Climate Security vs Energy and Resource Security in Southeast Asia

For Climate Security Challenges in the Asia-Pacific:
Securing Energy, Trade and Transition at IGES, Japan

UNDP Bangkok Regional Hub
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Energy Landscape in Southeast Asia

- Balancing **economic growth/growing energy demand** with **decarbonization**
- Heavy **reliance on fossil fuels**
- Energy-related **environmental issues**
- Investments in **renewable energy manufacturing** and **critical minerals**

GDP and CO2 emissions in Southeast Asia in the Stated Policies and Announced Pledges Scenarios, 2010-2050

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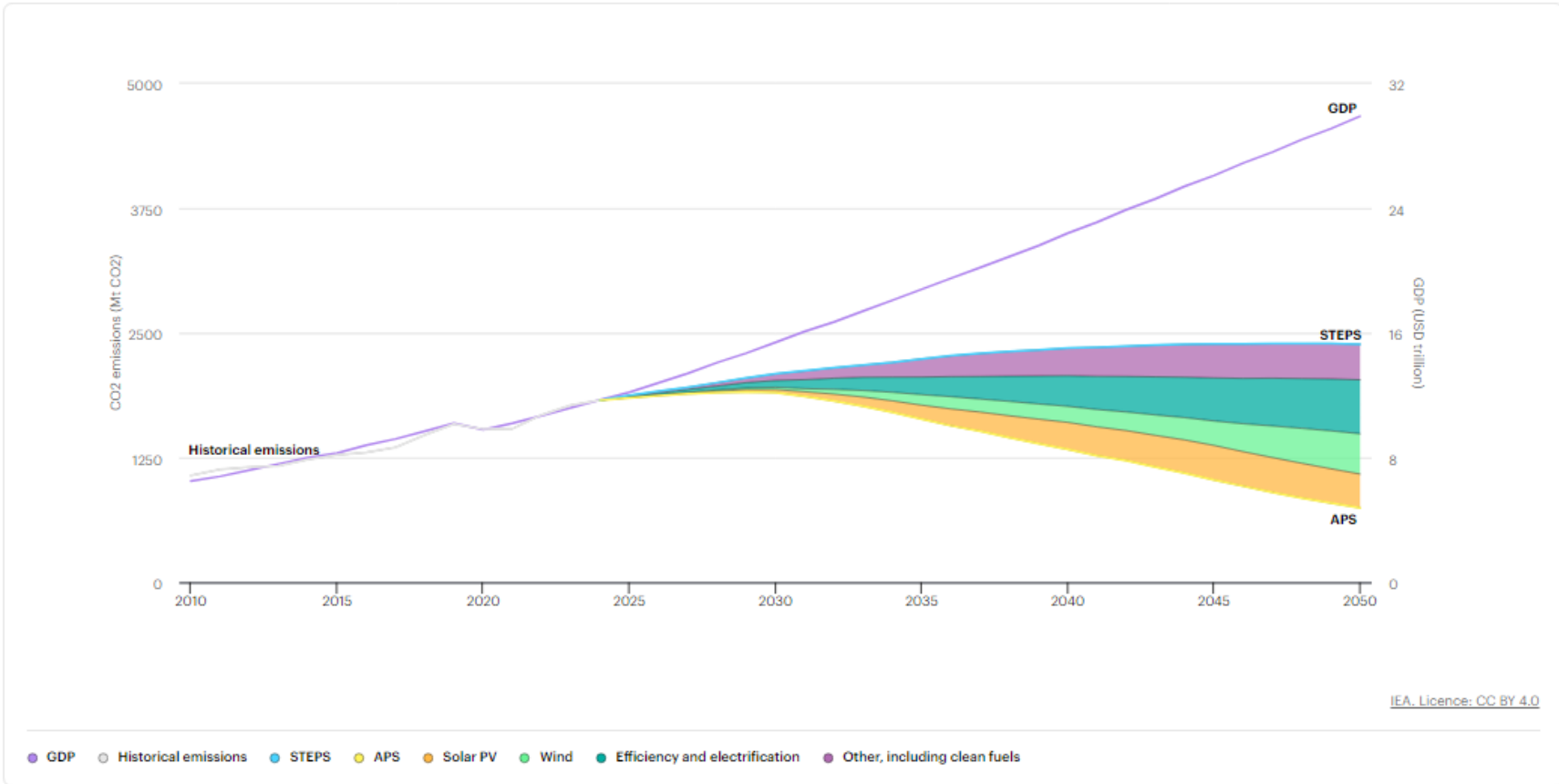

Appears in

Southeast Asia Energy Outlook 2024

Notes

STEPS= Stated Policies Scenario, APS= Announced Pledges Scenario, GDP= Gross domestic product.

Energy and Climate Security

Transition to clean energy can contribute to climate resilience

Scaling Up Renewable Energy Manufacturing

- SE Asia aims to expand **solar PV** manufacturing from **70 GW to 125–150 GW by 2030**.
- Manufacturing expansion will generate **$90-100B in revenue** and create **6M jobs by 2050**.

Shift Towards Electric Four and Two-Wheelers

- The region's transport sector heavily relies on motorcycles—electrification can cut emissions.
- Assembly capacity of **electric two-wheelers expected to rise from 1.4M to 4M units/year**.
- UNDP is supporting EV policy frameworks in Asia-Pacific to accelerate adoption.

What do we mean by Climate Security?

"Climate-related security risks" are understood as the *excessive adverse impacts of climate change* on:

1. **Security of the state**
2. **International peace & security**
3. **Human security:**

(1)Economic (incl. Energy, Critical Minerals & NR)

(2) Food (3) Health (4) Environmental (5) Personal

(6) Community (7) Political

→ Policy, Research & Actions should address these aspects

Definition of Climate Security

(from UNDP Climate Dictionary)

Climate security refers to evaluating, managing, and reducing the risks to peace and stability brought on by the climate crisis. This means ensuring that climate mitigation and adaptation goes beyond doing no harm and contributes positively to peace and stability.

UNDP's climate security approach evolves around:

(1) climate-proof conflict prevention and peacebuilding;

(2) ensure that mitigation and adaptation are peace positive;

(3) integrate climate action and sustaining peace; and

(4) strengthen cross-border, regional and sub-regional approaches.

Climate-induced Energy Security Risks

1. Climate Changes Disrupt Energy Infrastructure (Philippines, Vietnam)

Typhoons & Flooding; Sea level rise → Power plants in coast, transmission lines, refineries

2. Hydropower Vulnerability (Laos, Vietnam, Myanmar)

Changing rainfall patterns; Glacial melt & River flow changes → Hydropower plants

3. Rising Energy Demand & Heatwaves (Bangkok, Jakarta, etc.)

Increased cooling needs

4. Geopolitical Risks

Water scarcity in the Mekong Region drove tension

Mitigation & Adaptation Strategies

- Diversifying **energy sources** with more renewables (solar, wind, geothermal).
- Enhancing **regional energy cooperation** for electricity grid connectivity and energy sharing.

UNDP's work

- **Linking energy and climate priorities** at the strategic levels and improve policy coherence (e.g. NDCs)
- **Supporting just energy transition** through integrated policy support cutting across energy, climate, inclusive growth, health, gender
- **Promoting renewable energy, EVs, energy efficiency**
- **Assessing climate security**: Indonesia; Philippines; Myanmar; Southeast Asia Region with RSIS & ASEAN; HKH with IGES and ICIMOD
- **Facilitating South-South and Triangular Cooperation**