Policy Brief: Policy Recommendations to Unlock the DRC's Quality Robusta Potential

Ieben Broeckhoven[1,2,3], Raf Van den Bruel[4], Robrecht Bollen[5], Jonas Depecker[5] and Bruno Verbist[1,3]

[1] Division of Forest, Nature and Landscape, Department of Earth and Environmental Sciences, KU Leuven, Belgium; [2] Division of Soil and Water Management, Department of Earth and Environmental Sciences, KU Leuven, Belgium; [3] KU Leuven Plant Institute, Leuven, Belgium; [4] CoffeeLab Independent; [5] Meise Botanic Garden, Nieuwelaan 38, 1860 Meise, Belgium

Note to Readers

These are policy recommendations developed as part of the Coffeebridge project. We invite stakeholders to use this document as input for the policy discussions workshop taking place on 8 May 2025, during the event "From Plants to People: Botanical Expertise for a Sustainable Future in Central Africa", held in the Botanic Gardens Meise, Belgium, on 8 May 2025. The insights and proposals presented here are intended to stimulate dialogue and refine shared priorities for revitalising Robusta coffee production in the Democratic Republic of the Congo.

Executive Summary

Global coffee demand continues to rise, with Robusta increasingly vital to filling the supply gap left by constrained Arabica production. The major coffee producers, Vietnam and Brazil, are approaching productivity and land availability limits, while climate change adds further pressure, especially on Arabica. Global Robusta prices are reaching historical highs as a result. Although we may currently be at a price peak, prices are expected to remain reasonably high even if they decline. This creates a window of opportunity for the Democratic Republic of Congo (DRC) — once a significant Robusta producer — to re-enter the market. Especially given that recent research identified Congolese genotypes with promising and unique sensory profiles.

Yet, the sector faces key challenges: low farmer profitability, relatively low coffee productivity, inconsistent and low-quality coffee, lack of processing infrastructure, limited access to improved planting material, and poor market connectivity. Farmer surveys confirm that unprofitability, lack of buyers, and low farm-gate prices remain central constraints. Additionally, while quality expectations may seem lower for Robusta, launching it in the global market is more challenging than Arabica.

This policy brief presents findings from recent research on Robusta coffee in Tshopo, DRC, and outlines actionable policy recommendations. It calls for a national strategy to revitalise the sector, investments in pilot testing and processing infrastructure, targeted training to support both quality and productivity gains, improved access to planting material, and valorisation and conservation of genetic coffee resources. Unlocking Tshopo's Robusta potential will require coordinated action across government, research institutions, and the private sector.

Key Messages

1. **Global market conditions are favourable for Robusta, offering an opportunity for the DRC** to re-establish itself as a credible supplier in both domestic and international markets.
2. **A unique genetic potential exists in the DRC**, with promising Robusta genotypes identified, especially for their high sensory quality — an underexploited asset for market differentiation.
3. **Pulped Natural and Washed methods result in better and more consistent quality** Robusta than the Natural method.
4. **Farmer profitability depends on simultaneous improvements in both quality and productivity**, yet both remain critically low.
5. **Quality and consistency in quality remain the key barriers to market success,** with home-processing leading to inconsistent and low-quality**.**
6. **Strategic investments in training, processing infrastructure, and pilot testing are urgently needed** to enhance quality, build market credibility, and unlock the sector's full potential.
7. The DRC's rich coffee **genetic resources are underutilised**, while both in situ and ex-situ **conservation efforts remain insufficient** to safeguard future breeding potential.
8. **Revitalising Robusta production requires coordinated national action,** with a focus that extends beyond Tshopo to other suitable regions across the country.

1. Introduction

Global coffee demand continues to grow at an annual rate of 2.02% (ICO data), while Arabica coffee production (*Coffea arabica*) faces mounting challenges in the face of climate change and scarcity of suitable land (Davis et al., 2012, 2021). **Robusta coffee** (*Coffea canephora*) is playing an **increasingly important role** in meeting the rising global demand. Robusta now accounts for 43% of global coffee supply—up from 25% in the 1980s (ICO data). Recent years have seen production growth from key suppliers like Vietnam and Brazil plateau due to productivity ceilings (USDA data), limited land expansion possibilities, and an increasing frequency of extreme weather events resulting from climate change, creating space for other regions to re-enter the market.

Rising Robusta prices reflect these dynamics of coffee production struggling to keep up with increasing demand. In July 2021, the Robusta price reference (RC futures) surpassed $ 2 per kilogram for the first time since 2014. Since 2023, prices have risen steadily, reaching an unprecedented $5.50 per kilogram.

The Democratic Republic of Congo (DRC), once a major Robusta producer, has seen its production collapse due to conflict, poor governance, and sector neglect (Bamenga et al., 2024). Yet, the **DRC holds** untapped **potential**, with suitable agro-ecological conditions and unique genetic resources. Although the sector faces challenges, there is growing interest among buyers in sourcing Robusta from new origins (Van den Bruel et al., 2025). There is a **window of opportunity**. However, several challenges that led to the sector's collapse still need to be overcome. While quality expectations may seem lower for Robusta, launching it in the global market is more challenging than Arabica. The international market immediately demands high volumes of consistent quality. Additionally, for Robusta, there is severe price competition with major producers such as Vietnam and Brazil.

This policy brief outlines key findings from recent research. It provides actionable recommendations for unlocking Tshopo's and DRC's Robusta potential, repositioning the country as a credible supplier for both domestic and international markets.

3. Main Findings (600 words)

Recent evaluations of Robusta cultivars from the INERA Coffee Collection in Yangambi, the local wild *Coffea canephora* diversity, and their hybrids in Tshopo, the Democratic Republic of the Congo (DRC), have identified genotypes with **promising and unique sensory profiles** (Bollen et al., 2024). Among the promising accessions, a selection of 'Lula Large' genotypes has been identified for **further propagation** due to their high sensory quality, large screen size, and good yield (Bollen et al., 2024; 2025a).

Despite the enormous genetic potential of Congolese Robusta, this opportunity potential remains largely unexplored (Bollen et al., 2024). Farmers **home-process** their coffee **without regard for any quality standard**. Inconsistent quality and a multitude of quality defects are driven by limited access to knowledge, training, and standardised processing procedures as well as limited market access (Van den Bruel et al., 2025). Recent processing experiments at the INERA Yangambi coffee collection show that both the **Pulped Natural and Washed methods** can substantially improve cup quality and consistency, compared to the **Natural** method (Bollen et al., 2025b).

Limited market access prevents producers from fully understanding market needs. Additionally, poor traceability and significant infrastructural and logistical challenges severely impact all actors in the local market (Development Solutions, 2014; Van den Bruel et al., 2025). Value chain studies within Tshopo have shown that **proper coffee processing infrastructure** is nearly **non-existent**, although it is of crucial importance (Van den Bruel et al., 2025).

While coffee traders, processors and vendors in Tshopo appear to operate profitably (Bamenga et al., 2025a), **profitability at the farm level** is the major challenge (Van den Bruel et al., 2025). Unprofitability of coffee cultivation was cited as the primary constraint by 36% of farmers, closely linked to market accessibility constraints, the lack of buyers and thus low farm-gate prices (Broeckhoven et al., 2025a).

Improving coffee quality, combined with establishing an efficient export structure, can help secure a higher farm-gate price. Achieving this requires targeted support and capacity building (Van den Bruel et al., 2025). Reflecting this need, the most frequently proposed solution by farmers (38%) is direct **support via equipment and training** (Broeckhoven et al., 2025a).

While improving Robusta quality is essential to enhance farmer profitability, **productivity challenges** should not be overlooked, as current yields remain relatively low (400 - 900 kg green coffee/ha) (Broeckhoven et al., 2025b). Research on biophysical yield drivers identifies clear, practical, and feasible priorities to boost productivity (Broeckhoven et al., 2025b). **Core management practices**—such as increasing planting density, improving principal stem management, and using improved planting material—are the most immediate and effective entry points (Broeckhoven et al., 2025c). While additional gains can be achieved through **pest and disease and integrated soil fertility management** (ISFM), these should be considered secondary to improvements in core management practices. Ultimately, the effectiveness of productivity-related interventions will be limited unless the **underlying issue of farm profitability** is addressed first (Broeckhoven et al., 2025c). Addressing both quality standards and productivity, alongside market accessibility, is therefore critical for the sector's revival.

Research in Tshopo shows that Robusta **productivity** in **agroforestry systems is comparable to monocultures,** provided excessive shade is avoided (< 50%) (Broeckhoven et al., 2025b). Beyond coffee yields, coffee agroforestry offers significant additional benefits, including double the carbon stocks, much greater woody diversity, and diversified income and food sources (Broeckhoven et al., 2025b). Given coffee farmers' concerns about low profitability and the long waiting period of 3–4 years before the first coffee harvest—identified by 28% of farmers as the key constraint (Broeckhoven et al., 2025a)—

there is a strong preference in Tshopo for agroforestry systems over monocultures. **Diversification** through agroforestry not only reduces the risks associated with price fluctuations —a valuable feature given the inherent boom-and-bust cycles in coffee prices —but also provides income and food sources during non-productive years. Farmers in Tshopo particularly favour caterpillar-hosting shade trees and fruit trees (Broeckhoven et al., 2025a).

The use of **improved varieties**, alongside other core management practices, is a key driver of robusta yield (Broeckhoven et al., 2025c). However, the agronomic potential of DRC's Robusta genotypes remains largely underexplored, despite promising results (Bollen et al., 2025a). Further genetic screening and evaluation are necessary to fully unlock this potential (Bollen et al., 2024). Currently, only 10% of coffee farmers in Tshopo report using improved varieties (Broeckhoven et al., 2025c). Dissemination is limited and access is low due to severe bottlenecks at the nursery and research station level. Nursery infrastructure is outdated, and protocols and management are suboptimal.

Given the highly underexplored genetic potential of wild Congolese Robusta coffee, prioritising **in situ conservation** of these resources is critical (Depecker et al., 2023; Verleysen et al., 2023; Verleysen et al., 2024). To maintain this wild coffee diversity, forest habitat conservation has been suggested as the most effective approach, rather than minimising forest disturbance through selective logging. Alongside the conservation of coffee genetic resources, in situ conservation also offer additional benefits including maintaining high carbon storage, woody species diversity, and pollinator diversity (Broeckhoven et al., 2025b; Depecker et al., 2025). For instance, forest systems in Tshopo contain three times more carbon than coffee monocultures and six times more than agroforestry systems (Broeckhoven et al., 2025b).

Next to in situ efforts, **ex-situ conservation** via the INERA coffee collections in Yangambi and Luki is essential to safeguard and valorise agronomically valuable genotypes (Bollen et al., 2025a). The maximisation strategy, introducing as much genetic diversity as possible into the coffee collections, has been identified as the most effective conservation strategy for the Tshopo (Verleysen et al., 2023).

4. Policy Recommendations

4.1 Short-term

1. Develop a National Strategy for Robusta Coffee Revitalisation

Develop a national integrated strategy and stepwise action plan to revitalise the Congolese Robusta coffee sector, prioritising farmer profitability and coffee quality. Build on existing regional initiatives and ensure coordinated implementation. Ensure an attractive and stable environment for production, processing and trade investments.

4.2 Medium-term

2. Pilot testing for Market Credibility (Roadmap)

Develop donor-funded pilot projects to produce and export a container of high-quality washed Robusta, proving the quality and price potential. Use these pilots as a proof of concept to stimulate private sector interest and attract private investment to scale up.

3. Deliver Practical, Market- and Profit-Oriented Trainings (Roadmap)

As part of the pilot testing, train farmers and entrepreneurs in harvesting, sorting, drying, and storage to improve robusta quality. Prioritise approaches that increase profitability and match market demands. Include financial literacy and business skills. Deliver targeted agronomic training focusing on core agronomic practices to boost coffee productivity.

4. Invest in small-scale processing infrastructure (Roadmap)

Fund small-scale infrastructure such as drying tables and local processing stations in key Robusta-growing areas to enhance value addition and facilitate farmer coordination and learning.

5. Increase Access to Improved Varieties

Partner with INERA and decentralised nurseries to scale the production of improved Robusta varieties. Strengthen quality control systems to ensure farmers receive vigorous and healthy planting material. Provide targeted training to boost nursery efficiency and reduce seedling production costs.

4.3 Long-term

6. Valorise Robusta Genetic Resources

Besides multiplying existing improved varieties, multiply and evaluate promising genotypes identified in Yangambi. Expand genetic screening beyond Tshopo to sites like Luki. Reestablish breeding programmes focused on unlocking the untapped sensory qualities of Congolese Robusta and enhancing yield.

7. Conserve Robusta Genetic Resources

Enhance ex-situ conservation and facilitate the exchange of genetic material through international partnerships linked to INERA's coffee collections. Promote in-situ conservation of wild coffee in forest reserves (e.g. Yangambi MAB and Luki MAB), safeguarding both coffee genetic resources and the forests' irreplaceable biodiversity, carbon and ecosystem services.

8. Expand Research on Sustainable Agricultural Practices

Broaden Robusta research beyond Tshopo to other provinces. Promote diversified coffee agroforestry systems that balance productivity, livelihoods, carbon and biodiversity. Investigate innovative practices such as caterpillar-hosting shade trees and intercropping with African pepper (*Piper guineense*).

9. Reduce transport and logistical constraints

In general, shorten transfer times by improving the transportation network, which currently imposes excessive financial costs and contributes to widespread frustration across the sector. Addressing these constraints is crucial to fostering market confidence and supporting the sector's long-term viability. In the short term, prioritise market development in regions closer to export ports, such as Congo-Central, to accelerate access to international markets by reducing logistical barriers.

5. Conclusion

The DRC's history as a major Robusta producer, combined with its genetic diversity and agro-ecological conditions, provides a strong foundation for sector revitalisation. However, this potential will remain unrealised without deliberate and coordinated action from the government. History has shown that isolated interventions — without addressing market access, infrastructure, and farmer capacity — are unlikely to succeed.

This policy brief emphasises that enhancing farmer profitability necessitates a dual focus on quality and productivity, supported by practical training and investment in processing infrastructure. Moreover, the long-term competitiveness of the sector depends on conserving and valorising the country's rich genetic resources through both in situ and ex-situ strategies.

While broader governance challenges remain outside the scope of this brief, concrete actions such as pilot projects, nursery development, and targeted research can lay the groundwork for private sector engagement and future scale-up. Establishing a national strategy and action plan for Robusta revitalisation — while leveraging early successes in pilot initiatives — will be key to repositioning Tshopo and the DRC more broadly as a credible Robusta origin in the global market.

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Acknowledgements and Funding

This document is produced as part of the Coffeebridge project, a collaborative initiative aimed at improving Robusta coffee production and value chain integration in the Democratic Republic of the Congo. Funding for this research and policy recommendations has been provided by the Programmatorische federale Overheidsdienst Wetenschapsbeleid (BELSPO) as part of the BRAIN-be 2.0 Belgian Research Action through Interdisciplinary Networks (PHASE 2 - 2018-2023) under grant agreement B2/191/P1/COFFEEBRIDGE. The views expressed in this document are those of the authors and do not necessarily reflect the official policies of the funding institution.