

Glancing back, looking forward

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[Hydrocarbon Engineering](#), Thursday, 02 February 2023 13:30

According to the [UN's Economic Commission for Latin America](#), the population for Central and South America reached approximately 660 million in 2022, and is expected to rise to around 750 million by mid-century.

While the trend would normally inspire investment in refining capacity and related infrastructure, the future of the region's downstream sector is muddled by several complications: the global movement towards net zero emissions, the ongoing Ukraine war, politics, and hydrogen development. Depending on the jurisdiction, some factors will have a beneficial effect, others deleterious.

Colombia

Colombia is South America's third largest oil producer, with an output of over 700 000 bpd. It has only eight years left of reserves, however, and needs to significantly increase exploration in order to maintain production.

In September 2022, the country elected Gustavo Petro as its new President. The left-wing candidate had run on a platform of eliminating contracts for oil and gas exploration and a ban on fracking. Upon inauguration, he wasted little time replacing the board of directors of state-owned Ecopetrol with his own slate of candidates, cementing control over the largest producer and refiner in the country. In addition to focusing on a transition to renewables such as wind and solar, Ecopetrol will be paying significantly higher revenues to the government.

The changes will inevitably redirect expenditures away from maintenance of conventional energy assets. In early 2021, Ecopetrol announced that it was spending US\$780 million over the next several years to modernise the century-old, 250 000 bpd Barrancabermeja refinery in the Caribbean port of Santander. An upgrade and expansion of its hydrocracking unit will reduce sulfur content in gasoline to 10 ppm. Water treatment and sulfur dioxide (SO₂) reduction are also planned for the facility. The ultimate fate of the refinery is now uncertain. In October 2022, President Petro visited the Barrancabermeja community (which is located at the mouth of the Magdalena River), and suggested that they begin switching their economic priorities from oil to the opportunities of monetising potable water; Colombia's future energy needs would be supplied by renewables. While a focus on renewables is admirable, the repercussions in several EU countries from over-dependence on wind and solar point to the hazards. Colombia, which relies on oil and gas for one-quarter of its revenues, can ill-afford missteps; protests from the disaffected poor and violence from guerrilla groups already engulf many parts of the country.

Venezuela

Venezuela, with an estimated 304 billion bbl of reserves, has seen its output plummet from over 3 million bpd to an estimated 527 000 bpd in late 2021.

The lack of investment in maintenance has had a profoundly negative impact on the downstream sector. The Paraquana refinery complex, with a nameplate capacity of 940 000 bpd, has been the scene of a score of failures, including a crack in a holding tank that resulted in 3.6 million l of fuel spilling into the Gulf of Venezuela marine environment. Following a substandard refurbishment, the 140 000 bpd El Palito refinery in Carabobo State has been largely shut due to a leaking catalytic cracker.

Thanks to the disruptions and sanctions arising from the Ukraine war, the Biden administration has recently made overtures to Venezuela in regards to lifting sanctions (in November 2022 it granted US-based Chevron permission to resume operations at its oilfields for six months), but the downstream sector needs an estimated US\$200 billion in investments to restore viability. Considering that most major oil companies have abandoned their assets in

Venezuela, any comprehensive revitalisation is highly unlikely.

Brazil

For the last several years, Brazil has been privatising many different parts of its economy, including the energy sector. State-controlled Petrobras has been divesting itself of major assets, including petrochemical plants, pipelines and refineries...

Written by Gordon Cope, Contributing Editor.

This article was originally published in the February 2023 issue of *Hydrocarbon Engineering* magazine. To read the full article, [sign in](#) or [register for a free subscription](#).

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