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# TOWARD A LOW-CARBON AND JUST ENERGY TRANSITION IN DEVELOPING ASIA

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# Book outline

## Part I

- Accelerating Coal-Based Power Plant Retirement

## Part II

- Promoting a “Just” Energy Transition

## Part III

- Building an Enabling Environment (carbon tax, electricity connectivity)

# Motivation

- Coal is the most carbon-intensive energy source. Coal generates roughly double the carbon dioxide (CO<sub>2</sub>) emissions per unit of electricity of other fossil fuels such as gas.
- Local air pollution from coal combustion (households and power plants) is an issue. The economic costs of increased mortality and morbidity as a result of air pollution are also substantial, exceeding 10% of gross domestic product in the PRC and India
- The Energy Transition Mechanism (ETM) was launched by the Asian Development Bank in 2021. It is designed to accelerate the retirement and repurposing of CFPPs while boosting investment in renewable energy alternatives.
- Early retirement of coal-fired power plants means shutting down plants before the end of their anticipated economic lives

# Lessons learnt for Central Asia

- Ensuring sufficient and reliable supply after retiring coal fired power plants, especially in cold climate. Retiring coal fired power plants may face a setback due to the power shortages.
- Carbon pricing can accelerate the retirement of CFPPs. Even a low price of \$7 per ton would reduce the operating periods of CFPPs by 5.43 years in the PRC.
- ‘mono-industries’ incredibly vulnerable to the shutdown of the coal mine and power plants. Supporting communities with high share of income from coal:
  - Repurposing mining and power plants
  - Reskilling
  - Re-employment