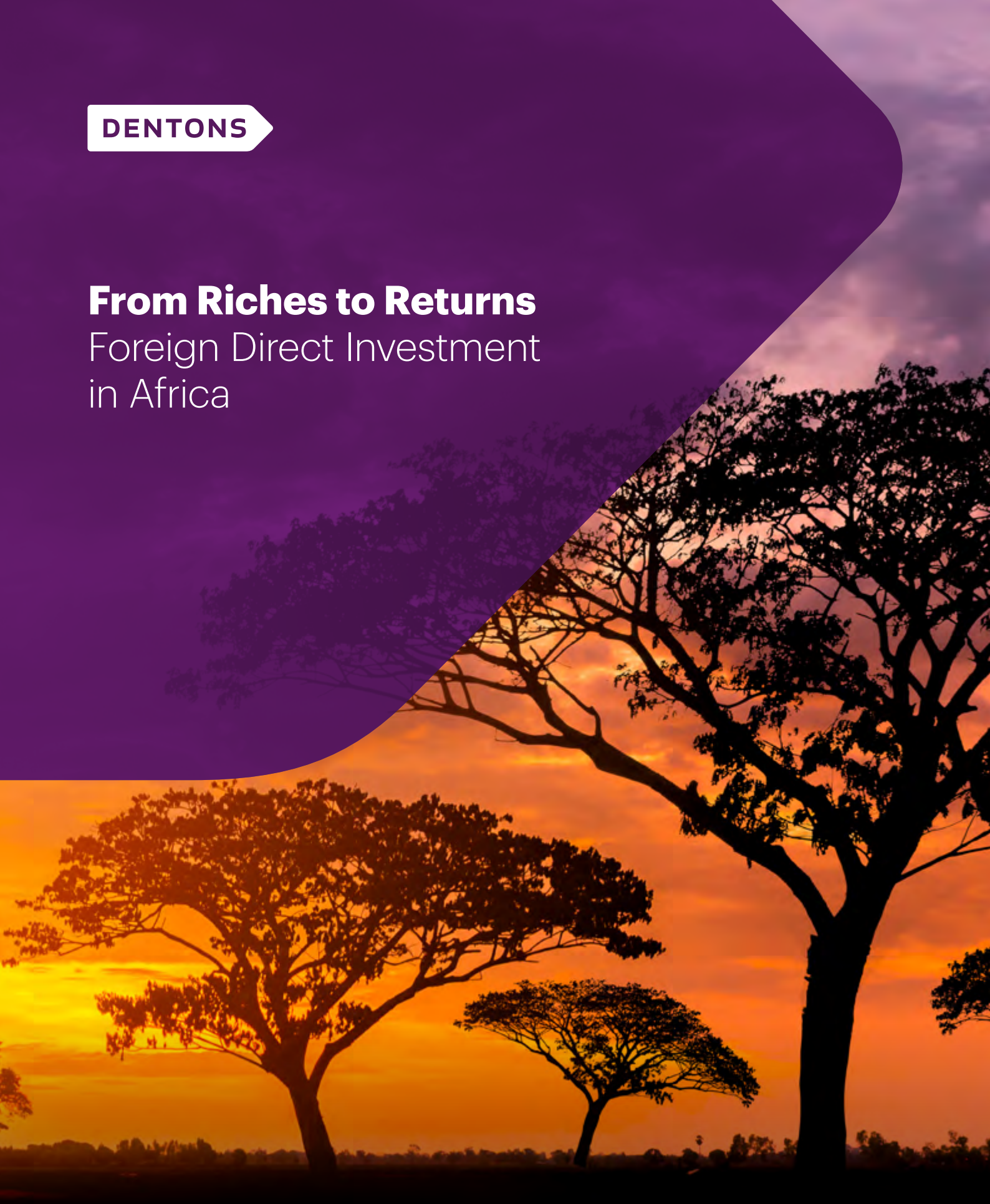
DENTONS

From Riches to Returns

Foreign Direct Investment in Africa



December 2024

Contents

Foreword

This work is the product of a detailed review and analysis of reliable published data and a series on interviews relating to greenfield investments in over 50 countries in Africa.

The report highlights key leverage points in attracting foreign direct investment (FDI) focused on greenfield projects.

There is an urgency among potential investors to understand the changing economic and political realities of Africa.

The challenge of Chinese, Indian and Middle Eastern investors has refocused traditional capital on the growing possibilities. In a complex environment with numerous legal systems, international investment becomes a complex phenomenon in itself.

This report provides insights into some of these complexities, allowing the reader to appreciate in plain sight the opportunity and the path.

Most importantly, it demonstrates why the time is now!

The strengthening global investment in Africa reflects the continent's remarkable human capital, myriad natural resources, and green energy potential.

Europe remains the most important source region for greenfield projects, while China is Africa's single biggest country trading partner. Nonetheless, investment needs remain unmet.

This report, prepared by Dentons' Sovereign Advisory group, is an assessment of the fertile ground for investment in Africa's renewable energy security market. We recognize that without infrastructure, its prospects will be blunted.

With Africa's needs currently outstripping inbound FDI, the responsibility falls to governments, innovators and investors to find creative solutions to nurture resilience and prosperity in the face of grave energy insecurity and climate crisis.

If such solutions are implemented, the second quarter of the 21st century could well be the moment where Africa fulfils its long-term potential, becoming an engine of global growth and innovation.

Noor Kapdi
Chairperson Africa Region

David Syed
Head of Europe Sovereign Advisory

Executive summary

Africa is naturally rich but has yet to truly capitalize on its resources. Africans themselves hold the keys to both their present treasures and future welfare.

The data for FDI flows offer a **mixed outlook**.

2023 net FDI inflows in Africa **decreased slightly** compared with 2022, at an estimated **US$53 billion** (-3% y/y). The number of project finance deals in Africa dropped by a **quarter** and the value by **half**, which does not bode well for infrastructure investment. Globally, 2023 was a year of high uncertainty, elevated costs of capital and subdued investment.

Greenfield projects are a bright spot that offers hope for **a potential rebound**.

The number of 2023 **greenfield project** announcements in Africa **increased** while their value **dropped**. This suggests that investors could be increasingly willing to sponsor **bigger ticket projects**. Indeed, greenfield project announcements in Africa included several **megaprojects**. **Renewable energy** has outpaced all other industries in greenfield FDI announcements in the past five years, having attracted nearly five times more capital than metals, the second-best industry.

European and Chinese partners **remain strong**, with UAE and India vying for clout.

Europe remains the most important source region for greenfield projects in Africa, with **nearly half of all projects** announced in 2019–2023 originating there. European investors are the biggest holders of FDI stock in Africa. **China** is Africa's biggest single-country trading partner and the region's largest bilateral creditor. **However, UAE tops the list of source countries of announced greenfield projects** (by capex) both for 2023 and the past 5 years.

Similarly, India is also strengthening ties with Africa, which has become India's top regional recipient of greenfield FDI in the past five years. Russia and Türkiye are also gradually building relations with African partners, each in their own way.

Carbon markets are **plentiful and untapped**.

Foreign and domestic investment in Africa falls dramatically short of the needs, while Africa uses merely 2 percent of its carbon credit potential. By 2050, the continent could be selling **US$100 billion worth of allowance** every year. But first, African states must sort out governance issues, legal frameworks and local community interests—and possibly employ currently hypothetical asset classes, like the resilience credits.

Critical minerals are plenty. **It's time to process them locally**.

Africa holds a quarter of the global reserves of minerals critical for low- or zero-carbon power generation and other green technologies. **Optimally, added value stemming from them should be generated in Africa**. In electric vehicle production, the Democratic Republic of the Congo (DRC), a global leader in cobalt production, **manages to keep home a little under 4 percent of cobalt's traded value**. Most of it is added in Asia, Europe, and North America. Africa's rich mineral resources present a unique opportunity for the continent to **shift from exporting raw materials** to building **domestic industry capacity**

Green hydrogen is costly but key in the long term.

Africa has the perfect conditions to produce green hydrogen. Developed economies are pouring significant money into African hydrogen facilities to secure energy mixes at home. **However, only 1 percent of project investment volume in Africa has received a final investment decision**—seven times less than globally.

Without infrastructure, **no development can happen**.

Some 80 percent of African businesses (except in North African countries and the Republic of South Africa) experience outages, versus 66 percent in South Asia or 38 percent in Europe. **To bridge the infrastructure gap, the continent requires US$130 billion-US$170 billion in investment per year** Today's predicament signals that the **space for growth is unlimited**. The African Continental Free Trade Area (AfCFTA) could become **the biggest free trade area in the world** and can increase the demand for road, rail, maritime and air transport by an estimated 50 percent. Sovereigns remain key, but the private sector is indispensable to meeting the needs.

Introduction

The future is African.

The Africa's population is young and growing, unlike the ageing Global North. Half of the 1.4 billion people living in Africa are under the age of 20, and the total population is projected to reach 2.5 billion by 2050. A quarter of the entire world population will be African by 2050.[1,2] Nine out of the 20 fastest growing economies in 2024 are African countries.[3]

The continent has the world's biggest solar power generation potential, plenty of critical minerals under the surface and vast reserves of land for infrastructural megaprojects and production facilities. But Africa also has insufficient power and transport infrastructure. Around half of the population of the Sub-Saharan Africa does not have access to electricity. Future infrastructure development costs could reach hundreds of billions of US dollars.

African countries account for 9 percent of global oil production, but the continent does not capture the added value from refining. Africa is a net importer of crude oil products.[4]

Africa is one of the regions the most affected by climate change, although it accounts for only 4% of global emissions.[5,6] Out of 220 drought events recorded between 2010 and 2022, 97 happened in Africa.[7]

Understandably, Africa needs to adapt to climate-provoked changes and build resilience first rather than mitigate emissions.

The scope of investment needs is enormous and to build the foundation for **sustainable growth and a resilient future**, African states need private investment—much more than they get today.

That said, the continent currently attracts only 4 percent of global FDI flows.[8,9] Investors are wary when it comes to investing in Africa due to actual or perceived risks. These risks elevate the cost of capital in Africa more than elsewhere, adding to the existing challenges.

Despite these challenges, Africa attracts business. The number of greenfield project announcements increased by 6 percent year-on-year in 2023 (versus a 2% increase globally). The capex pledged to such projects may have weakened (-11%), but it is well above pre-pandemic levels.

From Riches to Returns... looks into these greenfield projects. The section "Greenfield investment in Africa. A bird's eye view" offers insights into who invests in Africa, what are the key destinations, and what sectors are trending.

The chapter "Key trends to watch" focuses on the megatrends that have recently emerged in Africa and we expect will be shaping the investment landscape on the continent in the near future, such as:

- "New partners, fresh paradigms"—Emerging powers, especially the UAE and India, are becoming increasingly interested in the African continent. Africa can benefit from this greater diversity of partners and investors.
- "Financing, funding, future-proofing"—As foreign and domestic investment in Africa falls below the current needs, governments and markets need to get creative. Africa has started to tap into carbon markets, which are the continent's sizeable yet underused reserve.

1. Hyperlinks to the sources are included in the full list of References at the end of the report.
2. African Development Bank, *Human Development*.
3. IMF, World Economic Outlook 2024, 16 April 2024.
4. *Webinar on Oil and Gas Statistics in Africa,* African Energy Commission, April 2024.
5. Mo Ibrahim Foundation, presentation from The Africa Climate Summit September 2023.
6. IPCC, *Summary for Policymakers*, 2022, Contribution of Working Group II to the Sixth Assessment Report of the IPCC.
7. Mo Ibrahim Foundation, presentation from The Africa Climate Summit September 2023.
8. UNCTAD, World Investment Report 2024, 20 June 2024.
9. A. Stanley, *African Century*, International Monetary Fund, September 2023.

- "Critical minerals, critical decisions"—Africa holds a quarter of global reserves of the minerals deemed critical for the energy transition technologies, but it is not fully profiting from this potential. How could that situation change?
- "Hydrogen: hype, hope, or a little bit of both?" —Africa has the perfect conditions to produce green hydrogen, which could become one of the continent's top exports. What is the state of play and how can African states benefit from the global interest in hydrogen?
- "But first, infrastructure"—Africa has a huge infrastructure gap to cover. And where there's a need, there's an opportunity. Infrastructural projects present an opportunity for large-scale, multidirectional growth. What areas of infrastructure investment will be a priority in the near future?

Greenfield investment in Africa

A bird’s-eye view

Key FDI figures

Macroeconomic uncertainty, fear of recession, and high costs of capital marked 2023 as yet another challenging year globally for business.

Looking at Africa, the data offer a **mixed outlook**. On the macroeconomic level, **net FDI inflows** in 2023 **decreased slightly** compared with the previous year, at an estimated **US$53 billion** (-3% y/y).[10] The inflows varied by region. In North and Central Africa, the drops were in double-digit values (-12% and -17%, respectively), while Southern Africa recorded a +22 percent increase.

Globally, investment remained subdued, too, for a second year in a row.[11] Global FDI flows recorded a slide of -2 percent year-on-year, and excluding flows in a few European conduit economies, such as Luxembourg and the Netherlands, global FDI flows were actually 10 percent lower. Flows to developing economies dropped globally -7 percent, to US$867 billion, which means that on the whole Africa performed in line with global trends and better than some regions.[12]

Project finance deals were also in the negative territory. The number of project finance deals in Africa dropped by a **quarter** and the value by **half** (globally, the number and value decreased both around a quarter),[13] which does not bode well for infrastructure investment, so badly needed in many African countries to enable industrialization, economic growth and better climate resilience. The African Development Bank (AfDB) estimates the financing gap at US$68 billion–US$108 billion every year.[14]

Greenfield project announcements, which are the focus of this report, offer some hope for a potential rebound.

Greenfield capex grows

In 2023, the number of **greenfield project** announcements in Africa **increased by 6 percent** year-on-year (US$831bn). At the same time, their value **dropped by 11 percent year-on-year** (831 projects, fDi Markets data).

The number of projects has yet to return to the levels seen right before the pandemic. However, 2019 was a bumper year for FDI in Africa, and then the pandemic dampened business. The numbers bounced back in 2022 with the announcements of projects that had been put on hold during the pandemic, but the ongoing macroeconomic uncertainty slowed down investment in 2023, in line with global trends.

Still, while the number for 2023 is lower than in 2019 (831 vs 1,110), **the value of the projects grew consistently over the previous five years**, and capex pledged to new projects grew **more than twofold** (from US$74.5bn in 2019 vs US$174.8bn in 2023), much more than in other regions.

The average capex for greenfield projects on the continent grew from US$67.1 million in 2019 to US$210.3 million in 2023, with an increase in 28 countries. This suggests that investors could be increasingly willing to sponsor **bigger ticket projects**. In 2023, greenfield project announcements in Africa included several **megaprojects**, such as the US$30 billion hydrogen project in Mauritania and an over US$6 billion battery production plant in Morocco.

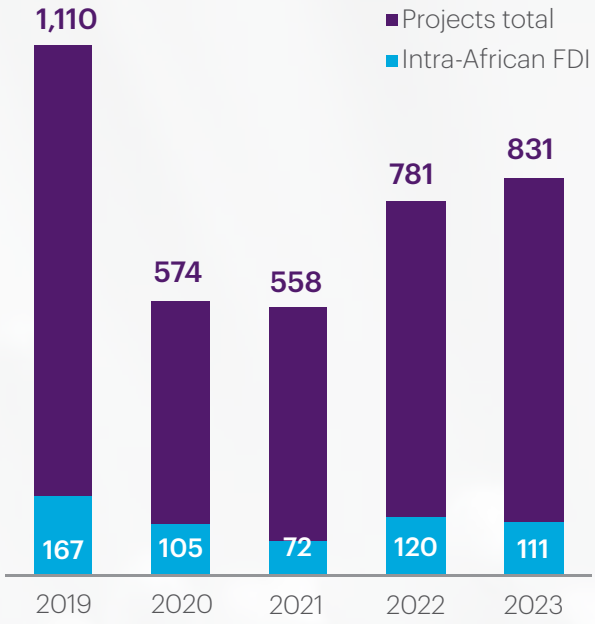
10. UNCTAD, *World Investment Report 2024*, 20 June 2024.
11. Ibid.
12. Ibid.
13. Ibid.
14. African Development Bank, *Public-private partnerships needed to bridge Africa's infrastructure development gap*, 17 November 2023.

Intra-African FDI slides down

The share of intra-African FDI by project number remained largely flat over the past five years, but the **capex invested by African companies in the region has dropped significantly. While in 2019, just before the pandemic, it was 12 percent of all greenfield projects announced in Africa, in 2023 it was only 3 percent**, although the numbers are higher for some sectors (up to 20 percent in services and some manufacturing industries).[15] The progress in the implementation of the African Continental Free Trade Area should enable more intraregional investment. Now, however, the investment landscape in the region is dominated by businesses from other parts of the world.[16]

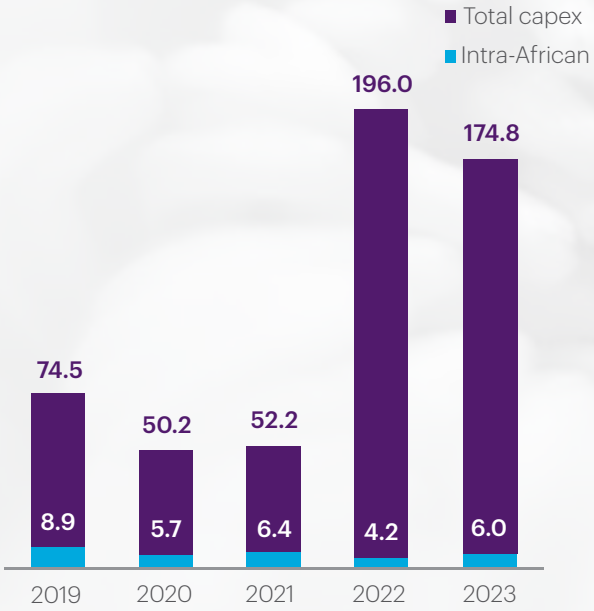
Number of announced greenfield projects in Africa, last five years

Source: fDi Markets, Dentons' analysis



Capex pledged to greenfield projects, last five years

$bn. Source: fDi Markets, Dentons' analysis



15. UNCTAD, *World Investment Report 2024*, 20 June 2024.
16. fDi Markets data

Source markets

- **Europe remains Africa's most important source market for FDI**
- **Asia-Pacific occupies a distant second place, with the quickly ascending Middle East in third**
- **UAE, UK and France are the biggest source-country markets**

Over the past five years, Europe has been by far the most important source region for greenfield projects in Africa. **Nearly half** of all projects announced in 2019–2023 originated in **Europe** (a total of 1,732 projects).[17]

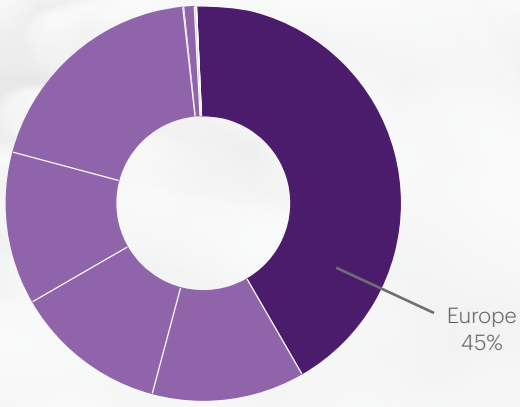
The second-largest source region, Asia-Pacific, accounted for a third of projects announced by European investors (584 projects or 15 percent of all projects). The breakdown of **capex** committed to the projects in this period differs slightly. **Europe** still leads with **42 percent** of the greenfield capex, followed by **Asia-Pacific** and the **Middle East**.

Middle Eastern investors, especially Gulf Cooperation Council countries, have substantially **increased their involvement in Africa** in recent years, with a big uptick in 2022 and 2023 due to **hydrogen projects**.

One of the biggest players from this region are the **United Arab Emirates**, which top the list of source countries. Between 2019 and 2023, companies from the UAE pledged US$110.5 billion in FDI projects—more than twice as much as the capex committed by **UK** investors, who rank second (US$52bn, chiefly in the energy sector, mining and oil and gas). Third place belongs to **France** (US$45.9bn, mainly in the energy sector, both conventional and renewable), closely followed by **China** (US$43bn from mainland China, although if we add FDI from Hong Kong, the figure would rise to US$60.4bn, putting it in second place after the UAE). The last source country in the top five is **India** (US$28.4bn, driven by US$22.2bn investment in 2022), yet one more middle power with ambitions for strengthening its ties with Africa.

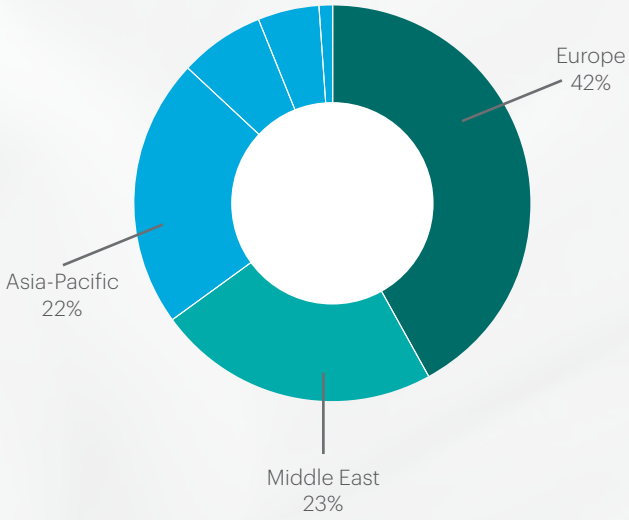
European investors accounted for nearly half of all greenfield projects announced in the last 5 years

% share in number of projects, 2019–2023.
Source: fDi Markets, Dentons' analysis



Middle Eastern investors have been increasing their capital involvement in Africa

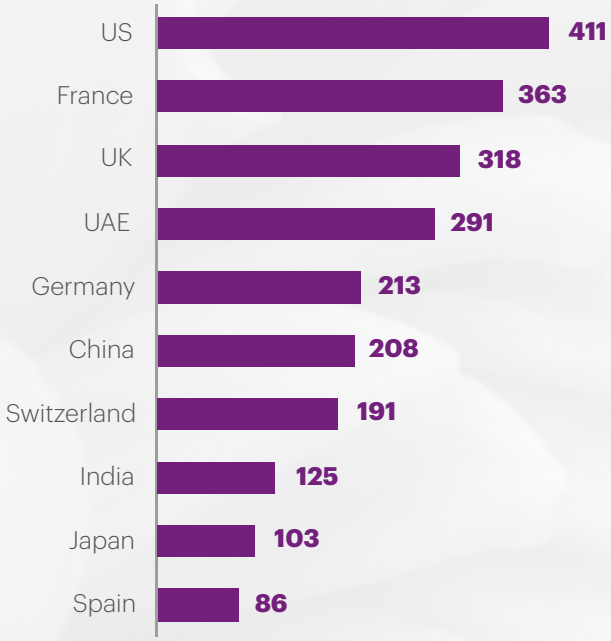
% share in aggregate pledged capex, 2019–2023.
Source: fDi Markets, Dentons' analysis



17. fDi Markets is the source of greenfield project data analyzed in this section.

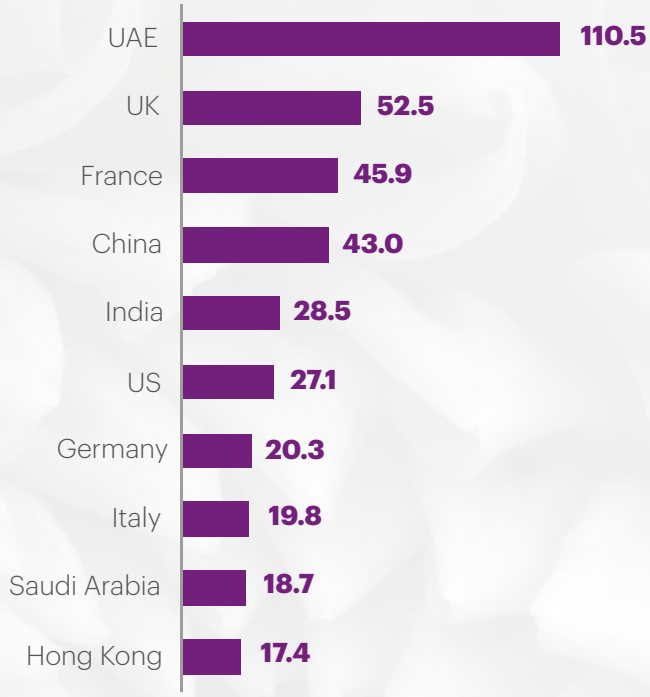
Top source countries by number of projects

Total, greenfield project aggregate, 2019–2023, top 10.
Source: fDi Markets, Dentons' analysis



UAE has become the leader in capex pledged for greenfield projects in Africa

$bn, capex aggregate, 2019–2023, top 10.
Source: fDi Markets, Dentons' analysis



Destinations

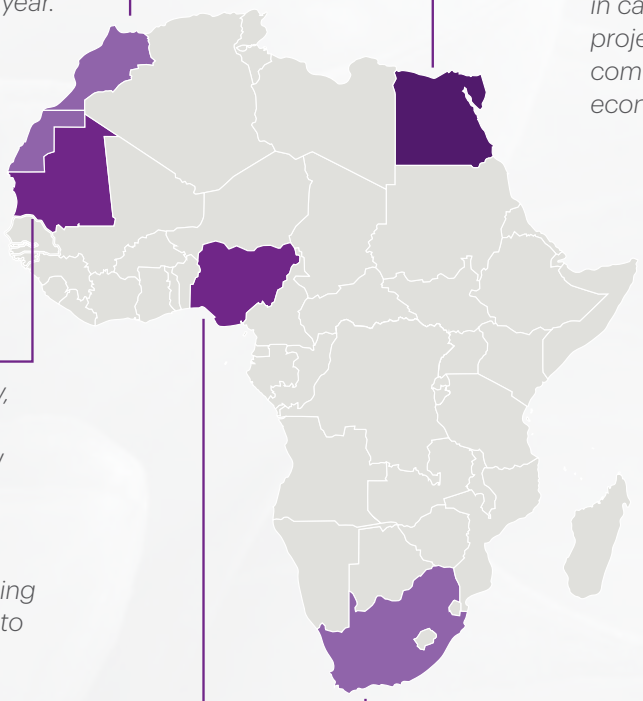
- **Leading African economies are also the biggest FDI capex destinations**
- **South Africa leads in project numbers**
- **Egypt dominates greenfield capex**

Heatmap: aggregate greenfield capex 2019–2023

$bn, pledged capex, 2019–2023.
Source: fDi Markets, Dentons' analysis

***Morocco** is a leader, attracting foreign investment mainly in renewable energy. In 2023, Morocco also managed to attract a US$6.4 billion EV battery production facility, which accounted for nearly a third of the capex committed to projects in Morocco that year.*

***Egypt** is the largest FDI hub by far. Over the past five years, it has attracted nearly **US$180.5 billion** in capex pledged for greenfield projects, roughly **half** of all capex committed to other top 20 host economies combined.*



***Mauritania** occupies second place. Historically, the country has had low levels of FDI, but has now ascended due to two hydrogen megaprojects announced in 2022 and 2023. The country is betting on hydrogen production to boost economic growth.*

*Even major economies, like **South Africa** and **Nigeria**, fall way below Egypt when it comes to FDI. Over the past five years, they attracted respectively US$57.7 billion and US$28.3 billion in greenfield capex commitments-figures that are dwarfed by Egypt's.*

Africa's largest economies—**Egypt, South Africa, Nigeria, Morocco, and Kenya**—consistently attract the biggest portion of FDI capex in Africa.

The five leaders also record the largest number of announced FDI projects, especially **South Africa** (674 over the past five years) and **Egypt** (571 in the same period).

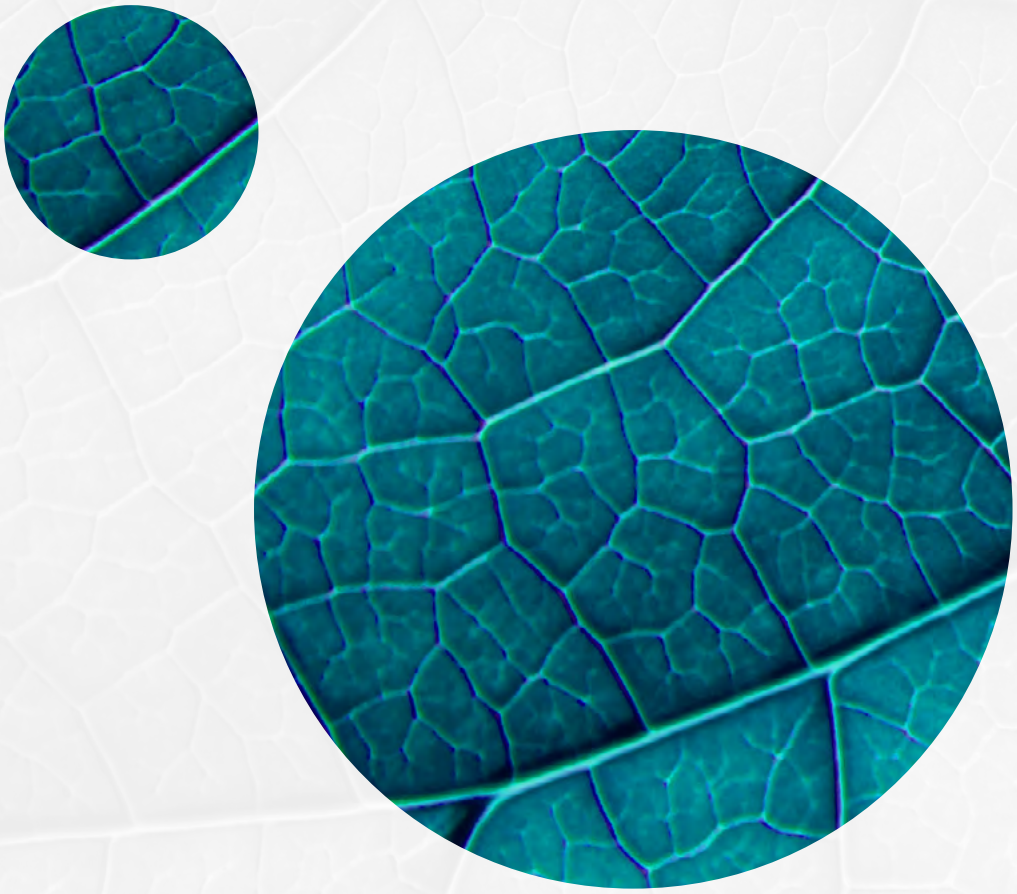
South Africa may be the leader in project numbers, but when it comes to greenfield capex, Egypt leaves all competitors behind. With US$41.9 billion pledged in 2023 and an aggregate of US$180.4 billion in 2019–2023, Egypt is far ahead of no. 2, Mauritania, which recorded US$74.6 billion and which was due to a single hydrogen megaproject announced in 2023. Excluding Mauritania's one-off megaproject, the second most important capex destination is South Africa, with US$57.7 billion over the past years—just under a third of Egypt.

Egypt's successful investment policy

Egypt's pole position is a result of its consistent strategic efforts to build an attractive investment climate. In 2023 alone, the government revealed its intention to privatize 30 companies, established a **Supreme Council for Investments**, which immediately proceeded to approve 22 investment facilitation and promotion measures, announced a new single-approval system, and issued a number of incentives and other measures either facilitating investment or enhancing the business environment.[18]

The strategy is paying off. Egypt has ambitions to keep attracting investors, especially EU companies that target innovation and digitization, renewables, logistics, automotive and pharmaceuticals.[19]

Egypt, along with other countries in North Africa, stands to benefit from the shifts in supply chains. **Regionalization and nearshoring** remain important global trends, as multinationals are working on de-risking their supply chains and making them resilient in the context of geopolitical challenges.



18. UNCTAD, Investment Policy Monitor, Egypt.
19. Egypt's General Authority for Investment and Free Zones, official website.

Overperforming outliers: Mauritania and Guinea

We still find a few eye-catching **outliers** in this otherwise predictable picture. Some of these exceptions provide insight into the ongoing shifts, like **Mauritania**'s second spot in the pledged capex ranking both in 2023 and the 2019–2023 period. Historically, the country has attracted low levels of foreign investment. However, in the five years to 2023, along came the announcements for projects worth nearly US$75 billion. This spike is due to a couple of **megaprojects in hydrogen and ammonia** production. Investments in hydrogen are gaining traction globally; Africa, with the potential for renewable energy, could be a great source of green hydrogen. **North African** countries are especially interested in this sector, as they could benefit from their proximity to Europe and export hydrogen. Mauritania is one of the early movers which has high hopes for this sector (read more on **hydrogen investments** on p. 33).

Guinea's presence in the top 10 (both in 2023 and in 2019–2023) may also appear surprising, as it is a market generating a GDP of US$23.8 billion (2023, BMI data), less than a tenth of the economies of Nigeria or South Africa. This position is due to recent investments in **iron ore mines**. The case of Guinea is likely a one-off event, however, the **metals sector** in general is one of the leading FDI sectors on the continent (the second-biggest sector after renewable energy in greenfield capex pledged in 2019–2023). Over the past five years, mining for metals recorded solid growth, from US$4.7 billion worth of capex announced in 2019 to US$16.5 billion in 2023 (+251%).

Find out more about key greenfield FDI sectors in the next subsection.

Djibouti benefits from strategic location

Another small state that made it to the top 20 host economies in 2023 is **Djibouti** (population 1.1 million). The US$2.4 billion and US$1.6 billion capex pledged in 2022 and 2023, respectively, is a sharp increase compared with historical data. Combined, it is roughly equal to the country's GDP in 2023 (US$4.1bn[20]). Djibouti may not be a heavyweight, but its location at the entry to the Red Sea is strategic. The country established a close collaboration with China, which translated into significant infrastructure investments—including a US$590 million multipurpose port—and in 2017, China established its first overseas military base there.[21,22]

The investments in 2022 and 2023 cover **renewables**—Djibouti has ambitions to jump on the hydrogen bandwagon and is pursuing investments in this domain[23]—and a **US$1 billion spaceport**, the first such facility in Africa, to be built by **Chinese companies**.[24]

If completed, the planned spaceport will be a milestone in the development of the **space industry** in Africa. Due to unmet needs, the industry has a lot of growth potential and could be worth nearly US$23 billion in 2026, growing at a double-digit pace.[25] Space technology could strongly enhance sustainable development and resilience, for example by helping manage climate-related risks. While greenfield project data do not reveal a conspicuous FDI trend in this sector as of yet, this is likely to **change in the coming years** as African states have growing space ambitions.

The establishment of the **African Space Agency** in January 2023, a pan-African institution under the auspices of the African Union, can support these ambitions through enhanced collaboration.

20. BMI (Fitch), macroeconomic data.
21. Oxford Business Group, Djibouti's country profile, *Foreign investment boosts Djibouti's economy and fuels infrastructure development*, 2023; AfricaNews, *Djibouti opens $590m world class mega port co-funded by China*, 9 December 2019.
22. Reuters, *China formally opens first overseas military base in Djibouti*, 1 August 2017.
23. Hydrogen Insight, *'Transformative to the national economy' | Djibouti signs up for 10GW renewable energy and green hydrogen project*, 6 December 2022.
24. M. Douet, *Djibouti announces construction of first spaceport in Africa*, "Le Monde", 20 February 2023.
25. Space in Africa, *African Space Industry Report 2023*, 28 August 2023.

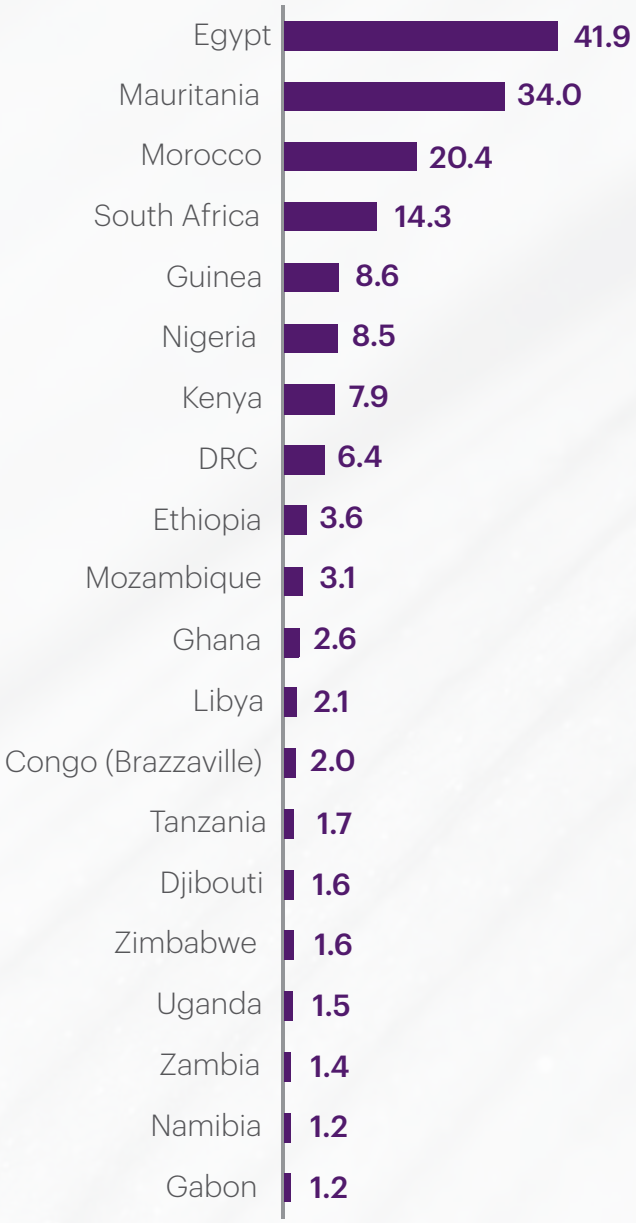
High greenfield capex and project number do not always go hand in hand

$bn and number of projects. 2019–2023.
Source: fDi Markets, Dentons' research

	Destination Country	Capex	Projects
1	Egypt	180.4	571
2	Mauritania	74.6	10
3	South Africa	57.7	674
4	Morocco	46.2	400
5	Nigeria	28.3	289
6	Guinea	24.8	24
7	Kenya	16.6	339
8	Uganda	13.3	73
9	DRC	12.0	42
10	Ghana	11.4	178
11	Zimbabwe	10.5	60
12	Angola	9.1	59
13	Libya	8.5	12
14	Mozambique	8.4	60
15	Gabon	7.6	25
16	Namibia	7.4	43
17	Ethiopia	6.9	71
18	Cote d'Ivoire	6.4	124
19	Zambia	5.4	70
20	Tanzania	5.4	104

Top 20 destination markets by 2023 capex largely overlap with long-term trends

$bn, capex pledged for greenfield projects, 2023.
Source: fDi Markets, Dentons' research



Sectors

- **Renewable energy tops greenfield FDI announcements**
- **Business services note the highest number of projects**
- **Metals sector creates the most jobs**

Renewable energy has outpaced all other industries in greenfield FDI announcements in the past five years. With **US$245 billion** pledged over 2019–2023 (across 283 projects), renewable energy attracted nearly five times more capital than the second-best industry, i.e. **industry, metals** (US$48.6bn). Next in line are **chemicals** (US$44.1bn), **coal, oil and gas** (US$41.7bn), **communications** (US$31.3bn) and **transportation and warehousing** (US$22.9bn).

Top sectors by capex and project number overlap only in part. The most active sectors, i.e., with the highest number of projects, are mainly light industries: **business services** (519 projects), **software and IT** (416), **financial services** (410). **Renewable energy** (283) and **transportation and warehousing** (280) are in the top 10 both in terms of project number and pledged capex.

Job creation

When it comes to opportunities for local communities, the sector with the biggest contribution to job creation is **metals**. Over the past five years, foreign have announced projects in this sector with an estimated potential to create 63,708 jobs on the continent, especially in the **DRC**, **Guinea, South Africa, Zimbabwe** and **Morocco**.

Renewable energy is the runner-up, with 63,453 jobs. Over half of these will be created in **Egypt** (over 37,000). Renewables, along with other technologies related to energy transition, have even more potential, as they are one of the fastest growing sectors. Other sectors leading in employment are **software and IT services** (58,812 in total, especially in **Egypt** and **South Africa**), **food and beverages** (49,711, especially in **Ghana, Egypt** and **Nigeria**), and **textiles** (44,394, with **Egypt** as the biggest beneficiary, followed by **Rwanda**, **Kenya** and **Morocco**).

Trends and outlook

Leading sectors that show long-term growth in project number are **business services** (+5% vs 2019), **software and IT** (+32%), **renewable energy** (+21%), **and transportation and warehousing** (+22%). The numbers are up compared with 2019, which was already a bumper year in this respect. Considering that Africa still has unmet needs in energy supply and transport infrastructure needs, it is reasonable to expect this trend to continue (see p. 37, *But first, infrastructure*).

As for the greenfield **capex growth** in top 10 sectors over the past five years, the only industry to have experienced a decline is **real estate–related** industries (-35% in 2023 from 2019). In several sectors, large increases catch the eye.

Electronic components are a striking outlier—the capex for announced greenfield projects skyrocketed from negligeable values in 2019 to nearly **US$7 billion** in 2023, marking a 2,386 percent increase. This result is due to a **US$6.4 billion Chinese investment** in a gigafactory of **electric car batteries** in **Morocco**.

Excluding that, the sector that showed the most solid and consistent growth was **renewable energy**. Even despite a year-on-year slowdown in 2023, the industry recorded nearly **eightfold growth** between 2019 and 2023. It is followed by metals, which attracted 251 percent more capex in 2023 than in 2019.

Coal, oil and gas attracted 47 percent more capex in 2023 than in 2019—a modest result compared with other leading sectors. This growth was largely due to the 2022 spike that followed the war in Ukraine and the West's ambition to become independent from Russian gas. The outlook for the coal, oil and gas sector is a question mark, and this sector can still attract investment despite the global push for energy transition. Surely, renewables have been **outperforming hydrocarbons** and they are expected to keep growing, but there are several factors that need to be considered.

Africa still has huge **unmet energy needs**. Roughly half of the people living in Sub-Saharan Africa do not have access to electricity.[26] Renewable sources appear to be a good solution to fill this gap, as they are cheaper and easier to deploy than conventional sources, and they can operate in a distributed fashion, which makes it a viable solution for remote, rural regions, inhabited by 80 percent of the underserved population.

Indeed, **over 80 percent** of capacity additions by 2030 are expected to be renewable sources, especially solar (IEA forecasts from its Sustainable Africa Scenario, Africa Energy Outlook 2022).[27] However, it does not preclude investments in oil and gas on the continent.

First, **natural gas**—a resource that Africa has in abundance since it holds 13 percent of global gas resources—can support Africa's industrialization, providing a **reliable supply** of energy, without comprising sustainability. The IEA forecasts that the use of gas will **expand** by 2030, but its share in the energy mix will remain the same. Even if Africa uses the additional 5,000 billion cubic meters not approved for development yet, the continent's cumulative emissions over 30 years would account for just **3.5 percent** of global emissions.

Second, as the energy transition is forcing developed countries to wean off of Africa's supply of oil and gas, these fuels will be redirected **from export to domestic markets**. This will require additional investment in storage and distribution facilities that are currently in need of maintenance and development.[28]

Sectors by main destinations

Let's look at the **five sectors** that have attracted the highest cumulative pledged capex for greenfield projects over the past five years (RES, metals, real estate, coal, oil and gas, communications).

1) Renewable energy

In renewables, **Egypt** far outstrips all other destinations with an aggregate value of **US$128.6 billion**, i.e., nearly half of all the renewable energy capex in Africa. This result is mainly thanks to the hosting of **megaprojects** related to **hydrogen production** that Egypt attracted in 2022 (over US$84bn). Egypt is also one of the continent's leaders in **wind power** (US$14.3bn over five years) and **solar** (US$3.3bn, exceeded only by South Africa's US$4.3bn).

The runner up in renewable energy is **Mauritania**, whose **US$77.6 billion** also stems from **hydrogen megaprojects** (see section *Hydrogen: hype, hope, or a little bit of both?*, p. 33). Thanks to these megaprojects, the two countries score much higher than the remaining destinations. Next in line is **Morocco** with **US$25.2 billion**, also with an important share of multibillion-dollar hydrogen project announcements.

2) Metals

Over the past five years, **Guinea** accounted for the biggest share of pledged capex (US$19.1bn) due to iron ore investments announced recently,[29] but considering how small the country's economy is, it seems unlikely this boon will become a prolonged trend. Next in line is **DRC** with a much more modest result of **US$7.4 billion**, followed by **US$3.5 billion** invested in South Africa. Most of these investments are driven by iron ore mines, but Africa is also home to metals (and other minerals) critical for the energy transition. *Critical minerals, critical decisions*, p. 30, looks at the status quo and the outlook for these particular extractives.

26. As of 2022, 51.4% of the Sub-Saharan population had access to electricity. World Bank data.
27. International Energy Agency, *Africa Energy Outlook 2022*.
28. Ibid.
29. For clarity, the analyzed dataset recognized a nearly $15bn mining gigaproject in the Simandou mountain range already in 2020, when the project was being discussed, although a financing deal was signed only in April 2024.

3) Real estate

FDI in real estate-related industries, i.e., construction or rental services, is dominated by South Africa (US$20.1bn over the past five years) and Egypt (US$15.2bn). Other destinations attract nearly negligeable amounts of capital.

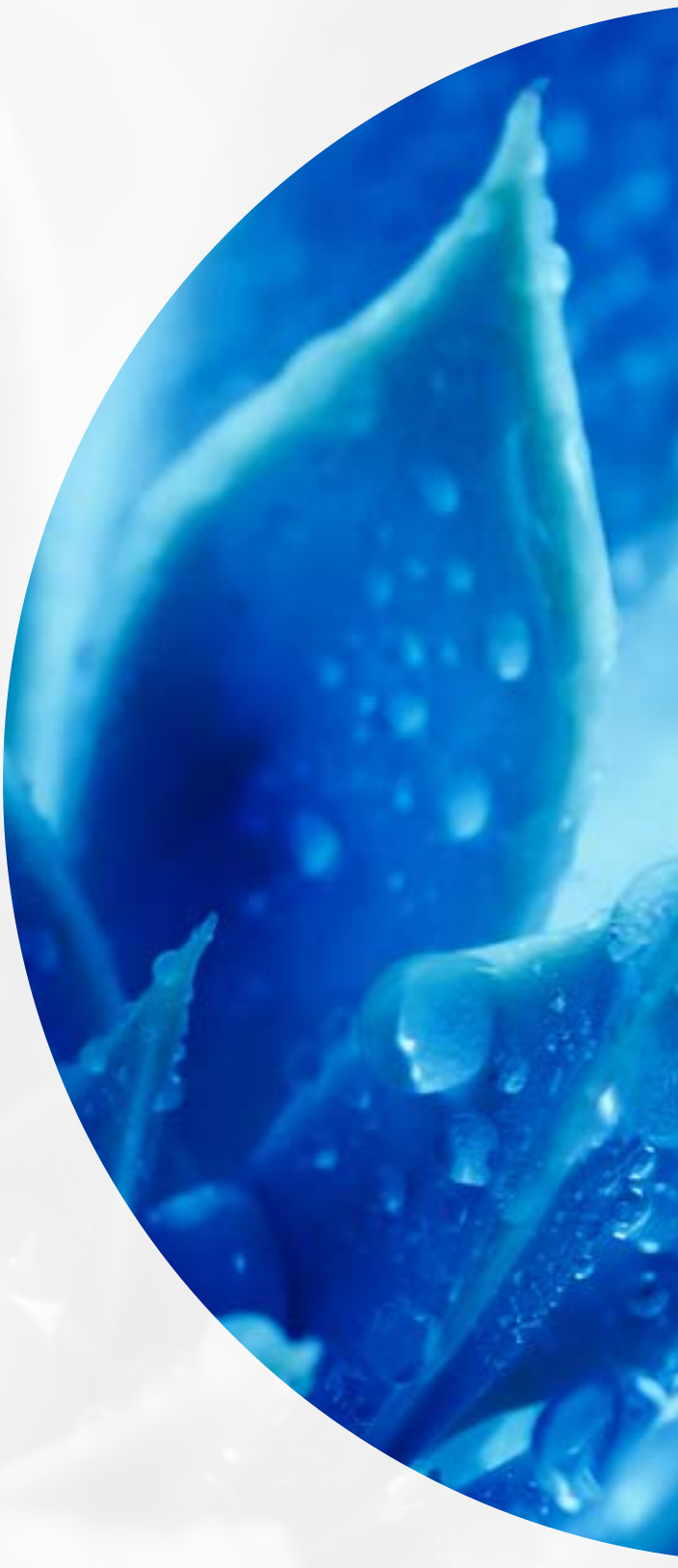
4) Coal, oil and gas

The biggest share of FDI announced in the coal, oil and gas sector went to **Uganda** (US$6.5bn), closely followed by **Libya** (US$6bn). Other important destinations for greenfield projects were **Nigeria** (US$4.1bn), **Mozambique** (US$3.1bn), and **Gabon** (US$3.0bn). **Libya** is keen to boost investment in the sector because it aspires to rebuild its once thriving oil industry and reach 2 million barrels a day by 2026–2028 (output has remained below 2 mb/d since 1980). Thus, it will be trying to tempt investors (the government announced in 2023 that it plans to reform the country's fiscal regime),[30] although it will definitely be a challenge. When the civil war officially finished in 2020, greenfield investment announcements in the country rebounded, but ongoing political instability after years of civil conflict will be a hurdle.

Going forward, we can expect key oil and gas producing countries in Africa to **increase their efforts to attract investors** to, i) upgrade **storage and distribution** infrastructure for the purposes of distributing a bigger share of oil **in the African markets**, and ii) to build **gas plants** as a **transition source** of energy to support industrialization.

5) Communications

The top host economies for new FDI in the field of communications are **Nigeria** (US$9.4bn over the past five years, of which US$3.6bn is going to wireless carriers and US$2bn to wired carriers), **South Africa**—the continent's largest economy (US$5.4bn), **Egypt** (US$4.8bn), **Ghana** (US$2bn), and **Morocco** (US$1bn). Other countries attracted less than US$1 billion in pledged capex each.



30. A. Abdulkadera, *Bengdara unveils plans to make Libya more attractive to international investments*, "The Libya Observer", 26 March 2023; M. Murphy, *Libya: the two-million-barrel question*, Wood Mackenzie, 6 November 2023.

Key trends to watch

New partners, fresh paradigms

- **Emerging powers build partnerships in Africa**
- **UAE increases involvement, India follows suit**
- **China retains strong ties to the continent**
- **Africa to benefit from a greater diversity of partners and investors**

While Africa's biggest source of foreign investment is Europe—the largest FDI stockholders are the Netherlands (US$109bn), France (US$58bn), the US (US$46bn) and the UK (US$46bn)[31]—there are several players that have been strengthening their ties to the continent as well.

China strong, but not uncontested

China's growing involvement on the continent is widely known, and it is indeed remarkable. China is Africa's biggest single-country trading partner: 20 percent of Africa's exports go to China and it is the region's largest bilateral creditor (a total of US$170.1bn provided from 2000 to 2022[32]).

While Chinese funds flow into Africa, metals and minerals travel in the opposite direction, completely monopolizing the trade in certain commodities. Investment and funds decelerated during the pandemic slowdown but have since rebounded. In 2023, Chinese investment in African countries increased by 114 percent and Beijing will remain a crucial partner.[33]

However, the Chinese now have emerging competitors who are interested in deepening their collaboration with African partners. **Global powers such as the US and Russia are the obvious rivals for China, but recent years have seen new developments, and middle powers, such as the Gulf states and India, have become increasingly interested in African partnerships.**

Middle East looks south

The Gulf Cooperation Council countries have recently emerged as one of the largest and most active investors in Africa, led by the **United Arab Emirates**. Their focus is on renewable energy—especially hydrogen—but they are also building ports, warehouses and data centers.[34]

Companies from the UAE pledged US$110.5 billion for greenfield projects in Africa between 2019 and 2023, the biggest amount among single countries in this period. They were also among the most active. With 291 projects announced, the UAE ranked fourth (China was sixth with 208 projects). This new partnership is also visible in trade statistics. Total non-oil trade (imports, non-oil exports, and re-exports) between the UAE and Africa jumped more than twofold, from US$33.9 billion in 2012 to US$80.5 billion in 2022 (latest available data).[35]

The key sector of focus is renewable energy. The UAE is interested in importing cheap, green hydrogen from Africa. It is investing in hydrogen plants as well as wind, solar and biomass power. Other important sectors include logistics and infrastructure (state-owned Emirati companies operate 12 ports in Africa, including a US$6 billion Red Sea port in Sudan), data centers and retail banking.

31. UNCTAD, *World Investment Report 2024*, 20 June 2024.
32. Global Development Policy Center, Boston University, *A New State of Lending: Chinese Loans to Africa*, 18 September 2023.
33. R. Savage and D. Miriri, Reuters, *Post-COVID, China is back in Africa and doubling down on minerals*, 29 May 2024.
34. A. Irwin-Hunt, *FDI into Africa from GCC hits new heights*, fDi Intelligence, 12 February 2024.
35. UAE Ministry of Economy, International Trade Relations Dashboard.

India's growing ambition

India is currently eighth out of the top 10 source markets by the number of greenfield projects in Africa and one of the leaders in capex (fifth out of 10 with US$28.5 billion worth of greenfield projects announced in 2019–2023).

According to fDi Intelligence, over the past five years, **Africa has become India's top regional recipient of greenfield FDI.**[36] Considering India's outspoken ambitions to deepen this collaboration, the trend is bound to gain momentum.

Prime Minister Narendra Modi described Africa as India's top priority. During India's presidency in the G20, he lobbied for the African Union (AU) to become a full member of the organization, echoing earlier calls by other members. The AU was eventually granted membership under India's presidency, during the summit in September 2023 in New Delhi, making it a feather in Mr. Modi's cap.

Historically, the Indian government preferred a hands-off approach. Now, it has modified its policy and encourages companies do business in Africa. On the back of the G20 summit in New Delhi, a group of Indian companies announced its intentions to invest US$14 billion in Nigeria in various sectors, including renewable energy and steelmaking.[37]

But India is also enabling the expansion of SMEs by providing relevant support via its state-owned EXIM Bank. The bank has already backed 300 small Indian companies doing business in Africa. The large Indian diaspora in Africa, especially in Eastern Africa, Ghana, and South Africa, is an important asset that Indian SMEs can leverage in their expansion.

The bank is also providing lines of credit to African countries. As of June 2023, its credit commitments to 42 African countries amounted to US$12.8 billion.[38]

Russia—politics first

There are other actors eyeing opportunities in Africa which could become important players in the future. **Russia** is a global player which has been working on strengthening its influence on the continent for the past decade. **However, Moscow is focused more on building political and military alliances** rather than on promoting direct investment and trade.

African countries constitute the largest voting bloc in the United Nations. Their position matters for the Kremlin during key UN votes, especially in the context of the sanctions imposed after the breakout of the war in Ukraine. Moscow has been also positioning itself as a **security** partner—it has military cooperation agreements with 43 states in Africa, it is a leading arms supplier for the continent and the private security company Wagner is involved militarily and politically in many locations on the continent.

But Russian investment in Africa and trade with African countries have remained **moderate** compared to other partners. Russian investors account for less than 1 percent of FDI on the continent. The value of African trade with the Russian Federation ($17.7bn as of 2021) is orders of magnitude smaller than with the EU ($295bn) or China ($254bn).[39]

Often, Russia pursues unconventional arrangements, such as trading mining concessions for security services. The Russians have been building a presence in the energy and commodity sectors in Africa, but they often target countries that are governed by diplomatically isolated juntas or struggling with governance.[40]The concessions are typically signed by companies with strong ties to the Kremlin, such as the Wagner Group, rather than conventional investors. This model is conducive to the exploitation of fragile states from the position of strength, rather than promoting sustainable, long-term investment that could benefit local communities.

It seems unlikely that this situation will change and that regular Russian businesses will step up their investment in Africa at scale. The Kremlin is focused on its geopolitical interests and the ongoing war with Ukraine is putting a lot of pressure on the Russian economy, so the priority will probably be to boost exports to secure necessary funds rather than support competitive overseas investment.

36. D. Myles, *India's ambitions for Africa trigger mounting FDI wave*, 18 September 2023, fDi Intelligence.
37. Africa Defense Forum, *India's Approach to Africa Envisions Developing 'Together as Equals'*, 23 January 2024.
38. M. Kumar, *India's EXIM Bank plans to step up funding for African countries*, Reuters, 15 June 2023.
39. J. Siegle, *Decoding Russia's Economic Engagements in Africa*, Africa Center for Strategic Studies, 6 January 2023.
40. M. Banchereau, J. Donati, *What to know about Russia's growing influence in Africa*, PBS, 6 June 2024.

Türkiye—a regional power looks south

A smaller player has been gradually rising as a trading partner for Africa. Sitting on the crossroads between three continents, Türkiye positions itself as an Afro-Eurasian state and a fair partner, underlining its anti-imperial and non-colonial ideology.

For decades, Africa remained outside the main scope of Ankara's interests, but this approach changed with the first African Action Plan in 1998. In 2002, the country had only 12 embassies in Africa. In 2023, there were 44. Conversely, African states have also stepped up their diplomatic presence in Ankara, jumping from 10 embassies in Ankara in 2008 to 38 today.[41] On the back of this diplomatic push, trade between Türkiye and African countries grew from US$5.4 billion in 2003 to nearly US$41 billion as of the end of 2022. As of 2024, accumulated Turkish investment in Africa reached US$85.4 billion across 1,864 projects. Türkiye has also concluded military collaboration agreements with several African states, including Ethiopia, Ghana, Kenya, Nigeria, and Rwanda. These efforts are complemented by development aid and initiatives in the fields of culture and education.

While Türkiye is making headway, its position in Africa remains modest compared to European countries, Russia or China. Türkiye has signed free trade agreements with only four African countries. While overall trade has increased exponentially, the volume has been consistently falling short of announced targets. Ankara intended to reach US$50 billion in trade annually by 2015, a figure that has not materialized yet.[42]

Türkiye stepped up its arms sales to Africa, but they account for only 0.5 percent of Africa's arms imports from outside the continent.[43] Last but not least, Turkish companies need to compete with Chinese peers for large projects, and the latter have easier access to financing, as they enjoy direct support from state banks, which Turkish banks are not able to match.[44]

Despite these challenges, Türkiye with its win-win policy, geographical proximity and Muslim heritage shared with many African countries is an interesting actor to follow. **African policy has become part and parcel of Ankara's foreign policy strategy, which means Africa should remain one of the priorities in the long-term.**[45]

41. Turkish Ministry of Foreign Affairs, *Turkiye-Africa Relations*.
42. S.S. Bilen, *How Turkey is competing with China for influence in Africa*, 26 September 2024.
43. E. Parlar Dal, S. Dipama, *Assessing Turkey-Africa Engagements*, Africa Policy Research Institute, 27 April 2023.
44. S.S. Bilen, *How Turkey is competing with China for influence in Africa*, 26 September 2024.
45. E. Parlar Dal, S. Dipama, *Assessing Turkey-Africa Engagements*, Africa Policy Research Institute, 27 April 2023.

Financing, funding, future-proofing

- **Both foreign and domestic investment in Africa falls below basic needs**
- **Private development financing has vast room for growth**
- **Carbon markets are Africa's sizeable yet underused resource**
- **New funding and financing forms are emerging**

There is a consensus that investment in developing economies—most of which are African—is insufficient, and the gap between needs and implementation keeps growing. On the other hand, this is a hint that, with the right tools, growth opportunities are unlimited.

No investment is too much

Investment in Africa faces challenges, particularly in the context of growing climate risks and damage across the continent. **Current investment levels, both foreign and domestic, fall short of the necessary scale to meet these challenges.**

Institutional investors, including pension funds and sovereign wealth funds, account for only a small fraction of global investment in these regions. According to the World Bank, **only about 0.7 percent of total global investment in developing economies comes from pension funds,** sovereign wealth funds, mutual funds and other institutional investors.[46]

Multilateral development banks, the African Development Bank among them, are trying to attract private capital through blended finance or other similar investment-encouraging tools that help bring risk-taking to levels investors can accept.

There are optimistic signals from the markets. Announced in late 2023, **the US$400 million Emerging Markets Transition Debt (EMTD) fund** managed by Ninety One, a global investment management firm rooted in South Africa,[47] has now received commitments from several global pension funds, including OMERS (Canada) and the Wiltshire local government pension scheme fund (UK).[48]

However, the US$400 million fund constitutes only 0.002 percent of international public adaptation finance flows, which have dropped in recent years.[49]

Meanwhile, combined investment needs in infrastructure, electricity generation and transport are estimated to jump from about US$1 trillion in the past decade to over US$3 trillion (in 2019 US dollars) by 2030.[50]

Unsurprisingly then, experts have been calling for more private development financing—not only for adaptation purposes, but overall. The investment finance gap is unlikely to be covered anytime soon. This means that both governments and markets must get creative.

46. World Bank, *Contribution of Institutional Investors Private Investment in Infrastructure 2011–H1 2017*, 2018.
47. Ninety One, official website.
48. A. Gilmore, *OMERS, CDPQ and Wiltshire commit to emerging markets transition debt*, 29 July 2024.
49. United Nations Environment Programme, *Adaptation Gap Report 2023: Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed.*
50. International Energy Agency, *Net Zero by 2050 A Roadmap for the Global Energy Sector*, October 2021.

Carbon markets

Carbon markets are becoming increasingly relevant not only for climate change mitigation, but for African economies as well, as they help channel private finance for decarbonization projects. Carbon credits are key components of several climate initiatives, including the Paris Agreement.

The importance of carbon credits has grown exponentially with the concept of a global carbon budget. To maximize the likelihood of meeting the target of a 1.5°C temperature increase, the world has only 100 gigatons of CO2 left to emit this year (as of 1 August 2024).[51] The entire budget for this level of likelihood will be exhausted in two years' time anyway. **Therefore, if current carbon finance systems stay in place, the prices will very likely go up**.

A carbon credit is a certificate that stands for one ton of CO2—or its equivalent if other emissions are offset—that has been reduced, captured, or not emitted. Companies and governments (and other entities) can trade such certificates on carbon markets, which is supposed to create an incentive to reduce emissions. Once a carbon credit has been used, it is no longer tradable.

There are two types of carbon markets: compliance and voluntary. Compliance markets are a heavily regulated tool for governments to curb emissions by pricing them. Voluntary carbon markets are marketplaces to trade carbon credits on a voluntary basis.

In 2023, the value of compliance market trading alone was estimated at US$800 billion.

African countries are already acting to tap into this source of funds. Kenya amended its climate-change laws, Ghana and Senegal sold credits to Switzerland while Gabon, Ethiopia, Kenya, and Rwanda are participating in different pilot projects with foreign partners.[52,53]

Today, Africa uses merely 2 percent of its carbon credit potential. By 2050, the continent could be selling US$100 billion worth of allowance,[54] while net foreign direct investment flows into Africa averaged only US$50 billion per year in the last 10 years.[55]

The change is potentially transformative. With the right strategies, Africa can turn its vast natural carbon repositories into a lasting asset.

The Africa Finance Corporation has emphasized the need for Africa to develop its own carbon emissions reduction value chain to retain more value from its natural assets.[56]

However, Africa faces several challenges in leveraging this potential. Key issues include ensuring no double counting of emission reductions, addressing skepticism about the efficiency of carbon saving and ensuring benefits for local communities.

Additionally, weak governance poses a significant risk, potentially allowing the undervaluation of Africa's natural assets and exploitation by foreign entities. Liberia's lack of a specific law on carbon credits recently allowed a foreign company to take a sizeable portion of control over 1 million hectares of Liberian land. For the next 30 years, the entity will sell carbon credits on that land and keep them tax-free for a decade.[57]

Therefore, fully realizing the potential of carbon markets in Africa requires addressing governance issues, making periodical reality checks, staying up to date with latest scientific discoveries and ensuring fair value for natural resources with the interests of local communities at heart.

51. Climate Change Tracker.
52. The Economist, *Could carbon credits be Africa's next big export?*, 30 November 2023.
53. R. Obonyo, *Creating credible carbon market in Africa*, United Nations, 22 April 2024.
54. The $100bn goal is the aim established by the African Carbon Markets Initiative (ACMI), a UN-backed consortium.
55. UNCTAD, *World Investment Report 2024,* 20 June 2024.
56. D. Thomas, *Africa must stop selling land on "depreciated" carbon credit market, says report*, African Business, 4 December 2023.
57. K. Bryan, *The looming land grab in Africa for carbon credits*, Financial Times, 6 December 2023.

Kenya at the forefront

The largest carbon credit auction to date took place in June 2023 in Nairobi, Kenya. Organized by the Regional Voluntary Carbon Market Company (RVCMC), it involved participation from 15 Saudi companies, including Aramco and Saudia, which were seeking offsets as part of their decarbonization strategies. **Over 2.2 million tons of carbon credits were sold voluntarily.**

Realizing this potential will require concerted efforts to overcome infrastructural challenges, leverage emerging economic opportunities, and ensure that environmental concerns are addressed.

The auction featured high-quality carbon credits, with a significant portion originating from African countries such as Kenya, Egypt and Rwanda.[58]

Resilience credits

Currently, the investment needed for developing countries to mitigate the effects of climate change is 10 to 18 times the size of international public finance flows.[59] Monetizing the continent's ability to future-proof against climate change risks could help bridge the gap in available resources.

A recent collaborative effort aims to do just that. Egypt's Ministry of International Cooperation, the International Fund for Agricultural Development (IFAD), Duke University and the NDC Partnership have devised a novel asset class that focuses on the millions of people in Africa that live off small plot produce.

Devised in 2024—and still under development—the Resilience Monetization and Credit Initiative, or RMCI, could potentially be of capital importance to a key, yet vulnerable, resource of Africa: small farmers. Resilience credits as a product would be a new asset class by which investments into resilience can be packaged into a financial instrument—to eventually create a blended capital facility.[60] They quantify the benefits derived from resilience-building initiatives, transforming them into tradable assets.

The principal goal of the instrument is to provide upfront capital to farmers, enabling them to make investments to improve access to markets, among other gains. This concept not only aims to address the shortfall in available climate adaptation finance but also ensures equitable benefit-sharing among stakeholders, thereby supporting the Paris Agreement's objectives to foster resilience and lower the impacts of climate-related hazards.

The similarity to carbon credits is not a coincidence. Resilience credits add value to investments that already contribute to climate resilience improvements, whereas carbon credits are principally a way to offset high CO2 emissions while still emitting.

Resilience credits are to create incentives for many stakeholders (private business, third-party appraisers and verifiers, international bodies, local organizations and produce buyers), so that the private sector contributes to building the resilience of small farmers and food circulation systems.

If not the instrument itself, then the philosophy behind resilience monetization—when developed further—could potentially bring improvement to some key areas of the African economy in a ground-up manner.

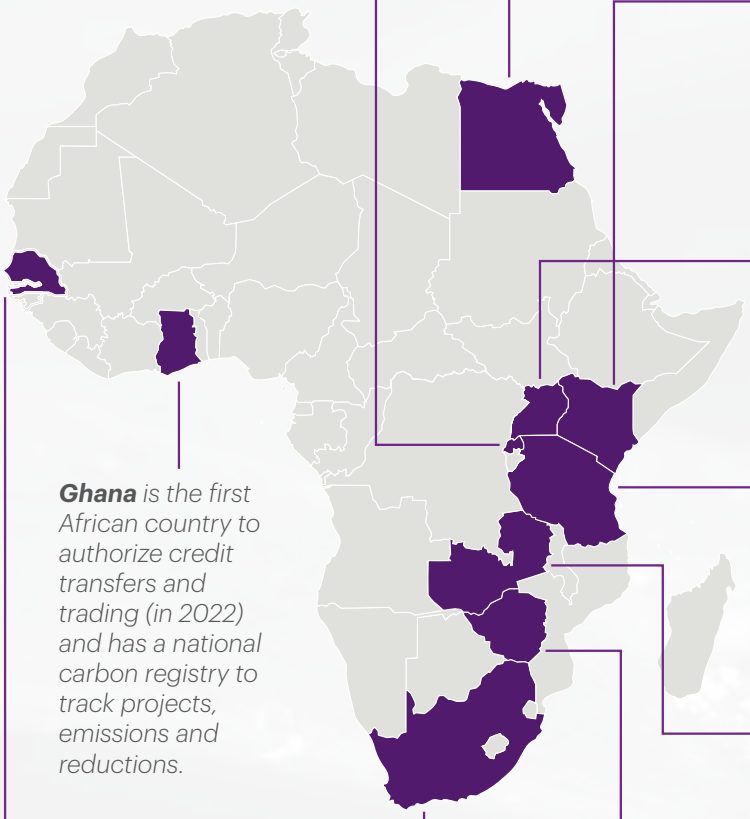
The instrument's authors use a new irrigation system developed with resilience credits as an example: It both helps the farmer to preserve and improve crops and has a positive impact on the local market by increasing supply in those regions that usually suffer from shortages.

The mechanism of resilience credits is simple: IFAD provides blended capital to local banks which lend the money to the farmers who, in turn, make investments into resiliency (by buying better grain, making new irrigation channels, installing more advanced equipment) and thus reduce their exposure to shocks. The farmers return the loans, and the local intermediaries repay the financing to IFAD.

58. R. Obonyo, ibid.
59. United Nations Environment Programme, *Adaptation Gap Report 2023*.
60. R.A. Al-Mashat et al. *Resilience Monetization and Credits Initiative: A Background paper,* James E. Rogers Energy Access Project, Nicholas Institute for Energy, Environment & Sustainability, Duke University, 2024.

Carbon trading regulations currently in place in African countries

Source: Carbon Market Regulations Tracker, Africa Carbon Market Initiative, Dentons' research



***Rwanda** has its own National Carbon Market Framework to regulate carbon trading in market-based and non-market environments.*

*Since 2022, **Egypt** has had a voluntary carbon market exchange.*

*Since 2024, **Kenya** has had a climate change (amendment) act in force that regulates both voluntary and compliance carbon markets, as well as social contributions and environmental impact reporting.*

***Uganda's** National Climate Change Act has been in force since 2021. The Act establishes a reporting regime, as well as voluntary and compliance emission trading.*

***Tanzania** boasts a legal framework for approval and verification of environmental projects and carbon trading management since 2022.*

***Ghana** is the first African country to authorize credit transfers and trading (in 2022) and has a national carbon registry to track projects, emissions and reductions.*

***Zambia** has two relevant acts in place: one for forest carbon projects, and the other one to regulate the carbon market framework.*

***Senegal** put in place a national strategy for trading carbon credits that is to implement infrastructure for international carbon credit trading.*

***Zimbabwe** has a set of Carbon Credits Trading Regulations, established to guarantee the proceeds contribute to sustainability and GHG reduction.*

***South Africa** has a voluntary carbon market facilitated by the Johannesburg Stock Exchange, as well as the Carbon Tax Act in force.*

The novelty is that upon verification of the investment, the farmer is eligible for a resilience credit, which can be sold on the marketplace, and the proceeds can be reinvested. At a practical level, however, verification remains the most challenging and complex component of the mechanism.

Valuating resilience is a daunting task, and resilience credits are currently just a novel proposal. However, resilience monetization as a nascent trend is worth following and promoting, as it aims to direct capital flows into Africa's most popularized asset.

Biodiversity credits

Another emerging innovation consists of biodiversity credits, which are touted as a promising solution to channel more funding into conservation efforts. The idea echoes carbon credits and the opportunity could be just as attractive for Africa. As a home to a quarter of the world's biodiversity hotspots, Africa has huge natural capital. The protection of this resource is essential for many communities, because the livelihood of over 62% of rural populations in Africa hinges on the natural ecosystems.[61]

Currently, there over 30 pilot projects under development in Africa, spearheaded mainly by nongovernmental organizations, but there is no actual, active market established. As with the carbon markets, the key challenge is to ensure appropriate measurable impacts, community benefits and quality control.[62] Some civil society actors have raised concerns that such financing instruments could offer greenwashing possibilities to polluters wanting to offset their actions to the detriment of local communities and indigenous people. Building proper governance and monitoring frameworks will be key.

Currency depreciation and domestic capital mobilization

Any foreign investor in Africa is acutely aware of fluctuations and depreciation of local currencies, which makes business riskier and harder to extract profits from. Conversely, weak currencies hinder the ability of local partners to match the contribution of foreign investors and therefore reduce FDI attractiveness.

As the global economy has been slowing down over the last two years, African currencies have taken heavy losses as a result—both in terms of value and available reserves. Exports have fallen, imports have become more expensive, and national expenditures have exceeded revenues—all of which have driven local currency devaluations.

According to the IMF, African currency depreciations are caused mostly by external factors. Foreign companies are less likely to take on high-risk investments, especially with interest rates hikes elsewhere, which offer increased yields on safer endeavors.

The Nigerian naira is the most spectacular example, having fallen by more than 73 percent against the US dollar in the last two years, mainly due to the country's central bank removal of currency trading restrictions.[63] Egypt, an otherwise strong player in Africa's FDI department, found itself under pressure after the Russo-Ukrainian war broke out due to the spiraling wheat prices. Egypt is one of the largest wheat importers in the world and its foreign currency reserves started depleting quickly.[64]

The most notable effect for host countries is an outflow of foreign capital that is searching for better returns elsewhere. On the foreign investors' side, it is additionally relevant that weak local currency drives inflation, which makes everything on the ground harder and lengthier to develop, as African countries are significantly import-dependent. Also, weak local currencies push up public debt—about 40 percent of which is external for Sub-Saharan Africa. This leaves African countries stripped of funds to partner in foreign investments on their soil.[65]

61. Africa Center for Strategic Studies, *African Biodiversity Loss Raises Risk to Human Security*, 7 December 2022.
62. Nature Finance, *Unlocking Africa's Biodiversity Credit Markets*, 22 October 2024; Nature Finance and African Natural Capital Alliance, *Investing in Africa. Investing in Nature*, October 2024.
63. D. Muteti, *African exchange rate: Sliding currencies stoke inflation*, DW, 7 November 2023.
64. E. Olatunji, *Here're African countries worst hit by currency devaluation*, Business Day, 19 February 2024.
65. L. Kemoe et al., *African Currencies Are Under Pressure Amid Higher-for-Longer US Interest Rates*, IMF, 15 May 2023.

The Brookings Institution estimates that over two-thirds of African economies have lost against the dollar since 2022, which begs the question for possible solutions on the supra-national level. Many sources agree that Africa needs to focus on herself—in terms of intra-regional, intra-African trade, which remains seriously lower than global benchmarks—to diversify growth sources and to develop local bond markets and unlock borrowing possibilities. Little other than a global reform of financial architecture can change Africa's current inability to borrow. In 2022, only Angola, Nigeria and South Africa had access to capital markets.[66]

The latest African Economic Outlook confirms that the attractiveness of African economies for foreign investors depends on mobilizing domestic resources.

In other words, African countries cannot control the FED interest rates or any other external factors. Instead, Africans need to take point in those areas of the economy that do remain under their control: tax and non-tax revenues, tax compliance, formalization of the economy, and efficient management of public finance.

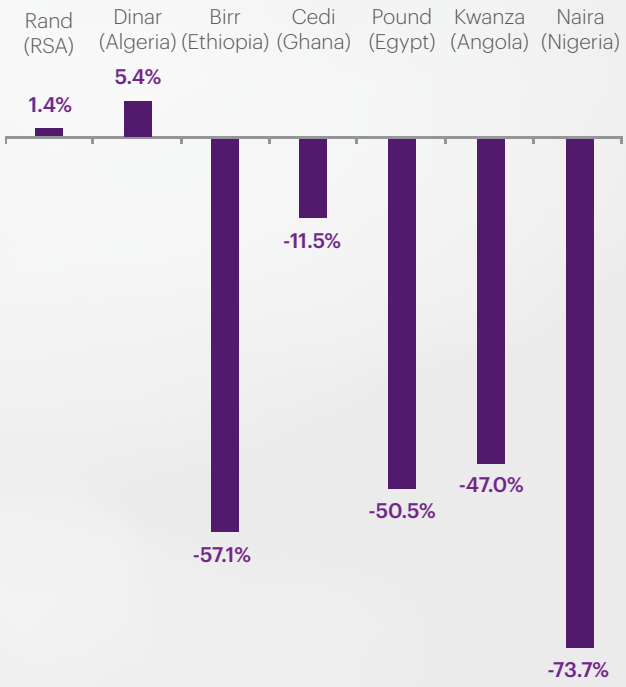
As an example of a country-led initiative, two areas are currently primed for orders-of-magnitude change. In terms of taxation, the AfDB estimates that to close the annual financing gap for structural transformation by 2030, the median tax-to-GDP ratio in Africa must increase from 14 percent to 27 percent. Taxation is a universal matter and as such, returns compounding profits: progress in structural transformation is likely to bring about increased intra-regional trading, which would further boost the entire African economy.

Employment is just as universal. Currently, over 85 percent of Africans are informally employed. Building systemic employment is not only about taxing the workers and employers, but also about protecting the rights of all parties involved—something foreign investors look most favorably upon.[67]

These processes, among others, if set up decisively, could lead to foreign investment becoming more profitable locally, and therefore not flocking back to the US and elsewhere for the realization of profits.

Selected African currencies against the US dollar

Last 2 years, source: Dentons' analysis based on xe.com



66. H. Fofack, *Silver lining for African countries of Silicon Valley Bank's demise*, Brookings, 5 October 2023.
67. African Development Bank, *African Economic Outlook 2024*, 30 May 2024.

Critical minerals, critical decisions

- **Metal mining African states could move from metal exporters to processors and manufacturers**
- **Inaction could make Africa the world's mine for years to come**

"Africa is the world's richest continent" might sound like an overstatement, but it holds more than a grain of truth. Africa's natural reserves are globally significant, exploitable and profitable. **The continent sits on 8 percent of the world's natural gas, over 10 percent of its oil and 30 percent of its minerals**, but once extracted, these resources mostly move on to other markets for processing and manufacturing.

Africa holds a quarter of the global reserves of minerals deemed critical for low- or zero-carbon power generation and other green technologies—principally lithium, cobalt, graphite and manganese. These minerals are indispensable to manufacturers of solar panels, wind turbines, EV batteries and so on.[68]

Therefore, the defining factors of Africa's industrial future rests in its underground riches and surface challenges, as well as its place in global value chains. On the other hand, **the world over needs Africa to provide the goods to continue developing green industries.**

However, Africa remains home to some of the world's poorest countries. 33 out of the 45 least-developed countries in the world are African states.

Regardless of where they are on the continent or what their specialty resources are, African nations have yet to seize the opportunity to build domestic, transnational and continental capacity—and possibly all three at the same time—instead of merely banking profits from mining.

For Africans to profit in a meaningful way, added value must be generated in Africa. Investment goals in Africa must focus on facilitating this process. Otherwise, the current imbalance between natural reserves dug up on the continent and manufacturing of sought-after rare earth minerals products performed elsewhere will persist.

Rare earths, real value

The Democratic Republic of the Congo (DRC) stands out as the global leader in cobalt production, and its case illustrates the current challenges well. The country produces almost 70 percent of the world's cobalt, and the outlook is even better: The demand for cobalt itself is expected to increase by more than a 100 percent if the world follows the UN strategy to halve emissions by 2030.[69]

And yet, if we look at the production of electric vehicles—as an example of a particularly metal-intensive economic endeavor—we see that most the value is added in Asia, Europe and North America. **The DRC manages to keep home a little under 4 percent of the traded value** while being the undisputed global leader of cobalt extraction. The country exports almost all of it to China.[70]

The DRC's role in the EV production process ends with processing the ore into cobalt hydroxide, which increases the mineral's traded value fiftyfold. However, the traded value between cobalt ore and cell components increases almost 550 times—from a little under US$200 million to US$109 billion. At the end-product stage, its value will be 675 times greater.

68. UNCTAD, *Technical note on critical minerals. Supply chains, trade flows and value addition*, 3 December 2023.
69. Ibid.
70. Ibid.

Growth potential in processing, refining

The graph below shows the traded value of goods necessary for production of electric vehicles: from raw cobalt ore to finished cars.

We see that a significant amount of added value comes from the processing of cobalt ore into cobalt hydroxide—and it happens mostly in Africa. But the production of other components down the value chain happens elsewhere and is orders of magnitude more valuable.

The principle holds true for other mining countries as well. South Africa holds world's largest manganese reserves, but it is estimated it can process only 2 percent of the extracted material. The processing is mostly outsourced to China. To a similar degree, the same happens to lithium and nickel.[71] In general, one-fifth of sub-Saharan Africa's raw materials—not only critical metals—are exported to China. The trade is bilateral: China is also one of the region's most important exporters.[72]

Both the US and EU are interested in toppling China's dominance and taking over the refining and processing, which could bind Africa to the awkward position of raw materials supplier with no industry of its own.

The energy transition cannot do without mining. Batteries, solar panels and wind turbines drive the metal-intensive economy. Although the end game is green, the road to that goal is fraught with environmental and greenwashing risks. As the need for metals and metal-based products grows, so will the environmental, economic and social pressures.[73]

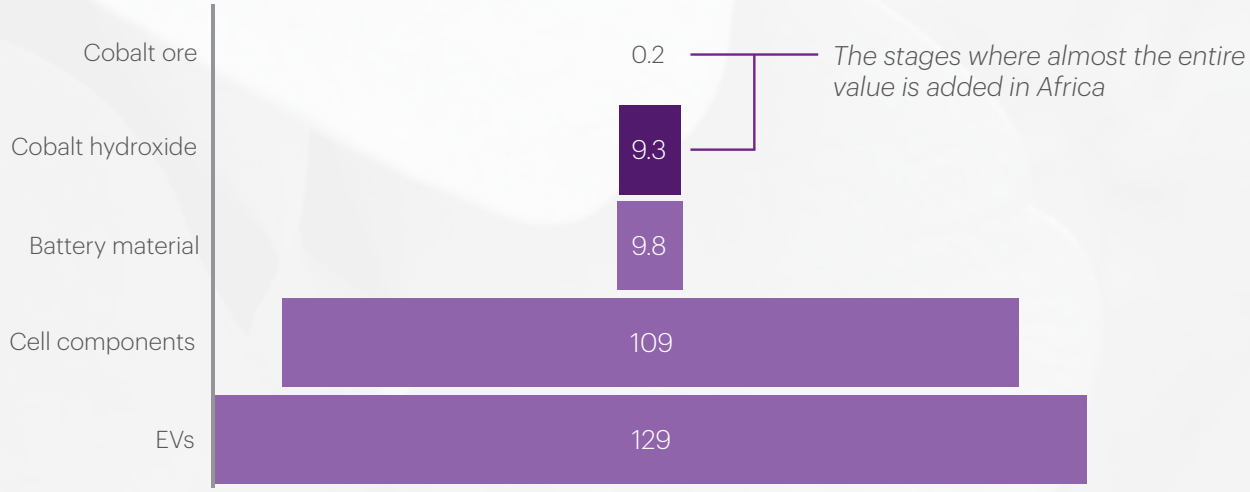
And the demand is set to grow significantly. According to the World Bank, by 2050 the demand for cobalt, lithium and graphite is expected to grow by 500 percent with 3 billion tons of raw material necessary to stay under the 2 degree Celsius temperature rise goal.[74]

The paradox is that the process leading to climate-favoring technologies (that are simultaneously profitable for Africa due to the relevance of its natural riches) can be detrimental to nature along the way. Some of Africa's extraction-focused economies already serve as a cautionary tale. Environmentalists advise reducing consumption rather than ramping up production.[75]

In the medium to long term, this paradigm change could potentially be helpful for African regulators to protect the environment and domestic economies against overly extractive initiatives by prioritizing sustainable, local solutions rather than accepting the role of the world's mining districts.

Traded values in electric vehicle value chain

$bn. Source: UNCTAD, Technical note on critical minerals supply chains, trade flows and value addition



71. J. Prager, *South Africa has one of the world's largest manganese reserves. So why does it outsource for processing?*, CNN, 30 April 2024.
72. S. Lawal, *Can Africa's new free trade treaty boost business on the continent?*, Al Jazeera, 16 February 2024.
73. The World Bank, *Climate-Smart Mining: Minerals for Climate Action*, 26 May 2019.
74. Ibid.
75. P. Weston, *Boom in mining for renewable energy minerals threatens Africa's great apes*, The Guardian, 3 April 2024.

Lasting profits in local sources

Local solutions are good for business. In a study cited by UNECA, BloombergNEF demonstrated that producing batteries in the DRC can cost a third of that in the US or even China.[76] Thus, the DRC has the right conditions to attract European manufacturers which procure their battery precursors from China (which imports them from Africa). The supply chain could be significantly shorter an order of magnitude shorter—reducing emissions and expenditures.[77] Zambia and the DRC have taken steps in this direction by signing a cooperation agreement in 2022 to produce battery precursors.[78] The two countries sit on 80 percent of the minerals necessary for the EV industry.

Local supply chains and local production hubs—with substantial public procurement going towards electricity grid development and transport—appear to be the way forward. Together, Africa's mining states possess both the economic leverage and can build the infrastructural synergy needed to change the playing field. The energy transition alone could create over 9 million jobs by the end of this decade, according to estimates.[79]

As a side note, we can see these optics prevailing in initiatives similar to the Minerals Security Partnership (MSP, a US-led multilateral alliance), which aims to support mineral-producing countries by adhering to strict environmental, social and governance standards. However, the extent to which these initiatives will support local value growth remains unclear.[80]

African institutions, including the 55 member-state African Union (AU) and African Development Bank, have articulated visions and strategies for transforming the continent's mining sector. The AU's African Mining Vision and African Commodities Strategy both emphasize the importance of value-adding industries and integrating Africa into global value chains. However, implementation challenges persist, such as the failure of the African Minerals Development Centre to ratify enough member states to be fully operational.[81]

Mineral-based transformation

Africa's rich mineral resources present a unique opportunity for the continent to shift from exporting raw materials to building domestic industrial capacity.

Realizing this potential will require concerted efforts to overcome infrastructural challenges, leverage emerging economic opportunities, and ensure that environmental concerns are addressed.

76. UN Economic Commission for Africa, *Producing Battery Materials in The DRC Could Lower Supply-Chain Emissions and Add Value to The Country's Cobalt*, 24 November 2021.
77. Ibid.
78. Ibid.
79. World Bank, *Climate-Smart Mining: Minerals for Climate Action*, 26 May 2019.
80. South African Institute of International Affairs, *Africa's mineral resources are critical for the green energy transition*, 15 November 2022.
81. A. Tripp, *The critical-minerals boom is here. Can Africa take advantage?*, Atlantic Council (blog entry), 18 March 2024.

Hydrogen: hype, hope or a little bit of both?

- **Hydrogen facilities in Africa are an opportunity for the continent, but investors intend to secure cheap energy exports in the future**
- **The green hydrogen business requires enormous investments in local energy generation**

The entire African continent is poised to be a renewable energy powerhouse. Apart from the vast array of minerals necessary for green energy and abundant land, it is estimated that **Africa possesses 69 percent of wind power capacity, a quarter of solar power capacity and sizeable capacities for geothermal and hydroelectric generation.**[82] This means that Africa has the perfect conditions to produce green hydrogen, i.e. hydrogen produced with clean power.

Last year, the world's single largest announced greenfield investment was a green hydrogen facility in Mauritania. The fact that a German company in cooperation with the UAE and Egypt is currently developing this US$34 billion project in West Africa is no coincidence. This endeavor is testament to both Africa's receptive potential and non-African investment ambitions on the continent.

Green fuel, golden ticket?

Hydrogen is hyped as a resource of the future, but its production in Africa has over 50 years of history. Today, its derivatives and byproducts are already in demand. Developed economies are pouring significant amounts of money into African hydrogen facilities in the form of direct investment and transition funds.

It appears that most of these efforts are to future-proof imports of energy and raw materials towards the investors from developed countries. Forecasts say that by 2050, hydrogen produced with renewable energy will have increased significantly in both European and some Asian economies.[83] Based on estimates, hydrogen exports for Africa could rise to 11 Mtpa (million tons per annum) by this time, assuming that Africa takes 15 percent of the hydrogen volume traded globally.[84]

Dirty hydrogen no longer matters

However, currently 99.2 percent of global hydrogen production is dirty and CO2-heavy.[85] Although hydrogen is itself a clean fuel, virtually all of world's hydrogen production is not.

As we zoom in more on African economies, we see that this holds true for their entire energy mix. Today, the continent generates almost 80 percent of its energy by combusting different fuels. Almost half of the energy comes from burning biofuels and waste, then oil, then coal, then natural gas. Plus, natural gas is the principal fuel for electricity generation, followed by coal.[86]

For continent-wide green hydrogen investments, this situation must change in a dramatic fashion, because hydrogen alone is not the fuel of the future, but green hydrogen is.

This is where both advantages and shortcomings of African states gain importance, and so do all initiatives aimed at pooling their resources.

Hydro and wind electricity generation—today at a combined 20 percent share in total electricity production—will have to contribute two to three times more to replace the almost 30 percent coal share, and eventually also the over 40 percent that is currently made by burning natural gas.[87] That is a colossal task on its own, but just a prelude to continent-wide hydrogen production.

82. Hydrogen Council, McKinsey & Company, *The Africa hydrogen opportunity for a just transition*, 28 March 2024.
83. Ibid.
84. Ibid.
85. M. Tesfaye, *Renewable hydrogen in Africa: Goldilocks and the Six Facts*, 10 June 2024.
86. IEA, Africa – Energy mix.
87. Ibid.

Boost for exports and jobs—but infrastructure must come first

However, the reward could be just as big. McKinsey estimates that renewable hydrogen production investments alone have the potential to boost African exports by US$15 billion in the next 25 years.[88] According to different sources, the value of hydrogen projects in Africa that could see implementation by 2030 varies from US$50 billion to US$160 billion.

A bracket of estimates this vast provides an insight into risks and obstacles. These are usually situated on a country level and increase financing cost, as well as business and legal uncertainty, thus threatening the timeliness of hydrogen project implementation.

Insufficient infrastructure is an important obstacle. Global logistics company DHL estimates that the African market needs up to US$25 billion annually for basic infrastructure development alone.[89] **Local stakeholders need energy and infrastructure before anything else. Foreign and domestic investments in hydrogen development need both.**

At this point, African locations are still not competitive against their Middle Eastern counterparts. Only 1 percent of the project investment volume in Africa has received a final investment decision—seven times less than globally.

Another infrastructure-based challenge for green hydrogen production is access to water. Much like electricity from renewable sources, water is a necessary input in the production process of green hydrogen. The impact of water consumption can be location specific.

For green hydrogen production, water can be seen as having a demand side and a supply side. On the demand side, the concern is the quantity of water of sufficient quality that is required for the process. On the supply side, the focus is on the quantity of water of sufficient quality that is available for the process.

In areas where water systems are or will be under pressure, it can be assumed that different water uses co-exist (e.g., for agriculture) and compete. As a result, only a fraction of the water present in the area might be available for green hydrogen production. Therefore, water supply available for green hydrogen production could severely limit production potential.[90]

Additionally, hydrogen projects are capital-intensive and the cost of capital for hydrogen projects in developing countries is several percentage points higher than in the developed markets (ca. 7 percent versus 11 percent or more), typically due to higher country-related and execution risks.

Thus, to unlock the huge opportunities, local stakeholders need to address the lack of infrastructure and create the right conditions for investors. The measures undertaken by host countries could include an improved business environment, regulatory stability and masterplans for infrastructure development. Importers of hydrogen and development partners could, on their end, provide de-risking instruments and facilitate knowledge transfer.[91]

Two types of investments

The hydrogen investment landscape in Africa appears to be twofold: On one hand, there are investments in green hydrogen and ammonia facilities, developed with the principal aim to future-proof the energy and raw materials mix of the investors.

On the other hand, there are transition funds and similar vehicles, established by certain countries and regions for the benefit of African partners. These include countries include the EU, the United States, the UK, and recently also the oil powers of the Middle East. However, these programs tend to include an export component in the interest of the benefactors.

88. Hydrogen Council, McKinsey & Company, *The Africa hydrogen opportunity for a just transition*, 28 March 2024.
89. DHL, *Building a greener future for African transportation*, 20 May 2024.
90. Dagnachew et al., *The Opportunities, Challenges and Potential for Hydrogen in Africa*, PBL Netherlands Environmental Assessment Agency, 2023.
91. Hydrogen Council McKinsey & Company, *The Africa hydrogen opportunity for a just transition*, 28 March 2024.

Selected programs:

- **South Africa:** in 2023, Netherlands and Denmark set up a US$1 billion SA-H2 Fund, a green hydrogen fund.[92]
- **Namibia:** in 2022, Netherlands and European Investment Bank offered US$544 million for infrastructure and renewable hydrogen.[93]
- **South Africa:** in 2021, France, Germany, Britain, the United States and the European Union offered US$8.5 billion for green hydrogen and green transition in general.[94]
- **Undisclosed:** in 2023, the UAE pledged US$4.5 billion for clean energy projects in Africa, without mentioning any single recipient.[95] Hydrogen is not mentioned expressly, but the UAE wants to increase renewable power generation capacity in Africa by almost 27 percent until 2030 (versus 2022), which would be significant for all hydrogen and ammonia production projects.

German case study: The strategic interest

Germany is a particularly prominent player in Africa's hydrogen industry, both in financial and political terms.

German companies are investing more and more in large-scale green hydrogen developments in Africa. The Germans also appear to be building a significant advantage against their European counterparts.

The largest announced greenfield development in the world in 2023 was a green hydrogen facility in **Mauritania**, to be developed by Conjuncta, a German firm—in partnership with the UAE's Masdar and Egypt's Infinity Power.[96] The first phase is slated for completion in 2028. The endeavor is worth US$34 billion.

The Germans are also hard at work in **Namibia**, where Enertrag made a deal with the government to begin producing a million tons of green ammonia per year, a derivative product of green hydrogen. The production is to start in 2027.

The German government sees these projects as expressions of strategic interest,[97] which is further reflected in the business activity of German companies and the political activity of government actors. By investing decisively with the African partners, Germany is likely seeking future energy security and reinforcement of the renewable potential.

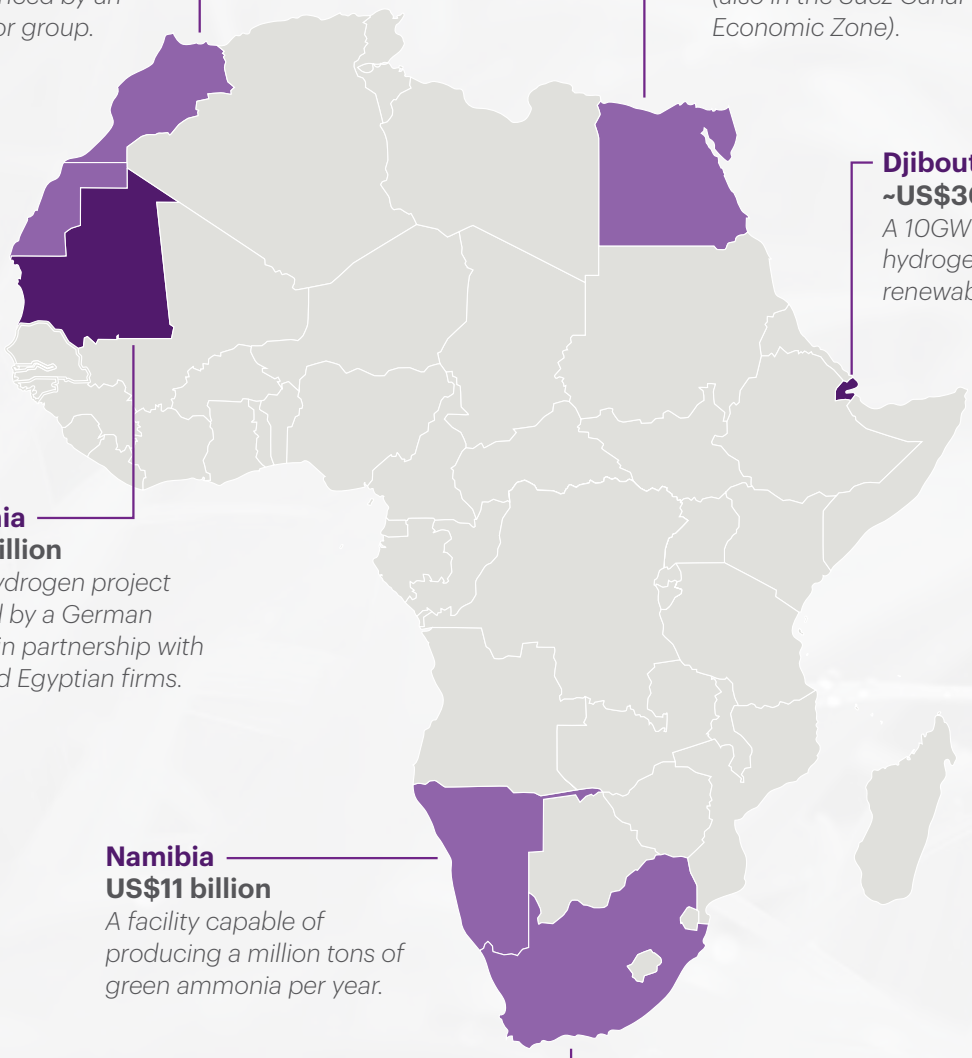
Some recent activities include:

- **Africa:** in Autumn 2023, the Germany chancellor pledged US$4 billion for an EU-Africa Green Energy Initiative.
- **South Africa:** in June 2023, the two countries struck a specific deal on green hydrogen development which seems to offer business matchmaking, market development and know-how transfer for the price of facilitating resources for Europe's climate targets.[98]
- **Egypt:** in November 2022, Germany and Egypt signed two memoranda of understanding for LNG and green hydrogen projects.[99]
- **Egypt:** Germany pledged €285 million to Egypt's Nexus of Water, Food and Energy program for the purpose of the end of creating a green energy distribution corridor across Egypt.[100]
- **South Africa:** a Germany-South Africa Energy Partnership Africa has been in place since 2013.[101]

92. Reuters, *South Africa partners with Dutch, Danish governments on green hydrogen fund*, 21 June 2023.
93. Reuters, *Namibia secures $544 million in climate finance at COP27*, 9 November 2022.
94. Reuters, *South Africa partners with Dutch, Danish governments on green hydrogen fund*, 21 June 2023.
95. Al Jazeera, *Billions pledged for green energy as Africa climate talks enter second day*, 5 September 2023.
96. Africa Oil & Gas Report, *Germany Pledges $4bn in Africa's Green Energy*, 23 November 2023.
97. A. Sguazzin, P. Sorge, *Germany Plans More Support for $11 Billion Namibia Hydrogen Plan*, Bloomberg, 20 March 2024.
98. Reuters, *Germany, South Africa agree to cooperate on green hydrogen projects*, 27 June 2023.
99. Germany's Federal Ministry for Economic Cooperation and Development, *Germany and Egypt strengthen partnership on green hydrogen and LNG*, 3 November 2022.
100. Ahram Online, *Egypt, Germany kick off joint green hydrogen production project*, 12 March 2023.
101. The South African-German Energy Partnership (website).

Green hydrogen projects announced or otherwise agreed in 2023

Sources: UNCTAD, Reuters, Bloomberg, Africa Oil Gas Report, CWP Global



Morocco
US$2 billion
A green hydrogen production project announced by an investor group.

Egypt
US$14.8 billion
Green ammonia and green hydrogen production projects (also in the Suez Canal Economic Zone).

Djibouti
~US$30 billion*
A 10GW green hydrogen and renewable energy hub.

Mauritania
US$34 billion
A green hydrogen project developed by a German company in partnership with Emirati and Egyptian firms.

Namibia
US$11 billion
A facility capable of producing a million tons of green ammonia per year.

South Africa
US$7.1 billion
Three separate green hydrogen production projects.

*Official project values remain undisclosed. Dentons' estimate is based on projects of similar scale.

But first, infrastructure

- **Africa has an oversized infrastructure gap to cover**
- **Infrastructural projects present an opportunity for large-scale, multidirectional growth**
- **Electricity, ports, roads, railways and airspace are key**

Poor infrastructure will get you, literally and metaphorically, nowhere. In the case of Africa, the lack of infrastructur e is an impediment to growth.

The continent lacks reliable power generation, inland connectivity, and adequate water and sanitation infrastructure. Some 80 percent of African businesses (except for North African countries and the Republic of South Africa) experience outages, versus 66 percent in South Asia or 38 percent in Europe.[102] Developed by the World Bank, the Logistics Performance Index provides annual insights into the performance of trade logistics. It shows that Africa still lacks capacity for a smooth flow of goods. Roughly half of the 20 bottom performers in the index are African countries.[103]

To bridge the infrastructure gap, the continent requires investment of US$130 billion–US$170 billion a year, with a financing gap of US$68 billion–US$108 billion a year.[104,105]

China designs and develops

Most of the infrastructure investments in Africa are done either by governments or international partners such as China.[106] Indeed, Africans are using infrastructure—including roads, railways, airports, power stations—bankrolled by Chinese banks and often constructed by Chinese companies.

Africa was one of the focus areas of the Belt and Road Initiative. Between 2000 and 2022 and African states received an estimated US$170 billion in loans from China.[107] Still, the financing gap is so big that Africa will need to attract more private investment in the infrastructure area.

Huge needs, huge opportunities

On the flipside, today's predicament signals that the space for growth is virtually unlimited.

There are several regional initiatives underway that address the infrastructure shortage. "World class infrastructure" is one of the goals of Agenda 2063—a group of strategic initiatives under the auspices of the African Union. Its flagship projects include the African Integrated High-Speed Railway Network (AIHSRN) and the establishment of the Single African Air Transport Market (SAATM). The successful implementation of the African Continental Free Trade Area (AfCFTA), also a priority of Agenda 2063, is closely linked to improving infrastructure, so transport stands to be one of the biggest winners.

The AfCFTA, when fully operational, will become the biggest free trade area in the world and is likely to **increase the demand for road, rail, maritime and air transport by an estimated 50 percent**,[108] driving investment in infrastructure, purchases of transport equipment, and development of transport and logistics services.

The wheels are already turning. In 2022, the head of the African Development Bank claimed that it had already spent US$13.5 billion on 25 transport corridors, 18,000 kilometers of roads, 27 border posts, and 16 bridges.[109]

102. ISS African Futures (website).
103. World Bank, *Connecting to Compete. Trade Logistics in the Global Economy*, 2023.
104. African Development Bank, *From millions to billions: Financing the development of African cities*, 17 November 2023.
105. African Development Bank, Africa 50 website.
106. African Development Bank, *Public-private partnerships needed to bridge Africa's infrastructure development gap*, 17 November 2023.
107. Global Development Policy Center, Boston University, *A New State of Lending: Chinese Loans to Africa*, 18 September 2023.
108. B. Bafana, *AfCFTA offers massive investment opportunities to the transport sector*, African Business, 21 September 2023.
109. L. Yieke, *Transport infrastructure investments: the road to Africa's prosperity* African Business, 29 November 2023.

Connecting roads matter

One of the most important pan-African plans is the completion of missing links in the Trans-African Highway (TAH) as one of the priorities in infrastructure.[110] The TAH project paved almost 57,000 km of African roads but there are missing links in different regions. These links are necessary to complete the transnational nexus among the several-thousand-kilometer-long main highways that roll all the way from Cairo to Cape Town and from Dakar to Lagos.

The African Development Bank calls them "regional corridors," although they are by no means small and present a generational challenge, with transformative potential.

The Abidjan-Lagos corridor, spanning almost 1,000 km of the West African coast, will connect Côte d'Ivoire, Ghana, Togo, Benin and Nigeria with a six-lane highway. Similar corridors are planned for Botswana-Zambia and Mozambique-South Africa. Reportedly, the **AfDB allocated half a billion dollars to this end**.[111]

This challenge is now to build a network of these connections. The task could prove more difficult than the original highways—at a roughly estimated cost of up to US$800 billion overall—but presents a huge investment opportunity, as well as **a tourism and trade catalyst** for decades to come.[112]

Air traffic must grow

Similarly, the planned SAATM has the power to boost several African economies at once while reducing the costs associated with air travel across Africa. Back in 2014, IATA estimated that over 150,000 jobs and US$1.3 billion in GDP generation could benefit 12 key states, should they decide to follow through and open their skies. Possible traffic intensification would be remarkable, with double and triple digit growth in passenger traffic, e.g. Angola stood to increase its passenger traffic by 153 percent.[113]

However, in 2024, implementation remains a problem. The partners have made declarations and signed memoranda, but as yet to no practical effect. The African community has not managed to put the SAATM to work, but even the bilateral air service agreements (BASAs)—a level below SAATM—are yet to be implemented correctly by governments across the continent. The implementation of the SAATM would facilitate increased air traffic in Africa and would assist in overcoming several regulatory challenges.

Meanwhile, Ethiopian Airlines, one of the best African airlines today in terms of profitability, became successful on this very basis: by using liberal, bilateral airspace agreements that allowed for lower fares and increased passenger traffic, by a factor of approx. 40 percent in each case.[114]

Power to the railways

Railways are key for the African economy not only to drive the continent's transportation costs down, now among the world's highest, but also to reorientate trade—and with trade, investments—from extraction of resources to **inter-African connectivity**. They are key to boosting intra-African profits and investment.

The African Integrated High-Speed Railway Network (AIHSRN) project was announced a decade ago with the aim of connecting Africa's 16 landlocked countries to seaports and neighbors. However, implementation lags behind the original schedule. According to the latest completion report released in 2022, the progress score amounted to 12.3 percent.[115]

The name of the network was therefore downgraded to "African Integrated Railways Network." The "high-speed" bit requires electricity that Africa does not generate at this point.[116]

110. Agenda 2063, Framework Document, September 2015.
111. L. Yieke, *Transport infrastructure investments: the road to Africa's prosperity* African Business, 29 November 2023.
112. TradeMark Africa, *Trans-African Infrastructure: A Vital Tool to Ignite Tourism and Trade*, 29 June 2023.
113. InterVistas Consulting, *Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision*, Report prepared for IATA, 2014.
114. Ibid.
115. African Union Development Agency, *2nd Continental Progress Report on Agenda 2063*. 2022.
116. Msingi Afrika Magazine, *UNITY OF PURPOSE for African Economic Development: the African Integrated High Speed Railway Network*, 1 April 2024.

Governments will play a key role in this area. Today, they provide 80 percent of the financing for rail. Conversely, private and institutional investors have the most room for growth and the most potential to make a difference. With just the sovereign funds doubling their current contributions, which do not exceed 2 percent, private investment into African railways could increase by more than US$20 billion.[117]

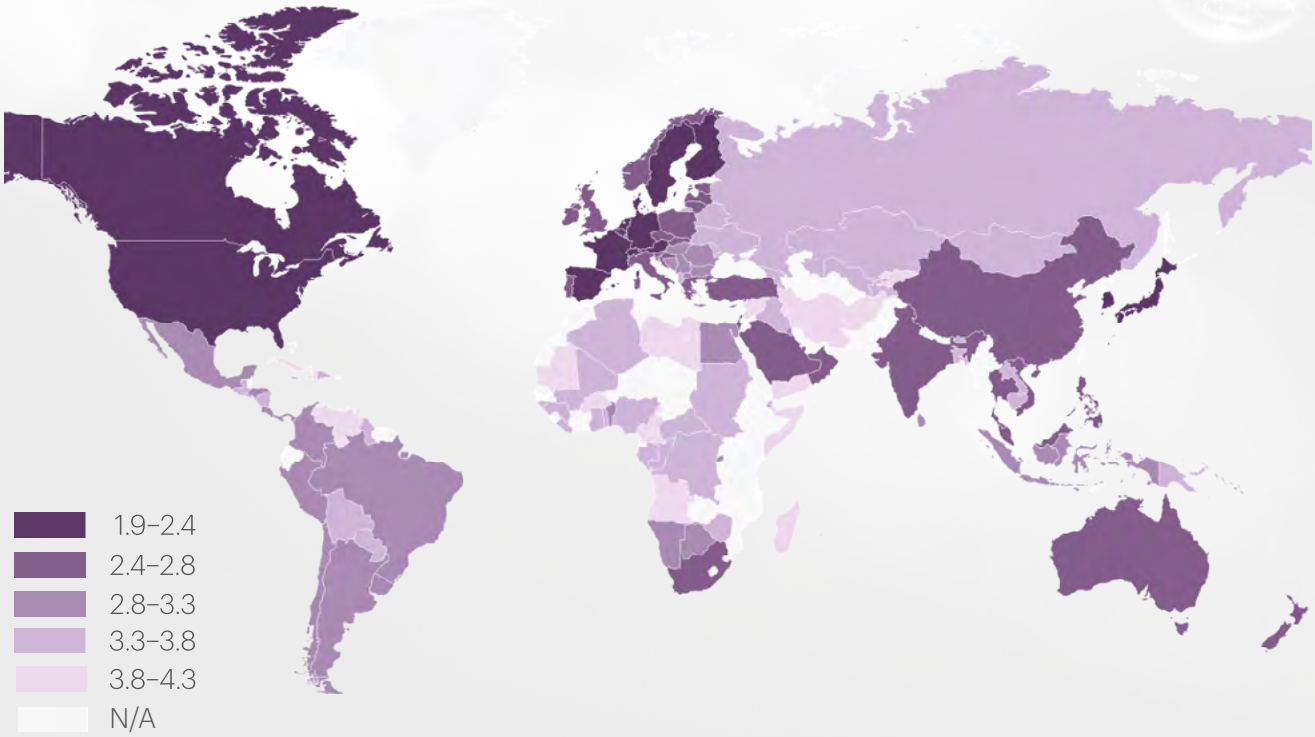
Outlook

While sovereigns play a key role in infrastructure, meeting the current needs and realizing the ambitions of the AfCFTA will not be possible without the private sector. We can expect that countries and supranational entities will be working on attracting more private investors, offering incentives, exploring novel financing models such as blended finance, and improving the framework for PPPs.

There are also geopolitical factors. Africa is a major exporter of crucial commodities and investing in port infrastructure can have strategic importance for foreign investors' home countries. **Today, China owns 93 ports in 53 African countries**. Companies from the United Arab Emirates have also been investing in African ports, building a strong foothold on the continent. With more players growing their presence in Africa, we can expect consistent involvement of Chinese and Emirati investors.

Compared with other regions, Africa's logistics performance is not competitive

World Bank, Logistics Performance Index 2023



117. Ibid.

Foreign investment in Africa: a SWOT analysis

Strengths	Weaknesses
Young population Minerals Hydrocarbons Best solar potential on the planet Substantial potential for wind and hydropower Vast forest resources (carbon reservoirs) and natural capital (biodiversity, intact habitats)	Infrastructure: • Electrical capacity • Unreliable grid • Underinvested infrastructure for storage and distribution of oil and gas • No comprehensive railway network • Few paved roads Governance No continental regulatory frameworks (except for the AfCFTA, which is still a work in progress) Many economies depend on third parties to add value to their raw materials Currency fluctuations and depreciation High cost of capital, due to actual and perceived risks Insufficient statistical capacity and a lack of reliable data for investors and financiers Traditional land ownership/lack thereof, misunderstood by non-Africans
Opportunities	**Threats**
Progress with the AfCFTA and the Investment Protocol New platforms for collecting and sharing data and information established by AfCFTA New investment incentives—in 2023 the African region was the leader in new policy measures encouraging investment, especially Egypt, Kenya and Nigeria Energy transition • Source of jobs • Focus on ESG investing can unlock new funding paths • Leapfrogging the "dirty" stage of development and building prosperity and resilience with clean energy Emerging potential of carbon markets Admission of African Union into G20 gives more opportunities to make the African voice heard Nearshoring (especially for North Africa)	Climate risk Becoming an arena of rivalry between global powers, which can fuel insecurity Value added from mineral extraction captured by third-parties instead of African states Insufficient funding due to risk perception by potential investors Slowdown in international project finance deal could jeopardize necessary infrastructure projects

SWOT—Commentary

The range of diversity among countries and regions of Africa is so significant that the word "African" as a common denominator is often misleading.

Whenever referring to the strengths, threats and trends that concern the entire continent, the authors intended to focus on the phenomena that actually link different areas—or that represent their building blocks.

A distinctive trait of Africa is its **young demographic**. While the northern hemisphere is facing the challenges of the silver economy, a huge share of African population is entering the productive age which, combined with the right policies for the development of human capital, offers strong potential for economic development.

The continent's reserves of **hydrocarbons and mineral riches are a huge asset**. However, African states are not currently capturing the added value from extractive industries. Although the continent is home to an abundance of minerals critical for the global **energy transition**, there is a threat it will not be able to fully benefit from it—and most of the added value will be **captured by third parties** for the foreseeable future.

Investment in processing capacity further up the value chain could bring higher economic benefits and sustainable jobs. The mineral riches also attract the attention of global powers, which may turn African states into an **arena of their rivalry**, to the detriment of African people.

That is why **inefficient governance** is one of the **biggest weaknesses** of many countries on the continent. Meanwhile, the progress in this area has stalled. The 2022 Ibrahim Index of African Governance, the most recent edition available, notes that the overall governance score has flatlined since 2019.[118] An improvement in governance would hugely benefit the African states, but it is also in the interest of the international business community, as it would ensure greater regional stability and enable firms to harness opportunities in Africa.

Currency fluctuations remain an obstacle, too, because they put profits of foreign investors—generated in local currency—at risk. If local laws require that investors pair up with local partners, depreciation paired with high cost of capital make it difficult for the local companies to match the contribution of foreign investors.

Another major weakness is **insufficient infrastructure** and **energy generation capacity**. Almost half of Africa's population does not have access to electricity, and if they do, the grid is unreliable. The lowest access to energy in the world translates into several risks and an increased cost of doing business is one of them.[119]

Apart from fossil fuels and minerals, Africa has **ideal conditions for renewables**. 60 percent of the best solar resources globally are in Africa, and the continent's PV potential is estimated at 7,900 GW.[120] There is also considerable potential for wind power and hydropower. It represents an opportunity not only for investors, but also local communities.

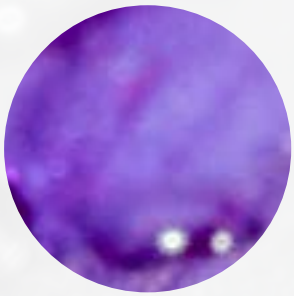
118. Mo Ibrahim Foundation, 2022 Ibrahim Index of African Governance.
119. African Development Bank, *Light Up and Power Africa – A New Deal on Energy for Africa*, 2022.
120. IRENA, *Renewable Energy Market Analysis*, 2022.

Renewables can help meet Africa's energy needs more easily and contribute to economic growth by boosting demand for knowledge-based industries and services. Renewables and other sectors related to energy transition are expected to create **9 million jobs** between 2019 and 2030.[121]

Other opportunities for the improvement of the investment environment include the ongoing work on the **African Continental Free Trade Area** (AfCFTA). Closer collaboration and a stronger framework for cross-border trade are essential to deal with the challenges and threats that affect the entire continent, such as building resilience to climate risks and face geopolitical shifts that can lead to destabilization.

The AfCFTA includes an **Investment Protocol**, which, if implemented successfully, could enhance the business environment and protect the vital interests of African states at the same time. The Pan-African Trade and Investment Agency, contemplated in the Investment Protocol, could become an ideal platform to attract investors and provide them with data and insights, provided statistical capacity is improved.

Data remains an Achilles' heel of the region. Africa still struggles with the availability of basic data, e.g. birth and death registrations. Many indicators for Africa are based on estimates or modelling, not empirical evidence.[122] Lack of accurate information is one of the factors that increase the perceived risk.



121. Ibid.
122. Mo Ibrahim Foundation, *The power of data for governance*, 2024.

Methodology

This report combines an analysis of greenfield project data with desk research based on reputable sources.

The aim is to provide insights into recent trends in FDI on the African continent and the key phenomena that are currently shaping the investment landscape in selected African regions and countries.

The report focuses on announced greenfield projects data rather than FDI flows. The reason for this approach is that the available data allows for a granular analysis of sectors, subsectors and flow of capital to particular countries.

Also, the data on announced greenfield projects is the most relevant for stakeholders, including investors, investment promotion agencies and professionals supporting these transactions because it shows current trends, such as sectors attracting the biggest interest, etc.

Please note, however, that announced greenfield projects may take many more years to materialize and some of them may not be finalized.

The fDi Markets database is the source for greenfield project data. The analyzed dataset covered the years 2019-2023 (the last five full calendar years).

Within this timeframe, the database recorded projects in 51 countries in Africa: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cabo Verde, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, Somaliland, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

The capex values provided by fDi Markets include estimates.

The analysis of the fDi Markets data was complemented by a search in the public domain and a few missing but relevant datapoints were added to the dataset.

Other major sources of data were United Nations Trade and Development (formerly UNCTAD), the World Bank, the African Development Bank, OECD.

For a full list of references see page 44.

Key contacts

Noor Kapdi
Chairperson Africa Region
D +27 21 2012786
noor.kapdi@dentons.com

David Syed
Head of Europe Sovereign Advisory
D +44 20 3530 3727
david.syed@dentons.com

Yun Ma
Co-Head of Europe Sovereign Advisory
D +33 1 42 68 91 15
yun.ma@dentons.com

Nicholas George
Partner
Europe Sovereign Advisory
D +33 1 42 68 95 87
nicholas.george@dentons.com

Bretislav Simral
Director
Sovereign Advisory
D +420 236 082 447
bretislav.simral@dentons.com

References

A. Abdulkadera, *Bengdara unveils plans to make Libya more attractive to international investments*, "The Libya Observer", 26 March 2023, https://libyaobserver.ly/news/bengdara-unveils-plans-make-libya-more-attractive-international-investments

Africa Carbon Markets Initiative, *ACMI's Narrative on African Carbon Markets*, https://africacarbonmarkets.org/acmis-narrative-on-african-carbon-markets/

Africa Center for Strategic Studies, African Biodiversity Loss Raises Risk to Human Security, 7 December 2022, https://africacenter.org/spotlight/african-biodiversity-loss-risk-human-security/

Africa Defense Forum, *India's Approach to Africa Envisions Developing 'Together as Equals'*, 23 January 2024, https://adf-magazine.com/2024/01/indias-approach-to-africa-envisions-developing-together-as-equals/

Africa Oil & Gas Report, *Germany Pledges $4bn in Africa's Green Energy*, 23 November 2023, https://africaoilgasreport.com/2023/11/energy-transition/germany-pledges-e4billion-in-africas-green-energy/

African Development Bank, Africa 50, https://www.africa50.com/

African Development Bank, *African Economic Outlook 2024*, 30 May 2024, https://www.afdb.org/en/documents/african-economic-outlook-2024

African Development Bank, *From millions to billions: Financing the development of African cities*, 17 November 2023, https://www.afdb.org/sites/default/files/documents/publications/financing_the_development_of_african_cities_-_afdb-bigwin_report_2023.pdf

African Development Bank, *Human Development*, https://www.afdb.org/en/knowledge/publications/tracking-africa%E2%80%99s-progress-in-figures/human-development

African Development Bank, *Light Up and Power Africa – A New Deal on Energy for Africa*, 2022, https://www.afdb.org/en/the-high-5/light-up-and-power-africa-%E2%80%93-a-new-deal-on-energy-for-africa

African Development Bank, *Public-private partnerships needed to bridge Africa's infrastructure development gap*, 17 November 2023, https://www.afdb.org/en/news-and-events/public-private-partnerships-needed-bridge-africas--infrastructure-development-gap-65936

African Union, *Agenda 2063, Framework Document*, September 2015, https://au.int/sites/default/files/documents/33126-doc-framework_document_book.pdf

AfricaNews, *Djibouti opens $590m world class mega port co-funded by China*, 9 December 2019, https://www.africanews.com/2017/05/25/djibouti-opens-590m-world-class-mega-port-co-funded-by-china/

A. Gilmore, *OMERS, CDPQ and Wiltshire commit to emerging markets transition debt*, https://www.netzeroinvestor.net/news-and-views/briefs/omers-cdpq-and-wiltshire-commit-to-emerging-markets-transition-debt

Ahram Online, *Egypt, Germany kick off joint green hydrogen production project*, 12 March 2023, *https://english.ahram.org.eg/NewsContent/3/16/491553/Business/Energy/Egypt,-Germany-kick-off-joint-green-hydrogen-produ.aspx*

A. Irwin-Hunt, *FDI into Africa from GCC hits new heights*, fDi Intelligence, 12 February 2024, https://www.fdiintelligence.com/content/data-trends/fdi-into-africa-from-gcc-hits-new-heights-83453

Al Jazeera, *Billions pledged for green energy as Africa climate talks enter second day*, 5 September 2023, https://www.aljazeera.com/news/2023/9/5/billions-pledged-for-green-energy-as-africa-climate-talks-enter-second-day

R.A. Al-Mashat et al. *Resilience Monetization and Credits Initiative: A Background paper*, James E. Rogers Energy Access Project, Nicholas Institute for Energy, Environment & Sustainability, Duke University, 2024, https://energyaccess.duke.edu/publication/resilience-monetization-and-credits-initiative-a-background-paper/

B. Bafana, *AfCFTA offers massive investment opportunities to the transport sector*, African Business, 21 September 2023, https://african.business/2023/09/resources/afcfta-offers-massive-investment-opportunities-to-the-transport-sector

M. Banchereau, J. Donati, *What to know about Russia's growing influence in Africa*, PBS, 6 June 2024, https://www.pbs.org/newshour/world/what-to-know-about-russias-growing-influence-in-africa

S.S. Bilen, *How Turkey is competing with China for influence in Africa*, 26 September 2024, https://www.mfa.gov.tr/turkiye-africa-relations.en.mfa

BMI (formerly Fitch), macroeconomic data.

K. Bryan, *The looming land grab in Africa for carbon credits*, Financial Times, 6 December 2023, https://www.ft.com/content/f9bead69-7401-44fe-8db9-1c4063ae958c

Climate Change Tracker, https://climatechangetracker.org/igcc/current-remaining-carbon-budget-and-trajectory-till-exhaustion

Carbon Market Regulations Tracker, https://www.goldstandard.org/carbon-market-regulations-tracker

A.G. Dagnachew et al., *The Opportunities, Challenges and Potential for Hydrogen in Africa*, PBL Netherlands Environmental Assessment Agency, 2023, https://www.pbl.nl/sites/default/files/downloads/pbl-2023-the-opportunities-challenges-and-potentials-for-hydrogen-in-africa_5269.pdf

M. Douet, *Djibouti announces construction of first spaceport in Africa*, "Le Monde", 20 February 2023, https://www.lemonde.fr/en/le-monde-africa/article/2023/02/20/djibouti-announces-the-first-spaceport-in-africa_6016532_124.html

DHL, *Building a greener future for African transportation*, 20 May 2024, https://www.dhl.com/discover/en-ke/logistics-advice/logistics-insights/building-a-greener-future-for-african-transportation

The Economist, *Could carbon credits be Africa's next big export?*, 30 November 2023, https://www.economist.com/middle-east-and-africa/2023/11/30/could-carbon-credits-be-africas-next-big-export

Egypt's General Authority for Investment and Free Zones, https://www.gafi.gov.eg/English/eServices/Pages/default.aspx

Energy for Growth Hub, *Renewable Hydrogen in Africa: Goldilocks and the Six Facts*, blog post, 10 June 2024, https://energyforgrowth.org/article/renewable-hydrogen-in-africa-goldilocks-and-the-six-facts/

H. Fofack, *Silver lining for African countries of Silicon Valley Bank's demise*, Brookings, 5 October 2023, https://www.brookings.edu/articles/silver-lining-for-african-countries-of-silicon-valley-banks-demise/

Germany's Federal Ministry for Economic Cooperation and Development, *Germany and Egypt strengthen partnership on green hydrogen and LNG*, 3 November 2022, https://www.bmz.de/en/news/press-releases/germany-egypt-partnership-on-green-hydrogen-and-lng-127564

Global Development Policy Center, Boston University, *A New State of Lending: Chinese Loans to Africa*, 18 September 2023, https://www.bu.edu/gdp/2023/09/18/a-new-state-of-lending-chinese-loans-to-africa/

Hydrogen Insight, *'Transformative to the national economy' | Djibouti signs up for 10GW renewable energy and green hydrogen project*, 6 December 2022, https://www.hydrogeninsight.com/production/-transformative-to-the-national-economy-djibouti-signs-up-for-10gw-renewable-energy-and-green-hydrogen-project/2-1-1367772

IEA, Africa – Energy mix, https://www.iea.org/regions/africa/energy-mix

IMF, World Economic Outlook 2024, 16 April 2024, https://www.imf.org/en/Publications/WEO/Issues/2024/04/16/world-economic-outlook-april-2024

International Energy Agency, *Africa Energy Outlook 2022*, https://iea.blob.core.windows.net/assets/220b2862-33a6-47bd-81e9-00e586f4d384/AfricaEnergyOutlook2022.pdf

InterVistas Consulting, *Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision*, Report prepared for IATA, 2014, https://www.iata.org/contentassets/44c1166a6e10411a982b2624047e118c/intervistas_africaliberalisation_finalreport_july2014.pdf

IRENA, *Renewable Energy Market Analysis*, 2022, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jan/IRENA_Market_Africa_2022.pdf?rev=bb73e285a0974bc996a1f942635ca556

L. Kemoe et al., *African Currencies Are Under Pressure Amid Higher-for-Longer US Interest Rates*, IMF, 15 May 2023, https://www.imf.org/en/Blogs/Articles/2023/05/15/african-currencies-are-under-pressure-amid-higher-for-longer-us-interest-rates

M. Kumar, *India's EXIM Bank plans to step up funding for African countries*, Reuters, 15 June 2023, https://www.reuters.com/business/finance/indias-exim-bank-plans-step-up-funding-african-countries-2023-06-15/

S. Lawal, *Can Africa's new free trade treaty boost business on the continent?*, Al Jazeera, 16 February 2024, https://www.aljazeera.com/news/2024/2/16/afcfta-can-africas-new-trade-treaty-boost-business-on-the-continent

V. Masterson, *Africa is leading the way in solar power potential*, World Economic Forum, 23 September 2022, https://www.weforum.org/agenda/2022/09/africa-solar-power-potential/

McKinsey & Company, *The Africa hydrogen opportunity for a just transition*, 28 March 2024, https://hydrogencouncil.com/en/the-africa-hydrogen-opportunity-for-a-just-transition/

Mo Ibrahim Foundation, 2022 Ibrahim Index of African Governance, https://mo.ibrahim.foundation/sites/default/files/2023-01/2022-iiag-key-findings_en.pdf

Mo Ibrahim Foundation, *The power of data for governance*, 2024, https://mo.ibrahim.foundation/sites/default/files/2024-01/2023-iiag-series-report.pdf

M. Murphy, *Libya: the two-million-barrel question*, Wood Mackenzie, 6 November 2023, https://www.woodmac.com/news/opinion/libya-the-two-million-barrel-question/

D. Muteti, *African exchange rate: Sliding currencies stoke inflation*, DW, 7 November 2023, https://www.dw.com/en/african-exchange-rate-sliding-currencies-stoke-inflation/a-66133964

D. Myles, *India's ambitions for Africa trigger mounting FDI wave*, 18 September 2023, fDi Intelligence, https://www.fdiintelligence.com/content/news/indias-ambitions-for-africa-trigger-mounting-fdi-wave-82958

Nature Finance, Unlocking Africa's Biodiversity Credit Markets, 22 October 2024, https://www.naturefinance.net/media-advisory-unlocking-africas-biodiversity-credit-markets/

Nature Finance and African Natural Capital Alliance, Investing in Africa. Investing in Nature, October 2024, https://africannaturalcapitalalliance.com/natural_resource/investing-in-africa-investing-in-nature/

Net Zero by 2050 A Roadmap for the Global Energy Sector, October 2021, https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

Ninety One (website), https://ninetyone.com/en/south-africa/about-us/who-we-are

R. Obonyo, *Creating credible carbon market in Africa*, United Nations, 22 April 2024, https://www.un.org/africarenewal/magazine/april-2024/creating-credible-carbon-market-africa

E. Olatunji, *Here're African countries worst hit by currency devaluation*, Business Day, 19 February 2024, https://businessday.ng/big-read/article/herere-african-countries-worst-hit-by-currency-devaluation/

Oxford Business Group, Djibouti's country profile, *Foreign investment boosts Djibouti's economy and fuels infrastructure development*, 2023, https://oxfordbusinessgroup.com/reports/djibouti/2023-report/country-profile/close-partners-foreign-investment-is-helping-the-east-african-nation-expand-its-infrastructure-and-diversify-its-economy-analysis/

E. Parlar Dal, S. Dipama, *Assessing Turkey-Africa Engagements*, Africa Policy Research Institute, 27 April 2023, https://afripoli.org/assessing-turkey-africa-engagements

J. Prager, *South Africa has one of the world's largest manganese reserves. So why does it outsource for processing?*, CNN, 30 April 2024, https://edition.cnn.com/2024/04/30/africa/manganese-south-africa-exports-electric-vehicles-batteries-spc-intl/index.html

PwC, *Global Infrastructure Trends. Part 2: Development Financing* https://www.pwc.com/gx/en/industries/capital-projects-infrastructure/publications/infrastructure-trends/global-infrastructure-trends-financing.html

R. Savage and D. Miriri, Reuters, *Post-COVID, China is back in Africa and doubling down on minerals*, 29 May 2024, https://www.reuters.com/markets/commodities/post-covid-china-is-back-africa-doubling-down-minerals-2024-05-28/

Reuters, *China formally opens first overseas military base in Djibouti*, 1 August 2017, https://www.reuters.com/article/world/china-formally-opens-first-overseas-military-base-in-djibouti-idUSKBN1AH3E1/

Reuters, *Germany, South Africa agree to cooperate on green hydrogen projects*, 27 June 2023, *https://www.reuters.com/business/environment/germany-south-africa-agree-cooperate-green-hydrogen-projects-2023-06-27/*

Reuters, *Namibia secures $544 million in climate finance at COP27*, 9 November 2022, https://www.reuters.com/business/cop/namibia-secures-544-million-climate-finance-cop27-2022-11-08/

Reuters, *South Africa partners with Dutch, Danish governments on green hydrogen fund*, 21 June 2023, *https://www.reuters.com/sustainability/climate-energy/south-africa-partners-with-dutch-danish-govts-green-hydrogen-fund-2023-06-20/*

J. Siegle, *Decoding Russia's Economic Engagements in Africa*, Africa Center for Strategic Studies, 6 January 2023, https://africacenter.org/spotlight/decoding-russia-economic-engagements-africa/

A. Sguazzin, P. Sorge, *Germany Plans More Support for $11 Billion Namibia Hydrogen Plan*, Bloomberg, 20 March 2024, https://www.bloomberg.com/news/articles/2024-03-20/germany-plans-more-support-for-11-billion-namibia-hydrogen-plan

South African-German Energy Partnership (website), *https://energypartnership.org.za/about-us/*

South African Institute of International Affairs, *Africa's mineral resources are critical for the green energy transition*, 15 November 2022, *https://saiia.org.za/research/africas-mineral-resources-are-critical-for-the-green-energy-transition/*

Space in Africa, African Space Industry Report 2023, 28 August 2023, https://spaceinafrica.com/2023/08/28/african-space-industry-annual-report-2023-edition/

A. Stanley, *African Century*, International Monetary Fund, September 2023, https://www.imf.org/en/Publications/fandd/issues/2023/09/PT-african-century

M. Tesfaye, *Renewable hydrogen in Africa: Goldilocks and the Six Facts*, 10 June 2024, https://energyforgrowth.org/article/renewable-hydrogen-in-africa-goldilocks-and-the-six-facts/

D. Thomas, *Africa must stop selling land on "depreciated" carbon credit market, says report*, African Business, 4 December 2023, https://african.business/2023/12/energy-resources/africa-must-stop-selling-land-on-depreciated-carbon-credit-market-says-report

TradeMark Africa, *Trans-African Infrastructure: A Vital Tool to Ignite Tourism and Trade*, 29 June 2023, https://www.trademarkafrica.com/news/trans-african-infrastructure-a-vital-tool-to-ignite-tourism-and-trade/

A. Tripp, *The critical-minerals boom is here. Can Africa take advantage?*, Atlantic Council (blog entry), 18 March 2024, *https://www.atlanticcouncil.org/blogs/africasource/the-critical-minerals-boom-is-here-can-africa-take-advantage/*

Turkish Ministry of Foreign Affairs, *Türkiye-Africa Relations*, https://www.mfa.gov.tr/turkiye-africa-relations.en.mfa

UAE Ministry of Economy, International Trade Relations Dashboard, International Trade Relations Dashboard | Ministry of Economy - UAE (moec.gov.ae)

UNCTAD, Investment Policy Monitor, https://investmentpolicy.unctad.org/investment-policy-monitor/63/egypt

UNCTAD, *Technical note on critical minerals. Supply chains, trade flows and value addition*, 3 December 2023, https://unctad.org/publication/technical-note-critical-minerals

UNCTAD, World Investment Report 2024, 20 June 2024, https://unctad.org/publication/world-investment-report-2024

UN Economic Commission for Africa, *Producing Battery Materials in The DRC Could Lower Supply-Chain Emissions and Add Value to The Country's Cobalt*, 24 November 2021, https://www.uneca.org/stories/producing-battery-materials-in-the-drc-could-lower-supply-chain-emissions-and-add-value-to

UN Economic Commission for Africa, *Zambia and DRC Sign Cooperation Agreement to manufacture electric batteries*, 29 April 2022, https://www.uneca.org/stories/zambia-and-drc-sign-cooperation-agreement-to-manufacture-electric-batteries

United Nations Environment Programme, *Adaptation Gap Report 2023: Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed*, https://wedocs.unep.org/20.500.11822/43796

P. Weston, *Boom in mining for renewable energy minerals threatens Africa's great apes*, The Guardian, 3 April 2024, https://www.theguardian.com/environment/2024/apr/03/boom-in-mining-for-renewable-energy-minerals-threatens-africas-great-apes-aoe

World Bank, *Climate-Smart Mining: Minerals for Climate Action*, 26 May 2019, https://www.worldbank.org/en/topic/extractiveindustries/brief/climate-smart-mining-minerals-for-climate-action

World Bank, *Connecting to Compete. Trade Logistics in the Global Economy*, 2023, https://lpi.worldbank.org/sites/default/files/2023-04/LPI_2023_report_with_layout.pdf

World Bank data on electricity access, https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=ZG

L. Yieke, *Transport infrastructure investments: the road to Africa's prosperity* African Business, 29 November 2023, https://african.business/2023/11/partner-content/transport-infrastructure-investments-the-road-to-africas-prosperity

ABOUT DENTONS

Across over 80 countries, Dentons helps you grow, protect, operate and finance your organization by providing uniquely global and deeply local legal solutions. Polycentric, purpose-driven and committed to inclusion, diversity, equity and sustainability, we focus on what matters most to you.

www.dentons.com

CSBrand-157498-Thought leadership report-06 — 17/12/2024