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CHAPTER 9

Infrastructure

Tim Zajontz

Background

Pan-African cooperation in the development and management of key infrastructure has long been considered pivotal for economic integration and auto-centric economic development in Africa. In 1965, Ghanaian President Kwame Nkrumah claimed that

[t]ransport and communications are also sectors where unified planning is needed. Roads, railways, waterways, airlines must be made to serve Africa's needs, not the requirements of foreign interests (Nkrumah 1965, 30).

Yet, ideological and political divides within the Organisation of African Unity (OAU), alongside post-independence development strategies that first and foremost aimed at nation-building, have long curtailed joint efforts in improving the continent's infrastructure. It was arguably not until 2001 that infrastructure development in the sectors of energy, transport, information and communication technologies (ICT) as well as transboundary water resources consolidated as a distinct policy field at the continental level. In the New Partnership for Economic Development (NEPAD), African Heads of State and Government acknowledged that

unless the issue of infrastructure development is addressed on a planned basis – that is, linked to regional integrated development – the renewal process of the continent will not take off (African Union 2001, §194).

The African Union (AU) has since identified cross-border and regional infrastructure projects as key in facilitating continental integration and social and economic development. This prioritisation has been in line with the return of infrastructure

on[to] mainstream development agendas, with Western donors and international development banks returning to previous development strategies after decades of disregarding infrastructure investments (Wethal 2019, 473–474; see also Nugent 2018).

Debates within the AU and African Regional Economic Communities (RECs) are uniformly characterised by expectations that the improvement of economic infrastructure will boost intra- and inter-regional trade on the continent, spur economic growth and facilitate the continent's integration into the global economy (Ncube et al. 2017). Indeed, the African Development Bank (AfDB) acknowledges that the relationship between infrastructure and economic growth is, even amongst mainstream economists, not uncontroversial and, ultimately, 'heterogeneous and heavily dependent' on other, not least political, contextual factors (AfDB 2018, 68). Nonetheless, African decision-makers, AU officials and technocrats, external development partners, such as the European Union (EU) and the People's Republic of China, development banks and foreign investors commonly agree that infrastructure deficits constitute a negative locational factor which undermines Africa's competitiveness and, hence, inhibits the unlocking of the continent's economic potential (see, for instance, Schwab 2019, 13). Poor economic infrastructure is not least a main driver of logistics costs which drive up both prices for consumer goods and overall costs for doing business on the continent (AfDB 2018, 66; see Arvis et al. 2018). Overall, it is assumed that 'the economic benefits that Africa could draw from improved infrastructure are higher than those for other regions' (AfDB 2018, 66).

A long-term legacy of colonial spatial planning and exploitation, Africa's infrastructure still trails behind in global comparison. In 2013, Africa had a density of paved roads of 2 km per 100 km², compared to Latin America (3 km), Asia (25 km) and Europe (122 km) (AfDB 2018, 76). According to World Bank statistics, only 47.7 per cent of people in Sub-Saharan Africa had access to electricity in 2018, compared to 96.5 per cent of the population in the Middle East and North Africa, 98 per cent in East Asia and the Pacific, 98.3

per cent in Latin America and the Caribbean and 100 per cent in both Europe and North America (World Bank [2021]). Equally, access to safely managed drinking water and sanitation services remains severely restricted in many parts of Africa (see UNICEF and WHO 2019, 7–8). Africa’s ICT infrastructure also lags behind: About 300 million Africans live more than 50 kilometres away from a fibre or cable broadband (OECD/ACET 2020, 12).

Unsurprisingly, infrastructure features very prominently in the AU’s *Agenda 2063*. ‘[B]ased on the ideals of Pan-Africanism and the vision of Africa’s Renaissance’, the AU aspires to ‘[h]ave world class, integrative infrastructure that criss-crosses the continent’ by 2063 (AU 2015, §20). The *Agenda 2063* emphasises the role of rail, road, sea and air transports as well as gas and oil pipelines, water networks and ICT broadband cables as ‘catalyst[s]’ for continent-wide, cross-sectoral economic development. Explicit reference is made to the Pan-African High Speed Train Network, trans-continental transport corridors and to the expansion of sustainable energy as well as ICT infrastructures (ibid., §§25, 72[g]) (African Union 2015, §§25, 72[g]). Infrastructure upgrades, flanked by trade facilitation measures, are expected to increase intra-African trade from 12 per cent (where it stood in 2013) to 50 per cent by 2045 (ibid., §26).

The coming into force of the African Continental Free Trade Agreement (AfCFTA) in 2019 (see Erasmus, chapter 9, this Yearbook) has added urgency to coordinated continental and (inter)regional infrastructure planning and development. As a recent report puts it, the AfCFTA

will foster the transformation of African economic geography with new cross-border linkages within the continent and to the global economy. However, lack of quality infrastructure is a binding constraint on the development of regional value chains (OECD/ACET 2020, 12).

Inversely, for the AfCFTA to yield social and economic benefits for Africans, the continent needs social, transport, energy and digital infrastructures that not only foster global connectivity but also facilitate intra-regional trade and the movement of people, goods and services across Africa. Accordingly, in his acceptance speech during the 33rd AU Assembly on 9 February 2020, the then incoming AU Chair, South Africa’s President M. Cyril Ramaphosa, emphasised that

[t]he success of the AfCTFA depends on [i]nfrastructure development. We must all drive the implementation of the Presidential Infrastructure Champion Initiative, so that priority and high-impact projects act as catalysts for the AfCFTA (African Union 2020a).

The emergence of infrastructure as a distinct policy field at the AU level has been accompanied by several institutional reforms to facilitate coordination amongst continental, regional and national actors and programmes.

The Institutional Landscape

For the first decade of the AU's existence, infrastructure policy and programmes were rather loosely coordinated amongst relevant departments within the AU Commission (AUC), NEPAD's Planning and Coordinating Agency and the specialised technical committees (STCs) that were carried over from the OAU's institutional set-up by means of Art. 14 of the *AU Constitutive Act* (OAU 2000, Art.14, §§ 1-3). STCs are composed of the responsible ministers and high officials from the member states and provide input to the Executive Council in their respective policy realms. In 2009, the Assembly decided to increase their number and adjust their sectoral responsibilities to match the AU's broadened integration agenda (AU Assembly 2009). Yet, most STCs were not fully operational and sufficiently staffed until the second half of the 2010s. There are two STCs which have been particularly concerned with infrastructure-related matters: the STC on Transport, Intercontinental and Interregional Infrastructures, Energy and Tourism (STC-TIIET)¹ and the STC on Communication and Information Communications Technology (STC-ICT) (AU Commission 2014, 24).

¹ It took until March 2017 that the STC-TIIET convened for its first ordinary meeting in Lomé, Togo. At this occasion it established three sub-committees on energy, on transport and on tourism.

In 2012, the continental institutional landscape in the infrastructural realm underwent major reform. To streamline cooperation within the infrastructure sector amongst AU institutions, regional economic communities, member states and other stakeholders, the 18th ordinary session of the AU Assembly adopted the Programme for Infrastructure Development in Africa (PIDA) as well as the Institutional Architecture for Infrastructure Development in Africa (IAIDA) (AU Assembly 2012). PIDA brings together all key players that are involved in infrastructure development at the continental level, notably the AUC, the AU Development Agency which emerged from NEPAD (hence its compositive acronym AUDA-NEPAD), the AfDB and the United Nations Economic Commission for Africa (UNECA).

The IAIDA in turn has a dual structure comprising decision-making and implementing bodies. Within the former, the AUC's Department of Infrastructure and Energy oversees infrastructure policies and prepares decision-making on infrastructure-related matters for the Council for Infrastructure Development (CID). Hereby, the AUC is advised by the Infrastructure Advisory Group which convenes infrastructure experts and high-level officials from relevant bodies at least biannually. The CID for its part is composed of top officials from the AUC, the RECs, the AfDB and UNECA and provides programmatic guidelines for the sector, arbitrates and approves programmes and harmonisation measures in the sector and advises the STCs and the Executive Council, which in turn is answerable to the Assembly of Heads of State and Government. At the centre of the implementation structure in the infrastructure sector is the AUDA-NEPAD which coordinates the implementation of projects with key stakeholders, such as the RECs, AfDB, UNECA, various development partners and specialised agencies. In the case of PIDA, this has taken on the form of the PIDA steering committee (AU Commission 2017).

Two other institutions have been established to spur cross-border and regional infrastructure development and increase commitment to the same amongst AU member states. Born out of a proposal from then President of South Africa Jacob Zuma, the Presidential Infrastructure Champion Initiative (PICCI) was endorsed by the AU Assembly in 2011, and commissioned selected Heads of State to foster the speedy implementation of eight major projects in the transport, energy, ICT, and water sectors (AU-PIDA [2021b]). Despite the political weight of their 'champions', not all of the projects have made the desired implementation progress. In his role as AU chairperson during 2020, South African President Ramaphosa reiterated that

[t]he PICI must play a key role in meeting the aspiration of Agenda 2063 of increasing inter and intra-regional trade[,] of improving road rail and port infrastructure in the region, of using financial institutions to collaborate with the private sector to expand on the continent, and of identifying and promoting practical opportunities based on complementary national endowments (SABC 2020).

In October 2018, the AUC Chairperson, Moussa Faki Mahamat, appointed Raila Odinga, Kenya's former Prime Minister, to become the AU's High Representative for Infrastructure Development, underlining the importance the AUC meanwhile attaches to infrastructure as a supranational policy field. Whilst the PICI in a sense reflects deeply entrenched logics of intergovernmentalism (and presidentialism) in AU politics, the High Representative for Infrastructure Development can plausibly be seen as an attempt at strengthening the Union's supranational agency in setting the agenda in the policy field and in actively engaging both the RECs and member states on infrastructure-related matters of common concern.

Major Developments in 2020

Just as other policy realms, developments in the AU's infrastructure portfolio were crucially affected by the Covid-19 pandemic. On 21 April 2020, tourism ministers met under the umbrella of the STC-TTIET subcommittee on tourism to discuss measures to cushion detrimental effects of the pandemic on the tourism industry. The subcommittee set up a high-level task force to develop a Post-Covid-19 Continental Tourism Recovery Strategy (African Union 2020b). Two days later, the subcommittee on transport of the STC-TTIET conferred to discuss strategies in the transport sector to support the fight against the spread of the pandemic. The transport ministers urged member states and relevant agencies to ensure the circulation of critical cargo, including foods and medical supplies, on the sea, on land and in the air. At the same time, the subcommittee called on member states to put in place appropriate measures 'to avoid transport to be a vector of spreading of the pandemic' (African Union 2020c). On 5 May 2020, the Bureau of the STC-ICT convened to enhance IT-based cooperation and exchange of information and best practices to contain the pandemic as

well as to accelerate the implementation of the African Strategy for Digital Transformation with the aim of increasing the continent's resilience to health crises. The meeting also considered the establishment of an AU Digital Fund to leverage finance for the improvement of ITC infrastructure and digitalisation on the continent (African Union 2020d).

The *Digital Transformation Strategy for Africa (2020–2030)* was previously adopted by the AU Assembly on 9 February 2020. It foresees the realisation of an African Digital Single Market by 2030. Concrete goals of the strategy include the digital empowering of all Africans by providing safe and secure access to a bandwidth of at least 6 mb/s at a price of no more than \$0.01/mb all across the continent, whereby at least 30 per cent of e-services and content should be developed and hosted in Africa. By 2030, 99.9 per cent of Africans should also have a digital legal identity as part of a civil registration process (African Union 2020e, 3). Needless to say, these objectives will require immense efforts to expand (cross-border) ICT infrastructure on the continent. Another subsector that received significant attention in 2020 was electricity.

Establishing a Single Electricity Market

Throughout 2020, the AU made some notable progress in the preparation of a framework for the establishment of the African Single Electricity Market (AfSEM). The AfSEM is expected to gradually harmonise policies as well as regulations and technical norms and standards, address financing needs and market barriers with the aim of having a fully integrated African electricity market by 2040 (African Union 2020f). At a roundtable with key stakeholders in October 2020, AUDA-NEPAD and the AfDB released recommendations from a baseline study on the development of a continental energy grid and market. The study, which was funded by the EU Technical Assistance Facility, constituted the first phase in developing a continental transmission masterplan with which AUDA-NEPAD was tasked by the STC-TTIIET (African Union 2020g). The ordinary (virtual) meeting of the STC TTIIET on energy on 1 December 2020 endorsed the AfSEM policy paper as well as a proposal for a roadmap and governance framework. At the meeting AU Commissioner for Infrastructure and Energy, Dr Amani Abou-Zeid, underscored that

[s]ignificant mobilization and coordination strides are required to effectively engage stakeholders in addressing the key barriers to energy sector development on the

continent including policy, regulatory, technical, financing and market barriers (African Union 2020g).

The AfSEM policy paper, road map and framework were validated by the 1st extraordinary meeting of the STC-TTIIET on 14–15 December 2020 in preparation of the upcoming 34th AU Assembly to be held on 6–7 February 2021. Going forward, the study recommends the establishment of a permanent technical unit responsible for the masterplan, which ensures smooth coordination as well as skills transfer between the AU and the five regional power pools and aligns the plan with existing infrastructure projects, including PIDA energy projects (ibid.).² The speedy realisation of the AfSEM is not least highly dependent on the success of major energy generation projects across the continent as well as on connective hard infrastructure, such as transmission lines. The revision and reorientation of PIDA towards an Integrated Corridor Approach (ICA) was therefore a crucial development in 2020.

Realigning the Continental Infrastructure Agenda: PIDA's Second Priority Action Plan

The AU's PIDA underwent profound programmatic realignments in 2020. As the project period of the first Priority Action Plan (PAP 1; 2012–2020) came to an end in 2020, the year was marked by the evaluation of PAP 1 and the preparation of PAP 2 (2021–2030). The PAP 1 included 51 cross-border or regional programmes, made up of over 400 individual projects, in the sectors transport (232), ITC (114), energy (54) and water resources (9) (AU-PIDA [2021c]). According to the AUC, PAP 1

resulted in an increase of 16,066 KM of roads, 4,077 KMs of railways, 3,506 KM of power transmission lines, and 17 additional Member States connected with regional fibre optic cables. Through constructed and operational PIDA projects, 112,900 jobs were directly and 49,400 indirectly created (African Union 2021, 15).

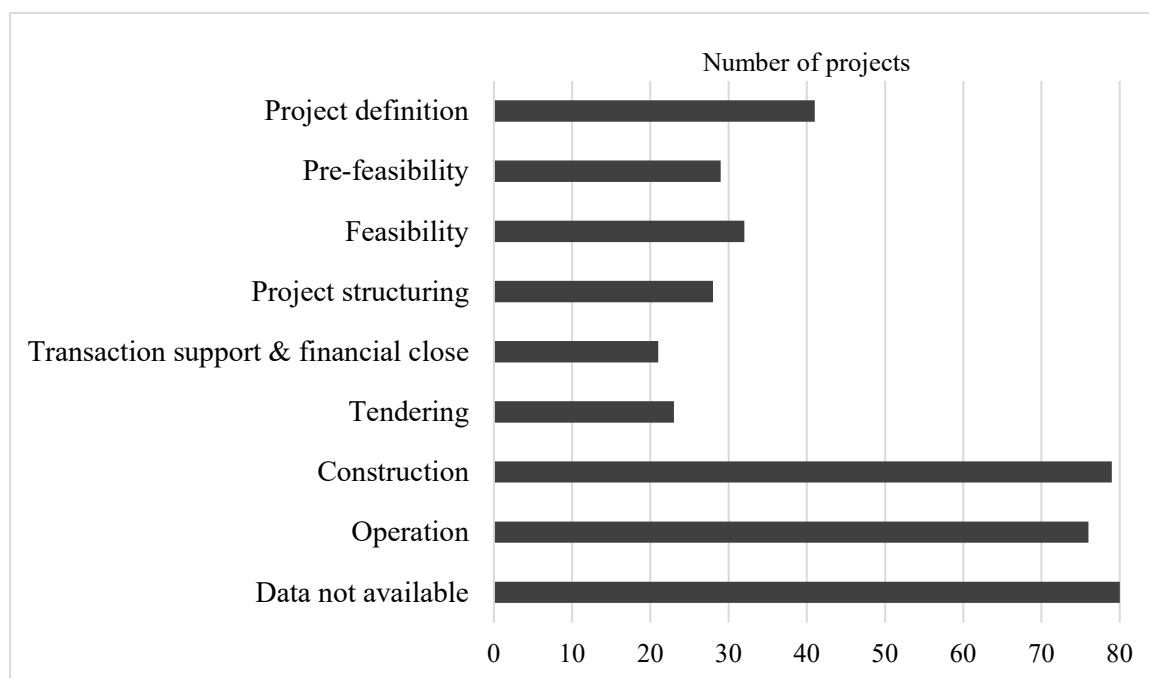
² The five power pools are the Central African, East African, Southern African and West African Power Pools as well as the Maghreb Electricity Committee. For their respective membership and a discussion of energy governance on the continent, see Medinilla et al. (2019).

As graph 9.1 shows, by the end of the PAP 1 period projects had reached different stages of implementation. Whilst a mid-term review of PIDA PAP 1 attested to the overall positive social and economic impacts of the programme, it also revealed that

not all of the selected PIDA projects were considered priorities at their country level, leaving them without the much-needed political support and hindering their progress (AUDA-NEPAD 2020, 28).

These findings are emblematic for the overall slow implementation of cross-border and regional infrastructure projects on the continent and are not least a result of divergent priority-setting at national, regional and continental levels of infrastructure governance, a problem that is exacerbated by the scarcity of infrastructure finance. As national governments bear the brunt of infrastructure financing costs, project prioritisation is ultimately often determined by national political considerations, despite governments' official commitments to AU and regional initiatives. An evaluation report on regional infrastructure development commissioned by the Southern African Development Community (SADC) finds that 'national governments have a tendency to look inwards at their national priorities' and identifies a 'shift in priority by Member States in terms of infrastructure projects that they are implementing' – from regional towards national projects, with the former usually not being factored in in national budget planning (SARDC 2019, 59, vii). Inconsistencies have also arisen from the fact that infrastructure development plans of the RECs have not always been neatly aligned with AU programmes, a governance challenge that the AU has tried to address when reprogramming PIDA for its second PAP.

Graph 1: Implementation stages of PIDA PAP 1 projects, as of February 2021



Source: Author's compilation, based on AU-PIDA (n.d.)

The evaluation of the PAP 1 further identified challenges related to fiscal limitations and infrastructure financing, constraints in both the construction sector and administrative capacity, constraints arising from climate change and the environment, issues of political stability and political commitment and concerns about gender inclusivity (AUDA-NEPAD 2020, 29). To prepare the transition to PAP 2, the AUC in 2019 commissioned a market and demand study to determine regional infrastructure needs across the subsectors of transport, energy, ITC and water. The study projected, until 2030, annual growth rates of 6.5 per cent in road passenger-kilometres, of 3.9 per cent in rail freight tonne-kilometres, of 6.7 per cent in electricity consumption, 9.3 per cent in fixed broadband users and of 3.1 per cent in water consumption (ibid., 30).

In consultation with the member states and RECs as well as with stakeholders from civil society, the AUC and the AUDA-NEPAD developed an Integrated Corridor Approach (ICA) as the guiding concept for PIDA's PAP 2 with the aims of addressing identified constraints, incorporating Agenda 2063 principles and improving the effectiveness, impact and sustainability of PIDA projects. The ICA has two main characteristics: (1) it prioritises cross-sectoral infrastructure, whereby different infrastructure sectors, such as transport, energy and ICT, are planned in a coordinated manner and linked to create synergies; and (2)

it emphasises projects that maximise employment creation, gender sensitivity, climate friendliness and urban-rural connectivity (ibid., 31; African Union 2020h, 7–8). The ICA translated in a revision of the selection criteria for PAP 2 projects. Eligibility criteria were projects’ ‘Strategic alignment and Regional Commitment’ and the ‘Regional nature of the project’, which should ‘ensure only regional projects that are priority for RECs and MS [member states] will be considered’ (African Union 2020h, 11). Once eligible, projects were assessed according to the following criteria: multi-sectoral planning of physical assets, job creation, environmental impact and climate resilience, gender-sensitive planning and implementation, urban-rural connectivity, economic viability, fundability and bankability, innovation, and smart technologies (African Union 2020h, 12–13; AUDA-NEPAD 2020, 32).

Between January and June 2020, AU member states could submit project proposals for PIDA-PAP 2 via their respective REC. In parallel, the AUC and AUDA-NEPAD engaged in ‘regional consultations to facilitate joint analysis and project evaluation with PIDA stakeholders’, including the RECs, to ensure the programmatic coherence of PIDA-PAP 2 and its alignment with the African Union 2063 vision (African Union 2020h, 18). In January 2020, stakeholders were trained in a three-day workshop in Addis Ababa on the selection criteria for PAP 2 projects as well as on the ICA. Further (virtual) meetings followed with officials from specific RECs and their member states. In total, 240 projects were proposed by member states, RECs and specialised institutions from which 73 were put forward for consideration. The STC-TTIET convened in an extraordinary (virtual) session on 14–15 December 2020 to finalise preparations for the PAP 2. Under the theme of ‘Setting Africa’s Infrastructure Priorities for the Next Decade’, the STC meeting approved the PIDA PAP 2 process as well as strategies for its implementation, financing and partnerships. It also finalised the priority list of now 69 projects – to be validated by the ministers in charge on 12 January 2021 and for approval by the AU Assembly on 7 February 2021. Before turning to the long-standing challenge of infrastructure financing, the gender dimension in the policy field of infrastructure requires attention.

Infrastructure and Gender Sensitivity

Concerns relating to gender inclusivity in the context of the planning, implementation and delivery of infrastructure have played an increasingly important role in the formulation and implementation of AU infrastructure policies in recent years. The concept of gender-sensitive

infrastructure has further gained momentum since Dr Amani Abou-Zeid is in charge of the AUC's infrastructure and energy portfolio and has significantly impacted policy formulation, including PIDA PAP 2. In 2020, two policy documents were developed by the African Network for Women in Infrastructure (ANWIN), which was officially recognised by the AU in 2019 and was consulted during the preparation of PIDA PAP 2. The guidelines for Gender-Responsive Infrastructure Development (GRID) offers concrete guidelines for member states and RECs for the gender-sensitive planning, procurement, and implementation of infrastructure projects and the PIDA Gender-Responsive Infrastructure Policy Brief (GRIPB) outlines 'gender-smart infrastructure policy areas' that are in need of further dialogue and reform (AU-PIDA 2020). The Commissioner emphasised at a webinar organised by ANWIN in November 2020 that

we want to make sure that the sector generates jobs for skilled women professionals, ensure gender-responsive procurement, enhance the participation of women-led enterprises in the supply and value chains, and help women to make the best out of digitalization (quoted in AU-PIDA 2020).

AUDA-NEPAD has aimed to strengthen gender sensitivity in the infrastructure sector by aligning all PIDA instruments with the Gender-Responsive Infrastructure Development Guidelines that were developed by ANWIN during the stakeholder consultations in preparation of PIDA PAP 2 (ibid., 35). The review of PIDA PAP 1 revealed that 'gender issues have not been sufficiently addressed or mainstreamed in the design or project selection criteria' (African Union 2020i, 28). Amongst the challenges identified has been the limited participation of women in the infrastructure value chain, with access to finance remaining one of many obstacles for women-owned businesses and (sub)contractors (ibid., 29–30). Each PIDA PAP 2 project is thus screened to focus on increasing the share of women in the infrastructure value chain through appropriate gender-sensitive measures in the procurement process. The AU suggests that these may include preferential treatment of women-owned small and medium-sized businesses or gender-certified businesses as subcontractors; capacity building for both contractors and procuring authorities to increase women's participation; training of female business owners to obtain national certification; the inclusion of evaluation criteria in bidding documents that aim at encouraging female contractors, suppliers or

vendors; the establishment of standards for bidders to demonstrate gender-inclusiveness; and the establishment of gender responsive monitoring and reporting systems (ibid., 30). It is too early to determine the success of these measures. In the last section I shall now turn to Africa's chronic 'infrastructure funding gap' and recent changes in the landscape of infrastructure finance on the continent.

Africa's Infrastructure Finance Gap and the Changing Landscape of External Involvement

Access to finance for infrastructure development has remained a major challenge in Africa. The African Development Bank estimates Africa's infrastructure yearly infrastructure financing gap at \$68–108 billion (AfDB 2018, 63). Not least in order to attract funding for capital-intensive investments in infrastructure, the AU depends on the cooperation with external actors, such as the EU and China, which over the past decade has become a key player in Africa's infrastructure sector. According to the Infrastructure Consortium for Africa (ICA) figures, infrastructure finance totalled \$100.8 billion in 2018, with \$37.5 billion thereof emanating from African government coffers. As Table 9.2 shows, China has meanwhile become Africa's largest bilateral infrastructure financier, contributing about a fourth of the continent's infrastructure finance in 2018 (ICA 2018, 4). As a recent study, published by the Organisation for Economic Co-operation and Development (OECD) and the African Center for Economic Transformation, puts it, there is a 'striking evolution of African governments using significant Chinese financing for infrastructure development ... in order "to get things done"' (OECD/ACET 2020, 15).

Table 2: Funding for African infrastructure by source (in \$m)

	2015	2016	2017	2018
ICA members*	19,832	18,615	19,650	20,243
France	2,445	2,887	2,123	1,936
Germany	1,139	1,127	838	1,608
Japan	1,768	1,941	2,361	517
US	307		292	297
South Africa	929	1,211	497	1,055
AfDB	4,166	3,956	3,364	4,538
European Investment Bank	1,414	1,250	1,852	2,225
World Bank Group	6,285	4,055	7,516	7,989
Other ICA members	1,379	2,188	807	78
Non-ICA members	51,687	45,766	59,592	68,736
African governments	24,000	30,700	34,345	37,525
China	20,868	6,413	19,403	25,680
India	524	1,197	704	762
African regional development banks	419	924	541	328
Arab Coordination Group	4,412	5,528	2,985	2,442
European Bank for Reconstruction & Development	638	105	1,327	744
New Development Bank		180		500
Other non-ICA bilaterals/multilaterals	826	719	287	755
Private Sector	7,400	2,600	2,320	11,824
TOTAL Financing	78,919	66,981	81,562	100,803

Source: Author's compilation, based on ICA (2018, 8) * Membership: G8 members (Canada, France, Germany, Italy, Japan, Russia, United Kingdom, USA), South Africa, the World Bank, International Finance Corporation (IFC), European Commission (EC), European Investment Bank (EIB), Islamic Development Bank (IsDB), African Development Bank (AfDB), Development Bank of Southern Africa (DBSA)

To raise more infrastructure finance within Africa the idea of establishing a dedicated infrastructure fund had been floating for several years within AU and AfDB circles. Its realisation has picked up momentum in 2020 due to the Covid-19 pandemic and its negative effects on public budgets as well as on the availability of loan finance from development partners (including China) and financial markets. In November 2020, the AU High Representative for Infrastructure Development, Raila Odinga, hosted the second high-level dialogue on infrastructure development, titled the Africa Infrastructure Boma. The gathering was specifically concerned with post-pandemic infrastructure funding and Odinga unveiled the framework for an AU infrastructure fund (AIB [2021]). To raise capital for the envisaged fund the AU plans to invite sovereign wealth as well as insurance and retirement funds in countries like Angola, Egypt, Kenya, Morocco, Nigeria and South Africa to invest up to five per cent of their holdings in continental infrastructure projects. The fund is planned to be administered by AUDA-NEPAD (Miriri 2021). In a Reuters interview Odinga explained that

the recent slow-down in infrastructure lending, not least from China, required the AU ‘to think out of the box’ (quoted in Miriri 2021). Whilst a legal and regulatory framework for an AU infrastructure fund is currently prepared by AUDA-NEPAD, the AU and its member states will remain dependent on external loan finance, grants and investments at least in the medium term. This section therefore briefly recounts how AU infrastructure policies and programmes are shaped by Western actors and China.

Cooperation with the European Union and the US

Reflecting the AU’s general challenge of donor dependency (see Engel, chap. 3, this Yearbook), the AU’s Institutional Architecture for Infrastructure Development and PIDA have been heavily co-funded by development partners. External actors, such as the European Commission, the German *Gesellschaft für Internationale Zusammenarbeit* (GIZ), the Japan International Cooperation Agency and the UK’s former Department for International Development, have financed overhead or project costs and/or provided technical advice to PIDA (see AUDA-NEPAD n.d.).

In 2020, the EU, through the African Union Support Programme, also stepped in to fund PIDA’s capacity building programme, which was previously supported by the AfDB (AUDA-NEPAD 2020, 60). Considering the EU’s crucial role in co-funding the IAIDA and AU infrastructure policy formulation and evaluation, some developments in Brussels are noteworthy, as they can be expected to co-determine AU infrastructure policies. In March 2020, the European Commission proposed a new comprehensive strategy with Africa in anticipation of the 6th AU-EU Summit in October, which was later postponed to 2021. It clearly underscores the strategic importance the EU attributes to cooperation between the two blocs in the infrastructure sector. Out of five proposed partnerships, the first two are a ‘partnership for green transition and energy access’ and a ‘partnership for digital transformation’, emphasising the need of infrastructure that allows for green and climate-resilient energy production and ICT infrastructures to support the continent’s digitalisation (European Commission 2020, 2). Both of these ‘partnerships’, at first glance, appear in line with the AU’s Digital Transformation Strategy as well as with the Union’s ambitious goals in the energy sector. A lot will however depend on their operationalisation and, not least, on the availability of funding.

EU funding for infrastructure projects in Africa underwent changes in 2020, as the EU Infrastructure Trust Fund for Africa (EU ITF), which had been launched by the European Commission and 13 member states in 2007, was discontinued with the end of 2019. In its lifetime, the EU ITF had raised €763 million in grants for 123 infrastructure projects and leveraged investments in the sector worth €11.4 billion. Crucial to AU infrastructure programming, the fund had a dedicated regional envelope which specifically targeted cross-border projects (EIB [2021]). As of 2020, EU grants and concessional loans for African infrastructure projects are now administered under the EU External Investment Plan and, hence, compete with many other sectors for EU finance. Generally, a significant increase in EU funding for African infrastructure seems unlikely, considering that the post-pandemic recovery of European economies will incur immense costs for at least a decade.

A rapid increase in US loan finance and/or investments in Africa's infrastructure sector under the Biden administration cannot be expected either. The memorandum of understanding that governs US-AU cooperation under the 'Power Africa' programme, former President Obama's signature initiative which aims at boosting Africa's electricity generation capacity, was renewed on 17 September 2020 in a virtual ceremony attended by the US Ambassador to the AU, Jessica Lapenn, and AUDA-NEPAD CEO Ibrahim Mayaki (AUDA-NEPAD 2020, 61). It is possible that 'Power Africa' might pick up momentum under the new US administration which will have to offer viable alternatives to Chinese loan-debt investments in Africa, instead of only criticising the latter, as happened under Trump.

Chinese Infrastructure Loans and the Question of Debt Sustainability

Over the past decade and a half, Chinese policy banks and firms have become increasingly important in financing, constructing and, in some cases, operating infrastructure on the African continent which has, according to some, caused a 'Global Race to Build Africa's Infrastructure' (see Gil et al. 2019). Since 2013 mostly under the umbrella of the Belt and Road Initiative (BRI), Chinese state-owned and private enterprises have gotten involved in the implementation of regional infrastructure projects that have long been planned by the AU and/or RECs, for example the Mombasa-Kigali railway project, the Lamu Port-South Sudan-Ethiopia-Transport (LAPSSET) Corridor or the Grand Inga Dam project in the Democratic Republic of Congo. China, which has meanwhile the world's longest high-speed railway network and is world market leader in high-speed rail technology, is also considered a crucial

partner in the implementation of the AU flagship project of the integrated high-speed railway network.

In 2015, the African Union signed a Memorandum of Understanding with the Chinese government to spur cooperation in developing continental transport networks, including high speed railways, aviation and highways, and other infrastructures to support Africa's industrialisation. China has since repeatedly committed to support AU initiatives, such as PIDA and PICI which were explicitly mentioned in the Johannesburg Action Plan that was announced at the 6th Forum for China-Africa Cooperation (FOCAC). The Beijing Action Plan, a proceeding of the 2019 FOCAC, further pledged

to explore and advance cooperation and projects promoting continental, regional and sub-regional connectivity. China has decided to jointly formulate a China-Africa infrastructure cooperation plan with the African Union (quoted in Otele 2020, 9).

This has led some observers to suggest that the 'China-Africa partnership in infrastructure development has taken a transformational shift from a national orientation to a regional and continental approach' (Vhumbunu 2016, 271).

However, China's growing involvement in Africa's infrastructure sector has not always fostered continental regional integration but, in some cases, arguably even reinforced frictions within RECs. China's strategic engagement with East Africa, a pivotal region within the BRI, has exacerbated 'infrastructural competition' between Kenya and Tanzania, which are involved in a race to upgrade port infrastructure, build pipelines and construct Standard Gauge Railways along the Northern and Central Corridors. As Otele underlines,

China's bilateral approach in funding regional infrastructure projects is also threatening regionalism. ... China in its engagement on the continent appears to ignore regional institutions key to setting Africa's regional infrastructure agenda. ... China's bilateral approach in the region ... [acts] as a regional sub-system wrecker (Otele 2020, 12–13).

Indeed, Kenya and Tanzania are currently involved in a railway race between the Northern and Central corridors with little consideration for the integration of a regional railway network.

Throughout 2020, China's extensive loan financing for African infrastructure has caused further controversies in the light of the Covid-19-induced economic contraction and rapidly waning debt sustainability in African countries that have extensively relied on Chinese infrastructure loans. External debt (owed to China and other creditors) has significantly limited the fiscal space for governments in Lusaka, Nairobi, Djibouti, or Addis Ababa. Zambia defaulted on Eurobond payments in November 2020, whilst several African governments had to engage creditors in negotiations on debt restructuring (Carmody et al. 2021; Zajontz 2020). The waning debt sustainability of some African key participants in the BRI as well as the questionable economic feasibility of some of the initiative's 'flagship projects' has again underlined the importance of prudent (financial) governance of Africa's recent infrastructure 'boom', which was partly enabled by the 'moving out' of Chinese surplus capital and materials (Taylor and Zajontz 2020). Hence, analysts have rightly argued that

it would be prudent to share lessons learned from one country to another on how to negotiate with China given that the balance of power will often be tilted in China's favour. Another option for greater leverage in negotiations would be to negotiate as a block where relevant, for example under the umbrella of the African Union (AU) (Phiri and Mungomba 2019, 20–21).

Besides the FOCAC, the BRI Forum has become an increasingly important institutional platform for African governments to collectively raise mutual concerns that prevail in the context of BRI infrastructure projects. The former Deputy Chairperson of the AUC, Erastus Mwencha, as well as former Egyptian Prime Minister, Essam Sharaf, are currently members of the Advisory Council of the Belt and Road Forum for International Cooperation. The Advisory Council met virtually on 18 December 2020. According to official Chinese sources, the Council recommended enhanced cooperation within the BRI to coordinate Covid-19 responses of participant states and to boost economic recovery in the post-pandemic era. Infrastructure construction and the enhancement of digital infrastructure connectivity through the expansion of 5G networks and big data technology were seen to play a key role in such efforts (China MFA 2020).

Outlook

The year 2021 will be decisive to kick-start PIDA's second PAP as well as to accelerate cross-border and regional infrastructure development in line with the *Agenda 2063* and with the aim to create synergies for the AfCFTA. It will be pivotal for the re-elected AUC Chairperson and his new Deputy, Dr Monique Nsanzabaganwa, to convince African Heads of State and Governments that more supranational coordination and commitment to regional initiatives are needed to ensure that infrastructure projects are in line with long-term regional and continental development objectives, instead of serving short-term national political goals. Raising sufficient infrastructure finance against the background of the pandemic-induced economic contraction and waning debt sustainability will remain another main challenge for the AU, the RECs and member states. Progress in the policy field of infrastructure will therefore not least be dependent on the AU's engagement with external actors. A coordinated and strategic AU approach is necessary to engage the EU during the upcoming AU-EU summit on matters such as cooperation in green energy and digitalisation as well as China which thus far has preferred to negotiate African infrastructure on a bilateral basis. Both the FOCAC summit and the 3rd Belt and Road Forum are planned for 2021. These events will significantly co-determine China-Africa cooperation in the infrastructure sector and its funding for the coming years. The AU could play a proactive role in shaping these agendas.

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- Africa Infrastructure Knowledge Program

<http://infrastructureafrica.opendataforafrica.org/>

- AU Department of Infrastructure and Energy

<https://au.int/en/ie>

- AU Programme for Infrastructure Development for Africa

<https://www.au-pida.org/>

- Infrastructure Consortium for Africa

<https://www.icafrica.org/>