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Restructuring Uganda's Coffee Industry: Why Going Back to the Basics Matters

Uganda's coffee industry consists of low input-intensity smallholders with an average farm size of 0.2 hectares and is the main source of income for an estimated 500,000 households. Following its introduction earlier in the 20th century, the industry expanded considerably during the 1950s and 1960s. However, the sector experienced a huge setback due to the civil strife of the 1970s, when output halved within a 5-year period (1972-77). During the late 1980s, the sector went through a liberalization process, which, coupled with high world prices, led to considerable supply response, with exports exceeding 4 million bags in two consecutive years (1995 and 1996), the only time in the sector's history. By all accounts, the reforms have been successful. Producers' share of export prices doubled and growers receive payments promptly. Entrepreneurial activity has increased enormously. Most important, there has been a well-documented poverty reduction impact on households of the coffee-growing regions. There has been no backtracking of reforms.

The post-1997 coffee price decline has had a negative effect on production. However, production kept declining even when prices recovered after 2002. It is currently estimated that for the 2005/06 season, Uganda's coffee output will be about 2.3 million bags, the lowest level since the reforms, even lower than the 1974-92 average of 2.35 million bags. Although coffee contributed as much as $400 million to total merchandise exports during the mid-1990s, it currently contributes less than $150 million (equivalent to one quarter of merchandise exports and 2 percent of GDP). Understandably, the sector's poor performance raised concerns amongst policy makers.

Most reports identify declining coffee quality and Uganda's poor market position as the industry's key problems. The evidence presented here, however, overwhelmingly showed that the quality of coffee has not deteriorated. With respect to marketing and regulation, the findings of the present paper largely echo those of an earlier report which argued that Uganda's coffee industry supply chain is competitive and efficient while there is not much to be done to reduce marketing and processing costs. On the other hand, there are no policy, regulatory, or institutional constraints within the marketing chain. As one coffee exporter put it, "Uganda must be doing something right for all these traders from neighboring countries to want to trade their coffee through our marketing system." Further, the coffee monitoring body, UCDA (Uganda Coffee Development Authority) is playing a useful role in terms of regulation, inspection, collecting and disseminating statistics, being one of the few commodity organizations in Sub-Saharan Africa that publishes an *Annual Report* with a very useful statistics, analysis of current issues, and, most importantly, an audited account of its finances. The 1 percent fee charged on all exports to support its budget is also not high, especially at current volumes and prices. However, at least two of the UCDA's activities must be reexamined, namely its involvement in coffee promotion activities and its capacity to run the replanting program.

Strategies to increase specialty coffee have been proposed very often. During the past nine years only 0.21 percent of Ugandan coffee output was marketed as specialty coffee, very low compared to the world average of 6-8 percent. This should not be surprising since Uganda already receives a premium for its robusta. On the other hand, efforts to increase domestic consumption to enhance rural incomes are unlikely to bear any fruit. Similarly, efforts to expand activities such as roasting and instant coffee may add some income (mainly through employment generation) but they are unlikely to have any effect on prices received by growers. The cost effectiveness of promotional activities designed to increase consumption of Uganda's coffee in emerging markets such as China and Middle Eastern countries is questionable. Finally, the recommendation to introduce a coffee auction is also based on assumptions not consistent with the realities of the global coffee market.

Yet, two important issues, namely the coffee wilt disease that may have caused an estimated export revenue loss between $40 and $50 million per annum (almost one-third of recent coffee export revenues) and the effectiveness of the coffee replanting program that was designed to replace the aging tree population with newer high yielding varieties, have received much less attention, especially considering their poverty implications to Uganda's rural households. Not surprisingly, the issues have not been placed high enough in the policy-making agenda.

The Coffee Wilt Disease

The coffee wilt disease (CWD), scientifically known as *Tracheomycosis*, is caused by a fungus that blocks water and nutrients from traveling to other parts of the coffee plant from the roots, in turn causing wilting and eventually death. The disease, which affects only robusta varieties, was first reported in the Central Africa Republic in 1927. Between 1944 and 1950 it spread to Côte d'Ivoire, Liberia, and Cameroon. It last recurred in Eastern Congo (DRC) between 1988 and the early 1990s from where it is believed to have spread to Uganda. Belgian researchers who worked on the disease in DRC recommended eradication through the destruction of affected coffee trees. Subsequently, a regional working group was established and outlined an action plan but the parastatals in charge of coffee marketing in the region did not act.

The disease affects coffee plants of any age and spreads by wind, water, movement of infected soil, movement of material from infected fields (for example firewood), and use of contaminated tools. These findings are consistent with the way the disease spread during the earlier outbreaks in DRC and West Africa. Control measures currently in use aim at reducing the disease spread through burning infected coffee trees on site, delaying replanting at least by one to two seasons, and restricting movement of infected material and soil.

The wilt disease, which was first confirmed in Uganda in 1993, has been monitored through field reports and numerous scientific surveys. The disease was the subject of a workshop (hosted by the Government of Uganda in July 1997), attended by 60 participants from most East and Central Africa coffee producing countries. The workshop's resolutions were: (i) immediate action should be taken to contain the disease; (ii) a project proposal should be presented to the International Coffee Organization and the European Union for funding; and (iii) Uganda and DRC should take the lead in the investigations. In terms of research, however, it appears that no immediate progress was made. A few years later, for example, it was noted that "Research work will be intensified to develop a resistant coffee cultivar. Epidemiological study results on the disease will also be made available to farmers."

The latest UCDA survey confirmed that all robusta-producing districts have been affected by the disease. In some cases entire coffee fields have been destroyed. Although precise estimates on the impact of the disease are not available, one can gauge the effects of the disease based on the 2003 review study which estimated that of the total of 240,000 hectares in all 21 robusta-growing (traditional) districts, 122,400 hectares have been infected (equivalent to about 136 million robusta trees), representing a 51 percent cumulative infection rate. There is considerable variation among districts with infection rates ranging from a low of 12 percent (Rakai) to a high of 67.2 percent (Mukono, the district accounting for 22 percent of Uganda's robusta area).

The impact of the coffee disease is enormous. UCDA estimated a loss equivalent to 61,200 tons (1.02 million bags) of coffee, which is around 40 percent of the output in recent years. This corresponds to $42.8 million in export revenue loss per annum at 2003/04 prices (Ush 1,090/kg). Under different assumptions regarding production (88,240 tons) and prices (Ush 1,200/kg), the Uganda Coffee Trade Federation (UCTF) put the annual losses at $51 million. Note that the wilt disease had been identified as the key problem of Uganda's coffee industry by Ponte (2002, p. 260): "Uganda's falling production and changing roaster's blends may marginalize it in the future *vis-à-vis* cheaper origins, unless coffee wilt disease is tackled."

Obviously, the only long-term solution is the development of wilt disease-resistant coffee varieties. Although some progress has been made towards that end, details are still unclear. For example, UCDA reports that: "Steady progress has been made in the development of robusta coffee lines resistant to the disease. (A) sustained screening program has to date identified 593 coffee wilt resistant robusta coffee clones. These were identified among seedlings of germplasm collection at Coffee Research Institute and have been planted in mother gardens. 143 out of the 593 have been planted out in-station in a CWD infected garden for field evaluation." It is not clear, however, how many of these varieties will withstand the disease in infected areas. Furthermore, even under the assumption of complete success, producing plantlets in large quantities and finding effective ways to distribute them to coffee growers will be a monumental task, especially in view of the limitations of the existing replanting program.

The Coffee Replanting Program

The replanting program was introduced in 1992/93 with the objective of enhancing the productivity of the sector by replacing old robusta coffee trees with newer, high-yielding varieties (free of charge) at the rate of 5 percent per annum, and to expand the area under arabica. The program has been administered by UCDA, which contracted out the production and delivery of seedlings to about 900 private nurseries. During the last 12 years, a total of 135 million trees have been distributed—101 million robusta and 34 million arabica. The program peaked during the 2002/03 season when almost 30 million trees were distributed.

While there have been numerous reports from the public and private sectors assessing the progress of the program, there has been no thorough independent evaluation of the program, despite the resources that have been spent on it. These reports have questioned the effectiveness of the program, with the most important problem being the low survival rate of new plantlets, believed to have been in the order of 50 to 60 percent. The main reasons for the low survival rate include poor growing conditions at the nurseries (hence the low quality of plantlets) and distribution during the wrong season. In turn, this could be attributed to delays in reimbursing nursery operators; on some occasions nurseries have not been paid at all and have abandoned their operations. The most recent estimate is that UCDA owes nurseries some Ush 5-7 billion (equivalent to US $2.7-3.8 million). Further, it appears that the new trees are affected by the wilt disease at the same rate as the old trees, which may explain why despite the fact that 101 million of robusta trees have been distributed under the program, an estimated 136 million robusta trees have been destroyed by the wilt disease.

The 2005 Monitoring and Evaluation Report argued that poor seedling production at the nurseries may have contributed to the incidence of the wilt disease. It also argued that only coffee specific programs such as the former Farming System Support Programme and Coffee Rehabilitation Programme should be encouraged to solve the problems of the coffee industry since it is difficult for other current programs such as the Area Based Agricultural Modernization Programme and National Agricultural Advisory Services (NAADS) to address coffee problems due to their divergent objectives. Interestingly, most of NAADS activities appeared to be ineffective according to the earlier evaluation, because they only consisted of giving seminars, something that coffee growers did not really need.

This article was written by John Baffes, Senior Economist, Development Prospects Group, the World Bank. It is an extract from a full publication, "Restructuring Uganda's coffee industry: Why going back to the basics matters", Development Policy Review, vol. 24, pp. 413-36. Also published as World Bank Policy Paper 4020, October 2006. For more information, e-mail jbaffes@worldbank.org

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