



## THE HISTORY OF ROBUSTA COFFEE CULTIVATION IN THE TSHOPO PROVINCE, DEMOCRATIC REPUBLIC OF THE CONGO

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### ABSTRACT

The study aims to trace the history of robusta coffee cultivation (*Coffea canephora* Pierre ex A.Froehner) in the Democratic Republic of Congo (DRC) with particular emphasis on the Tshopo province. Both the enabling and disabling factors influencing the production of Robusta from 1881 to the present day were examined. The objective is to increase our understanding of conditions related to the cultivation of the Robusta coffee in Tshopo, given its potential as a major producer and the global shift towards robusta, in light of the challenges of climate change faced by coffee farmers. A literature review was conducted, based on archives and scientific papers. Robusta production has experienced boom and bust cycles in these periods. The fluctuation in coffee production in the DR Congo is due to the orientation of agricultural economic policies, particularly investments in research and infrastructure, and to political dynamics. Fluctuations in world coffee prices have accentuated, and sometimes created, these cycles. Thus, in order to enable the re-emergence of the DRC's coffee sector, it is recommended that the primary focus should therefore be on creating of an enabling political and economic environment. Agronomic aspects and market integration should also be addressed.

**Keywords:** *Coffea canephora*, Robusta coffee, Cultivation, Tshopo, Democratic Republic of the Congo, History

## INTRODUCTION

The global production of Robusta coffee (*Coffea canephora* Pierre ex A.Froehner) has increased significantly over the last three decades (AbacusBio, 2023). In the period from 1990-91 to 2023-24, the proportion of Robusta coffee produced globally has risen from 28% to 42% (ICO, 2024). This trend is expected to continue due to climate change (Davis, Mieulet, Moat, Sarmu, & Hagggar, 2021; Kevin Piato et al., 2020). Furthermore, coffee has played a major role as agricultural export commodity in the history of the Democratic Republic of the Congo (DRC). Robusta and Arabica represent respectively 65% and 35% of the DRC's coffee production (ICO, 2023). However, the DRC's Robusta coffee production levels are at a historic low point. Thus, given the increasing global demand for Robusta coffee, in combination with the negative impact of climate change on current and future global Arabica coffee production (Bilen et al., 2022; Bunn, C., Läderach, Rivera, & Kirschke, 2015), this study aims to understand the historical enabling and disabling factors that played a decisive role in the DRC's Robusta production so that the lessons from the past can be used to map a road for the future of Robusta production in the DRC.

Understanding the history of Robusta coffee cultivation in Tshopo province is essential for two main reasons. One, attempts to cultivate Robusta coffee were made early in the Tshopo province at the Lula and Yangambi research stations which played an essential role in breeding, selecting and distributing Robusta coffee at a local, national and international level. Indeed, the manner in which people have domesticated and cultivated plants contributes to the understanding of people's socio-economic organisation and their relationship with the environment (De Langhe, Vrydaghs, De Maret, Perrier, & Denham, 2009). Two, understanding the history of Robusta coffee production in the Tshopo makes it possible to look into the past to project the future (Berg, 2019; Bögenhold, 2020; David, 1994; Sandler, 2013), understanding the past role of actors and institutions makes it potentially possible to capitalise on present and future use.

Despite its importance, many questions about the cultural history, practice and adoption of Robusta coffee cultivation and its diffusion in Tshopo province remain unanswered. This article therefore addresses the following questions: "when did the large-scale production of Robusta coffee in Tshopo begin and what were the factors that played a major role to Robusta coffee development?" It looks at coffee, particularly the coffee cultivation from 1881 to the present, considering its role. Particular attention is given to the 1980s. A documentary research method was used by consulting historical records found in the Agricultural Bulletin of the Belgian Congo, the "Institut National d'Etudes et de Recherches Agronomiques" (INERA-Yangambi) library, the International Coffee Organization (ICO), and the Office National des Produits Agricoles du Congo (ONAPAC). In addition, scientific papers were consulted.

### **The Evolution of coffee production in the Democratic Republic of the Congo**

The production of Robusta coffee in Tshopo province is linked to national and international political and economic dynamics, as well as coffee pests and diseases (figure 1). Therefore, five

political periods have been analyzed: (1) Pre Congo Free State, (2) the Congo Free State, (3) Belgian Congo, (4) from the independence to the fall of the Mobutu dictatorship, and (5) from the fall of Mobutu to the present.

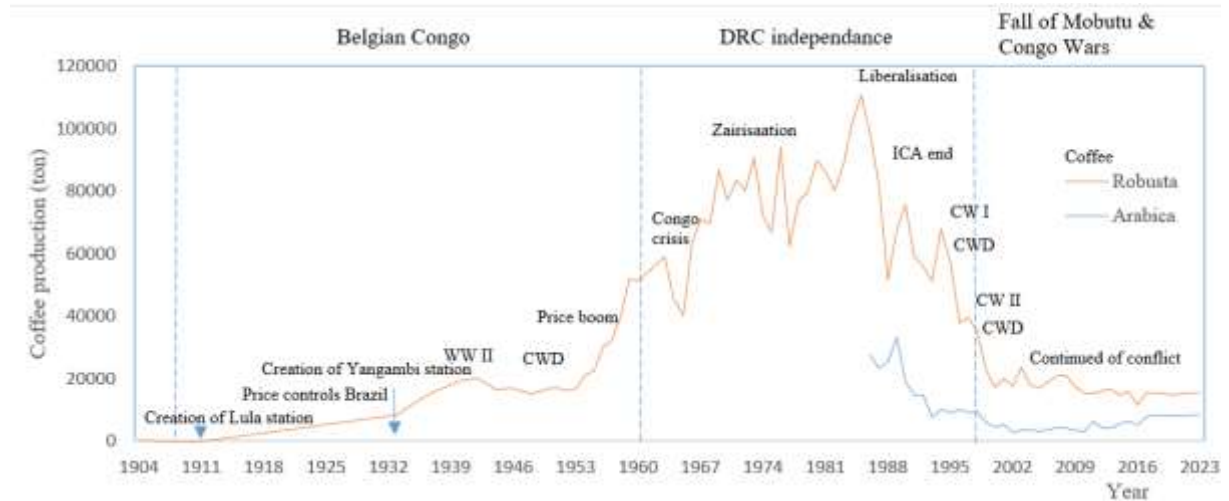


Figure 1: Historical production data of Robusta and Arabica coffee in the DRC from 1904 to 2020, according to the major political periods and events that significantly affected production. WW II refers to World War II, while CW I and CW II refer to the 1<sup>st</sup> and 2<sup>nd</sup> Congolese Wars, respectively. CWD refers to Coffee Wilt Disease outbreaks. in 1949 and its reestablishment from the 1990's onwards (Coste, 1961; ICO, 2023; Ministère des Colonies, 1949; Vandenput, 1981).

### Pre-Congo Free State (1881 - 1885)

Despite the presence of wild *Coffea canephora* in the Tshopo province before the arrival of the European, there are no available written sources on its cultivation and use for this period. Sir Harry Johnstone (1908) stated that the local population did not use coffee to produce a coffee beverage. However, they mainly consumed the pleasant sweet mucilage surrounding the seed, leaving the coffee beans unused (Leplae, 1936). In addition, Stanley noticed that natives used fresh coffee leaves and seeds as a febrifuge (Kermans, 1934).

The documented history of coffee cultivation in the Tshopo began with Stanley's arrival, decades before the global breakthrough of commercial Robusta cultivation. In 1883, Stanley ordered the officers commanding the Stanley Fall post to plant coffee, amongst other crops (Henrard, 1953). On Stanley's order, wild native and introduced coffee trees were cultivated in Kisangani (Stanley-Falls district) and Basoko (Aruwimi district) (Leplae, 1936). The coffee planted at this time is not the one later named and introduced by Lucien Linden as Robusta coffee.

### From Congo Free State to Belgian Congo (1885 – 1908)

Exploration and inspection missions became more frequent in the wake of the Berlin Conference. Based on the report from the botanical mission of Emile Laurent in 1895, the King

of the Belgians and owner of Congo Free State, Leopold II, charged M. N. Arnold to encourage coffee cultivation, thereby contributing to its development, especially in Tshopo province (Coste, 1961; Henrard, 1953; Leplae, 1936). The coffee sector was organised in 1899. Thus, both the Belgian state and the companies devoted themselves to cultivation of native coffee and introduced Liberica coffee (Leplae, 1936). The number of coffee plantations increased from 500 000 in 1896 to 2 630 000 in 1900 (Henrard, 1953). The Congolese workforce was ruthlessly and brutally exploited by settlers and colonial companies (Topik, 2004). Coffee production decreased between 1900 and 1908. This decrease could be attributed to the massacre of populations resistance to forced labour, which reduced the active labors (Buelens, 2012; Gehrmann, 2005; Matagne, 2016; Raumolin, 1984), the coffee insect pests (*Hypothenemus hampei* and *Stephanoderes coffeae*,) and coffee rust diseases (*Hemilia vastatrix*). Moreover, this was at a time when coffee was facing its first highly profitable competitor, rubber (Leplae, 1936). As a result, many coffee plantations were poorly maintained, and eventually, many were abandoned (Coste, 1961; de Rham, Valli, & Wagner-Egger, 2009; Kermans, 1934; Leplae, 1936).

As part of its efforts to promote the development of the coffee sector, the Congo Free State also organised propaganda exhibitions for Congolese coffee in Antwerp (1894) and in Tervueren (1897) (Kermans, 1934; Leplae, 1936). Edouard Luja was sent to the Congo Free State by the Colonial Horticulture firm. The *Coffea* seeds he had collected in Lusambo were sent to the Serres Coloniales, in 1899 (Leplae, 1936). These seeds were distributed by Linden under the name Robusta coffee, to reflect the species' "great hardiness, its vigorous growth, and most of its important resistance to leaf rust (*Hemileia vastatrix*) (Campuzano-Duque, Herrera, Ged, & Blair, 2021; McCook, 2019; Pinard, 2007). In the early 1900s, *Coffea* seeds distributed under Robusta coffee name arrived in Java. As it had been greatly improved at the Java Experimental Stations, seeds were sent later to Lula and then to Yangambi (Kinds, 1930). Due to its resistance to coffee rust, Robusta helped to revive the commercial coffee economy in the East Indies under Dutch colonial rule (McCook, 2014). Robusta had largely replaced Arabica in Asia and the Pacific, particularly at lower altitudes. Only after the Congo has been ceded to Belgium will Tshopo receive Java Experimental Stations improved seeds.

During the Congo Free State (1885-1908), coffee production for export was encouraged by the monarch's administration. Despite the facilitation of the establishment of coffee companies in his domain and the inspection missions of Belgian horticulturalists, coffee cultivation failed. The coercion and massacre of populations that resisted forced labour, the lack of plantation management and competition from emerging producers such as Brazil and Java led to significant temporary falls in the world price of coffee, while at the same time other agricultural exports (such as rubber) became more economically attractive.

### **From Belgian Congo to the DRC Independence (1908 - 1960)**

After Leopold II ceded the Congo Free State, it came under the aegis of Belgian sovereignty and became known as the Belgian Congo (Coppens, 1939). The Directorate General of

Agriculture (DGA), headed by Professor Leplae, ordered an inspection mission of the coffee plantations headed by J. Claessens in 1909, at the request of Minister Renkin (Ministère des Colonies, 1954). Given the previous failure of coffee farming in the Congo Free State, Claessens recommended the use of scientific agricultural research to improve productivity and farm maintenance (Henrard, 1953). Thus, Leplae founded the “Bulletin Agricole du Congo Belge”, in 1910. It was to disseminate the results of his research thus, becoming an essential source of agricultural information. The following year, Leplae created the Lula station, placed under the direction of M. Tharin. He sent also Miny and Martens, to Java to strengthen their capacities. They were put in charge of coffee production in the province of Tshopo (Bögenhold, 2020).

Following the decrease of coffee cultivation in Stanley-Falls (Kisangani) between 1900 and 1908, different coffee species and varieties were cultivated and evaluated at the Lula station near Stanleyville (Kisangani) from 1911 onwards to 1913 (Mertens, 1916, 1920; Thirion, 1952). The objective of the Lula station was twofold: (i) to demonstrate to the colonists that the cultivation of coffee could be profitable and (ii) to improve the performance of native and introduced coffee. Lula's choice was influenced by the favourable ecological conditions for the cultivation of Robusta coffee. These conditions include rainfall and the presence of wild coffee trees (Leplae, 1936). The station has been a supplier of seeds to European and foreign companies (Kermans, 1934). In 1923, the Yangambi research station was set up, cultivating coffee under oil palm (*Elaeis guineensis* Jacq.) and rubber trees (*Hevea brasiliensis* Wild. Ex A.Juss) as a shade tree. The new station was headed by Mr Ringoet (Leplae, 1936). In 1926, Leplae transformed the state plantation, Lula, into the “Colonial Plantation Board” (Régie des Plantations de la Colonie), which led to the organisation of indigenous coffee cultivation and the further expansion of European coffee plantations (Coste, 1961; Henrard, 1953). Between 1925 and 1929, Robusta clones were reintroduced to the Lula and Yangambi stations from the Dutch East Indies, notably from the Soember-Asim and Bangelan stations (Java) (David, 1994; Kermans, 1934; Smith, 1985). A clone from Uganda was also introduced to the Yangambi coffee collection from Dutch East Indies (Leplae, 1936). As result, Coffee production increased significantly (figure 1). During this period, many European-owned enterprises emerged in the Stanley-Falls province (Tshopo) (Ministère des Colonies, 1954).

In addition to the international economic depression, Brazil's coffee price control system collapsed in the mid-1930s. The resulting collapse of global coffee prices led the government to take action. This was done by abolishing coffee export duties, reducing transport costs by improving road infrastructure, and providing temporary agricultural credit for farmers (McCook, 2019; Ministère des Colonies, 1954). In 1933, the Institut National pour l'Etude Agronomique du Congo Belge (INEAC) (National Institute for agronomic studies in Belgian Congo) was created. It was based on Yangambi. INEAC's varietal selection programs and governmental incentives that led to a rapid expansion of the coffee culture, which enabled national Robusta production to more than double from 1933 to 1940, from 8 377 tons to 19 217

tons (Ministère des Colonies, 1949). The breeding program of INEAC was key for the later success of the INEAC Robusta 'elite' lines, subsequently distributed worldwide.

Besides exerting more control over the production aspects of coffee, the Belgian colonial administration also strengthened its grip on marketing and trade aspects, as was the case in most of colonial and post-colonial Africa and Asia (Bates, 2017). The Office de Café Robusta (Robusta Coffee Board) was created in 1941, based in Leopoldville (Kinshasa) (Coppens, 1939). From 1941 onwards, to promote internal and external outlets of Robusta coffee, the coffee sector became subject to strict regulations, notably the norms and certification applied by the Robusta Coffee Board (RCB). The RCB state marketing board controlled the purchase and export of coffee beans (Bates, 2017). In addition, the RCB extended its role to production, with the intervention of a corps of agronomists and technical and itinerant advisers, as well as in the management of reserve funds fed by a tax levied on coffee intended for export (Coste, 1961; Ministère des Colonies, 1948, 1958). The reserve fund was intended for the collective fight against pests and knowledge transfer through a free Coffee planters' school. State agronomists and agronomic instructors were trained there (Coste, 1961). Furthermore, to promote outlets of Robusta coffee, the RCB implemented quality assurance and traceability schemes. The quality analysis concerned mainly the coffee bean granulometry, bean colour and the absence or presence of damaged beans. Traceability encompassed the type of the plantation (European or Indigenous), the number of packages, nature of the packing, name and address of the recipient, port of loading, exit customs and country and port of destination (Ministère des Colonies, 1948). The increased involvement of the colonial administration in coffee production and research was based on the fact that it provided significant earnings through taxation and exports revenues.

In 1944, the "Paysannat Turumbu" was created by Mr Lauwer, district commissioner of Stanleyville (Kisangani), and Mr Jurion, director-general of INEAC-Yangambi, in the Tshopo province (Milford, 2004; Muller & Vervier, 1953). The *paysannat* (peasantry) worked with the local administration and research stations on the diffusion of coffee cultivation (Duculot, 1948; Ministère des Colonies, 1949). Due to its proximity, the Paysannat Turumbu worked with the INEAC agronomist corps and agronomist monitors from the local state administration to produce coffee (Coste, 1961). INEAC had become a centre for the multiplication and diffusion of Robusta seeds.

During World War II, global coffee trade decreased, affecting production in the Belgian Congo, as export opportunities to the European market temporarily disappeared (Clarence-Smith & Topik, 2003; McCook, 2019). Conversely, in the late 1940s and early 1950s, global demand for coffee surpassed the supply, which resulted in a global coffee price boom (McCook, 2019). Subsequently, this price explosion led to a planting boom on a global scale, including in the Belgian Congo (de Graaff, 1986; Heer, 1966). The post-second world war ten-year plan for the economic and social development of the Belgian Congo in 1949 included an increase in the area under coffee cultivation by both local populations and European settlers (Ministère des Colonies, 1949; Morisseaux, 1932). In addition, significant investments were allocated to

agricultural research and transport infrastructure as colonial states promoted coffee production to generate an economic surplus to finance Europe's post-World War II reconstruction (McCook, 2019). The coffee shrubs planted during this boom period reached maturity by the mid-1950s to early-1960s. As a result of the post-second world war ten-year plan and price boom, Robusta production doubled from 21 251 tons in 1954 to 51 964 tons in 1959.

There were two distinct types of Robusta cultivation in Tshopo province, namely: European-owned plantations with modern agricultural practices, facilitated by modern science and many new aspects of discoveries and inventions and locally-owned plantations using traditional knowledge, practised for thousands of years without any modern-style development or technology (Bolakonga, 2020; Samuel, 1950). The bad labour and living conditions, as well as even lower wages were the obstacles to the integration of the indigenous population into a European work model (Seibert, 2009). These obstacles were exacerbated by a specific local social and economic structures (the attitude of indigenous man toward women, rural-urban migration, tribal living conditions, and communal land tenure) hindered also this integration of the African population (Jurion & Henry, 1967). In 1959, more than a quarter of the coffee plantations in the DRC could be found in the Tshopo province, showing its importance at a national level from a perspective of spatial coverage. Figure 2 shows the distribution of coffee plantations between Congolese and European in terms of area under coffee cultivation (Coste, 1961; Jagoret & Descroix, 2002; Ministère des Colonies, 1949).

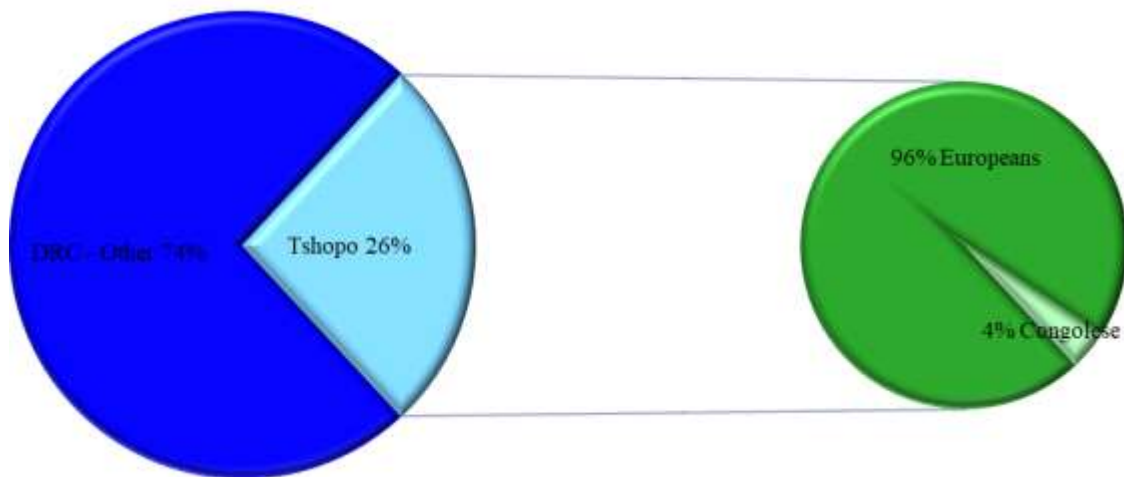


Figure 2. (Left) Proportion of coffee plantations (in terms of area) located in the Tshopo province compared to the rest of the DRC in 1959. (Right) The proportion of coffee plantations in the Tshopo province (in terms of area) owned by Europeans versus Congolese (Coste, 1961).

Coffee production in the Tshopo increased from about 10 tons in 1900 to 7,030 tons in 1959. This increase can be partly attributed to significant investments in agricultural research and transport infrastructure (Ministère des Colonies, 1949). One year before independence, only

three of the seven territories of Tshopo (Figure 3) were recognised as indigenous coffee producers: Isangi, Opala, and Bafwasende.

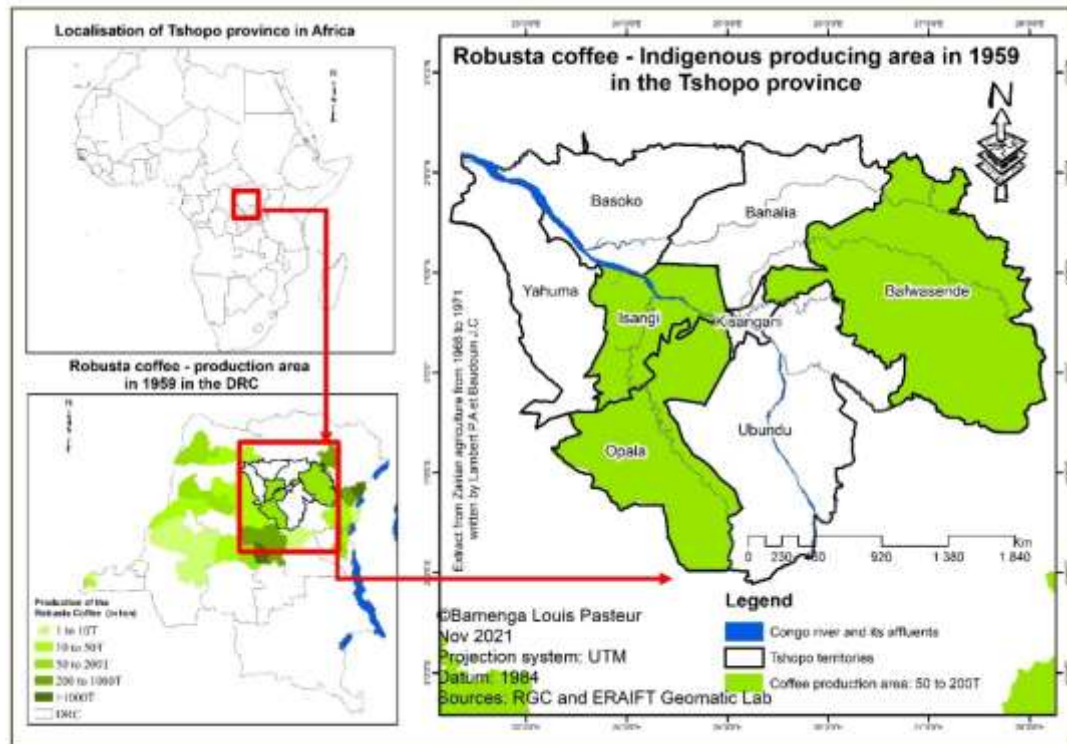


Figure 3: The three main indigenous producing territories in the Tshopo province produced between 50 and 200 tons of Robusta coffee in the Tshopo province in Belgian Congo in 1959 (Lambert & Baudouin, 1971).

Two virulent pathogens *Hemileia vastatrix* and *Fusaria xylarioides* are susceptible coffee tree host that cause coffee leaf rust and coffee wilt disease respectively (Fraselle, Vallaeys, & De Knop, 1953; McCook, 2019; Phiri & Baker, 2009; Topik, 2004). Robusta coffee was more resistant to leaf rust than coffee wilt disease while, coffee leaf rust is fatal, especially for *C. excelsa*, *C. liberica* and indigenous Robusta varieties, such as Kouillou (Leplae, 1936; Meiffren, 1957). In 1949, an epidemic of coffee wilt disease was reported in the Yangambi station. Coffee plantations were severely affected by coffee wilt disease between October 1950 and 1953 (Fraselle & Geortay, 1951; Fraselle et al., 1953). During this period, 60 out of a total of 135 ha of coffee plantations were decimated at the coffee program of the Yangambi research station (INEAC) (Kalonji-Mbuyi, Tshilenge, & Saiba, 2009; Milford, 2004; Muller & Vervier, 1953). Several containment measures were taken, such as uprooting and burning infected coffee shrubs, followed by replanting campaigns (Fraselle et al., 1953). Moreover, INEAC hosted a conference on coffee wilt in Yangambi in 1956, which concluded that overall local varieties are more susceptible than introduced varieties and that the complete removal of affected coffee



plants is essential (Kalonji-Mbuyi et al., 2009). Subsequently, Ivory Coast introduced wilt-tolerant Robusta “elite line” from the INEAC Yangambi collection. Thus, during a period of relatively high global coffee prices and intensive colonial developmentalism, by the late 1950s (Kalonji-Mbuyi et al., 2009; Waller, Bigger, & Hillocks, 2007).

### **From the DRC Independence until the fall of Mobutu (1960 – 1997)**

Independence was declared on 30 June 1960. After independence, the country continued its policy of increasing the area under coffee cultivation as promoted by the former Belgian colonial power with specific attention to small producers (Jagoret & Descroix, 2002). However, during the political and military crisis from 1960 to 1965, coffee production decreased significantly, though temporarily. However, after the Congo Crisis, from 1967 onwards, coffee production recovered once more. In 1970, the Office National du café (ONC) commissioned the University of Gembloux to study the coffee sector (Lambert & Baudouin, 1971). Notwithstanding these temporary setbacks, Robusta coffee production increased from 51,200 tons in 1960 to 110,642 tons in 1985 (ICO, 2023; Vandemput, 1981). The period between 1975 and 1987 was characterised by elevated coffee prices and a low degree of market volatility on a global scale (ICO, 2005). This also resulted from an increase in the area under cultivation, improved road maintenance, improved political conditions after the politico-military crisis (1961-1965), the low occurrence of coffee wilt disease, and research accompaniments (Lambert & Baudouin, 1971).

A wave of massive nationalisations took place in 1973 (Zairisation). The colonial coffee offices were thus replaced by the Office National de café (ONC) (National Coffee Office). Two years later, ONC was renamed Office Zaïrois du Café (OZACAF) (Smoes, 2012). As seen in figure 1, the Zairisation process is reflected in the varying levels of coffee production during the 1970s, as was also the case for nationalised coffee plantations in Indonesia and North-Vietnam in the 1950s (McStocker, 1987).

The Black Frost of 1975 in Brazil led to major increases in the global coffee price in the following years (1976-1977), which remained high during the late 1970s due to the sudden sharp production decrease in Brazil. Thereafter, coffee production in the Republic of Zaire (now the DRC) peaked in the mid-1980s (Figure 1). Moreover, Robusta coffee production almost doubled from 66,200 tons in 1975 to 110,642 tons in 1985 (ICO, 2023).

A World Bank report states that the terms of Congolese trade and fiscal policies were adverse from 1986 onwards, leading to a deterioration in the country's economic situation from 1987 onwards (ICO, CFC, & WB, 2000). Simultaneously, a decline in Congolese Robusta coffee production can be observed from 1987 onwards (Figure 1). During 1989, multilateral lending institutions, such as the World Bank, promoted liberalising global trade, thereby, in essence, decreasing state interventions in markets as a pre-condition to receiving structural adjustment loans (1987-1989) (Jagoret & Descroix, 2002; World Bank, 1993). This shift towards deregulating global trade subsequently meant the downfall of the International Coffee Agreement (ICA) (Bates, 2017). In 1989, the global coffee price collapsed because the ICA

quota system broke down, which temporarily led to a global oversupply of coffee (Bates, 2017; Foster & Wickizer, 1944). In 1993, the ICA effectively ended as the USA withdrew, thereby renewing the boom-and-bust cycles. In this context of global trade deregulation, the DRC government abolished export taxes and charges in 1989 intending to boost coffee production. However, simultaneously, agricultural extension was limited, road infrastructure deteriorated, and there was political and economic instability in the context of structural adjustment (ICO et al., 2000; Krishnan, 2013, 2017). These problems coincided with the 1<sup>st</sup> Congo War (1996-1997), which greatly affected the possibility of cultivating and harvesting and exporting coffee (Akamo, Gebremichael, & Happi, 2021; Jagoret & Descroix, 2002; Smoes, 2012). In addition, coffee wilt disease re-emerged in epidemic proportions in 1996, significantly decreasing coffee production (Figure 1). Moreover, in the Tshopo province, the territories of Banalia, Opala, and Bafwasende were especially affected (Kalonji-Mbuyi et al., 2009).

### **From the fall of Mobutu to the Congo Wars until the present (1997 – 2023)**

On 17 May 1997, L.D. Kabila took Kinshasa, toppling the Mobutu regime, ending the 1<sup>st</sup> Congo War. The immediate post-Mobutu period was characterised by continued economic and political insecurity, conflicts, and the coffee wilt disease epidemic, which can be seen as inheritances from the previous period. In order to increase public revenue from the coffee sector, from mid-1997, the new government re-imposed, export taxes of 13% of the value on board, which had been abolished in 1989 (ICO et al., 2000).

Right after the 1<sup>st</sup> Congo War, the 2<sup>nd</sup> Congo War erupted (1998-2003). In 1998, most of the Tshopo province fell under rebel control, supported by Rwandese and Ugandan forces. In June 2000, former allies became foes: Rwandese and Ugandan forces fought to control Kisangani. The battles of Kisangani ultimately left the city in the hands of the Rwandese army and Rally for Congolese Democracy-Goma (RCD-G). However, diamond, coffee, and timber zones to the north of Kisangani remained in the hands of the Ugandan army (Cuverlier & Marysse, 2003). Minerals and cash crops, including coffee, were captured by multiple rebel movements as a means of enrichment (Global Witness, 2009; Maystadt, Luca, Sekeris, & Ulimwengu, 2014). In 2002 and 2004, coffee wilt disease once more attained epidemic proportions in the DRC (Kalonji-Mbuyi et al., 2009). In addition, formal and informal taxes were imposed on coffee cultivation in the Tshopo province during the rebellion from 1998 to 2003, which resulted in a stagnation of coffee production (Amnesty International, 2003).

OZACAF was renamed the Office National de café (ONC) in 2009 and was again renamed Office National des Produits Agricoles du Congo (ONAPAC) (National Office of the Agricultural produce) in 2018. However, in contrast to the RCB and OZACAF, ONAPAC was unable to deliver the expected results in terms of increasing national production and export of Robusta. At the same time, support for coffee research, coffee farmers and road maintenance was almost non-existent. In addition, the provincial agricultural investment plan 2020-2024, elaborated in 2019, still remains to be implemented (Matata et al., 2019). Indeed, the increase in the area under Robusta coffee in a stable political and economic climate in Tshopo leads to

an increase in production (ICO et al., 2000; Lambert & Baudouin, 1971; Phiri & Baker, 2009). The informal economies in Eastern DRC are the result of inadequate institutional organisation, infrastructure and market outlets (Raeymaekers, 2009; Titeca & de Herdt, 2011).

Between 1997 and the present day, the coffee sector in Tshopo province has not benefited from any factors favourable to coffee farming, such as improved road maintenance and, research and agronomists monitors accompaniments. The unfavourable factors that have reduced production to the lowest level in history are as follows: the so-called Congo wars of liberation (1996-1997 then 1998-2003), the collapse of international prices at the end of the Congo wars of liberation (ICO, 2005), the reappearance of coffee wilt disease of epidemic proportions and the deterioration of road infrastructure. These unfavourable factors have contributed to a reduction in Robusta production, which has fallen from 40,000 tonnes to 15,530 tonnes between 1997 and the present day (ICO, 2023).

## CONCLUSION

This article reviews the literature to determine when Robusta coffee began to be grown on a large scale in the Tshopo province of the Democratic Republic of Congo, and the factors that played a major role in its development. The historical analysis of Robusta coffee production in Tshopo was carried out within the socio-political context of the country from 1881 to the present day. Thus, five political periods have been analyzed: (1) Pre Congo Free State, (2) from the Congo Free State to Belgian Congo, (3) from Belgian Congo to independence, (4) from independence to the fall of the Mobutu dictatorship, and (5) from the fall of Mobutu to the present.

This study has shown that coffee was cultivated in the Democratic Republic of the Congo, and the Tshopo region since the country's colonisation by the King of Belgians in the late 19<sup>th</sup> century. Robusta coffee made its journey at the beginning of the 20th century to the Java selection and research station, and backwards. It has gone through cycles of expansion and recession in the political periods following its reintroduction. The expansion and recession of Robusta coffee production in the DR Congo and the Tshopo province are result of a complex interplay, between research and development, knowledge transfer, governmental policies and investments, political context and local and international socio-economic factors. The establishment of the Lula (1911), the Yangambi research stations (1923) and the development of resistant elite lines of Robusta coffee in the 1950's are key to the success of Robusta coffee in the DR Congo. Additional to this fundamental factor, we identify other key factors for the different periods:

- in the Belgian Congo was mainly shaped by (i) governmental and institutional support, which improved cultivation pratique, transport and established extensive control quality programs for export commodities, (ii) the World Wars, which affected global demand, price and trade and (iii) Brazil's price control schemes which lead to increases in the

global coffee price. In the colonial area Robusta coffee production in Belgian Congo increased from being almost non-existent to about producing 51 000 tons in 1959.

- From independence until the fall of Mobutu, Robusta coffee production doubled from roughly 51 000 tons in 1960 to 111 000 tons in 1985. The production of Robusta coffee has been, in fact, growing in periods of political and socio-economic stability thank to increase in the area under cultivation, improved road maintenance and, research and agronomists monitors accompaniments. However, after the production peaked in 1985, mismanagement under Mobutu led to economic problems in general and a decline in coffee production in particular. Political instability followed in the 1990s, leading to the 1st Congo Wars (1996-1997), the re-emergence of CWD.
- After the fall of Mobutu, economic and political instability combined with continued conflict and the re-emergence of Coffee Wilt Disease contributed to Robusta production more than halving from 40,000 tons to 15,000 tons from 1997 to 2023.

The history of Robusta cultivation in the DRC, and more specifically in the Tshopo, has demonstrated the potential of Robusta coffee in the Tshopo and the DR Congo. The success and failure of coffee cultivation is the results of a complex interplay between many factors.

In terms of recommendations, political and economic stability is needed to develop the coffee sector in the DRC. Indeed, Political instability has clearly had a negative impact of coffee production and marketing. Therefore, stimulating a stable political and economic climate should be a national and provincial priority for the revival of the coffee sector. A second important factor is the establishment of a program for research and breeding in order to adapt the coffee cultivation to local situation and new challenges (e.g. pests & climate change). The experience in the past illustrates that these breeding program have a long term positive effect on the coffee production but the efforts need also be continued as a quick respond to new challenges are important (cf. the rust crisis in the early 1950's).

Furthermore, specific agronomic, post-harvest, value chain and marketing challenges have to be addressed in a thoughtful way over the total value chain through a collaboration between government and private sector, e.g. by support to farmers in the form of training, agricultural extension services, quality control and access to financial support and to the market

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