HISTORICAL ANALYSIS OF COFFEE PRODUCTION AND ASSOCIATED CHALLENGES IN KENYA FROM 1893 TO 2018

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ABSTRACT

Coffee is one of the most important export crops in Kenya, contributing about 22 per cent of the national income and is a source of livelihood for more than 700 000 households. However, despite its immense importance to the Kenyan economy, coffee exports have continued to shrink. This paper explores the introduction and upscaling production of coffee in Kenya from 1893 to 2018 and associated challenges. It assesses the role of white settlers and Kenyans in coffee production during the colonial period (1893-1962) and the post-independence period (1963-2018). This research showcases how a mismatch in policy direction at a local level and insufficient support to coffee farmers in Kenya have led to a downward trajectory of coffee production. The data was collected from secondary sources and was analysed chronologically to historicise coffee production and its associated challenges. The study concludes that the dismal performance of coffee production is partly attributable to coffee prices, marketing channels, coffee financing, coffee regulations, cost of production, management of cooperatives and processing of exported coffee. Thus, it is recommended that the Kenyan government harmonise existing policies regulating the coffee industry in terms of licensing, marketing, and making credit available to farmers.

Keywords: *coffee production; modernisation theory, dependency theory, theory of comparative advantage*

1. INTRODUCTION

Coffee production was introduced in Kenya in 1893 by white settler farmers who grew the crop in estates up to independence.[1] After 1963, smallholder coffee farming emerged when the estates disposed of by white settler farmers were subdivided and given to smallholder coffee farmers. Consequently, coffee estate farming was reduced over time from 80 per cent in the 1960s to about 20 per cent in 2018.[2] Coffee estate farming in Kenya was characterised by a larger area of coffee mono-cropping (usually from 8 hectares to 200 hectares), as capital intensive, and with permanent hired workers.[3] More than 67 per cent of these estates are irrigated, utilise fertigation, and have their own coffee pulping factories. Frequently, it involves hiring managers and agronomists to determine the level of performance and give recommendations.[4] On the flip side, smallholder coffee farming expanded rapidly since independence to the extent that now 80 per cent of coffee is produced by smallholder coffee farmers affiliated with approximately 435 coffee cooperatives.[5] Smallholder coffee farming in Kenya is characterised by intercropping and mixed farming, and about 67 per cent possess a small parcel of land of less than two hectares, with 93 per cent of them less than four hectares.[6] Given that they have poor access to agricultural credit, smallholder coffee farmers mostly use family labour, limited use of chemical input and fertilisers and do not utilise irrigation. Smallholder coffee farmers are constrained by high production costs of inputs (especially costs of fertilisers, improved seedling varieties, and pesticides), lack of adequate crop husbandry skills, use of labour-intensive methods to till the land and climate change.[7] In this regard, the aforementioned factors coupled with depressed and volatile coffee prices on the international market were partly to blame for the declining productivity in coffee in Kenya since the colonial era up to now and led to the underdevelopment of the country.[8]

1 C Elkins, *Britain's gulag: the brutal end of empire in Kenya* (Random House, 2005), p. 8.

2 ICO, *Country coffee profile: Kenya,* International Coffee Council, *124*th Session, 25 to 29 March 2019, Nairobi, Kenya.

3 T Akiyama, "Kenyan coffee sector outlook: A framework for policy analysis". In: *Commodity studies and projections division* (Washington DC: The World Bank, 1987), p.5.

4 JA Kieran, "The origins of commercial Arabica coffee production in East Africa", *African Historical Studies* 2 (1), 1969, pp. 51-67.

5 ICO, *Country coffee profile: Kenya.*

6 Akiyama, Kenyan coffee sector outlook.

7 MN Gathura, "Factors affecting small-scale coffee production in Githunguri District", Kenya, *International Journal of Academic Research in Business and Social Sciences* 3 (9), 2013. p. 132.

8 ICO, *Country coffee profile: Kenya.*

The underdevelopment of African countries has been linked by many scholars to these countries being net exporters of raw materials like green coffee and natural resources. According to Erik Reinert, countries that continued to export raw materials but were devoid of processing would be characterised persistently by poverty and underdevelopment.[9] Illustrious Nigerian scholar Claude Ake, in his book titled *Democracy and Development*, opined that among the causes for the failure of development entrenched in the African socio-cultural background was that the development models and paradigms employed by policymakers in Africa were Eurocentric concepts that were unresponsive to African scenarios.[10] These reasonings illustrate that the underdevelopment of African countries has been a subject of increasing academic argument among scholars within conflicting theoretical coherence and conceptualisations. Some intellectuals postulate that the fallacious structure of moral, social and political concepts was designed to perpetuate the knowledge supremacy of the first world countries who have exploited the developing countries.[11] Some of these concepts are colonialism, modernisation, imperialism, dependency and coloniality. This study zeroed on modernisation theory, dependency theory and theory of comparative advantage because many earlier scholars cite these theories as precursors of backward economies among developing economies.[12] Dependency, modernisation and comparative advantage created by colonialists prompted indigenous Kenya to market their green coffee in the international market that was highly characterised by volatile prices.

Coffee price volatility had an adverse impact on both developing and developed economies. Therefore, anchored on the pact on price differentials of Bogotá in 1936 and the Charter of Havana framework of 1948, the key developed economies supported the development of the International Coffee Agreement (ICA) in 1962 to stabilise the coffee price.[13] The ICA formulated export quotas for every country as per the average production capacities in previous years to stabilise global coffee prices thereby increasing the stability

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9 ES Reinert, *How rich countries got rich and why poor countries stay poor* (London: Constable & Robinson, 2008), p. 6.

10 C Ake, *Democracy and development in Africa* (Washington DC: Brooking's Institution Press, 2001), pp. 1-45.

11 AA Mazrui, "Anti-militarism and political militancy in Tanzania", *Journal of Conflict Resolution* 12 (3), 1968, pp. 269-284.

12 See, for instance, EA Brett. *Colonialism and underdevelopment in East Africa: The politics of economic change 1919-1939* (London: Heinemann, 1973), pp. 70-76; C Leys. *Underdevelopment in Kenya, the political economy of Neo-colonialism* (Nairobi: East African Educational Publishers, 1964), pp. 30-48; W Rodney. *How Europe underdeveloped Africa* (London: Verso Trade, 2018).

13 RB Bilder, "The International Coffee Agreement: A case history in negotiation", *Law and Contemporary Problems* 28 (2), 1963, pp. 328-391.

of income generated from export for these economies.[14] Excess coffee produced above the quotas was retained as stock in the country of production or imported to non-member quota-consuming economies mostly in Asia or Eastern Europe.[15] Since its promulgation in 1989, the ICA of 1962 was reviewed three times: 1968, 1976 and 1983. Nonetheless, the collapse of the ICA in 1989 only served to add more challenges to the already ailing coffee sector in Kenya.[16] Thereafter from 1990, efforts to re-introduce the quota system did not benefit Kenya as large coffee-producing countries frustrated the negotiation process because they feared losing. Thus, the coffee exports, which claimed 40 per cent of total exports in 1985, shrivelled to 0.42 per cent in 2019.[17] Therefore, despite the glaring need for an in-depth analysis of underlying issues derailing coffee production, very little research has been dedicated to studying the coffee production-challenges nexus. There is not much discourse in existing literature linking modernisation theory, dependency theory, and theory of comparative advantage and coffee production and how they have failed to empower Kenya over the years to be economically independent and to improve the livelihoods of its citizens. To bridge this gap, this paper embraces descriptive analysis to explore coffee production and associated challenges from 1893 to 2018 in Kenya. The research findings of this paper are important in two ways. First, policymakers at various levels can use the information to formulate and review policies that are directed toward promoting the optimum production of coffee. Second, coffee producers can use the data from this study to navigate the challenges of coffee production to improve coffee productivity and reap maximum economic value from their investment.

2. THEORETICAL FRAMEWORK

Colonisation and underdevelopment in Kenya and other African countries are concepts that have been much elaborated in historical literature by Edwin Allan Brett, Colin Leys and Walter Rodney, among others.[18] In their work, these writers deliberate on underdevelopment and dependency in the agricultural

14 The ICA formulated export quotas on every country as per the average production capacities in previous years.

15 CL Gilbert, "International commodity agreements: An obituary notice", *World Development* 24 (1), 1996, pp. 1-19.

16 Bilder, "The International Coffee Agreement: A case history in negotiation", p. 330.

17 ICO, *Country coffee profile: Kenya.*

18 See for instance, EA Brett. *Colonialism and underdevelopment in East Africa: The politics of economic change 1919-1939* (London: Heinemann, 1973), pp. 70-76; C Leys. *Underdevelopment in Kenya, the political economy of Neo-colonialism* (Nairobi: East African Educational Publishers, 1964), pp. 30-48; Rodney, *How Europe underdeveloped Africa.*

industry in Kenya by demonstrating in what way colonialism bred Kenya's assimilation into the global capitalist economy while nurturing economic actions that caused unbalanced development. Their studies are significant in assisting to precipitate the theoretical framework of modernisation theory, dependency theory, and the theory of comparative advantage upon which this research was anchored.[19] Modernisation theory argues that Africa failed to develop because the continent was not following the economic development path of the West. Consequently, after Kenya became a British colony, the colonisers developed policies to fast-track the replacement of the perceived archaic and crude farming techniques with modern agricultural technologies.[20] This involved the introduction of cash crops such as coffee, the use of the latest production techniques, and export marketing.[21] By introducing the modernisation of peripheral countries' agriculture, the metropole hoped to form a firm capitalist economy that would quench insurgence. Coffee was introduced as an alternative way of revolutionising the Kenyan economy to accelerate colonial government economic development. Therefore, the colonial government placed numerous embargoes on agricultural production of peripheral countries, coupled with the colonial government's oligopolistic processing and marketing of coffee under metropole jurisdiction, suppressed the rise of indigenous forces to counter this unbalanced development. According to Brett (1972), the colonial government formulated the economic policy of Kenya to conform to, not compete with, the economy of the metropole. For example, prohibitions on indigenous Kenyans from planting coffee during the colonial era disrupted their economies and transformed their economic activity into capitalism. Modernisation led to the application of scientific techniques such as the hybridisation of seedlings and the use of

19 Modernisation theory, introduced by Talcott Parsons (1902–1979), holds that all civilisations that pursue modernisation development follow a uniform evolutionary trajectory of progressive phases: pre-modern economies, transition to take-off, take-off, growth to maturity, period of escalated consumption and post-industrial space. Dependency theory was promulgated by Raul Prebisch, who sought to determine why there is usually a drop in economic values arising out of severe reliance on developing ex-colonial countries on the economics of states that control commodity and financial markets in which both are engaged. Dependency theory can be described as a historical circumstance that shapes a specific configuration of the global economy to the extent that it favours the economic growth of particular countries at the expense of others and restrains the development potential of inferior economies. Lastly, the theory of comparative advantage was developed by David Ricardo (1817) and is the ability of the economy of a given country to produce a specific good or service at a lower opportunity cost than its competitors due to technological advancement, factor endowments, or both.

20 C Barnes, *An experiment with African coffee growing in Kenya: The Gusii, 1933-1950* (PhD, Michigan State University, 1976).

21 ID Talbott, "African agriculture". In: WR Ochieng and RM Maxon (eds.), *An economic history of Kenya* (Nairobi: East African Educational Publishers, 1992), pp. 75-91.

pesticides and fertilisers, among others, to coffee farming. That labour was cheap and indigenous Kenyans only allowed to interact with coffee production as proletariat on white settlers' coffee estates only demonstrates the level of exploitation by developing economies during the pre-colonial period.[22] As a result, the size of economic growth in the colony soared whereas the well-being of Kenyans continued to dwindle.[23]

Dependency theory is linked to the concept of "development of underdevelopment" which is a key precept of the dependency argument, augmented by the identical notions of colonialism and imperialism. Dependency theorists hold that modernisation was an unnecessary Eurocentric experiment that did not empower Africa to be economically independent or to improve the livelihoods of its citizens. They opine that modernisation was only effective in stimulating Africa's dependency on its colonisers. To demonstrate that modernisation by the West was unnecessary and uncalled for, it has been pointed out that Africa did not need modernisation since the continent was already using innovative African know-how and methods before colonisation.[24] Further, it has been hypothesised that the cause of underdevelopment in Africa is a consequence of the continent being short-changed economically by colonialists.[25] The coffee farming scenario provides evidence of the major arguments of the dependency theory that indicate how Africa is being exploited by developed economies. However, regardless of the academic utility of its protagonists, the dependency theory is perceived to be multifaceted. This theory has been disputed from within the Leninist paradigm by countless scholars who think that it profoundly hinges on analyses of trade and international relations and that it disregards important dynamics in multinationals. For instance, there are challenges regarding the verifiable interrogation of whether or not industrialisation is happening at all in various African countries or whether these countries are on a downward economic trajectory.[26]

Another critique of dependency theory is that it has put much weight on market relations and international trade, colonialism and imperialism as exclusively liable for peripheral countries' under-development. This has led to a trail of conflicting opinions on different ways for Africa's development. As Wilson Okowa contended, the notion of development and underdevelopment

22 LP Mureithi," Coffee in Kenya: Some challenges for decent work", *ILO Working Paper 260,* 2008.
23 Talbott, "African agriculture".
24 Rodney, *How Europe underdeveloped Africa*.
25 O Mehmet. *Westernizing the Third World: The Eurocentricity of economic development theories* (London: Routledge, 1999), pp. 7-9.
26 M Howlett *et al., The political economy of Canada: An Introduction* (Canada: OUP Catalogue, 1999).

as perceived by both the conventional and the neo-Marxist school of thought shows conceptual insufficiencies since both perceive the manifestation rather than the actual hitches of underdevelopment.[27] Several dependency theorists are consistent with orthodox Leninist thinking, declaring that the mechanism of control is the megacorporation domiciled in the metropole. Megacorporation export surplus produces coffee from Africa to the metropole through unbalanced trade relations. It was argued that the export of raw materials (for example green coffee) coupled with the import of metropole industrial goods contributed to an unbalanced pattern of development.[28] Further, these corporations use their market power to acquire raw materials at lower market prices in Africa and import processed products back to Africa at excessive prices.[29] For instance, Kenya was required to produce green coffee that was exported to the West to be roasted in North America or Europe. Some coffee is shipped back as Nescafe and sold at a higher price but most Kenyan coffee remains abroad for consumption in the Global North. In essence, Kenya was not permitted to engage in the processing of raw materials, manufacturing of goods or any other technological/ economic activities essential to support indigenous industrialisation. Additionally, the prominence of the colonialists along with the colonial government grip over every strand of commercial life further aggravated the structural imbalances.[30] Capitalist accumulation was by then developing among several Kenyans in the colonial period due to agricultural exports.[31] However, studies like these quoted here did not showcase the state of capitalist accumulation in Kenya in the colonial era due to coffee exports. This study has attempted to bridge this missing link in current literature.

The theory of comparative advantage is credited to David Ricardo, who held that the comparative advantage occurs when a country's marginal cost of production (opportunity cost) of a particular good or service is lower than that of competitors due to either factor endowments, technological advancement or both.[32] For instance, although many countries produce coffee, Brazil has had a comparative advantage that dates back to 1906 to the extent that it

27 WJ Okowa. *How the tropics underdeveloped the Negro: A questioning theory of development* (Port Harcourt: Paragraphics, 1996), pp. 76-81.

28 Brett, *Colonialism and underdevelopment in East Africa: The politics of economic change 1919-1939*, p. 28.

29 S Amin. *Unequal development: An essay on the social formations of peripheral capital* (New York: Monthly Review Press, 1976).

30 Brett. *Colonialism and underdevelopment in East Africa: The politics of economic change 1919-1939*, pp. 45-49.

31 G Kitching. *Class and economic change in Kenya: The making of an African Petite-Bourgeoisie* (New Haven: Yale University Press, 1982).

32 D Ricardo, *On the principles of political economy and taxation* (London: G. Bell and Sons 1891).

controlled 84.5 per cent and 70 per cent of global production and export market share, respectively.[33] Because of this huge global market share of coffee, Brazil introduced the "*valorizacion*" policy, which was a unilateral action designed to hike coffee prices in Brazil through export restrictions and national stockpiling.[34] Out of a desire to stabilise coffee prices and supply, other coffee-producing countries scaled up their production at an unprecedented rate of 20 per cent per year. As a result, by early 1960, Brazil's global market share had reduced significantly. Further, to lessen the overreliance on coffee from Brazil and other Latin American countries, European countries introduced coffee in their African colonies, especially those that had a comparative advantage.[35] Kenya was one of the African colonies where Europeans introduced coffee. However, from 1962 on, Kenya produced green coffee and the country was not in a position to exploit this competitive advantage fully since coffee prices were dictated by exporters and roasters.[36] Thus, by embracing the theory of Ricardo wholeheartedly and specialising in the ceaseless export of coffee beans, Kenya failed to earn maximum returns from selling coffee in the global auction market. This is evident as coffee importing countries like Britain, that differentiated themselves in manufacturing, increased their returns, created more employment for its citizens, and eventually enjoyed the benefits of global trade and globalisation while Kenya continued to wallow in perpetual poverty.[37]

Ricardo's theory has been seen to have three key defects.[38] First, the theory was formulated without taking into consideration the historical analysis, increasing returns, change in technology, increasing returns and synergies that are entailed in international commerce. Secondly, numerous Africans were cognisant of the fact that technological advancements would not permit coffee producers in Africa to earn higher profit margins than developed economies like Britain processing coffee into various products and enhancing returns to their corporations. Lastly, it is undisputed that the theory of comparative advantage is only appropriate for developed economies that are involved in manufacturing and processing activities. Therefore, African countries that focus on exporting raw materials like green coffee are specialising in poverty, as decreasing returns will manifestly decrease the return on investment of

33 SR Pearson and RK Meyer, "Comparative advantage among African coffee producers", *American Journal of Agricultural Economics* 56 (2), 1974, pp. 310-313.
34 Pearson and Meyer, "Comparative advantage among African coffee producers".
35 HO Nyangito Policy paper No. 2 of 2001 on policy and legal framework for the coffee subsector and the impact of liberalization in Kenya (*KIPPRA*, 2001).
36 Talbott, "African agriculture".
37 JM Buchanan and JY Yong, "Globalization as framed by the two logics of trade", *Independent Review* 6 (4), 2000, pp. 399-405.
38 Reinert, *How rich countries got rich and why poor countries stay poor*.

developing countries.[39] Colonialism followed by globalisation was anchored on these distorted dogmatic persuasions of Ricardo and Smith, and the outcome of colonisation on economic enhancement and development is visible in Africa, as the continent boasts of being the primary producers of natural resources and raw materials like coffee, whereas the creation of employment and the mitigation of poverty, which are the key pillars of development, remain a mirage for the continent.[40] Thus, Kenya could have used its comparative advantage to expand production to be a stronger bargaining power to enter into concessions to export processed coffee to the metropole and other coffee importing countries and fetch premium prices from the production of its coffee. Therefore, the above arguments based on the three theories shed some light on why coffee production has been dwindling over the years despite the enormous profits earned by exporters and roasters in the international market and why smallholder coffee farmers receive lower prices that significantly reduce their profit margins.

3. RESEARCH METHODOLOGY

The descriptive design has been used to review coffee production and associated challenges in Kenya from its introduction in 1893 to 2018. Secondary data was collected from websites and online publications. First, data on coffee production (1961-2018) was collected from the International Coffee Organisation (ICO). This data focused on three major global producers (Brazil, Colombia, and Vietnam) and five East African countries (Ethiopia, Uganda, Tanzania, Burundi, and Rwanda). This was done to establish the competitiveness of Kenya in terms of coffee production in the East African region and globally. Secondly, data on coffee, tea, and horticulture production from 1961 to 2018 for Kenya was also collected from the Food and Agriculture Organisation corporate statistical website.[41] Thirdly, additional data was obtained from online publications to examine the challenges facing coffee production in Kenya. This data includes: average production cost in the country; average auction price of coffee for Kenya from 1998/99 to 2017/18; source of agricultural credit; access to coffee credit by gender; and agricultural

39 D Irwin, *Against the tide* (Princeton: Princeton University Press 1996).

40 D Harvey, *A brief history of neoliberalism* (Oxford: Oxford University Press, 2005), pp. 87-119.

41 Food and Agriculture Organisation Corporate Statistical Database (FAOSTAT), The website publicises statistical data collected and maintained by the Food and Agriculture Organisation. FAOSTAT data contains a time-series from 1961 in most domains for 245 countries in English, Spanish and French.

credit from 1995 to 2011.[42] This data was analysed using descriptive statistics and is presented in tables and graphs. Finally, consistent data on coffee production and export from 1893-1963 was not available. Therefore, the data for this period was obtained from 37 annual archival reports from 1911 to 1962 (that is, KNA/MA1/12/2-51 Kiambu District Annual Reports) and key milestones during this period were described chronologically to historicise coffee production and its challenges.

4. COFFEE PRODUCTION IN KENYA BEFORE INDEPENDENCE (1893-1960)

Coffee was first grown in Kibwezi in 1893 by missionaries, and the first harvest of cherries was in 1896.[43] This harvest was small as Kibwezi has a hot and dry climate. However, the actual commercial growing of coffee in Kenya commenced at the end of the 19th century (1899) around the Kiambu region, by white settler farmers.[44] Pests and diseases posed a major challenge in upscaling coffee production in the region. Thus, to minimise the spread of diseases such as coffee leaf rust, in 1904, the Colonial Government developed the Coffee Leaf Diseases Ordinance legislation, which came into effect in 1914 and restricted the importation of coffee plants and seeds from specific countries.[45] To boost coffee production, further research was inevitable. Hence in 1908 and 1913, the colonial government appointed an entomologist and mycologist, respectively, to promote coffee research work. In 1914, coffee estate inspectors were hired to inspect incidences of pests and diseases on coffee plantations and advise the coffee growers on sound agronomic practices.[46]

By 1910, no minerals had been discovered in Kenya but the coffee price on the global market was on an upward trajectory. This made the colonial government encourage coffee plantation farming by white settler farmers to

42 The data of average production cost in the country and average auction price of coffee for Kenya from 1998/99 to 2017/18 were both sourced from ICO, "*Country coffee profile: Kenya,* p. 13 and 20 respectively; data of access to agricultural credit by gender was sourced from KIPPRA, *Women's access to agricultural finance in Kenya: Baseline report,* 2019, p. 3; data of agricultural credit from 1995 to 2011 was sourced from A Salami and DF Arawomo, "Empirical analysis of agricultural credit in Africa: Any role for institutional factors?" *Working Paper no. 192*, African Development Bank Group, 2013, p. 9.

43 Kieran, "The origins of commercial Arabica coffee production in East Africa."

44 AR Waters, "Change and evolution in the structure of the Kenya coffee industry", *African Affairs* 71 (283), 1972, pp. 163-175.

45 Barnes, "An experiment with African coffee growing in Kenya."

46 AJ Beyan, "The development of Kikuyu politics during the depression, 1930-1939", *Third World Problems, Issues, and Developments* 6 (1), 1989, pp. 29-47.

bolster exports and it declared coffee a major industry in 1911. [47] However, the enlargement of land under coffee cultivation was faced with the challenge of inadequate labour. The labour shortage catapulted the formation of the Native Labour Commission in 1912 to devise ways of pushing Kenyans to work on white settlers' coffee estates.[48] This involved the introduction of hut tax in 1912, dual policy in 1923, and the *Kipande* system in 1924.[49] The hut tax was intended to coerce Kenyans to work on the coffee farms to generate income to pay their taxes, while the dual policy was developed by the Economic and Financial Committee of the colonial government, which recommended that Kenyans engage in food production and as the supply of labour on white settlers' coffee estates instead of allowing them to plant coffee.[50] Finally, the *Kipande* system was a colonial government policy requiring all Kenyans to be registered with the sole aim of limiting their movement.

In 1917, the Planters Union of Kenya was formed, enabling the white settler farmers to successfully lobby for the construction of the first coffee mill by the colonial government and to set up the Nairobi Curing Company (NCC).[51] With the support of the Planters Union of Kenya, the colonial government, and the NCC, Kenya was able to market green coffee abroad.[52] Consequently, the colonial government's economic strategy encouraged coffee plantation farming by white settler farmers to boost exports – at the expense of Africans. This was consistent with the philosophical foundations of the concept of global trade, which was a precursor of the concept of comparative advantage. This was empty assurance, as numerous African households were still wallowing in poverty and underdevelopment, notwithstanding the hegemony of globalisation.[53] The theory of comparative advantage had a negative impact on the rate of employment, aggravated poverty and was analogous to embracing insufficiency and underdevelopment since focusing exclusively on exporting green coffee impeded the potential of African countries to process

47 Nyangito, "Policy paper No. 2 of 2001".

48 C Gertzel, *Kenya Colony* (Illinois: Northwestern University Press, 1970), pp. 60-79.

49 The Kipande system was introduced to Kenya in 1921 by the British, who made it mandatory for every indigenous male Kenyan to get registered, fingerprinted, and issued a certificate called a Kipande when they became 16 years old. The colonial government used the Kipande to curtail the freedom of Africans and monitor labour supply. It also empowered the police to stop a native anywhere and demand to be shown the document. See for example, Beyan, "The development of Kikuyu politics during the depression, 1930-1939," pp. 30.

50 S Singh *et al., Coffee, tea, and cocoa: Marketing prospects and development lending* (Baltimore MD: Johns Hopkins University Press, 1977).

51 K Condliffe *et al.,* "Kenya coffee: A cluster analysis". In: *Professor Michael Porter, Microeconomics of Competitiveness* (Cambridge, MA: Harvard Business School, 2008), pp. 1-34.

52 Beyan, "The development of Kikuyu politics during the depression, 1930-1939."

53 K Pezzoli, "Sustainable development: A transdisciplinary overview of the literature", *Journal of Environmental Planning and Management* 40 (5), 1997, pp. 549-574.

coffee thereby decreasing the returns accruable to the coffee-exporting countries. [54] The need to license coffee exports led to the introduction of the Coffee Planting Ordinance in 1918, that provided for an annual licence which was only handed out to white settler farmers.[55] Indigenous Kenyans were not supposed to grow coffee save for supplying labour to white settlers' coffee estates. As a result, indigenous black Kenyans were not in a position to reap any meaningful economic benefits from coffee farming during the colonial era. In fact, in 1919, some scholars rightly argued that the royal and colonial authorities had decided to develop exports through white settlers' coffee estates rather than coffee farms owned by indigenous black Kenyans.[56] As a result, capital was produced inside the system by removing excess from the product of African labour. Similar studies by various researchers all confirm Van Zwanenberg's proclamation that the old colonial accrual system entailed taking a high percentage of the resources from African countries and shifting it to the developed economies.[57] This led to phases of underdevelopment in Africa that have been a topic of growing academic discussion among scholars amid conflicting theoretical transparencies and conceptualisations. In reality, academic harmony has arisen amid developing economies scholars as they agree that colonialism and imperialism were a herald of the backward economy of Africa, which is in line with dependency theory.

During the World War I period (1914-1918), coffee production was not affected due to favourable prices on the global market. Consequently, there was a rapid expansion of coffee farms during this period. Above all, there was adequate labour since the natives were compelled to provide labour throughout the year on coffee farms to evade the possibility of being recruited into the army.[58] In 1919 after WWI, there was a global economic recession and its detrimental effects were felt in the coffee industry. Besides, harsh weather conditions in mid-1919 and political instability in Kenya negatively affected coffee production in the country. As a result, coffee prices took a dip in 1919 and the coffee market remained volatile until 1921.

54 DC Ukwandu, The role of good governance in Africa's elusive quest for development (PhD, University of South Africa, 2014).

55 MW Musalia, Gender relations and food crop production: A case of Kiambu District in Kenya, 1920-1985 (PhD, Kenyatta University 2010).

56 RMA Van Zwanenberg and A King, *An economic history of Kenya and Uganda*, *1800-1970* (London: Macmillan, 1975), p. 25.

57 See also the works of: SB Stichter, *Migrant labour in Kenya: Capitalism and African response*, *1895-1975* (Essex: Harlow, 1982) and R Tignor, *The colonial transformation of Kenya: The Kamba, Kikuyu and Maasai from 1900 to 1939* (Princeton: Princeton University Press, 1976), which are in line with Van Zwanenberg's proclamation that the developed economies contributed towards Africa's underdevelopment

58 RJM Swynnerton. *The Swynnerton report: A plan to intensify the development of African agriculture in Kenya* (Nairobi: Government Press, 1955).

However, there was renewed optimism in 1922 when coffee farms saw signs of bumper harvests that reached 12 300 tons in 1927, though decreasing to 7 800 tons in 1928. After WWI, there was the Great Depression in 1929, which contributed to the decrease in the price of coffee in the global market to eight cents per pound from 22.5 cents per pound.[59] The Great Depression also increased the cost of labour, which meant a drop in recruited labour on white settlers' farms, from 2 732 people to 1 928 and 228 in 1930, 1931 and 1932 respectively.[60] In 1931, the colonial government established the Coffee Board of Kenya (CBK) with a mandate to stabilise the coffee sector after it had experienced a severe drop in production during the Great Depression due to poor coffee prices in the international market. The CBK was vested with the power to provide land and trade licences, to acquire underachieving coffee farms, and to impose taxes.[61] Its Board comprised of the Minister of Agriculture, a Senior Coffee Officer in the Government of Kenya (GoK), and three officials from estate producers.[62]

Up to 1929, coffee production was limited to a few white settlers' coffee estates, and indigenous Kenyans were not permitted to produce coffee. However, to cushion coffee exports after the production shocks due to the economic depression after WWI, in the 1930s, indigenous Kenyan farmers at Kisii, Meru, and Embu were allowed formally by the British colonial government to grow coffee on an experimental scale.[63] Therefore, between 1931 and 1937, the colonial government put much emphasis on a swift intensification of the production of coffee for export and to establish whether Kenyans were capable of producing coffee though on a small scale. Nevertheless, due to the resistance from white settler farmers, the colonial government was forced to ratify the Native Coffee Growers Act to regulate smallholder coffee farmers' production. This act placed restrictions on acreage, capped the coffee stand to at most 100 trees on a quarter of an acre of land, and stipulated that the smallholder coffee farm locations should be at a particular distance from existing white settlers' coffee estates. Unsurprisingly, these regulations disfranchised the smallholder coffee farmers from benefiting from training from CBK and from accessing credit from financial institutions, and also stopped them from taking labour from white settlers' coffee estates.[64]

Coffee growing during the Second World War (WWII) between 1939 and 1945 did not have the same glitches as those that had beset the industry

59 Condliffe *et al*., "Kenya coffee: A cluster analysis."
60 Musalia, Gender relations and food crop production: A case of Kiambu District in Kenya, 1920-1985.
61 Condliffe *et al*., "Kenya coffee: A cluster analysis."
62 Nyangito, "Policy paper No. 2 of 2001."
63 Talbott, "African Agriculture."
64 Barnes, "An experiment with African coffee growing in Kenya."

during WWI. For instance, having participated in WWI, more indigenous Kenyans were enlightened and exposed to international politics and were advocating for economic emancipation.[65] So, finding labour to work on coffee estates was a challenge because people did not see anything congenial in manual work on white settlers' coffee estates, as Sharon Stichter and Richard Wolff have reported.[66] This rebellion later bore fruit as indigenous Kenyans were allowed to engage in coffee production on small acreages in some parts of Kenya such as Kiambu, Kisii, Nyeri, Fort Hall, Nyanza, and Taita.[67] This was intended to help the natives profit from coffee farming. In 1937, the colonial government formed the Kenya Planters Cooperative Union (KPCU) to champion the interests of smallholder coffee farmers. In 1941, the KPCU acquired the NCC and was registered as a limited firm as well as a public cooperative union but it was ineffective in championing the interests of smallholder coffee farmers due to conflicts of interest.[68] As a result, some smallholder coffee farmers shied away from becoming members of the cooperatives. Therefore, in 1944, the colonial government enacted a law that made it compulsory for all smallholder coffee farmers to join cooperatives managed by CBK. This provided the owners of coffee plantations (who managed the CBK) power over smallholder coffee farmers. However, in 1945, the colonial government enacted the Cooperative Societies Ordinance that allowed indigenous Kenyans to form cooperative societies and to receive loans from banks.[69]

Nonetheless, three obstacles stood in the way of indigenous Kenyans benefiting from coffee cultivation. First, the colonial government set a limit on the number of coffee bushes and acreage that indigenous Kenyan farmers were allowed to grow. This was intended to manage the excessive flow of coffee cherries from smallholder farmers to factories, that would compromise the quality of coffee exported. Further, allowing indigenous Kenyans to grow coffee on a large scale would have resulted in overproduction of coffee thus depressing coffee prices. Secondly, the Mau Mau uprising in 1952, and lastly, the poor performance and mismanagement of coffee cooperative societies.[70]

65 Leys, "Development strategy in Kenya since 1971."

66 Wolff, *The economics of colonialism: Britain and Kenya, 1870-1930*, p. 25; Stichter, "Migrant labour in Kenya: Capitalism and African response, 1895-1975", p 13.

67 Barnes, "An experiment with African coffee growing in Kenya.".

68 AG Mude, *Weaknesses in institutional organization: Explaining the dismal performance of Kenya's coffee cooperatives*. Paper prepared for the International Association of Agricultural Economists Conference, Gold Coast, Australia, 12-18 August 2006.

69 LD Smith, "An overview of agricultural development policy". In: J Heyer (ed.), *Agricultural development in Kenya: An economic assessment* (Nairobi: Oxford University Press, 1976), pp. 111-151.

70 A Thurston, *Smallholder agriculture in colonial Kenya: The official mind and the Swynnerton Plan* (Cambridge: Cambridge African Monographs 8, 1987).

The Mau Mau uprising was caused by high levels of poverty as a result of the vast dispossession of indigenous land by white settlers. Thus, the colonial government was forced to seek ways to enable Kenyans to economically benefit from agricultural production. This led to the development and implementation of the Swynnerton Plan between 1954 and 1959 to lessen the progressively hopeless socioeconomic situations in the African settlements.[71] The Swynnerton Plan was a multipronged approach by colonial government to intensify all agriculture activities in Kenya, including coffee production. It provided a window for natives to grow coffee, access credit and market their cherries and led to reduced activities of the Mau Mau from 1957 onwards.[72] The fruits of the Swynnerton Plan were further observed when there was an augmented expansion of the area under coffee from 1957 to 1960, which made it difficult for the colonial government to know exactly how many coffee bushes were growing in different parts of Kenya. Therefore, although many studies indicate that indigenous Africans were disenfranchised by the colonial economy, the same studies flop round to point out how some Africans grabbed the chances made available by colonial capitalism, like coffee farming, to empower themselves.[73] The poor performance and mismanagement of coffee cooperative societies is covered in detail under Sub-section 7.9.

5. COFFEE PRODUCTION IN KENYA DURING THE ICA PERIOD (1961-1989)

Coffee production was given much emphasis since it was a cash crop grown for export, thus generating foreign exchange earnings that were required for the importation of oil and machinery.[74] In comparison to other export crops (tea, sisal, cotton and pyrethrum), coffee was the most significant foreign exchange earner for Kenya between 1961 and 1970. Coffee generated 27.6 per cent and 32.4 per cent of the foreign exchange from total agricultural exports in 1962 and 1970 respectively.[75] Meanwhile, tea, sisal, cotton and pyrethrum contributed 14.8 per cent, 11.1 per cent, 1.1 per cent and 8.1 per cent of foreign exchange of the total agricultural exports in 1962 and 16.4 per cent, 11.5 per cent, 7.5 per cent and 6.8 per cent respectively in 1970. In 1961,

71 Swynnerton, *The Swynnerton Report*.
72 Musalia, Gender relations and food crop production.
73 See for instance, Brett, *Colonialism and underdevelopment in East Africa: The politics of economic change 1919-1939*; Leys, *Underdevelopment in Kenya, the political economy of Neo-colonialism*; Rodney, *How Europe underdeveloped Africa*; Kitching, *Class and economic change in Kenya: The making of an African Petite-Bourgeoisie*.
74 Singh *et al*., *Coffee, tea, and cocoa*.
75 Government of Kenya. *Kenya Development Plan for the period 1964-1970* (Nairobi: Government Printer, 1964).

efforts were made to reduce the drudgery associated with manual irrigation of coffee seedlings in the nursery, and the use of pesticides, fungicides, and inorganic fertilisers was fully embraced. Coffee seedlings transplanted in 1959 were harvested in 1962 and produced a bumper cherry yield of 28 100 tons. Also, in 1964, the Coffee Development Authority was created to ensure that the country produced high-quality coffee that would fetch premium prices on the international market. In 1979, the First Smallholder Coffee Improvement Project (SCIP I) was initiated by the World Bank and GoK for 9 years (1979-1987).[76] SCIP I was financed to the tune of $36.4m by the World Bank (43 per cent), Commonwealth Development Corporation (24 per cent), and the balance by GoK and coffee farmers.[77] This section highlights the major milestones in coffee production in Kenya from 1961 to 1989. This period is further subdivided into three sub-periods (1961-1962, 1963-1979, and 1980-1989).

Table 1: Percentage of total coffee produced (1961-1989)

	Brazil	**Colombia**	**Vietnam**	**Ethiopia**	**Uganda**	**Kenya**	**Tanzania**	**Burundi**	**Rwanda**
1961-1962	73.33	15.47	0.13	4.32	3.54	1.30	1.13	0.39	0.40
1963-1979	59.95	20.53	0.26	6.66	6.72	2.45	2.11	0.76	0.57
1980-1989	53.95	25.73	0.63	6.44	5.26	3.70	1.95	1.11	1.22
1961-1989	58.80	22.03	0.38	6.39	5.94	2.82	1.97	0.86	0.79

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC, accessed 2 November 2021.

Table 1 shows the cumulative amount of coffee produced by Kenya with both top global producers and East African countries. The top three countries with the highest cumulative amount of coffee production in the period were Brazil (58.80 per cent), Colombia (22.03 per cent) and Ethiopia (6.39 per cent). Out of the nine countries, Kenya had the fifth-highest cumulative amount of coffee produced (2.82 per cent). In fact, between 1961 and1989, Kenya was the 11th largest world coffee producer. These 11 countries were estimated to

76 SCIP I was initiated to increase the quality of coffee and to rejuvenate abandoned smallholder coffee holdings. Although the estimated cost for SCIP I was $62.2m, the actual cost expended for the project was $36.4m.

77 HD Seibel, *Coffee finance in Kenya: How to undermine rural and development* (Cologne: Development Research Center, 2002).

contribute about 80 per cent of the total global production of coffee.[78] Vietnam had the lowest cumulative amount of coffee production (0.38 per cent) during this period. After the demise of the ICA in 1989, Vietnam upscaled coffee production from 1989 and it has since become the third-largest global producer of coffee after Brazil and Colombia.

During the three sub-periods, the amount of coffee produced by Brazil gradually declined from 73.33 per cent in 1961-1962 to 59.95 per cent in 1963-1979, largely due to frost. Specifically, in 1975 half of Brazil's coffee trees were ruined by severe frost, which provided other countries with the leeway to obtain a larger quota share given that Brazil was rebuilding its stocks and declaring shortfalls.[79] Moderate frost was also experienced in Brazil in June 1963, June 1964, August 1965, August 1966, June 1967, July 1969, July 1972, August 1978, and May 1979. The in-depth analysis of the cumulative amount of coffee produced in Kenya for the first three sub-periods is discussed in subsections 4.2.1, 4.2.2, and 4.2.3.

5.1 Coffee production in Kenya 1961-1962

The amount of coffee produced in Kenya in 1961 was 28 100 tons. During this period, the annual quota for Kenya as a British Colony was 30 100 tons, whereas exports to Britain were capped at 5 000 tons per annum. As a result of these challenges of marketing coffee in the global market, the International Coffee Agreement (ICA) was born in 1962, and Kenya immediately joined as a member. The agreement was intended to stabilise coffee price volatility in the global market by setting production quotas on member countries based on the mean volume of coffee produced in previous years.[80] In 1962, the coffee seedlings transplanted in 1959 were harvested and produced a bumper cherry yield of 50 000 tons. This means that coffee production increased from 1961 to 1962 by 77.94 per cent.

5.2 Coffee production in Kenya 1963–1979

The land is a key factor in agricultural production yet indigenous Kenyans were disfranchised from owning land during the colonial era for three reasons. The European colonisers acquired land for their private development, for promoting development projects (factories, housing schemes and building dams, among others) and for economic endeavours by revitalising mineral

78 D Mitchell, "Kenya smallholder coffee and tea: Divergent trends following liberalization". In: MA Aksoy (ed.), *African agricultural reforms: The role of consensus and institutions* (Washington, DC: World Bank, 2012), p. 247.

79 Mitchell, "Kenya smallholder coffee and tea".

80 Bilder, "The International Coffee Agreement: A case history in negotiation", pp. 328-391.

exploitation and cash-crop production.[81] Therefore, about 110 000 indigenous Kenyans were residing outside their reserve by 1931. As the colonisers continued to seize more and more land, the African land holdings kept on dwindling. By 1948, for instance, there was less than one acre/unit of natives which corresponded to about five acres/household per land unit of natives in Central Kenya. As a result, poor access to land prevented them from reaping maximum economic benefits from coffee production during this period. After independence in 1963, the GoK moved to address this issue by transfer to Kenyans of the land which white settler farmers had occupied during the colonial period, for coffee farming.[82] Additionally, Kenya came up with strategies to accelerate economic development through the promotion of agricultural production that coalesced into five-year development plans: the Kenya Development Plan (KDP).[83] According to the first KDP (1964-1970), the GoK targeted increased coffee production from 37 000 tons in 1964 to 70 000 tons by 1970.[84] Instead there was a drop in the marketed production of coffee between 1963 and 1970. Despite this, coffee contributed enormously to the economic development of Kenya during this period. Specifically, coffee contributed approximately 25 per cent and 30 per cent of the total gross farm revenue and value of foreign exports, respectively.[85] It was estimated that about 100 000 people were employed directly in the coffee industry. The change in production for the entire period is captured in Figure 3.

81 I Davis, *Africa trade unions* (UK: Penguins Books, 1966), p.16.
82 Leys, "Development strategy in Kenya since 1971."
83 The development plans were formulated periodically to offer Kenya a policy framework on economic progression and development. These plans were usually monitored, evaluated, and reviewed after every cycle of the planned period. For example, first KDP (1964-1970), second KDP (1970-1974), and third KDP (1974-1978).
84 Government of Kenya, *Kenya Development Plan for the period 1964-1970* (Nairobi: Government Printer, 1964).
85 Government of Kenya, *Kenya Development Plan for the period 1964-1970.*

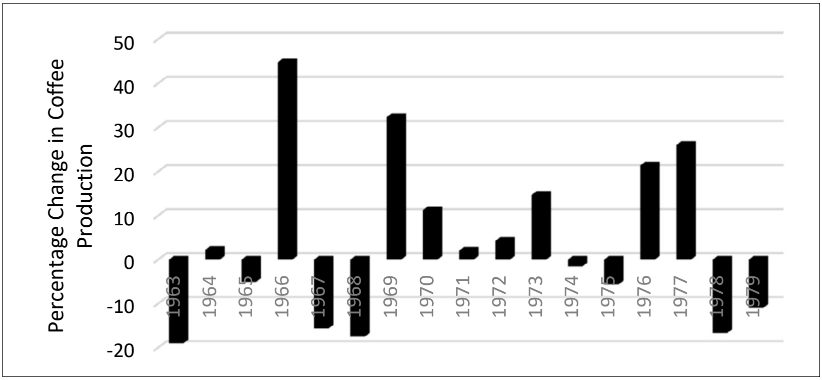

Figure 1: Percentage of change in coffee production in Kenya (1963-1979)

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC, Accessed 2 November 2021.

Figure 1 shows the percentage change in the amount of coffee produced in Kenya from 1963 to 1979. The cumulative percentage change in the amount of coffee produced in this period was 3.95 per cent. In 1963, production decreased by 19.00 per cent. To stimulate production, in 1964, the GoK formed the CDA with a mandate of assisting cooperatives to construct new processing factories and to train smallholder coffee farmers on sound agronomic practices.[86] Regrettably, more new processing factories only produced excess capacity and caused the cooperatives to have huge debts.[87] However, there was a temporary slight increase in coffee production by 2.22 per cent, which slumped to 5.07 per cent in 1965.

Due to improvement in prices as a result of enforcement by the ICA, Kenya recorded the highest increase in coffee production, by 44.78 per cent, in 1966. Nevertheless, Kenya had not included smallholder coffee farmers' volumes while estimating the country's quota.[88] This prompted the CBK to enforce quotas on smallholder coffee farmers and cooperatives. CBK also moved to regulate the coffee exports by introducing a fixed minimum and maximum price within which all dealers were expected to tender for coffee. Some estate growers were demotivated and decided to quit coffee production.

86 The support was in terms of loans of KSh 398 million were obtained locally from banks in Kenya to construct new processing factories.

87 Waters, "Change and evolution in the structure of the Kenya coffee industry."

88 Condliffe *et al*., "Kenya coffee: A cluster analysis."

Also, the prevalence of severe attacks of coffee berry disease, elongated drought, and the escalating prices of chemicals in this period led to a decline in coffee production by 15.64 per cent in 1967 and 17.50 per cent in 1968.[89] However, in 1969, there was a surge in coffee production by 32.32 per cent. This coincided with the completion in 1969 of the construction of numerous new coffee factories.

The GoK continued to regard coffee as the most important economic crop in the second KDP (1970-1974). This was demonstrated when the GoK invested heavily in the expansion of research on the control of CBD, breeding, and selection and improvement of the quality of coffee. As a result, there was an increase in coffee production by 11.26 per cent in 1970 and 2.06 per cent in 1971.[90] In 1972, the gross marketed production of coffee was up 33 per cent, while production increased by 4.28 per cent. In 1972, the value of marketed coffee production and domestic exports was KSh 462.1 million and 27 per cent.[91] In 1973, coffee production increased by 14.73 per cent.[92] Thus, coffee production played a major role in the economic transformation of the country during this plan period.

Towards the end of the second plan period, the GoK reviewed the KDP targets and prepared the third KDP (1974-1978). Among the strategies in this plan was to improve coffee productivity by pumping more funds into coffee-related research and encouraging farmers to expand the area under coffee. However, in 1973, before the third KDP, the global coffee producers imposed autonomous export limit measures.[93] This resulted in a decrease in production by 1.53 per cent and 5.64 per cent in 1974 and 1975, respectively. In 1975, half of Brazil's coffee trees were ruined by severe frost, and the coffee tree population in Colombia was destroyed by heavy rains and floods.[94] Hence, the prices of coffee soared on the international market in 1976 and 1977. Taking advantage of the moment, Kenya was among the countries that responded by upscaling production, and the country recorded an increase in coffee production in 1976 by 21.39 per cent and in 1977 by 26.05 per cent.[95] The favourable coffee price from 1976 to 1979 further improved returns for smallholders and triggered a soaring demand for rural goods, services and

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89 B Lewin *et al., "*Coffee markets: new paradigms in global supply and demand", *World Bank Agriculture and Rural Development Discussion Paper 3* (2004).

90 Singh *et al*., *Coffee, tea, and cocoa*.

91 Government of Kenya, *Kenya Development Plan for the period 1974-1978,* Part II (Nairobi: Government Printer, 1974).

92 Condliffe *et al*., "Kenya coffee: A cluster analysis".

93 MTA Pieterse and HJ Silvis, *The world coffee market and the international coffee agreement* (Wageningen: Economic Studies No. 9, 1988).

94 Akiyama, *Kenyan coffee sector outlook.*

95 Waters, "Change and evolution in the structure of the Kenya coffee industry."

labour, escalating the positive trajectory.[96] The honeymoon in production was short-lived as Brazil recovered from the effects of frost by 1977.[97] In 1978, the international export allocations were removed, and this led to large estates being reluctant to produce coffee.[98] Consequently, in 1978 for the first time, coffee production by smallholder coffee farmers surpassed that of the large-scale farmers, though production decreased in 1978 by 16.68 per cent.[99] Although the amount of coffee produced fell, the gross marketed coffee production rose from KSh 436 280 in 1970 to KSh 522 100 (or US$522 million in exports) in 1978.[100] In 1978 coffee contributed 9.5 per cent towards domestic exports. In 1979, coffee production fell by 10.97 per cent.[101]

5.3 Coffee production in Kenya 1980-1989

The export quota system advanced by the ICA managed to stabilise global coffee prices between 1980 and 1989 in the face of the high volatility in the production of coffee. However, with the collapse of the ICA in 1989, global coffee prices plummeted by 40 per cent, significantly affecting the incomes of coffee growers and revenues generated for the government.[102] From 1990 onwards, efforts to re-introduce the quota system did not benefit Kenya as large coffee-producing countries frustrated the negotiation process because they feared losing out. Figure 4 illustrates coffee production from 1980 to 1989, which coincided with SCIP I (1979-1987).

96 M Fibaek, Rural income diversification, employment, and differentiation in Kenya and implications for rural change (PhD, Lund University, 2020).
97 T Akiyama and PN Varangi, "The impact of the International Coffee Agreement on producing countries", *The World Bank Economic Review* 4 (2), 1990, pp. 157-173.
98 Condliffe *et al*., "Kenya coffee: A cluster analysis."
99 Waters, "Change and evolution in the structure of the Kenya coffee industry."
100 Akiyama, *Kenyan coffee sector outlook.*
101 Singh *et al*., *Coffee, tea, and cocoa*.
102 Waters, "Change and evolution in the structure of the Kenya coffee industry."

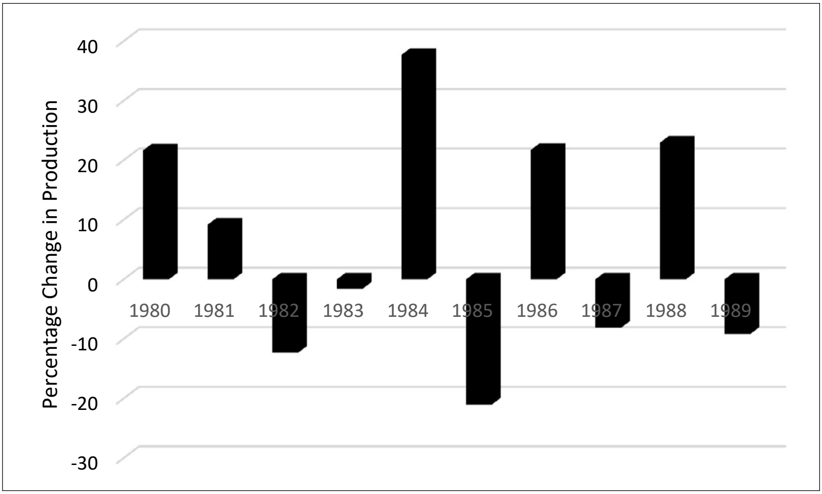

Figure 2: Percentage of change in coffee production in Kenya (1980-1989)

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC accessed 2 November 2021.

The cumulative increase in coffee produced during this period was 6.10 per cent. It can be observed from Figure 4 that there was an increase in coffee production in half the years and a decrease in the other half. The years that had increased production were 1980 (21.66 per cent), 1981 (9.18 per cent), 1984 (37.69 per cent), 1986 (21.72 per cent) and 1988 (22.95 per cent), and the years with decreased production were 1982 (-12.32 per cent), 1983 (-1.57 per cent), 1985 (-21.01 per cent), 1987 (-8.12 per cent) and 1989 (-9.17 per cent). The coffee produced declined significantly by 12.48 per cent from 1980 to 1981 due to the fall in coffee prices in 1980. The persistent downward trend in prices throughout 1980 induced buyers into a consensus to actuate the economical price sustenance provisions of ICA 1976.[103] The adoption of quotas led to a continued increase in coffee production at a faster rate than exports to the extent that stocks accumulated in Kenya by over 70 per cent in this period.[104] As a result, there was marginal increase from 1 million 60-kilogram bags in 1981 to 1.2 million 60-kilogram bags in 1986.

103 Pieterse and Silvis, *The world coffee market and the international coffee agreement.*
104 Akiyama, *Kenyan coffee sector outlook.*

In July 1981, Brazil was devastated by frost again. It was expected that this would result in increased coffee production in Kenya in 1982. However, this was not the case, perhaps due to accumulated stocks and an attempted coup in Kenya in 1982. Due to these two scenarios, among others, there was a decrease in production by 1.57 per cent in 1983. This was followed by a fall in production by 21.01 per cent in 1985. However, in 1986/87, drought-ravaged Brazil could not fulfil its export quota as coffee production there fell by 45.50 per cent.[105] To bridge the supply gap, other coffee countries, including Kenya, increased production. For instance, Kenya increased its production from -21.01 per cent in 1985 to 21.72 per cent in 1986. Besides, the composite indicator price reached its reintroduction level early in 1986.[106] Nevertheless, Brazil regained its production capacity in 1987 due to favourable weather conditions that resulted in an increase in coffee production by 111.52 per cent. In Kenya, coffee production in 1987 fell by 8.12 per cent.

In 1988, the coffee produced by Kenya increased by 22.95 per cent. Interestingly, the coffee produced by Brazil decreased by 38.08 per cent in the same year. In 1989, the ICA collapsed because members of the agreement could not agree on the implementation of quotas. This led to a 9.17 per cent fall in coffee produced by Kenya in 1989. All these fluctuations in coffee production occurred during the implementation of SCIP I. Given SCIP I, it was expected that the smallholder coffee farmers would rejuvenate their abandoned holdings, resulting in an increase in coffee production throughout this period.[107] Surprisingly, smallholder coffee farmers who had abandoned coffee farms did not ask for input credit to rehabilitate their farms. In addition, SCIP I failed to rehabilitate the planned 400 factories but instead invested in the construction of 183 new ones.

6. OVERVIEW OF COFFEE PRODUCTION IN KENYA (1990-2018)

6.1 Comparative analysis of coffee production for top producers, East Africa and Kenya

Stable prices are essential for increased coffee production to meet the ever-increasing demand for coffee in the international market. As a result, due to unprecedented volatile and depressed coffee prices from 1990 to 2018, global

105 Waters, "Change and evolution in the structure of the Kenya coffee industry."
106 Seibel, *Coffee finance in Kenya.*
107 Pieterse and Silvis, *The world coffee market and the international coffee agreement.*

coffee production fluctuated downwards.[108] This was brought about by the collapse in 1989 of the export quota pact under ICA, restriction to the primary production level, and increased coffee supply from Vietnam and other new entrants.[109] The sterling performance of the Kenyan coffee industry before the demise of ICA in 1989 was credited to the budding economic environment, auction system efficiency, and relatively higher coffee prices.[110]

Table 2: Coffee production for East African countries and the top three international producers (1990-2018)

Country	Cumulative Amount (tons)	Percentage
Kenya	1.75 million	1.40
Brazil	61.73 million	49.47
Colombia	20.55 million	16.47
Vietnam	23.83 million	19.10
Ethiopia	7.88 million	6.32
Tanzania	1.57 million	1.26
Uganda	5.45 million	4.37
Burundi	1.44 million	1.15
Rwanda	0.58 million	0.47

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC, accessed 2 November 2021.

From Table 2, it can be seen that Brazil, Colombia, and Vietnam accounted for about 85 per cent of the total amount of coffee produced for the nine countries for this period (1990-2018) and 55 per cent of global exports, with each of these three countries taking advantage of a particular market niche.[111] Ironically, although the origin of coffee is in Africa, it is estimated that Africa supplies only 10 per cent of world coffee volumes. From Table 2, the six East African countries (Ethiopia 6.32 per cent, Uganda 4.37 per cent, Kenya 1.40 per cent, Tanzania 1.26 per cent, Rwanda 1.15 per cent and Burundi 0.46 per cent) produced only 15 per cent globally. In fact, from 1990 to 2018, East African countries were still grappling with inferior quality, low output,

108 World Bank, "*Kenya: growth and competitiveness.*"

109 Lewin *et al*., "Coffee markets: new paradigms."

110 LA Dada. *The African export industry: What happened and how can it be revived? Case study on the Kenyan Coffee Sector* (Rome: FAO Working Paper, 2007).

111 ICO, *Country coffee profile: Kenya.*

and inefficient supply chains.[112] Moreover, the strategies being advanced by East African countries and the African continent at large to emerge as top producers of coffee were hampered by price volatility.[113] But why do Brazil, Colombia, and Vietnam stand out in coffee production? It is argued that the long history of coffee production and unrivalled access to financial and futures markets in Brazil, Colombia, and Vietnam empowered coffee producers from these countries to hedge against risks. Therefore, coffee producers in these three countries are motivated to scale up production of the crop because they are cushioned from risks, making it easier to smoothen coffee consignments across wide cyclical production swings.[114]

6.2 Coffee production in Kenya (1990-2018)

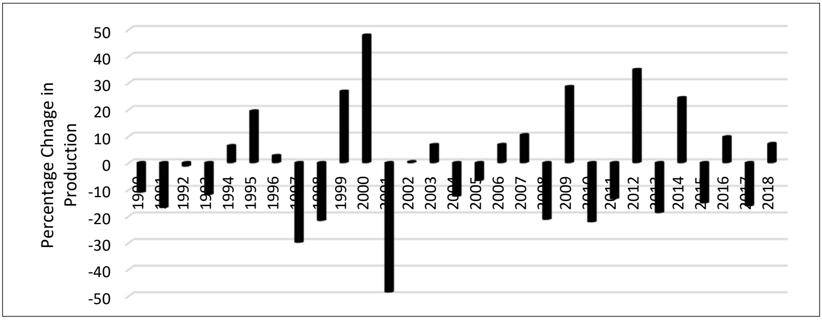

Figure 3: Percentage of change in coffee production in Kenya (1990-2018)

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC, accessed 2 November 2021.

Figure 3 shows the percentage change in the amount of coffee produced in Kenya from 1990 to 2018. The cumulative percentage change of coffee produced in this period was -1.23 per cent. This is consistent with the notion that the collapse of ICA in 1989 had a negative impact on coffee production, especially in African countries.[115] Nevertheless, this period coincided with the Second Coffee Improvement Project (SCIP II) that was approved in 1989

112 A Smith. *Coffee in East Africa* (London: Institute of Commonwealth Studies, 1952), pp. 1-8.
113 ICO, *Country coffee profile: Kenya.*
114 Lewin *et al*., "Coffee markets: new paradigms."
115 World Bank, "*Kenya: growth and competitiveness*".

by the World Bank and rolled out by GoK from 1990 to 1998.[116] The cost of SCIP II was US$48.1 million and the fund was intended to promote higher coffee production and improved quality.[117] However, this paints a grim picture of coffee production. In only three years (1994, 1995 and 1996) of the SCIP II implementation period (1990-1998) was there some slight increase in coffee production, of 6.39 per cent, 19.40 per cent, and 2.70 per cent, respectively. The rest of the years recorded a drop in production.

In 1990 and 1991, coffee production decreased by 11.12 per cent and 16.84 per cent, respectively. In 1992, trade liberalisation was effected in many sectors, including coffee as a result of the process initiated in 1986.[118] The GoK was implementing some of the macroeconomic reforms recommended by the World Bank and International Monetary Fund in the early 1980s to stimulate export-led growth in industries such as coffee, where the country enjoyed a competitive advantage.[119] But still, coffee production dropped in 1992 by 1.27 per cent. By 1993, Kenya was faced with a high rate of inflation and a national debt greater than 10 per cent of gross domestic product.[120] As a result, the GoK was forced by the World Bank to disentangle itself from the CBK due to extensive accusations of inefficiency and conflict of interest, so farmers had the leeway to manage the institution. Therefore, there was a decrease in coffee production in 1993 by 11.96 per cent.

In 1994, the GoK abolished limitations on the exchange rate, foreign exchange retention and remittances, liberalised interest rates, and allowed exporters to keep most of their earnings in foreign exchange.[121] These actions and frost in Brazil influenced Kenyan coffee production positively in the subsequent three years. Thus, coffee production increased by 6.39 per cent, 19.40 per cent, and 2.70 per cent in 1994, 1995, and 1996 respectively. Specifically, the larger percentage of increase in coffee production in 1995 was triggered by frosts which lowered Brazilian production in 1995 by 28.85 per cent. In 1996, Brazil's coffee production resurged, with production up by 47.20 per cent, while Kenya's coffee production only grew by 2.70 per cent.

In 1997, the International Monetary Fund suspended borrowing for three years and withheld a US$90 million structural adjustment credit when Kenya failed to institute IMF-demanded measures on governance reforms.[122]

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116 Although the estimated cost of SCIP II was $59m, the actual amount released for the project was $48.1m.

117 Dada, "*The African export industry: What happened and how can it be revived*?"

118 Government of Kenya. *Sessional paper No 1 on economic management for renewed growth* (Nairobi: Government Printer, 1986).

119 Nyangito, "Policy paper No. 2."

120 Condliffe *et al*., "Kenya coffee: A cluster analysis."

121 Dada, "*The African export industry: What happened and how can it be revived*?"

122 Condliffe *et al*., "Kenya coffee: A cluster analysis."

Coincidentally, the European Union implemented stabilisation of the export earnings system (STABEX) and disbursed US$44.99 million to the coffee and tea sector in June 1997.[123] In 1997 touches of frost lowered Brazilian coffee production by 10.28 per cent, so it was expected that there would be an upsurge in coffee production in Kenya in 1997. However, due to institutional glitches in the coffee industry arising from liberalisation and other factors, the production of coffee fell by 29.94 per cent, and the quality of coffee continued to be low in 1997. The same pattern was seen in 1998 with a further fall in production by 21.75 per cent.

The GoK resumed the supervision mandate of the CBK in 1999, necessary because of clashes between different players within the coffee sector due to the tension over production.[124] Surprisingly, this move was immediately followed by a higher increase in coffee production by 26.78 per cent and 47.87 per cent in 1999 and 2000, respectively. However, since the ICA had collapsed and there was no binding framework to enforce export quotas, the international market became saturated, meaning global coffee prices fell 70 per cent below the cost of production from 1997 to 2001 in some developing countries, including Kenya.[125] The macroeconomic transformations in the coffee sector in 2001 aided major coffee processors to plough in returns of more than US$1 billion at the expense of the smallholder coffee farmers who netted a minute US$ 0.06 per kilogram.[126] As a result, smallholder coffee farmers were not motivated to continue investing in coffee. This is reflected by a drop in production by 48.66 per cent in 2001.[127]

In 2002, there was a 0.38 per cent increase in coffee production as farmers in the central and Nyanza parts of Kenya started to clear part or all of their coffee bushes to pave the way for seemingly more lucrative agricultural activities such as dairy, horticulture, and tree growing. To spur higher coffee production then, the GoK enacted a new Coffee Act to promote extensive liberalisation in the coffee industry.[128] The Coffee Act of 2002 ignited a renewed interest in coffee that saw farmers from Western Kenya abandoning maise cultivation to pursue coffee farming, perceived to have more rewarding gross margins.[129] However, with poorer quality, it was a tall order for Kenyan coffee to command a premium price over their competitors. For instance, in 1993 nearly 20 per cent of the coffee produced in Kenya was of premium

123 At the end of the implementation of STABEX, it was established that its objective of boosting both the quality of coffee and the earnings of smallholder farmers had failed.
124 Nyangito, “Policy paper No. 2”.
125 Dada, “*The African export industry: What happened and how can it be revived*?”
126 Mude, “Weaknesses in institutional organization”.
127 Mureithi, “Coffee in Kenya”.
128 Lewin *et al*., “Coffee markets: new paradigms”.
129 AW Mburu, Factors influencing the development of coffee exports handled by the coffee board of Kenya (PhD, University of Nairobi, 2011).

grade, while it was roughly 10 per cent by 2003, with a low 6.83 per cent increase in production.[130]

In 2005, coffee production and its contribution towards agriculture fell by 6.67 per cent and 6.7 per cent, respectively. Compared to 1999 (where coffee production rose 26.78 per cent and its contribution towards agriculture was 14 per cent), this shows that the contribution towards agriculture during this period fell by 7.3 per cent.[131] As a result, coffee dealers during this period were forced to bid for lower quality coffee but at a cheaper price. In 2006, coffee production only rose 6.86 per cent, and this lower production was partially linked to low yields as farmers stopped applying fertilisers.[132] The coffee harvest in 2006 fell to 284 kg/ha on average in comparison to 892 kg/ha in 1980.[133] These average Arabica coffee harvests were very small compared to a global average of 698 kg/ha, while yields from Rwanda and Ethiopia were 1 160 kg/ha and 995 kg/ha, respectively.[134] Coffee production between 2007 and 2011 was volatile: there was an increase in production in 2007 by 10.49 per cent, followed by a decrease in production in 2008 by 21.30 per cent. Similarly, production was up in 2009 by 28.57 per cent, followed by a fall in production in both 2010 and 2011 by 22.22 per cent and 13.57 per cent, respectively.

After a lower price of US$159.56 per 60-kilogram bag in 2013 with a fall of 18.78 per cent in the amount of coffee produced, Kenyan coffee auction prices rose steeply to US$228.87 per 60-kilogram bag in 2014 in response to the increase in prices on the global market. As a result, there was an increase in coffee production by 24.37 per cent in 2014. In 2015 and 2017, coffee production fell by 15.15 per cent and 16.23 per cent, respectively. In 2016, coffee production also fell from growth of 24.37 per cent in 2014 to only 9.76 per cent in 2016. The decreased amount of coffee produced during this period was attributed to the total neglect of coffee bushes, clearing of coffee bushes for other seemingly lucrative enterprises, and lack of access to credit to procure input and expand production.[135] Coffee exports were buoyed by the amount of coffee produced from 38 620 tons in 2017 to 41 375 tons in 2018, a 7.13 per cent increase in production. Although the amount of coffee produced increased in 2018, the income generated from coffee dropped from US$160 million in 2017 to US$148 million in 2018 as a result of lower coffee prices in the global market.[136]

130 Condliffe *et al*., “Kenya coffee: A cluster analysis.”
131 Mureithi, “Coffee in Kenya.”
132 Dada, “*The African export industry: What happened and how can it be revived*?”
133 Condliffe *et al*., “Kenya coffee: A cluster analysis.”
134 Dada, “*The African export industry: What happened and how can it be revived*?”
135 ICO, *Country coffee profile: Kenya.*
136 Kenya National Bureau of Statistics. *Economic Survey 2018* (Nairobi: Government Printer, 2019).

7. CONSTRAINTS FACING COFFEE PRODUCTION IN KENYA

7.1 Depressed coffee prices

Coffee is a commodity traded in the international market characterised by depressed prices and very high price fluctuations.[137] There are many reasons associated with these poor prices and the price volatility of coffee in the international market; for example, the type of coffee traded (Arabica or Robusta), niche market, coffee marketing fundamentals and ability to supply branded coffee. In the international market, Arabica coffee commands premium prices over Robusta coffee because of its excellent beverage characteristics. Some countries produce mostly Arabica coffee (Kenya, Colombia, Costa Rica, Papua New Guinea and El Salvador), some Robusta coffee (Vietnam, Uganda, Togo and Côte d'Ivoire) or both coffee cultivars (Brazil, India and Tanzania). However, the two long-term causes of depressed prices of coffee are structural changes in the market and short-term supply-side shocks from major coffee-producing countries such as Brazil and Colombia.[138] The ICA was crucial in both stabilising and maintaining prices at a higher level between 1975 and 1989. With the collapse of ICA, the prices of coffee became highly volatile from 1990 onwards. Consistent with the law of supply and demand, when there is an oversupply of coffee in the global market, the prices tend to fall. A good illustration was in the 1990s when there was an oversupply of coffee on the global market because of the increased area under coffee production in Brazil and Vietnam. This resulted in a dip in the price of Arabica coffee in the global market from US$2 a pound to US60 cents a pound.[139]

This price volatility resulted in price risks giving rise to a supply-demand imbalance that threatened to bring coffee production to its knees.[140] In the past, responses to depressed prices of coffee didn't involve the necessary steps to arrest the longer-term challenges of structural and supply-demand imbalances. Most domestic policies focused on a short-term solution to sustain coffee production by cushioning farmers against unfavourable prices and resolving their credit issues. Examples of these policies were emergency funds (El Salvador and Costa Rica), coffee laws on prices (Costa Rica), a pooling programme (India), trading in put options (Brazil), regulatory and

137 Lewin *et al*., "Coffee markets: new paradigms."

138 Condliffe *et al*., "Kenya coffee: A cluster analysis."

139 Mburu, *Factors influencing the development of coffee exports handled by the coffee board of Kenya.*

140 Dada, "*The African export industry: What happened and how can it be revived*?"

tax regime under quotas (Kenya and Mexico), and the use of stabilisation programmes (Kenya, Papua New Guinea and Colombia).[141] In the past when the prices of coffee took a dip, El Salvador and Costa Rica used funds from the emergency kitty to cushion the farmers' proceeds from coffee production. After the prices stabilised, these funds were recouped from coffee sold between 1994 and 1997. Further, the coffee law in Costa Rica required that the income received by coffee producers should not be the price at the time of sale but the average price over the season.[142] The pooling programme was used in India to spread the incomes more uniformly across coffee farmers. For Brazil, the ability to trade in the financial and futures markets (put options) permitted coffee growers to hedge against risks. In Mexico, the tax and regulatory regime under quotas benefited the smallholder farmers and exporters at the expense of larger farmers, while, in Kenya, planting restrictions to keep the supply in line with quotas mostly benefited estate farmers.[143]

Kenya preferred the use of stabilisation programmes in the 1990s. The European Union implemented STABEX in the Kenya coffee sector in June 1997 but its objective of stabilising both the quality of coffee and earnings of smallholder farmers failed. The failure to stabilise coffee prices in Kenya shows that STABEX may have had little or no macroeconomic benefit. Nevertheless, over the years, Kenya has strategically used a multipronged approach to claim a comparatively higher premium price for coffee. This included more diversified market space (20 destination countries); pursuing the branding of its Arabica Mild coffees to sell at specialty coffee markets; and targeting emerging niche markets (in the USA, Switzerland, and Belgium). Wet-processed coffee fetches a significant premium on the world market as dry processing yields lower-quality coffee beans. With an auction commodity exchange in Kenya, prices are determined through competitive market bidding at the exchange market, unlike the conventional market that is influenced by large international coffee houses. Kenya has taken advantage of this auction market to market its top grades of Arabica at competitive prices under brand names such as Meru AA and Riakiberu AB among others.[144] Based on the country under consideration and the type of coffee (Arabica or Robusta) produced, these distinct policies enabled smoother production and supply rather than the eclectic cyclical stochastic production patterns of before.[145]

141 C Kannapiran, *An econometric model of Papua New Guinea: basis for analysing the impact of variability in tree crop export revenue on the economy* (Armidale, Australia: University of New England, 1999).

142 D Giovannucci and FJ Koekoek, "The state of sustainable coffee: A study of twelve major markets", *MPRA_paper_17172* (2003).

143 M Bohman *et al., Rent seeking and international commodity agreements: The case of coffee* (Chicago: University of Chicago, 1996).

144 Dada, "*The African export industry: What happened and how can it be revived*?"

145 Lewin *et al.*, "Coffee markets: new paradigms."

7.2 Coffee marketing

Coffee in Kenya is marketed both locally and internationally. Locally, coffee is marketed through either the Direct Sales System (DSS) or the Nairobi Coffee Exchange (NCE). The NCE is the central auction centre where all authorised coffee exporters (dealers) in Kenya purchase coffee each Tuesday through competitive bidding.[146] The DSS is an alternative method, providing farmers (usually expedited by contracted commercial marketing agents) with an opportunity to dispose of their coffee directly to coffee dealers (overseas buyers) through sales contracts.[147] The value of coffee marketed through the DSS jumped from 2.54 per cent in 2007/2008 to 14.12 per cent in 2017/2018 due to premium coffee prices received by farmers from the global coffee market.[148]

7.3 Low Levels of Local Consumption of Coffee in Kenya

Global coffee consumption has been increasing steadily from the 19th century to 2018. From 2016/17 to 2018/2019, the global consumption of coffee increased from 9 487 tons to 10 110 tons, an increase in consumption of 2.10 per cent.[149] The European Union countries are the largest coffee consumers in the world, accounting for 39.27 per cent of the total consumption for coffee importing countries, followed by the USA (23.62 per cent), Japan (6.77 per cent), and Russian Federation (4.06 per cent), while Canada consumes the least amount of coffee at 3.44 per cent. This information is summarised in Figure 2.

146 Dada, "*The African export industry: What happened and how can it be revived*?"

147 Giovannucci and Koekoek, "The state of sustainable coffee: A study of twelve major markets."

148 AN Karuri, "Adaptation of small-scale tea and coffee farmers in Kenya to climate change". In: WL Filho *et al* (ed.), *African Handbook of Climate Change Adaptation* (Cham: Springer, 2020), pp. 1-19.

149 SO Mbowa, *et al. Why is coffee from Kenya and Rwanda priced higher globally than coffee from Uganda?* (Uganda: Economic Policy Research Centre, 2019).

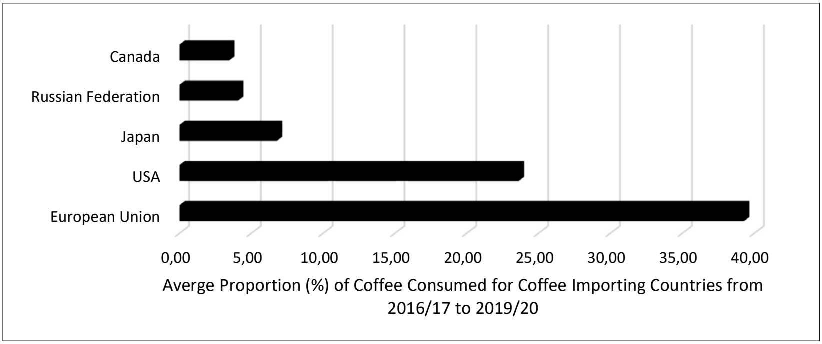

Figure 4: Average proportion in percentage of coffee consumption by coffee importing countries

Source: ICO (http://www.ico.org/historical/1990 per cent20onwards/PDF/1b-domestic-consumption.pdf, accessed 13 October 2021.

However, most coffee-exporting countries especially in Africa have a poor coffee-drinking culture.[150] Apart from Ethiopia, Brazil, and Colombia, other countries consume less than 6 per cent of the coffee that they produce. This is well illustrated in Figure 3, whereby, in Africa, only Ethiopia seems to have a good coffee-drinking culture. For instance, Ethiopia consumed 52.50 per cent on average (from 1990 to 2018) of the coffee it produces, which translates to a per capita consumption of coffee of about 2.4 kilograms per person. Kenya, on the other hand, has a poor coffee drinking culture compared to Ethiopia and consumes about 5 per cent of the coffee that it produces, which means the per capita consumption of coffee is about 70 grams per person. Historically, Kenyans prefer tea over coffee because tea is less expensive. Given that tea and coffee are substitute products, most Kenyans don't see the need to incur extra costs on coffee, whereas they could enjoy the tea at a much cheaper cost. As a result of this poor consumption habit, Kenya exported the other 95 per cent of her green coffee to industrialised countries with little value addition, thus preventing its economy from reaping maximum returns. Increasing internal coffee consumption is perceived as a feasible option for cushioning smallholder coffee farmers in Kenya and other African countries against lower prices and volatility.

150 This was also observed by the Kenyan Agriculture and Food Authority Deputy Director, the Inter African Coffee Organisation Secretary-General and Ethiopia Coffee and the Tea Authority Director-General during the G25 African Coffee summit in May, 2022.

In Kenya, the Directorate of Agriculture and Food Authority (AFA) advocated for increased local marketing and domestic consumption of coffee to revitalise the coffee industry and address its obstinate challenges. Since 2009/10, the AFA pushed for the opening of coffee shops at eight public universities (Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Moi University, Multimedia University, Egerton University, Machakos University, Dedan Kimathi University, and University of Eldoret) and three private universities (United States International University – Africa, Strathmore University and Mount Kenya University). By December 2020, three universities (Dedan Kimathi University, United States International University – Africa, Strathmore University) had fully-fledged coffee houses and two universities (Egerton University and University of Eldoret) had acquired coffee brewing equipment courtesy of the directorate. The universities and other tertiary institutions were targeted to enhance the culture of drinking coffee in Kenya. In addition, the AFA championed the opening of chains of coffee shops in urban areas in Kenya. Therefore, the number of coffee houses shot up: 7 by 1977, 206 by 2015, 399 by 2017 and 506 by 2020. This expansion was linked to the growing middle-class with a higher disposable income. As a result, consumption of coffee more than tripled from 2009 (509.90 tons) to 2020 (1 576.70 tons). Other notable actions of the AFA to increase local consumption of coffee in Kenya included championing the opening of mobile coffee clinics; advocating for an increase in the fiscal allocation for generic sensitisation, advertisement and marketing of value-added coffee; advocating for consumer-responsive rules and regulations and policies governing the coffee sector; and lobbying for support from international organisations (e.g. ICO, AFCA, among others).

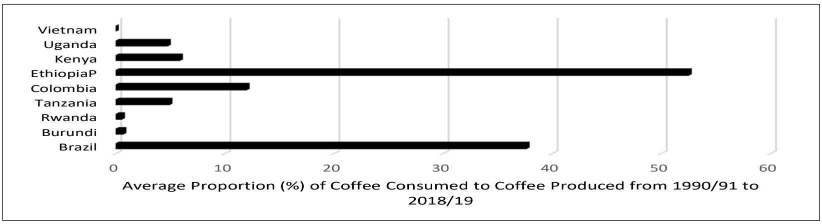

Figure 5: Average proportion in percentage of coffee consumption by coffee exporting countries

Source: ICO statistics, accessed 13 October 2021.

7.4 Competition with other enterprises

The ICA was inaugurated in 1962 to stabilise coffee prices in the global market and make coffee farming a profitable agribusiness venture across the world. However, with its demise in 1989, coffee farming became a less attractive enterprise due to volatile prices,[151] forcing farmers in Kenya to shift their focus partly or wholly to alternative agribusiness enterprises which were perceived to be more lucrative. This led to the growth and expansion of the horticultural and tea industry from the 1990s at the expense of coffee production (Figure 6).

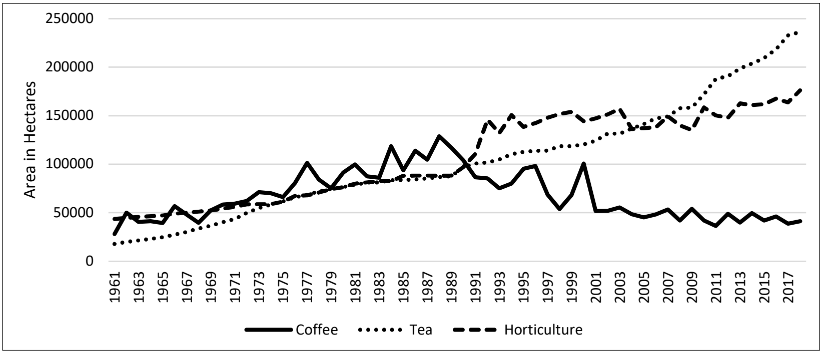

Figure 6: Coffee production in comparison with tea and horticulture from 1961–2018

Source: FAOSTAT (http://www.fao.org/faostat/en/#data/QC, accessed 2 November 2021.

7.5 High cost of production

Kenya grows Arabica coffee which is highly susceptible to coffee leaf rust and coffee berry disease. Research has shown that any attack on coffee plantations by either coffee leaf rust or coffee berry disease can cause yield losses of up to 80 per cent, and the control of coffee berry disease and coffee leaf rust has reduced coffee profitability by 30 per cent.[152] These high costs of production are exhibited across the whole coffee value chain, including expensive input, high cost of capital, exorbitant costs of milling, and

151 Condliffe *et al*., "Kenya coffee: A cluster analysis."

152 Mude, "Weaknesses in institutional organisation."

transport. The high recurrent expenditure that plagues most cooperatives has been blamed on inadequate managerial skills, corruption, and low-capacity utilisation.[153]

7.6 Challenging coffee regulations

The coffee sector is perceived to be locally governed by archaic regulations that have resulted in disharmony in the management of the sector. For instance, Kenya Coffee Producers and Traders Association and the CBK wrestle with each other to control the management of NCE. The exorbitant coffee export licensing fees (currently about US$1 million) have also hindered the growth of the sector. Nevertheless, coffee is a strongly regulated crop not only in Kenya but globally.[154] Since the formation of the ICO in 1963, the sector has witnessed the establishment of many ICO regulations, with the most recent in 2007.[155]

7.7 Financing coffee sector

The quest for agricultural development prompted the GoK in 1969 to establish the Agricultural Finance Corporation (AFC) under the AFC Act (Cap 363) of the Laws of Kenya to provide an affordable source of agricultural credit.[156] The AFC was needed because commercial banks (CBs) were unable to even meet let alone surpass the target of 17 per cent of their loan portfolio consisting of agriculture. Worse still, CBs' agricultural lending was dwindling. This compelled the GoK to form the Coffee Development Fund in 2006 to provide affordable credit to coffee farmers to increase productivity and coffee value addition. There has been no research demonstrating the impact of this fund on coffee production. The GoK has also been accused of underfunding agriculture. For instance, the Coffee Research Foundation's budget allocation was reduced to 55 per cent, and 70 per cent of its workforce was retrenched by the GoK.[157] Conversely, the CBK faced similar problems to the extent that its operations to fulfil its mandate as a regulator and to enforce quality standards have been severely impaired.[158]

153 Machuka, *Determinants of productivity of small-scale holdings of Arabica coffee.*
154 World Bank. "*Kenya: Growth and Competitiveness"*.
155 Machuka, *Determinants of productivity of small-scale holdings of Arabica coffee.*
156 KIPPRA, *Women's access to agricultural finance*.
157 Dada, "*The African export industry: What happened and how can it be revived*?".
158 Lewin *et al.*, "Coffee markets: new paradigms".

7.8 Low levels of women participation in coffee farming

Women's participation in farming in Kenya in the pre-colonial era was significant especially in the provision of labour. There is substantial proof that this participation increased especially in coffee farming throughout the time of British colonial rule due to the exodus of men from reserves to either work in towns or participate in WWI and later in WWII.[159] Therefore, Major-General Edward Northey ratified a notice on 23 October 1920 whereby women and children were forced to work as coffee-pickers especially those from native reserves adjoining European farms. Researchers have decried the role of these pro-settler' policies but have reiterated that economic issues such as transhumance and the extensive use of women and children helped to lessen the gap between demand and supply of labour.[160] Table 3 summarises the proportion of men, women and children who were hired in agriculture as a percentage.

Table 3: Africans employed annually in agriculture as a percentage

Year	Men	Women	Children	Casual
1919-20	83.8	7.3	8.9	
1920-21	83.0	7.3	9.7	
1921-22	83.4	6.9	9.6	
1922-23	76.7	9.3	14.0	
1923-24	76.9	9.5	13.5	
1924-25	78.6	7.0	14.4	
1925-26	76.7	7.1	16.2	
1926-27	75.3	4.7	15.1	4.9
1927-28	72.6	4.1	15.1	8.2
1928-29	76.3	3.7	13.8	6.2
1929-30	72.0	3.2	14.4	10.5
1930-31	74.7	2.8	16.1	6.3
1931-32	73.6	3.1	16.9	6.4

159 SB Stichter, "Women and the labor force in Kenya, 1895-1964", IDS*/DP 258*, 1977, p. 12.
160 Fibaek, *Rural income diversification, employment, and differentiation in Kenya and for rural change*.

Year	Men	Women	Children	Casual
1932-33	75.9	3.3	13.9	6.8
1933-34	76.6	3.3	13.8	6.3

Source: "Agricultural Census", in Agriculture Department 1925-1933[161]

Table 3 indicates that a higher percentage of men were hired in the 1919-20 to 1933-34 periods. The men were employed for skilled duties in agriculture – driving, ploughing, dairying, pruning, operating coffee husking or pulping machinery. Fewer women were employed on a permanent basis than children throughout this period for less physically demanding duties like weeding, hoeing and harvesting. However, the main domain of work for women was coffee, where they were employed in weeding and as coffee pickers. In 1934, it was approximated that of the total labour hired at the height of the picking season 3.3 per cent were women and 13.8 per cent were children. The total number of women employed permanently fell from 7.1 per cent in 1925-1926 to 4.7 per cent in 1926-27 of total labour, owing to some women moving into temporary employment. Other changes in the number of women permanently employed could be due to volatilities in the yield of coffee until 1930-31 when only 2.8 per cent of the total workforce were women due to the impact of the depression. The number of women temporary workers fluctuated for similar reasons, especially in 1929-30 and in 1947, when there were bumper coffee harvests. In 1936 in Mombasa at Kilindini, 350 African women were employed casually to work on coffee curing and they demonstrated high skills at hand-sorting coffee. In 1948, the enactment of administrative jurisdiction throughout the war and the availability of men contributed to the long-standing reduction in regular and casual child labour.

The increase in coffee production in African countries in the 1950s significantly reduced women's involvement in the home-grown economy. Although the precolonial and colonial systems of production permitted some independence to women, after 1963, over the 1970s and till the setback in the 1990s and beyond, coffee boosted men's economic influence by high labour demands for them.[162] These policies in coffee production eventually delayed the economic emancipation of women and derailed the progress of their households. For instance, the Commodity Fund credit database in 2020 shows that only 17 per cent of farmers who were granted loans were women, due to several factors: very few women own land, their lack of collateral, low

161 SB Stichter, "Women and the labor force in Kenya, 1895-1964."
162 P Mbataru, "Women in the coffee society: the case of Nyeri, Kenya." *Études rurales* 2 (180), 2007, pp. 101-116.

savings, poor access to information, and cultural beliefs.[163] The youth are also excluded from farming for the same reasons as women and previous GoK interventions to deliberately provide loans to women and youth to spur agricultural growth have shown low loan uptake, on average about 10 per cent.[164]

7.9 Poor management of coffee societies

The formation of the first coffee cooperative society dates back to 1917 with the colonial government-registered Planters Union of Kenya.[165] In 1937, the KPCU was established to take care of the interest of white settler farmers. In 1944, all the European farmers were required by law to be members of cooperatives that were managed by GoK under CBK. During the colonial period, Kenyans were barred from being members of these cooperatives.[166] In 1951, Kenyans were allowed to join cooperatives, and 511 cooperatives had been registered by 1959. However, it was not until 1965 that large-scale Kenyan farmers were permitted to join these cooperatives.[167] The cooperative movement was hijacked by the emergent Kenyan capitalist aristocrats who took advantage of the movement at the expense of the smallholder coffee farmers. Perhaps that is why between the 1950s and 1970s some studies trained their lens on agrarian change in Kenya through evaluating the growing number of these capitalists. An example is Michael Cowen's research on the history of a native Kenyan group of capitalist accumulators prior to the 1950s revamping of the agrarian sector.[168] These studies motivated Leys to review his seminal work on the state of Kenya's indigenous elites under situations hinged on capitalism.[169] Another case in point is Bill Warren's work in *Imperialism and Capitalist Industrialisation.*[170] The colonial government deliberately hindered the formation of reliable and efficient cooperatives that would enable members to lobby for transformative policies and regulations. Thus, right from the onset, cooperatives failed in their role to manage and promote coffee development in terms of enabling farmers to access inputs, credit, enhancement of production, value addition, and marketing. After the colonial period, the cooperatives were hijacked by the emerging Kenyan elite,

163 KIPPRA, *Women's access to agricultural finance in Kenya*.
164 KIPPRA, *Women's access to agricultural finance in Kenya.*
165 Condliffe *et al*., "Kenya coffee: A cluster analysis".
166 WR Ochieng and RM Maxon (eds.), *An economic history of Kenya* (Nairobi: East African Educational Publishers, 1992).
167 B Warren. Imperialism and capitalist industrialization. *New left review 81*(1), 1973, pp.3-44.
168 M Cowen, "The agrarian problem: notes on the Nairobi discussion." *Review of African Political Economy* 8 (20), 1981, pp. 57-73.
169 Leys, *Underdevelopment in Kenya, the political economy of Neo-colonialism*.
170 Warren, *Imperialism and capitalist industrialisation*.

who continue to date to mismanage the associations at the expense of the peasant coffee farmers.[171] Management committees are tainted by corruption; most representatives are semi-literate with inadequate management and financial skills; and, a blind eye is turned to nepotism that strategically awards unqualified kinsmen with management positions that favour relatives and politicians economically.[172] It is depressing to see efforts by smallholder coffee farmers to plant coffee rewarded by corruption from fellow indigenous Kenyans. The dependency that was introduced by colonisation didn't assist that much, as indigenous Kenyans couldn't add value to their coffee but only disposed of it as green coffee. There have been docile and futile efforts by the independent government to sort out this situation despite the fact that coffee farming had been the top foreign exchange earner in Kenya in the colonial period.

8. CONCLUSION AND RECOMMENDATIONS

The coffee industry plays a significant role in Kenya's economy, yet its performance has been fluctuating downwards, especially from 1990 to 2019. Coffee sector experts partly attribute the dismal performance of coffee to policies on coffee prices, marketing channels, coffee financing, coffee regulations, the cost of production, management of cooperatives and the processing of exported coffee. For example, depressed coffee prices have been an ongoing problem facing coffee farmers, especially after the demise of ICA in 1989. This calls for GoK to come up with policies to cushion coffee farmers from price volatility to achieve a robust coffee industry, particularly policies to promote the production of specialty coffee which fetches premium prices in the international market, trading in the futures market and promotion of the local consumption of coffee to shield farmers from depressed international prices. The NCE is a statutory body in Kenya mandated to market coffee. The Coffee Directorate and NCE Management Committee say that NCE marketing offers a more efficient pricing mechanism, facilitates higher quality assurance, simplifies collection and dissemination of statistics, and guarantees premium prices for coffee. However, none of these arguments appear to be supported by the facts. The mandatory nature of the auction increases marketing costs enormously: storage costs, administrative expenses, forgone interest earnings, and the risk of an adverse price movement. There is a need to allow more dealers to dispose of coffee

171 RM Maxon, "Small-scale and large-scale agriculture since independence", In: WR Ochieng and RM Maxon (eds.), *An economic history of Kenya* (Nairobi: East African Educational Publishers, 1992), pp. 273-296.

172 Dada, "*The African export industry: What happened and how can it be revived?"*

through DSS as the premium price offered in this market would contribute to a reduction in the underdevelopment of Kenya. This insight is consistent with the ideologies of the dependency theory which suggests that the production of coffee for export robbed Kenya of the economic advantage, thus underdeveloping the country.