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Africa and China in the Belt and Road Era: Strategic Agency

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Abstract

This article examines Africa-China relations through the evolving political economy of the Belt and Road Initiative (BRI) (Berlie, 2020). Moving beyond deterministic narratives that frame Africa as a passive recipient of external infrastructure finance, the paper argues that African states increasingly exercise strategic agency by embedded BRI-linked investments within national development plans, regional integration agendas, and climate-aligned infrastructure strategies. Combining historical analysis, geo-economic theory, and sectoral evidence, this article situates the BRI within a broader transformation of global connectivity governance characterized by corridor-based development, digitalization and intensifying competition among external actors. Particular attention is paid to the growing role of multilateral development banks—especially the Asian Infrastructure Investment Bank (AIIB)—in standardizing governance, climate alignment, and asset-management practices in BRI-adjacent projects (Berlie, 2020). The analysis demonstrates that the developmental outcomes of Africa-China cooperation depend less on the scale of capital mobilization than on institutional capacity, policy coherence, and the governance of physical and digital infrastructure systems. The article concludes that the BRI in Africa constitutes a capital framework of Chinese external policy which engages with a majority of the African states.

Keywords

Africa-China Relations, AIIB, Aligned Finance, Belt and Road Initiative, Climate-Aligned Finance, Climate-State Capacity, Digital Infrastructure, Multilateral Development Banks, New Infrastructure Corridors

1. Historical Foundations of China-Africa Relations

Africa-China relations are embedded in a longue duration of intercontinental in-

teractions that predate modern geopolitics and colonial structures. Chinese policymakers frequently invoke this historical depth to situate contemporary engagement within a broader narrative of transcontinental connectivity, presenting the Belt and Road Initiative (BRI) as the latest expression of longstanding economic, cultural, and diplomatic exchanges linking East Asia with Africa (Berlie, 2020).

As early as the Han dynasty in the second century BCE, China's westward diplomatic missions—most notably those led by Zhang Qian—contributed to the opening of strategic corridors across Central Asia. Although these routes did not directly connect China and Africa, they enabled indirect exchanges through intermediary trade networks spanning Central Asia, the Islamic world, and the Indian Ocean. The Silk Roads thus functioned not only as channels of commerce, but also as mechanisms for the circulation of technologies, ideas, and political practices across Afro-Eurasia.

These interactions intensified during the Tang, Song, and Yuan dynasties through both overland and maritime routes. Historical accounts by travelers such as Du Huan, Marco Polo, and Ibn Battuta attest to the density and diversity of these exchanges. The maritime expeditions of Admiral Zheng He in the early fifteenth century marked the apex of pre-modern Sino-African engagement, reaching the Swahili Coast and establishing diplomatic contacts with East African polities. While limited in duration, these voyages occupy a central symbolic place in contemporary narratives of historical connectivity.

In the twentieth century, Africa-China relations were politically reconfigured through anti-colonial solidarity, most prominently at the 1955 Bandung Conference. Leaders from Asia and Africa articulated a shared rejection of imperial domination and affirmed principles of sovereignty, non-alignment, and South-South cooperation. This ideological legacy continues to inform China's contemporary development diplomacy, particularly its emphasis on partnership, non-interference, and development-first engagement.

The launch of the BRI in 2013 represents both continuity and transformation within this historical trajectory. Although often described as a revival of the "Silk Road," the BRI differs fundamentally in scale, institutionalization, and financial intensity. Empirical evidence suggests that China-Africa trade, investment, and lending accelerated sharply after 2000, prior to the formal announcement of the BRI, before stabilizing around 2014-2015 (Calabrese, 2021). African participation in the BRI expanded more gradually, reflecting domestic policy choices, fiscal constraints, and evolving development priorities.

Contemporary political discourse increasingly frames the BRI—and China's broader Global Development Initiative—as aligned with the African Union's Agenda 2063, emphasizing modernization, multilateralism, and infrastructure-led development (Yan, 2025). This framing underscores how historical narratives of connectivity are mobilized to legitimize present-day economic cooperation, while masking significant shifts in the political economy, governance structures, and strategic stakes of Africa-China engagement.

2. The Belt and Road Initiative in Africa: From Vision to Strategy

The Belt and Road Initiative (BRI) in Africa has progressively evolved from a collection of largely bilateral infrastructure projects into a multi-sectoral and multi-scalar connectivity framework. Early phases of engagement were primarily characterized by discrete investments in transport and energy assets—such as rail lines, highways, ports, and power plants—often negotiated on a project-by-project basis. Over time, however, the initiative has moved beyond a narrow asset-focused logic toward a more integrated vision of economic corridors and networked infrastructure systems. Rather than concentrating solely on individual facilities, the BRI increasingly links ports, rail corridors, logistics platforms, energy systems, and digital infrastructure into coherent spatial and functional development corridors.

This transition reflects a broader shift from project-based lending toward more strategic, systems-oriented approaches to infrastructure development. Connectivity is no longer framed merely in terms of physical mobility, but as an enabler of industrial clustering, supply-chain integration, and regional market access. Transport infrastructure is increasingly planned alongside logistics hubs, special economic zones, energy provision, and digital services, reinforcing complementarities between physical and digital connectivity. In this sense, the BRI in Africa is best understood not as a collection of standalone projects, but as an evolving platform for economic restructuring and spatial integration (Calabrese & Tang, 2020).

Since its launch in 2013, the BRI has expanded into the most extensive global infrastructure and connectivity initiative of the twenty-first century. Initially presented under the banner of "One Belt, One Road", the initiative has gradually broadened in scope to encompass transport corridors, industrial zones, power generation, telecommunications networks, and digital services. By the mid-2020s, more than 150 countries worldwide—including the great majority of 52 African states—had formally joined the initiative (Green Finance & Development Center, 2025). This geographic expansion reflects both the global reach of Chinese development finance and the growing demand for infrastructure investment across emerging and developing economies.

Africa occupies a structurally strategic position within this global connectivity framework. The continent sits at the intersection of the Indian Ocean, the Mediterranean, and the Atlantic basin, placing it at the crossroads of major maritime and overland trade routes linking Asia, Europe, and the Americas. At the same time, rapid population growth, accelerating urbanization, and expanding regional trade create sustained demand for transport, logistics, water, and energy infrastructure. Within this context, Chinese-financed investments in African ports, railways, highways, and power systems operate not as isolated national projects, but increasingly as nodes within global and interregional production and trade networks.

The corridor-based logic of the BRI is particularly evident in the emphasis

placed on linking hinterlands to ports, connecting landlocked countries to international markets, and reducing bottlenecks along key trade routes. Railways and highways are frequently designed to serve mining zones, agricultural regions, and industrial parks, while port investments are accompanied by upgrades in customs systems, logistics platforms, and digital trade facilitation. This spatial reconfiguration supports the emergence of regional value chains and enhances Africa's integration into global supply networks, while also reshaping domestic economic geographies.

Over time, the BRI in Africa has also shifted from a primary focus on capacity expansion toward the development of more integrated economic ecosystems. Increasing attention is devoted to digital connectivity, industrial clustering, logistics efficiency, and sustainable energy systems. Investments in fiber-optic networks, data centers, and digital platforms complement traditional transport and energy infrastructure, reinforcing the role of the Digital Silk Road as an integral component of the broader BRI framework. At the same time, renewable energy projects and grid modernization initiatives reflect China's recalibration toward greener forms of overseas engagement.

This evolution reflects both African policy learning and China's strategic adaptation. African governments have increasingly sought to embedded BRI-financed infrastructure within national development plans and regional integration strategies, emphasizing value addition, job creation, and technology transfer. In parallel, China has adjusted its overseas engagement model in response to concerns about debt sustainability, project quality, and long-term economic viability. The resulting convergence has contributed to a more selective, quality-oriented approach to infrastructure finance, with greater emphasis on corridor coherence, institutional coordination, and environmental sustainability (see **Figure 1**). Major operational BRI transport corridors across Africa.

Taken together, these dynamics suggest that the BRI in Africa is no longer best understood as a series of disconnected investments, but as an evolving connectivity framework that integrates physical, digital, and institutional dimensions. The developmental impact of this framework will ultimately depend on how effectively infrastructure corridors are embedded within broader strategies of industrialization, regional integration, and governance reform across the continent.

3. Africa as a Strategic Actor in the BRI Framework

Contrary to deterministic narratives that portray African states as passive recipients of Chinese influence, African governments have increasingly asserted strategic agency within the framework of the Belt and Road Initiative. Rather than treating Chinese financing as exogenous or unconditional, many countries have embedded BRI-supported investments within nationally articulated development trajectories centered on industrialization, urbanization, and regional integration. In this sense, Chinese capital is increasingly deployed as one input among others in broader state-led development strategies, rather than as a stand-alone driver of policy direction.

Figure 1. Major operational BRI transport corridors across Africa.

This agency is particularly visible in countries that have sought to integrate transport infrastructure with export-oriented industrial policy. Ethiopia, for example, has embedded Chinese-financed railways and industrial park investments within successive Growth and Transformation Plans, explicitly linking the Addis Ababa-Djibouti electrified railway to special economic zones and manufacturing clusters targeting global markets. Similarly, Kenya has positioned the Mombasa-Nairobi Standard Gauge Railway within its Vision 2030 framework as a backbone for logistics modernization, regional trade facilitation, and urban development, even as it has recalibrated project sequencing and financing terms in response to fiscal constraints. These cases illustrate how African governments selectively adapt BRI assets to domestic development priorities rather than adopting externally driven templates.

African states have further strengthened their bargaining position by leveraging competition among external partners, including China, the European Union, the United States, Gulf sovereign investors, and multilateral development banks. This diversification strategy has increased room for negotiation across a range of dimensions, including financing conditions, procurement modalities, risk allocation, and technology transfer. Morocco and Egypt exemplify this approach by combining Chinese investment with European and Gulf financing across ports, railways, renewable energy, and logistics platforms. Such multi-partner configurations allow governments to compare terms, diversify exposure, and embedded infrastructure investments within more complex governance and regulatory frameworks. In West Africa, countries such as Côte d'Ivoire and Senegal have increasingly structured transport investments through blended financing arrangements that combine Chinese contractors with multilateral supervision, reflecting a deliberate effort to balance delivery capacity with institutional oversight (Figure 2).

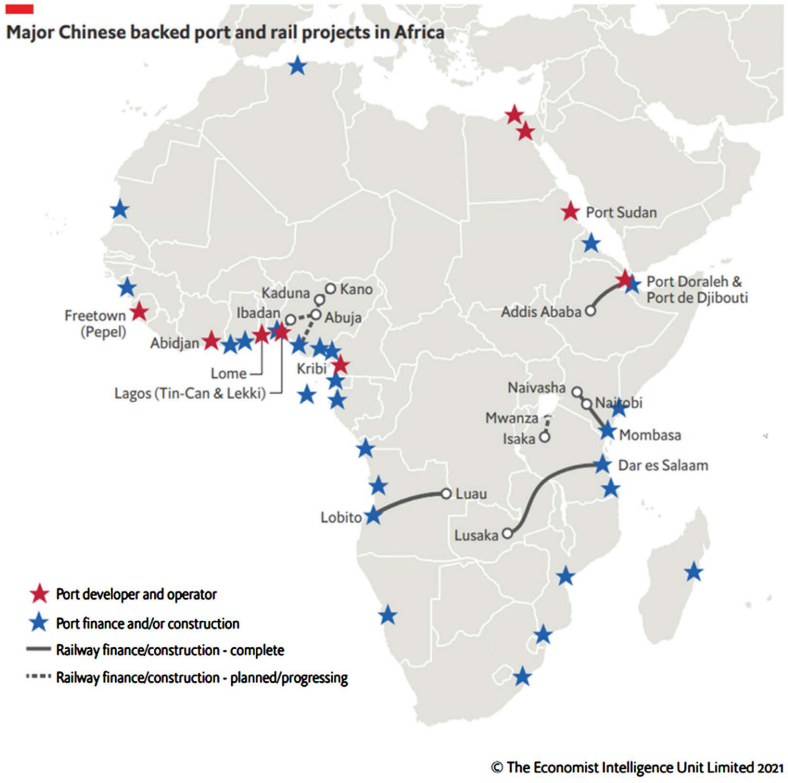

Figure 2. Major Chinese backed port and rail projects in Africa.

At the institutional level, sustained engagement with large-scale infrastructure programs—many of them associated with the BRI—has accelerated reforms in public procurement systems, debt management practices, and environmental and social safeguard frameworks. In several countries, the scale and complexity of transport investments have necessitated improvements in project appraisal, fiscal risk assessment, and inter-agency coordination. Rwanda and Ghana, for example, have strengthened debt sustainability analysis and investment prioritization

mechanisms in response to rising external borrowing, while Ethiopia and Nigeria have undertaken reforms of railway governance structures, concession arrangements, and operational models to address performance shortfalls and fiscal risks.

Although governance challenges remain significant, particularly in contexts of limited administrative capacity and political economy constraints, BRI-related engagement has contributed to processes of institutional learning and administrative modernization. Over time, repeated interaction with complex corridor projects has enhanced state capacity in transport planning, contract management, and corridor governance across several African economies. These developments underscore that African agency under the BRI is not static but evolves through iterative negotiation, policy adaptation, and institutional experimentation, shaping outcomes in ways that cannot be reduced to unilateral external influence.

4. Geo-Economic Rebalancing and Competing Global Strategies in Africa

Africa has become a focal arena of contemporary geo-economic competition as infrastructure has emerged as a primary instrument through which external actors seek to shape trade routes, production networks, and regulatory influence. From an International Political Economy perspective, large-scale connectivity investments increasingly function as tools of geo-economics, allowing states and coalitions to embedded long-term strategic interests within transport, logistics, digital, and energy systems (Strange, 1988; Farrell & Newman, 2019). Alongside China's Belt and Road Initiative (BRI), initiatives such as the European Union's Global Gateway, the G7 Partnership for Global Infrastructure and Investment, and Gulf-led sovereign development platforms now compete across African corridors, ports, data infrastructure, and power systems (World Bank, 2022).

This competition is especially visible in North and East Africa, where Mediterranean and Red Sea gateways—including Tangier Med, Port Said, Alexandria, Djibouti, and Mombasa—serve as strategic nodes linking African production systems to global value chains. Investments in these nodes extend beyond national development objectives, anchoring standards, financing structures, and operational practices that shape long-term trade patterns. Infrastructure in this context functions simultaneously as an economic enabler and a geopolitical asset, locking in forms of interdependence that influence market access and bargaining power over time (**Figure 3**).

Empirically, corridor investments have generated measurable logistics and competitiveness gains. Tangier Med illustrates this dynamic: the expansion of container throughput from less than one million TEU in the mid-2000s to more than seven million TEU annually has repositioned Morocco as a central automotive and logistics hub integrated into European value chains. In East Africa, the Addis Ababa-Djibouti electrified railway has reduced freight transit times from several days by road to less than one day by rail, while lowering transport costs for containerized cargo by an estimated 20 - 30 percent, thereby supporting export-oriented manufacturing and agro-processing (African Development Bank, 2023).

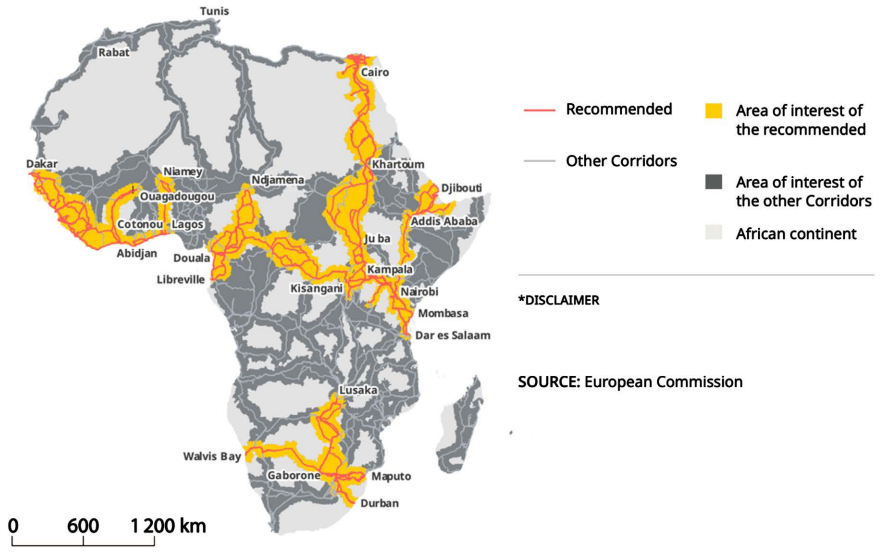

Figure 3. Global gateway: EU's infrastructure.

Unlike earlier extractive or aid-driven engagement models, contemporary infrastructure strategies increasingly emphasize corridor-based value-chain integration. Railways and highways are designed to connect inland production zones to ports, logistics hubs, and industrial parks, enabling greater domestic value capture. The Mombasa-Nairobi corridor—accounting for approximately one-third of Kenya's freight traffic—underpins regional trade flows to Uganda, Rwanda, and South Sudan, while sustained investments have reduced port dwell times at Mombasa from more than ten days in the early 2000s to around three to four days. Similar rail-port systems emerging in West Africa aim to reduce inland transport costs that often represent 30 - 50 percent of final export prices for bulk commodities, thereby improving competitiveness and trade integration (United Nations Economic Commission for Africa, 2023).

Digital connectivity and energy infrastructure further reinforce this corridor logic by strengthening administrative capacity and system efficiency. Customs digitalization, port community systems, and logistics platforms reduce transaction costs and enhance state oversight of trade flows, while renewable energy investments support the spatial concentration of industrial activity along major corridors. Evidence suggests that digital trade facilitation can reduce clearance times by 20 - 40 percent in African gateways (World Bank, 2021). In North Africa, integrated port-rail-energy ecosystems are increasingly aligned with export-oriented manufacturing and emerging green hydrogen value chains targeting European markets, illustrating the convergence of industrial policy, infrastructure planning, and external geo-economic demand.

Taken together, these dynamics have repositioned Africa from a peripheral recipient of development finance to a contested platform of systemic geo-economic competition. Developmental outcomes depend less on the volume of external capital mobilized than on African state capacity, regulatory coherence, and the stra-

tegic governance of competing partnerships. Where corridor investments are embedded within coherent industrial, trade, and institutional strategies, geo-economic competition can support structural transformation; where they are not, infrastructure risks reinforcing asymmetric interdependence rather than development (Calabrese, 2021).

5. China's Global Development Vision and Africa's Role

In recent years, the Belt and Road Initiative (BRI) has been progressively embedded within a broader architecture of global governance reform articulated through the Global Development Initiative (GDI), the Global Security Initiative (GSI), and the Global Civilization Initiative. Together, these initiatives frame development not merely as an economic objective but as the foundation of long-term international stability, social cohesion, and political order. Recent scholarship interprets this approach as an attempt to reposition development finance, infrastructure provision, and connectivity as core instruments of global governance, particularly in a context marked by geopolitical fragmentation and declining confidence in existing multilateral institutions (Thussu, 2025; Zeng, 2024).

Within this evolving framework, Africa occupies a particularly prominent position. Chinese development diplomacy on the continent emphasizes industrial capacity cooperation, agricultural modernization, digital inclusion, and infrastructure-led growth as mutually reinforcing pillars of structural transformation. Large-scale investments in transport corridors, energy systems, logistics platforms, and digital infrastructure are framed as enabling conditions for industrial upgrading and regional integration, rather than as isolated sectoral interventions. This emphasis aligns with African development strategies that prioritize manufacturing, value-chain development, and connectivity under the African Continental Free Trade Area (United Nations Economic Commission for Africa, 2023; World Bank, 2022). In this sense, Africa is positioned not only as a recipient of capital but as a central partner in a broader vision of South-South development cooperation.

More recently, the articulation of a "Green BRI" has further reshaped the contours of Africa-China engagement. Chinese policy discourse increasingly integrates climate mitigation and adaptation objectives into overseas infrastructure investment, particularly in energy generation, transport systems, and urban development. In Africa, this has translated into growing support for renewable energy projects, electrified railways, and climate-resilient infrastructure, reflecting both international climate commitments and host-country priorities. While implementation remains uneven, recent analyses suggest that the Green BRI represents a strategic recalibration toward higher-quality, more sustainable overseas engagement, partly in response to concerns over debt sustainability, environmental impact, and project performance (Green Finance & Development Center, 2025; African Development Bank, 2023).

Politically, China's development diplomacy continues to emphasize principles of sovereignty, non-interference, and pragmatic bilateral cooperation. This narra-

tive resonates with many African leaderships seeking development pathways centered on state capacity, infrastructure delivery, and economic autonomy, particularly in contrast to aid modalities perceived as prescriptive or conditional. At the same time, scholars note that this model generates important governance trade-offs. While it can expand policy space and accelerate infrastructure provision, it also raises questions regarding transparency, institutional oversight, and long-term fiscal and regulatory sustainability (Calabrese, 2021; Horn et al., 2023). As a result, Africa's engagement with the BRI increasingly reflects a balancing act between leveraging development opportunities and managing the institutional and political economy risks associated with large-scale infrastructure finance.

Overall, Africa's role within China's evolving global governance vision illustrates both the appeal and the limits of development-centered diplomacy. The extent to which the BRI and related initiatives contribute to durable development outcomes will depend less on declaratory principles than on how effectively infrastructure investments are embedded within coherent national strategies, climate frameworks, and institutional systems capable of sustaining long-term economic transformation.

Despite its increasingly sophisticated policy framing, important gaps persist between the BRI's declaratory principles and its on-the-ground implementation in Africa. While the Global Development Initiative and the "Green BRI" emphasize sustainability, inclusiveness, and long-term stability, project execution has often lagged behind these ambitions due to uneven institutional capacity, limited coordination among Chinese actors, and varying host-country governance environments. Empirical studies point to persistent challenges related to project selection, cost overruns, traffic shortfalls, and debt sustainability, particularly where infrastructure investments were not fully aligned with domestic fiscal realities or integrated planning frameworks (Calabrese, 2021; Horn et al., 2023). Moreover, tensions remain between the rhetoric of non-interference and the practical influence exercised through financing terms, contractor dominance, and technology standards, especially in sectors involving digital infrastructure and security. These contradictions do not negate the developmental potential of Africa-China cooperation, but they underscore that outcomes depend critically on implementation quality, institutional oversight, and the ability of African states to translate strategic alignment into operational discipline and long-term asset performance.

6. Future Scenarios for Africa-China Cooperation

Looking ahead, Africa-China cooperation under the Belt and Road Initiative is likely to be shaped less by the aggregate scale of financing than by the quality of institutional frameworks, climate resilience, and economic integration. As sovereign fiscal space tightens across many African economies, infrastructure strategies are shifting from expansive geographic coverage toward fewer, economically justified corridors with clear traffic potential and integration effects (Brautigam, 2023; Cheng, 2024; Fitch Ratings, 2024). Infrastructure investment is increasingly

assessed through its contribution to value-chain upgrading, trade facilitation, and long-term asset sustainability rather than headline lending volumes.

Within this context, Chinese rail and road investments increasingly prioritize strategic continuity over network expansion. Core corridors—such as the Addis Ababa-Djibouti electrified railway, the Mombasa-Nairobi Standard Gauge Railway, and the Lagos-Ibadan axis—function as backbone systems anchoring industrial clusters, logistics platforms, and urban growth poles (see Figure 1). The Core network facilitates trade and mobility within Africa. These rail investments are complemented by feeder-road and highway programs that improve last-mile connectivity, enhance network resilience, and integrate secondary cities and production zones into primary trade corridors, reflecting a shift toward system performance rather than network density.

At the financing level, China's engagement has entered a phase of consolidation. Between 2000 and 2022, Chinese policy banks extended more than USD 170 billion in loans to African governments and state-owned enterprises, enabling rapid infrastructure expansion but also increasing sovereign debt exposure. In response to rising debt vulnerabilities, Chinese lenders have increasingly participated in debt restructuring initiatives, project refinancing, and revenue-linked financing arrangements. This transition marks a move away from balance-sheet-driven lending toward asset-level financial structuring that emphasizes cash-flow generation and risk sharing.

This recalibration has expanded the role of multilateral development banks, particularly the Asian Infrastructure Investment Bank, in Africa-China infrastructure cooperation. AIIB participation—often through co-financing or parallel financing—introduces standardized procurement, environmental and social safeguards, climate risk screening, and long-term asset-management frameworks. AIIB-supported operations in Senegal, Benin, Madagascar, and Algeria illustrate how Chinese construction capacity can be combined with multilateral governance to enhance corridor integration, climate resilience, and operational sustainability.

Beyond Africa, AIIB's financing of Ezhou Huahu Airport in China—the world's first dedicated cargo airport—offers a relevant reference point for corridor-based logistics integration. The project demonstrates how air cargo infrastructure, digital logistics platforms, and industrial clustering can be combined into a unified trade-facilitation system. While geographically distinct, the Ezhou model highlights transferable lessons for African corridors seeking to integrate ports, railways, airports, and digital trade infrastructure into coherent multimodal systems.

Large-scale resource-linked corridors further illustrate the evolving architecture of Africa-China cooperation. The Simandou iron ore project in Guinea integrates mining development with a 650-kilometer trans-Guinean railway and a new deep-water Atlantic port. Unlike earlier enclave-style projects, Simandou emphasizes shared infrastructure access, sovereign oversight, and multi-user corridor design, reflecting a shift toward nationally embedded transport systems with

long-term economic relevance.

Looking forward, three cooperation trajectories appear increasingly salient: a blended corridor finance model combining Chinese financing with MDB co-financing and climate funds; a resilient asset-management model prioritizing rehabilitation, climate proofing, and lifecycle maintenance; and a digital-green integration model centered on smart ports, intelligent transport systems, and renewable-powered logistics. Across all three, outcomes will depend less on financing volumes than on institutional quality, procurement discipline, traffic-risk management, and interoperability with regional trade systems such as the African Continental Free Trade Area. Where African governments can align Chinese delivery capacity, multilateral governance standards, and domestic policy coherence, Africa-China cooperation under the BRI can support durable structural transformation; where alignment is weak, infrastructure risks reinforcing fiscal stress and fragmented connectivity.

7. Artificial Intelligence, Security, and the BRI

The integration of artificial intelligence (AI), big data, satellite services, and autonomous systems has fundamentally transformed the Belt and Road Initiative (BRI) into a hybrid infrastructure-data ecosystem rather than a purely physical connectivity programme. Under the umbrella of the Digital Silk Road, digital layer investments—from fiber backbones and cloud services to smart logistics platforms—are now routinely embedded in corridor planning, reframing connectivity as a compound of physical networks and digital interdependencies (Kozłowski, 2020; Baark, 2024; Reuters, 2025; World Bank, 2024). This shift aligns with broader trends in global infrastructure finance, where investments in digital public infrastructure are seen as conduits of economic transformation, trade efficiency, and regulatory influence.

Across Africa, digital infrastructure capital expenditures have expanded significantly. Recent analyses point to rising investment in broadband network rollouts, fiber expansions, and data center development across Sub-Saharan Africa, with substantial financing needs likely to persist through 2030. These investments are concentrated in fiber networks, data centers, and cloud deployment, which form the backbone for AI-enabled services, smart logistics, and real-time transport optimization—functions increasingly central to modern corridor governance and trade facilitation frameworks (Carnegie Endowment for International Peace, 2025; World Bank, 2024). Such infrastructure not only reduces transaction costs but also shapes standards, interoperability, and data governance regimes that underpin cross-border economic activity (see **Figure 4**).

This digitalization is not neutral: it intersects with state capacity, regulatory frameworks, and sovereign policy choices. Smart logistics systems—such as port community systems, automated customs tracking, and predictive maintenance technologies—can lower clearance times, enhance revenue collection, and strengthen customs enforcement, but they simultaneously embedded technical standards and proprietary platforms that influence long-term governance trajectories.

Figure 4. Data centers: automation, cheaper memory.

For African states, this raises cross-cutting questions about digital sovereignty, data protection, and platform dependence: who controls data flows, under what legal frameworks, and with what implications for competition and privacy?

At the same time, the expansion of digital infrastructure through the BRI and associated platforms intersects with security governance and risk management. As BRI corridors extend into regions marked by political instability, criminality, or insurgent pressures, China's reliance on private security companies (PSCs) and hybrid protection arrangements has become more visible in operational planning (Asia Centre, 2024; Kuo, 2023; Suadoni, 2025). Analyses of PSC engagement highlight the way security protocols and technology deployments advance alongside infrastructure expansion, often operating in complex legal environments that challenge conventional accountability mechanisms while reinforcing China's non-interference narrative.

The outward diffusion of digital governance tools—ranging from cybersecurity systems with large-scale traffic inspection capabilities to surveillance technologies—has also attracted scholarly and policy scrutiny. Investigative reports demonstrate how Chinese digital technology partnerships can produce informational leverage along corridors, shaping the terms of digital engagement and regulatory practice in partner countries (Council on Foreign Relations, n.d.; Taylor & Broeders, 2023; WIRED, 2023; WIRED, 2025). Concurrently, Earth-observation satellites, ground stations, and related services form a persistent layer of data infrastructure that, while offering civilian development value (e.g., environmental monitoring or precision agriculture), also generate dependencies related to data access, standards alignment, and technical servicing (Reuters, 2024).

Empirical evidence from global infrastructure finance underscores rising interest from multilateral institutions in digital connectivity, which both complements and competes with BRI-linked digital investments. For example, the World Bank's International Finance Corporation (IFC) committed USD 100 million to Raxio Group's data center expansion across Ethiopia, Angola, Ivory Coast, Mozam-

bique, and the Democratic Republic of Congo—the largest digital infrastructure investment of its kind in Africa, designed to strengthen data capacity, reduce reliance on external hosting, and empower local governments in cybersecurity and digital regulation (Reuters, 2025). Such multilateral engagements reflect the growing recognition that digital public infrastructure (DPI) is essential for trade efficiency, AI readiness, and competitive participation in the global digital economy (Carnegie Endowment for International Peace, 2025).

Despite these positive trends, Africa still faces a profound technology and capacity gap. Research indicates that no African country has yet reached 20 % overall AI adoption, largely owing to constraints in electricity access, data center capacity, internet penetration, and digital skills—barriers that must be addressed to ensure that AI and related digital investments translate into meaningful economic transformation (Microsoft AI Diffusion Report, 2025; World Bank, 2024). Addressing these gaps requires not only infrastructure finance but also regulatory frameworks, skills development, and interoperable standards that enable inclusive participation in the digital economy.

Overall, the BRI's contemporary trajectory increasingly links physical corridors with digital systems and governance practices. For African states, the central policy challenge is not merely whether to adopt digital systems but how to govern them: establishing transparent procurement processes, robust cybersecurity and data protection regimes, oversight of surveillance technologies, and clear rules on security provision become decisive for ensuring that digitalisation strengthens corridor efficiency without eroding sovereignty, accountability, or institutional autonomy.

8. Multilateralization of the BRI: The Role of AIIB in Africa

The Asian Infrastructure Investment Bank (AIIB) illustrates the gradual multilateralization and institutional normalization of BRI-era infrastructure finance in Africa. While not formally a BRI institution, AIIB operations increasingly intersect with BRI corridors through co-financing, climate finance, and standards-based governance, consistent with the Bank's *Strategy on Financing Operations*, which emphasizes sustainable infrastructure, climate action, and mobilization of private capital under MDB disciplines.

Since commencing African operations in the late 2010s, AIIB has built a modest but strategically significant portfolio on the continent. By the mid-2020s, AIIB's direct commitments in Africa amount to several billion US dollars, typically structured as co-financing alongside the World Bank, African Development Bank, EBRD, EIB, and bilateral partners, with total project sizes often exceeding USD 500 million to USD 1 billion per operation. A substantial share of these operations qualifies as climate finance, in line with AIIB's corporate Climate Finance Target of at least 50 percent of approvals by 2025, particularly in transport, urban mobility, and resilient corridors.

Flagship engagements include co-financed urban rail systems in Egypt support-

ing modal shift and emissions reduction; climate-resilient railway development in Algeria, including technically complex alignments in arid and desert environments; climate-resilient road corridors in Rwanda critical for landlocked trade; and urban mobility, road rehabilitation, and logistics projects in Côte d'Ivoire and Senegal aimed at congestion reduction and improved port access. Across North and East Africa, AIIB has also supported logistics and port modernization initiatives designed to improve throughput, reduce dwell times, and enhance corridor performance.

These operations reflect a clear shift from bilateral infrastructure diplomacy toward rules-based, climate-aligned, and multilateral corridor finance. AIIB projects systematically embedded environmental and social safeguards, standardized procurement, climate-risk screening, and long-term asset-management requirements, directly addressing governance and sustainability challenges observed in earlier investment waves.

Institutionally, AIIB's growing African footprint is reinforced by its expanding membership base: the Bank now counts over 111 approved members globally, including around twenty African members, spanning North, West, East, and Southern Africa. This membership breadth enhances AIIB's legitimacy on the continent and strengthens African negotiating capacity by providing an additional multilateral counterweight alongside traditional MDB and bilateral financiers.

Overall, AIIB's engagement contributes to a gradual "straightening" of Sino-African infrastructure relations: preserving the corridor logic and scale associated with BRI-era investments while reinforcing institutional quality, climate alignment, and the long-term financial and operational sustainability of large infrastructure asset portfolios.

9. Conclusion: Strategic Agency, Multilateralization, and the Future of Connectivity

This article has argued that Africa-China relations in the Belt and Road era are best understood not through binaries of dependency or dominance, but through a dynamic interaction between external geo-economic strategies and evolving African state agency. While the Belt and Road Initiative is frequently portrayed as a Chinese-led global infrastructure project, its manifestation in Africa reveals a more complex political economy in which African governments actively shape, negotiate, and embedded connectivity investments within national and regional development trajectories.

Historically grounded narratives of connectivity—invoking the Silk Roads, South-South solidarity, and post-colonial cooperation—continue to provide political legitimacy to contemporary engagement. Yet the contemporary BRI differs fundamentally from earlier phases of Africa-China interaction in scale, institutional density, and strategic stakes. The transition from discrete, bilateral infrastructure projects toward corridor-based, multi-sectoral connectivity systems marks a structural shift in how infrastructure is conceived: as an integrated plat-

form linking transport, logistics, energy, and digital systems rather than as isolated assets. This shift has profound implications for trade costs, industrial location, and Africa's integration into global and regional value chains.

Empirically, the analysis demonstrates that African states are not passive recipients of this transformation. Across regions, governments have leveraged BRI-financed assets to advance industrial policy, regional integration, and urban development objectives, while simultaneously diversifying external partnerships to improve bargaining outcomes. Competition among China, the European Union, multilateral development banks, and Gulf investors has expanded African policy space, enabling more selective engagement and greater attention to institutional quality, climate resilience, and lifecycle asset performance. Where corridor investments are embedded within coherent national strategies and supported by institutional reforms, they have contributed to measurable logistics gains, reduced trade frictions, and enhanced state capacity.

At the same time, the article highlights the limits and contradictions of development-centered diplomacy. The gap between the BRI's declaratory ambitions—particularly under the Global Development Initiative and the "Green BRI"—and on-the-ground implementation remains significant. Challenges related to debt sustainability, project selection, traffic risk, governance capacity, and digital regulation underscore that infrastructure-led development is neither automatic nor politically neutral. The growing integration of artificial intelligence, digital platforms, satellite systems, and security arrangements further complicates the governance landscape, transforming connectivity into a compound of physical mobility, data governance, and risk management. These dynamics raise critical questions about digital sovereignty, regulatory oversight, and long-term control over strategic infrastructure systems.

Within this evolving landscape, the increasing role of multilateral development banks—most notably the Asian Infrastructure Investment Bank—signals a gradual multilateralization and institutional normalization of BRI-era infrastructure finance. And introducing standardized procurement, environmental and social safeguards, climate alignment and asset-management frameworks, AIIB and other MDB help reconcile the scale and delivery capacity associated with Chinese infrastructure finance with rules-based governance and sustainability objectives. This convergence suggests that the future of Africa-China cooperation will be shaped less by the volume of capital mobilized than by the quality of institutional embedding, climate resilience, and interoperability with regional trade systems such as the African Continental Free Trade Area.

Ultimately, the developmental consequences of the BRI in Africa will depend on African states ability to govern connectivity rather than merely host it. Strategic agency—expressed through policy coherence, institutional capacity, and the disciplined sequencing of infrastructure investments—will determine whether geo-economic competition and digital transformation translate into structural transformation or reinforce new forms of asymmetric interdependence. The Belt

and Road Initiative is neither a singular opportunity nor a deterministic threat, but a contested and evolving framework whose outcomes are shaped as much in African capitals as in Beijing.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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