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ENVI MAHIDOL Top Priority

Achieving Net-Zero Emissions in the Asia-Pacific: The Role of Trade, Policy, and International Cooperation

Background

Limiting global temperature rise to 1.5°C above pre-industrial levels will almost certainly need the elimination of global net carbon emissions by 2050. The Asia-Pacific area is the largest carbon dioxide emitter and the most vulnerable to climate change, thus it must be at the center of this effort. Current nationally determined contributions are **insufficient to achieve net-zero emissions by 2050**; they would only lower global carbon emissions by two-thirds of their 2025 levels rather than eliminating them entirely (Peter A. Petri, 2026).

In the Asian Development Bank's 2026 report, The Economics of the Net-Zero Transition: Policy Scenarios and the Role of Trade and Cooperation, a comprehensive economic-environmental CGE model was used to evaluate five scenarios: a baseline and four policy alternatives, including Pledges, Net Zero, Carbon Leakage Mitigation, and Carbon-Targeted Cooperation.

Four Important Findings from the CGE Scenarios

Net zero is achievable but requires system-wide transformation:

Net-zero by 2050 is still possible but requires rapid, large-scale transformation of the global economy, particularly in the energy sectors, driven by strong public policy rather than market forces alone.

Economic costs are significant but manageable

Net zero by 2050 would cost about 3% of global GDP, but the real challenge lies in managing disruptive shifts in investment patterns, regulatory frameworks, and energy use, even though losses from unchecked climate change could reach about 20% of global GDP.

International cooperation is critical

Cooperation within and among countries must lead to decarbonization because market signals alone will not change fast enough, and international cooperation is equally essential since climate change is a global common challenge requiring global solutions.

Green Trade is part of the solution

Trade is essential for making green energy technologies and products widely and efficiently available, and by reducing barriers, minimizing carbon leakage, and encouraging regulatory cooperation, it offers practical, underused opportunities to support decarbonization.

Policy Implications

In summary, the report suggests that achieving net-zero emissions by 2050 is economically viable and technically achievable. The required technologies are well established, the costs are manageable, and the consequences of not taking action would be significantly more costly.

In addition, the transition is expected to gain momentum over time through technological innovation, emerging business opportunities, and new jobs in the green economy. However, the transition will face political resistance and uncertainty, therefore strong and visionary leadership is needed to ensure success.

Reference

Peter A. Petri, M. G. P., Cyn-Young Park, Sean Hwang. (2026). The Economics of the Net-Zero Transition: Policy Scenarios and the Role of Trade and Cooperation. Asian Development Bank.