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Strengthening Energy Security through an India–Africa–EU Alliance: Strategic Pathways, Constraints, and Policy Options

Title

Strengthening Energy Security through an India–Africa–EU Alliance: Strategic Pathways, Constraints, and Policy Options

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Abstract

There is a strategic potential for a trilateral partnership between India, Africa, and the European Union to advance energy security, with a particular focus on renewable energy deployment, technology transfer, and infrastructure resilience. Building on precedents such as the International Solar Alliance and the EU's Global Gateway, common grounds forms around clean energy innovation, supply chain diversification, and skill development across this region. Yet, deep rooted challenges persists including financing gaps, policy misalignments, infrastructural deficits, and geopolitical risks such as trade protectionism. This brief proposes phased, actionable recommendations to operationalize this alliance. By integrating political commitment, technological cooperation, and equitable investment models, the partnership can serve as a resilient, future-ready framework for shared energy security in a multipolar world.

Keywords: India-Africa-EU Alliance, energy security, Indo-European, strategic partnership.

Introduction

Energy security has emerged as one of the most defining challenges of the 21st century where economic balance across nations, safety concerns, along with long- term environmental goals, depend on steady, low-cost, non-polluting power sources. Traditionally, energy security referred to uninterrupted access to fossil fuel supplies at affordable prices, but new realities have changed that and widened the idea to encompass renewable integration, supply chain resilience, and infrastructural robustness in the age of climate change and energy transition.

Due to the growing climate crisis and geopolitical instability, the importance of global energy security has increased substantially. In this scenario, a trilateral cooperation between EU, India and Africa offers a powerful strategy by combining EU's financial power and regulatory insight, India's cost-effective renewable deployment expertise, Africa's large renewable resources, to accomplish shared energy goals.

As a global leader in renewable energy deployment, India has already electrified every village and aspires to reach 500 GW of renewable capacity by 2030 (with 200 GW achieved by early 2025). Africa, is also rapidly increasing its renewable capacity (growing from ~56 GW in 2022 to ~67

GW in 2024). Meanwhile, the EU provides strong financial frameworks and a track record of implementing investment schemes like its Global Gateway initiative. Though the alliance has high potential for diversification and resilience, its success depends on regulatory alignment, concessional finance, and African industrial participation. A structured India–Africa–EU alliance could accelerate energy transitions, promote shared energy security, and guarantee equitable, sustainable growth across the Global South. This analysis examines how a trilateral India–Africa–EU alliance can enhance energy security, and under what conditions such cooperation may succeed or fail.

EU–India Engagements in Africa: Issues and Prospects

An **India–Africa–EU alliance** can provide dependable, inexpensive, and clean energy while balancing geopolitical interests by combining Africa's enormous natural resources, India's experience in low-cost renewable deployment, and the EU's financial depth and regulatory frameworks. The prospects for EU–Africa and India–Africa would depends not just on quantitative factors such as trade and investment, but also a strategy that convinces the African people that economic engagement with Europe and India would be mutually beneficial.

Africa's growing geopolitical significance, combined with ongoing developmental and structural challenges, makes it a priority region for both the European Union (EU) and India. EU is already Africa's biggest trading partner, development donor, and security actor, while India has significantly intensified its outreach since the early 2000s, positioning itself as a development partner based on South–South solidarity. For both actors, Africa matters in four main dimensions: geopolitics, economics, development, and security. In international forums including the UN, WTO, G-20, BRICS, and IBSA, African states have grown more involved in promoting changes in global governance. This growing influence means that partnerships with Africa are no longer optional but central to shaping outcomes in climate negotiations, trade rules, and financial assistance mechanisms. (Zajączkowski & Kumar, 2020).

Another level of strategic significance is added by the geography of the continent. Critical marine routes for Europe and India are the Gulf of Aden and the Suez Canal, which together handle 30% of crude oil flows and roughly 15% of world trade (Helly, 2009; Olender, 2017). Around 95% of

India's trade and 80% of Europe's seaborne commerce pass through these waters, making the stability of these routes a matter of economic survival. This explains why the EU's naval mission *Atalanta* and India's growing naval presence in the western Indian Ocean are complementary responses to piracy and maritime insecurity. These maritime security strategies directly influence energy security by safeguarding LNG shipments, offshore renewable infrastructure, and undersea cables. Although collaboration in maritime domain awareness, joint naval exercises, and counter-piracy measures has already started, a strong institutionalized India-EU security dialogue on Africa remains underdeveloped. The India-Middle- East--Europe Economic Corridor (IMEC) is being considered as a cornerstone for India's engagement with Europe, offering "combined land and maritime trade and energy routes" that may also serve African partners looking for- alternative import pathways and digital connectivity.

China's growing presence in Africa adds both urgency and complexity. Through the Belt and Road Initiative (BRI), Beijing has financed ports, railways, and industrial zones across the continent, particularly along Africa's eastern seaboard. Chinese investments, development loans, and aid have created strong economic linkages but have also generated concerns about debt dependency, lack of technology transfer, and limited benefits for local industries (Taylor, 2006). African civil society voices increasingly criticize these engagements as neo-colonial, fueling opportunities for alternative models of cooperation. For India and the EU, this creates space to present a distinct partnership narrative, one that emphasizes inclusivity, democratic governance, sustainability, and long-term capacity-building rather than extractive or purely transactional ties.

Development and humanitarian cooperation remain core elements of both EU and Indian engagement strategies. The EU has long been Africa's largest aid donor, focusing on infrastructure, governance reforms, and humanitarian relief. India, while more modest in scale, has leveraged concessional credit lines, the Pan-African e-Network, and initiatives in healthcare, education, and capacity-building. Both actors frame African development as not only an economic opportunity but also a stabilizing factor in mitigating conflict, illegal migration, and organized crime. The convergence lies in their recognition that socio-economic modernization in Africa is essential to global peace and prosperity, even though their approaches differ: the EU tends to link assistance to governance reforms, while India emphasizes sovereignty and partnership without conditionalities.

The continent is also becoming a critical hub in future hydrogen and critical minerals supply chains. Namibia's hydrogen strategy, South Africa's platinum reserves, and the Democratic Republic of Congo's cobalt deposits illustrate how Africa's resources will shape global clean energy transitions. For the EU, securing access to these resources under equitable conditions is vital for meeting its **Net Zero Industry Act** targets. For India, diversifying beyond Middle Eastern oil and coal imports is central to its long-term energy independence. A trilateral framework in Africa allows both actors to not only source these resources but also invest in **local industrialization**, ensuring that Africa does not remain a mere exporter of raw materials but becomes a partner in global green value chains.

Africa embodies both opportunities and risks for EU–India engagement. It is a continent of high growth potential, rising global influence, but also one marked by governance deficits, security challenges, and external competition. By coordinating their approaches, leveraging the EU's financial strength and India's developmental experience, Brussels and New Delhi can present Africa with a credible, sustainable, and democratic alternative to other external powers. Such cooperation would not only strengthen Africa's agency in global affairs but also reinforce energy security for all partners.

Building Synergies for Trilateral Energy Security

Although the EU and India have historically followed their own strategies in Africa, their perceptions of the continent's opportunities and vulnerabilities increasingly converge when it comes to energy security. Both actors recognize Africa's vast potential in renewable energy (solar, wind, hydro, and green hydrogen) as well as its strategic importance for global supply chains of critical minerals. Joint declarations, such as the EU–India Summit statement of 2017 and subsequent policy communications, underline a shared interest in sustainable energy transitions, climate action, and infrastructure development. Yet these convergences have not always translated into coordinated action, leaving significant room for closer collaboration.

A key area of potential cooperation lies in **infrastructure development**. Africa's electrification rates remain among the lowest in the world, with over 600 million (40%) people lacking access to

electricity. Coordinated EU–India projects, modeled on initiatives such as the *Asia–Africa Growth Corridor* and aligned with the EU's *Global Gateway*, could strengthen Africa's cross-border energy networks, upgrade transmission infrastructure, and improve resilience against climate shocks. Such investments would not only serve African development but also secure diversified and sustainable energy supply lines for both India and Europe.

The success of Global Gateway in Africa depends on leaving behind the conventional donor-recipient paradigm. Lwanga (2025) contends the Global Gateway runs the risk of recreating past development failures unless it helps African states and commercial actors draw in long-term, effective investment. Practitioners' empirical observations support this worry. Analysts describes the early stages of Global Gateway as quite similar to a rebranding effort in which pre-existing initiatives were renamed without significant new funding or risk- mitigation mechanisms. (duChattineer, 2025) However, if Global Gateway is reoriented toward a more cooperative and investment-driven approach, it still has strategic potential. Instead of focusing on cost competitiveness, European businesses have comparative advantages in quality, sustainability, and technical innovation. This strength fits both Africa's need for resilient, climate-adaptive infrastructure and India's experience with scalable renewable deployment in an India-Africa-EU energy framework. Projects like decentralized renewable systems, coastal energy infrastructure protection, and grid modernization present chances for the convergence of European technological expertise, Indian implementation capabilities, and African market need. However, in order for partner governments to properly assess sustainability and lifetime costs rather than merely depending on lowest-price criteria, quality-based competition necessitates continuous investments in local administrative and procurement infrastructure. These criticisms also draw attention to larger geopolitical risks. Global Gateway might damage the EU's reputation in Africa and erode confidence among allies like India who want steady, long-term collaboration if it stays largely symbolic and has little operational flexibility and financial depth.

Another area of convergence is **renewable energy deployment and technology transfer**. A major investment opportunity is represented by renewable power projects, accounting for 80% of capacity additions across the continent this decade in the Sustainable Africa Scenario. Private investment has been increasing, for example in solar PV in Egypt and South Africa, where multiple auction rounds have yielded private-led developments. However, in many countries renewables

projects are either fully or partially dependent on the involvement of concessional capital. Many projects commissioned to date have required multiple credit enhancements, including guarantees and risk sharing with development finance institutions. (IEA, 2023) India's experience with affordable solar energy deployment through the International Solar Alliance (ISA) and the EU's technological expertise in wind, smart grids, and offshore energy offers synergies that could be utilized in African markets. Joint India-EU initiatives could concentrate on promoting hybrid systems, scaling decentralized solar projects, and advancing green hydrogen strategies in countries like Morocco and Namibia. These efforts would facilitate Africa to meet its own energy requirements while simultaneously building stable and diversified energy trade partnerships.

Climate cooperation is also integral to trilateral energy security. The EU and India share commitments under the Paris Agreement and could coordinate technical and financial support for African countries to meet their Nationally Determined Contributions (NDCs). This includes assistance with adaptation, sustainable land use, and clean cooking energy solutions, which are crucial for achieving just energy transitions in Africa. By aligning financing tools, such as EU climate funds and India's concessional credit lines, the partners could address Africa's persistent financing gaps in renewable energy.

Finally, trade and investment in energy resources offer another area of coordination. According to the latest World Investment Report from (UNCTAD) European investors hold the largest FDI stock in Africa, followed by the United States and China. According to a report of International Energy Agency (2023), Africa's reserves of lithium, cobalt, and rare earths are crucial for the renewable transition, while its emerging markets also provide opportunities for Indian and European businesses in generation of power and energy storage. Greenfield projects will probably not attract investments by institutional investors, but they can fund brownfield projects, either via government-sponsored asset recycling programmes - as witnessed in Zimbabwe, Gambia, and Togo - or by providing refinancing via green bonds, as witnessed Nigeria and Egypt. These investments have the additional benefit of freeing up construction and development funds for other greenfield projects. International bond markets may also be utilized for building energy efficiency projects – as witnessed in the buildings sector in Kenya, Cote d'Ivoire and South Africa. Setting up a trilateral investment platform that brings together EU financing institutions, Indian private

firms, and African governments could enhance predictability, lower risks, and mobilize funds for large-scale energy projects.

Policy Pathways Ahead

To strengthen energy security through an EU-Africa-India alliance integrated energy, connectivity, and institutional corridors rooted in African priorities must replace project based cooperation. Jointly developed renewable energy corridors across the Sahel, East Africa, and Southern Africa can combine wind, solar, hydro, digital grids, and transmission infrastructure while also incorporating local manufacturing and skills development. It is crucial to take some lessons from critiques of the Global Gateway, as these corridors must not replicate mistake of a donor–recipient logic and instead be structured to attract long-term, efficient private investment and connect African markets rather than merely deliver assets**.** Conceptually linking these corridors to the India–Middle East–Europe Economic Corridor (IMEC) would further expand their strategic relevance, embedding Africa within emerging land–maritime energy routes and digital networks.

A second pathway lies in deepening trilateral cooperation on green hydrogen, clean-energy supply chains, and quality-based infrastructure development. Africa's hydrogen initiatives in Namibia, Morocco, and South Africa provide a means of coordinating EU funding, Indian technical know-how, and African natural resources. Offtake agreements should specifically balance domestic industrial use, regional energy access, and exports to ensure value creation inside African economies and prevent the replication of extractive tendencies. Concurrently, building hubs for the production of grid components, battery storage, and renewable technology in African growth poles like South Africa, Kenya, and Nigeria will lessen reliance on outside supply chains, especially those from China. This responds directly to the alliance’s emphasis on competing through quality, sustainability, and innovation rather than just price, while generating employment and embedding African economies in global green value chains.

The two biggest obstacles to success are still funding and governance. The necessity for a trilateral green infrastructure financing framework that combines private capital, African sovereign funds, Indian Exim instruments, and EU development banks is highlighted by persistent investment gaps.

To reduce transaction costs and rebuild investor confidence, regulatory harmonization, mutual acceptance of ESG and due-diligence procedures, and responses to complaints about bureaucratic fragmentation and regulatory overload are crucial. To guarantee inclusive results and avoid elite capture, financing arrangements must be supplemented with robust financial intelligence checks, transparency, and monitoring. Beyond capital mobilization, energy security must be explicitly linked to maritime and infrastructural protection, particularly in the Indian Ocean and the Gulf of Aden. By extending EU–India naval cooperation to African coastal states would safeguard LNG shipments, undersea cables, offshore renewables, and digital infrastructure, directly addressing geopolitical vulnerabilities.

Finally, integrating energy security into more comprehensive development and human capital initiatives is essential for long-term success. Large-scale infrastructure must be paired with decentralized solutions mini-grids, clean cooking, and off-grid renewables to reduce energy poverty and deliver tangible social benefits. In addition to strengthening institutions and addressing talent gaps, the establishment of India-EU-Africa energy training institutes, cooperative research hubs, and exchange programs will allow African states to evaluate the sustainability and quality of procurement processes. If implemented with sustained political coordination, credible financing, and institutional trust, these pathways can transform the India–Africa–EU alliance into a resilient and future-ready framework for global energy security rather than another fragmented connectivity initiative.

Conclusion

The India–Africa–EU alliance must evolve into a structured trilateral forum that unifies financing, regulation, and infrastructure investment while guaranteeing fair access to energy. By integrating India's renewable expertise, Africa's abundant resources, and the EU's financial strength, the partnership can address energy poverty, enhance supply chain resilience, and mitigate geopolitical risks. Ultimately, it offers a future-ready model for sustainable, inclusive, and secure global energy governance in a multipolar world. However, there's a requirement of sustained political coordination and financing discipline, so that the alliance won't risks replicating existing fragmentation rather than delivering strategic energy security gains.

References:

du Chatinier, E. (2025, November 3). *Too little funding. European companies are pulling back from Africa, expert warns*. *EU Perspectives*. https://euperspectives.eu/2025/11/european-companies-africa/

Helly, D. (2009). EU NAVFOR Somalia: The EU military operation Atalanta. In G. Grevi, D. Helly, & D. Keohane (Eds.), *European security and defence policy: The first 10 years (1999–2009)* (pp. 313–329). European Union Institute for Security Studies (EUISS).

International Energy Agency. (2022). *Financing clean energy in Africa: Executive summary*. IEA. https://www.iea.org/reports/financing-clean-energy-in-africa/executive-summary

Lwanga, N. [@nelson-lwanga-abb863195]. (2025, November). *If the Global Gateway is to succeed for Africa, it must move beyond the 'donor-recipient' script…* [LinkedIn post]. LinkedIn. https://www.linkedin.com/posts/nelson-lwanga-abb863195_too-little-funding-european-companies-are-activity-7391440696471085056-nlAA

Olender, D. (2017). *Preventing and combating maritime piracy: A selected problem*. Difin.

Rocky Mountain Institute. (2021, September 21). *There's no one-size-fits-all for achieving universal energy access in Africa*. RMI. https://rmi.org/theres-no-one-size-fits-all-for-achieving-universal-energy-access-in-africa/

Taylor, I. (2006). China's oil diplomacy in Africa. *International Affairs, 82*(5), 937–959.

United Nations Conference on Trade and Development. (2025, June 19**).** *Africa: Foreign investment hit record high in 2024* [Press release]. UNCTAD. https://unctad.org/press-material/africa-foreign-investment-hit-record-high-2024

Zajączkowski, K., & Kumar, A. (2020). Prospects of India–European Union cooperation in Africa. *International Studies, 57*(3), 235–256. https://doi.org/10.1177/0020881720934338

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