

GEOPOLITICS AND ENVIRONMENTAL SUSTAINABILITY: STRATEGIC PATHWAYS TOWARD SUSTAINABLE PROSPERITY IN SOUTH ASIAN ECONOMIES

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ABSTRACT

The intersection of environmental sustainability and geopolitical forces shape the South Asian economy. Given the region's expanding climate vulnerability, resource competition, and strategic rivalry, geopolitical approaches are assessed to see if they help or hinder sustainable development. This study examines the intricate links between environmental aims and geopolitical developments in key South Asian nations. The study uses empirical research, policy frameworks, and regional initiatives to identify trends, barriers, and answers to a sustainable prosperity model. Energy security, regional collaboration, environmental diplomacy, and key nations' green transition impact are highlighted. The study concludes with a geopolitical-environmental strategy for South Asia's long-term resilience and equitable development.

Keywords: Geopolitics; Environmental Sustainability; Regional Cooperation; Climate Policy; Sustainable Development; South Asian Economies.

INTRODUCTION

South Asia has some of the world's most populated and fast-growing countries, with environmental concerns and complex geopolitical interactions (Asif et al., 2024). Energy corridors in Central Asia and marine strategy in the Indian Ocean include geopolitics, environmental degradation, climate change, and natural resource management (Chaturvedi, 2024). Rapid economic expansion in India, Pakistan, Bangladesh, and Sri Lanka has left

enormous ecological footprints, raising worries about its long-term sustainability (Imran et al., 2024). Economic progress and environmental sustainability need a comprehensive understanding of policy coherence, diplomatic involvement, and international cooperation under uncertain geopolitical conditions (Kotzur & Lieberich, 2025). Table 1 shows the key geopolitical issues that affecting environmental sustainability.

Table 1: Key Geopolitical Issues Affecting South Asian Environmental Sustainability

Country	Geopolitical Challenge	Environmental Implication	Notable Example
India	Border tensions with neighbors	Hindrance to cross-border projects	Indus Waters Treaty disputes
Pakistan	Energy security dependencies	Delayed renewable energy adoption	Reliance on coal and gas imports

Bangladesh	Sea-level rise & transboundary rivers	Resource-sharing conflicts	Ganges water sharing with India
Sri Lanka	Strategic maritime location	Environmental strain from port deals	Hambantota Port under BRI
Nepal & Bhutan	Landlocked geopolitics	Vulnerable to upstream pollution	India-China hydropower competition

Source: Adapted from the Khan et al., (2024) and Nazir et al. (2024).

South Asian geopolitics includes variation, strategic competition, and regional dominance shifts. India's rise, China's growth, and Russia and the US's participation have changed alliances and rivals (Blarel, 2024). Regional pressures, including energy reliance, border disputes, and economic competition, make cooperation harder. Infrastructure development and environmental sustainability would be affected in

South Asian countries participating in China's Belt and Road Initiative (BRI) (Latief et al., 2024). Nations battle for renewable energy markets and crucial energy transit routes, illustrating energy security's geopolitical relevance. According to the study, these geopolitical manoeuvres facilitate and hinder South Asian environmental policy coordination. Table 2 shows the strategic relationships between geopolitics and sustainability in South Asia.

Table 2: Strategic Synergies between Geopolitics and Sustainability in South Asia

Initiative/Policy	Involved Countries	Focus Area	Sustainable Outcome
South Asia Subregional Economic Cooperation (SASEC)	India, Bangladesh, Nepal, Bhutan	Renewable energy, trade corridors	Cross-border infrastructure with sustainability elements
India-Bhutan Hydropower Cooperation	India, Bhutan	Clean energy diplomacy	Export of hydropower to India
SAARC Environment Action Plan	All SAARC members	Regional environmental governance	Shared environmental assessments
China's Green BRI Initiatives	Pakistan, Sri Lanka	Green infrastructure	Eco-friendly transport and energy systems

Source: Adapted from the Ullah et al. (2024) and Bakhsh et al. (2024).

2. Long-term environmental sustainability issues

Environmental issues facing South Asian economies include air and water pollution, deforestation, biodiversity loss, and climate-induced disasters (Adnan et al., 2024). Increased fossil fuel use, industrialization, and fast urbanization worsen sustainability issues (Saxena, 2025). UNEP and IPCC assessments put South Asia among the most climate-vulnerable regions.

Lack of governance, institutional fragmentation, and regional integration has led to implementation gaps despite national sustainability targets and Paris Agreement requirements (Akhtar-Schuster et al., 2024). The study reveals three primary sustainability barriers, i.e., a lack of international cooperation, green finance choices, and environmental governance uniformity. Table 3 shows the policy gaps linked with geopolitics and sustainability agenda.

Table 3: Policy Gaps in Linking Geopolitics and Environmental Sustainability

Policy Dimension	Observed Gaps	Impact on Sustainability	Required Action
Regional Cooperation	Weak SAARC enforcement mechanisms	Fragmented climate response	Strengthen binding environmental frameworks

Infrastructure Development	Environmental impact often sidelined	Ecological degradation	Mandatory green impact assessments
Energy Security	Over-reliance on fossil fuels	Increased carbon emissions	Diversify into regional renewables
Governance & Institutions	Lack of inclusive environmental planning	Low local ownership of projects	Promote civil society engagement

Source: Adapted from the Tino (2024) and Das et al. (2024).

Despite the hostilities, several South Asian geopolitical strategies emphasize sustainability. The Green Silk Road project of the BRI, SAARC environmental cooperation projects, and Bhutan-India environmental engagement are positive examples (Sultan et al., 2024). Regional development banks and international forums provide greater funds to green technology transfer and climate-resilient infrastructure. Energy diplomacy promotes peace and regional

integration via transboundary water sharing and renewable energy cooperation (Gain, 2024). According to the Obaidullah & Howlader (2025), environmental diplomacy may reduce geopolitical tensions by bringing parties together to discuss sensitive areas like the Bay of Bengal or the Indus Basin. Table 4 shows the roadmap for South Asian economies for geopolitical integration.

Table 4: Recommended Strategic Roadmap for South Asian Environmental-Geopolitical Integration

Strategic Action	Description	Expected Outcome
Establish South Asian Council on Environmental Security	A regional forum to align geopolitics and sustainability	Coordinated response to climate and security
Promote Green Energy Alliances	Regional investment in clean energy partnerships	Enhanced energy security and lower emissions
Integrate Trade-Environment-Security Policies	Holistic planning across ministries	Policy coherence and efficient implementation
Invest in Regional Capacity-Building	Knowledge exchange, education, and tech sharing	Long-term resilience and innovation

Source: Adapted from the Eqan & Wan (2024) and Chaturvedi (2025).

Despite potential collaboration, institutional and governmental barriers prohibit geopolitical strategy and environmental sustainability from functioning together. Intersecting mandates, lack of enforcement, and fragmented regional governments make coordinated action difficult. National interests trump regional environmental goals, making collaboration initiatives challenging. Infrastructure initiatives that emphasize connectivity above environmental regulations lack policy consistency. This research suggests increased civil society engagement, transparent environmental reviews, and inclusive governance for fair judgments.

3. Conclusions and Policy Implementation

South Asian nations should combine geopolitical aspirations with environmental development. To do this, multilateralism, regional institutions, and environmental concerns must be integrated

into foreign policy. The suggestions include creating a South Asian Council on Environmental Security, encouraging green energy alliances, advocating for integrated policy frameworks that link trade, environment, and security, and funding environmental education and capacity-building. These steps help create a resilient regional architecture that addresses ecological and strategic challenges. Finally, geopolitical and environmental sustainability provide difficulties and opportunities for South Asian economies. Geopolitical disagreements frequently impede collective environmental action, but strategic interest alignment may provide new sustainable development pathways. Rethinking regional cooperation with a sustainability emphasis may help South Asia decrease environmental threats and promote peace, innovation, and equal growth. To handle the complex relationship between South Asian

geopolitics and environmental sustainability, unified leadership and strategy are essential.

References

- Adnan, M., Xiao, B., Bibi, S., Xiao, P., Zhao, P., Wang, H., ... & An, X. (2024). Known and unknown environmental impacts related to climate changes in Pakistan: an under-recognized risk to local communities. *Sustainability*, 16(14), 6108.
- Akhtar-Schuster, M., Stringer, L. C., & Barger, N. (2024). Fast-tracking action on the Sustainable Development Goals by enhancing national institutional arrangements. *Plos one*, 19(3), e0298855.
- Asif, M., Khan, M. I., & Pandey, A. (2024). Navigating the inclusive and sustainable energy transitions in South Asia: Progress, priorities and stakeholder perspectives. *Energy Conversion and Management*, 313, 118589.
- Bakhsh, S., Zhang, W., Ali, K., & Oláh, J. (2024). Strategy towards sustainable energy transition: The effect of environmental governance, economic complexity and geopolitics. *Energy Strategy Reviews*, 52, 101330.
- Blarel, N. (2024). Navigating US–China Rivalry in a Multi-aligned Middle East: Understanding India’s Shifting Strategy Towards the Region. *Journal of Asian Security and International Affairs*, 11(4), 536-556.
- Chaturvedi, A. K. (2024). Introduction to the South Asia Energy Corridor. In *The South Asian Energy Corridor* (pp. 1-40). Apple Academic Press.
- Chaturvedi, A. K. (2025). Towards a Regional Energy Security Model: A Cooperative Approach. In *The South Asian Energy Corridor* (pp. 41-78). Apple Academic Press.
- Das, J., Govender, M., Irfanullah, H. M., Selim, S. A., & Glaser, M. (2024). Stakeholder perceptions of blue economy governance networks and their equity implications in Bangladesh. *Marine Policy*, 170, 106359.
- Eqan, M., & Wan, J. (2024). Climate Governance in South Asia. In *Climate Governance and Corporate Eco-innovation: A Framework for Sustainable Companies* (pp. 185-214). Cham: Springer Nature Switzerland.
- Gain, A. K. (2024). Water diplomacy for addressing transboundary water management. In *Handbook on the Governance and Politics of Water Resources* (pp. 324-336). Edward Elgar Publishing.
- Imran, M., Khan, M. K., Alam, S., Wahab, S., Tufail, M., & Jijian, Z. (2024). The implications of the ecological footprint and renewable energy usage on the financial stability of South Asian countries. *Financial Innovation*, 10(1), 102.
- Khan, M. S., Kamran, S., & Jamal, F. (2024). Geo-Political Dimension and CPEC: Implications for South Asia. *Pakistan Social Sciences Review*, 8(1), 128-138.
- Kotzur, M., & Lieberich, M. (2025). Rethinking Globalization: Shifting Geopolitical Dynamics and the Future of European-Indo-Pacific Cooperation. In *Goeconomic Risks in Europe and the Indo-Pacific Region: Perspectives of Economic Security* (pp. 119-140). Singapore: Springer Nature Singapore.
- Latief, R., Pei, Y., Javed, S. A., & Sattar, U. (2024). Environmental sustainability in the Belt and Road Initiative (BRI) Countries: The role of sustainable tourism, renewable energy and technological innovation. *Ecological Indicators*, 162, 112011.
- Nazir, M., Khan, S., Nassani, A. A., Naseem, I., Zaman, K., & Haffar, M. (2024). Do regulatory affairs, political stability, and renewable energy demand improve environmental quality? Perceptive from the South Asian Association for Regional Cooperation region. *Energy & Environment*.
<https://doi.org/10.1177/0958305X241236270>

- Obaidullah, M., & Howlader, M. R. (2025). Assessing geopolitical and socio-economic consequences of India-Bangladesh water disputes. *Discover Global Society*, 3(1), 1, <https://doi.org/10.1007/s44282-025-00137-0>
- Saxena, V. (2025). Water Quality, Air Pollution, and Climate Change: Investigating the Environmental Impacts of Industrialization and Urbanization. *Water, Air, & Soil Pollution*, 236(2), 1-40.
- Sultan, N., Yang, C., & Sultan, W. (2024). The Belt and Road Initiative's (BRI) Impact on International Trade of SAARC Countries. *Journal of Sustainable Business and Economics*, 7(1), 1-11.
- Tino, E. (2024). Forty Years of Cooperation in South Asia: A Legal Appraisal of the South Asian Association for Regional Cooperation (saarc). *International Organizations Law Review*, 21(2), 235-263.
- Ullah, N., Zohaib, M., Islam, Z., & Bakht, S. (2024). Geopolitical Implications of the US-India Strategic Partnership in the Indo-Pacific Region. *Social Science Review Archives*, 2(2), 814-830.

