

Yoram Carboex

Bauxite, Suriname, and hopes of development

Suriname is a multiethnic and multireligious country in northern South America. It is often considered to be culturally part of the Caribbean. The Amazon rainforest covers over 90 percent of the country, making it an important node of global carbon-absorbing capabilities. Most of its population is centred around the coastal area in and near its capital, Paramaribo, while the rest of the country is sparsely populated. This makes Suriname one of the least densely populated countries in the world. At the same time, in terms of biodiversity, Suriname has an incredible variety of flora and fauna.

Various Indigenous groups have inhabited Suriname since the 4th millennium BC. However, British planters first permanently settled it halfway through the 17th century. In 1667, a Dutch fleet took control, and in the 17th century, Dutch settlers developed Coastal Suriname into a plantation colony.



FIGURE 1: MAP OF PRESENT-DAY SURINAME.
[https://en.wikivoyage.org/wiki/Surinamese_Rainforest#/media/File:Suriname_inland_region_map_\(en\).png](https://en.wikivoyage.org/wiki/Surinamese_Rainforest#/media/File:Suriname_inland_region_map_(en).png)

Enslaved people, mainly from Western Africa, were trafficked across the Atlantic and put to work toiling the plantations, wreaking havoc on their bodies. Harsh environmental conditions and cruel treatment by the Dutch made it one of the deadliest destinations for African slaves. Sugar, coffee, cacao, cotton, and indigo became the main exports of Suriname.¹ Until the end of the 19th century, the enslaved African population constituted most of the population. However, following the abolition of the institution of slavery in Suriname in 1863, the Dutch turned to the trafficking of indentured labourers, mainly from India and the island of Java, another Dutch colony (present-day Indonesia). This effectively transformed Suriname into a multi-ethnic society. However, cheap labour could only do so much to halt the decline of the plantation economy brought on by more competitive global commodity markets.²

While Suriname's plantation settlements had been coastal, in the 1880s, the interior started to come into view when gold was discovered. Gold mining led to more interactions with the Maroon communities, which originated from runaway rebellious slaves who had settled in the dense rainforests of Suriname to evade Dutch control. However, the mining of gold remained a relatively marginal part of the Surinamese economy, as its deposits were quite small compared to other places. Ultimately, bauxite, rather than gold, would become Suriname's most prized resource. In the 19th century, the new metal of aluminium was very expensive, as it was extremely difficult to isolate it from other elements. However, following new inventions that revolutionized aluminium production, bauxite became an important ore. In this new process, raw bauxite was treated with caustic soda and other substances at a high temperature, producing the white powder of alumina and red mud. The former can be further converted into aluminium by smelters, while the latter is an environmentally hazardous toxic waste residue. Thus, mining bauxite is just one of several steps in the value chain of producing bauxite.

The technological innovations and significant disruptions in the global aluminium industry's supply chain caused by the First World War, which also made aluminium an indispensable strategic material, led the US Aluminium Company of America (Alcoa) to focus on new bauxite reserves in Latin America and the Caribbean. The US company managed to acquire concessions for bauxite reserves in Suriname with the help of the Dutch governor, who believed an open market policy could help develop the colony and increase revenue for the colonial authorities. Alcoa was further aided by a deal between the governments of the Netherlands and the United States, which provided them with favourable conditions and a near-exemption for taxes. In turn, the American company Standard Oil left Indonesia, benefiting the activities of the oil giant Royal Dutch Shell there. However, this deal did little for Suriname itself, curtailing its ability to profit significantly from its natural abundance of bauxite occurrences, even after gaining independence.³

Moengo, an abandoned Maroon village, was selected by Alcoa as its mining hotspot. It was transformed into a company town, and with its hospital, drinking water, and sewage systems, the conditions were superior to those in the capital, Paramaribo. The city was planned in a way that enforced segregation between different ethnic groups of workers. The city also came to rely on Maroons' formal and informal labour from the neighbouring villages. Even if bauxite mining thus provided an economic impulse, this was limited, given that the mining of bauxite accounted for the smallest value-adding activity within the supply chain of aluminium production (see Figure 3 on page 5). This meant there was much potential for extra profit if a bauxite exporting country could host other parts of the aluminium production

process, as it would create more employment opportunities and would allow for more government revenue, as alumina and aluminium could be sold for higher prices than bauxite. In 1925, Alcoa proposed a plan to build a dam to generate the necessary hydropower to produce alumina in Suriname itself, with the caveat that it wanted to be rewarded for its investments with concessions for all bauxite reserves in Suriname. Ultimately, the US company decided to invest in North America instead, even as the Dutch authorities were seriously considering Alcoa's proposal. This meant that the income from bauxite remained limited, as the revenues for colonial authorities of taxing export of unprocessed bauxite ore were rather low. Despite not investing in processing facilities in Suriname, demand for aluminium kept rising, and Alcoa built another bauxite mine. This time, Dutch colonial authorities made sure that a concession for the Dutch company Billiton nearby balanced Alcoa's concession in an attempt to not lose control over Suriname. These concessions led to the creation of another mining town in 1938: Paranam, which was located near bauxite deposits closer to Paramaribo.⁴



FIGURE 2: PICTURE OF MOENGO'S HOSPITAL FROM 1947. © NATIONAAL ARCHIEF NEDERLAND

After the outbreak of the Second World War, Suriname temporarily achieved a uniquely important position within the American war effort, supplying the US with 60 percent of its bauxite imports. However, this did not remain the case for long as the US sought other ways to decrease its material dependence on Suriname.⁵ Nevertheless, American influence far outweighed Dutch control for most of the war. After the occupation of the Netherlands by Nazi Germany, trade with Suriname came to a halt, and bilateral trade between Suriname and the US skyrocketed. The US also stationed 2000 military personnel because of Suriname's importance in the wartime economy. Even if a lot of the profit from bauxite exports left Suriname through Alcoa, increasing exports combined with the economic boon of the American military presence led to somewhat of a financial boost, as it led to higher wages and standards of living for many. Furthermore, it provided a stream of tax revenue for the government. In 1943, for example, mining tax revenues were 4 million guilders (equivalent to around 32 million euros today).⁶ At the same time, it had inflationary effects on those whose incomes were fixed, such as, for example, civil servants. Despite some fears from Dutch colonial authorities that they would be

unable to reestablish full colonial control following the war's end, the US military left, and the Netherlands reestablished colonial control.

Nevertheless, some wartime promises of more autonomy for Suriname and the Dutch possessions in the Caribbean had been made, and there was considerable political mobilization within Surinamese society to demand more autonomy in the years following. However, even if this desire was quite universal in the Dutch colonies, in Suriname and the Dutch Antilles, there was not necessarily widespread agreement on the nature of the future relationship with the Netherlands. In Suriname specifically, political parties formed predominantly along ethnic and class lines and were far from unified. Still, a democratic election was held in 1949, and in 1954, Suriname became a self-governing member state within the newly created Kingdom of the Netherlands, with the Dutch Antilles and the Netherlands as its other members. However, the Netherlands effectively retained control of defense and foreign policy in the Kingdom, while Suriname and the Antilles gained more autonomy in internal affairs. This contrasted sharply with the developments of the most important colony of the Netherlands, the Dutch Indies, in present-day Indonesia. There, anticolonialism and a desire for independence were widespread and opposition was politically well organized, which led to a bloody war of independence against the Dutch empire, which ended in 1949 when the Netherlands was forced to recognize sovereign Indonesia.⁷

While Suriname was on a trajectory of more autonomy, there was increasing discussion about Suriname's need to develop its economy. The Nationale Partij Suriname, which won the first independent Surinamese election in 1949, advocated for creating a planning office that would make plans to develop the economy of Suriname. They argued that to raise the living standards or keep them at the same level, Suriname needed to raise the value of its exports. For them, developing Suriname's 'earthly treasures' was identified as a potential way to do this. However, the party also acknowledged significant uncertainties about their natural resources' size, occurrences, value, and exploitability and that they needed technical expertise from abroad to make it all work.⁸ Ultimately, in 1951, the Stichting Planbureau Suriname (Suriname Planning Office) was instituted to draft a blueprint for development. This institute approached Willem Johan van Blommenstein, a Dutch professor who had been an expert in water management in the Dutch colonial possessions in Indonesia, to help develop water management plans in Suriname. Blommenstein proposed a plan to build a dam on the Suriname River near the Maroon village of Brokopondo. This would provide cheap electricity, which could be used to power the processing of bauxite into alumina and, ultimately, into aluminium. Additionally, it could provide Paramaribo with reliable and affordable power. However, the plan implied the displacement of some Maroon people, whose houses would be engulfed by the artificial lake.

The Surinamese parliament and government ultimately endorsed the plan. But, to make it happen, there was a need for outside capital investment. The then-governor of Suriname was optimistic, arguing that it was easier to raise vast sums of money for a dam than it was to raise small amounts of money for a school.⁹ However, it turned out it was easier said than done. The Surinamese

government first approached Alcoa. They were rather unenthusiastic, as they considered it a risky enterprise and were unsure whether there was a business case for developing the value chain of the aluminium inside Suriname. Similar to Alcoa, the Dutch company Billiton was also sceptical.

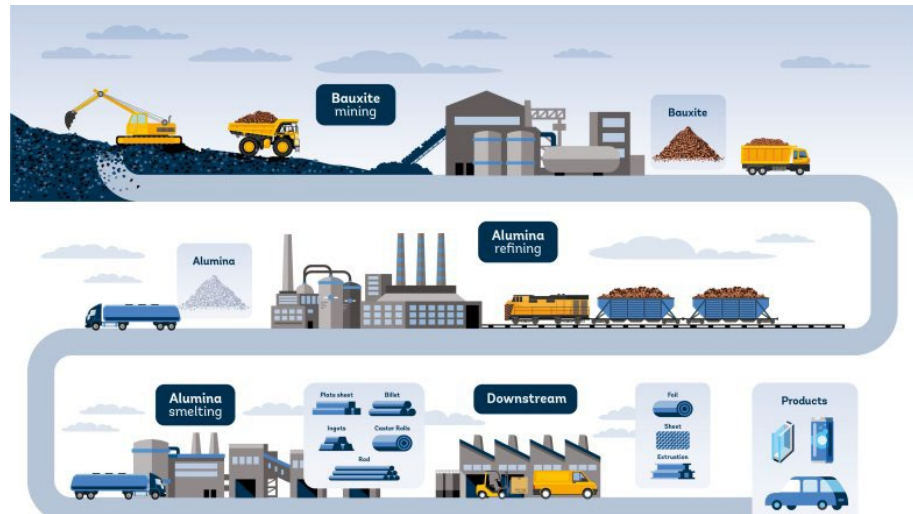


FIGURE 3: GRAPHIC OVERVIEW OF THE GENERAL ALUMINIUM VALUE CHAIN.

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N/COMPETITIVENESS-OF-GLOBAL-ALUMINUM-SUPPLY-CHAINS-UNDER-CARBON-
PRICING-SCENARIOS-FOR-SOLAR-PV](https://www.worldbank.org/en/topic/extractiveindustries/publication/competitiveness-of-global-aluminum-supply-chains-under-carbon-pricing-scenarios-for-solar-pv)

For several years, the Surinamese government undertook an unsuccessful search to attract outside investors. However, suddenly, in 1957, a deal was, after all, struck with Alcoa. A loophole in US law, which allowed companies to pay significantly less taxes if they got most of their income from



FIGURE 4: AERIAL VIEW OF THE BROKOPONDO DAM AND PART OF THE HUGE ARTIFICIAL LAKE (1,560 KM²) IT CREATED.

[HTTPS://EN.WIKIPEDIA.ORG/WIKI/FILE:BROKOPONDO_RESERVOIR.JPG.](https://en.wikipedia.org/wiki/File:Brokopondo_Reservoir.jpg)

abroad, made it more attractive to move their activities to Suriname. Alcoa created a secondary company, the Suriname Aluminium Company (Suralco), with its legal and fiscal basis still in the US. As part of this deal, Alcoa committed to funding an aluminium smelter, construction of the Brokopondo Dam and a road leading there. But, there was one catch, as it demanded ownership of these structures for 75 years and an additional concession for bauxite in Suriname. The government eventually agreed and signed the deal in 1958, with Billiton eventually joining the

project and thus expanding the smelter. Construction was completed in 1964.¹⁰ However, the intensification of bauxite mining destroyed parts of the Surinamese forest landscapes, and the construction of the Brokopondo Dam created a huge artificial lake that transformed the original environment. (The lake is large enough to be easily spotted on any map of Suriname.)

The investments were a further economic boon for Suriname, and at least for a while, they helped Suriname host (and profit from) a more significant part of the aluminium value chain by exporting not only bauxite but also alumina and aluminium (see Figure 5 below). This provided Surinamese workers with high-paying jobs and economic prospects. It also helped raise living standards by providing cheap hydroelectricity, even if these benefits were distributed unequally.¹¹ Quality of life in Moengo and the other company towns contrasted with other Suriname areas. Some inhabitants compared Moengo to a paradise, with decent and cheap housing, free electricity and running water, a special company farm and store, and even scholarship opportunities for students.¹² However, these developments did make Suriname even more dependent on the uncertainties and cyclical movements of the global metal markets. Nevertheless, people welcomed the increasing opportunities that the companies provided, and even nowadays, people often have fond memories of those times. A woman of Javanese descent born in Moengo in the 1950s expressed this sentiment: 'I think that many laborers who were tied to Suralco had a good job, that gave them some security ... Suralco took care of many things people needed. I remember the good infrastructure, the recreational facilities, you could count on a regular wage, per week, per month, education was good ... So nobody thought about leaving.'¹³

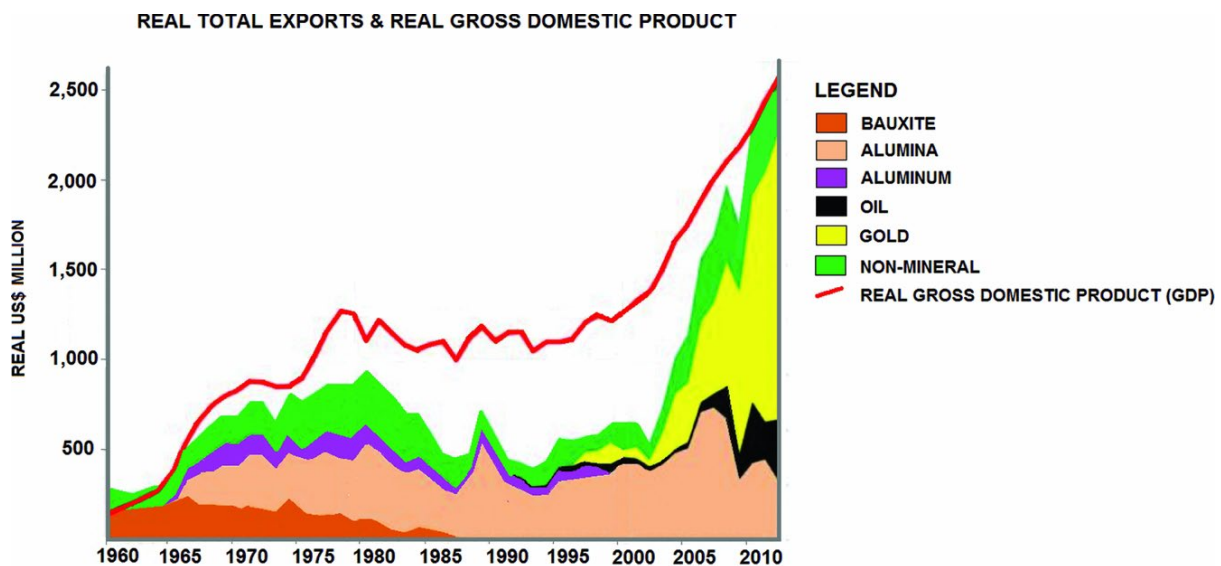


FIGURE 5: GRAPH DETAILING THE DEVELOPMENT OF SURINAME'S TOTAL EXPORT OF COMMODITIES, AND OF REAL GROSS DOMESTIC PRODUCT FROM 1960-2010. IT SHOULD BE NOTED THAT TOTAL EXPORTS ARE NOT EQUAL TO SURINAME'S INCOME FROM EXPORTS. <https://www.cambridge.org/core/journal>

In the years leading up to Suriname's full independence in 1975 and after, ideas about economic development remained tied to industrialization around bauxite exploitation. Interestingly, the push for independence did not come predominantly from Suriname but from the Dutch government. This was partly because the left-wing coalition in power wanted to break with its colonial past and image and partly because of xenophobic fears about immigration from Suriname to the Netherlands. This new-found independence was accompanied by a so-called "golden handshake" of significant foreign aid commitment from the Netherlands for 15 years. However, this came with a catch, as the development aid was administered by a joint commission between Suriname and the Netherlands, with the latter retaining quite strong control over how the money was spent. Preference was given to Dutch projects and companies, making it clear that the handshake also aided the Dutch economy. Ironically, while the plans that accompanied the development aid explicitly stated that one of its goals was the diversification of the economy to reduce the dominance of bauxite, it also contained an infrastructural plan entirely centred around bauxite production. Furthermore, it implied even more reliance on Alcoa and Billiton for development.¹⁴ This happened as bauxite exploitation and processing into aluminium in Suriname had already passed their peak, and its relative importance to the Surinamese economy was in decline. This was predominantly the case because big, lucrative bauxite deposits had been discovered in Australia, Brazil, and Guinea, diminishing the importance of the Surinamese deposits.¹⁵

Nevertheless, the hopes of economic development and industrialization through bauxite exploitation and aluminium production still retained their allure. The revival of ideas to mine deposits in the Bakhuis Mountains in Western Suriname exemplifies this. These ideas date back to at least 1965 when Suralco and Billiton conducted extensive exploration activities of bauxite in this undeveloped part of Suriname. However, these companies (and others) eventually saw little business upside in this project. Nevertheless, the ideas retained power among development planners. The so-called West-Suriname Plan began with the Dutch flow of aid in 1975. The project was framed as 'multi-purpose,' in which the exploitation of bauxite and the processing into alumina and aluminium powered with hydroelectricity from yet another dam was envisioned to be accompanied by the felling of large areas of forest for timber, which in turn would make the region ready for agriculture. There was even hope that the cheap electricity would attract further industrial and manufacturing activities. From 1976 until 1978, a railroad was constructed between Apoera, a Surinamese town near the Guyanese border, and the Bakhuis mountains.

Over time, the Dutch government became increasingly sceptical about the viability of bauxite exploitation in the Bakhuis mountains, as both Suralco and Billiton saw little business upside in the project. Ultimately, the Dutch investments did not significantly raise living standards for most people in Suriname. At the same time, the inequality had grown significantly. Furthermore, unemployment had not improved, even as almost 25 percent of the Surinamese population had emigrated to the Netherlands in the years just before and after independence.¹⁶ At the end of 1979, after four years of development aid and independence, the Dutch newspaper NRC Handelsblad published an article reviewing its effects. In the article, the newspaper described how development aid mostly went to big infrastructural projects executed by foreign companies, supervised by Dutch engineering companies, and to the benefit of Suralco, Billiton, and other

foreign companies. At the same time, the newspaper noted, 'social services remain just as bad, unemployment is growing, and lack of housing does not diminish'.¹⁷

Ultimately, the West-Suriname Project, already dead in the water, truly halted when a military coup under Desi Bouterse's leadership overthrew Suriname's democratically elected government. There was some popular support for the military coup, as the Surinamese population hoped a strong and decisive regime could restore order, fight corruption, and tackle unemployment. Under the leadership of Bouterse, Suriname moved into an increasingly autocratic direction, and dissent was heavily suppressed. In December 1982, following the torture and murder of fifteen opponents of Suriname's military regime, the Netherlands ended its program of development aid to Suriname, further damaging an already flailing economy.

Bauxite exploitation and aluminium production in Suriname took another hit when a disgruntled former bodyguard of Bouterse, Ronny Brunswijk, started a rebellion against the military government. What started as a personal feud morphed into the so-called Interior War (1986-1992), effectively becoming guerilla warfare between fighters of the Maroon community in the interior of Suriname and the central government. The rebels demanded more political independence, civil rights, and economic development for the Maroon community of 50,000-60,000. Guerilla warfare and targeted sabotage of mining and processing infrastructure all but halted the production of bauxite and aluminium in Suriname. After power lines linking the Brokopondo Dam to the smelter in Paranam were blown up, aluminium production stopped altogether in 1987. In 1989, Maroon rebels seized the hydroelectric plant in Brokopondo. They threatened to blow up the power plant and part of the dam, thus flooding Paramaribo, unless the government agreed to direct negotiations with them. Eventually, Brunswijk ordered his men to vacate the power plant, and a ceasefire was quickly reached.¹⁸ Despite this ceasefire, there were occasional flare-ups of violence, even if not a full resumption of war, until a peace deal was reached in 1992. The bauxite and aluminium industry, however, never reestablished itself fully. While significant investments were made in attempts to restart production, this was not enough in the face of falling worldwide aluminium prices. In 1999, Suralco closed the smelter.¹⁹ Even in the face of a struggling bauxite and aluminium-producing industry around the Brokopondo dam, Surinamese policymakers continued to hope for a reversal of fortunes. Politically, Bouterse's military reign ended in 1991 when there was a return to a democratic government.

However, Bouterse later staged a comeback, this time around through democratic means, leading his party to victory and becoming president from 2010 to 2020 despite a conviction by a Dutch court for his role in the international drug trade. In 2024, Bouterse became a wanted fugitive after fleeing from authorities to evade a twenty-year prison sentence. He was handed this sentence after his long-awaited conviction for his role in orchestrating the 1982 massacre.

From 1993 onwards, attempts were made to bring the West-Suriname Plan back to life. With Billiton and Alcoa/Suralco, the Surinamese government was exploring plans to exploit the area's estimated 90 million tons of bauxite.²⁰ In 2003, Suriname signed memoranda of understanding with Billiton and Alcoa to explore bauxite deposits in the Bakhuis area, to plan refinery

operations, and to create a feasibility study for a dam in the Kabalebo River to supply energy for a new smelter. After the feasibility studies were undertaken and exploration activities started, representatives of the local population expressed worries that they were not being informed sufficiently. They criticized the studies for not paying enough attention to their rights and the possible environmental consequences of these plans. In doing so, they specifically highlighted the environmental degradation left behind by a disappearing industry in the areas of bauxite exploitation and processing around the Brokopondo Dam, stating their fears that for them, it could end up even worse because of the difficulties of mitigating environmental degradation in such a remote area. Ultimately, in 2008, Billiton ceased all its activities and withdrew from Suriname, and the West-Suriname project faltered once again.²¹

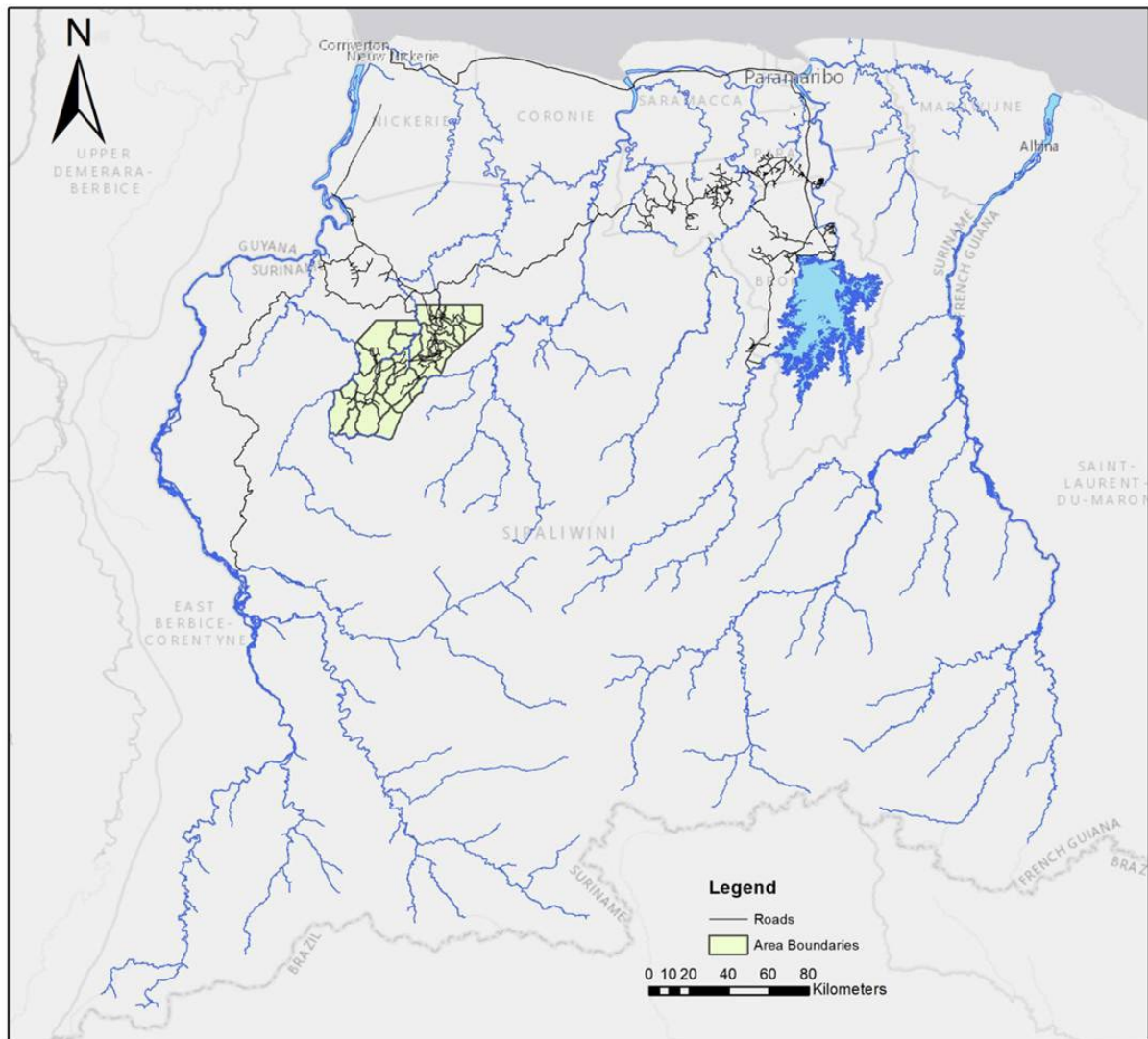


FIGURE 6: MAP DESIGNATING THE PROPOSED BAUXITE MINING IN THE BAKHUIS AREA (YELLOW). ON THE RIGHT YOU CAN SPOT THE BROKOPONDO RESERVOIR/LAKE.

[HTTPS://LOCALCONTENTSURINAME.COM/EN/NIEUWSBERICHT/SURINAME-INVITES-INVESTORS-FOR-WEST-SURINAME-BAUXITE-PROJECT/](https://localcontentsuriname.com/en/nieuwsbericht/suriname-invites-investors-for-west-suriname-bauxite-project/)

In the meantime, Alcoa, Suriname's most important company, continued to scale back its activities in the country. After closing its smelter in 1999, it continued operating its bauxite refinery and started selling its surplus electricity from the dam to the government of Suriname. However, the importance of its activities declined considerably. By 2010 or 2011, Suriname was already paying Alcoa more yearly for electricity than it levied on its bauxite mining and refining activities. In 2015, Alcoa ceased bauxite mining and refining activities and sought to leave the country entirely. In October of the same year, the company came to a provisional agreement with the government of Suriname. The agreement included a commitment from Alcoa to clean up its mining and industrial sites and to hand over ownership of the dam to the government in 2019, 13 years before the Brokopondo agreement was supposed to have ended. However, the Surinamese parliament unanimously rejected the proposal, arguing that if Alcoa did not hold up to its end of the bargain by ceasing production, the government should nationalize the dam right away to try to help lower electricity costs for the economically struggling Surinamese population. Nevertheless, the government continued negotiating based on the rejected agreement, stating it had little (legal) leverage over Alcoa.²²

With Alcoa set to leave, the environmental consequences of its nearly century-long activities also came into focus. The former mining sites, where the topsoil had been removed to reach the bauxite deposits, had become barren, scarred landscapes. A report of the consulting firm Environmental Resource Management, commissioned by the Surinamese government, found that Alcoa's refining activities had led to cyanide, fluoride, and mercury in the groundwater and swamps near its industrial site in Paranam. Close by, the landscape was now defined by two lakes of red mud, the toxic remnant of bauxite refinement. Alcoa expressed commitment to leaving the site in a way that prevented red mud from leaking into waterways. The company also proposed instituting a solar project atop the lakes to provide green energy. However, the company did not provide details about this project, and there is no indication this ever took off. Alcoa publicly reiterated its commitment to clean up well. It touted one of its projects, in which it paid women to replant mined areas with cassava in an attempt at reforestation.²³

Nevertheless, in 2017, journalists from the Pittsburgh Post-Gazette reported worries among the local population that they would be left behind.²⁴ The same reporters also visited Moengo, the other mining town defined by Alcoa's presence. Its old sewer system had been the country's pride when it was first installed. However, the system had broken down, with Alcoa leaving and taking with it its technical expertise in maintenance and the heavy machinery required. Waste was now overflowing, contaminating the area. Outside the big mining towns, for example, in the small village of Adjuma Kondre, where mining had stopped two years before, there was no sign that the jungle was reclaiming the terrain.²⁵ At the same time, Alcoa tries to set itself apart as a global corporate leader in sustainability. For example, in a 2015 company-wide sustainability report, Alcoa stated it wanted to leave behind net positive impacts on biodiversity in areas in which it operates. Asked how this relates to its Suriname activities, the company reiterated its commitment to cleaning up activities. Still, it emphasized that the net positive impact on biodiversity was an aspirational goal rather than a guarantee.²⁶ The reporters from the Pittsburgh Post-Gazette, who wrote a newspaper series on Alcoa's presence in Suriname, concluded that the American company's legacy in Suriname was mixed and that 'some within Suriname feel that

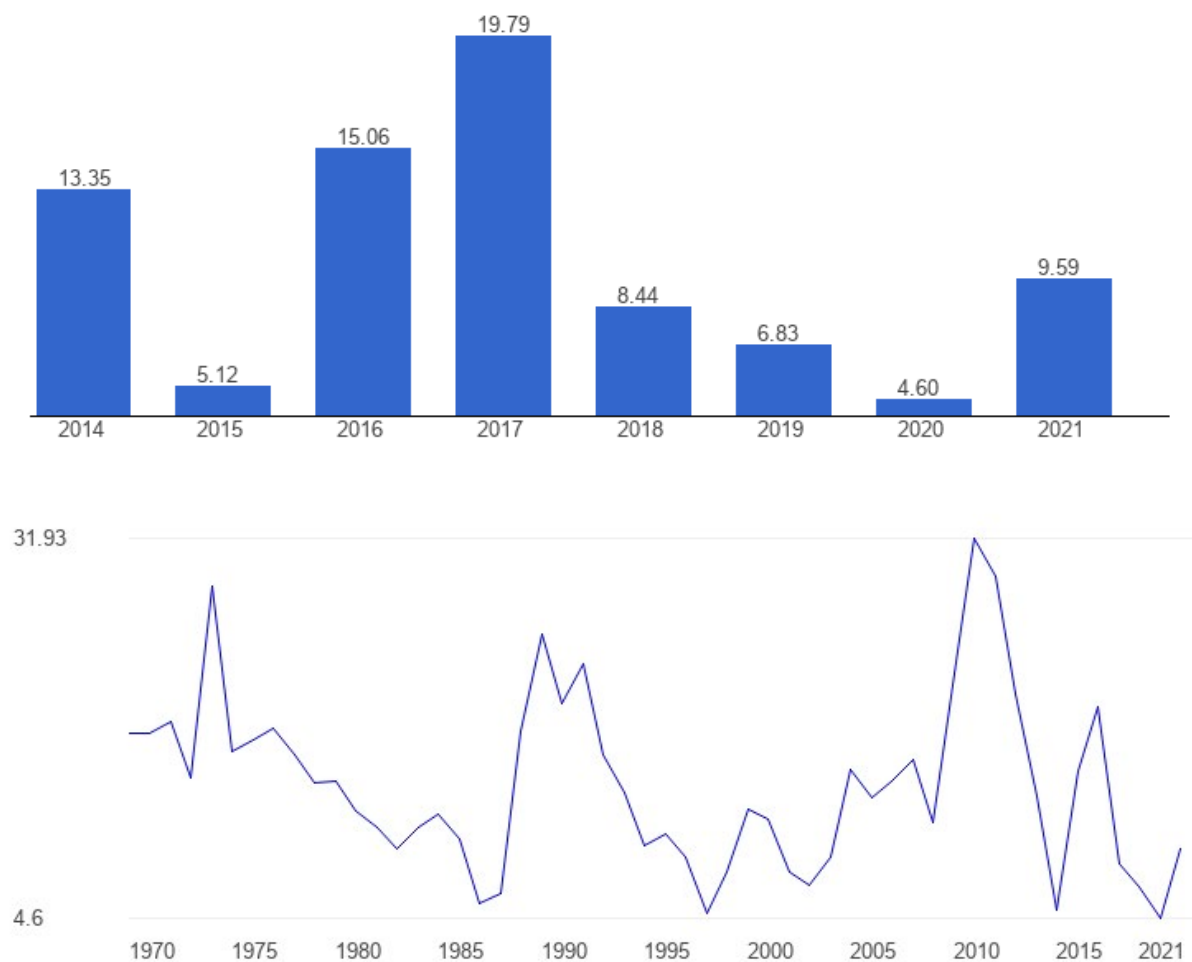
they're still dealing with what we call the resource curse, the impacts of having a natural resources based economy.'²⁷

The Surinamese parliament eventually approved the deal with Alcoa in 2019, and at the beginning of 2020, the state acquired the dam.²⁸ This was despite continuing opposition from union and civil society organizations who feared it was a lousy deal damaging workers and the environment unduly.²⁹ At the start of 2024, looking back on the long history of bauxite exploitation, Surinamese Minister of Finance and Planning Stanley Raghoebarsing acknowledged that the wealth this industry had brought to Suriname had not been turned into sustainable high standards of living. He said sustainable development could only be achieved through sound and effective government: 'How countries are governed, their policies, their transparency, and their commitment to the welfare of all citizens determines a country's trajectory, not natural resources or money by itself.' Raghoebarsing expressed optimism about Suriname's possibilities of capturing the opportunities its natural riches offered her, arguing that a good government would change things, allowing Suriname a new shot at managing its resources well. He explicitly pointed to Suriname's prospect of exploiting more oil fields, especially offshore ones.³⁰

Recently, the West-Suriname Plan has also made another comeback, with the government opening a new call for outside partners to develop the bauxite deposits in the Bakhuis mountains. The call is formulated as follows: 'Suriname has experience with bauxite mining, ... and its Government sees the bauxite Project as an anchor for the development of the Western region with opportunities for smelting and downstream activities, boosting electricity production, forestry and agribusiness'.³¹ The document also stated that any company interested would later have to submit a comprehensive proposal outlining how their 'strategies, expertise, and commitment to adding value to the bauxite sector' would adhere to 'environmental and social responsibility standards'.³² In April 2024, the Suriname Herald reported interest from Chinese companies in plans to create a bauxite industry in Western Suriname.³³ One of the interested parties reportedly was the Chinese Aluminium Corporation (Chinalco), a company that has received considerable criticism for its mixed record on the environment in China and overseas.³⁴ So, even with Alcoa gone and significant parts of its environment defined by its old industrial sites, Suriname has still not given up on bauxite and its associated hopes of development.

Annex 1: The Surinamese economy and natural resources

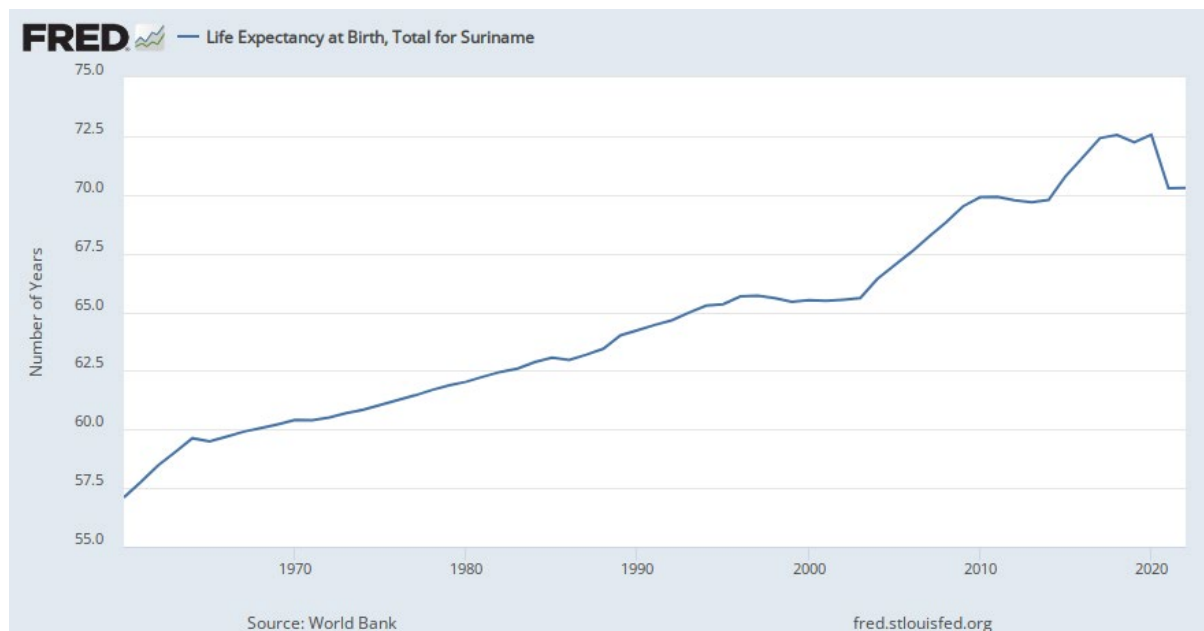
The income from natural resources (timber, oil, natural gas, coal, minerals) as a percentage of GDP of the economy of Suriname from 1970-2021.



Source: https://www.theglobaleconomy.com/Suriname/Natural_resources_income/. Data from the World Bank.

Annex 2: Life expectancy in Suriname

Development of the life expectancy in Suriname from 1960-2022



Source: <https://fred.stlouisfed.org/series/SPDYNLE00INSUR>. Data from the World Bank.

¹ Gert-Jan Oostindie, "The economics of Suriname slavery," *Economic and Social History in the Netherlands* 5 (1993): 1-24.

² Rosemarijn Hoeffte, "A passage to Suriname? The migration of modes of resistance by Asian contract laborers," *International Labor and Working-Class History* 54 (1998): 19-39.

³ Simon Lobach, "Aluminium in Suriname (1898-2020): An Industry Came and Went, but its Impacts on the Maroon Communities Remain," *International Development Policy* 16 (2023).

⁴ Ibid.

⁵ Ibid.

⁶ Rosemarijn Hoeffte, *Suriname in the Long Twentieth Century: Domination, Contestation and Globalization* (2013), 117.

⁷ Bob Moore, "Decolonization by default: Suriname and the Dutch retreat from empire," *The Journal of Imperial and Commonwealth History* 28(3) (2000): 228-250.

⁸ "De regeringsverklaring van het C.A.B.," *De West: nieuwsblad uit en voor Suriname* (28 September, 1949).

⁹ "Prof. Blommenstein vertelt van het plan om dam in suriname rivier te bouwen," *Algemeen Dagblad* (12 January, 1951)

¹⁰ Lobach, "Aluminium in Suriname".

¹¹ <https://pulitzercenter.org/stories/industrial-decline-plagues-former-alcoa-company-towns>.

¹² Hoeffte, *Suriname in the Long Twentieth Century*, 125-126.

¹³ Ibid., 129.

¹⁴ Baijah Mhango, "The Political Economy of Aid: The Case of Suriname," *Caribbean Studies* 24(1-2) (1991): 123-164.

¹⁵ <https://esb.nu/suriname-tienjaar-onafhankelijkheid/>.

¹⁶ Ibid.

¹⁷ "Toekomst Suriname ziet er niet vrolijk uit," *NRC Handelsblad* (29 November, 1979).

¹⁸ <https://www.latimes.com/archives/la-xpm-1989-09-03-mn-2135-story.html>.

¹⁹ G.F.A. van der Thiel, "Wordt Suriname een tweede Grenada," *MS* 156(12): 505-516; Lobach, "Aluminium in Suriname".

²⁰ <https://www.trouw.nl/voorpagina/roemrucht-plan-west-suriname-herleeft~bba66482/>.

²¹ <https://sites.lsa.umich.edu/stuartkirsch/wp-content/uploads/sites/996/2022/05/suriname-bakhuis-bauxite-mine-impact-assessment-sep-2009.pdf>.

²² <https://pulitzercenter.org/stories/land-alcoa-dammed>.

²³ <https://pulitzercenter.org/stories/residents-hope-alcoas-big-impact-followed-big-cleanup>.

²⁴ Ibid.

²⁵ <https://pulitzercenter.org/stories/jungle-slowly-returns-paranam>.

²⁶ <https://pulitzercenter.org/stories/alcoa-leaves-dirty-legacy>.

²⁷ Ibid.

²⁸ <http://www.dutchcaribbeanlegalportal.com/news/business-financial/9420-suriname-now-owns-afobaka-hydroelectric-dam>.

²⁹ <https://www.industriall-union.org/alcoa-closure-in-suriname-industriall-calls-for-a-fair-deal-for-workers>.

³⁰ <https://www.srherald.com/suriname/2024/06/07/raghoebarsing-sleutel-duurzame-ontwikkeling-ligt-in-goed-en-effectief-bestuur/>.

³¹ <https://surinamebakhuisbauxite.sr/index.php/procurement-documents/>.

³² Ibid.

³³ <https://www.srherald.com/suriname/2024/04/13/president-santokhi-voert-gesprekken-met-chinese-bedrijven-en-conglomeraten/>.

³⁴ See, for example: <https://www.reuters.com/article/business/chinalco-city-officials-punished-for-environmental-breaches-idUSKCN1IO1QS/>; <https://www.business-humanrights.org/en/latest-news/per%C3%BA-protestas-en-v%C3%ADa-p%C3%BAblica-por-afectaciones-sociales-y-ambientales-de-miner%C3%ADa-met%C3%A1lica-de-chinalco-a-comunidad-campesina-en-oroya/>; <https://dialogue.earth/en/business/223-chalco-the-chinese-company-praised-overseas-but-a-major-polluter-at-home/>.