

BREWING IN CONTEMPORARY ZAMBIA

A Liquid Source of Economic Development¹



KEY TAKEAWAYS

Economic growth in Zambia was relatively rapid in the years between 2000 and 2020, but it proved unsustainable. One major reason for this was the failure to achieve rapid industrial growth. Now, Zambia is making some efforts to promote specific economic sectors within manufacturing (and agriculture), but it is largely ignoring the brewing industry.

Brewing can make a positive contribution to economic development in Zambia.

This policy brief recommends that Zambia continue to acknowledge the potential health implications and associated social costs of beer, but also to recognize the economic development benefits provided by the brewery industry and consider more actively promoting brewing through the Multi-Facility Economic Zone (MFEZ) program and in national development plans.

This policy brief also commends the recent policy initiative by the government of Zambia to promote the small-scale craft brewing sector, which has made a dynamic contribution to industrialisation efforts elsewhere in the world.

EXECUTIVE SUMMARY

Economic growth in Zambia was relatively rapid in the years between 2000 and 2020, but it proved unsustainable. One major reason for this was the failure to achieve rapid industrial growth. Now, Zambia is making some efforts to promote specific economic sectors within manufacturing (and agriculture), but it is still largely ignoring the brewing industry.

- Brewing contributes to economic development in the following ways:
- Promotes industrialisation, especially in lower-income developing countries
- Generates an easy source of tax revenue
- Grows rapidly as an economic sector in terms of output, employment, and consumption
- Attracts domestic and foreign investment
- Boosts local manufacturing production (rather than imports)
- Provides a lot of policy space to promote small-scale 'craft' brewers
- The brewers will become a political and economic interest that promote or even pay for the government to clean up the national water system, with all the associated health benefits.

Zambia already has a generous structure of tax incentives, an amenable regulatory environment, and access to land through the Multi-Facility Economic Zone (MFEZ) scheme. It also has a framework, through its national development plans, for promoting industrialisation, and targeting specific industrial sectors.

This policy brief recommends that Zambia continue to acknowledge the potential health implications and associated social costs of alcohol consumption, but also to recognize the economic development benefits provided by the brewery industry and consider more actively promoting brewing through the MFEZ program and in national development plans.

This policy brief also commends the recent policy initiative by the government of Zambia to promote the small-scale craft brewing sector, which has made a dynamic contribution to industrialization efforts elsewhere in the world.

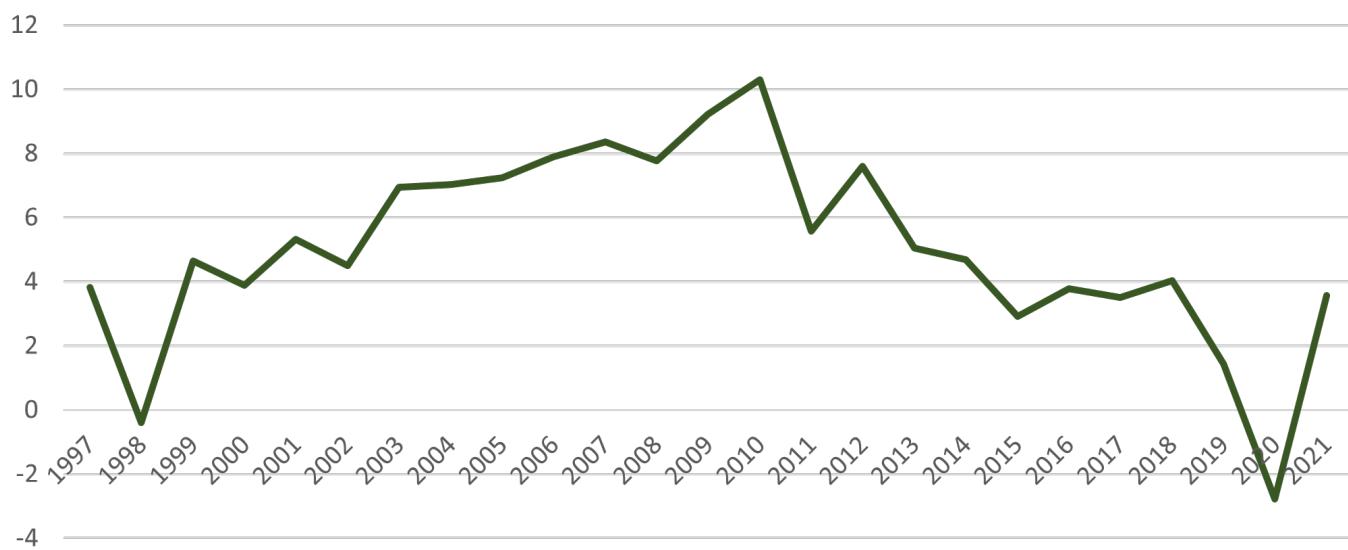
1. ECONOMIC GROWTH, INDUSTRIALISATION AND SECTORAL TARGETS IN ZAMBIA

This section shows that economic growth in Zambia was relatively rapid in the 2000-2020 period, but not sustainable. One major reason for this was the failure to achieve rapid industrial growth. Now, Zambia is making some effort to promote specific economic sectors within manufacturing (and agriculture), but it's still ignoring the brewing industry.

1.1. ECONOMIC GROWTH

Figure 1 shows that economic growth in Zambia increased steadily from 4% in 1999 to 10.3% in 2010, then declined to 4% in 2018, before lurching into a Covid-19 and debt-induced recession. We may see this as representing two decades of economic success relative to the years of economic stagnation and declining per capita incomes in the 1980s and 1990s. The Zambian government repeated high targets for rapid economic growth across each of the three national development plans: in 2006, at least 7% p.a.;ⁱⁱ in 2011, between 6 and 7% p.a.ⁱⁱⁱ; and in 2017, above 5% p.a.^{iv} Another view is that Zambia failed to attain the rapid and sustained rates of economic growth targeted by policy makers in a manner that would have transformed its economy, exports, investment, employment, and poverty outlook.

Figure 1: GDP Growth in Zambia (% annual)^v



1.2. INDUSTRIALISATION

There is widespread agreement that a key reason for the failure to attain sustainable, long-run economic growth in Zambia is the failure to industrialize. Manufacturing is variously argued to create more jobs (especially among less-skilled women), generate exports, increase productivity growth, and bolster more technology than either the agricultural or service sectors.

In the 1960s, Cambridge University economist Nicolas Kaldor formalised many of the arguments that explained the link between sustainable economic growth and industrialisation.^{vi} Kaldor's First Law states that the faster the rate of growth of industrial output in the economy, the faster will be its growth of GDP. Kaldor's Second

Law holds that there is a strong positive correlation between the growth of industrial output and the growth of productivity in the industrial sector. Kaldor's Third Law is that faster growth of output in the industrial sector leads to faster growth of productivity in the whole economy because of dynamic economies of scale.

There is general empirical support for these three laws across a wide range of country examples.^{vii} Recent research has also added to these early views. Manufacturing offers both developed and developing countries unique advantages. The sector shows robust and rapid convergence in labour productivity to global leaders regardless of geography, policies, or other country-level influences.^{viii}

The government of Zambia has long agreed with these theoretical and empirical arguments. The 6th National Development Plan, 2006-2010, for example, noted that growth of the manufacturing sector is needed to sustain rapid aggregate GDP growth and to make that growth inclusive by creating employment and generating linkages with other economic sectors.^{ix} The 2011 Plan repeated that familiar litany of benefits: "...the manufacturing sector is a pivot of economic development through its backward and forward linkages to economic growth, exports and employment creation. It provides a market for primary products and sets the basis for exports with employment generation capacity."^x

Figure 2 shows that manufacturing growth in Zambia accelerated in 2003, 2011, and 2021, but that rapid growth was not sustained, and kept falling back to 2-4% p.a.

Figure 2 Manufacturing, value added in Zambia (annual % growth)^{xi}



The government of Zambia has a long-standing goal to promote diversification, one measure of which is to increase the share of manufacturing in GDP. The 5th National Development Plan (2006-2010), for example, targeted manufacturing to reach 20% of GDP.^{xii} Figure 3 shows that the share of manufacturing in GDP ebbed slowly from 5.7% of GDP in 1999 to 3.4% in 2012. It remained low (barring a temporary Covid-19-induced rise in 2021), with no clear trend up to 2022.

Figure 3: Manufacturing, value added in Zambia (% of GDP)^{xiii}



1.3. SECTORAL PRIORITIES

Some countries in Africa have targeted specific economic sectors at a more disaggregated level than industry vs. agriculture. In Ethiopia, for example, the 2006 national development plan described detailed targeted incentives, whereby the government picked sectoral winners. The government promised to “provide direct support and guidance to strategic sectors” including textile and garment industries, meat, leather and leather product industries, other agro-processing industries, and the construction industry. The 2006 plan set output growth rate and sometimes export targets for each of these sectors.^{xiv}

Across three national development plans (NDPs) in Zambia, there is no equivalent sense of coherent prioritization by sector. This can be seen in Table 1, which shows that across three NDPs there was frequent discussion of industry and manufacturing, but very little detailed discussion of what specific sectors were being referred to in the Zambian context. There was some discussion of sectors such as textiles, beverages, and tobacco, but little sign of consistency. Beverages, for example, were mentioned once in the 6NDP and then fifteen times in the 7NDP. What is interesting for the purpose of this policy brief is that brewing is not mentioned once in any of the development plans.

Table 1: Targeting Sectors in Zambia: Mentions in the NDPs

NDP	Industry	Manufacturing	Textiles	Beverages	Tobacco	Brewing
5NDP (2006-2010)	188	111	10	6	14	0
6NDP (2011-2016)	99	54	8	1	7	0
7NDP (2017-2021)	132	49	18	15	1	0

Source: Compiled by the author from the three national development plans

More generally, alcohol is mentioned once in the 5NDP in a section on mental health, which notes the need to “strengthen programs in the area of alcohol, drug and substance abuse, including HIV and AIDS.”^{xv} Alcohol gets one mention in the 6NDP in a section on non-communicable disease, which notes “the contributing factors for non-communicable diseases include, age, alcohol and substance abuse, tobacco-smoking and nutritional problems.”^{xvi}

The 7NDP mentions alcohol three times, in one paragraph related to “moral decay”: “In terms of moral decay, Zambia for example, is ranked as one of the countries with high alcohol consumption and abuse. Despite having legislation on the sale and consumption of alcohol, there are challenges in enforcing this legislation. The effects of alcohol abuse result in low productivity, loss of man hours, gender-based violence and breakdown of family units. Such forms of moral decay negatively impact individuals and the community and are a cost to national development.”^{xvii}

Outside of the NDPs, this ambivalence to brewing is reflected in how Zambia targets domestic and foreign investors. Much of this effort is done through special economic zones (SEZs), known as Multi-Facility Economic Zones (MFEZ) in Zambia. The Lusaka South MFEZ website contains a list of targeted industries for foreign and domestic investors. These incentives include those targeted to “commercial and small holder farmers through the linkages created by the agriculture and agro processing industry.”^{xviii} The specific agro-goods for which the government seeks investors are “wheat, soyabean, cotton, tobacco, spices, sugar and vegetables.” Beer and brewing, and agro-inputs into brewing (especially barley), were conspicuous by their absence. Under manufacturing, electronics and electrical goods were listed as targeted sectors, but, again, there was no active encouragement of brewing. While Zambian Breweries does have a production base in the Lusaka South MFEZ there is no conscious effort by the government to encourage more investment by breweries.



2. WHY BREWING IS GOOD FOR ECONOMIC DEVELOPMENT

This section now delves into a more detailed time-wise explanation of how brewing contributes to economic development. Brewing promotes industrialisation, especially in lower-income developing countries, in a variety of ways: it is an easy source of tax revenue; it tends to grow rapidly in terms of output, employment, and consumption during the process of economic development; it attracts foreign and domestic investment; it boosts local manufacturing production (rather than imports); it may be dominated by a few large MNCs, but there exists a lot of policy space to promote small-scale 'craft' brewers; and it creates political and economic interest in cleaning up the national water system with all the associated health benefits.

2.1. PROMOTION OF INDUSTRIALISATION

Section 1.2 showed that economists have long acknowledged the unique contribution that manufacturing can make to wider economic development. Scholars and policy makers have expressed widespread concern that much of Africa is failing to industrialize or even undergoing "premature deindustrialization," characterized by a falling share of employment and output accounted for by manufacturing.

Brewing has long been associated with the establishment of pioneering, and relatively large-scale, industrial enterprises. This was true in ninth century Europe under Emperor Charlemagne where brewing was usually done in monasteries, and among the pioneering industries of the eighteenth century industrial revolution in Britain. In the nineteenth century, the development of refrigeration technology, pasteurization, and automatic bottling machines allowed beer to be bottled and preserved, and when combined with wider improvements in train and steamboat transport, made it easier and cheaper to transport beer.

Together, these changes allowed trade at distance in beer, and for the large-scale, industrialisation of brewing. Large breweries were able to produce at lower cost (scale economies in production) and to transport their beer to more distant markets. This led to a dramatic increase in the scale of production and a decline in the number of brewers in the UK and US. The years since 1980 have seen this growth and consolidation of brewing at an international level, with the emergence of multinational brewers, including Heineken (Holland), SABMiller (South Africa), and Interbrew (Belgium).

In contemporary Zambia, the same historical patterns are now unfolding. Zambian Breweries is one of the largest industrial establishments in the country, claiming 900 employees. In 2022, Zambian Breweries announced an \$80 million capital investment project that would double the production capacity of their Lusaka plant over the "next couple of years". This project represents one of the largest industrial investment projects in the country.

2.2. TAX REVENUE

The price elasticity of demand for alcohol (i.e. how much the demand for alcohol declines for every one-percentage point increase in the price) is fairly low. A recent study using data on state-level beer shipments in the US found that the price elasticity of demand was only -0.045. This means that governments can increase taxes without having much impact on demand. Some of that demand will slip into the untaxed, informal and

underground sector, known as moonshine in the US, but alcohol in general remains a relatively easy source of revenue. There is also a widely accepted moral case for alcohol taxation and, consequently, more support for taxing alcohol more than other basic consumption items such as food or energy.

Zambia charges a 40% excise duty on beer made with malt. Data provided by the Zambia Revenue Authority (Table 2) shows that tax revenue from excise on beer increased from Kwacha 540 million in 2020 to 1,022.8 million in 2022, a reliable and rising source of revenue even during the Covid-19 induced global recession. In addition to this, ZRA collects excise on wines and spirits, which was on a rising trend from Kwacha 26 million in 2020 to 108 million in 2024, and also opaque beer (made from sorghum, millet, or maize), which fluctuated between K 20 and 50 million throughout these years.

Further tax revenue was earned by the government through corporation tax on profits. On their website, Zambian Brewers proudly proclaim that they paid almost \$50 million in excise revenue in 2020, up 15% compared with 2019. As illustrated in Table 2, corporate tax paid by the brewing industry ranged between about Kwacha 60 and 100 million between 2020 and 2022. Some of the revenue decline can be attributed to the reduction in the rate of corporation tax from 35% in 2021 to 30% in 2022. The drop in 2023 is likely to be due to accounting procedures, such as writing off the costs of new investments against corporation tax payments.

Table 2: Beer Tax Revenue Reported by ZRA (ZMW, million)

Year	Total Brewing Industry Corporate Tax	Beer Excise Tax Revenue
2020	97.8	540
2021	73.3	722.3
2022	59.6	1,022.8
2023	7.8	952.7

2.3. INCOME-ELASTIC CONSUMPTION FOR DEVELOPING COUNTRIES

A glance at a world map shows that, in general, higher-income countries of the world consume more alcohol than the Global South. For example, in 2019, countries in Europe such as the UK (3.53 liters per capita per year), Poland (5.72) and Italy (1.99) consumed more than Nigeria (0.73), India (0.23), and China (1.66). In North America, the US (3.97), Canada (3.5), and Australia (3.71) were also significant consumers. Although, contrary to this North-South division, various parts of the Global South were also significant consumers, including most of Central and South America – Brazil (3.84), Argentina (3.62), and Mexico (3.72) – and Southern Africa – South Africa (3.99) and Botswana (2.93). There are also some clear cultural-religious factors that intervene in this development relationship, with very low levels of alcohol consumption across North Africa and the Middle East.

The structural patterns of demand in developing countries mean that the consumption of beer (and, so, tax revenue and employment) is likely to increase rapidly during the early stages of development. Brewing is a good bet for economic development. Zambia has faced difficult economic conditions in the last few years, including a growth slowdown and national debt default in 2023. Despite this, Zambian Brewers could happily report total sales volume increasing by 7% in 2022, demonstrating the economic resilience of brewing and beer in Zambia.

The reason for this is that alcohol is a normal good, meaning that as an economy grows (positive GDP growth), demand for alcohol increases. One study, using US data for 1970 to 2007, confirms this, finding alcohol to have an income elasticity of demand equal to between 0.5 and 0.8. This means that for every 1% increase in income, demand increases by between 0.5% and 0.8%. If Zambia achieves its targeted income growth (GDP) of 7% or 8% per year, there is good reason to believe that there would be a corresponding rapid increase in demand for alcohol.

Beer consumption tends to peak only at very high-income levels. This is probably related to health concerns, shifts to higher-status drinks such as wine, and government efforts to limit alcohol consumption and sales (developed country governments also tend to be less reliant on alcohol tax, as they have developed the capacity to tax incomes and corporate profits better). Peak beer consumption occurred in Belgium (1974), France (1976), UK (1980), and Germany (1983). Studies have found that the turning point in per capita beer consumption occurs at average incomes (GDP per capita) of between \$21,000 and \$29,000. In 2021, Zambia had an average income of \$3,200, implying that per capita beer consumption is likely to be on the rise for decades to come.

A second reason for optimism about the prospects of brewing in Zambia is that the country has a young population. In the US, peak beer consumption occurs in the 35-40 age range. In 2023, Zambia had a population of 20.6 million, 42% of whom were aged 0-14. (by comparison, this age accounted for only 11% of the population in Japan)^{xxxiv} With such a mass of population who will be entering the beer-drinking years in the near future, Zambian beer production is poised to benefit from this demographic sipping dividend.

A third reason for brewing optimism is that Zambia has a religious structure that inclines the country towards beer consumption. One study found that globally, Catholics and Protestants tend to drink more while Jews and Muslims tend to drink less beer.^{xli} An estimate from 2010 (the most recent religious data) found that 95.5% of the Zambian population was either Protestant (75.3%) or Catholic (20.2%), while only 2.7% were other religions and 1.8% declared no religion.^{xlii}

2.4. ATTRACTING FOREIGN INVESTMENT

There has been a global shift over the last few decades among countries of both the Global North and South to attract more Foreign Direct Investment (FDI). FDI is widely seen as a source of potential benefits for the host economy: demonstrating new technology, management methods, or production techniques; training labour; boosting exports and competition; and generating linkages with local firms through the purchase of inputs from or provision of inputs to local firms.^{xlii}

Over the last few decades, whenever countries have opened up to freer trade and investment, or launched privatization programs (including of state-owned breweries), breweries have often led the way.^{xliii} In the 1990s, there was a flood of FDI into Eastern and Central Europe and Russia, led by major brewing firms such as Interbrew, Heineken, SABMiller, and Carlsberg. In India, greater openness after 1991, saw significant FDI from Carlsberg, Heineken, and AB InBev. Efficiency improvements were often dramatic. FDI into Slovakia in the late 1990s saw production capacity in brewing increase by 200% even though the number of employees across the brewing industry had been reduced from 30,000 to 850.^{xlv}

2.5. IMPORTANCE OF DOMESTIC PRODUCTION

There is a widespread fear across much of Africa that domestic manufacturing production is high-cost and that opening up to freer trade will lead to cheap imports from China, Vietnam, India and elsewhere, displacing local production. If true, this implies that Africa faces an enduring risk of import-led de-industrialization, long-term import dependence, and a future locked into agricultural production or catering to high-end tourism.^{xlvii}

Whatever the truth to this debate is, it is not applicable to brewing, where local production tends to cater to local consumption. Academic research shows that beer is associated with social traditions, friends, and networking, with beer typically consumed socially. Among college students in the US^{xlviii} there has been a sharp fall in preference for beer from the country of origin and a rapid adoption of local beers as part of this process. There is a clear and positive association between consumption of US beers and length of time resident in the US. People who visit Zambia want to drink Mosi and this preference will increase over time. Further evidence for this can be seen in the widespread local self-sufficiency in brewing. Despite the massive increase in most measures of globalization in the US, between 1980 and 2014, domestic production declined relatively marginally, from 98% to 86% of the local market. Imported beers tended to cater to exotic tastes at the higher-end of the market. In Germany, despite the free and open trading market across the European Union (EU), domestic production constituted 97% of local consumption in 2003 and 93% in 2008.^l In China, even with the massive increase in consumption of beer, by 2007, domestic production was equivalent to 99.5% of domestic consumption and the leading brand, Tsingtao, exported only 0.15% of its Chinese domestic production overseas.^{li}

The typical business model has been for Multi-National Corporations (MNCs) to buy local firms and then produce domestically, both their own global beers and also local brands. The likely reasons for this distinctive business model revolve around the costs of transport and culture. Contemporary Zambia closely fits into these patterns. Zambian Brewers was progressively bought out by foreign investors in the 2000s and 2010s, so that by 2024 more than 87% of the company shares were owned by the MNC Anheuser-Busch (AB) InBev. This takeover, however, was not used to facilitate imports. AB InBev has started domestic production of its iconic global brands (Carling, Budweiser, Stella Artois, and Corona) in Zambia and has also retained domestic production of the local brands that dominate the Zambian market (Mosi, Eagle, and Castle). Zambian Brewers has also reported only minimal exports; none in 2021 and only \$750,000 of exports, mainly to Tanzania and Mozambique, in 2022.^{lii}

There is the added bonus that Zambia is still dominated by agriculture, so domestic consumption of beer also helps create a wide network of local agro-processing linkages. Zambian Breweries reported in 2022 that their supply chain is tightly integrated into local small-scale agriculture. In 2022, they partnered with “the Ministry of Agriculture, UN World Food Programme (WFP) and the Zambia Agricultural Research Institute (ZARI) to boost production of sorghum by small-scale farmers in Gwembe District of Southern Province.”^{liii} Zambian Brewers have a current target that by 2025, “100% of our direct farmers will be skilled, connected and financially empowered.”^{liv}

2.6. DOMINATED BY A FEW MNCS?

There is a long-standing and widespread popular fear of a power imbalance between large MNCs and weaker local governments. In the extreme, this may allow MNCs to dominate exchanges with local governments and leverage this relationship to avoid paying taxes or abiding by labour regulations, while, at the same time, piling on pressure to provide infrastructure, utility connections, and access to cheap land.

There is some reason for particular concern in brewing, where the industry has been dramatically oligopolised in recent decades. As a point of comparison, the government of Zambia collects about \$2 billion a month on average in total taxation, while the MNC AB InBev (owners of Zambian Brewers) generate about \$5 billion a month in sales.

There is global evidence that shows public policy can be used to support a vibrant small-scale brewing industry. In Germany by 2000, the four-firm concentration ratio in brewing was only 29%,^{lv} and the number of brewers remained quite stable at around 1,300 between 1995 and 2010.^{lvii} In Belgium after 2000, for the first time in more than a century, the number of breweries started to increase.^{lviii}

Elsewhere, a niche for small-scale breweries has increasingly opened up. In the US, this dates from pro-active legislation in the 1970s. In 1976, President Carter reduced the excise duty on small breweries. In 1979, the US removed federal restrictions on home brewing and 'brewpubs' (a legacy from the years of prohibition in the 1920s).^{lviiii}

A second influence has been the global shift (especially among developed countries) from consuming standardized, mass-produced goods to a preference for variety, local production, the use of traditional European brewing traditions, and an emphasis on quality rather than low-prices. As a result of these policies, alongside wider structural changes, the number of craft brewers in the US increased from 2 in 1977 to more than 1,700 in 2009. Among the largest is the Boston Beer Company, which was producing 2 million barrels of beer a year by 2010.

A recent policy initiative by the Zambian government in the 2024 budget to reduce excise duty by 50% on locally produced clear beer for small and medium manufacturers, producing less than 500,000 liters per year, is commendable.^{lx}

2.7. BREWING AND THE LOCAL WATER SUPPLY

This section shows that while the harmful health effects of alcohol are well known the beneficial effects are often profound and more indirect, working through the political and economic pressures from brewers to improve the local water quality.

It is not difficult to find details on the harmful health effects of alcohol consumption. WHO advocates for higher alcohol taxes, not just to raise tax revenue but also to reduce consumption, as they note:



Alcohol is a toxic and psychoactive substance with dependence producing properties. In many of today's societies, alcoholic beverages are a routine part of the social landscape for many in the population. This is particularly true for those in social environments with high visibility and societal influence, nationally and internationally, where alcohol frequently accompanies socializing. In this context, it is easy to overlook or discount the health and social damage caused or contributed to by drinking.^{lxii}

Looking at the story of development can give us a more nuanced picture of the health impact of alcohol, and brewing in particular. In late 2023, Zambia experienced its worst outbreak of cholera in recent memory. By early 2024, almost 8,000 people had been infected and more than 300 people had died. A sports stadium in the capital, Lusaka, was re-purposed as a treatment centre and schools and colleges were instructed to remain closed until the end of the month. The outbreak was directly linked to the lack of clean water and proper sanitation.^{lxiii}

Historically, the construction of good sewage and water treatment has had a massive impact on both morbidity and mortality by reducing the incidence of diarrhoea or illnesses such as cholera. Studies of Paris, France^{lxiv} in the late nineteenth century and US cities in the early twentieth century found that “sewers saved lives.” In the US, clean water was responsible for 75% of the decline in infant mortality between 1900 and 1930, around two-thirds of the decline in child mortality, and led to the near-eradication of typhoid, a waterborne disease prevalent until the early twentieth century.^{lxv}

The rate of return to clean water technologies has been estimated at 23 to 1^{lxvi}. So why do people still die en masse in countries like Zambia from poor access to clean water? The answer is that clean water technology, while simple and standardized, is often very expensive and inconvenient, as it involves digging up public streets to lay pipes, as well as requiring intrusive access to private dwellings to connect them to the network.

While the costs of clean water infrastructure are often borne by the government, the benefits are dispersed in the form of better health. It is difficult to charge for water connections to the poorest households. There are also difficult politics of water supply. Much of the middle class in developing countries like Zambia have managed to insulate themselves from the costs of bad water through being able to purchase bottled water or to use home filtration systems. Consequently, they do not apply political pressure on governments to clean up water and are unwilling to pay the necessary taxation to make it affordable for the state to do so, as they will themselves receive no additional benefits.

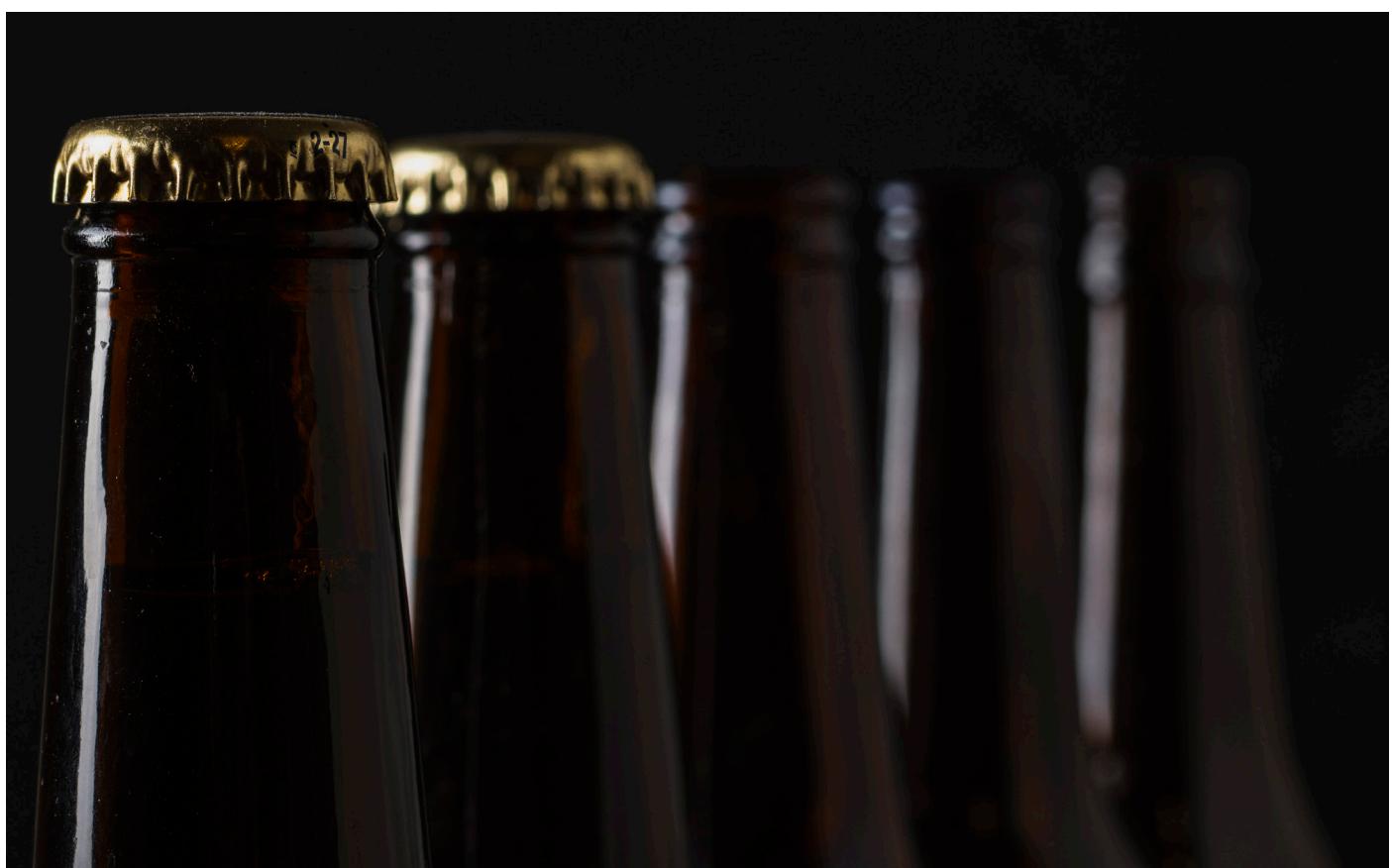
Water comprises around 85% of the material inputs into brewing. It is no surprise then that the brewing industry has provided a consistent, important source of economic incentive, political pressure, and personal influence to clean up the water supply. This was true in the Netherlands in the sixteenth century^{lxvii} and in Toronto, Canada in the nineteenth century.^{lxviii} Hence, it is no surprise to see Zambian Breweries as equally engaged as their historical counterparts in efforts to clean up water in Zambia.

Here, a profit-driven incentive for Zambian Breweries is in alliance with the social benefits to a wider population of clean water. Zambian Breweries rightly make this link absolutely clear in their 2022 Annual Report, where they present their corporate goal:

“100% of our communities in high-stress areas will have measurably improved water availability and quality. Water is the largest input in the manufacturing of our products, and we believe that water is a shared resource and its access must be secured, particularly in high-stress areas. We continue to build new partnerships and strengthen existing ones to enhance the safe and clean water supply of the communities in areas where we operate. The conservation of both the Kafue and Zambezi River basins continues to be an area of focus in our partnership with WWF.”^{lxviii}

This aspiration was supported by practical endeavours.

“This year we collaborated in a workshop with the objective of strengthening watershed protection initiatives and creating a working model to ensure the quality and measurable impact of our initiatives. We also remained engaged on the board of Lusaka Water Security Initiative and continued in joint action to celebrate World Water Day and World Environment Day, which called for transformative action on a global scale to protect the planet. Through this joint action we also supported various initiatives towards raising awareness and enhancing water access and security in communities around the City of Lusaka. At the Itawa Springs project site, we completed phase 2 of the project to enhance the sewer management system for the housing developed in the area. The project aims to ensure improved water quality in the watershed as well as adequate water and sanitation access for the surrounding community.”^{lxix}



3. CONCLUSION

For those countries of the Global South, with no religious or cultural inhibitions about alcohol, brewing in particular makes for an ideal investor. Beer and brewing are an easy source of taxation for developing countries and are typical pioneers of industrialization. Although brewing is increasingly dominated by a few global multinational firms, it is not a product that generates a drain on foreign exchange by boosting imports. Brewing generally attracts FDI and local consumption is typically met from local production. Finally, brewing often creates a strong economic interest for cleaner urban water, with potentially massive, and much wider, positive externalities for urban health.

There may be implied dangers of large brewery MNCs negotiating with Global South governments and leveraging the power imbalance to their own advantage. This has not stopped brewery MNCs, especially in Zambia, from paying taxes, boosting local industrialization, providing good jobs, and using that local influence to improve the quality of the local water supply. This policy brief argues that brewing should be a priority target for countries across the Global South as a liquid source of economic development.

Zambia already has a generous structure of tax incentives, a regulatory environment that still imposes a burden on business but is easier than it used to be and access to land through the MFEZ scheme. Zambia already has a framework, through its national development plans, of wanting to promote industrialization, and of thinking about specific industrial sectors to target. This policy brief recommends that Zambia continue to acknowledge the potential health implications of beer, but also to recognise the economic development benefits provided by the brewery industry and consider more actively promoting brewing through the MFEZ program and in national development plans. This policy brief also commends the recent policy initiative by the government to promote the small-scale craft brewing sector, which has made a dynamic contribution to industrialization efforts elsewhere in the world.

REFERENCES

Adams, W.J. (2011). Determinants of the Concentration in Beer Markets in Germany and the United States: 1950-2005. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 227–246.

Arora, A., Bhaskar, A., Minten, B., Vandeplas, A., & Swinnen, J. (2011). Opening the Beer Gates: How Liberalization Caused Growth in India's Beer Markets. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 308–332.

Bai, J., Huang, J., Rozelle, S., & Boswell, M. (2011). Beer Battles in China: The Struggle over the World's Largest Beer Market. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 267–286.

CIA. (2023). The World Factbook: Zambia. <https://www.cia.gov/the-world-factbook/countries/zambia/> [Accessed March 6, 2024].

Colen, L. & Swinnen, J.F.M. (2011). Beer-Drinking Nations: The Determinants of Global Beer Consumption. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 123–140.

Crespo, N. & Fontoura, M.P. (2007). Determinant Factors of FDI Spillovers – What Do We Really Know? *World Development*, 35(3), p. 410–425.

Cutler, D. & Miller, G. (2005). The Role of Public Health Improvements in Health Advances: The Twentieth-Century United States. *Demography*, 42(1), p. 1–22.

Dasgupta, S. & Singh, A. (2005). Will Services be the New Engine of Indian Economic Growth? *Development and Change*, 36(6), p. 1035–1057.

Dasgupta, S., & Singh, A. (2006). Manufacturing, Services and Premature Deindustrialisation in Developing Countries. UNU-WIDER Research Paper No.2006/49.

Deconinck, K., & Swinnen, J. F. (2011). From Vodka to Baltika: A Perfect Storm in the Russian Beer Market. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 287–307.

Freeman, D.G. (2011). Cold Comfort in Hard Times: Do People Drink More Beer During Recessions?. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 107–122.

Kaldor, N. (1967). *Strategic Factors in Economic Development*. Cornell University Press.

Kesztenbaum, L. & Rosenthal, J-L. (2017). Sewers' diffusion and the decline of mortality: The case of Paris. *Journal of Urban Economics*, 98, p. 174–186.

McCluskey, J. & Shreay, S. (2011). Culture and Beer Preferences. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 161–170.

Ministry of Finance and Economic Development. (2006). *Ethiopia: Building on Progress*

A Plan for Accelerated and Sustained Development to End Poverty (PASDEP), (2005/06-2009/10). Government of Ethiopia.

Ministry of Finance and National Planning. (2006). Fifth National Development Plan, 2006-2010: Broad based wealth and job creation through citizenry participation and technological advancement. Government of Zambia.

Ministry of Finance and National Planning. (2011). Sixth National Development Plan, 2011-2015: Sustained Economic Growth and Poverty Reduction. Government of Zambia.

Ministry of National Development Planning. (2017). Seventh National Development Plan, 2017-2021: Accelerating Development Efforts Towards Vision 2030 without Leaving Anyone Behind.. Government of Zambia.

Nguimkeu, P. & Zeufack, A. G. (2019). Manufacturing in Structural Change in Africa. World Bank Policy Research Working Paper, No.8992. World Bank., Washington, D.C

Nye, J.V.C. (2011). Brewing Nation: War, Taxes, and the Growth of the British Beer Industry in the Eighteenth and Nineteenth Centuries. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 62–78.

Persyn, D., Swinnen, J.F.M., & Vanormelingen, S. (2011). Belgian Beers: Where History Meets Globalization. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 79–104

Poelmans, E. & Swinnen, J.F.M. (2011). A Brief Economic History of Beer. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York,p. 3–28.

Rodrik, D. (2013). Unconditional Convergence in Manufacturing. *The Quarterly Journal of Economics*, p. 1–40

Rodrik, D. (2016). Premature Deindustrialization. *Journal of Economic Growth*, 21, p. 1–33

Ritchie, H. & Roser, M. (2024). Alcohol Consumption: Who consumes the most alcohol? How has consumption changed over time? And what are the health impacts?. Our World in Data. <https://ourworldindata.org/alcohol-consumption> [Accessed February 2, 2024].

St John, J. (2014). *Lost Breweries of Toronto*. Charleston, The History Press.

Swinnen, J. (ed.) (2011). *The Economics of Beer*. Oxford University Press, New York.

Swinnen, J.F.M. & Vandemoortele, T. (2011). Beeronomics: The Economics of Beer and Brewing. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 335–355.

Swinnen, J.F.M. & Van Herck, J. (2011). How the East was Won: The Foreign Takeover of the Eastern European Brewing Industry. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 247–266.

Swinnen, J. & Briski, D. (2017). *Beeronomics: How Beer Explains the World*. Oxford University Press.

Tremblay, C.H. & Tremblay, V.J. (2011). Recent Economic Developments in the Import and Craft Segments of the US Brewing Industry. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 141–160.

United Nations Population Fund. (2023). World Population Dashboard: Zambia. <https://www.unfpa.org/data/world-population/ZM> [Accessed March 6, 2024].

Unger, R.W. (2011). Beer Production, Profits, and Public Authorities in the Renaissance. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 29–50.

Van Tongeren, F. (2011). Standards and International Trade Integration: A Historical Review of the German Reinheitsgebot. In: J. Swinnen (ed.) *The Economics of Beer*. Oxford University Press, New York, p. 51–61.

Water Aid. (2024, January 11). Call for urgent action on clean water and sanitation as Zambia confronts worst cholera outbreak seen in years. <https://www.wateraid.org/uk/media/call-for-urgent-action-on-water-as-zambia-confronts-cholera-outbreak>

WHO. (2024a). SAFER: Raise prices on alcohol through excise taxes and pricing policies. World Health Organisation, Geneva. <https://www.who.int/initiatives/SAFER/pricing-policies>

WHO. (2024b). Alcohol. World Health Organisation, Geneva. https://www.who.int/health-topics/alcohol#tab=tab_1

Wood, A. & Mayer, J. (2011). Has China deindustrialized other developing countries?. *Review of World Economy*, 147(2), p. 325–350.

World Bank (2023). World Development Indicators. World Bank, Washington, D.C accessed October 2023

ZIB. (2021). 2021 Annual Report: Cheers to our brewing resilience. Zambian Breweries. <https://www.zambianbreweriesplc.com/wp-content/uploads/2023/09/Zambian-Breweries-Annual-Report-2021-WEB-002.pdf>

ZIB. (2022). 2022 Annual Report: Investing in a future with more cheers. Zambian Breweries. <https://www.zambianbreweriesplc.com/wp-content/uploads/2023/09/Zambrew-Annual-Report-2022-final.pdf>

i.	With thanks to Mwanda Phiri for generous comments on an earlier draft and to Eva Klaus and Zali Chikuba for comments and copy-editing.	v.	World Bank (2023).
ii.	Ministry of Finance and National Planning (2006:26).	vi.	Kaldor (1967).
iii.	Ministry of Finance and National Planning (2011:14).	vii.	Dasgupta and Singh (2005, 2006).
iv.	Ministry of National Development Planning (2017:41).	viii.	Rodrik (2013).
		ix.	Ministry of Finance and National Planning (2006:133).
		x.	Ministry of Finance and National Planning (2011:133).

xi. World Bank (2023).

xii. Ministry of Finance and National Planning (2006:117).

xiii. World Bank (2023).

xiv. Ministry of Finance and Economic Development (2006:152-4).

xv. Ministry of Finance and Economic Development (2006:168).

xvi. Ministry of Finance and National Planning (2011:83).

xvii. Ministry of National Development Planning (2017:30).

xviii. www.lsmfez.co.zm/targeted-industries/

xix. Nguimkeu and Zeufack (2019).

xx. Rodrik (2016).

xxi. Swinnen and Briski (2017:16).

xxii. Nye (2011) and Swinnen and Briski (2017).

xxiii. Poelmans and Swinnen (2011:15) and Swinnen and Briski (2017:38).

xxiv. Poelmans and Swinnen (2011:22).

xxv. ZIB (2022:4).

xxvi. Freeman (2011:118).

xxvii. WHO (2024a).

xxviii. Personal Communication from ZRA, 26th November, 2024.

xxix. ZIB (2022:7).

xxx. ZIB (2021:3).

xxxi. Ritchie and Roser (2024).

xxxii. Ritchie and Roser (2024).

xxxiii. ZIB (2022:4),

xxxiv. Freeman (2011:107).

xxxv. Colen and Swinnen (2011).

xxxvi. Swinnen and Briski (2017:108) and Colen and Swinnen (2011:137).

xxxvii. CIA (2023).

xxxviii. Freeman (2011:119).

xxxix. UNPF (2024).

xl. Colen and Swinnen (2011:138).

xli. CIA (2023).

xlii. Crespo and Fontoura (2007).

xliii. Swinnen and Van Herck (2011:254).

xliv. Deconinck and Swinnen (2011:291) and Swinnen and Briski (2017:66).

xlv. Arora et al (2011:319).

xlvi. Swinnen and Briski (2017:68).

xlvii. Wood and Mayer (2011).

xlviii. McCluskey and Shreay (2011:161, 167).

xlix. Swinnen and Briski (2017:121).

l. Van Tongeren (2011:584).

li. Bai et al (2011:273).

lii. ZIB (2022:28).

liii. ZIB (2022:5).

liv. ZIB (2022:11).

lv. Adams (2011:230).

lvi. Van Tongeren (2011:58).

lvii. Persyn et al (2011:79).

lviii. Adams (2011:149).

lix. Tremblay and Tremblay (2011:152).

lx. www.pkf-zambia.co.zm/media/s5spiigb/pkf-zambia-2024-budget-tax-highlights.pdf

lxi. WHO (2024b).

lxii. Water Aid (2024).

lxiii.	Kesztenbaum and Rosenthal (2017:183).	lxvii.	St John (2014:59).
lxiv.	Cutler and Miller (2005).	lxviii.	ZIB (2022:12).
lxv.	Cutler and Miller (2005),	lxix.	ZIB (2022:12).
lxvi.	Unger (2011:40).		

