Organic bananas from Africa?

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Organic agriculture provides significant market opportunities for commercial agriculture globally.

Organic food markets grew at tremendous rates during the 1990s, encouraging organic food production throughout the world. Although this growth rate has slowed down a bit, and the niche market for organic food is less than 4% of the European or North American food markets, the prospects of high prices and a stable demand still make organic food markets attractive for producers.

Commercial and certified organic farming is not uncommon in Africa that has 19% of the world's organic farms. Main organic products include fruits and vegetables, cotton, coffee, tea, and herbs and spices.

Bananas are the most widely traded fruits worldwide. Recent trends in organic food demand in developed countries have made organic bananas an attractive crop in developing countries. In fact, trade in organic bananas increased during the late 1990s and early 2000s at a quite significant rate, from about 30,000 tons in 1998 to about 150,000 tons in 2003. Even so, organic bananas represent only a small share (1%) in the world banana trade.

About two-thirds of the organic bananas are traded to the European Union (EU), where they constitute about 2.5% of the banana market, a significantly larger percentage than on the world market. The other main target is North America, and, to a much lesser extent, Japan.

The entire trade in organic bananas comes from countries in Latin America. Africa and Asia are geographically closer to the EU and Japan but this does not seem to be relevant to organic banana trade.

Conventionally grown bananas are mainly traded from Latin America onto the world market, with minor shares coming from West and Central Africa (WCA) and Asia. North America sources its banana supply exclusively from Latin America. Europe imports bananas from Latin America, WCA (Côte d'Ivoire and Cameroon). Japan imports bananas from Latin America and Asia (Philippines and China).

East and Central Africa—in particular Uganda, Rwanda, and Burundi, as one of the largest banana-producing regions worldwide—does not feature to any significant extent in these statistics.

Suppliers of organic bananas are basically the same as those of conventional bananas, Latin American countries. Organic banana production and trade follow conventional production and trade, with suppliers such as the African or Asian producers lagging behind.

Although this is a large market, bananas, in particular conventionally grown bananas, seem to have had the peak of their market growth during the 1990s. Significant volume growth is expected to occur only in Eastern Europe and the Middle East. Elsewhere, volume growths are expected only to follow population developments, to a lesser extent increases in income and falling prices. While volume growths reached on average 4% in the 90s, they will reach only about 2.5% annually until 2010. Prices are expected to decline with increased liberalization of banana markets, in particular the EU. Overall, markets are considered saturated.

Africa has not been able to take up production and trade opportunities on the global banana market, with a few exceptions such as Cameroon and Côte

d'Ivoire. However, more recently, there are efforts under way to try and enter the global banana markets in both the conventional and niche segments.

Conventionally grown banana production in Uganda, Rwanda, and Burundi is hardly competitive with that from other regions because of its small scale and low-input production. These lead to relatively low yields and consequently high production costs. Scattered small-scale production makes assembly and packaging a long and costly effort, with high postharvest losses as a consequence.

Transport routes are long and road and sea transport to possible final destinations often take longer than the shelf-life of bananas, so that the freight will decay before reaching markets in Europe or Asia. Consequently, the only exports of conventionally grown bananas from East Africa to Europe go by airfreight, often as by-cargo with higher value products. In Europe they supply only specialty markets, such as cooking bananas or plantain for African expatriates, who do not make up a significant market share. The problem can be quantified by comparing production and trade costs of conventionally grown bananas from Latin America and Uganda (Table 1).

The reasons for Uganda's disadvantages on the European market are obvious: High raw material costs. Land and labor-intensive small-scale production, losses from pests and diseases, and the lack of fertilizer already affect primary production adversely. Gathering, packaging, and transport from the small farms through many intermediaries impose a large amount of additional costs.

The transport of the material to the seaports (the nearest is Mombasa in Kenya) and the long distance to Europe add further disadvantages. Normally, the distance from production to market in terms of days would

Table 1. Competitiveness of conventional and organic bananas from Uganda vs. Ecuador, 2005

Cavendish, costs and revenues in US cents per kilogram	Uganda	Ecuador
Raw material, farmgate price	7.00	0.20
Transport, packaging and handling from farm to collection center	17.00	7.78
Transport and handling to seaport	5.93	2.56
Sea freight	80.00	27.06
Total costs at retail store, Europe	132.97	60.63
Retail price, Europe	135.92	135.92
Profit margin	2.95	75.29
Organic bananas, price in US cents	**Uganda**	**Ecuador**
Fresh bananas, farmgate price	11.10	27.00
Transport, packaging and handling from farm to collection center	17.00	7.78
Transport and handling to airport	1.48	2.56
Airfreight	170.00	40.00
Total costs cif Europe (Hamburg)	199.58	77.33
Transport to ripening chamber	10.67	10.67
Ripening	11.93	11.93
Delivery to retailer	0.44	0.44
Total costs retail store, Europe	222.63	100.38
Retail price, Europe	300.00	300.00
Profit margin	77.37	199.62

exceed even the 20-day shelf-life of fresh bananas.

Organic bananas from Uganda are cheaper at the farmgate than Ecuadorian bananas (Table 1), and although handling costs and airfreight are still high, and the final margins in retail are lower than those from Ecuadorian bananas, there is still a significant profit margin at the retail level. This makes the export of organic bananas from Uganda to the EU by airfreight far more attractive than the export of conventional bananas by sea—if the latter becomes technically possible.

This opportunity should be the same for more Central African countries, such as Rwanda and Burundi, but also for West African countries such as Cameroon and Côte d'Ivoire. What mainly contributes to this opportunity is the high value of organic bananas on the European markets, and the opportunities arising from this to export these high-value fruits to Europe by plane.

However, even if organic bananas (or any other organic fruit or agricultural product) represent an opportunity, some challenges exist which have to be considered. Poor quality and badly maintained roads, vehicles, rail links, and rolling stock all pose problems for transportation. Lack of refrigeration, erratic power supplies, poor communications, underdeveloped banking and credit systems, and, sometimes, political and economic instability, all raise serious and often insuperable problems.

In addition, the lack of local certification bodies imposes significant constraints and risks to organic agriculture in Africa. Certifiers have to be flown in and they increase the costs of organic production. So far, only Tunisia has its own European-standard certification bodies. The costs of certification have to be seen as investment costs and hence risks. If the investment costs are not amortized by the revenues, e.g., in the case of harvest failures or a sudden shortfall of market outlets, investments in certification are lost and hence, the farmers are liable to a significant investment risk. Similar constraints apply to the establishment and sustainability of commercial organic agriculture elsewhere in Africa, and also to the production and trade in organic bananas.


Photo by IITA

In summary, these constraints are:

- Lack of experience in intensive organic production
- Lack of experience in handling and exporting fresh produce
- Lack of professional management
- Diseconomies of scale in exporting small quantities, e.g., for test exports
- Poor communication between foreign importers and exporters
- Poor negotiation skills and judgment of exporters
- Lack of familiarity with international markets, including knowledge of the organic market place overseas
- Lack of governmental support for exports

Organic banana production has its advantages, in particular for some Central and Eastern African producers, as markets are high value and stable in Europe and the US, while conventional banana markets are stagnating. Yet it is clear that there

are a number of prerequisites for entry to the markets. Good marketing linkages and marketing skills for producers and marketers are at the top. Investments in certification have to be facilitated, in particular for small producers or producer groups.

Both physical infrastructure (roads) and political frameworks in Africa have to be favorable if organic production and exports are to be sustainable. Markets, although attractive at the moment, are competitive, probably limited, and probably highly income-elastic and thus sensitive to economic distortions on the demand side. This also means that oversupply has to be avoided and in the long run, cost reduction will be necessary to successfully compete in organic markets.

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The future of African bananas

Tripathi discusses work with staff at Namulonge, IITA-Uganda. Photo by IITA

The use of genetic engineering has transformed agriculture, and food production and development by providing options and solutions where none existed before—to the benefit of billions of the world’s inhabitants.

IITA and its partners have been using genetic transformation as a crop improvement tool to help produce more and better food staples. The Institute—with partners such as the National Agricultural Research Organization (NARO) of Uganda, Academia Sinica (Taiwan), and the African Agricultural Technology Foundation (AATF) in Kenya—is at the forefront of research “designing” a genetically modified banana that is resistant to the worst bacterial disease so far—Banana *Xanthomonas* Wilt (BXW). Entire banana fields can be destroyed, especially those planted to *Pisang awak*, a susceptible exotic variety widely grown to make banana beer.