Rwanda Agri-Business Program (WSU-MSU-UR)

Research Questions for Student Teams
Rwanda Economic Internship Summer Session 2014

1. (Per Mario’s suggestion): What has been the effect of input privatization in fertilizer and/or pesticides - secondarily, what other coffee sector inputs could be privatized, if privatization of fertilizer is deemed effective? Recently Rogers Family Company convinced the Rwandan government to let them buy and distribute fertilizer to their farmers, in exchange for not having to pay an input tax. Traditionally all fertilizer has been distributed by the government. Rogers Family thinks this has been quite successful, but analysis is needed both post-hoc on their fertilizer distribution, and on future possible privatization of inputs.

2. What changes to the value chain could incentivize farmers to better take care of their trees/practice better IPM? This has various elements, but here is one example:

   Does it matter whether farmers sell cherries to the cooperative before they have been floated versus after they have been floated? Farmers can sell low quality cherries to the washing station, take their initial payment, and then leave. The cherries are mixed with other cherries and then floated in a tank. Those cherries that sink are discarded. Cooperatives are paid based on the floaters, essentially. They sell these to exporters, and then give the money out to farmers (farmers get an initial payment and a dividend of all profits). If a lot of farmers produce low quality cherries, this will affect the whole cooperative. Do farmers feel the effect of their own low-quality (or high quality) cherries, or is this spread out too much across the whole cooperative? Are there ways to improve incentives?

3. Given economic losses to antestia, coffee berry borer, potato taste, etc, what is the rational amount of time and money a farmer should spend on IPM, given current market prices (and various assumptions about their own income, opportunity cost of time, etc)? What prices would be needed for farmers to take better care of their trees? Are there economies of scale in taking care of trees? (ie. what is the marginal different in work it takes to take care of 170 vs. 200 trees as opposed to 0 trees vs. 30 trees?)

   Essentially this question gets at whether it actually makes economic sense for farmers to invest in their trees and - if it does - why don't they do it? If it does not make sense for them to take care of their trees, how could we improve incentives on them?

4. Analysis of cooperative management models - what is working and what isn't in cooperative management and governance?

   Where is the greatest "bang for buck" in improving management? Where is the need greatest, and where is there a good possibility for readily improving things?
5. What is the optimal number of trees - all else equal - for a Rwandan family? Given GDP per capita, market demand, infrastructure, etc, how many trees would be ideal? Is any efficiency lost by having small farms as opposed to larger farms (comparisons to Ethiopia, Tanzania, Kenya could be interesting)?

6. What are the negative externalities of using toxic pesticides? Essentially, what costs of using toxic pesticide are social costs that aren’t noticed by accounts, etc? What is the cost of using pyrethrum vs. the environmental cost of using free, donated pesticides? What benefits would the local market receive by using pyrethrum relative to free donated pesticides? Figuring out this equation could help the government make decisions about investments in inputs.

7. Political economy questions on influence of private sector associations - what formulations for organizations like a Specialty Coffee Association are most effective at forming public-private partnerships? How does joining together in an Association for exporters change the incentives of exporters relative to lobbying a government as individual entities? This is relevant because coffee companies such as Starbucks, Rogers Family, and others are working right now to start the Specialty Coffee Association of Rwanda.

8. (From Dr. Thomas Miller at University of California, Riverside) The organic growing movement has been growing steadily. Since much of Rwanda’s specialty coffee is exported, an economic study could investigate the cost benefit of declaring coffee organic. Since Pyrethrum insecticides are natural products, they are approved for use in protecting organic coffee. The organic label is certainly established in USA; the USDA maintains a certification program and described in the recent review attached. I would imagine that this is also the case for destination countries for Rwanda coffee.

9. (From Dr. Thomas Miller, UCR) I would love to see an economic study done of the value in investing in an extension service. I am not aware that any such service exists in Rwanda today. Rwanda has historically had a weak, overburdened extension service. What would be the most effective size/organization of the extension service for spurring growth of specialty coffee?