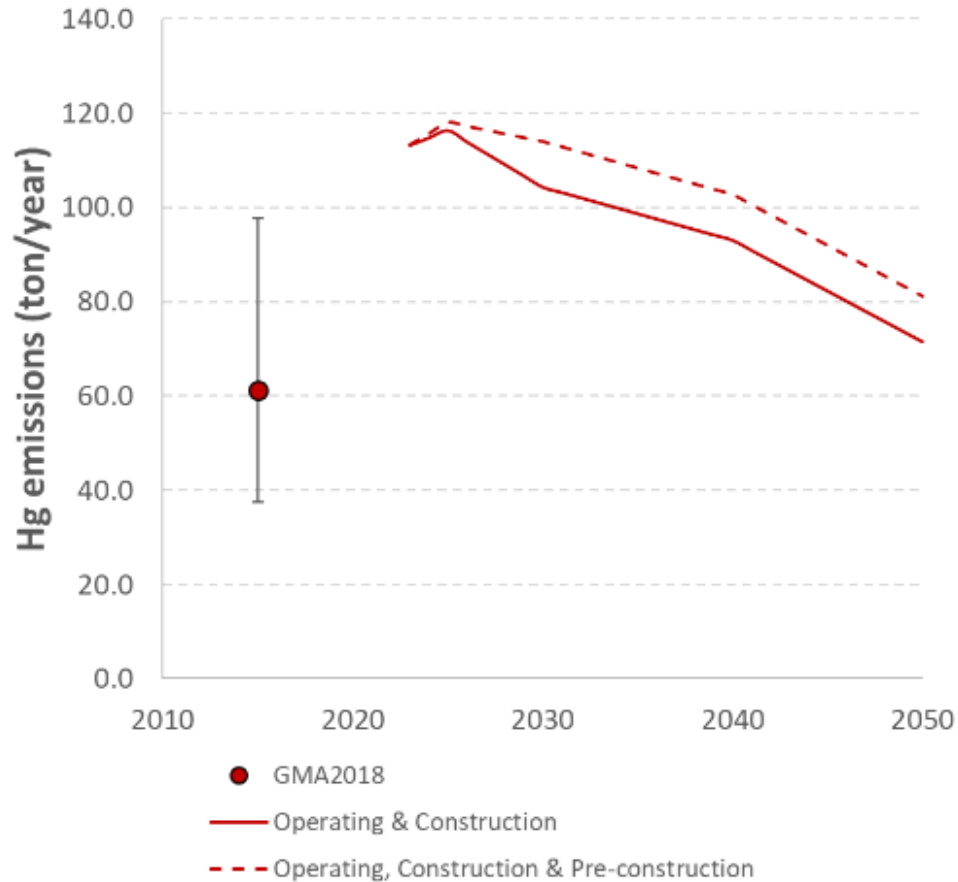
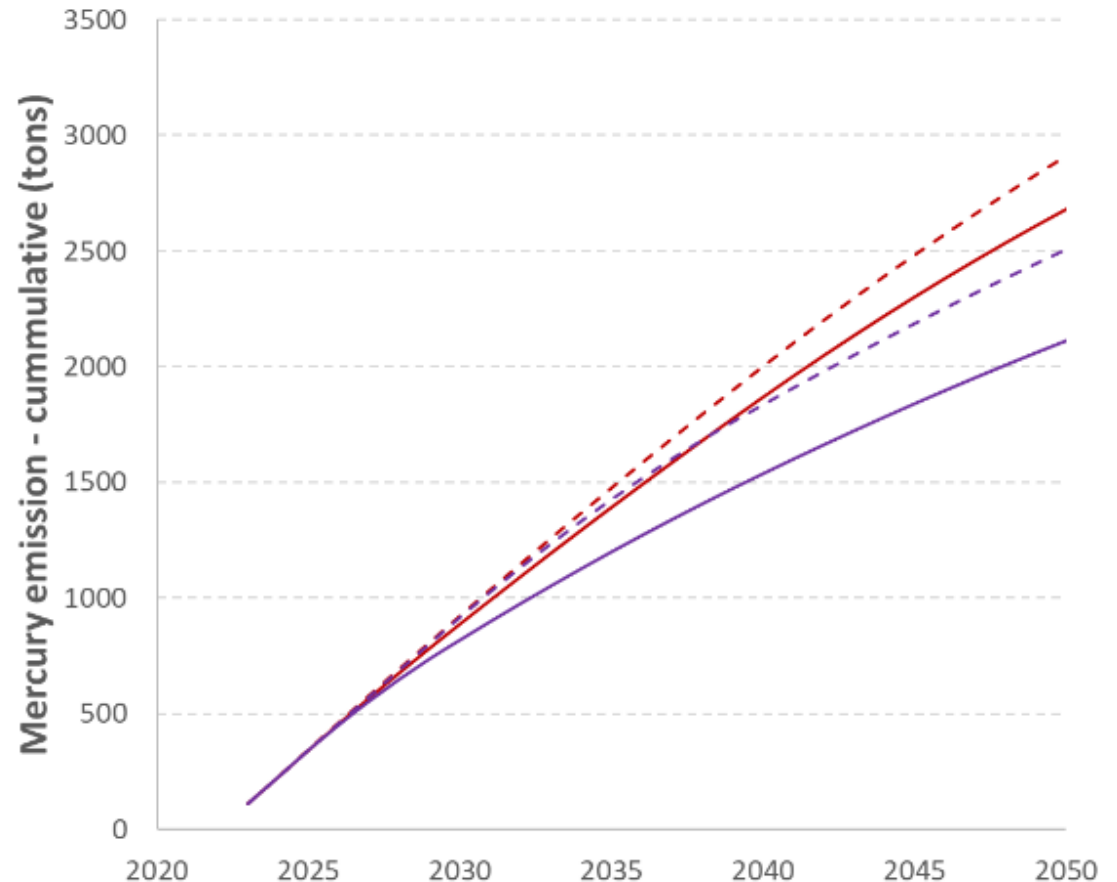
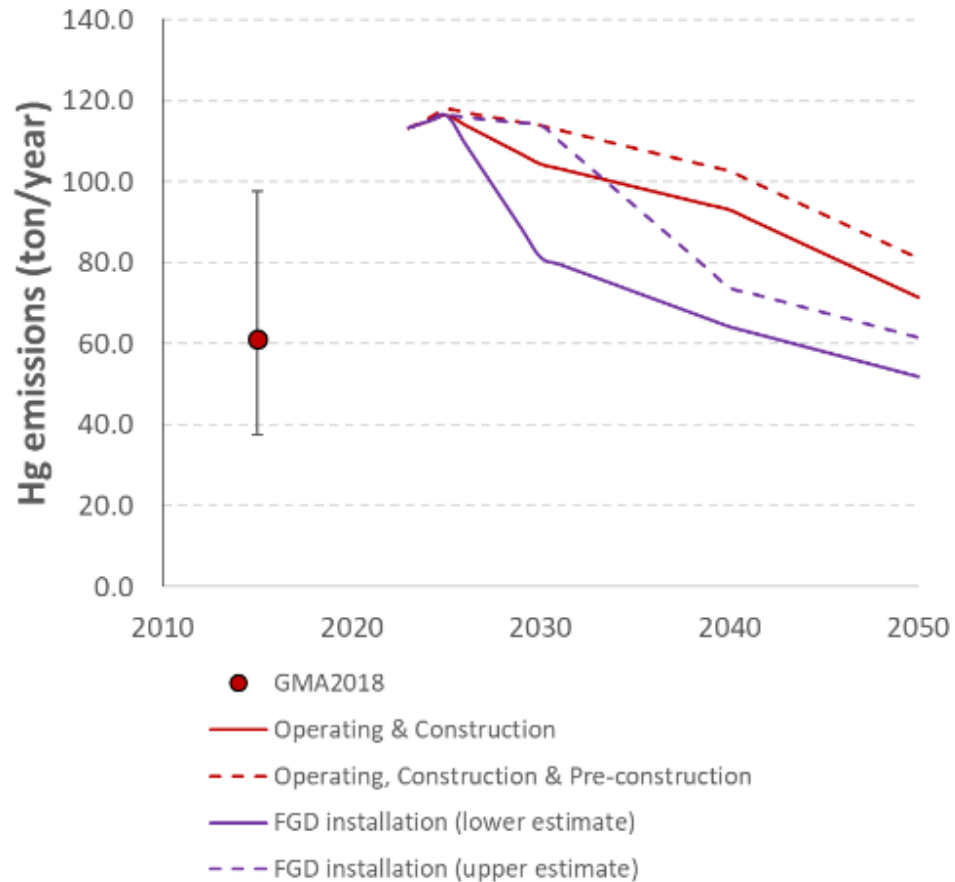


Fig. 1. National APCD CO₂ emissions 2000–2020 (a), their proportions to the total emissions from CFPPs (b), and emissions categorized by APCD type (c) and capacity size (d). (The error bars in panel a represent the 95% confidence interval.)

Annual mercury emissions estimate for India's CFPPs up to 2050 under the business-as-usual scenario, and cumulative mercury



Annual mercury emissions and cumulative emissions estimate for India's CFPPs up to 2050 under the business-as-usual (BAU) scenario compared to the FGD installation scenario



Report conclusions



Global CFPP capacity & CO2 emissions peak by 2027/30

- Global mercury emissions from coal sector likely already declining
- Subject to CFPP projects under pre-construction
- Global trajectory dominated by China
- SE Asia continuing with coal development - less multi-pollutant emissions control
- Uncertainties for CFIB sector: Limited country-wide information

Climate action driven by...

- Retiring plants earlier than planned
- Pace of renewable energy development to meet rising energy demands and replace fossil fuel capacity
- International support for emerging economies
- Socio-economic considerations (e.g., unemployment - mining & utility sector)
- Multi-pollutant emissions control installations
- Influenced by current & future policies on emission norms
- Consider stranded asset risk & additional carbon intensity
- Unit-specific cost-benefit analysis needed

Health Impacts of air pollutants

- Fine particle pollution's role in the Global burden of disease
- Large impacts on mortality and morbidity
- Coal combustion is a major contributor to exposure
- Key consideration for regulators
- Mercury control effected by co-benefit effects

The Dashboard

Project website with dashboard

<https://www.unep.org/globalmercurypartnership/Emissions-reduction-scenarios-from-coal-sector>



The screenshot shows a dashboard with a dark blue header containing the UN Environment Programme and GEF logos. The main content area is white with a light blue background. It includes a title, a paragraph of text, three bullet points, and three navigation buttons on the right. The bottom right corner shows a zoom level of 77%.

UN environment programme **gef**

Trends in mercury emissions from coal-fired power plants

Globally, coal combustion is the second largest anthropogenic source of mercury emissions to the air. The [GEF-funded](#) project "**Assessment of Existing and Future Emissions Reduction from the Coal Sector Toward the Implementation of the Minamata and Stockholm Conventions**" aims to address this issue. This dashboard provides an overview of coal-fired power plants worldwide and explores potential future scenarios for reducing mercury and CO2 emissions.

The 10 focus countries were selected based on the significant potential for change within their **coal-fired power plant (CFPP)** fleets.

The **business-as-usual (BAU) scenarios** are based on the assumption that all CFPPs will operate for a default design life of 40 years; existing operational CFPPs will continue to run for the remainder of their expected lifespan; CFPPs currently under construction are expected to be operational by 2025; and CFPPs in pre-construction phase (announced, permitted, and pre-permitted) will be commissioned by 2030 at the latest.

Historical data on mercury emissions is sourced from the [Global Mercury Assessment 2018](#).

For more details on the emissions calculations and scenarios, please refer to the [methodology](#).

The data comes from the Global Energy Monitor ([GEM](#)) database, specifically the [Global Coal Plant Tracker](#), which provides information on coal-fired power plants with a generating capacity of 30 megawatts or more worldwide.

Last updated on February 2025 using GEM July 2024 data

Coal plants map →

Current situation →

Future scenarios →

77%

The dataset



Allows you to focus in on the individual results for each region, by plant age, size, APCD and under the different scenarios selected for the study



It does NOT allow you to create your own future scenarios or to change the input data



To remain relevant in future, the dataset will need to be updated at least annually



Coal fire plants location and status



Region

Africa	GRULAC
Asia and Pacific	WEOG
CEE	

Project Focus Countries

Bangladesh	Pakistan
China	Philippines
India	South Africa
Indonesia	Thailand
Malaysia	Viet Nam

Countries

107

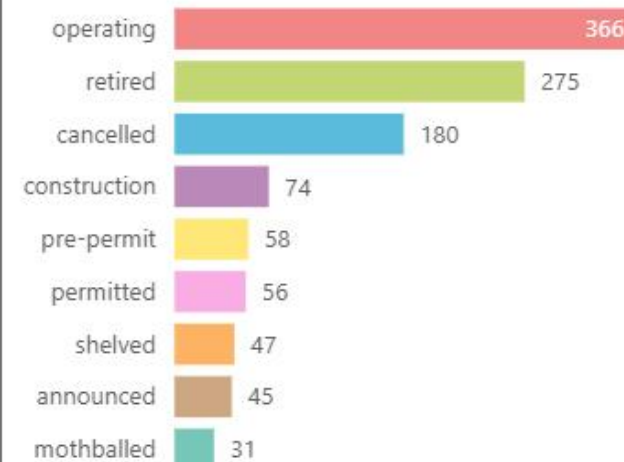
Units

14.007K



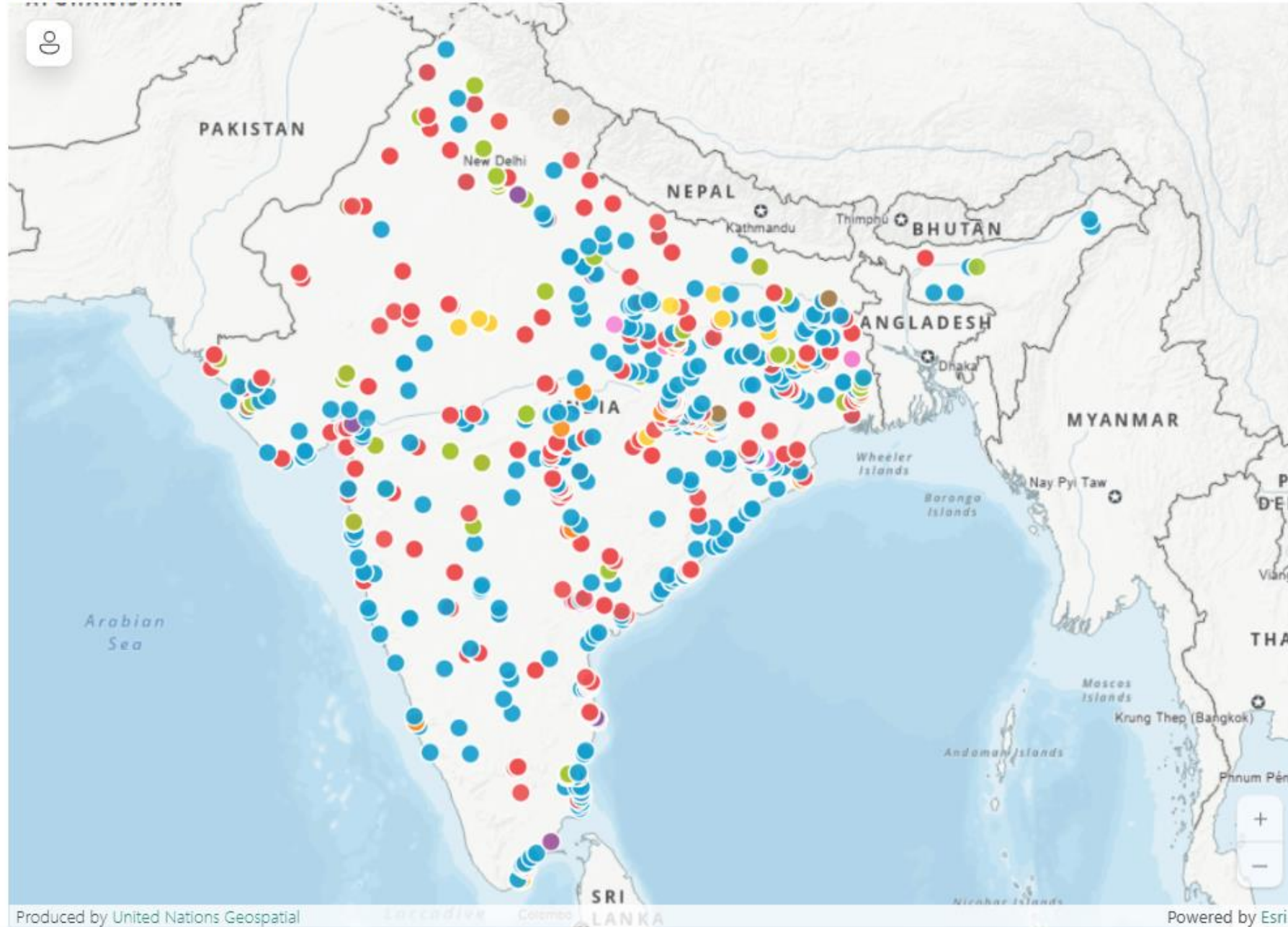
Reset

Count of units per status





Coal fire plants location and status



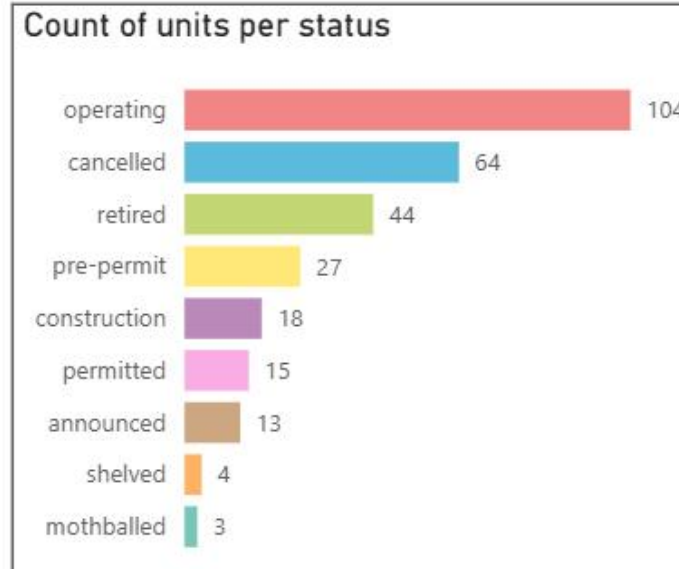
Region

Asia and Pacific

Project Focus Countries

- Bangladesh
- China
- India**
- Indonesia
- Malaysia
- Pakistan
- Philippines
- South Africa
- Thailand
- Viet Nam

Countries: **1** Units: **1.934K** Reset





Region

- Africa
- Asia and Pacific
- CEE
- GRULAC
- WEOG

Country

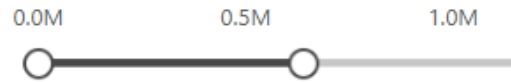
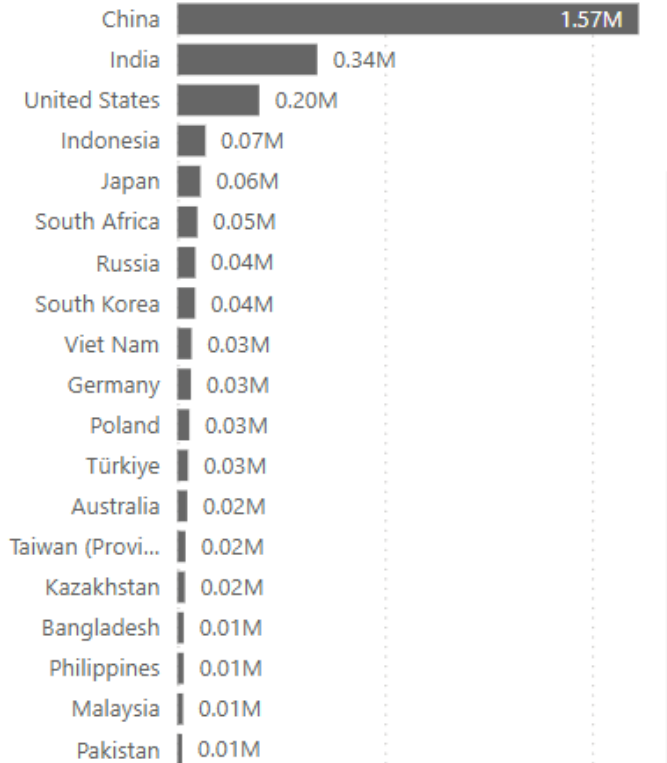
All

Focus Countries

Unit Status

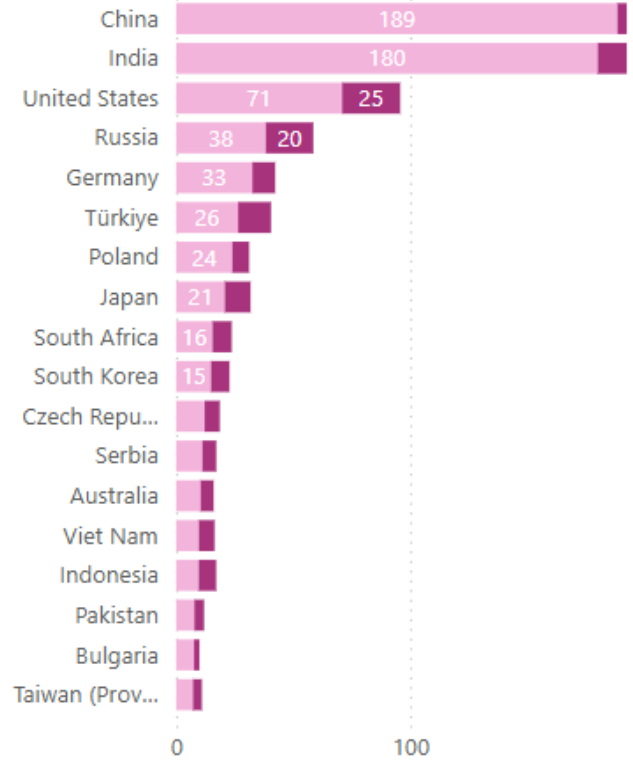
- construction
- operating
- pre-construction

Capacity (Mega Watts)



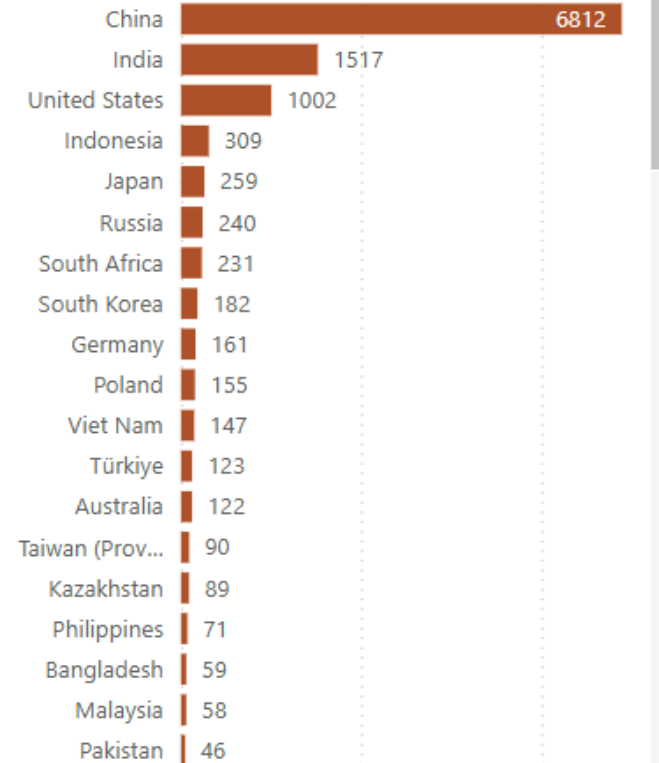
Regional Capacity (Mega Watts)

Mercury emissions (tonnes/year)



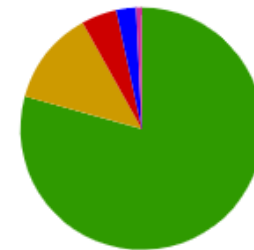
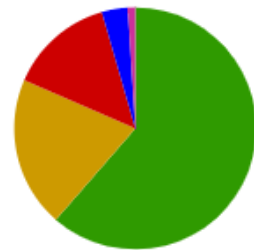
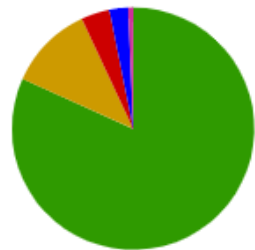
Regional Mercury emissions (tonnes/year)

CO2 emissions (million tonnes/year)



Regional CO2 emissions (million tonnes/year)

- Region
- Asia and Pacific
 - WEOG
 - CEE
 - Africa
 - GRULAC



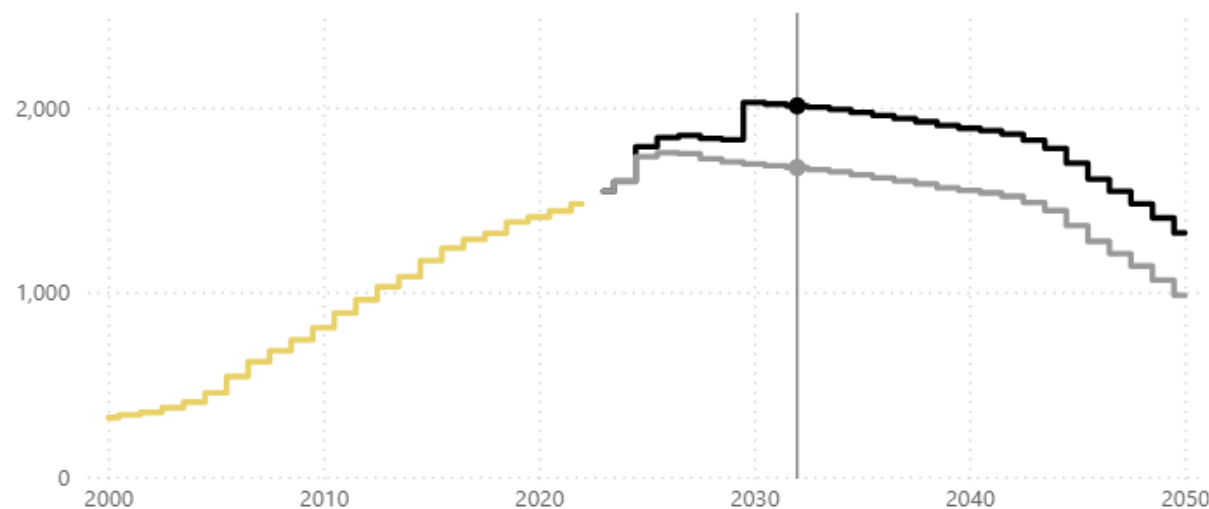
Countries 82

Units 7.613K



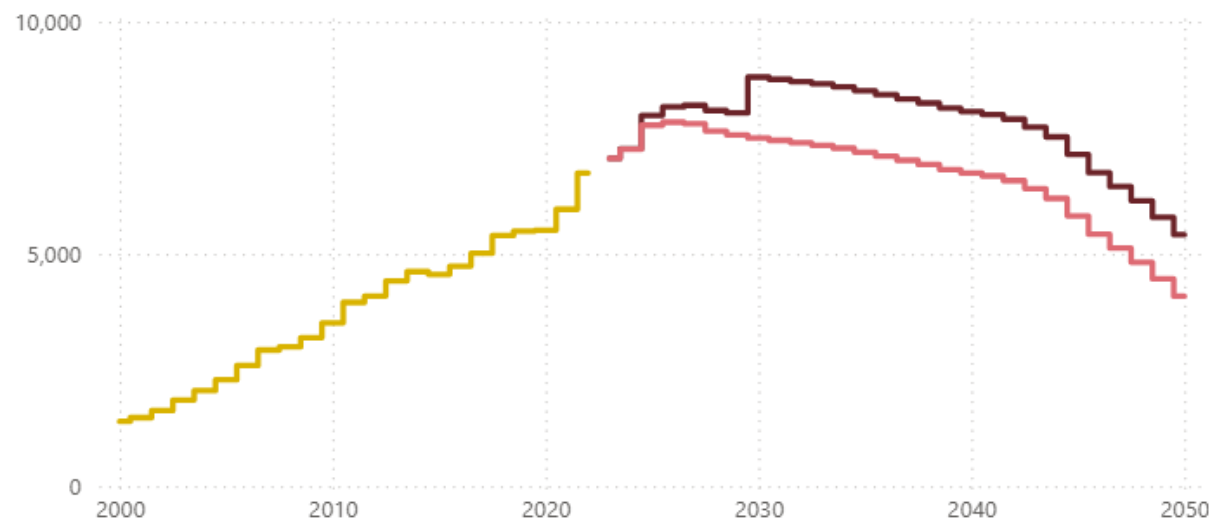
Capacity (Giga Watts)

● Historic ● BAU-2 ● BAU-1



CO2 emissions (million tonnes/year)

● Historic ● BAU-2 ● BAU-1



When no country is selected, the graphs show the summed values for the whole world.

Business as usual scenarios (BAU)

Both scenarios consider the remaining lifetime of currently operating plants.

BAU-1 assumes that only **projects under construction** will go ahead.

BAU-2 assumes that all **projects under construction and projects in pre-construction** will go ahead.

Capacity Factor (CF)

100% CF is to showcase the 'uppermost' level of emission estimates for a country if all units were to operate at full capacity/efficiency.

var CF (variable capacity factor) is defined at country level based on coal quality, age of the plant, technology, etc.

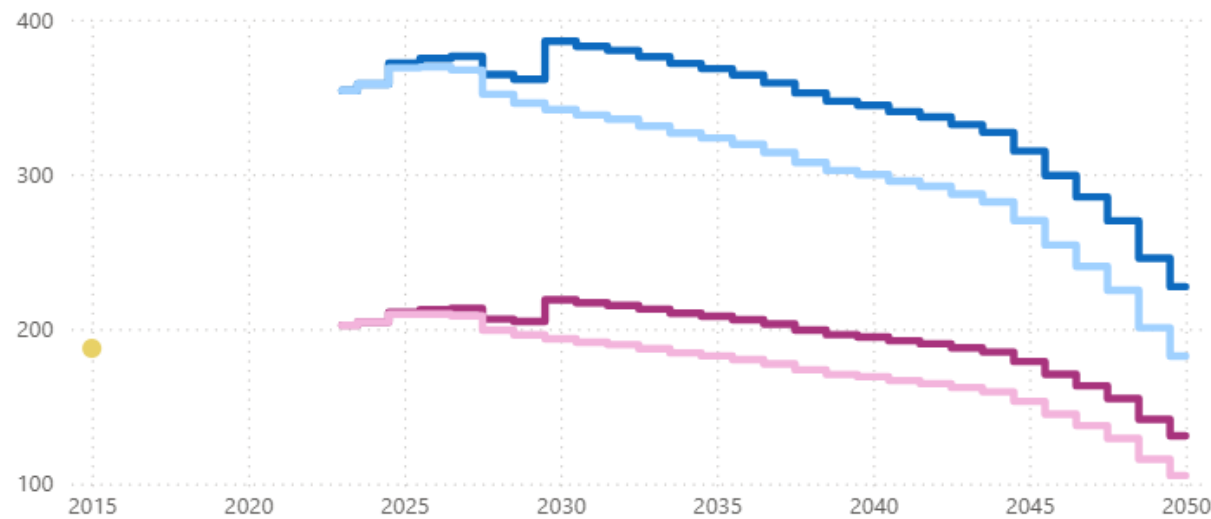
Emissions reduction scenarios from the coal sector for 10 countries

Project Focus Countries

Bangladesh	Pakistan
China	Philippines
India	South Africa
Indonesia	Thailand
Malaysia	Viet Nam

Mercury emissions (tonnes/year)

● GMA 2018 ● BAU-2 100% CF ● BAU-1 100% CF ● BAU-2 var CF ● BAU-1 var CF



Potential Future Projects

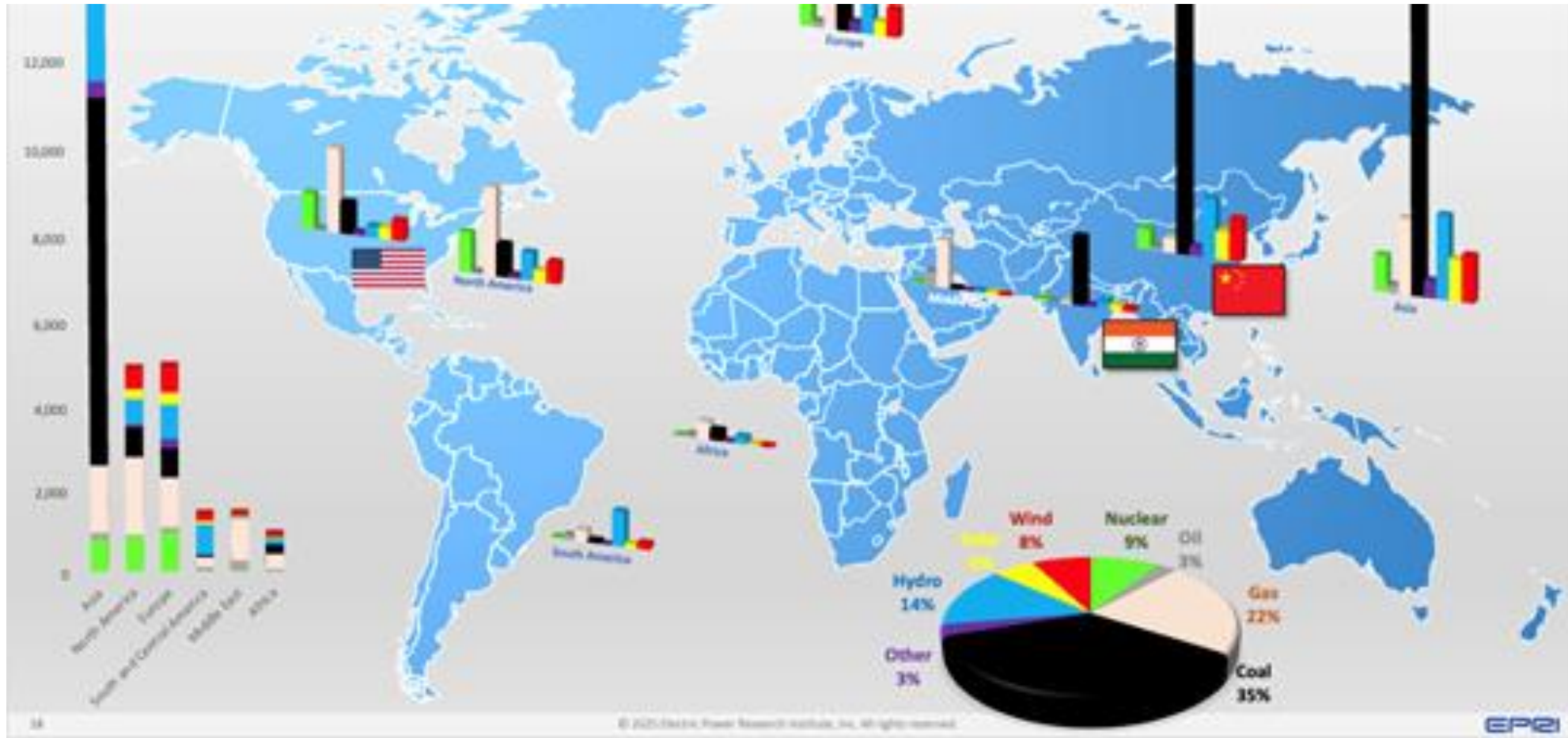
Maintain and update the existing dataset to remain relevant

Introduce new assumptions and future scenarios

Create a new daughter project which focuses on minimising emissions from the remaining global fleet



Coal still dominates globally and will remain for decades

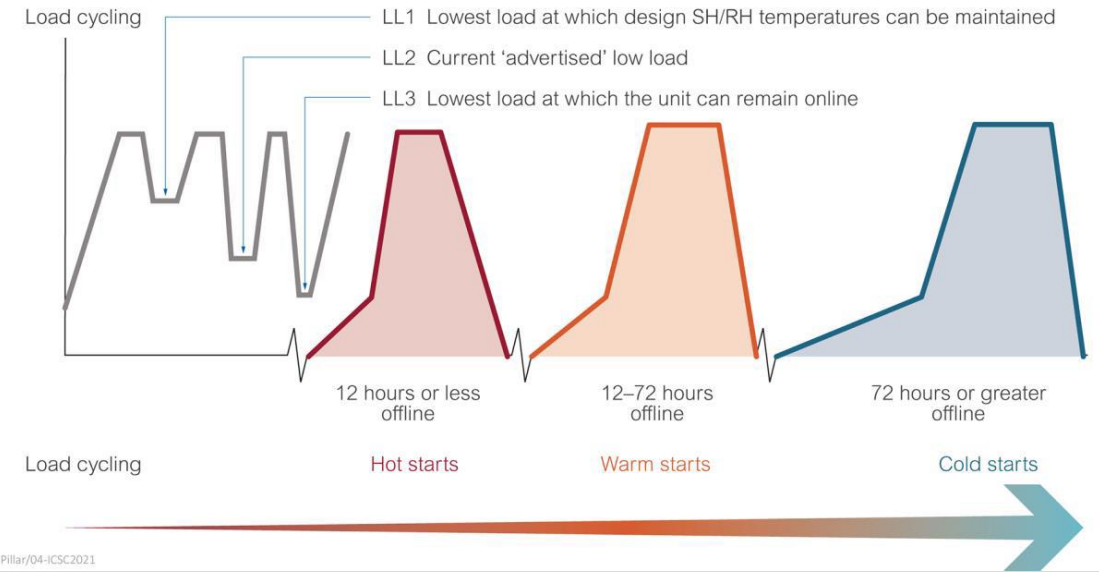
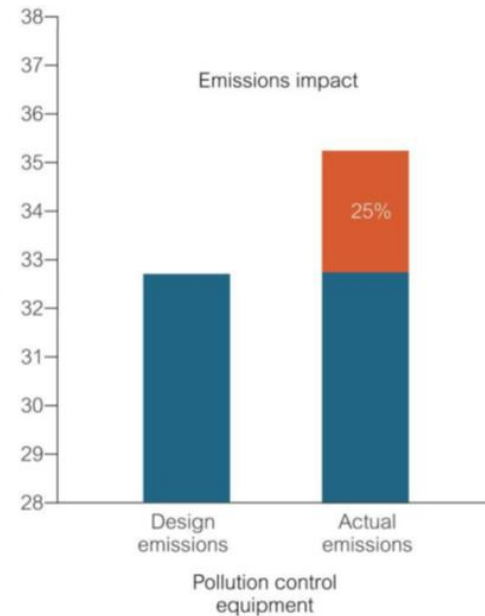
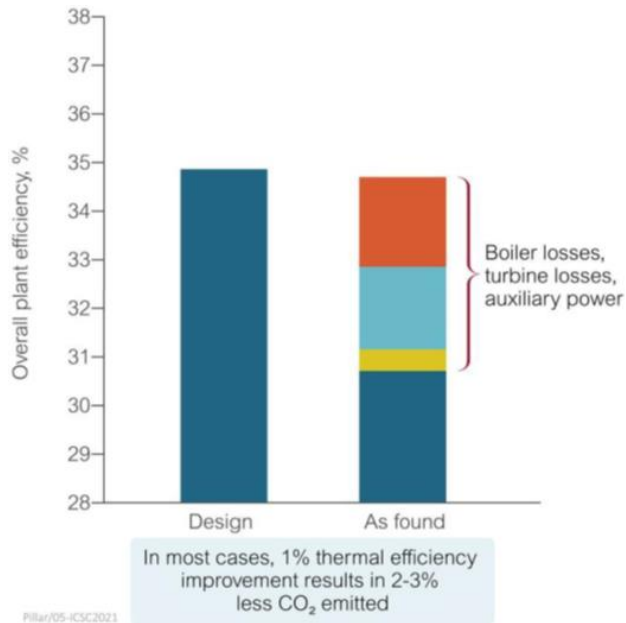


Increasing Flexible Operation in Coal-Fired Power Plants: Emissions Impact

As renewable energy sources increasingly contribute to our power grids, traditional coal-fired plants face new operational challenges. These plants must now operate flexibly to balance the variable output from wind and solar generation, shifting from their designed continuous full-load operation to a more dynamic model.



Emissions go up when plants wobble...



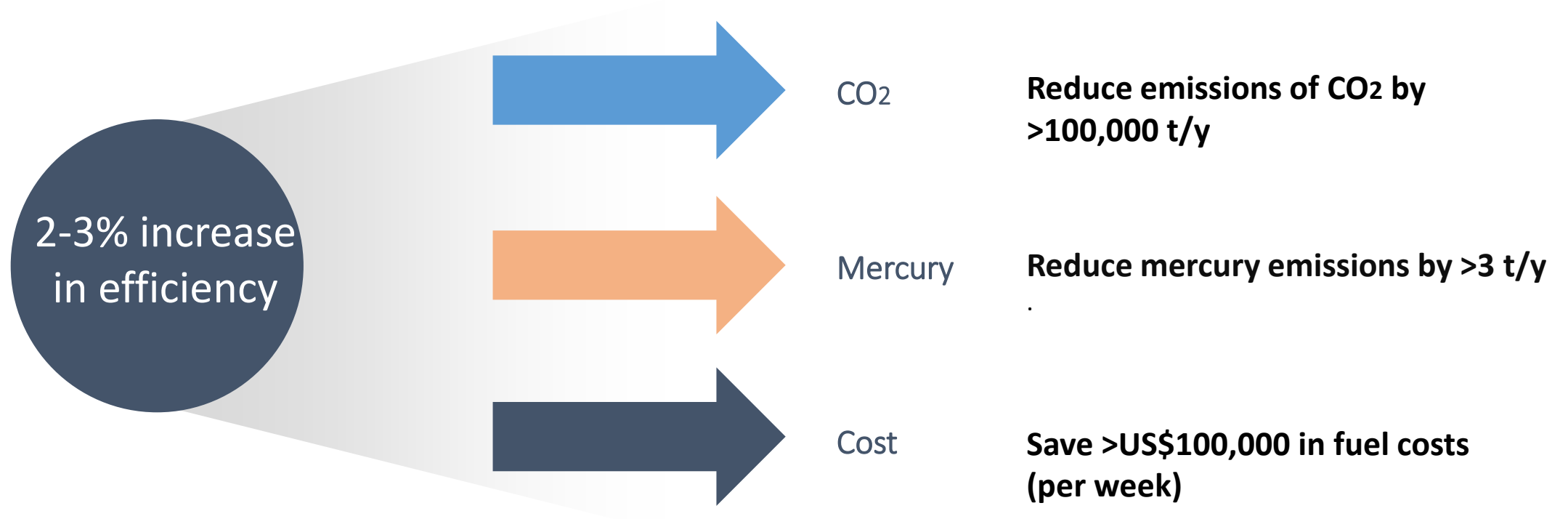
Operation mode	Capacity, MW	Number of units
Baseload	139,720	299
Flexible with efficiency retrofit*	20,740	80
Flexible – daily start	12,925	83
Flexible – low load	48,385	130
Plant retiring/being replaced with supercritical	9,370	86
Total	231,139	687

* inefficient units with a heat rate >2550 kcal/kWh (10,669 kJ/kWh), can run on flexible operation with efficiency retrofits

...and plants are wobbling

Significant reductions in emissions and effects

For a typical 500 MWe coal plant in Asia, a 2-3% increase in efficiency is easily achievable



Emissions of all pollutants can be reduced effectively through maximizing performance of individual units but also by strategic fleet management

Combustion and Environmental Controls

Env Controls Components

Combustion System

SNCR, SCR

ESP, Baghouse

FGD

Sorbents

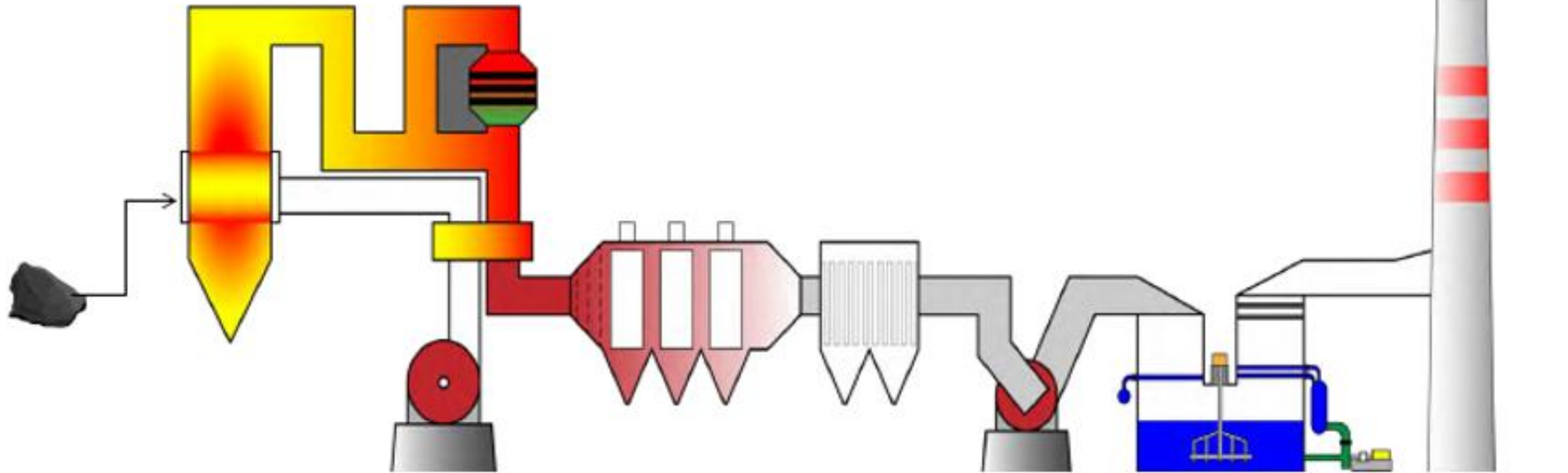
Changing Mission Challenges

Low load

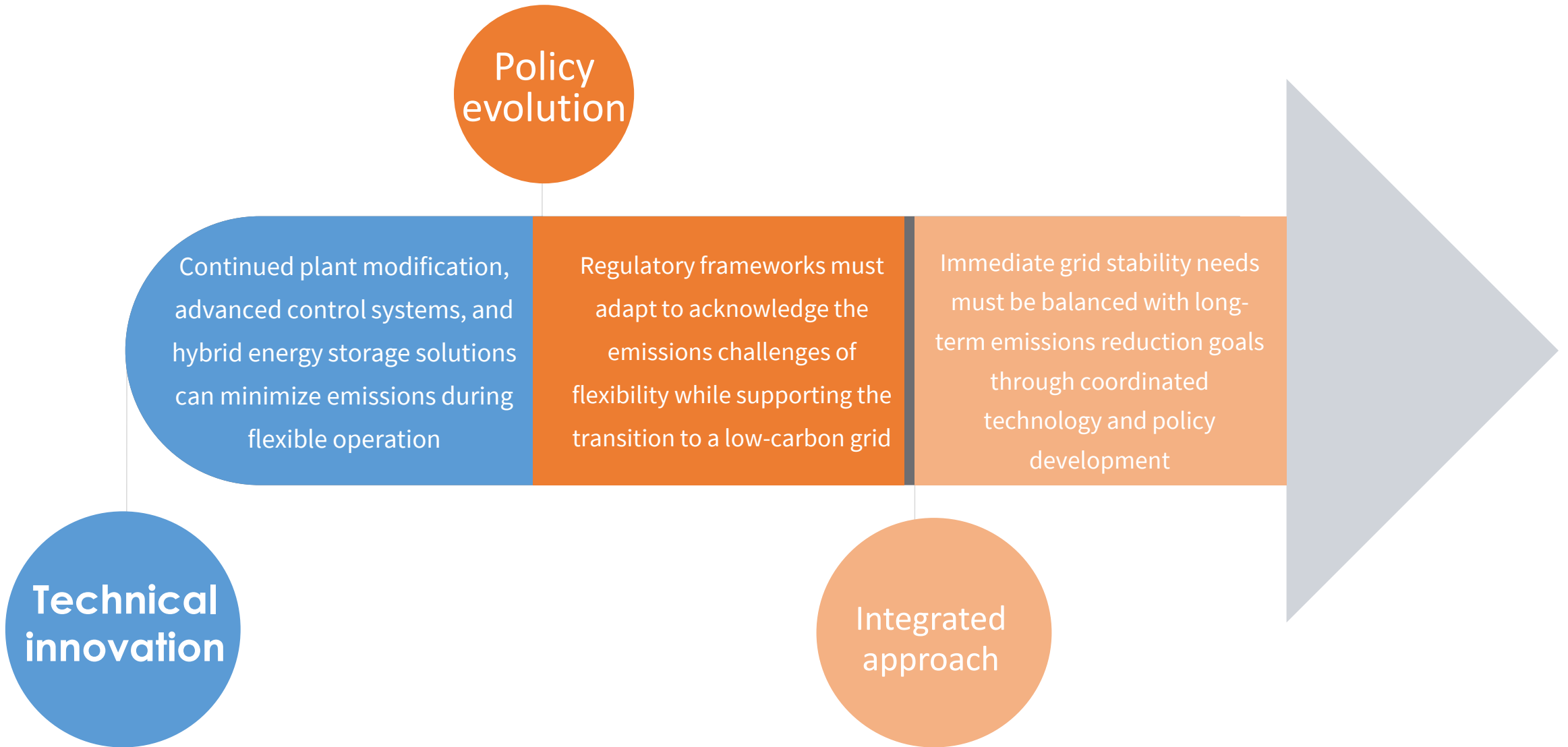
Load following

On / off cycling, layup

Fuel flexibility (coal quality)



The path through flexibility and aging fleet challenges



Glide Path project proposal

Determine potential underestimates of future emissions from closing coal fleets

Provide capacity building for cost-effective avoidance of these issues

Focus on potential volumes of avoided pollutant emissions/related health benefits/\$ - using AQ monitoring models

Partners in 5 target countries: India, Indonesia, Vietnam, Thailand, Malaysia, S Africa, TBC

Prioritise large-scale effects (CO₂, mercury) from small changes (capacity building, training, use of existing tools, models, and best practice)

Target coal-reliant emerging economies

Only consider strategies which do not involve installing technology or spending money to modify a coal plant

Ensure inclusion of JET initiatives

Ensure full consideration of gender issues

Provide strategic and appropriate advice on policy development



Thank you

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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION
Progress by innovation



GEMINI

Global Elimination of Mercury In Non-ferrous metals Initiative

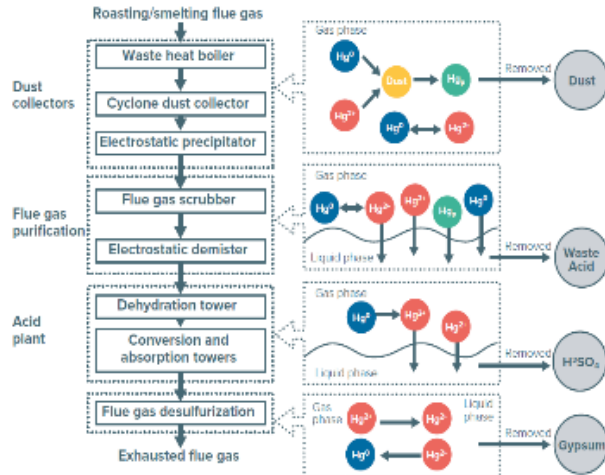
Minamata Pre-COP-6 Online Event - Multi-country initiatives addressing air emissions of mercury (Minamata Convention Secretariat)



GEMINI

Global Elimination of Mercury In Non-ferrous metals Initiative

MERCURY TRANSFORMATION AND REMOVAL IN ROASTING AND/OR SMELTING FLUE GAS
(ZHANG ET AL. 2016).



Objective

The objective of the GLOBAL ELIMINATION OF MERCURY IN NON-FERROUS METALS INITIATIVE - GEMINI Program is to help industries and countries meet their environmental commitments on the Minamata Convention, specifically by reducing mercury emissions produced during non-ferrous metals production and implementing innovative practices and demonstrative technologies supported by a collaborative approach and knowledge sharing to minimize harmful environmental impacts and support local responsible economies.



Exporter: All countries | Importer: All countries | Commodity: Non-ferrous metals | Year: 2022 | Auto zoom to region

Measure

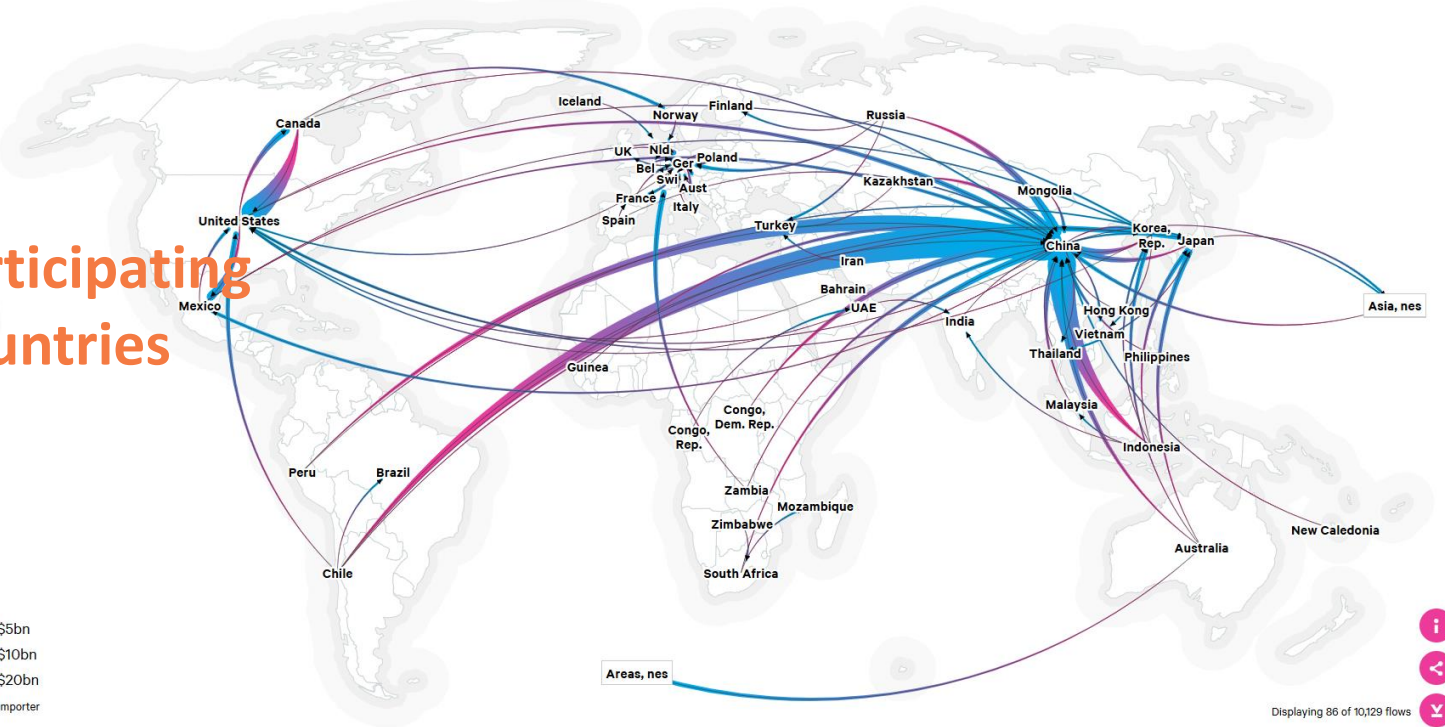
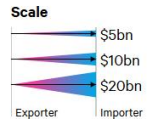
Value

Weight



32%
Share of global metals and minerals trade

Participating Countries



Total value

Trade flows | **Commodities** | Exporters | Importers | Footprints

Displaying 86 of 10,129 flows



Participating Countries

International Reference

India	5.806125
Aluminium extraction and initial processing	1.206182
Copper extraction and initial processing	0.010646
Gold extraction and initial processing by methods other than mercury amalgamation	0.045799
Lead extraction and initial processing	0.77721
Zinc extraction and initial processing	3.766287
Peru	4.547483
Copper extraction and initial processing	0.010297
Gold extraction and initial processing by methods other than mercury amalgamation	2.875205
Lead extraction and initial processing	0.01256
Zinc extraction and initial processing	1.649421
Brazil	3.582523
Aluminium extraction and initial processing	0.217936
Copper extraction and initial processing	0.003882
Gold extraction and initial processing by methods other than mercury amalgamation	1.946303
Lead extraction and initial processing	0.257618
Zinc extraction and initial processing	1.156784
Mexico	3.282208
Copper extraction and initial processing	0.008415
Gold extraction and initial processing by methods other than mercury amalgamation	2.965862
Lead extraction and initial processing	0.11576
Zinc extraction and initial processing	0.192172
Ghana	3.101763
Aluminium extraction and initial processing	0.012906
Gold extraction and initial processing by methods other than mercury amalgamation	3.087817
Lead extraction and initial processing	0.00104
South Africa	3.059334
Aluminium extraction and initial processing	0.231963
Copper extraction and initial processing	0.000609
Gold extraction and initial processing by methods other than mercury amalgamation	2.783102
Lead extraction and initial processing	0.04366

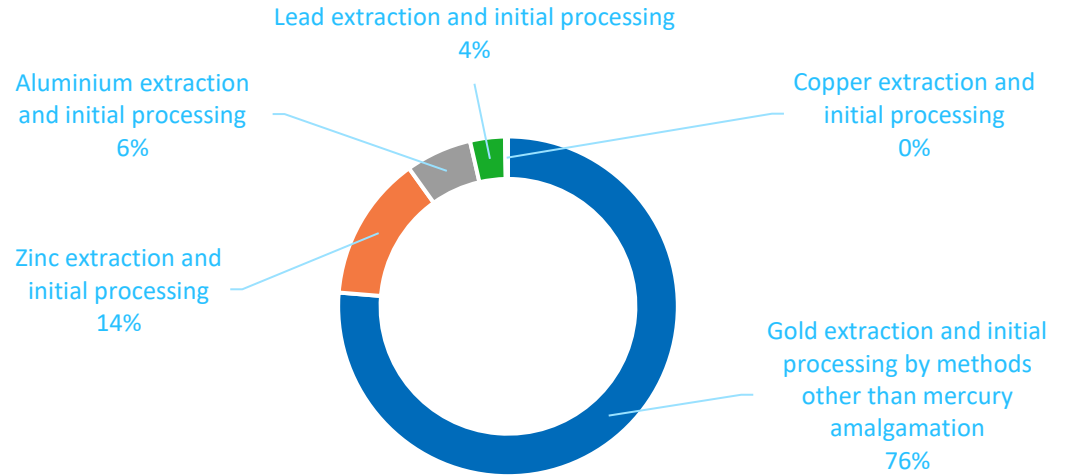
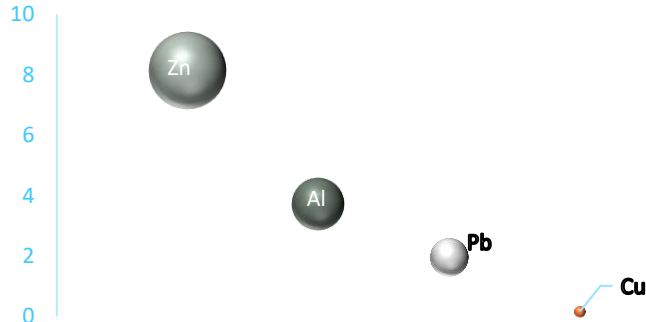
Content:	Emissions by country and main source category
Compound:	Hg
Year	Average 2018-2022
Unit:	Tons
Source:	EDGARv8.1 toxic pollutant website and to Muntean et al. (2024, in preparation)
Data download:	https://edgar.jrc.ec.europa.eu/dataset_tox81



Emissions of Hg (tons) by Non-ferrous Metals Industry Sectors



Hg Emissions 2018-2022 (tons)



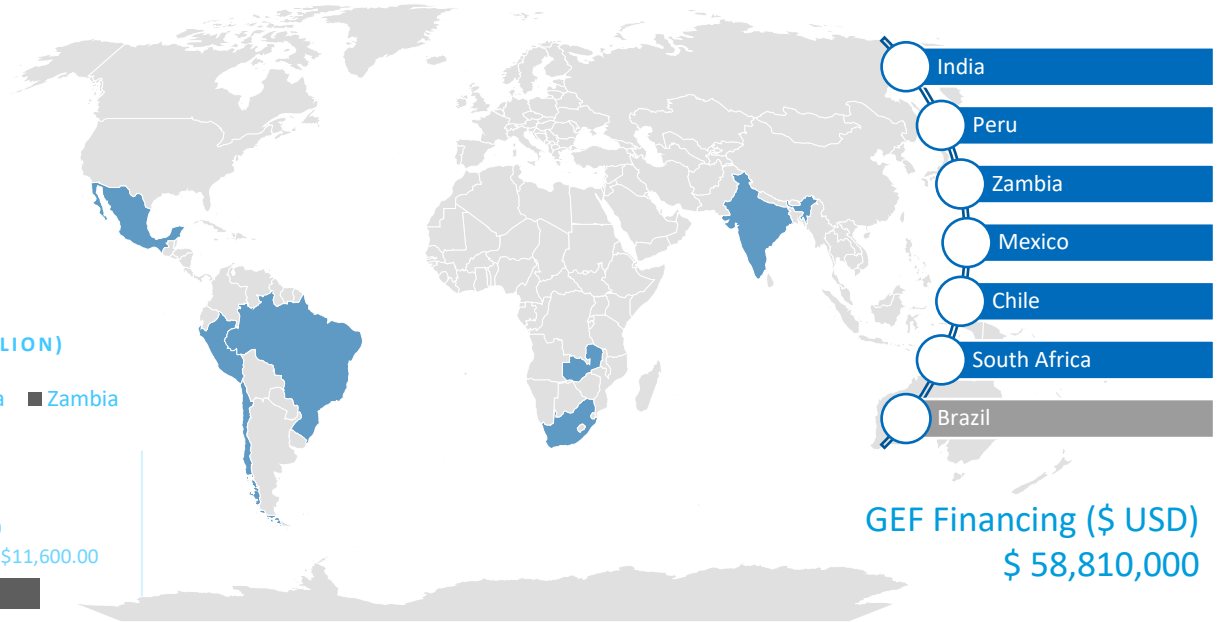
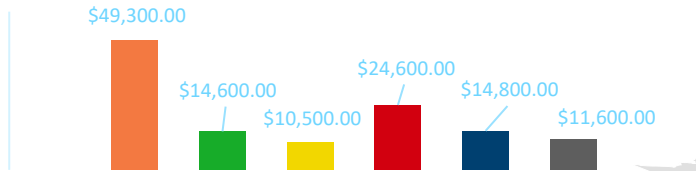


International representation

Participating Countries

GLOBAL EXPORTING MARKET (USD \$ MILLION)

Chile India Mexico Peru South Africa Zambia





Component 1: Policy
and Regulations

Outcome 1: An enabling policy and regulatory framework support the of non-ferrous metal sector transition towards mercury reduction technologies and approaches.

Output 1.1 Policy and regulatory gap assessment performed to ensure coherence, transparency, and accountability of mercury reduction actions

Output 1.2 Enhanced legal/operational/technical frameworks to control and monitor Hg emissions

Output 1.3 Stakeholders actively enforcing regulations and promoting technical standards.



Component 1: Policy
and Regulations



Component 2: Finance
and Investment

Outcome 2: Access to enhanced financial instruments is increased and technology transfer is available for introducing Hg emissions reductions in non-ferrous pyroprocessing

Output 2.1 Current and potential enhanced financing instruments assessed

Output 2.2 Financing opportunities promote sustainable practices and technologies in smelting subsectors

Output 2.3 Knowledge exchange and business partnerships with international technology suppliers is generated



Outcome 3: Capacity building and technical assistance for environmentally responsible and efficient non-ferrous smelting business is created including the introduction of BEPs/BATs and Hg emissions control, monitoring, reduction, and storage.

Output 3.1 Industry assessments/inventories completed and mitigation and management plans developed

Output 3.2 Laboratory capacities for Hg monitoring enhanced

Output 3.3 Demonstration studies developed for introducing Hg emissions reduction, removal, and waste management BEP/BAT

Output 3.4 Collaborative framework with industry stakeholders and technology providers implemented to pilot superior mercury emissions control and reduction



Component 1: Policy
and Regulations



Component 2: Finance
and Investment



Component 3:
Technical assistance,
capacity building and
introduction of
BEPs/BATs and
alternative business
models



Component 4:
Knowledge
Management,
Communication and
Coordination

Outcome 4: Global access to knowledge, best practices, and benefit-sharing interactions are scaled up, and awareness-raising is implemented

Output 4.1 Communication networks and scientific material created under public, private, and community awareness raising initiatives and partnerships

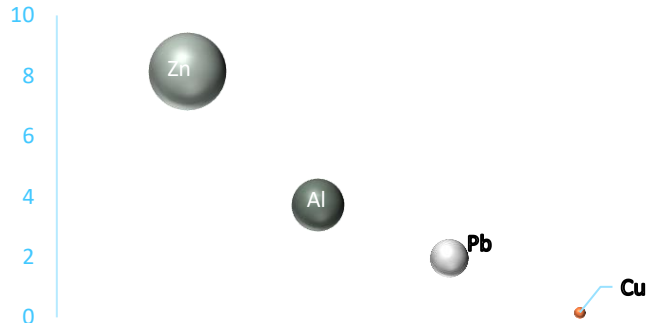
Output 4.2 Knowledge and data sharing platform and events created to support knowledge management and dissemination and stakeholders' interaction



Main GEBs - Hg emissions reduction



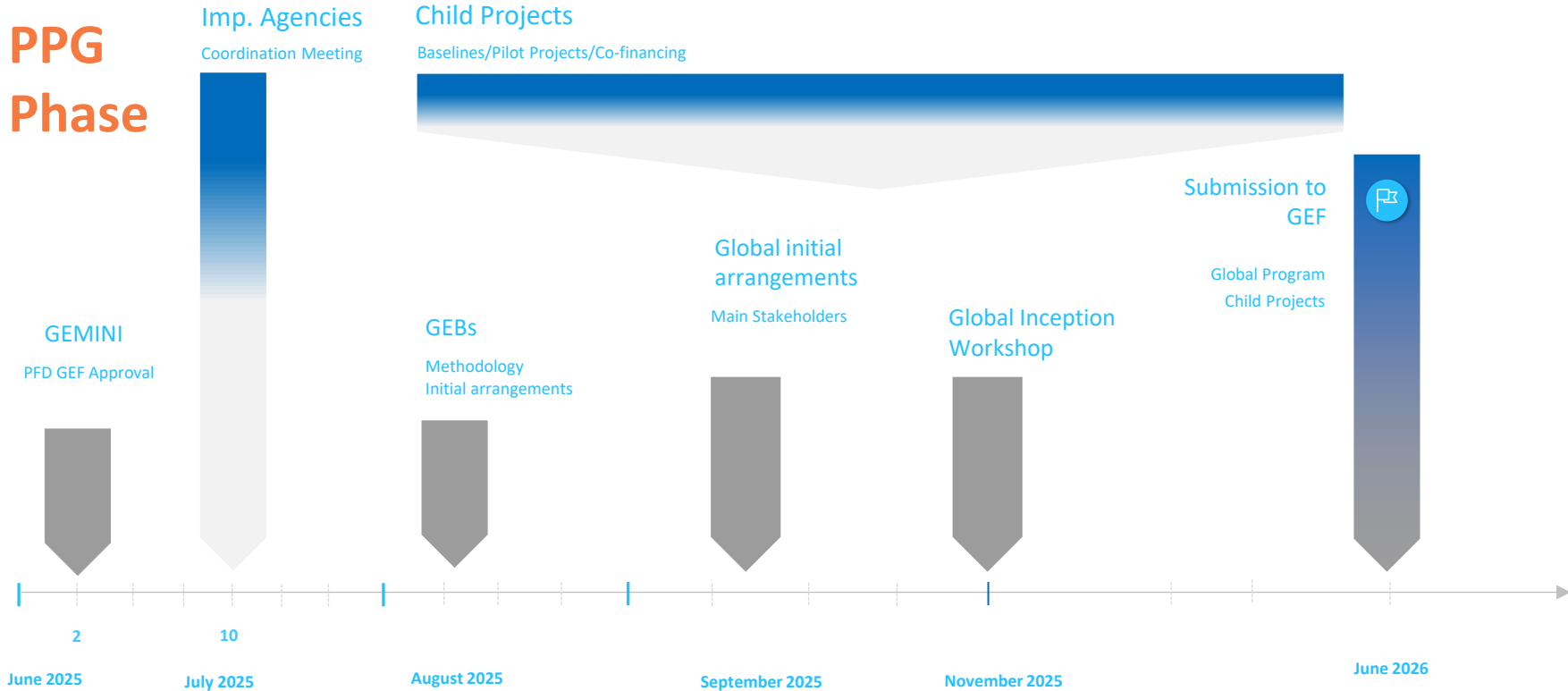
Hg Emissions 2018-2022 (tons)



Agency	Country	Subsector	Toolkit – Hg input TOTAL (Tons)	Reduction from toolkit % (tons)
UNIDO	Chile	Copper	42.5	0.1
	Zambia	Copper	23.3	0.1
	Peru	Copper	16.4	0.1
		Zinc	15.0	0.1
		Lead	1.4	0.1
UNEP	South Africa	Lead	3.0	0.1
		Gold	6.3	0.1
		Zinc	24.3	0.1
		Copper	5.4	0.1
UNDP	India	Zinc	110.0	0.1
		Copper	34.0	0.1
		Lead	11.0	0.1
	Mexico	Zinc	45.5	0.1
		Copper	25.0	0.1
		Lead	11.7	0.1
TONS			374.8	37.48



PPG Phase





Contribution to the Minamata Convention

GEMINI directly supports Parties in fulfilling their obligations under the Convention by:

- **Article 8 (Emissions):** Introducing Best Available Techniques (BAT) and Best Environmental Practices (BEP) in non-ferrous metal smelting and refining to reduce mercury air emissions.
- **Article 11 (Mercury waste):** Developing environmentally sound management and long-term secure storage of mercury by-products and wastes, preventing re-entry into commerce.
- **Articles 17 & 18 (Information exchange and awareness):** Establishing a global knowledge platform for data sharing, capacity-building, and awareness raising, linked to UNEP Global Mercury Partnership resources.

Consequently, GEMINI represents a programmatic, sector-wide approach to mercury reduction, complementing national action plans and aligning with COP-6's emphasis on scaling up global action. By addressing mercury emissions from non-ferrous metals, GEMINI positions itself as a flagship initiative showcasing how coordinated international cooperation can advance the Convention's long-term vision of a mercury-free world.



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Progress by innovation



Thank you

Mercury Emission Reduction (MER) through Air Quality Management (AQM) Projects

Minamata Convention: Pre-COP 6 Event

A. S. Harinath
Senior Environmental Engineer



THE WORLD BANK
Environment, Natural Resources & Blue Economy

October 14, 2025

Overlapping sources of Mercury and Air Pollution

The correlation between Mercury and Air Pollution

Mercury Emission Sources (Annex D)	Air Emissions with control devices (PM _{2.5})*
Coal Fired Power Plants	~12 to 68 µg/ m ³ <i>15- 40% total PM_{2.5} emissions in cities</i>
Coal Fired Industrial Boilers	~10 to 15 mg/ Nm ³ <i>25-30% of total stack emissions</i>
Non-ferrous metal smelting & roasting	Copper :~ 283 g/ t, Lead: 55.4 µg/ m ³
Waste incineration	Variable with technology and process
Cement clinker production	0.16 to 2.48 g/t of clinker

* Indicative – to be validated

- Coal based household heating is another important source of mercury and PM_{2.5} emissions in urban areas.

Mercury emission reduction through efficient Boilers

MER through cleaner industrial boilers

Boiler Parameter	Value*	Reference
Rated Capacity	1 ton per hour	Base size for calculation
Fuel	Coal	
Gross Calorific Value	5500 kcal/kg	Average from multiple sources
Annual Consumption	324 tons	Based on average boiler operation
Annual Emissions		
Mercury	45 to 90 gm	0.14- 0.34 g/t of coal (UNEP, 2024)
PM _{2.5}	667 kg	2.06 kg/t (NPi,2011)
CO ₂ (GHG Emissions)	609 tons	1.88 t/ coal (global average)
Life-time Emissions (20 years)	For 1 ton boiler	For 10 ton boiler
Mercury	0.9 – 1.8 kg	9 -18 kg
PM _{2.5}	13.34 tons	133 tons
CO ₂ (GHG Emissions)	12,180 tons	121,800 tons

* Indicative. Will vary significantly with local/ industry context

MER through efficient household heating

Parameter	Value*	Reference
Capacity (single family)	50-60,000 BTU	Average size
Fuel	Coal	
Gross Calorific Value	27-31 MJ/kg	Average from multiple sources
Annual Consumption	5 tons	Based on average boiler operation
Annual Emissions		
Mercury	1 to 2.5 gm	0.2- 0.5 g/t of coal (UNEP, 2018)
PM _{2.5}	10 kg	2.06 kg/t (NPI,2011)
CO ₂ (GHG Emissions)	9 tons	1.88 t/ coal (global average)
Life-time Emissions (10 years)		For 1000 households
Mercury	10– 25 g	10 - 25 kg
PM _{2.5}	100 kg	100 tons
CO ₂ (GHG Emissions)	90 tons	90,000 tons

Profile of World Bank's Clean Air Projects

World Bank's Recent AQM Projects

S. N	Name of the Project	Financing, US\$ m	Main Investment Components
1.	Nepal Clean Air and Prosperity Project, 2026	70.00	Clean Industrial Boilers
2.	India: Uttar Pradesh Clean Air Management Program, 2026	350.00	Transport, Agriculture & Urban
3.	India: Haryana Clean Air & Sustainable Development Program, 2026	300.00	Transport, Industrial, Agriculture
4.	Bangladesh Clean Air Project, 2025	290.00	Transport and Industrial
5.	Türkiye Industrial Emission Reduction Project, 2024	416.70	Industrial emission reduction
6.	Bangladesh environment sustainability & transformation Prj. 2023	185.00	Transport and Industrial
7.	Kyrgyz Republic Air Quality Improvement Project, 2023	52.40	Clean Household Heating
8.	Bosnia and Herzegovina: Air Quality Improvement Project, 2023	70.00	Sustainable Residential Heating
9.	Poland: Clean Air through Greening Residential Heating, 2021	291.30	Green Residential Heating
10.	Mongolia: Ulaanbaatar Clean Air Project, 2019	12.00+ 25.81 (AF)	Residential clean Heating
11.	China: Hebei Air Pollution Prevention and Control Program, 2016	500.00	Industrial emission reduction

- Many more industrial pollution management projects that include energy efficiency and clean technology interventions

Integrating MER and Climate with AQM

in the World Bank Projects

The Approach

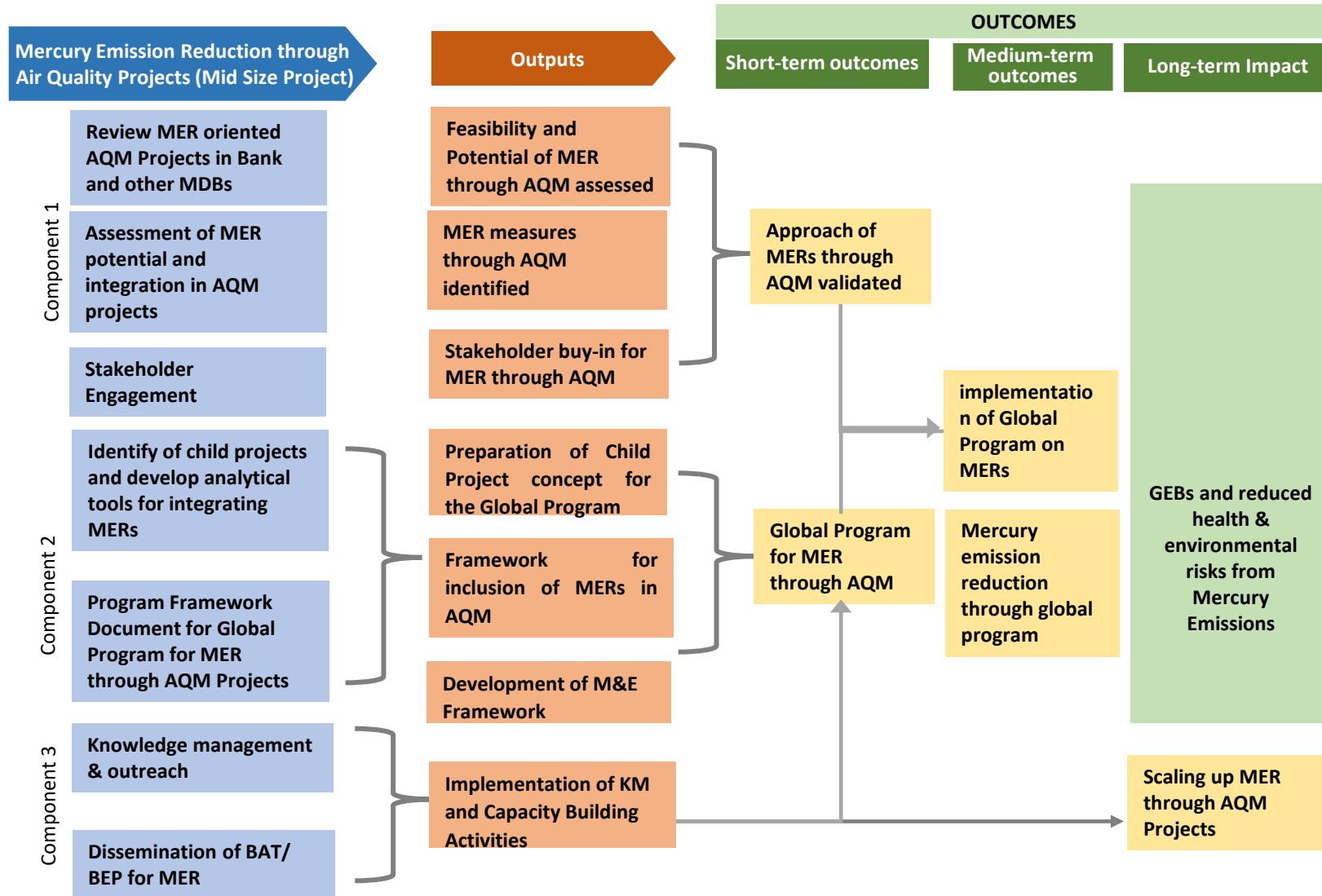
Rationale

- Size and scale of AQM projects offer significant Mercury and climate co-benefits
 - ✓ Typical project involves at supporting more than 100 industries or 10,000 households that can result in substantial emission reductions.
- GEF grant and climate co-financing makes project interventions more attractive both for countries and industries.
- Successful implementation will provide a model for scaling up the financing mechanism beyond the project.

Approach

- Identity AQM Projects (in preparation) supporting cleaner industrial boilers
- Assess the viability and integrate AQM and MER actions in the component design
- Design financing mechanism that leverages IDA/IBRD financing with available climate and GEF grants to incentivize conversion to cleaner boilers
- Provide policy, regulatory and capacity building support for scaling up Mercury and AQM actions in the country's supported

Global Program for MER through AQM (Proposed)



Next Steps

- Consultation (internal/ external) on MER through AQM Projects
- Understand how convention treats mercury release from industrial and household boilers
- Mobilize resources for the development of global program to scale up MER in collaboration with development partners (similar to ongoing Global PCB Elimination Program)

Thank You