

## Economic Liberalization in Rwanda's Coffee Sector: A Better Brew for Success

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In 2008 Solberg and Hansen, a Norwegian importer of high-quality specialty coffee, bid just under \$40 a kilogram (more than 21,000 Rwandan francs) for a load of coffee from Rwanda.<sup>1</sup> While this bid was exceptional—specialty coffee normally sells for between \$3 and \$4 a kilogram—it also represents a real and positive transformation within Rwanda's coffee sector. In the not-too-distant past, the country was known as a producer of mediocre coffee that attracted little attention from discriminating importers or consumers.<sup>2</sup> Today, Rwandan coffee is increasingly recognized as a high-quality product, one for which importers such as Solberg and Hansen and, in turn, consumers are willing to pay a premium. Although the Rwandan economy is diversifying, agriculture continues to be the primary source of livelihood for the vast majority of the population. The overwhelming majority of agricultural workers are subsistence farmers. Just over 10 percent of these farmers planted coffee in 2008, and the crop remains a major source of export revenue for Rwanda, generating more than 36 percent of total export revenue in 2009.

### The evolution of coffee production in Rwanda

The transformation of Rwanda's coffee sector happened relatively quickly. In 2000 Rwandan farmers were producing semi-processed coffee for sale on world markets. Farm gate prices paid to farmers were low (60 Rwandan francs a kilogram), and prospects for farmers and exporters to increase

income or profits were limited. Starting in the late 1990s, the government liberalized the sector, removing a variety of barriers to trade, creating new incentives for groups and individuals to invest in coffee production, and facilitating entrepreneurship in the coffee industry.

Working with the private sector and international donors, the government of Rwanda has reshaped the coffee industry: the regulatory framework for production has been modified; more than 100 coffee-washing stations have been built; donors have supported the development of market links between producers and foreign buyers; cooperatives have formed; and smallholder farmers are working together in an effort to improve the quality, marketing, and branding of their coffee.

These changes have had important effects on the ground in Rwanda. Coffee continues to generate important export revenue for the country: just over \$47 million in 2008, compared to \$35 million in 2007. Higher incomes benefit farmers, their families, and their communities in a variety of ways: farmers can improve a home, pay medical expenses or school fees, or better ensure food security. And when cooperatives earn a profit they are able to hire workers, purchase capital, and support community projects such as improved schools.

The transformation of the Rwandan coffee sector may be creating social benefits in addition to economic benefits. Working together at coffee-washing stations—typically located in the rural, hilly, and relatively inaccessible areas where coffee grows and where little other commercial

infrastructure exists—farmers have new opportunities to interact with other Rwandans. These repeated interactions may reduce the sense of ethnic distance among members of Rwandan society. As farmers and other workers at coffee-washing stations experience the increased economic satisfaction that comes with higher income earned from coffee, they may also feel greater levels of trust toward people with whom they interact and thus develop more positive attitudes toward reconciliation. And because coffee in Rwanda is grown by poor, smallholder farmers who make up 90 percent of the population, these positive changes have the potential to benefit a broad swath of Rwandan society.

### Challenges and concerns

Despite this good progress, the coffee sector faces a number of serious challenges. To start, Rwanda's landlocked geographical status and poor infrastructure mean that coffee producers face high transport costs. Moving coffee cherries quickly over Rwandan roads is difficult, as is moving processed beans out of the country in a timely and cost-effective manner. Other concerns are related to the costs in the industry. Production costs remain high. Many of the newly built coffee-washing stations are operating at much less than full capacity, and labor costs are higher than in neighboring countries. Rwandan farmers are also less productive than farmers in neighboring countries. Although some have received support and training from nongovernmental organizations (NGOs), regular visits from extension agents are limited.

In addition, a variety of management concerns have plagued the cooperatives that many coffee farmers join. One specialist of Rwanda's cooperatives observed, "After five years of extensive cooperative capacity building, Rwanda's coffee cooperatives remain surprisingly fragile, unorganized, and dysfunctional" (SPREAD 2007). Some cooperatives have mishandled loans, while others have failed to fulfill contracts in a timely manner or have encountered trouble marketing their products. Some of these problems are the result of a lack of training or financial management skills.

Other challenges involve the broader institutional environment. As Rwanda implements a new land law, some smallholder farmers may face uncertainty about the rights to the land that they work. Women, in particular, may be especially vulnerable. The government, NGOs, and other stakeholders are taking measures to deal with these various challenges, however. If capacity issues can be addressed,

marketing and sales problems resolved, incentives strengthened to produce higher-quality beans, and harmful government interference avoided, then the positive gains of the past several years should continue, and Rwanda's smallholder farmers can look forward to earning more income from coffee production. This income should, in turn, filter through local economies to spread benefits to other Rwandans.

## REFORMING A VITAL SECTOR

### Government control and limited markets

In many developing countries, governments are heavily involved in the agriculture sector, and that certainly holds true in Rwanda, where coffee has been a major export for decades. The Belgian government as well as the two independent, pre-genocide governments controlled important aspects of the coffee trade for their political and financial gain. Through compulsory production, export taxes, and a monopsony export control agency, these regimes captured the profits of mostly poor coffee farmers, and used the funds to help maintain political power (Bates 1981). Producers had little incentive to invest in the production of high-quality coffee, and so for decades Rwandans produced a small volume of low-quality coffee.

Significant government involvement in Rwanda's coffee sector began in the 1930s, when the Belgian colonial government launched a series of "coffee campaigns." Government authorities built nurseries and supplied seeds, but they also required Rwandan farmers to plant coffee trees (Dorsey 1983). The government also introduced price restrictions, imposed mandatory quality guidelines, and issued special licenses that allowed only some firms to purchase coffee. Export taxes were imposed on coffee sales, and individual income taxes were imposed on producers, who at the time were mostly Hutu farmers. Tutsi chiefs collected these taxes, which helped support them and the colonial government.

Following Rwanda's independence, the Kayibanda government (1962–73) retained most of these policies because it had limited alternatives for raising revenue. A government marketing board (OCIR, subsequently OCIR-Café), together with a monopsony export company, Rwandex, purchased, and then sold on world markets, the vast majority of coffee grown in Rwanda. The farm gate price was set by the government.<sup>3</sup> Middlemen bought beans from farmers and sold them to Rwandex, which in turn sold them to foreign buyers. The locations where smallholders brought

their beans for purchase acted as “the economic arm of the Gitarama (that is, Kayibanda) regime” (Verwimp 2003).

Heavy government involvement in the coffee sector continued under the Habyarimana regime (1973–94). During the 1970s and 1980s, as world coffee prices rose, coffee exports provided between 60 and 80 percent of Rwanda’s export revenue (Berlage, Capéau, and Verwimp 2004). President Habyarimana ensured control of these important rents by appointing relatives and political supporters to positions of authority at OCIR-Café.<sup>4</sup>

### Crisis and response

During the early and mid-1980s, rising coffee prices allowed the government to modestly increase the price it paid to farmers for their beans. Verwimp (2003) indicates that high market prices for coffee had another effect—they “allowed the [Habyarimana] regime’s elite to increase both its personal consumption and its power over the population” (p. 172). The government then used the additional revenue to buy support in rural areas (through higher farm gate prices for coffee and subsidized agricultural inputs) and to spend more on monitoring the population.

Tumbling coffee prices in the late 1980s meant reduced government revenue. For a few years, the government attempted to keep payments to farmers stable, but this policy proved unsustainable, especially after 1990, when the government needed resources to fight the invading Rwandan Patriotic Front (RPF) forces. By the early 1990s the government was forced to lower prices paid for coffee cherries to small-holder farmers. Price supports ended completely in 1992.

The fall in coffee prices, coupled with growing military expenditures, meant that the Habyarimana government faced severe fiscal constraints. Seeking alternate sources of revenue, it began confiscating property and raising taxes to supplement the budget, and there was some amount of reduction in consumption by elites. Foreign aid also became an increasingly important part of Rwanda’s budget. However, the reliance upon, and competition for, foreign aid created serious problems among governing elites. As one observer puts it, “the various gentlemen’s agreements which had existed between the competing political clans since the end of the Kayibanda regime started to melt down as the resources shrank and internal power struggles intensified” (Prunier 1995, 47). With its growing dependence on foreign aid, and in a bid to remain in power, the government agreed to an International Monetary Fund (IMF) structural adjustment program in 1990 that imposed further hardships on farmers.

To rebuild its popularity, the regime diverted attention from its own economic policies to the Tutsi/RPF threat and increased levels of repression within Rwandan society. The government demonized the invaders, arguing that allowing Tutsis into the country would lead to Hutus having less access to already scarce land, and used the media to foment ethnic hatred. Most repression was directed at the Tutsi minority, although some spilled over to Hutus. The ultimate results were, of course, disastrous. In the three months between April and June of 1994, approximately 800,000 people were murdered in Rwanda, mostly Tutsis but also moderate Hutus and Hutu opponents of the Habyarimana government.

### Liberalization to open markets and increase opportunity

Today, the Rwandan government is less directly involved in the coffee sector. Farmers have more choice about what to grow, to whom to sell their beans, and how to market their product. Private sector investment in the sector is rising. This increased openness is part of a larger government effort to improve economic growth in the country. Rwanda’s Vision 2020 is a strategic plan for economic change. This plan has, since 2003, provided a guideline for sectoral policy setting with Rwanda’s ministries (Rwanda Ministry of Finance and Economic Planning 2000; IFAD 2006).

The goals created by Vision 2020, together with Rwanda’s Poverty Reduction Strategy Paper (PRSP) and the subsequent Economic Development and Poverty Reduction Strategy (EDPRS), include improving the institutional environment to allow for increased private sector development and infrastructure improvements, focusing on good governance (including democratization, national reconciliation, political stability, and security), improving agricultural productivity, improving human capital through investments in health and education, creating a service-based economy with a focus on ICT (information and communication technology), reducing external support, relying more on exports, and promoting regional integration.

Some progress has been made toward achieving the Vision 2020 goals. Real GDP growth has been strong for more than a decade: 10.8 percent over 1996–2000 and 6.4 percent over 2000–06 (Rwanda Ministry of Finance and Economic Planning 2007), reaching a high of 11.2 percent in 2009 (although it was estimated to fall to under 5 percent for 2010) (Index Mundi 2010). With an emphasis on private-sector-led growth and improvements in the environment for doing business, the economy is diversifying, merchandise trade

levels are rising, and the service sector is expanding. Particularly for rural Rwandans, reform in the coffee sector is playing an important part in helping thousands of farmers increase their incomes, by creating jobs and providing opportunities for new skills training. The reform measures are also strengthening human and social capital and, in the process, may also be generating valuable social benefits.

Most Rwandans—especially rural Rwandans—are still very poor, however. More than one-third of the population is unable to meet its minimum food requirements and routinely goes hungry (Rwanda Ministry of Finance and Economic Planning 2007). Although the U.K. overseas development agency, the Department for International Development (DFID), reports that the poverty rate dropped from 70 percent of the population in 1994 to less than 57 percent in 2006 (DFID 2008), the World Bank (2010) estimates that Rwanda’s gross national income per capita was only \$460 in 2009. Thus Rwanda has a long way to go to meet the Vision 2020 goal of transforming itself from a low-income to a middle-income society.

### Modest gains and encouraging signs

Changes in the coffee sector began shortly after the genocide, when the government opened the market for coffee export to increased competition and began to focus on improving the value chain for coffee (figure 11.1). The method for pricing beans also changed. Rather than dictating a single price for the entire season, the Rwanda Coffee Development Authority (the former OCIR-Café) sets a minimum weekly reference price, in consultation with stakeholders, a basis from which a sales price per kilogram may be negotiated (Mutandwa et al. 2009).<sup>5</sup>

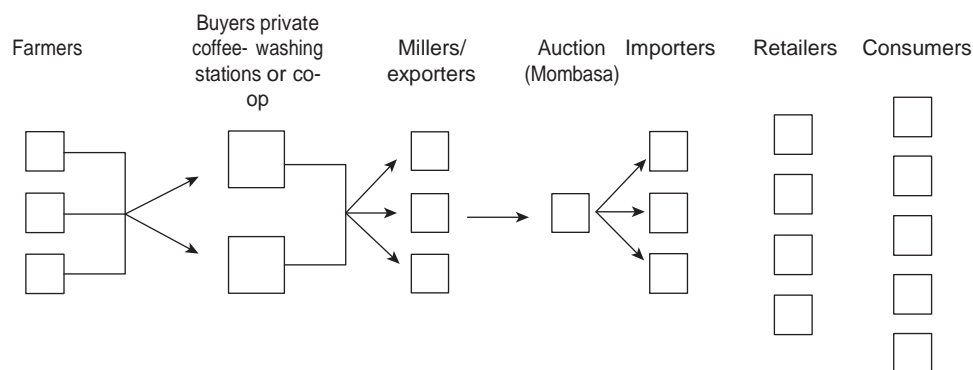
More substantial reform efforts began in 2000, when the government, working with consultants (the OTF Group has been the leader in these efforts) and donors, studied the potential to add value to Rwandan coffee through the production of higher-quality, washed, and fermented specialty coffee. Part of the catalyst for this redoubled effort came as prices for coffee of ordinary quality fell to a historic low in 1997 and farmers became increasingly unwilling to invest in the crop. The quantity of coffee produced declined as the tree stock aged and was not properly tended, soil fertility declined, and farmers battled with insects and fungal diseases. As a result, the quality of Rwanda’s coffee crop tumbled: by 2000, 90 percent of Rwanda’s crop was classified as low-quality, “ordinary” coffee (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008).

### Rwanda’s national coffee strategy

In 2002 the government issued a National Coffee Strategy that outlined a plan for capturing a larger share of the specialty coffee sector. A production target of 44,000 tons of coffee was set for 2010, 63 percent of which would be fully washed (figure 11.2).<sup>6</sup> These production targets have, however, never been met.

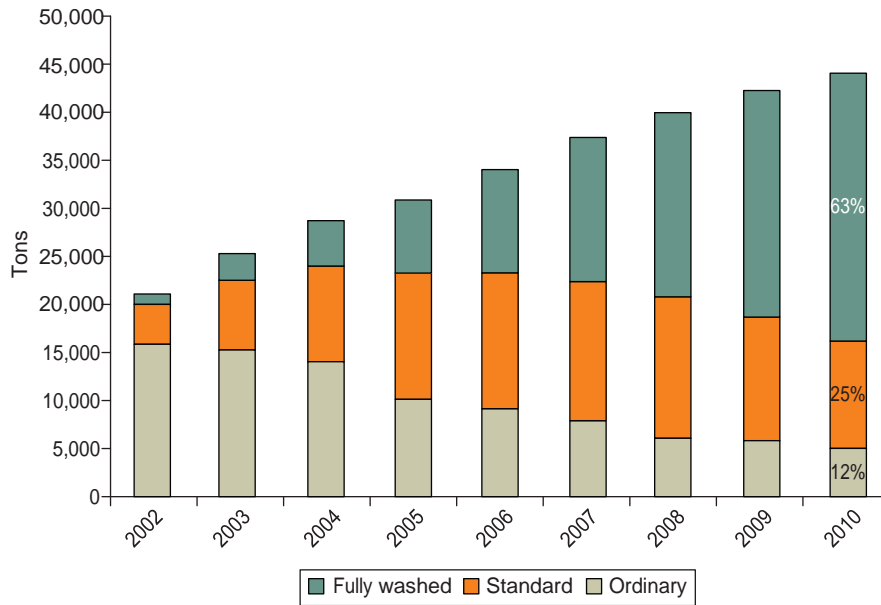
The shift away from low-quality coffee to high-quality specialty coffee was designed to break a perceived “low-quality, low-quantity trap.” As noted, Rwandan farmers were producing low-quality coffee that sold for a low price. Low sales prices meant that farmers lacked revenue to invest in improvements. Without sufficient income, farmers could not invest in capital to improve the quality of their beans—hence, the trap.

Figure 11.1 Value Chain for Washed Coffee



Source: Author.

Figure 11.2 Targets Set Out in Rwanda's Fully Washed Coffee Strategy 2002



Source: Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry (2008).

The 2002 National Coffee Strategy was designed to break this trap, increase income and revenue, and improve price stability, because specialty coffee prices fluctuate less dramatically than does the price for semiwashed coffee. In an attempt to meet these targets, coffee-sector stakeholders focused on strengthening and supporting producer cooperatives, identifying sites for and supporting the building of coffee-washing stations, replanting aging tree stock, improving quality control throughout the industry, and strengthening the Rwandan brand globally. And as one of four focal sectors identified in its 2008–12 Economic Development and Poverty Reduction Strategy, the coffee sector remains a high priority for the government.

### DIRECT ECONOMIC BENEFITS OF LIBERALIZATION

The liberalization of the coffee sector has had a number of positive effects. First, farmers now have an incentive—increased income—to shift some production from semi-washed to fully washed coffee. Entrepreneurs are investing in building coffee-washing stations, where cherries are processed for sale. Rural communities are forming cooperatives, some of which also build washing stations and process cherries. Exporters are competing for opportunities to sell Rwandan coffee to foreign buyers. Other entrepreneurs have

established cafés that feature local coffee. In other words, along a value chain, Rwandans are benefiting from the opportunity to produce and sell specialty coffee.

At the production level, thousands of Rwanda's small-holder farmers are benefiting from higher coffee prices for fully washed specialty coffee. NGOs such as PEARL and SPREAD have helped farmers establish cooperatives and have trained co-op members in quality control, processing, and marketing efforts. To date, more than 100 washing stations have been built around the country with the support of the government, donors, NGOs, and the private sector (table 11.1). As a result, Rwanda is producing more high-quality coffee and demand for the country's specialty coffee is increasing.

### Incomes are rising for farmers and cooperatives

Perhaps the most important effect of the liberalization of Rwanda's coffee industry is that more of the farmers (approximately 500,000) who grow coffee have an opportunity to sell their beans for higher prices. The price that cooperatives and private sector coffee-washing stations are paying farmers for cherries rose from between 60 and 80 Rwandan francs in 2004 to between 160 and 180 Rwandan francs in 2008 (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008).<sup>7</sup> One



**Table 11.1 Growth in the Specialty Coffee Sector**

	2002	2003	2004	2005	2006	2007	2008	2009
Number of washing stations	1	10	25	45	76	112	112	112
Tons of green specialty coffee exported	30	300	800	1,200	3,000	2,300	2,455	3,045
Number of specialty coffee buyers	2	8	16	25	30	30	—	—
Total value of specialty coffee exported (\$1000s)	90	720	1,850	3,168	8,000	7,800	8,060	11,600

Source: USAID (2009).

Note: — Not available.

study finds that farmers who sell coffee cherries to washing stations increase their annual expenditures by 17 percent compared with farmers who sell lower-quality parchment coffee (Murekezi and Loveridge 2009). The same study indicates that since reform, coffee farmers have increased their food consumption and their overall household expenditures, leading to improved food security and to generally improved economic conditions for coffee farmers.

In a 2008 survey of 239 farmers and coffee-washing station workers, Tobias and Boudreaux (2011) asked farmers to identify benefits they received as a result of being a member of a coffee cooperative.<sup>8</sup> Farmers listed a number of direct financial benefits, such as increased prices received for their cherries, employment opportunities, and better and easier access to loans, particularly access to credit to purchase inputs such as fertilizer. Farmers also noted that their families are now better fed, that they are able to hire laborers, that they have help with marketing and sales, and that they receive some medicines for free. Some farmers also report that they benefit from access to coffee bicycles to transport coffee cherries. Less directly, farmers stated that they benefit from socializing with and learning from others. Some farmers felt their work was now easier (they no longer process cherries at home) and that they could spend time on things other than coffee production.

A 2006 analysis for the U.S. Agency for International Development (USAID) reports that “approximately 50,000 households have seen their incomes from coffee production double, and some 2,000 jobs have been created at coffee washing stations” (USAID/Chemonics 2006). An NGO involved in the USAID project (ACDI/VOCA n.d.) reports that “incomes (in the specialty coffee sector) have doubled or tripled, and business skills, labour conditions and community spirit have been enhanced.” With additional income, farmers can repair their homes, buy clothes, pay school fees for their children, and get through the long

months between harvests more easily than before (personal interviews of the COOPAC cooperative 2006).

Once coffee cherries are washed, fermented, and dried, they can be sold to buyers for an even higher price. In 2004 the Maraba cooperative sold washed coffee for \$3.26 a kilogram; in 2007 the cooperative was able to charge \$4.08 for the same amount. The COOPAC cooperative was selling its cherries for \$4.00 a kilogram in 2007, and the Rusenyi cooperative was selling in a range between \$4.40 and \$5.50 (Swanson and Bagaza 2008). On average, in 2007 coffee-washing stations sold their fully washed coffee for \$3.60 a kilogram. In a notable achievement, importers paid a record high of \$55 a kilogram (approximately \$25 per pound) for the best Rwandan coffee in September 2007, a price comparable to the world’s most expensive coffees (Rwanda Development Gateway 2007).

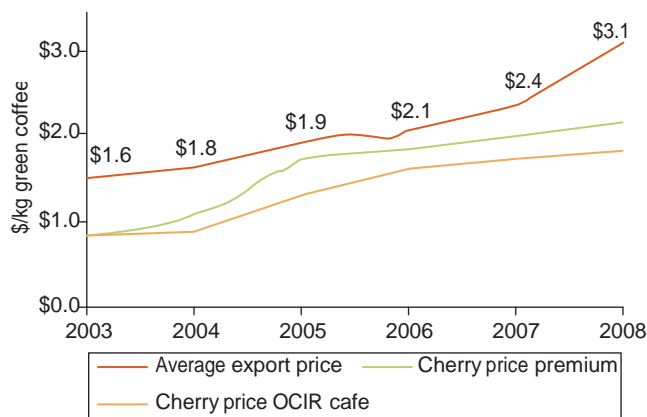
Cooperatives use the income they generate to pay individual farmers for cherries, to repay loans taken build washing stations (or for other equipment), to pay salaries for washing-station staff, and sometimes to provide other benefits to members—short-term microloans and improvements to local schools, for example.

### Government revenue is increasing

The Rwandan government reports that coffee receipts increased by an average of 30 percent a year between 2002 and 2006 (figure 11.3). In February 2010 the head of Rwanda’s Coffee Development Agency said that he expected 26,000 tons of coffee to be produced during the year (up from 16,000 tons in 2009) and that the value of coffee exports would increase significantly, to \$69 million, from \$38 million in 2009.<sup>9</sup>

Despite the increases in production and export value, the amount of fully washed coffee being produced in Rwanda is still below targets. It now accounts for 20 percent of the annual crop, compared with 1 percent in 2002. A greater concern is that washing stations and cooperatives need to

Figure 11.3 Average Farmer and Export Prices, 2003–08



Source: Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry (2008).

do more improve technical capacities and operate profitably, creating incentives for more farmers to choose to sell cherries for washing rather than processing cherries themselves at home.

Identifying precisely how much coffee is being produced in Rwanda is difficult. Government figures from different sources do not necessarily coincide, and figures from the U.S. Department of Agriculture and the Food and Agriculture Organization (FAO) do not match figures produced by the Rwandan government. The government's trade statistics put the volume of coffee traded in 2008 at 18,185 tons, although a more recent news story puts that figure at 22,000 tons.<sup>10</sup> The news story indicates that output in 2009 was approximately 24,000 tons and that the Rwandan government projects that output would rise 13 percent in 2010, to 27,000 tons. Estimates for fully washed coffee are more solid: in 2002 Rwanda produced 48 tons of fully washed coffee, a figure that grew exponentially in by 2006, to 3,000 tons (Rwanda Ministry of Finance and Economic Planning 2007).

Rwanda's former Minister of Agriculture Anastase Murekezi has indicated that the specialty coffee industry's most successful trading partners to date, in terms of creating wealth for Rwandans, were American importers. American companies such as Starbucks and Green Mountain Coffee buy from Rwanda's producers, bringing much-needed income to smallholder farmers. Other less-well-known but highly discriminating American importers such as Intelligentsia, Thanksgiving, and Counter Culture Coffee also routinely purchase Rwandan coffee. Coffee buyers

from Europe, China, and Japan also routinely visit Rwanda, bringing income to farmers and expertise that helps improve the local industry. The benefits from specialty coffee extend beyond the cooperative. Another observer notes that "[a]s income levels of the cooperative members have increased so has the flow of money in the community . . . . The positive feelings among community members are a

tives)" (Goff 2006, 70).

While global growth in ordinary-grade coffee consumption remains modest, the consumption of high-quality specialty coffee (currently, 7 percent of the coffee volume in the international market) has been rising by 15 percent annually in recent years. Even with increased competition and somewhat lower prices, Rwanda's specialty coffees should continue to command a good price (Economist Intelligence Unit 2007).<sup>11</sup>

### Increased entrepreneurship is leading to more jobs in the coffee sector

As of 2006, 4,000 jobs had been created at coffee-washing stations (USAID/Chemonics 2006). Though many of these are part-time jobs during the harvest season, others are full-time positions managing stations and cooperatives. Co-op and washing-station employees are learning valuable business skills: accounting, marketing, and negotiating. An estimated 100 Rwandans have learned to cup coffee.<sup>12</sup> At milling operations and at exporters, other Rwandans sort beans, operate milling equipment, and prepare beans for shipment. And as the new coffee culture grows in Rwanda, jobs are starting to be created in retail outlets such as the popular Bourbon Café in Kigali.

Although Rwanda has made good progress in the specialty coffee sector, stakeholders recognize that more must be done to consolidate these gains and to direct attention to the most pressing problems in the sector. To refocus attention, the Rwandan government issued a revised National Coffee Strategy (NCSR) in 2009. The NCSR created a modified strategy for the coffee sector, one that builds on lessons learned implementing the 2002 strategy. It sets a new, lower production target of 33,000 tons of coffee by 2012, 19,000 tons of which is to be fully washed. The government anticipates revenues of \$115 million if this much coffee is produced (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008).

The new policy identifies five target projects: improving farming techniques, providing support to make washing

stations more profitable, helping private exporters improve marketing and sales, conducting a census of all coffee-growing areas, and partnering to do toll roasting in China and the Middle East.<sup>13</sup> In an effort to add more value locally, the Rwanda Coffee Development Authority (RCDA) has partnered with the Hunter Foundation to build a factory to roast and package coffee locally. The hope is that this effort will produce more than 100 full-time jobs and another 2,000 indirect jobs.<sup>14</sup> While coffee production cannot, by itself, solve the many problems faced by the poor in Rwanda, changes in the industry are helping coffee farmers and other workers in the industry better cope with poverty, and these changes also seem to be generating positive social benefits.

### **INDIRECT AND SOCIAL BENEFITS OF LIBERALIZATION**

The liberalization of Rwanda's coffee sector is distinguishable from other liberalization efforts, such as privatizations in Eastern Europe and land titling reforms in Kenya, that have tended to benefit elites. Because coffee sector liberalization in Rwanda has helped to raise income for the rural poor—rather than imposing costs on them—it may be less likely to promote conflict than have liberalizations in which costs are spread widely (such as when subsidies are removed) and benefits are narrowly concentrated (Collier et al. 2003).<sup>15</sup>

#### **Coffee facilities are a locus of cooperation**

Cooperatives and private washing stations may also serve as vehicles for increasing cooperation among members. Building on reports in the media of informal reconciliation at coffee cooperatives, Tobias and Boudreaux (2011) conducted an exploratory survey of 10 coffee-washing stations in 2008 to investigate possible social benefits associated with the liberalization of the sector.<sup>16</sup> A total of 239 completed surveys were obtained from a subsection of rural Rwandans associated with these stations—some were farmers with seasonal jobs at the washing stations and others were people who were at the stations to sell cherries. Statistical analysis of the surveys showed significant correlation between economic satisfaction or general perceptions of life satisfaction and more positive attitudes to reconciliation. This finding was particularly true the older a washing station was and the longer it had been a part of the local community.

The survey drew on insights from inter-group contact theory (Allport 1954). Extensive evidence indicates that positive interactions between antagonistic groups can

reduce levels of prejudice and hostility. Therefore, positive contact is considered one of the most effective strategies for reducing intergroup conflict (Pettigrew 1998; Dovidio, Gaertner, and Kawakami 2003). When contact between groups in postconflict societies is intense and deep, meaning when it involves interactions at social events, helping others, or celebrating together, it can promote reconciliation and help prevent a renewal of violence (Gibson 2004; Straub 2006). If formerly antagonistic groups find ways to cooperate, they may develop a new shared identity that helps reduce prejudice and creates a sense that a more collaborative future is possible (Gaertner et al. 1990).

As noted, farmers come to coffee-washing stations either to sell beans or to do seasonal work. Seasonal employees, working side by side, help at drying tables. During the harvest season, farmers may bring cherries to a washing station several times a week. This means that farmers and seasonal workers are at the washing stations repeatedly from March or April through June or July. This organizational structure is relatively new in Rwanda (in 2000, there were only two coffee-washing stations in all of Rwanda, and as of 2009 there were more than 100), and farmers may well be experiencing a new type of contact.

#### **Perceptions of economic satisfaction**

The Tobias and Boudreaux survey explored the possible connection between perceptions of economic improvements in the lives of farmers and coffee-washing station workers and of improved interpersonal relations, comparing current levels of economic satisfaction with levels of satisfaction in the past. Economic satisfaction was measured on a four-item scale, with low scores indicating high levels of satisfaction. A high “economic satisfaction change” score indicated an improvement in economic satisfaction in recent years. Only 3 percent of participants indicated that they were very satisfied with their economic situation five years earlier, whereas 40 percent reported that they are very satisfied with their current economic situation. Forty-five percent of all participants reported a one-point improvement (on a four-item scale) in economic satisfaction in recent years, 22 percent reported a two-point increase, 10 percent reported a three-point increase in economic satisfaction, 15 percent experienced no change in economic satisfaction, and as noted, 3 percent of survey participants were more satisfied economically in the past. These respondents indicated a decrease of one or two points.

Life satisfaction ratings today and in the past were also measured. Eighty percent of participants reported a positive



life satisfaction change; for 10 percent, life satisfaction remained unchanged compared with recent years. Only 7 percent indicated less life satisfaction today than in the past. These figures, like the figures for economic satisfaction, indicate that the overwhelming majority of the sample experienced positive life satisfaction gains in recent years.

To explore the impact of increased happiness among farmers and washing-station workers on other people, the survey explored possible links between perceptions of economic and life satisfaction and willingness to engage in contact with people of other ethnic groups. The findings indicate that people who are less willing to engage socially with members of another ethnic group have a greater degree of “ethnic distance” than do people who engage with others willingly and more frequently. Measures of ethnic distance were determined in the following manner: an “ethnic distance today” score was obtained by counting each of five possible interaction types from a classic social distance scale (high scores indicate low ethnic distance), and the “ethnic distance change” score was obtained by calculating the difference between a positive answer today versus a statement that in the past the participant would not have engaged in these interactions. A high numeric score for “ethnic distance change” was interpreted as a signal of less ethnic distance today than previously. In general, participants reported high degrees of reduction in ethnic distance as well as very frequent social and work-related contact.

Survey results show that meaningful contacts with members of another ethnic group are significantly correlated with low distrust and conditional forgiveness. Participants who expressed satisfaction with their economic and overall life situation had significantly correlated responses in terms of positive attitudes toward reconciliation. In particular, participants with greater economic security also reported low ethnic distance, low distrust toward the other group, and a tendency toward conditional forgiveness. Life satisfaction significantly correlated with economic security variables, and participants reporting greater satisfaction with life also expected a more positive, peaceful future in Rwanda.

Results of the survey also show that responses of participants at coffee-washing stations that had been in operation for longer periods of time are significantly correlated with a reduction in ethnic distance over time. It is reasonable to assume that positive social change in the coffee sector takes time, and the survey data support this reasoning. All of the washing stations in the study had been in operation for less than seven years, and most of them were created fewer than five years ago. If the observed pattern were to continue, however, the potential for positive social change associated

with the creation of more than 100 washing stations since 2000 is substantial.

Taken together, the study’s findings suggest that the enhanced entrepreneurial activities in this particular sector of Rwanda’s economy not only produce positive economic change among individuals touched by this institutional change, but that they may also be triggering a chain of mediating effects linked to positive social change among people working at or with coffee-washing stations. The observed effects were not dependent on ethnicity or on the particular ethnic mix of participants in a given location. This finding suggests that forgiveness and increased levels of trust may be experienced broadly in this environment. Participants felt less ethnic distance than in the past and are now engaging in deeper social contact. It is possible that the collaboration initiated by the liberalization of the coffee sector, while difficult to quantify, is one of the most important benefits of the government’s coffee sector policy reform.

### **CHALLENGES AND CONCERNS IN THE COFFEE SECTOR**

Over the past decade, the Rwandan government has worked together with donor organizations, NGOs, the private sector (foreign and domestic), and local producers in a sustained and concerted manner to help this important sector of the economy become more competitive and, in turn, grow and expand. Political champions for these efforts existed at the highest levels of government. Donors not only supported financing and credit programs, they also facilitated programs and projects that brought individuals with a variety of technical expertise to Rwanda to share experiences and knowledge in areas of agronomy, the development of market links, coffee production, and cupping. Coffee cooperatives received support to improve their production efforts and to become competitive producers. Other donor projects supported the entry of Rwandan entrepreneurs into the market.

These joint efforts required commitments of time, resources, and talent to address weaknesses in this supply chain. This iterative process lasted for years. The manner in which the Rwandan government was able to create an effective alliance of partners to transform Rwanda’s coffee sector, through these iterative efforts, from a low-volume, low-quality market to a high-quality market provides a useful example of effective policy leadership.

Although the specialty coffee industry is having positive effects in Rwanda, the smallholder farmers and the entrepreneurs who work in the sector face several challenges.

One of these is implementing strategies that create price incentives for farmers to improve both quality and washing-station management, thereby increasing production effectiveness. At the cooperative level, management needs to be improved so that costs are better controlled and members continue to benefit. The government also needs to avoid dislocations to poor Rwandans – particularly women – that may result from the 2005 Land Law. Finally, transportation costs remain high in Rwanda.

### **Production capacity and pricing problems**

One continuing concern in the coffee sector is that farmers are not producing a sufficiently large volume of high-quality coffee to meet continuing demand. A number of factors may be contributing to this problem. First, prices paid to farmers do not provide sufficient incentives for them to focus on quality. Farmers continue to produce a much greater amount of ordinary-quality coffee than fully washed coffee. Second, farmers may lack knowledge of how best to manage their trees. Third, despite the growing number of washing stations, many farmers still have limited access to them and so process cherries at home.

As noted above, OCIR sets weekly minimum prices for the purchase of cherries at washing stations. In some areas, washing stations pay farmers amounts that fluctuate modestly to reflect changes in supply. Washing stations do not, however, seem to pay farmers a premium based on the quality of cherries they deliver. Farmers thus concentrate on quantity produced versus quality.

If there is continuing unmet demand for Rwanda's fully washed specialty coffee, washing-station operators should respond by demanding, and paying a premium for, higher-quality cherries. One possibility why this is not happening may be that washing-station personnel are unable to identify higher-quality beans. If washing stations cannot distinguish a low-quality from a high-quality cherry, they will choose to pay a low rather than a high price. Additionally, high labor and input costs also make it difficult for washing stations to operate at full capacity and as a result they generate limited income. Therefore, washing stations may lack sufficient working capital to pay farmers for higher-quality beans. Competition among washing stations could resolve this problem. At the moment, however, it is unclear how best to shift this pattern if there are no other legal impediments to paying higher prices for higher-quality beans. Although the problem of pricing is identified in the National Coffee Strategy Rwanda report, the causes of resistance are not

identified, suggesting that additional research is needed to clarify this important issue.

The National Coffee Strategy Rwanda report also notes that too few farmers are familiar with and able to implement good farming practices. Farmers need good-quality inputs, such as seedlings and fertilizers, to increase their crop yields and quality, but they also need technical knowledge about how to handle seedlings, how to deal with pests and disease, and how to apply fertilizers. Although RCDA/OCIR-Café supplies farmers with fertilizer and employs agronomists, there are only a small number of these professionals, and they have a difficult time reaching all the farmers who need assistance.<sup>17</sup> The National Coffee Strategy Rwanda also cites a lack of coordination among agencies that further limits the effectiveness of these extension services (Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008).

Management and profitability in Rwanda's coffee-washing stations is a growing concern. Stations are operating at partial capacity, producing smaller amounts of fully washed coffee than anticipated. The government reports that operating costs associated with the stations (labor, transportation, and electricity and water) are high. In addition to these challenges, washing-station personnel often lack technical skills, particularly in finance, accounting, and management. These capacity problems can translate into difficulties securing financing and working with lenders, which in turn can translate into difficulties paying farmers in a timely fashion. The government recognizes the potential benefits of increasing coffee yields at washing stations, particularly for fully washed coffee. Farmers who sell coffee as a cash crop are projected to see their incomes grow 4 percent a year more than that of other farmers (Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008).

### **Concerns with cooperative management**

Smallholder farmers who voluntarily join cooperatives face the difficult task of creating a culture of entrepreneurship within the cooperatives so that they become more “business minded.” A key problem identified by local NGO SPREAD is the need to attract and retain more professional managers in cooperatives and, at the same time, to reduce the influence of volunteer boards of directors. An assessment of a group of Rwandan cooperatives states that “[a] professional, entrepreneurial [g]eneral [m]anager is the most important individual to a cooperative's ultimate success” (Swanson and Bagaza 2008).

However, the report's authors find that no cooperatives in the group under investigation had such a manager. The reason seems to be that the boards of directors are reluctant to pay high enough salaries to attract a professional manager. Further, boards often prefer to have a local representative, rather than an "outsider," fill the general manager role. Local representatives, however, are less likely to have the skill set needed to manage the cooperative effectively. Cooperatives are capable of producing very high-quality coffee, but they are experiencing real difficulties creating effective management structures.

Rwanda's coffee producers, with support from donors, NGOs, and the government, have done an impressive job of generating interest in their products. Rwandan coffee is regularly available at retailers such as Starbucks and Whole Foods across the United States and Marks & Spencer in the United Kingdom. But this good progress may stall if problems related to marketing and processing are not adequately addressed. Buyers have expressed concerns that contract terms for quality, quantity, and timely delivery are not being met (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008). Some buyers have reported long delays receiving shipments, and many have complained that the shipped product did not match samples. These kinds of concerns, if not addressed, will lead to loss of business for Rwanda.

A related problem is that boards of directors in Rwanda often interfere inappropriately in the daily management of the cooperative. The assessment notes that "[board members], particularly [p]residents, do not want to relinquish their authority to a strong [g]eneral [m]anager" (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008, 13). While it is essential that boards take seriously their fiduciary duties to create general policies and oversee management activities, the assessment recommends that they give managers increased decision-making authority and discretion.

Managers of cooperatives and boards of directors need to communicate more effectively with members so that members understand the ownership structure of the cooperative as well as their rights within the structure. To date, this has not been done effectively. Members report that they are unclear who "owns" the cooperative (Rwanda Ministry of Agriculture and Animal Husbandry and Ministry of Trade and Industry 2008). In addition, cooperatives need to develop and communicate effective business plans and to improve financial record keeping and documentation. There is a clear need for increased capacity in these areas. When members lack clear information about the financial

state of the cooperative, and about likely prices for cherries and benefits of membership, the possibility of corruption and conflict over resources rises. These are especially important issues to resolve because cooperatives face increasing competition from other coffee entrepreneurs.

Cooperatives have been an important asset for Rwanda's smallholder farmers, allowing them to earn more money from coffee, develop additional skills, and work cooperatively with others in ways that may promote reconciliation. But they must address serious shortcomings in management practices and capabilities if they hope to continue playing this role in the future. Because cooperatives seem to provide a space for interaction and even informal reconciliation, further support efforts to help accomplish the goal of creating transparent and accountable management may well be justified.

### Concerns with Rwanda's land law

A separate challenge in Rwanda involves use and control of land. Land is an extremely scarce and highly contested resource. More than three-fifths of families working as farmers cultivate less than 0.7 hectares, and more than a quarter cultivate less than 0.25 hectares (Rwanda Ministry of Finance and Economic Planning 2007). According to one study, "land was a factor behind social tensions before every major open conflict. Even today, more than 80 percent of all disputes in Rwanda are related to land" (Food and Agriculture Organization and Rwanda Ministry of Lands, Environment Forestry, Water and Mines 2006, 7; see also Van Hoyweghen 1999). For much of its history, Rwanda's rulers have owned most of the country's land. With control of land in the hands of government, formal land markets did not develop. Rather, transfers often took place informally, and confusion and insecurity were common. Local officials had great discretion over land allocation and favored politically powerful individuals over marginalized people who may have held traditional land use rights.<sup>18</sup>

In 2003 the Rwandan parliament approved a land reform decree that provides for individualized rights to property. This policy was followed, in 2005, by passage of the Organic Land Law. The law is implemented by a series of decrees, many of which are just now going into effect. The Land Law abolishes all customary forms of tenure, and in their place, establishes government-issued titles for 99-year leases. Rural land will be registered locally, and urban, commercial property will be registered in a national cadastre in Kigali. The government maintains a role in the resettling of people and in devising land use and land planning policy.

The government “sees increased security of tenure or rights of address to land, and more effective land management, as important factors for the improvement of the agricultural sector and the economy as a whole, helping to create the resources needed to reduce poverty and to consolidate peace and social cohesion” (Pottier 2005, 511). Although the government says that it wants to increase tenure security, the new law is likely to create a host of problems.

The government hopes the land law will promote consolidation of land parcels into larger units. By allowing sales of property and increasing freedom within the land market, small parcels could be sold to commercial farmers who will consolidate the land and create viable agribusinesses. However, one observer notes:

Land fragmentation in Rwanda serv[es] as a coping mechanism in smallholder agriculture, the typical Rwandan household farms an average of five plots. Some are in the valleys, others are upland and some near the household. In some parts of southern Rwanda, a household may have up to 14 crops growing in different fragments at different seasons. . . . the costs of consolidation in Rwanda may not exceed the benefits of using land fragmented over the years in adopting to land scarcity (Musahara 2006, 11).

While a more open land market is desirable, the law (Organic Law No. 08.2005) contains provisions that allow the government to interfere in the market. For example, it allows the government to bar people who own less than one hectare from registering their property. More troubling is the provision that “subsistence farmers can have their land confiscated should they fail to exploit it diligently and efficiently” (Pottier 2005, 521, [Articles 62–65]). Though the government is supposed to provide compensation for such confiscations, it has not established clear standards for such payments.

The new law may pose a special problem for women smallholders and their children. Under the law, the government is supposed to register all parcels of land in the country. Only legally married women and their children, however, (not women married under customary norms and their children, or poor women who do not formally marry because of the associated costs) can register and inherit land. Further, there is uncertainty in the law regarding inheritance—specifically, whether women inherit through the inheritance law or through the land law.<sup>19</sup> Also of concern is the fact that local custom continues to bar women from exercising their legal rights under the land law.

Security and clarity of tenure rights, whether customary or leasehold, are essential both to avoid future conflicts and to encourage increased investment in agriculture. However, the land law raises serious concerns, especially for women and for uneducated farmers who might be dispossessed of their land. Surely, these risks are undesirable in a nation with such high levels of poverty and such strong dependence on agriculture as a livelihood.

### Concerns with transportation infrastructure

Finally, as a landlocked country with limited paved roads in rural areas where most coffee is grown, transport costs in Rwanda are high. Diop, Brenton, and Asarkaya (2005) argue that Rwanda’s smallholder subsistence farmers are disconnected from markets as a result of “extremely high” transport costs. The authors estimate that transport costs from farm gates to the export port of Mombasa were 80 percent of the producer price.<sup>20</sup> Transport within Rwanda itself was estimated at 40 percent of the producer price. If transport costs were reduced, through the development of better rural infrastructure and, in particular, more effective rural transport routes, access to markets would improve and poverty levels would likely be reduced. The authors find that a 50 percent reduction in the transport costs in rural areas would lead to a 20 percent increase in producer prices for coffee, which in turn would reduce poverty levels among coffee farmers by more than 6 percent. Given the continued emphasis on coffee production as a strategy to alleviate rural poverty, improving the rural transport system will be an important way to connect farmers to markets and to increase their household income.

### CONCLUSION

Despite good economic growth and real benefits of liberalizing the coffee sector, more remains to be done to move Rwanda toward its Vision 2020 goal of becoming a stable, middle-income country. Most Rwandans remain very poor and the rural areas of the country provide few off-farm employment opportunities. Creating more employment opportunities for millions of Rwandan smallholder farmers remains a pressing challenge.

Rwanda’s specialty coffee industry is helping to address some of these concerns. As a result of improvements in the sector, smallholder coffee farmers now keep more of the value of the product they grow. In turn, rising incomes for tens of thousands of farmers make them better able to feed themselves and their families, to send their children to school, to buy insurance, and to repair or improve their



homes. By freeing the coffee sector from the heavy-handed involvement of the government, the Rwandan government has shifted incentives in the coffee sector and created greater scope for citizens to pursue entrepreneurial opportunities.

Though additional research needs to be done, evidence suggests that joint efforts in commercial activities related to the specialty coffee sector are providing an alternative path to postwar reconciliation in Rwanda. Initial exploratory survey data provide some supports for these claims (Tobias and Boudreaux, 2011). By working together in cooperatives and at washing stations, Rwandans are experiencing both social and economic benefits from liberalization. They feel greater economic satisfaction, which is correlated to lower levels of distrust, higher levels of forgiveness, and reduced ethnic distance.

Whether this kind of reconciliation is effective in the medium to long term in Rwanda remains to be seen. The positive experience of workers in the coffee sector, however, strongly suggests that in postconflict environments, governments should follow Rwanda's lead and promote broad-based trade liberalization that encourages commercial interaction between rival groups.

Although real concerns surround the economic viability of some coffee-washing stations and cooperatives, liberalization of the Rwandan coffee sector has created a wider and deeper space for positive entrepreneurship: a space being filled by thousands of Rwandans, from smallholder farmers to local exporters. At the same time, adding value to the coffee supply chain is producing both direct economic benefits and important indirect social benefits for individuals and communities in Rwanda.

## NOTES

1. "Coffee 'Cup of Excellence' Slated for Next Year," *New Times*, September 23, 2009.
2. Traditionally, Rwandan farmers removed the fruit of their coffee cherries using either a hand-pulper or rocks. Beans would then be dried and fermented in buckets, for varying lengths of time, in water of varying quality. As a result, coffee was of lower, industrial quality. This home-processed coffee still makes up the majority of coffee being sold from Rwanda.
3. Prices were set by OCIR until 1994 and remained constant for the entire harvest season; price differences based on quality were not permitted. See Mutandwa et al. 2009 and deLucco 2006 for more information.
4. Under the Habyarimana regime, the powerful OCIR-Café agency was run by relatives of the dictator's wife, members of the *clan de Madame* (Verwimp 2003).

5. Mutandwa et al. also note that "due to the low level of production, the milling factories operate under capacity and exporters tend to lower the reference price in order to cover their relatively high milling costs" (p. 212).

6. A conflicting statement, however, can be found in the Economic Development and Poverty Reduction Strategy 2008–2012, which states that the "the proportion of fully-washed coffee production will increase from 10 percent to 100 percent ..." (p. 38).

7. See also Swanson and Bagaza (2008).

8. Survey results are available from the author of this paper.

9. Reuters, "Rwanda Sees 2010 Coffee Crop Rising 63 Pct," February 11, 2010.

10. "Coffee Output May Climb 13 Percent in 2010," *New Times*, January 8, 2010.

11. The report notes, "Stagnation in many of the traditional coffee-drinking markets of North America and Western Europe will restrict growth in demand, although demand for high-quality specialty coffees, including Rwanda's finest fully-washed Arabica, will remain more buoyant" (p. 10).

12. To "cup" coffee refers to a tasting technique used to create a flavor profile for coffee. Cuppers evaluate coffee based on fragrance, aroma, and taste, a process that helps identify defects in coffee. Fewer than half of the 100 cuppers, however, are trained and licensed to international standards. "Twenty-One Coffee Cuppers Trained on Quality," *New Times*, August 29, 2009.

13. Toll roasting involves a contractual arrangement whereby an experienced coffee roaster accepts green coffee from a client and roasts it to the client's specifications.

14. "Two Million Invested in Coffee Value Addition," *New Times*, August 7, 2009.

15. Collier et al. (2003, 53) argue that "the key root cause of conflict is the failure of economic development. Countries with low, stagnant, and unequally distributed per capita incomes that have remained dependent on primary commodities for their exports face dangerously high risks of prolonged conflict."

16. Surveys were conducted at five cooperatives and five privately owned coffee-washing stations. Surveys were administered in Kinyarwanda by students from the National University of Rwanda over a two-week period. Surveys were previously field tested in February 2008.

17. Farmers receive fertilizer from RCDA, and the agency, in turn, imposes a fertilizer fee on exporters. Exporters then choose either to pass these costs along to cooperatives and washing stations in the form of lower prices paid per kilo or they absorb the costs themselves.

18. Sales were restricted according the size of the buyer and seller's total land holdings; see Musahara (2006).



19. Dyer (2007) notes that although Rwanda's 1999 Inheritance Law gives women equal rights to men this has "yet to make any difference in practice."
20. Note these prices should now be lower as a result of Rwanda's accession to the East African Community.

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