



## Competitiveness of Tanzanian Coffee Growers amid Bifurcated Coffee Markets

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This study analysed domestic response to changes in the coffee market configuration and the roles of institutions and organisations in the context of smallholder coffee production. It followed a multidisciplinary approach, and data was sourced from a range of actors in the domestic coffee value chain, ranging from coffee growers, producer organisations at various levels, industry regulatory institutions, processors, and input stockists, to coffee traders and coffee research institute. Secondary data was also obtained from international sources like the UN Food and Agriculture Organisation (FAO) and the International Coffee Organisation (ICO). In addition, the study benefited, albeit to a limited degree, from a panel survey of agricultural households carried out in 2003 and 2009.

The key proposition in this study is that while the evolution in the patterns of global consumption and production of coffee have led to the bifurcation of markets into mainstream and differentiated high-quality niches, there has not been a clear response from Tanzanian producers of Mild Arabica coffee, who are then stuck in the middle between the two segments. This bifurcation and the associated instability in prices resulted from the collapse of the International Coffee Agreement (ICA), the concentration of high-value chain activities among leading coffee roasters and retailers, and new innovations in blending technology. This bifurcation also occurred in tandem with the evolution of policy and production organisation within Tanzania that served to squeeze Tanzanian coffee producers into a position between the two segments. This study also observes some attempts that have been made to re-direct the attention of coffee growers towards high-end markets. These attempts include some forms of industrial policy and a variety of strategies implemented by non-state intermediary organizations working with market institutions.

### Key messages

- Grassroots institutions (union and cooperative societies) are instrumental in ensuring higher quality of coffee
- Disruption of grassroots institutions, nationalisation, and trade liberalization without adequate mechanisms to control quality led to coffee quality deterioration
- Transformation of Tanzania's coffee industry into a robust and competitive sub-sector will require an active industrial policy and collective actions of state and non-state actors

## Findings

### Tanzania coffee growers stuck in the middle of bifurcated coffee markets

As with many primary commodities, the balance between production and consumption of coffee is difficult to mediate. Production is carried out by diverse groups of developing countries in Latin America, Africa, and Asia. Consumption, on the other hand, is concentrated in the industrialised countries of North America, Europe, and Asia. Coffee is produced and exported from producing countries largely as green coffee. Roasting and branding takes place in the consuming countries.

The global market has undergone radical changes, which have led to instability and an overall decline in coffee prices, the worst declines occurred at the end of the 1990s and in the early 2000s. The prices have increased since then, but remain below the 1986 peak of about \$5 per kg of green coffee. Three factors account for the instability and decline in coffee prices: first, changes in the regulatory framework of coffee trade, including the collapse of the International Coffee Agreements (ICA) quota system in 1989; second, technological innovations in coffee roasting and blending, which have enabled coffee roasters to adjust their blending so that more of the lower-cost coffee can be used, whose supply has increased dramatically; and third, the increase in supply of coffee and the changing structure of production, particularly the production boost in Brazil and the entrance of Vietnam as a leading coffee producer. While Vietnam produced only 73,000 bags of coffee in 1980, at a time when Tanzania produced just over one million bags, by 2009 Vietnam produced 18 million bags compared with 709,000 bags in Tanzania. These factors have led to the bifurcation of coffee markets into mainstream markets on the one hand, and differentiated niche markets on the other hand. The latter is indicated by the emergence of trade movements, such as Fair Trade, and an increasing volume of speciality coffee segments in the US retail coffee market. Tanzanian growers have remained stuck in the middle between the two market segments. Trapped into supplying low-quality Mild Arabica, Tanzanian growers are easily squeezed out of the market by the availability of high-quality Robusta, despite Tanzania's unique potential to compete due to its favourable geographical advantage over other Mild Arabica suppliers.

### Coffee in Tanzania is largely produced by smallholders

A substantial proportion of Tanzanian coffee is grown by a large number of smallholders. The sector

involves between 400,000 and 500,000 smallholders, nearly two thirds of them producing Mild Arabica. A vast majority grow coffee on less than 1.4 hectares.<sup>1</sup> Under this distribution, polarisation based on individual landholding endowments cannot be generalised among coffee growers. During the 1972/73 crop season, just before massive nationalisation of coffee estates, smallholders and large estates contributed 76% and 24% of coffee output, respectively. By 2004/05, the smallholders produced 93% of the country's coffee output, and this proportion has not changed significantly since then. The dominance of smallholders in commercial coffee production contrasts sharply with the production of sisal and tea, which were also established during the early 1900s. This predominance has led to some limitations in technological improvement in processing and farming intensity, which is associated with limited capacity in financial capital, skills, and economies of scale. Unlike estate growers, coffee among smallholders is in most cases intercropped with other crops. The most common crops grown along with coffee are bananas, beans, and vegetables. Data suggest that the rate of replacement of older coffee trees is rather slow, which can in turn slow down future growth of coffee output even when prices continue to rise. Unlike annual crops such as maize and beans, a short-term response to price changes is difficult to attain in coffee production. On the ground, many farmers appear to be responding very slowly to adapting the new hybrid coffee variety developed by the Tanzania Coffee Research Institute (TaCRI). While the new variety is much more resistant to diseases, and its yield rate and profitability are higher than the traditional variety, its adoptability by smallholders is still very limited. Smallholder producers attributed its limited adoption to its high initial costs,

high demand for water, and its limited application to the traditional practice of intercropping.

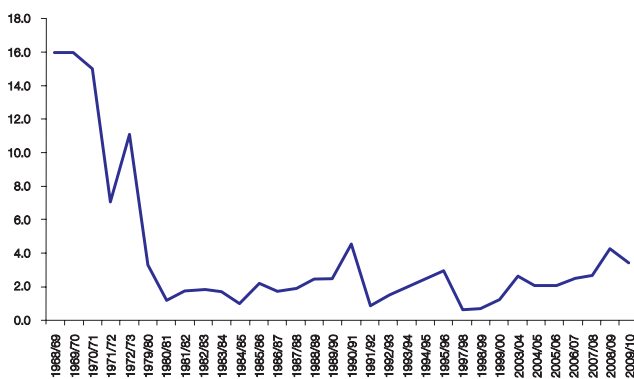
### Institutional deconstruction exacerbated decline in quality

As figure 1 shows, the decline in coffee quality in Tanzania, as measured by the share of exported coffee in the top grades of 1–5, started in the early 1970s and accelerated during the mid-1970s and the early 1980s. This decrease and the accompanied drop in coffee output occurred in an environment of weakening intermediary institutions, in particular the cooperative unions and primary cooperative

<sup>1</sup> While the notion of 'small' varies in relation to different crops, contexts, and regions, this study characterizes smallholders based on the definition used by the National Bureau of Statistics. Because a large proportion of coffee-producing households depend primarily on agriculture in an environment of rudimentary production technology, land is a reasonable proxy for resource endowment. In this context, this category of growers is contrasted with large-scale estate growers.

societies. These grassroots institutions were central for integrating production and marketing. In the Mild Arabica-producing area of Kilimanjaro, the Kilimanjaro Native Cooperative Union (KNCU), an umbrella institution of several Primary Cooperative Societies (PCSs), played a leading role in promoting the production of high quality coffee. KNCU strived to expand coffee production by providing extension support to its members, physical input credits through PCSs, and cash for crop purchase at the beginning of a season. This process was easily coordinated under the cooperative monopoly, which helped PCSs to recover input credits from coffee proceeds. In a bid to improve coffee quality, KNCU help edits members to invest in Central Pulperies Units (CPUs) that pulped coffee cherries in central locations for a large number of coffee growers in the region.

**Figure 1: Trend in the share of coffee exported in grades 1–5, 1968–2009**



**Sources:** Ponte (2001) table 10, pp. 37 (1968/69–1999/00) and author's computation from Tanzania Coffee Board data (2000/01–2009/10).

**Note:** Data missing for 1973/74–1978/79, 1996/97, and 2000/01–2002/03.

These central locations also administered quality control at the primary level through stringent controls on parchment collection. In 1935, KNCU established the first coffee curing mill in Moshi, the Tanganyika Coffee Curing Company Limited (TCCCO).<sup>2</sup> Investment in both centralised primary processing and secondary processing through the mill contributed to the high quality of Mild Arabica coffee exported from Tanzania.

It is clear that production of high quality coffee in Tanzania has declined dramatically and remained low over the last thirty years. This trend is attributed to three factors, the first two explaining the sharp

deterioration in quality observed from the early 1970s. The first factor relates to the state measures to control activities of cooperatives, which led to, among other failures, the collapse of the system of central primary processing through wet-mills managed by PCSs. As growers resorted to the use of their own hand-pulping machines, they delivered parchment coffee of varying quality, often below standard requirements. Quality also deteriorated because replacement of the activities of PCSs by village-based, non-autonomous primary cooperatives greatly disrupted commercial orientation of cooperatives. In addition, the Tanzania Coffee Authority (TCA) was not effective in carrying out all of the activities previously carried out by cooperatives, including the provision of essential agricultural services.

TCA's lack of autonomy from the government, and the multiplicity of tasks ranging from regulation, production, and processing, to the marketing of coffee, rendered it ineffective and inefficient. As a result of these institutional changes, yields declined, quality deteriorated further, and so did coffee output. The second factor is the state interventionist policy of nationalising coffee estates, which significantly reduced the proportion of estate coffee. Since the quality of privately managed estate coffee was higher than coffee supplied by the smallholders, a decline in the share of estate coffee after nationalization contributed to the decline in the quality of coffee from Tanzania.

The third factor is the policy of trade liberalisation adopted in the second half of the 1980s. While this policy was considered to be a panacea to supply bottlenecks, it was implemented without due consideration to institutional coordination issues. Trade liberalisation in the coffee industry was effected through the Crop Boards (Miscellaneous) Amendment Act No. 11 of 1993 that allowed licensed private firms to participate in domestic coffee trade, export, and processing. The key problem is that this process was not accompanied by a regulatory mechanism for ensuring quality control at all levels. As a result, modest improvement in quality and output was observed following privatisation and revival of some coffee estates in the early 1990s, although the rise in global coffee prices may have also contributed to this increase. Just two years after the coffee trade was liberalised, however, quality deteriorated further. This decline is associated with the practice of private traders collecting parchment coffee from growers at uniform prices without regard to quality differences. This practice allows traders to secure high volumes, but it also debases the overall quality of Tanzanian coffee.

<sup>2</sup> This factory was nationalised in 1971 under Act. No. 3 of 1971 and re-granted in 1988 under Act No. 12 of 1988.

## **Institutional brokerage can revive coffee quality**

Recent institutional interventions have responded to the new dynamics in the coffee market. They have revolved around innovative ways of organising production and marketing, providing alternative ways to mediate various constraints and to revive coffee quality, particularly coffee processing, financing, and linkages to specialty niche markets. The first innovation is the attempt made by KILICAFE, a non-governmental intermediary organisation to reintroduce CPUs in primary coffee processing among coffee growers. This innovation is based on linkage formation through enhanced organisational capacity for production and marketing of high quality or specialty coffee. TechnoServe acted as a third party intermediary, an innovation broker. The second innovation, also brokered by TechnoServe, is the market linkage with international coffee roasters. This initiative was given further impetus by the change in coffee market regulations that allowed direct export of high-quality coffee from the 2003/04 crop season. The third innovation relates to financing arrangements for key value chain activities, particularly the purchase and installation of CPUs under TechnoServe, and finance for crop purchase under the Warehouse Receipt System (WRS). The combined initiatives have contributed to an increase in the share of high-quality coffee exported directly by smallholder intermediaries between 2004/05 and 2009/10 crop seasons by 77%.

## **Policy conclusion and recommendations**

The findings of this study reveal that the deterioration of coffee quality in Tanzania was closely associated with structural and institutional changes in the global coffee market and the institutional deconstruction within the Tanzanian coffee industry. These findings also show that free markets and trade liberalisation,

once heralded as a panacea for bottlenecks to supply productivity and competitiveness in agricultural exports, did not universally reverse the quality and output problem in the Tanzanian coffee industry. Thus, in the absence of active industrial policy and regulatory mechanisms to promote competitiveness in the coffee subsector, it is difficult for Tanzanian growers to compete strategically amid international market dynamics. Transformation of Tanzanian agriculture into a competitive export sector is therefore a matter of strategic choice that requires joint strategic planning and action, and not just an automatic outcome of trade liberalization. In the contemporary international coffee market regime, niche markets provide Tanzanian coffee growers with the best opportunity to compete. Over the longer term, higher and more stable incomes for smallholders are more likely to be derived from markets for higher-quality coffee.

Two policy recommendations are made. First, a strategic choice to produce and export high-quality coffee for targeted niche markets requires the proactive involvement of the state, working collectively with institutions such as TechnoServe and cooperatives with a view to mediate constraints to quality improvements, particularly in relation to coffee processing, financing, and market linkages. Action must be directed at integrating production and markets effectively to enhance quality and to improve productivity by smallholders. Such actions may include registering all coffee growers, designing institutional affiliations in ways that reduce strategic default and maximize opportunities for economies of scale at the processing stage and through bulking of key inputs and services, and mandatory requirements for centrally processing coffee cherries. Second, stability of intermediary institutions is essential to ensure their ability to coordinate smallholder growers in the current market environment. This stability implies deliberate efforts to reconstruct institutions that can make markets function efficiently while advancing the interests of coffee growers.



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