

international construction

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Energy construction

Covid-19 and other setbacks have worsened the region's already-inconsistent construction industry. **Riley Simpson** reports

Like the rest of the world in 2020, Southern Africa – comprised of Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland (eSwatini), Zambia and Zimbabwe – and its construction industry has been hit hard by the Covid-19 pandemic.

The region's largest country, South Africa, saw its construction sector plummet by 33.4% in the second quarter.

“Perhaps the second quarter of 2020 will become known as the pandemic quarter,” Statistics South Africa wrote on the government department’s site.

Although Covid-19 and the resulting economic turmoil undoubtedly caused a sharp downturn, Southern Africa’s construction outlook has experienced an up-and-down trajectory over the past few years.

According to a study by Deloitte, the number of ongoing projects in the region decreased from 103 to 92 from 2018 to 2019, and the total value of construction products fell 5.7% from US\$125.4 billion to US\$118.3 billion over the same time frame.

South Africa leads the region with 37 total projects, and Angola and Mozambique are tied with nine ongoing projects apiece.

2019’s regression ended the decade, but it wasn’t Southern Africa’s first slump. After seeing highs in both the number of projects (109) and value (US\$140 billion) in 2015, the construction landscape cooled over the next two years.

Deloitte attributed the 2019 decline to the completion of projects, notably Angola’s Kaomo ultra-deep offshore oil project, the largest project in 2018.

In fact, energy and power construction projects made up 42% of the region’s 2019 total value – the largest share by far.

However, other complications such as pressure to divest from coal and other greenhouse gas-emitting sources are taking their toll on Southern Africa’s construction projects.

Energy setbacks and scrutiny

In South Africa, the two largest construction ventures (valued by Deloitte at US\$18 billion each) are coal-fired power plants:

Medupi and Kusile power stations, both owned by public utility Eskom and both with histories of delays and cost overruns.

Construction on the Medupi plant, located in Lephalale, Limpopo, started in 2007 and was expected to be completed by 2015 under promises to supply South Africa with a maximum capacity



of 4,800MW of baseload power. According to Eskom, all six Medupi units are connected to the national grid, with five in commercial operation.

The Kusile plant, located in Witbank, Mpumalanga, has also been under construction since 2007 and has a maximum capacity of 4,800MW, as well. However, only recently did Kusile achieve commercial status for the second of six total units in October 2020.

The main issue with the plants is their power source. According to GroundWork, a nonprofit environmental justice service and developmental organization in Southern Africa, 90% of South Africa’s electricity comes from Eskom’s coal-fired power stations. This reliance is at odds



South Africa’s Kusile coal-fired power plant has achieved commercial status for two of its six units

“ Although Covid-19 and the resulting economic turmoil undoubtedly caused a sharp downturn, southern Africa’s construction outlook has experienced an up-and-down trajectory over the past few years ”

faces challenges



with South Africa's commitment to the Paris Agreement on climate change, as well as the country's goal to cut that share to 45% by 2030.

Eskom, which said Medupi is its first coal-fired plant in 20 years since the Majuba power station, recently inquired about flue gas desulphurisation (FGD) technology to Medupi's sulphur dioxide emissions in line with South Africa's changing stance on coal-fired energy production. Installing the FGD technology would cost Eskom more than R\$40 billion (US\$2.6 billion) when the company has already accrued a debt of R\$480 billion (US\$31.7 billion).

Updating these stations to lessen their emissions is one way to avoid a similar fate of Thabametsi Power Company Proprietary Limited's proposed coal-fired power plant.

In November 2020, Reuters reported that Japan's Marubeni Corp. and South Korea's Korea Electric Power Corp. have withdrawn from a planned coal project in northern Limpopo. According to the news agency, two South African investors, state pension fund manager Public Investment Corporation and the Industrial Development Corporation, have also pulled out of the Thabametsi project, which would have come online in 2021.

Proposed ventures using cleaner forms of energy such as nuclear are under consideration but are not without scrutiny. Since 1984, Eskom's Koeberg power station's two reactors, located north of



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Caculo Cabaça, located on the Kwanza River in the Kwanza Norte province, will be the largest hydroelectric project in Angola with a capacity of approximately 2,200MW

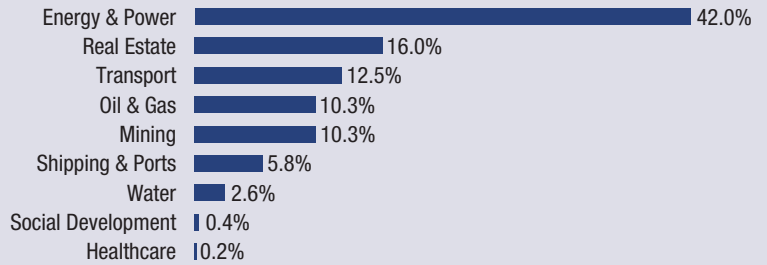


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Construction projects by sector

Energy & Power top the list for project value in Southern Africa

According to Deloitte, here's a breakdown of Southern Africa's construction projects by sector (ranked by value of projects):



The Lauca hydroelectric facility in Angola will produce 2,100MW of electricity on the Kwanza River

Cape Town in South Africa, have been the continent's only nuclear power source, but that might change soon.

The National Energy Regulator of South Africa is fielding comments on the government's plans to build a new nuclear power facility, and in September 2020, Gwede Mantashe, minister of Mineral Resources and Energy, said that nuclear is

the, "technology of the future" and will play a "vital role" in South Africa's energy mix.

However, the Southern African Faith Communities' Environment Institute is objecting to a new nuclear facility, which would be built on or next to the existing Koeberg site. And Cassie Goodman, of the Extinction Rebellion Cape Town, was reported to have said that South African government should focus on building renewable energy projects such as wind and solar sites instead of another nuclear power plant.

Angola's renewable energy boom

The construction of renewable energy projects is also key in Angola, which will soon operate two hydroelectric power plants: Caculo Cabaça and Lauca, both listed by Deloitte as top ten projects in terms of value (US\$4.5 billion each) in southern Africa.

Caculo Cabaça, located on the Kwanza River in the Kwanza Norte province, will be the largest hydroelectric project in Angola with a capacity of approximately 2,200MW. João Baptista Borges, minister of Energy and Water, said in 2019 that the facility will start producing electricity in 2024.

Lauca, which will produce almost as much energy (2,100MW) as Caculo Cabaça, is located on the Kwanza River on the border of the Malanje and Kwanza Norte provinces. Construction of the hydro plant, which started in 2012, will use approximately 30,000 tons of steel and 22,000 tons of cement.

According to the Kwanza Environmental Development Office, the two hydro sites are in line with the Angola 2025 Long-

Women in Construction Summit

Infrastructure ministry pledges to help women-led contractors

One of South Africa's major infrastructure ministries will be committing one in three of its projects to women-led contractors in a bid to increase the participation of women in construction.

Speaking at the Women in Construction Summit on 5 November, Lindiwe Sisulu, South Africa's minister of Human Settlements, Water and Sanitation, said that although representation for women has progressed in recent years, challenges with financing, education, mentorship, training and other barriers still exist.

"I believe when you empower a woman, you empower a nation," Sisulu said at the summit.



Term Strategy to ensure, "the efficient and integrated use of all energy sources in the Angolan energy grid to foster sustainable development and promoting the increased adoption of renewable natural energy sources and energy self-sufficiency throughout the country."

In Angola, there's still potential to build more energy infrastructure, especially in the renewable space, in the near future. Africa Oil & Power estimates that the country has the capacity for 55GW of solar, 18 GW of hydro and 3GW of wind energy.

"Renewable energy in Angola is a largely untapped area," said Maria de Cruz, president and CEO of the US-Angola Chamber of Commerce in June 2020. "The vast amount of natural resources throughout the country have tremendous energy potential and therefore, we have seen an expansion in the exploration and development of renewable energy."

Funding questions for mine projects

In 2018, the Republic of Zimbabwe, which has one of the world's richest deposits of platinum-group metals (PGMs), and Karo Mining Holdings announced the US\$4.2 billion Karo Platinum project. In the same year, the project broke ground to mark the development of a large-scale, vertically integrated PGM-mining complex on 23,903 hectares of land on the Great Dyke in the Mashonaland West District.

According to the Karo Platinum site, the project has created 15,000 direct jobs at steady state production levels, 3,000 jobs during peak construction and 75,000 indirect jobs through secondary and tertiary industries.

Zimbabwe President Emmerson Mnangagwa commissioned the venture, which includes Karo Power Generation building a thermal power plant with a capacity of 600MW.

Karo targeted December 2020 for the mine's four open-pit mining portals to become fully operational. The company also estimated the platinum-mining complex would produce 1.4 million ounces of refined PGMs per year.

The Karo Mining Company's project is mining platinum on almost 24,000 hectares of land in Zimbabwe



A month away from the deadline, outlets such as The Africa Report and The Standard are stating the project has stumbled on raising finance.

Josphat Zimba, Karo Resources country manager, told Zimbabwe Independent that the platinum exploration was a resounding success but that he could not discuss the capital injected to undertake the initiative.

Zimbabwe has another multibillion-dollar platinum mine deal with Great Dyke Investments (GDI) that is reportedly struggling with funding, as well, according to The Africa Report and The Standard.

This US\$2 billion project, a partnership between Russia's Vi Holding and Zimbabwe's Landela Mining Venture, concerns the Darwendale deposit, also in Mashonaland West, of PGMs and promises 8,000 jobs in the operating area.

In September 2020, GDI announced that it expects to secure its phase 1 funding, about US\$500 million, by the end of the year.

Still, The Standard reports that a survey of mining executives with the Chamber of Mines of Zimbabwe (CoMZ) reveals confidence in Zimbabwe's mining industry growth next year and beyond. CoMZ said that 2020's capacity utilisation, which measures productive efficiency, was affected by Covid-19, and that the efficiency is projected to increase from 61% to 80% in 2021.

According to the survey, executives expect the GDI and Karo Resources platinum output to grow by 2025.

Southern Africa's construction industry has experienced a tumultuous half-decade, with the sector seeing a number of rises and falls. The issues in the sector have been exacerbated in 2020 by the impact of the Covid-19 pandemic, but there are reasons for cautious optimism within certain energy and mining sectors in this region.

Container terminal operational

New container terminal project in Namibia fully operational

Namibia's Port of Walvis Bay New Container Terminal Project became fully operational in September 2020, according to a report published by the African Development Bank Group.

The transportation infrastructure enterprise will increase the port's handling capacity from 355,000 twenty-foot equivalent units (TEUs) up to 1,005,000 TEUs.

Container News said construction of the US\$300 million terminal started in 2014 on 40,000 square meters of land reclaimed from the ocean. The building process required dredging approximately 3.9 million cubic meters of sand, construction of a 600-meter quay wall, the laying of 304,000 square meters of paved surface and the construction of a workshop and administrative buildings.

