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To cite this article: Clemence Rusenga, Gernot Klantschnig, Neil Carrier & Simon Howell (15 Mar 2024): Business as usual? Cannabis legalisation and agrarian change in Zimbabwe, The Journal of Peasant Studies, DOI: [10.1080/03066150.2024.2326568](https://doi.org/10.1080/03066150.2024.2326568)

To link to this article: <https://doi.org/10.1080/03066150.2024.2326568>



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Published online: 15 Mar 2024.



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Business as usual? Cannabis legalisation and agrarian change in Zimbabwe

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ABSTRACT

This article examines the emerging legal cannabis sector in Zimbabwe since 2018, which focuses on medicinal and industrial cannabis with unlicensed uses remaining criminalised, as well as its implications for agrarian change. It shows that the formal sector is set up in a way that prioritises those with substantial resources – marginalising small-scale farmers and illicit cultivators. While this presents the risk of corporate capture, various factors combine to undermine agribusiness' production. However, prohibition of recreational cannabis and the formal sector's focus on export markets combine to preserve illicit cannabis markets and allow continuation of illicit livelihoods.

KEYWORDS

Cannabis; marijuana; drug legalisation; agrarian change; livelihoods; illicit markets; Zimbabwe; Africa

Introduction

This article examines the politics of the cannabis legalisation process in Zimbabwe – one of Africa's first countries to legalise cannabis production in 2018. This process has focused on creating a legal market for medicinal and industrial cannabis while continuing to criminalise other uses historically associated with small-scale farmers, traders and consumers. These cannabis policy reforms have been implemented with the hope that the crop can contribute to economic growth and agricultural diversification. The article assesses the emerging legal cannabis sector including its implications for agrarian change and both legal and illegal cannabis livelihoods. It contributes to the literature through an empirically based assessment of the cannabis legalisation process and its effects on legal and illegal operators.

The article argues that cannabis legalisation has little to do with finding alternative livelihoods especially for illicit cannabis producers but is driven by the government's desire to attract foreign and local investment. Although license holders include small-scale farmers, the participation of illicit cannabis producers and traders is limited due to the high entry barriers to the new legal sector (Bewley-Taylor, Jelsma, and Kay 2020). However, those

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with licenses have been affected by a combination of high production costs, regulatory and market access challenges and the prevailing political and economic crises which have undermined production. This has left only a few producers with substantial resources continuing under these difficult conditions. While this clearly presents a high risk of corporate capture, as has been seen in other contexts of cannabis legalisation (Grooten 2023; Vélez-Torres, Hurtado, and Bueno 2021), the Zimbabwean political and economic conditions have to some degree thwarted the interests of agribusinesses which have started to divest from the industry.

The article also argues that the continued ban on recreational cannabis, alongside the formal sector's focus on export markets unintentionally preserves the domestic illicit drug market for illicit cultivators and traders with negligible competition from legal producers. This allows illicit players to generate income, accumulate wealth and access resources they need to invest in the production of conventional food and cash crops. Despite this, illicit cannabis markets are not idyllic economies with cultivators and traders suffering the varied and at times repressive effects of prohibition. The article first situates the study in the cannabis legalisation literature, then sketches the history of cannabis prohibition and regulation in Zimbabwe, before outlining the methods used. It follows with the presentation and discussion of the data on the liberalisation of cannabis in Zimbabwe. The final section discusses continuities in the illicit market to show the continued contribution cannabis makes to livelihoods of illicit producers and traders, and agrarian change more widely.

Legalisation of cannabis

Cannabis and its legal status have been hotly debated (Corva and Meisel 2021). Commentators in favour of prohibitionist approaches have raised various reasons in support of cannabis' continued illegality. These include the perceived negative effects of cannabis on workers' productivity, its effects on health and the perceived contribution to food insecurity when produced on land that could be used for food crop production (Carrier and Klantschnig 2016; Duvall 2019; Waetjen 2019). The overall view is that of cannabis and other drugs as harmful to society and development (Carrier and Klantschnig 2012; UNODC 2021).

In more recent years the developmental role of drugs in the lives of the poor has been highlighted. Gootenberg (2020) and Meehan (2021) have argued that in some marginalised communities drug crops can provide means of survival for sections of the poor. Across Africa, cannabis has been widely grown illegally for generations – supporting many households economically in countries such as Lesotho, South Africa, eSwatini and Malawi in Southern Africa (Bloomer 2019; Manu et al. 2021; Sowoya et al. 2020) and Morocco in North Africa (Jelsma et al. 2021). Gallien and Occhiali (2023, 5) have argued that '[i]llegal cannabis production has long been the main and best source of revenue for smallholder farmers ...'. Others view drugs as a form of 'alternative development' for the marginalised illicit producers and traders (Bewley-Taylor, Jelsma, and Kay 2020; Jelsma et al. 2021). Yet, despite these arguments about cannabis' developmental potential, few studies have explored this empirically, especially in rural contexts in Africa.

Following its legalisation in Uruguay in 2013 (Queirolo 2020), cannabis' developmental role has recently received an official boost with several jurisdictions legalising it for

medicinal and scientific purposes (Jelsma et al. 2021; Rychert, Emanuel, and Wilkins 2021; Vélez-Torres, Hurtado, and Bueno 2021), with others also accommodating recreational uses (Manu et al. 2021; Queirolo 2020). Bewley-Taylor, Jelsma, and Kay (2020) have argued that cannabis legalisation can create health and human rights benefits and reduce crime and over-incarceration. In global South contexts cannabis legalisation has the potential to contribute towards agrarian change by opening markets and providing access to resources for those currently producing illegally, as well as ensuring their participation alongside agribusinesses. However, achieving this potential has proved a challenge for governments, as agribusinesses from the global North have moved aggressively to capture the new legal spaces in the multi-billion-dollar global cannabis market (Jelsma et al. 2021). While countries like Thailand (Tanguay 2024) and Morocco (Jelsma et al. 2021) designed models aimed at bringing illicit cannabis producers into legal markets, in most global South countries small-scale and illicit producers find it difficult to participate in emerging legal cannabis markets despite having supplied illicit markets for long (Jelsma et al. 2021; Vélez-Torres, Hurtado, and Bueno 2021). In South Africa, for instance, entry barriers and shifting demand towards high-grade strains produced by licensed farmers have harmed illicit producers' viability and livelihoods (Grooten 2023).

The state and its relationship with agribusinesses are crucial to understanding the agrarian change trajectories linked to cannabis legalisation in the global South. Towards the end of the twentieth century a dominant agricultural model emerged driven by agribusinesses and international capital which have viewed agriculture in the global South as an attractive investment in the long run (Rusenga 2020). State policies attempt to link up small-scale producers and agribusinesses, with the belief that 'there is room for both large capitalist farming and small-scale producers to prosper in the agricultural sector' (Vergara-Camus and Kay 2017, 4). This model and belief have also been prevalent in the case of cannabis legalisation.

Agribusinesses have successfully elicited favourable policies from states allowing them to cultivate cannabis for export under conditions most local citizens cannot afford (Jelsma et al. 2021; Vélez-Torres, Hurtado, and Bueno 2021). This raises concerns about land, market and capital concentration in the hands of agribusinesses with potentially negative effects for local farmers who do not have large resource endowments (Rusenga 2020). While some small-scale farmers can acquire the expensive licenses, most struggle to establish production except those in joint ventures with agribusiness.

For Jelsma et al. (2021, 49) state-agribusiness collaboration dispossesses local citizens of access to the 'increasingly legal, global cannabis economy'. In Colombia, Vélez-Torres, Hurtado, and Bueno (2021, 505) have shown that contrary to the proposed inclusion of illegal small-scale farmers, the legalisation of medicinal cannabis has 'benefited the corporate sector almost exclusively'. They argued that uneven power relations and the government's capitalist favouritism were exploited by agribusinesses to marginalise small-scale farmers whose livelihoods depend on illicit drugs, with the former being the main beneficiary of cannabis licenses. In Jamaica, Klein, Rychert, and Emanuel (2022, 2700) observed that most licensees come from the 'Jamaican business class rather than a small-scale, subsistence farming background and 'grassroots people''. Foreign investors are also beneficiaries through joint ventures and they dominate the sector and exercise power through possession of capital and technical knowledge (Rychert,

Emanuel, and Wilkins 2021). Grooten (2023, 5) argued, in the case of South Africa, that ‘the current cannabis licensing systems largely favour a small group of corporations, side-lining traditional small-scale farmers’. Further, the legalisation of recreational cannabis is causing loss of livelihoods for illegal producers due to falling cannabis prices driven by competition from legal entrants into the sector (Grooten 2023; Manu et al. 2021).

The above review demonstrates the ‘complexity of developing regulatory frameworks for cannabis production and products’ (Wilkins, Lenton, and Decorte 2020, 436). Corporate capture of legal cannabis markets is a possibility. However, the Zimbabwean case shows that where political and economic crises combine with high production costs to undermine investor confidence, corporate capture is not automatic even when regulations favour large players. The review highlights the need for the state to play an active role in ensuring effective participation of small-scale producers (including illicit cultivators) in the legal sector (Grooten 2023; Klein, Rychert, and Emanuel 2022). This study contributes to the literature through an empirically based assessment of the cannabis legalisation process in one of Africa’s first and few countries to liberalise drug policy, and its effects on legal and illegal operators.

History of cannabis laws and policy in Zimbabwe

Historical records have shown evidence of cannabis use for various purposes in many parts of Africa dating back centuries (Allen 1999; Carrier and Klantschnig 2016; Kepe 2003; Walton 1953). In the early twentieth century cannabis was subjected to international control under the Geneva Opium Convention of 1925 which, together with subsequent drug treaties, established a prohibitionist framework for the control of cannabis (Duvall 2017; Nkosi 2021). By the 1960s these conventions managed to curtail the formerly legal cultivation, trade and consumption of cannabis, yet cannabis continued to be used, grown and traded illicitly, and the plant has remained part of African livelihoods despite prohibition. This criminalisation of cannabis production was also part of wider mechanisms by colonial states to promote white-dominated capitalist agriculture while undermining Africans’ agrarian livelihoods (Arrighi 1970; Wolpe 1972).

Colonial authorities in Zimbabwe prohibited imports of ‘Indian hemp’ in 1914 under Customs laws, while domestic trade, possession and use were prohibited from 1917 onwards (Customs Ordinance, 13 November 1914; Government Notice 187, 1917). These restrictions were based on colonial concerns about smuggling and the impact of cannabis smoking on labour productivity. Cannabis’ status as a ‘drug’ was reiterated in 1955 under the Dangerous Drugs Act (DDA) (Dangerous Drugs Act [Chapter 15:02] 2016). Post-independence, that status was maintained in the amended versions of the Act (Criminal Law [Codification and Reform] Act 23 2004) with punishments made harsher but cannabis remained part of Africans’ livelihoods (British South Africa Police 1955; 1956).

Until recently drug control in Zimbabwe emphasised almost exclusively the criminal nature as well as the harms to health associated with cannabis. While attempting to address some of the important drug-related health concerns, these policies disregarded cannabis’ role in agrarian livelihoods especially for the poor. However, such illegality

preserved illicit drug markets for illicit producers and traders and allowed them to charge price premiums on their sales (Gallien and Occhiali 2023). The laws also indirectly shielded the illicit cannabis sector from competition from big corporate players who are found in legal markets such as the tobacco sector (Rusere 2019).

In 2018 cannabis for medicinal and industrial purposes was legalised through the Dangerous Drugs (Production of Cannabis for Medicinal and Scientific Use) Regulations (Statutory Instrument 62 2018). However, all other uses including recreational remain illegal. Production is to be carried out under a strict regulatory regime which provides guidelines on the licensing process, security measures, general conditions of production, etc. Industrial hemp, which is regulated by the Agriculture Marketing Authority (AMA), was separated from medicinal cannabis (regulated by the Medicines Control Authority of Zimbabwe [MCAZ]) through the Agriculture Marketing Authority (Industrial Hemp) Regulations of 2020. Hemp is defined as cannabis of not more than 1 percent *delta-9-tetrahydrocannabinol* (THC), the main psychoactive component of cannabis (Criminal Law [Codification and Reform] Amendment Act 2023). Importantly, the same Act amended the definition of 'dangerous drugs' to no longer apply to industrial hemp.

The license fee for medicinal cannabis (US\$50,000) and the recommended capital-intensive production guidelines suggest that the policies were neither designed to benefit small-scale producers nor solve problems associated with illicit drug production, trading and use. The intended beneficiaries seem to be foreign investors and the local business community (Herald 2022; Rychert, Emanuel, and Wilkins 2021) who should produce for export markets. Industrial hemp, on the other hand, has less restrictions, although permit fees (US\$200 to US\$500 depending on type), production conditions and market challenges still make it difficult for ordinary farmers and illicit producers to participate. These entry barriers and strict production conditions expose the cannabis sector to risks of corporate capture as has been the case elsewhere (Klein, Rychert, and Emanuel 2022; Rychert, Emanuel, and Wilkins 2021; Vélez-Torres, Hurtado, and Bueno 2021). Joint ventures with foreign investors have allowed a minority of local farmers to navigate the high investment costs and unconvincing business conditions with difficulty.

The general business conditions, complicated by political and economic crises, have affected farmers' production causing others to leave the sector. Thus, while corporate capture is a real possibility where political and economic crises undermine investor confidence, the capture is not automatic even for corporate players. While there are many good arguments for complete or full legalisation, including arguments focused on social justice and inclusion, this article argues that the incomplete legalisation process protects illegal producers and traders from competition from big corporate players. Incomplete legalisation preserves the illicit market and the price premiums associated with cannabis' illegality.

Research methods

The article utilises documentary (legal and policy) and primary data gathered as part of a pan-African research project focusing on the nexus between cannabis and livelihoods in Zimbabwe, South Africa, Nigeria and Kenya. The study received ethical approval from the

Table 1. Interviewee categories.

Category	Number of interviewees
Local community members	9
Illicit producers, traders and consumers	14
Local traditional and community leaders	4
Local political leaders	2
Licensed farmers/breeders	7
Licensed cannabis merchants	1
Cannabis regulators	2
Arts industry (music)	2
Academia	1
Cannabis industry insiders	1
Civil society	1
Total	44

Source: Interview data.

researchers' collaborating institutions (Ref: 9147) and a research permit from the Research Council of Zimbabwe (Ref: 04574). Documentary data was primarily sourced through government agencies, such as trade and police reports and statistics. Primary data was collected through semi-structured in-depth interviews (in-person and online), informal conversations, observation and a focus group with cannabis policy stakeholders.

One rural community in Chiredzi, in south-east Zimbabwe and another in Binga in the north-west were purposively selected alongside one low-income urban neighbourhood in the capital city Harare. Chiredzi and Binga were selected for their long historical links to cannabis trade and production respectively. This allowed the study to examine the role of cannabis in rural and urban livelihoods and respondents' perceptions on the legalisation process.

A total of 46 interviews were conducted with 44 respondents between July 2022 and January 2024 (see Table 1), with snowball and purposive sampling used to identify individuals based on their experiences and knowledge. The authors' previous research and locally recruited research assistants facilitated access to community members, cultivators, traders and consumers as well as gaining their trust. In addition, industry regulators (MCAZ and AMA), cannabis industry representatives (such as licensed farmers and merchants) as well as civil society and academia respondents were approached directly via email. Interviewed licensed farmers were based in Harare, Bulawayo, and the Mashonaland East, Central and West Provinces. Strict ethical procedures were followed to protect participants and researchers and ensure informed consent, confidentiality and non-harmfulness of the study to individuals and communities criminalised by state policies.

The interview data and discussions focused on the legal reform experiences, perceptions on cannabis licensing and its impact, experiences of both licensed and unlicensed cannabis cultivators, traders and consumers and community perceptions on both legal and illegal cannabis production in Zimbabwe. These documentary and interview data were used to reconstruct the historical evolution and political economy of the legalisation process in Zimbabwe.

Origins of legalisation

Cannabis policy changes in Zimbabwe were driven by both private sector and governmental interests. In 2015, Dr Zorodzai Maroveke, a young dentist who founded the

Zimbabwe Industrial Hemp Trust (ZIHT) in 2017, started lobbying the government to allow for legal production of cannabis and its industrial applications. Her organisation credits the government's warm response to its proposals partly on its strategy which focused on industrial rather than recreational uses. The coming into power of a new pro-business government in 2017 also accelerated the reforms (Interview 21, Cannabis Industry Insider 27/2/2023).

As explained by the Minister of Agriculture, for the Zimbabwean government cannabis holds strategic economic value as an alternative crop that can complement the main crop, tobacco (Tuinstra 2023). This view was expressed also in interviews with contacts from the cannabis regulatory bodies (MCAZ and AMA) and the government institute (Kutsaga Research) mandated to conduct cannabis research and development in the country. The emergence of a legal cannabis market globally seems to have been a factor as well, with the Minister of Finance claiming to target a US\$1 billion market share for the country in the long term (Banya 2022).

Cannabis policy reforms in Zimbabwe were not driven by the need to resolve the problem of illicit cannabis production, trading and use or a focus on rural livelihoods. Unlike in South Africa where cannabis activists used legal means to fight for their interests (Grooten 2023), cannabis policy in Zimbabwe was shaped by the converging interests of the business class and the government. The government wanted to encourage investment in the country from both local and foreign sources while the private sector wanted to harness the economic potential that cannabis provides in the emerging global market. The medicinal and industrial route (rather than recreational) represented a safer common ground for both sides, but one that did not represent the interests of illicit cultivators, traders and consumers. As will be shown later, this partial legalisation and the focus on export markets preserves illicit markets and ensures continuation of cannabis-linked livelihoods, at least for now.

Cannabis licensing processes and beneficiaries

Medicinal cannabis and hemp are regulated by MCAZ and AMA, respectively. While AMA handles the hemp applications directly, those for medicinal cannabis are facilitated through the Zimbabwe Investment and Development Agency (ZIDA), on behalf of MCAZ. ZIDA was established to promote and facilitate investment in Zimbabwe, handling both foreign and national investors (ZIDA 2022). An interviewed MCAZ official stated that the application is submitted to ZIDA which vets the files for security clearance before forwarding to MCAZ for issuance of a license which is then dispatched to the applicant through ZIDA (Interview 24, Cannabis Regulator 6/6/2023).

In the case of hemp, apart from license fees and the standard inspection fee of US \$200 for all permit categories, additional requirements include security clearance, cultivation site maps, certificate of incorporation if a company and a valid tax clearance, among others (Statutory Instrument 218 2020). In line with the government's 'open for business' mantra, an interviewed AMA official stressed that it takes only up to 72 hours to get a license, with renewal costing US\$200 (Interview 22, Cannabis |Regulator 7/3/2023).

On the other hand, medicinal cannabis licensee fees range from US\$5,000 (research) to US\$50,000 (cannabis production) with an inspection fee of US\$2,500 (Statutory

Table 2. Cannabis licensed farmers.

Category	Medicinal Licensees	Hemp Licensees	Total
Cultivators	57	31	88
Research and Breeders	2	17	19
Merchants	0	13	13
Total	59	61	120

Source: AMA 2022; AMA 2024; Cannabis Regulator, 6 June 2023.

Instrument 62 2018). The ZIDA guidelines state that an application fee of US\$11,250 is needed on submission of the application (ZIDA 2022). Additional costs include an annual return fee of US\$15,000, license renewal costs of US\$20,000 and US\$2,500 for cannabis production and research and development respectively (Statutory Instrument 62 2018). Further requirements include proof of having land for the proposed business, a detailed security plan, proof of funds and a detailed business plan, among others. Table 2, shows the number of licensed medicinal and hemp farmers as of early 2024. At first sight, it shows that a significant number of licenses, especially for cultivation, has been issued in a short period of time.

A closer look at the profiles of some of the license beneficiaries shows the predominance of agribusinesses and the domestic business class in the sector, with foreign investors coming from countries such as South Africa, Namibia, USA, Switzerland and the UK.

The licensing conditions act as administrative barriers to entry (Bewley-Taylor, Jelsma, and Kay 2020) especially for those without substantial resources. Commenting on the license fees, an interviewed former member of parliament for a rural constituency with a potential for involvement in cannabis production said '... this is an exclusionary approach, and it is bad. Who is going to get that amount? People should be allowed to produce it just like they produce maize, and be registered for regulatory purposes' (Interview 4, Local Political Leader 30/7/2022). An elderly illicit cultivator concurred saying, '[T]his is why we will continue to cultivate cannabis in the forests because there is no one who will afford the US\$200 to US\$50,000 license fees' (Interview 36, Illicit Producer 8/8/2022).

In contrast, others viewed high license fees as justified because having fewer industry players enabled better monitoring and control for the government against illegal supply and drug abuse. An interviewed local political leader in Binga argued that the fees act as a screening mechanism that ensured that only those with adequate resources and those who are 'serious' about business will participate (Interview 32, Local Political Leader 5/8/2023). An interviewed AMA official also raised this point saying, 'license fees are now playing a security role, sort of screening farmers ... the license is costing \$50,000 which is not easy to acquire' (Interview 22, Cannabis Regulator 7/3/2023).

Most community members (including illicit cultivators and traders) and representatives of civil society and academia that were interviewed viewed the license fees as prohibitive and beyond the reach of many. There was also a view that although small-scale farmers can struggle to enter the medical cannabis sector because it is capital intensive there was space for participation in the industrial hemp sector, including via out-grower programmes (Interview 21, Cannabis Industry Insider 27/2/2023). This points to the possibility of having a socially differentiated agrarian cannabis sector, but one where most small-scale farmers grow industrial hemp with the medicinal sector almost exclusively for

agribusinesses (including joint ventures). However, even the US\$200 for an industrial hemp license is unaffordable for most citizens, including illicit cultivators.

There seems also to be an evident contradiction between the government's stated objective of helping tobacco farmers (the majority of whom are small-scale farmers) to adopt cannabis as a complementary lucrative cash crop (Tuinstra 2023) and cannabis licensing which largely favours large corporations. The cannabis licensing fees are far higher than the US\$10 tobacco farmers currently pay to register with the government. In addition, legalisation is not aimed at addressing illicit cannabis production, nor is there a programme to bring illicit cultivators into legal markets. Thus, the cannabis licensing process excludes the majority of small-scale cultivators currently producing tobacco and illicit cannabis.

Nonetheless, the prolonged ban on recreational cannabis and the reforms' focus on medicinal and industrial cannabis for export markets unintentionally preserves the domestic illicit cannabis market, allowing illicit players to continue their cannabis-linked livelihoods. This is contrary to experiences in Jamaica, the US, Canada, South Africa (Decorte, Lenton, and Wilkins 2020; Klein, Rychert, and Emanuel 2022; Queirolo 2020) where legalisation for recreational purposes created direct competition between small-scale and licensed producers including agribusinesses (Grooten 2023).

Hemp production dynamics

The industrial hemp sector produces diverse products based on cannabis and is dominated by three varieties that farmers can produce – hemp grain, cannabidiol (CBD) flower and hemp fibre. Hemp grain is a seed which can be used to produce oil for body care products (soap, hand cream etc), food (salad oil and food supplements) and paints (oil paints, leather care etc) (AMA 2022). Hemp fibre can be used for production of paper and as bricks in the construction industry. On the other hand, CBD flower is used to produce CBD oil – a pharmaceutical ingredient.¹ It was reported by the chief executive officer (CEO) of AMA in 2023 that Zimbabwean hemp farmers were currently only producing CBD flower for exports (Maricho Media 2023). This was confirmed by an interviewed cannabis industry insider, who said 'mainly right now in Zimbabwe ... we have the ones who are growing this for the CBD flower' (Interview 21, Cannabis Industry Insider 27/2/2023). Hence, CBD flower dominates the early legal hemp sector in Zimbabwe.

There are no domestic markets for hemp fibre and grain, and the farmers are not linked to international markets for those products. CBD flower farmers can either export their product or supply two local companies with CBD oil extraction facilities: Ivory Medical (Pvt) Ltd and Wild Leaf Farms (Pvt) Ltd. An interviewed hemp farmer whose company also extracts CBD oil for export said '[W]e have two companies, two processors of biomass who produces Active Pharmaceutical Ingredients (APIs) ... Ivory Medical and Wild Leaf Farms' (Interview 46, Licensed Farmer 15/1/2024). As an API, CBD oil should be extracted from cannabis produced under strict conditions that meet market standards including health and safety. The farmer should secure cultivation to prevent leakage to the community, ensure traceability and implement rigorous testing (for the soil, seeds,

¹Note that CBD oil extraction falls under both hemp and medicinal cannabis production and regulations.

crop and oil) to make sure the cannabinoids are free of contaminants. The cost implications associated with this production regime has prevented many farmers from producing, as they lack the required financial, technical and human resources needed to establish production.

Production cost projections per hectare vary depending on whether the hemp is grown outdoors or in the greenhouses and the type of hemp. An interviewed AMA official estimated the production cost at US\$10,000 per hectare, with US\$5,000 needed for the imported seeds and another US\$5,000 for maintenance costs (Interview 22, Cannabis Regulator 7/3/2023). However, it was indicated that hemp grain has lower costs ranging from US\$2,000 to US\$3,000 per hectare (Interview 21, Cannabis Industry Insider 27/2/2023). Almost all inputs are imported as there are no domestic companies to produce them, with seed cost ranging from US\$0.20 to US\$0.33 per seed. A contact from a joint venture project in Mazoe, Mashonaland Central Province, which produces using greenhouses put the cost at US\$15,000 per 2,500 square meters (0.25 hectares) (Interview 46, Licensed Farmer 15/1/2024). With 6 hectares under production, it means US\$360,000 was needed for greenhouses. The project has a CBD oil extraction facility on site as well, meaning the business cost is even higher. While foreign investors provide funds that enable such production, many farmers are struggling to produce under the prevailing regulatory, political and economic conditions.

Table 3 shows that eight hemp farmers produced 40,225 kilograms (kg) of CBD flower utilising 24.3 hectares in the 2021/2022 season. This means that 71 percent of the 26 registered cultivators in that season did not produce anything. Although 11 out of 31 registered farmers produced hemp for CBD flower in the 2022/23 season, there was a 22 percent decrease in hectareage used while output decreased to 11.6 tons (AMA 2024). This confirms that licensed farmers are struggling to produce due to various factors including high costs and regulatory and market challenges.

While 8 tons of CBD flower were exported to Switzerland by two growers in the 2021/22 season, only 485 kg were exported in the 2022/23 season by three growers, with an additional 1 ton supplied to the local market by another grower (AMA 2022; 2024). Export prices ranged from US\$10 to US\$50 per kg while the domestic market paid US\$20 per kg. Two joint venture agribusinesses each currently produce over 1 ton of CBD oil per month for exports. One of them sells its oil through middlemen (with EU GMP certification) in Lesotho and South Africa. Oil prices ranged from US\$250 to US\$4,000 per kilogram depending on concentration. However, an interviewed licensed farmer made it clear that farmers are at the mercy of middlemen who offer lower prices, while they

Table 3. Hemp production output.

Grower	2021/2022 Season (kg)
Grower 1	15,000
Grower 2	875
Grower 3	700
Grower 4	14,000
Grower 5	3,000
Grower 6	150
Grower 7	3,000
Grower 8	3,500
Total	40,225

Source: AMA 2022.

in turn fetch more when they supply EU markets (Interview 46, Licensed Farmer 15/1/2024). The difficulties that licensed cannabis farmers face make the sector less attractive to most of the current tobacco farmers for whom cannabis is partly meant to be an alternative cash crop (Tuinstra 2023).

The farmers must also navigate the effects of political instability, volatile currency markets and banks' scepticism regarding funding cannabis production. A farmer in a joint venture project near Harare said banks even refuse to open bank accounts for cannabis farmers because the terms 'dangerous drugs and narcotics' which appear on the licenses scare them off (Interview 43, Licensed Farmer 27/10/2023). While the production struggles of most farmers expose the sector to capture by agribusiness which possess better resources (Bewley-Taylor, Jelsma, and Kay 2020; Vélez-Torres, Hurtado, and Bueno 2021), political and economic instability make it harder even for agribusinesses to operate. Some, like Eco-Equity Zimbabwe (Pvt) Ltd (UK investors), have already closed (Interview 25, Licensed Farmer 24/7/2023) while others such as Medigrow (South Africa investors) were yet to start production in the first half of 2023 (Interview 26, Licensed Farmer 24/7/2023).

The CBD flower sector's focus on exports and the low THC content means that legal hemp farmers do not currently present competition to illicit cultivators and traders who subsist on supplying illicit cannabis for recreational purposes. While the reforms were aimed at attracting local and foreign investment into the country, achieving that goal is not guaranteed given the struggles licensed farmers experience in Zimbabwe.

Medicinal cannabis production

In contrast to hemp, cultivating medicinal cannabis is a very costly undertaking that accommodates only those with a lot of resources. The entry barriers for small-scale farmers and illicit cultivators begin with high license fees as noted earlier (Bewley-Taylor, Jelsma, and Kay 2020). However, an interviewed MCAZ official maintained that '[T]he issuance of production licenses does not discriminate. Equal opportunity is granted to all interested parties' (Interview 24, Cannabis Regulator 6/6/2023). Others, however, acknowledge the exclusive nature of medicinal cannabis which they view as inevitable as it is a typical agro-pharmaceutical industry (Interview 21, Cannabis Industry Insider 27/2/2023).

Farmers can grow high-THC cannabis or medical grade cannabis for CBD oil and CBD powder for the pharmaceutical industry. Examples include Luxacan (Pvt) Ltd in Concession, Mashonaland Central Province, and Swiss Bioceuticals (Pvt) Ltd in Mt Hampden, Mashonaland West Province. Some grow cannabis trees for cuttings sold to other farmers as is the case on a farm near Harare (Interview 17, Licensed Farmer 13/8/2022). The produce is targeted at external markets, except for those producing tree cuttings.

An MCAZ official stated that '[A]t the moment only six license holders have commenced production. The majority of the license holders are still in the process of constructing their cannabis cultivation sites' (Interview 24, Cannabis Regulator 6/6/2023). Most inputs for the medicinal cannabis sector are imported. One farmer imported his seeds from Oregon, USA while another imported Fenocan feminised cannabis seeds from Switzerland. The general production requirements for medicinal cannabis are contained in Statutory Instrument 62 of 2018. Among other things, farmers are required to

install perimeter fencing, CCTV cameras to monitor the whole site as well as producing cannabis in greenhouses. Medicinal cannabis must meet the 'organically grown' criteria. Commenting on greenhouses, an AMA official said:

The medicinal cannabis is mostly used for medicines. That is why it is grown in a controlled environment under greenhouses for it to be safer for human consumption. (Interview 22, Cannabis Regulator 7/3/2023)

The greenhouses allow farmers to control temperatures, humidity, pests and contamination. Additional equipment includes sensor lighting, humidifiers and dehumidifiers and blowers – all critical in controlling the environment in the greenhouse (Interview 46, Licensed farmer 15/1/2024). This equipment, alongside greenhouses and other specialised production inputs (like drip and fertigation systems) make medicinal cannabis production costly beyond many farmers' affordability. Although cost estimates for producing one hectare varied, they ranged between US\$250,000 and US\$1 million inclusive of the infrastructure needed (Interview 21, Cannabis Industry Insider 27/2/2023; Interview 46, Licensed Farmer 15/1/2024). The sector is clearly designed for investors – both local and foreign. However, the high costs and political and economic instability in the country combine to undermine agribusinesses' capture of the sector. This nuance is missing in most literature on corporate capture (Bewley-Taylor, Jelsma, and Kay 2020; Jelsma et al. 2021; Klein, Rychert, and Emanuel 2022) which ignore local conditions such as those in Zimbabwe which affect agribusiness' ability to establish itself in the medicinal cannabis sector.

An interviewed MCAZ official estimated that by mid-2023 about 15 tons had been produced by medicinal cannabis farmers (Interview 24, Cannabis Regulator 6/6/2023). He further stated that most of the cannabis that was produced was not yet for export but research purposes as farmers try to identify varieties that do well. However, during 2023 one farmer reported that he had started selling CBD powder to the UK market. He sold 50 kg for US\$20,000 (US\$400 per kg) and was in the process of supplying more CBD powder worth US\$500,000 to the UK market (Interview 43, Licensed Farmer 27/10/2023). Access to export markets remains a challenge for the farmers. While lucrative, the medicinal cannabis business is an exclusive club for those with substantial resources – making it nearly impossible for illicit cultivators and small-scale farmers to establish themselves as serious players in the sector.

Cannabis and access to land

Licensed farmers have different backgrounds and utilise various means to access land. Some are commercial farmers who use part of their land for cannabis (Mavhunga 2021). An example is Luxacan (Pvt) Ltd in Concession, Mashonaland Central, which is situated on farmland owned by an agribusiness that grows roses for the international export market (Interview 23, Licensed Farmer 28/3/2023). Others are new to farming, including those from the Zimbabwean diaspora. Expressing his observations about new cannabis farmers in Mashonaland Central Province, one interviewed licensed farmer said they are 'buying small plots ... six hectares, you know, small pieces of land. And they are getting into production, cannabis, industrial hemp' (Interview 46, Licensed Farmer 15/1/2024). Local politicians are also involved while some

projects are wholly owned and operated by foreign investors such as Wild Leaf Farms and Avagro (Pvt) Ltd.²

However, there are also joint ventures where local and foreign investors team up to establish cannabis projects (Banya 2022). The terms of agreements vary from project to project, but foreign investors usually bring foreign capital and facilitate market access with the local investors providing land (either leased or owned) and operational management responsibilities (Interview 43, Licensed Farmer 27/10/2023). Agribusinesses utilise various means to access land including leasing from local farmers (Vergara-Camus and Kay 2017).

Cannabis' demand for productive land contributes to land use changes. However, some prefer so-called virgin land because it does not contain chemicals compared to land formerly used for commercial crop production. A hemp farmer in Bulawayo explained:

... most of the time it is better to have virgin land to open up ... We can do soil test and that, but a lot of the old agricultural farms have used a lot of different chemicals ... some of those chemicals used can last for seven years in the ground. (Interview 45, Licensed Farmer 15/1/2024)

This points to possibilities of land dispossession for the poor where the government deems proposed cannabis projects to be of strategic importance as was the case in 2021 when the Chilonga community (in Chiredzi) was evicted from its ancestral land to pave way for a lucerne grass project for dairy production by Dendairy, a private producer of milk products (Tarusarira 2022).

Because the number of licensed producers is still quite small, the impact on land dynamics is minimal at this stage. As of January 2024, cannabis projects were not yet utilising extensive or dispossessed land, with various licensed farmers and industry experts indicating that properties range from 1 to 6 hectares in size. This is partly due to the limited scale of production as the industry is still setting up while many farmers also struggle with production. This may change in the future when the industry grows. Licensed projects are concentrated in the three Mashonaland provinces (East, West and Central) and Harare (e.g. 61 percent of medicinal cannabis projects),³ suggesting that future impact on land dynamics will be more in the northern parts of the country than elsewhere.

Cannabis and labour

Although cannabis production is capital-intensive it also employs more labour needed to tend the crop during its life cycle. An interviewed hemp farmer said '... we have about 70 people ... It is very labour intensive' (Interview 45, Licensed Farmer 15/1/2024). Two other hemp farmers employed 45 and over 100 employees respectively. During a site visit in August 2023, the researchers observed around 30 workers employed on a medicinal cannabis farm near Harare.

Although most of the labour is semi-skilled, those projects with processing plants also hired specialised, skilled workers to operate the processing machines and testing laboratories. Women were most preferred to work in the fields. One farmer said:

²See www.wildleaf.farm and www.avagro-group.com

³The MCAZ database provide addresses for 40 out of 57 projects, with 35 based in Mashonaland East, West and Central provinces and Harare.

... we prefer women ... They are more delicate in their operations especially when harvesting ... Ladies tend to be a bit patient when doing those operations which are delicate. Ladies are not so experimenting like men. Ladies do not like taking risks. We have had 12 cases of theft, and you will find out that it is men. (Interview 46, Licensed Farmer 15/1/2024)

This was confirmed by another interviewed farmer who said '... the women are definitely better on the plants ... ladies are much better, you know, more adapted and better for that job' (Interview 45, Licensed Farmer 15/1/2024). The researchers observed similar trends at a medicinal cannabis project during a visit in 2023. This finding is contrary to that of Shonhe, Scoones, and Murimbarimba (2022) where men dominated the permanent agricultural workforce after the fast-track land reform programme (FTLRP) of the 2000s. Workers wore personal protective equipment (PPE) and worked in clean environments to ensure compliance with export markets' safety standards.

The above shows that cannabis can contribute to rural job creation – making an agrarian impact to the economy. However, the impact is less likely to mirror that of tobacco and other crops where the participation of small-scale farmers enables them to combine both household and hired labour leading to broader agrarian effects (Mazwi, Chambati, and Mudimu 2020).

Business as usual for illicit markets

Despite the emergence of the legal cannabis sector, illicit cannabis is still far larger in terms of estimated output and its significance to people's livelihoods (Interview 4, Local Political Leader 30/7/2022). Illicit markets are supplied from both locally grown and imported cannabis. Areas such as Mutoko (north-east) and Binga (north-west) are known for illicit cannabis cultivation by small-scale growers. However, trade and consumption is nationwide with local supplies complemented with imports from Malawi, South Africa and Mozambique (Gastrow 2003).

Most interviewed illicit cultivators, traders, consumers and some community members supported the legalisation of cannabis. They cited cannabis' contributions as including financial, enabling someone to work hard, facilitating productive thinking as well as physical and spiritual healing (Interview 2, Illicit Consumer 30/7/2022; Interview 7, Illicit Trader 4/8/2022). The community members who opposed cannabis' legalisation argued that the unemployed, especially the youth, tend to smoke more or are vulnerable to using drugs. They also thought that legalisation was going to increase supplies of cannabis into their communities. However, those who supported legalisation had limited knowledge on what has been legalised, with many thinking the reforms included recreational cannabis as well. On learning that recreational cannabis was still illegal, an illicit cultivator in Binga said 'the current policy is not good. If cannabis is to be grown let it be open to everyone as is the case with other crops' (Interview 36, Illicit Producer 8/8/2023).

Many interviewees in Binga and Chiredzi expressed interest in growing cannabis legally due to its premium prices compared to crops like maize. However, they preferred this to be done through cooperatives. The rationale was that cooperatives will allow them to pull their resources together, bargain better when negotiating prices while also offering better control against drug leakages into their communities. While not

opposed to cannabis smoking, they did not support its consumption by young people especially the youth. A traditional leader in Binga said:

Producing individually will be difficult. They should put people into groups (cooperatives) monitored by the government. It will lift people economically. (Interview 28, Local Traditional Leader 5/8/2023)

An illicit cultivator concurred saying:

I am very much interested in getting a permit to cultivate cannabis ... They should form cooperatives that are monitored. If one grows individually, they can sell illegally to the youth to generate income. But with cooperatives both the nation and the farmers will benefit'. (Interview 37, Illicit Producer 9/8/2023)

Thus, cooperatives were seen as a model that promotes participation of small-scale and illicit producers into legal markets, as is the case in Morocco (Jelsma et al. 2021). Some community members who worried about drug problems preferred that legal production be done by corporate businesses only, with communities providing labour. Such a model, however, would reproduce the unequal (colonial) agrarian relations which were disrupted by the FTLRP in favour of inclusion of Africans as key agrarian players (Shonhe, Scoones, and Murimbarimba 2022).

In Binga illicit cultivation was done by men on small plots in forests and alongside rivers, but far from residential areas. During the growing season some grew cannabis in the middle of fields surrounded by other crops to camouflage it (Interview 38, Local Community Member 9/8/2023). No one is expected to walk into the middle of someone's field during the planting seasons. Most growers hid their business from family members while one indicated that his wife knew about the business but had no idea where the plot was located (Interview 37, Illicit Producer 9/8/2023). The secrecy around the plots was a safeguard against being reported to police as well as against thefts by community members. Only growers and those they trusted among growers could access the fields. The shortage of labour (no hired labour was used) was the reason behind the limited scale of production. Harvests ranged from one 20 L bucket to three buckets, with the cannabis processed and stored in the forests to avoid detection by police. One farmer, for instance, said his son was arrested by the police in mid-2023 because they found buckets of cannabis at his home (Interview 36, Illicit Producer 8/8/2023). Thus, the poor are still arrested for a plant that is now benefiting the rich – demonstrating the discriminatory impacts of the reforms on various groups (Grooten 2023; Vélez-Torres, Hurtado, and Bueno 2021).

Cannabis was sold for cash, exchanged for livestock such as chicken or used as currency to pay for hired labour, especially the youth. When sold, the growers charged US \$3 to US\$4 for a teacup (Interview 37, Illicit Producer 9/8/2023). Twists, which are small joints of cannabis rolled in hard paper common in Chiredzi and Harare, were not preferred because they are labour intensive and create complexities that can attract the police. The farmers sold only to local people they knew and trusted. Labour was also hired to do tasks such as ploughing the family fields where licit crops are grown in exchange for cannabis. Most of those hired were youth.

Cannabis had positive impacts for illicit cultivators' households in Binga. One farmer, for instance, used income from cannabis to pay school fees for his three children. Further, he argued, '[W]hen I am not producing cannabis I end up selling household

assets such as chicken to generate income' (Interview 37, Illicit Producer 9/8/2023). A 63-year-old farmer, who started cultivating in 2000, said he managed to build a brick house, put in some lighting and drilled a borehole at home using proceeds from cannabis (Interview 36, Illicit Producer 8/8/2023). He also established an almost 1-hectare plot of sugarcane which he sells to those who purchase for business purposes. The labour for that plot is also paid using cannabis. He plans to buy a 5,000 L water tank to use with his borehole for irrigation purposes.

The above shows that illicit cannabis markets are supporting some households which ordinarily would have struggled to survive Zimbabwe's tough economic conditions. The benefits are not limited to those who grow it. In Chiredzi and Harare some youth depended on cannabis selling for their livelihood. For instance, a young man in Chiredzi with a physical disability that prevented him from doing manual jobs used income from cannabis trade to build a one-room house (Interview 16, Local Community Leader 11/8/2022). In mid-2022 he hired someone to mould cement bricks for the extension of his house to add more rooms. This not only shows the critical role illicit cannabis plays in the poor's lives (Bloomer 2019; Carrier and Klantschnig 2016), but also highlights the perversity of criminalising them for an activity they have historically depended on (Rusenga et al. 2022), while at the same time opportunities are created for the rich to benefit from the same plant in a newly created legal sector. To prevent negative impacts on livelihoods, a widening of the legalisation process to cover domestic markets should be based on extensive consultations with illicit small-scale producers to ensure participation and safeguarding of their interests (Rusenga et al. 2022).

Conclusion

The article has critically examined Zimbabwe's cannabis reforms which allow for legal production for medicinal and scientific purposes while continuing to outlaw all other uses. It highlighted the interconnections between cannabis, capitalist development and agrarian change and continuity. The article has demonstrated that cannabis legalisation has little to do with finding new livelihoods for small-scale farmers, especially illicit cannabis producers. Rather, it is driven more by the government's desire to attract investment in the country. Although the policy rhetoric envisions small-scale licit farmers and agribusinesses operating alongside each other (Vergara-Camus and Kay 2017), in practice the sector is set up in a way that can only accommodate those with substantial resources with most small-scale farmers sidelined (Grooten 2023; Klein, Rychert, and Emanuel 2022; Vélez-Torres, Hurtado, and Bueno 2021). While this presents the risk of agribusiness' capture of the sector as seen elsewhere (Bewley-Taylor, Jelsma, and Kay 2020; Jelsma et al. 2021), a combination of high production costs, regulatory and market access challenges and political and economic crises, have undermined licensed farmers' production, making it harder even for agribusiness to establish itself. Thus, the Zimbabwean case shows that legalisation processes do not always follow a set direction and need to be understood in their local context.

The article also highlighted how continued prohibition of recreational cannabis alongside the formal sector's focus on export markets have helped to preserve illicit cannabis markets for those currently producing and trading illegally. In the prevailing agrarian and

economic crises faced by Zimbabwean rural farmers and youth (both urban and rural), illicit cannabis has allowed some to generate income, accumulate wealth as well as accessing resources they use to invest in legal production processes. In addition, while prohibition of recreational cannabis affects and stigmatises the poor, it also shields illicit players from competition from licensed farmers who possess better resources, contrary to the experiences in South Africa (Grooten 2023). Despite these positives, illicit cannabis economies are by no means peasant idylls.

Zimbabwe's legal reforms have some unintended consequences with serious agrarian implications. For some legal agricultural producers who acquired licenses for cannabis, the challenges with setting up cannabis projects has forced them to continue with production of other conventional cash crops. There is also continuity in the illicit cannabis markets, with cultivators and traders generating income under almost unchanged conditions despite the administrative and entry barriers into legal markets. For these two groups, it is business as usual. Lastly, although some agribusinesses and those in joint ventures have managed to establish production, their activities are affected by high business costs, political instability as well as economic volatility that have prevailed in Zimbabwe since the early 2000s.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by UK Research and Innovation. The research at the basis of this article was funded by UK ESRC/AHRC grant ES/S012060/1.

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