“Fast Crops, Fast Cash

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"Fast Crops, Fast Cash: Market Liberalization and Rural Livelihoods in Songea and Morogoro Districts, Tanzania"

Forthcoming in the *Canadian Journal of African Studies*

Abstract

Liberalization of agricultural markets in Tanzania has opened new opportunities in terms of which crops farmers can grow and sell. On the other hand, market forces have made access to agricultural inputs and credit more problematic. Because of the increasing commercialization of rural life, farming households also need to raise cash more often throughout the year. Farmers have responded to these changes by increasing their sales to private traders, and by switching from slow to fast crops and from high-input crops to low-input crops. However, because of higher input prices, and higher labour and marketing costs required by fast crops, rural households have failed to raise their farm incomes.

Introduction

The economic reforms carried out under structural adjustment programs in Tanzania since 1984 have brought a wave of changes in farming practices and rural livelihoods. According to the objectives of these programs, agricultural policy reforms were supposed to open new market opportunities for farming households, help farmers to diversify their crop cultivation, and ameliorate farmers' terms of trade, therefore raising their farm incomes.[1] In this paper, I will show that the combination of agricultural market liberalization and the increased commercialization of rural life in two Tanzanian districts has led to:

1. private traders conquering an increasing share of crop markets;
2. farmers switching from slow to fast growing cash crops;

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3. farmers switching from cash crops requiring high input use to those requiring low input use;
4. farming households gaining lower net farm incomes due to higher crop expenditures and lower gross incomes from crop sales.

Most of the literature regarding the impact of market liberalization on the agricultural sector focuses on changes in crop production, sales, and rural incomes, without paying much attention to the nature of the crops farmers sell. In particular, there has been little discussion about farmers' choices of fast versus slow growing crops and about the repercussions of these choices in terms of farming practices and net farm incomes. It is essential to know whether fast or slow cash crops are being cultivated because farmers use different marketing strategies for each. Most of the major fast crops grown in Tanzania are also susceptible to quick deterioration; therefore, they have to be sold right after harvest at whatever price the market allows. Other fast crops which do not deteriorate quickly are usually sold before the next harvesting season arrives, but the time interval is shorter than for slow crops. For both types of fast crops, farmers have less control over what price they get, and price fluctuations are less predictable than in the case of slow crops (except for export crops). Also, fast crops require more labor inputs in shorter periods of time than slow crops; consequently, farming households are more likely to hire labor for fast crop cultivation because they might not be able to satisfy labor demands with their household labor.

Most aggregate analyses also fail to relate national policy reforms to local situations, as if policy changes were implemented equally in different places, with the same speed, and within the same political, socio-economic, cultural, and agro-ecological framework. In the words of David Booth, "observers of the African scene show a marked tendency to succumb to the temptation of one or other of two harmful intellectual short-cuts. One is to draw conclusions ... without an adequate knowledge of ... the cultural and social context ... The other is to make claims about the probable impacts of economic liberalization on the basis of inadequate appreciation of the actual process of reform 'on the ground'" (1994, 45). In order to avoid these pitfalls, I will contextualize the history of Tanzania's agricultural market liberalization through farmers' experiences "on the ground" in two districts with different geographical, agro-ecological, and infrastructural characteristics.

The issues analyzed in this paper are part of a dissertation project in which I analyze agricultural policy reform and agrarian change under structural adjustment in Tanzania. I conducted fieldwork between June 1995 and November 1996, in Dar es Salaam, Morogoro and Songea towns, and in three villages in each of the two districts I examined (Songea Rural and Morogoro Rural).[2] Primary research at the village level included: interviews and informal conversations with local key informants, Participatory Rural Appraisals (PRAs) and a Farming Household Survey (FHS). The FHS was based on a random sample of twenty farming households in each of the six villages. In each household, I conducted a series of in-depth interviews in Swahili, aimed at collecting data on agrarian issues[3] for three agricultural seasons (1986/87, 1990/91, and 1994/95).[4]

In Section 1 of this paper, I will describe the dynamics of market liberalization of crops and agricultural inputs (fertilizers, agro-chemicals, and seeds) at the national level. In Section 2, I will focus on the effects of market liberalization on crop choices and marketing arrangements in Songea and Morogoro Districts. In Section 3, I will explain how economic reforms have stimulated the commercialization of rural life and how this phenomenon has led farmers to grow crops with faster returns. In Section 4, I will show how, contrary to all expectations, market liberalization has failed to raise farm incomes. In the final section of the paper I will analyze the repercussions of fast crop cultivation on the future of agriculture and rural livelihoods in Tanzania.

1) The Liberalization of Agricultural Markets in Tanzania

Liberalization of agricultural markets in Tanzania was neither a linear nor a complete process. Implementation at the local level was carried out with different degrees of compliance and different timing. In this section, I will outline the main policy changes at the national level in three agricultural policy sectors (marketing of food crops, export crops, and agricultural inputs).[5] I will analyze the implementation of these reforms on the ground in Morogoro and Songea Rural Districts in the following section.

Between 1963 and 1976, the market of most food crops (grains, pulses and oilseeds) had been monopolized by Cooperative Unions (CUs) and Primary Cooperative Societies (PCSs).[6] After 1976, their assets and liabilities were taken over by crop marketing authorities until 1982 when CUs were allowed to operate again. Before 1987, the government had prohibited all commercial sales of these food crops, although retail sales were allowed at local markets, and individuals were free to transport a limited quantity of foodstuff with them (Bryceson 1993, 93). Despite official regulations, a conspicuous amount of grain was marketed through parallel channels, although there is no agreement on the extent of illegal trade.[7] Pan-territorial pricing of crops[8] was abolished in 1982 (Van Der Geest and Kottering 1994, 72). After the failure of the 1983 campaign against "economic sabotage" in which the government tried to crack down on illegal traders of foodstuff and consumer goods, the government lifted the limits on transporting foodstuff to 500 kg (Bryceson 1993, 99-100). In the July 1984 budget, official food prices became floor prices, and consumer subsidies on maize flour were abolished. In 1986, the government launched an Economic Recovery Programme (United Republic of Tanzania 1985) and signed credit agreements with the International Monetary Fund and the World Bank. In 1987, all restrictions on the transport and movement of grains were lifted and private traders were allowed to buy from CUs. The following year, they were also allowed to buy from the National Milling Corporation (NMC). Finally, in September 1989, private traders were allowed to buy grains directly from producers (Bryceson 1993, 101; World Bank 1994, 139).

ERP officially lasted from 1986/87 to 1988/89 and was replaced by the ERPII Economic and Social Action Programme (United Republic of Tanzania 1989). The last year of ERPII (1991/92) overlapped with the establishment of the IMF support under the Enhanced Structural Adjustment Facility (ESAF), which lasted until 1993. Most importantly, an Agricultural Adjustment Program was signed with the World Bank in 1990 (World Bank 1990). Marketing of export crops remained under the control of Crop Marketing Boards until September 1993, when the Parliament passed the Crop Boards Act. In this act, the private sector was allowed to participate in the procurement, price determination, processing and export of the main four export crops grown by smallholders in Tanzania: cotton, cashewnuts, coffee, and tobacco (United Republic of Tanzania 1995, 1). Official implementation of the act started in the 1994/95 buying season. However, in some areas of the country, it was not implemented until the 1995/96 season, and private traders had to overcome political and administrative hurdles placed against them by local governments and CUs.

Liberalization of agricultural inputs marketing took place officially in 1987/88, but the previous marketing structure had been different in the sectors of fertilizer, agro-chemicals and seeds. Up to 1987/88, fertilizer was produced and imported only by the publicly-owned Tanzania Fertilizer Company (TFC).[9] Before liberalization, TFC was also in charge of primary distribution of fertilizer to the CUs and parastatal institutions which distributed it to farmers on credit and at a subsidized price (Turuka 1995, 57-59, 64-66). Because of the financial difficulties faced by CUs and other parastatal companies in the late 1980s, TFC started recruiting private stockists for primary distribution as early as 1988/89 (United Republic of Tanzania 1992a, 49). By 1990/91, private stockists were already controlling 61.3% of the primary distribution of fertilizer in the Southern Highlands[10] (United Republic of Tanzania 1992a, 50). However, most of the private stockists were (and still are) based in urban areas. Their interest in secondary distribution of fertilizer to distant villages is limited due to high transport prices, falling demand due to rising fertilizer prices, and low profit margins. Also, few private stockists own adequate vehicles for fertilizer distribution in remote areas. Some large stockists have been able to appoint their own local agents, and a few have made agreements to supply PCSs (United Republic of Tanzania 1992a, 51). In the 1980s, farmers had easy access to credit for fertilizer and other inputs through the PCS system. In the early 1990s, however, PCSs started to provide credit only for inputs to be used in export crop cultivation (until 1994, they were the only crops still marketed exclusively by the cooperatives). Although some level of substitution was possible -- for example, fertilizer obtained for tobacco cultivation could be used for maize instead -- overall credit availability decreased.[11]

In the early 1990s, fertilizer prices were liberalized, and the subsidy on fertilizer started to be phased out. The government had begun subsidizing fertilizers in the early 1970s, after poor harvests in 1973/74 and 1974/75. Fertilizer was distributed free of charge in 859 villages -- and later subsidized at a 75% level-- through the National Maize Project in order to boost food production in the country. Pan-territorial fertilizer pricing was also started in 1973 (Turuka 1995, 60), and in 1976 a uniform 50% subsidy was applied in the whole country. The subsidy was officially removed in 1984. In 1986, the Tanzanian Shilling was devalued substantially, but TFC was not allowed to adjust its selling prices accordingly, resulting in an implicit subsidy which had reached 80% of the real cost of fertilizer by 1988/89. In 1989, the government agreed with the donor community to gradually remove the subsidy starting in 1990/91 (United Republic of Tanzania 1992a, 57). By 1994/95, the subsidy had been completely eliminated. Higher prices, coupled with more difficult provision of fertilizer to remote areas by the private sector and the falling availability of credit for input purchase, has made farmers' access to fertilizer increasingly problematic in the 1990s.

Before 1987/88, the import and distribution of agro-chemicals, although open to public and private institutions, had to be channeled through the Agricultural and Industrial Supplies Company (AISCO). Today importers can procure agro-chemicals more easily, buying directly in the international market (United Republic of Tanzania 1992c, 17). In the case of seeds, their production, importation and distribution was confined to the Tanzania Seed Company Ltd. (TANSEED) until 1989/90 when prices were liberalized and private institutions could enter the market (United Republic of Tanzania 1992b, 65).

At the official level, agricultural policy in Tanzania has gone through a major reform in the late 1980s and early 1990s. By the time I was in Tanzania in 1995/96, markets for food crops and agricultural inputs had been effectively liberalized, but the liberalization of export crop marketing still lagged behind. In the next section, I will analyze the extent of these reforms in Songea and Morogoro Rural Districts and their consequences in terms of marketing arrangements and farmers' cash crop choices.

2) Fast Crops, Fast Cash: Local Market Realities and Cash Crop Changes in Songea and Morogoro Rural Districts (1986/87-1994/95)

One of the ways to analyze agrarian change under market liberalization is to observe the evolution of local markets for cash crops at various points in time. This entails studying which crops farmers grow for sale, to whom they sell them, and how much they earn from these sales. In this section, I examine how the "real" implementation of agricultural policy reforms in Songea and Morogoro Rural Districts shaped farmers' cash crop choices, focusing on three groups of policy indicators: 1) market liberalization and participation of private traders in crop markets; 2) market liberalization, pricing systems and credit provision for agricultural inputs; and 3) minimum acreage by-laws for export crops. From the farmers' side, I analyze what kinds of major cash crops they have grown in different time periods. For this purpose, in Tables 1 and 2, I have ranked the top five cash crops for each season and in each district and labeled these crops "fast" or "slow" growing, and with "low" or "high" input requirements (input requirements include purchased seeds, agro-chemicals, and fertilizer, but not labor).

Classification of fast and slow crops was made by farmers themselves, who have no problem indicating which crops are fast (*mazao ya haraka haraka*) and which crops are slow (*mazao ya kawaida*). Although farmers do not label crops according to a precise timing, on subsequent analysis I found out that fast crops are those which take less than four months from land preparation to harvesting, or from one harvest to the next. Among the crops mentioned in this study, farmers have identified six slow crops (maize, sunflower, paddy, tobacco, coffee, and cotton) and five fast crops (beans, cabbage, tomatoes, bananas, and coconuts).[12] In the case of perennial crops, their fast nature does not depend on the returns from the time of land preparation or from planting time, but from how long it takes from one harvest to the next. In the case of coffee, it takes a full year between two harvests; therefore, coffee is a slow crop. Bananas, harvested year-round, are fast, as are coconuts, which have four main harvesting seasons a year.

Table 1

Characteristics of Top Five Cash Crops in Songea Rural District

Top five cash crops	Proportion of total sales of all crops (%)	Crop type (S = slow F = fast)	Input requirement (L = low H = high)
1986/87			
Maize	26.5	S	H
Coffee	25.8	S	H
Tobacco	15.7	S	H
Beans	9.5	F	L
Sunflower	8.1	S	L
1990/91			
Tobacco	26.2	S	H
Maize	22.7	S	H
Coffee	22.1	S	H
Beans	11.8	F	L
Bananas	7.2	F	L
1994-95			
Beans	21.3	F	L
Bananas	18.5	F	L
Tobacco	15.8	S	H
Coffee	13.5	S	H
Maize	12.3	S	H

Source: Farming Household Survey (FHS).

Table 2

Characteristics of Top Five Cash Crops in Morogoro Rural District

Top five cash crops	Proportion of total sales of all crops (%)	Crop type (S = slow F = fast)	Input requirement (L = low H = high)
1986/87			
Paddy	30.1	S	L
Maize	12.2	S	H
Beans	11.0	F	L
Bananas	10.4	F	L
Cabbage	8.8	F	H
1990/91			
Paddy	20.6	S	L
Cabbage	17.0	F	H
Tomatoes	16.5	F	L
Bananas	12.1	F	L
Maize	8.6	S	H
1994/95			
Tomatoes	30.4	F	L
Paddy	21.2	S	L
Bananas	12.1	F	L
Cabbage	9.3	F	H
Coconuts	7.0	F	L

Source: Farming Household Survey (FHS).

In order to classify crops with low or high input requirements, I have calculated the ratio of input expenditure over the total value of sales (see Appendix Table II). Although input dependency in Songea is generally higher than in Morogoro due to poorer soils, two crops grown in the latter district can be defined as having a high input requirement (cabbage and maize). Although some inputs are also used in tomato cultivation, the ratio is so much lower than for all other high-input crops that I have defined it a low-input crop.

Songea Rural District is located in Ruvuma Region, about 800 km from Dar es Salaam. The district enjoys reliable rainfall (usually above 1000 mm per year) and has one main rainy season (from November/December to April). Ruvuma Region had become one of the major maize producers in Tanzania in the late 1970s and early 1980s, in response to policy measures encouraging maize production in remote regions which had poor infrastructure yet high production potential (Rasmussen 1986, 191-192). With food market liberalization, the situation has changed. Ruvuma is constantly losing its share of the national grain market, to the benefit of regions which are closer to Dar es Salaam and/or have better transport infrastructure (World Bank 1994, 141).

Table 3

Main Crop Buyers
(% of total sales of all crops)

	Songea			Morogoro		
	1986/87	1990/91	1994/95	1986/87	1990/91	1994/95
Private traders	7.2	36.1	43.5	54.1	65.3	76.2
Cooperative Union	75.8	51.1	43.6	11.3	11.4	0.0
Retail sales	17.0	12.8	12.9	34.6	23.3	23.8

Source: Farming Household Survey (FHS).

As we can see in Table 3, in 1986/87 agricultural markets in Songea were still mostly monopolized by the CU, which bought 75.8% of all marketed crops in the sample villages. Private traders had not yet been allowed to buy crops directly from farmers, and parallel markets were not very active because of the strict controls imposed by the regional government. In contrast to this picture, Rasmussen (1986, 192-193) reported that in 1979/80 only one-third of the marketed maize production in Iringa Region was procured by the National Milling Company (NMC), with the rest bought by parallel market traders. He shows that, by 1983, the NMC share had fallen to 20%, although he acknowledges that the figures show just a “possible order of magnitude” (Rasmussen 1986, 193) since there are no reliable estimates on the extent of the maize parallel market in the 1980s. Although the parallel market for maize in Iringa might have been substantial in the late 1970s and early 1980s, this was not the case in Songea. Iringa Region is crossed by a well-maintained tarmac road which connects Dar es Salaam to the Zambian border at Tunduma; therefore, transport costs from Iringa to Dar es Salaam are relatively lower than from the more remote Songea. Before the completion of the new Songea - Makambako road in 1985, it was very difficult and expensive to reach Songea. Transit was slow, especially in the Njombe - Songea tract, even during the dry season when most maize is marketed. In these conditions, and given the political climate in Songea which was strongly opposed to private traders, substantial involvement of illegal private traders in maize marketing was likely to be low in Songea. The 1993 report on the impact evaluation of the Songea - Makambako road shows that in 1979 crop purchases by private traders in "on road" locations were just 5.5% of the total; in "off road" locations the share held by private traders was a mere 0.1% (Overseas Development Administration 1993, 12-13). For 1987, the report shows a share of crop purchases by private traders of 16% "on road" and 5% "off road" (Ibid.). These figures are consistent with the results of my FHS survey, which shows that in 1986/87 private traders purchased only 7.2% of total crop sales in Songea (see Table 3), most of which consisted of illegal bean purchases in the north of the district. At that time, the CU was also monopolizing input distribution, and provided farmers with cheap inputs on credit. Liberalization had hardly touched the area, and farmers kept cultivating "traditional" slow crops (which accounted for 88.9% of total sales of the top five crops) and high-input crops (79.4% of the total) (see Table 4). As Table 1 shows, in the 1986/87 list of the top five cash crops, there were four slow crops (maize, coffee, tobacco, and sunflower) and only one fast crop (beans).

Table 4

Share of Total Sales by Crop Typology
(% of total sales of top five cash crops)

	Songea			Morogoro		
	1986/87	1990/91	1994/95	1986/87	1990/91	1994/95
Fast crops	11.1	21.1	48.9	41.7	61.0	73.5
Slow crops	88.9	78.9	51.1	58.3	39.0	26.5
Low-input crops	20.6	21.1	48.9	71.0	65.8	88.4
High-input crops	79.4	78.9	51.1	29.0	34.2	11.6

Source: Farming Household Survey (FHS).

Under these circumstances, farmers' preferred cash crops were not necessarily the ones with a better price but the ones with a market outlet -- in other words, whatever the

CU was buying at the time. Farmers also had limited choices in terms of adopting slow or fast crops because the CUs -- and their predecessor crop authorities -- preferred (and still prefer) to market slow crops. This is because fast crops can usually be harvested several times per year, and some of them deteriorate quickly. The CUs avoid marketing fast crops because they do not have the operational flexibility and the administrative speed to market them properly. Therefore, without a lively parallel market, even if Songea farmers wanted to grow fast crops before liberalization, they would not have been able to find buyers.

Flexibility towards changing from one cash crop to another was also low because the district government was still strictly enforcing minimum acreage by-laws which obliged farmers to cultivate a certain area with a particular export crop. Noncompliance with by-laws did not become feasible for farmers in Songea until the early 1990s. Because farmers had to comply with by-laws, and because they had to ensure food security, they did not have enough time and capital to engage in the cultivation of alternative cash crops.

In contrast to Songea, Morogoro Rural District is located at just 200 km from Dar es Salaam and enjoys good transport infrastructure. The district has a bimodal rainfall pattern. The short rains usually start in mid-November and stop in mid-January, while the long rains start at the end of February and stop in May. Annual rainfall levels vary widely from year to year, ranging from 600 to 1,200 mm. Historically, Morogoro has been the main producer of fruit and vegetables consumed in Dar es Salaam and one of the major producers of paddy. Sisal is cultivated in large-scale farms along the Morogoro - Dar es Salaam highway. Cotton was the only export crop grown by smallholders in the area until the mid-1980s, but many farmers abandoned it because of the marketing problems encountered by the Cooperative Union.

Table 3 shows that in Morogoro private traders already accounted for 54.1% of total crop purchases in 1986/87, while the CU controlled only 11.3% of the total. Several factors account for this situation: 1) fruit and vegetables are fast growing perishable crops which have never been regulated by the government, and free marketing of these crops had already been an established practice in the Uluguru Mountains; 2) the parallel market for grains and beans had been much more developed in Morogoro than in Songea in the pre-liberalization period because of laxer controls over “illegal” activities; and 3) the CU in Morogoro had already run into financial disarray and was buying, for the most part, just cotton.

Lax enforcement of minimum acreage by-laws also allowed many farmers to opt out of cotton cultivation and to seek alternative cash crop cultivation. Table 4 shows that, in 1986/87, three fast crops (beans, bananas, and cabbage) accounted for 41.7% of total sales, although the top two cash crops were slow ones (paddy and maize). Also, sales of high-input crops represented 29% of the total, a much lower figure than in Songea.

In Songea, by 1990/91, the regional and district governments had allowed private traders to purchase food crops directly from farmers. This change, however, was neither a manifestation of a more friendly attitude of local governments towards private traders nor a willing implementation of the liberalization of food crop markets. Private traders were allowed to operate in the district simply because in 1989/90 the CU could not find enough funds to buy as much maize as in previous years, and many farmers could not find buyers for it (United Republic of Tanzania 1990, 2). Nonetheless, private traders had to face political pressures and administrative hurdles which were placed against them by local governments and the powerful Cooperative Union.[13] They also had to overcome a number of hurdles in starting and conducting their activities: poor infrastructure, high cost of transportation in rural areas, a low capital base, and inadequate business skills. Nonetheless, in 1990/91 private traders managed to purchase 36.1% of total crop sales, while the share of the CU fell to 51.1% (see Table 3).

In 1990/91, input prices were lower in real terms than in 1986/87 (-44% on average for fertilizers, see Table 5) due to increased direct and indirect government subsidies. As a result, it was still convenient for Songea farmers to cultivate slow-growth and high-input crops. In the early 1990s, the PCSs still distributed most inputs at the local level, and farmers could receive them on credit. For this reason, and the fact that minimum acreage by-laws were still enforced, the changes in cash crop choices were still marginal. The top three cash crops were still slow crops with high input requirements (tobacco, coffee, and maize). They represented 78.9% of the total sales of the top five cash crops (see Table 4). At the same time, free markets for fast crops such as beans and bananas were slowly emerging.

Table 5

Fertilizer Prices

(average farm-gate cash price of a 50 kg bag; TSh, constant 1994 prices)

	1986/87	1990/91	1994/95	% change (1986/87 to 1990/91)	% change (1990/91 to 1994/95)	% change (1986/87 to 1994/95)
S/A	3121	1787	5535	-42.7	209.8	77.4
UREA	3580	1920	6768	-46.4	252.5	89.1
CAN	3268	1867	5767	-42.9	208.9	76.4
Average	3323	1858	6023	-44.0	223.7	76.4

Source for nominal prices: Ruvuma Region Agricultural Office.

In Morogoro, by 1990/91, marketing of all crops but cotton was already controlled by private traders, who purchased 65.3% of total crop sales (see Table 3). The CU still managed to purchase 11.4% of the total, but it was purchasing cotton on credit from farmers and it was having difficulties in providing inputs. Table 4 shows that the share of fast crops (cabbage, tomatoes, and bananas) had risen to 61% of total sales of top five cash crops. Also, due to cheaper input prices than in 1986/87, the share of high-input crops had risen to 34.2%.

By 1994/95, private traders had gained complete control over all non-export crops in Songea as well, where they purchased 43.5% of all crop sales (see Table 3). Although tobacco and coffee marketing had been liberalized in late 1993, in the 1994/95 season no private trader was allowed to purchase these crops in Songea. For this reason, the CU still managed to purchase 43.6% of total crop sales.

Other major changes affecting Songea farmers between 1990/91 and 1994/95 were: 1) the effective liberalization of the inputs market; 2) the decline of credit provision for input purchases; and 3) the elimination of the subsidy on fertilizer. While input market liberalization has eased input provision at the wholesale level, only a few input stockists have appointed their own local agents. These agents have no interest in providing inputs to remote villages because of high transport costs and tight profit margins, which require economies of scale. In remote areas, inputs are still provided mainly by the PCSs. However, from the early 1990s, the cooperative societies have started to provide inputs on credit to farmers only for export crop cultivation. In the previous years, it had become increasingly difficult for PCSs to recover credit on inputs. Farmers, for example, would get inputs for maize on credit from the PCS, but then they would sell the maize to private traders. In the past, the PCS could recover the credits more easily, since it was the only crop purchasing agent. The PCS deducted farmers' debts from the payments it made to them on crop purchases. With food crop market liberalization, the PCSs lost the only leverage system they had with farmers, since there is no collateral attached to credit provision under this system. Therefore, the PCSs restricted credit provision only to inputs used in export crop cultivation, since in 1994/95 export crop marketing had not yet been liberalized. However, a certain extent of input substitution was still possible. For example, it was common for farmers to get fertilizer on credit for tobacco or coffee cultivation, and then use part of it in their maize plots. Because of this diversion of inputs, many households were not able to sell enough tobacco or coffee to cover the value of the credit received for inputs purchases. As a result, the PCSs had to further squeeze credit provision for inputs. The overall result is that credit on inputs purchases has become much more difficult to obtain.

Difficult procurement of inputs in remote areas, decreasing credit provision, and higher prices for fertilizers caused a major decline of fertilizer use in Songea in the 1990s. Table 5 shows that in 1994/95 fertilizers were on average 223.7% more expensive than in 1990/91 and 81% more expensive than in 1986/87 in real terms. As a result, between 1990/91 and 1994/95 the quantity of fertilizer applied in Songea decreased by 26% in maize cultivation and by 20% in tobacco cultivation (see Table 6). These factors, combined with the decline of maize farm-gate prices (-15% between 1990/91 and 1994/95 -- see Appendix Table I) caused a major decline of maize as a cash crop in Songea (see Table 1). Tobacco and coffee shares of total sales also declined due to delayed payments by the CU and the PCSs.[14]

Table 6

Fertilizer Use in Songea
(kg per household, all types of fertilizer combined)

	1986/87	1990/91	1994/95
On maize	123.9	109.6	81.2
On tobacco	122.9	101.2	80.7

Source: Farming Household Survey (FHS).

In the 1990s, district and local governments in Songea progressively relaxed the enforcement of minimum acreage laws for export crops, and farmers' noncompliance became more common. More difficult access to inputs, and more freedom to cultivate alternative crops, allowed Songea farmers to switch to fast crops with low input requirements. By 1994/95, beans and bananas had became the top two income earners, providing 48.9% of the total income from the top five cash crops (see Table 4). Beans are marketed both in Songea town and in other regions, while bananas are almost exclusively sold in the growing urban market of Songea.

In Morogoro, by 1994/95, private traders had consolidated their control of crop markets (buying 76.2% of total crop sales, see Table 3). Cotton marketing was formally liberalized in late 1993, but the first private company which gained a license to buy cotton directly from farmers in Morogoro did so only in 1995. The company did not operate its own ginnery and had serious problems in getting fair access to the ginnery operated by the CU. As a result of continuous conflict with the CU and local governments, in 1996 the company gave up its cotton operations in Morogoro. Although agricultural input dependency in Morogoro is less pronounced than in Songea, the hike of input prices of the 1990s hurt the two main high-input cash crops grown in the district (maize and cabbage) and benefited two fast crops with low input requirements (coconuts and tomatoes, see Table 2). The total share of high-input crops fell from 34.2% in 1990/91 to 11.6% in 1994/95 (see Table 4).

The marketing structure in Morogoro in 1994/95 was not dissimilar to the one found in 1990/91. In 1990/91, private traders had already been in control of most crop markets, most farmers had abandoned cotton cultivation, minimum acreage by-laws were being disregarded, and many PCSs had closed down (therefore, there was no credit available for input purchases). Yet farmers continued to shift toward fast crops in the 1990s. By 1994/95, only one slow crop (paddy) had remained in the top five cash crops, and sales of fast crops (bananas, cabbage, coconuts, and tomatoes) had risen to 73.5% of the total sales of the top five cash crops (see Table 4).

In conclusion, under agricultural market liberalization private traders have gained control of crop markets, while farmers have switched from slow to fast crops and from crops with high input requirements to crops with low input requirements in both districts. The emergence of new markets and the movements in input and output prices can explain part of these changes, but not the whole picture. In particular, the policy factors examined here cannot explain the persistent switch to fast crops. A repeated hint was given to me during the interviews I conducted for the FHS, when many farmers in both districts kept saying that they appreciate fast crops because in the 1990s "you need to get your cash fast." In the next section, I will blend qualitative and quantitative fieldwork data to show how the increased commercialization of rural life in Tanzania under structural adjustment has caused farmers to prefer fast crops as such.

3) Fast Crops and the Commercialization of Rural Life

In the early 1980s, Tanzanians were facing a shortage of consumer goods and industrial inputs due to lack of foreign exchange, government control on imports, and inefficient distribution of commodities by parastatal companies. This severely limited economic activity and discouraged agricultural production (Bevan and Collier 1993; Bevan et al. 1987). People were forced to find scarce consumer goods in the parallel economy at higher prices (see Maliyamkono and Bagachwa 1990).

The government, under the pressure of the donors and the Bretton Woods institutions, progressively devalued the Tanzanian Shilling (making imports more expensive in local currency terms), introduced user charges for social services, reduced government expenditure, abolished export taxes, eliminated price controls, liberalized internal and external trade, started parastatal reforms, raised interest rates to real positive levels, and started a financial liberalization (Van Der Geest and Kottering 1994, 72-75). The government also eased the restrictions which had been placed on the parallel economy and legalized various economic pursuits which were off-limits in the early 1980s (Tripp 1997, 3). By the mid-1990s, Tanzania had become a much more market-oriented country with a more friendly attitude toward business; consumer goods and inputs needed for economic enterprises were plentiful, and commercial activities had mushroomed in both urban and rural areas.

Although economic reforms brought a more lively economic environment and more possibilities to start or expand off-farm activities (for those with the capital to do so), they did not necessarily benefit rural dwellers. My interviewees and key informants at the village level told me repeatedly that these reforms also meant higher school fees, user fees for health facilities, more expensive agricultural inputs, and a generally more expensive lifestyle. These changes pushed farming households to seek economic activities and farming systems which could ensure a more steady flow of cash throughout the year and faster returns for their investment.

When I asked a group of women in a Songea village to tell me what kind of differences they noticed in rural life between the early-1980s and the mid-1990s, one of them told me that:

> "Life is better now, because there are consumer goods of any sort available even at the village level. If you have money, you can buy whatever you want. At the same time, life is harder because you need more cash to satisfy the increased needs of your family...Now, you cannot let your children run around in shabby clothes, otherwise your neighbors will think you are not a good mother. You need nice clothes and new shoes for them. You have to pay the doctor and the school fees. In the past a thatched grass roof and mud walls would do, now you have to build a brick house, possibly with a *mabati* [corrugated iron] roof, because everybody else does it." Fertilizer and pesticides have become very expensive...In the past [meaning the 1980s in general], there were not so many demands, and you could go on with little cash for a long time. Agricultural inputs were very cheap and provided on credit (Women's PRA, Ligunga, 18 August 1996).

Referring to the period between 1984 (when the CUs where reinstated) and the early 1990s (when private traders started to buy food crops in the area), the same woman added that "all the money came in the house all together when the Cooperative Society paid you, and most of it disappeared very quickly, especially if your husband liked beer" (Ibid.). She concluded that "nowadays, money can buy less than in the past [meaning the 1980s in general], but at least there are things available in the shops. We are more careful at how we spend our money, and we try to have several different activities that enable us to earn money little by little but all year around" (Ibid.).

Many other women and men have expressed similar views during the interviews and informal conversations I had in the six sample villages. The use the expression *maisha magumu*. to refer to the problems encountered in post-liberalization rural life in Tanzania. The literal translation is "hard life," but as the quote above suggests, the meaning goes beyond a mere sense of hardship. In the context of this paper, I term this phenomenon the "increasing commercialization of rural life," by which I mean the combination of 1) rising levels of contractualization *vis a vis* "traditional" social negotiations over access to resources such as land, labor, markets and food; and 2) higher cash requirements for farming households.

By “traditional” social negotiations I mean arrangements which involve reciprocity and redistribution mechanisms based on exchange of favors and on loyalty and allegiance. These arrangements were (and to a certain extent still are) carried out through clans, extended families, friends, neighborhoods, farmer groups, and political and religious organizations. It is not possible to precisely define when “tradition” gave way to “contractualization” because the trend has neither been a linear process nor has it taken place in the same manner in different sectors of rural life and different locations.[15] However, we can argue that these types of negotiations were generally the rule in pre-colonial subsistence agriculture in Tanzania (Schmied 1989, 49-56), and that they partially survived the colonial and post-independence eras. What my data suggests is that, from the mid-1980s to the mid-1990s, farmers in Morogoro and Songea have increasingly eschewed economic relationships which entail complying with social obligations attached to exchange of favors or political patronage. Conversely, they have increasingly used contractualized forms of access to labor, land, markets and food.

Table 7

Hired Farm Labor

	Songea			Morogoro		
	1986/87	1990/91	1994/95	1986/87	1990/91	1994/95
Average wage*	922	725	662	1338	956	653
Average hired farm labor per household (workdays)	10	15	25	50	63	88

Notes: * Average wages including equivalent value of contributions in kind; TSh, constant 1994 prices.

Source: Farming Household Survey (FHS).

One of the clearest manifestations of this trend is shown in the changes which have taken place in the rural labor markets. In the words of a Morogoro villager, “farmers are too busy in making ends meet and in cultivating fast crops to have time to get involved in organizing and negotiating labor parties” (Interview 020315, 20 October 1996). Because faster crops need more labor in a shorter time, hiring labor has also become a necessity since the family labor supply is likely to be insufficient. Also, between 1986/87 and 1994/95, rural wages fell by 51% in real terms in Morogoro, and by 28% in Songea (see Table 7), making it cheaper for farmers to hire labour. The fact that rural wages fell in spite of increasing demand for hired labour is explained by two factors: 1) the increasing supply of seasonal labourers coming from other parts of the same district (in the case of Morogoro) and from neighboring districts (from parts of Tunduru and Njombe in the case of Songea); 2) the increasing supply of labourers from within villages. In both cases, these labourers are poorer farmers who need to work in other people's fields to raise enough cash for inputs and/or other increasing household expenditures. As a result, exchange labor arrangements and labor parties have been substituted for the most part by hiring arrangements. Table 7 also shows that, in the 1986/87 season, the average farming household had hired laborers for a total of 10 workdays in Songea and 50 workdays in Morogoro. By the 1994/95 season, the average farming household was hiring laborers for 25 workdays in Songea and 88 days in Morogoro.

Exchange labor had almost disappeared in Morogoro by 1986/87; therefore, the increased use of hired labor is mainly the consequence of the expansion of fast crop cultivation, which requires more labor in a shorter time. In Songea, increasing use of hired labor is also partly explained by expanding fast crop cultivation. Yet higher labor demands could have been met by increased exchange labor, which was still a popular labor arrangement in the 1980s. However, Table 8 shows that hired labor progressively substituted exchange labor. In Songea, in 1986/87, hired labor represented only 5.4% of total labor inputs in the cultivation of the main four crops of each village (according to the share of total area planted). Exchange labor accounted for 12% of the total, and the rest was household labor. By 1994/95, hired labor had risen to 13% of total labor inputs, while exchange labor had dropped to 6.5%. In other words, there is a generally more commercialized approach towards labor recruitment. As Sara Berry puts it, "[d]espite the continued prevalence of "family labour" on small-scale African farms, farmers' ability to mobilize labour through customary social institutions and relationships has declined over time" (1993, 138-139).

Table 8

Labor Inputs by Category in Songea
(% of total labor inputs for the four crops with highest acreage)

	1986/87	1990/91	1994/95
Hired labor	5.4	7.8	13.0

Exchange labor	12.0	9.8	6.5
Household labor	82.6	82.4	80.5

Source: Farming Household Survey (FHS).

Commercialization of rural life has also transformed land transactions, but not as clearly as was the case with labour transactions. In Morogoro and Songea Rural Districts, land is being leased and sold more often than in the past but, as cited by Berry in her recent case study of Ghanaian tomato growers in Kumawu, "most land is [still] subject to multiple, overlapping claims by several different kinds of social agents" (Berry 1997, 1233). As a result, commercialization of land is taking place within the (shifting) parameters of "traditional" land tenure, which makes contractualization and social negotiation difficult to separate from each other.

Social relations also come with their own set of demands on farmers' resources. If farmers feel that social demands are too difficult to meet, or that they are not proportionate to the gains, they might try to partially disengage from exchange agreements or to minimize the possibility for other social actors to tap on these resources. Some of the solutions farmers have devised have a direct bearing on our discussion on slow and fast crops. For example, a farmer whom I interviewed was exasperated by the continuous demands his extended family and neighbors had on his food stocks and was also worried about the increasing levels of household expenditure. He told me that he decided to grow faster crops because

> "it is easier to hide cash than crops ... It is better to farm less maize and sorghum and more tomatoes because tomatoes deteriorate fast. Relatives and friends cannot come every other week to ask you for tomatoes as they would for maize. If you sell the crop fast, it is easier to hide the cash you have made than [to hide] a bag of maize" (Interview 010116, 19 March 1996).

A final anecdote further describes the meaning of "increasing commercialization of rural life." During my visits to the village of Mlali in Morogoro Rural District, I used to dine at one of the local restaurants and make use of their *choo* (pit latrine) as other villagers were allowed to do. During my last visit, I had the surprise to find a little board nailed on the door of the *choo* which said "*kuanzia tarehe 1/7/1996, kutumia choo unalipa TSh 50"* (beginning on 1st of July 1996, there will be a charge of TSh 50 for the use of this toilet). The shift from courtesy and an exchange of favors to contractualization had extended even to the use of the toilet!

In short, as I was told in all twelve PRAs I conducted in the six sample villages, *maisha magumu* has brought higher and more frequent cash requirements for farming households because of: 1) higher school fees and higher health expenditures; 2) incentives and copying effects which make people buy more consumer goods; 3) the establishment or the changing demands of an increasing number of off-farm enterprises; 4) higher prices for agricultural inputs; 5) increased use of hired labor; and 6) the need for cash to ensure services which in the past were provided through social negotiations and the exchange of favors and labor.

Because cash requirements have become higher and spread throughout the entire year, farmers have opted to grow crops with faster returns and/or with multiple or continuous selling seasons. In this way, they can get faster returns for their efforts and/or a continuous flow of cash. If farmers cultivate slow crops, they have to wait longer from land preparation to sale. They might distribute sales throughout the year, which is the case in some areas for paddy and maize marketing, but then they have to deal with storage problems, social demands on their food stocks, and theft. In conclusion, if crop market liberalization and the relaxation of acreage by-laws have made the cultivation of alternative crops feasible, the increased commercialization of rural life in the last ten years has been a major factor in pushing farmers to cultivate fast crops.

4) Market Liberalization and Farm Incomes

In Tanzania, the liberalization of agricultural markets and the increasing commercialization of rural life have opened opportunities for farming households to cultivate and sell faster crops and to change their marketing strategies. But have these changes led to higher farm incomes? One of the principal objectives of economic reforms in Tanzania was to raise rural incomes (United Republic of Tanzania 1989, 15).[16] Higher rural incomes were supposed to materialize mainly through improving <u>farm</u> incomes. Indeed, one of the main aims of the 1996 Agricultural Policy is "[t]o improve standards of living in the rural areas <u>through increased income generation from agricultural and livestock production, processing and marketing</u>" (United Republic of Tanzania 1996, 6: my emphasis).

According to my survey data (see Table 9), this has not been the case. First of all, rural incomes increased only in Morogoro (16.7% between 1986/87 and 1990/91, and 25.5% between 1990/91 and 1994/95), where increasing off-farm incomes more than compensated for decreasing farm incomes in both periods. In Songea, rural incomes were stable between 1986/87 and 1990/91 (when higher farm incomes compensated for lower off-farm incomes), then fell by 21.3% between 1990/91 and 1994/95 (when both farm and off-farm incomes fell). Second, farm incomes, which should have been the driving force for higher rural incomes, did not increase at all. Since I am mainly concerned with cash crop choices in this paper, in the rest of this section I will focus on income from crop sales.

Between 1986/87 and 1990/91, net income from crop sales had increased in both districts, but markedly less in "liberalized" Morogoro (+3.3%) than in Songea (+18.4%), where agricultural liberalization had not happened at all. The increase in Songea had been caused by higher gross income from crop sales (mainly due to higher tobacco prices, see Appendix Table I) and lower input expenditure (mainly due to lower fertilizer prices, see Table 5). In Morogoro, the slight decline in gross income from crop sales was more than matched by lower input and labour expenditures (due to falling input prices and rural wages, see Tables 5 and 7).

Table 9 also shows that in 1994/95, as liberalization progressed, income from crop sales had fallen to lower levels than in 1986/87 in both districts.

Table 9

Farm and Off-Farm Income per Household
(all figures in TSh, constant 1994 prices)

	Songea			Morogoro		
	1986/87	1990/91	1994/95	1986/87	1990/91	1994/95
Gross income from crop sales	125,318	133,032	121,834	204,656	202,334	185,663
Expenditure on purchased inputs	23,891	12,793	21,323	5,490	4,682	8,493

Expenditure on transport and marketing costs	0	40	72	9,310	9,970	16,848
Expenditure on hired labor and machinery	9,249	11,106	16,840	66,387	59,975	57,354
Expenditure on hired land	0	0	0	654	811	820
Total crop expenditures	33,140	23,939	38,235	81,841	75,438	83,515
Net income from crop sales	92,178	109,093	83,599	122,815	126,896	102,148
Net income from sales of livestock and livestock products	18,027	15,242	15,616	13,849	7,731	6,558
Total net farm income	110,206	124,335	99,215	136,664	134,627	108,706
Net off-farm income	152,866	140,482	109,061	102,330	144,288	241,292
Total net rural income	263,072	264,817	208,276	238,994	278,915	349,998

Source: Farming Household Survey (FHS).

In Songea, between 1990/91 and 1994/95 net income from crop sales fell by 23.4%. The fall is explained by lower gross farm income (-8.4%) due to lower prices for tobacco, maize and beans (see Appendix Table I), but especially by higher input expenditure (66.7% more than in 1990/91). However, higher input expenditure does not mean higher input use. It means that, although farmers are using fewer inputs on high-input crops (see Table 6) and are switching to low-input crops, the decrease in input use did not match the increase in input prices. On the labor side, the rapid increase of fast crop cultivation (which brought a higher demand for hired labor) outpaced the fall in rural wages, meaning that farming households incurred in higher labor costs (51.6% more than in 1990/91), even if rural wages had fallen (see Table 7).

In Morogoro, net income from crop sales fell by 24.4% between 1990/91 and 1994/95, due to lower gross income from crop sales (-8.2%) and higher expenditure on inputs (+81.4%). Total expenditure on labor did not increase in Morogoro because the increase in labor use was matched by the fall in rural wages. However, in order to find better prices for fast deteriorating crops such as tomatoes and cabbage, more farmers decided to market them directly in Dar es Salaam instead of selling them at the village level, which meant much higher costs for transport and marketing (+69%, see Table 9).

The only explicit reference to the changes in income from crop sales in the World Bank literature on agricultural adjustment in Tanzania is in its 1991 report on sustainable development (World Bank 1991a; World Bank 1991b). In this report, the World Bank claimed that real incomes from crop sales increased in Tanzania between 1983 and 1985 because the renewed availability of consumer goods gave farmers new incentives. However, it also conceded that between 1985 and 1988 after the one-time consumer goods effect was over, crop incomes actually decreased in real terms (World Bank 1991b, 30). The World Bank interpreted this to mean that a "further change in peasant incentives would need to take place to induce sustained improvements in peasant incomes and living standards" (World Bank 1991a, 25: original emphasis). What the World Bank meant was that more market liberalization was needed to create new incentives for farmers.

As my data suggests, further liberalization between 1990/91 and 1994/95 did not succeed in increasing incomes from crop sales in Morogoro and Songea Rural Districts, even if the characteristics of the two districts are very different. Falling income from crop sales is not a positive indicator for the government and the donors if their objective is to ensure food security in the country and increase foreign exchange earnings through increased export crop cultivation (as officially stated in United Republic of Tanzania 1985, 24; United Republic of Tanzania 1989, 15; United Republic of Tanzania 1996b, 6; World Bank 1994, 167). In the late-1990s, the only "further change" which might take place in the two districts is an effective liberalization of the export crop market. However, placing too much hope on export crops is unduly optimistic, as the experiences of export crop market liberalization in other parts of the country suggest.[17]

5) Conclusion

Market liberalization and the relaxation of minimum acreage laws in Tanzania have opened new opportunities for farmers in terms of which cash crops they can grow and sell. On the other hand, market forces have brought higher input prices and farm expenditures in the 1990s. Access to inputs in remote areas has also become more problematic, and availability of credit for input purchases has decreased. As a result, farmers have diminished their use of inputs for major cash crops with high input requirements and/or switched to crops which require fewer inputs. Increasing commercialization of rural life also meant that households require cash many times throughout the year, and that they have to face a general increase in the cost of living. Farming households have responded to these changes by increasing the cultivation of fast crops, although they have not completely abandoned "traditional" slow crops because they are less risky to sell and are the preferred food crops for rural households. Farmers are also selling more of their cash crops to private traders.

The changing pattern of crop sales in Morogoro and Songea Rural District shows how market liberalization has stimulated farmers' sense of innovation and entrepreneurship. The problem is that, in order to respond to the changing demands of rural life, farmers have switched to farming systems characterized by high crop expenditure, high marketing risks, diminishing returns, and quick crop deterioration. Because fast crops have a short deterioration span and/or they are harvested several times per year, farmers have to sell them quickly. This entails high price instability because fast crops reach the markets in short periods of time (a typical problem in cabbage and tomato marketing) (see also Berry 1997, 1231). Even though more entrepreneurial farmers have started to sell their crops in urban areas, their marketing costs have risen more than the value of their sales. A compounding factor has been the deterioration of Tanzanian farmers' terms of trade. Contrary to the objectives of structural adjustment, the increase in crop producer prices has not kept up with the increase in prices of consumer goods and agricultural inputs (Havnevik 1993, 297-298). Therefore, even if in the 1990s farmers have switched to faster crops and changed their marketing strategies, their earnings from crop sales have fallen. The result is that, in "liberalized" Tanzania, farmers are growing more crops, risking more in marketing them, spending more in cultivating them, and earning less from their sale.

This does not mean that farming households are miscalculating their risks, or that they are irrational and/or not responsive to price changes (the reaction to rising input prices demonstrates the contrary). It means that they devising alternative farming systems that can better address their changing priorities. Switching to fast crops gives them access to cash throughout the year, and relieves them from worrying about storage failure, theft, and social demands on their food stocks, factors which are apparently overriding income maximization concerns.

The crucial question arising is whether farmers will continue to cultivate fast crops as net incomes from crop sales continue to fall. One could see the shift towards fast crops in 1990s in Tanzania "as a period of experimentation on the part of farmers, amidst rapid and unpredictable change in the market organizational infrastructure" (Deborah Bryceson, personal communication). Therefore, the shift towards fast crops might just be a temporary phenomenon which could change with more effective export crop market liberalization. On the other hand, liberalization is not likely to draw farmers back to the cultivation of export crops unless the government and the donors address the problem of high input prices. A related problem is the reluctance by private export crop traders to provide inputs to farmers and to contribute capital for the creation of Input Trust Funds at the district/regional level. Policy options that can address these problems are: 1) reinstating some form of input subsidy to farmers; 2) setting mandatory input distribution quotas to be met by private traders, based on their record of export crop purchases; and/or 3) setting mandatory contributions by private traders, CUs, PCSs, and farmers for the creation of Input Trust Funds at the district/regional level, to be managed by an independent organization (possibly an NGO).

Furthermore, farmers are not likely to abandon fast crop cultivation because the pressures of the increasing commercialization of rural life are more prone to rise than fall in the next years. Also, local cooperative societies are less and less able to provide savings and credit facilities to farmers. In the absence of an alternative means of savings management, farmers are likely to continue cultivating fast crops (even if incomes from crop sales fall) because of the possibility of realizing fast returns and having differentiated cash flows throughout the year. A stronger governmental and donor support for the establishment of independent savings and credit societies, which have just started being operative in a small minority of villages in Tanzania, could release rural households from some of the pressures leading them to raise fast cash, therefore to grow and sell fast crops.

Without the above policy changes, the Tanzanian government is likely to face three major consequences. First, most fast crops are not suitable for export unless the government and the donors facilitate investment in refrigeration systems and food processing industries as has been the case in Kenya. Since farmers are substituting slow export crops with fast crops, foreign exchange earnings are likely to decrease. Second, most fast crops have a lower nutritional value than traditional cereals such as maize and rice; therefore, the nutritional status of rural villagers, especially women and children, might worsen. Third, because most fast crops are also perishable, they are ill-suited to be used for food security buffering, leaving households, local communities, and possibly the whole country more vulnerable to food shortages.

Notes

[1] In this paper, incomes, prices and expenditures are expressed in constant 1994 prices. The deflator used is the National Price Consumer Index (NPCI) as found in Bank of Tanzania (1996), and United Republic of Tanzania (1996a).

[2] With the help of district agricultural officers and scholars at SUA, I purposefully selected villages which could adequately represent each of the three main agro-ecological zones of each district. Ligunga, Lipaya and Lilondo villages were chosen for Songea Rural District, and Kanga, Mlali and Langali villages for Morogoro Rural District.

[3] I collected data on changes in: household composition; housing characteristics and household assets; land tenure, land use and land disputes; area planted and production of major crops; livestock ownership; sales of crops, livestock and animal products; agricultural inputs use and expenditure; farming practices; access to information and credit; future planting intentions; off-farm activities and incomes; and labour inputs in agriculture.

[4] The three farming seasons I selected provide basic reference points for evaluating agricultural market liberalization in Tanzania. The 1994/95 season was the most recent one I could examine in its entirety, since the 1995/96 harvest had not been completely sold by the time of fieldwork. Establishing a time period that could represent the end of the pre-liberalization period was more problematic. Some authors consider the 1984 budget as the first step toward market liberalization in Tanzania, others use the 1986 agreement with the IMF. In agriculture, as I will show in the next sections, the most important marketing changes took place in 1987 for food crops and inputs, and only in 1993 for export crops. Therefore, I have chosen the 1986/87 season as a proxy for the pre-liberalization period. The 1990/91 season provides a mid-point of examination.

[5] Reviews focusing on the effects of economic reforms on agriculture in Tanzania are in Lofchie (1989), Food Studies Group and Sokoine University of Agriculture (1992), Bevan and Collier (1993), Havnevik (1993), and World Bank (1994). Comprehensive reviews of the effects of structural adjustment sector-by-sector in Tanzania are in Lofchie (1993), Booth et al. (1993), Mans (1994), Msambichaka et al. (1994), Sarris and Van den Brink (1995), and Raikes and Gibbon (1996).

[6] Marketing of fruit and vegetables has never been regulated by the Tanzanian government.

[7] See Maliyamkono and Bagachwa (1990, 71-74), Bryceson (1993, 96-99), and Tripp (1997, 164-165).

[8] Pan-territorial pricing meant that farmers received the same price for a particular crop regardless of their location in the country. This provided a subsidy on transport costs which benefited farmers in remote locations.

[9] Production of fertilizer at the TFC Tanga plant ceased in 1991. It has not been resumed because of the estimated high costs and low returns of plant rehabilitation (World Bank 1994), although the government had argued otherwise (United Republic of Tanzania 1992a, 19).

[10] The Southern Highlands (Mbeya, Iringa, Rukwa and Ruvuma Regions) accounted for almost 70% of fertilizer consumption in the country in the late 1980s (United Republic of Tanzania 1992a, 49).

[11] Access to credit through other institutions such as the Cooperative and Rural Development Bank (CRDB) had been negligible for smallholders even before liberalization. Therefore, the restructuring of financial institutions, which entailed the closure of numerous rural branches of CRDB, had a minor impact on smallholder agriculture. On the other hand, it has made rural business more difficult to conduct.

[12] In my data compilation, coconut sales in Morogoro are actually combined with citrus sales in a category called "other fruit". For the sake of simplicity, however, in this article I have labeled this category as coconut sales, since they make up most "other fruit" sales.

[13] Coulter and Golob (1992, 421) also confirm that the arbitrary use of by-laws was one of the main constraints private grain traders were facing in Tanzania in 1991.

[14] Although the Cooperative Societies Act of 1991 had delinked the CUs from the party in power (Chama cha Mapinduzi) -- ideally giving them more operative freedom -- they still maintained a close relationship with local governments and, until 1993/94, their export crop operations were closely supervised by the respective marketing boards. According to the farmers I have interviewed in the sample villages, payment delays and the quality of the services provided by CUs and PCSs did not improve in the 1990s. In both Morogoro and Songea, the CUs were also at the center of major corruption scandals in 1994, and their respective administrations were dismissed.

[15] For example, in the case of access to capital through credit, the direction of change in the 1990s has not been from "traditional" social negotiation to "contractualization," but the other way around. Although the informal sector has always played a role in credit provision in rural areas, in the 1980s credit for agricultural inputs had been easily available through Primary Cooperative Societies. In the 1990s, however, with the weaker role played by PCSs in agricultural marketing and their shrinking credit provision, the role of informal credit provided by extended family and friendship networks has grown (Kashuliza 1993, 170).

[16] In this paper, by rural income I mean the sum of net farm and off-farm incomes. In both cases, by net income I mean the value of gross income minus the value of expenditures, before taxation. Farm income is the sum of income from crop sales and from sales of livestock and livestock products.

[17] In Mbinga District, Ruvuma Region, liberalization of coffee marketing did not provide higher returns to farmers and a more friendly market environment as was expected by its supporters. The prices paid by private traders in the 1994/95 and 1995/96 seasons were the same prices paid by the CU. Most of the competition consisted in buying as early as possible from farmers. This has led to purchases of wet coffee and a general drop of the quality of the marketed crop. Rejections at the Mbinga curing plant rose from 2.16% in 1994/95 to 4.8% in 1995/96 (Mbinga Coffee Curing Company Ltd. 1996). Moreover, private traders have neglected input provision. This neglect did not matter as long as the CU could provide most of the inputs to the farmers. However, when the CU found its coffee market share reduced by the competition, it could not afford to provide inputs to most farmers anymore. The result was that in 1995/96 little inputs were distributed, and coffee production fell dramatically. The establishment of an input trust fund has also stalled. Many private traders are not interested in contributing to the creation of the trust fund because they are not rooted in the territory. Some of them market one export crop in one district one year, then they switch to a different location and/or crop altogether. In his recent evaluation of the cotton marketing chain in Northern Tanzania, Peter Gibbon has also reported a situation which promises to evolve in the same direction (Gibbon 1997).

References

Bank of Tanzania. 1996. Economic and Operations Report for the Year Ended 30th June 1996. Dar es Salaam: Bank of Tanzania.

Berry, Sara. 1993. *No Condition Is Permanent: The Social Dynamics of Agrarian Change in Sub-Saharan Africa*. Madison: University of Wisconsin Press.

Berry, Sara. 1997. Tomatoes, Land and Hearsay: Property and History in Asante in the Time of Structural Adjustment. *World Development* 25 (8):1225-1241.

Bevan, D, and P Collier. 1993. *Agriculture and the Policy Environment: Tanzania and Kenya*. Paris: OECD.

Bevan, D.L., A. Bigsten, P. Collier, and J.W. Gunning. 1987. Peasant Supply Response in Rationed Economies. *World Development* 15:431-439.

Booth, David. 1994. Economic Liberalization, Real Markets and the (Un)reality of Structural Adjustment in Tanzania. *Sociologia Ruralis* 34 (1):45-62.

Booth, David, Flora Lugangira, Patrick Masanja, Abu Mvungi, Rosemarie Mwaipopo, Joaquim Mwami, and Alison Redmayne. 1993. Social, Cultural and Economic Change in Contemporary Tanzania. Stockholm: SIDA.

Bryceson, Deborah Fahy. 1993. *Liberalizing Tanzania's Food Trade: Public and Private Faces of Urban Marketing Policy 1939-1988*. Geneva and London: UNRISD in association with James Currey.

Coulter, Jonathan, and Peter Golob. 1992. Cereal Marketing Liberalization in Tanzania. *Food Policy* 17 (6):420-430.

Food Studies Group, and Sokoine University of Agriculture. 1992. Agricultural Diversification and Intensification Study. Final Report - Volume 1. Findings and Policy Implications. Oxford and Morogoro: Food Studies Group, University of Oxford and Department of Rural Economy, Sokoine University of Agriculture.

Gibbon, Peter. 1997. Peasant Cotton Cultivation in Tanzania since Market Liberalisation. Mimeo. Copenhagen: Centre for Development Research.

Havnevik, Kjell J. 1993. *Tanzania: The Limits to Development from Above*. Uppsala and Dar es Salaam: Norkiska Afrikainstituet in cooperation with Mkuki na Nyota Publishers.

Kashuliza, Anacleti K. 1993. Perception and Role of Informal Rural Finance in Developing Countries: The Example of Tanzania. *Journal of Rural Studies* 9 (2):163-173.

Lofchie, Michael. 1989. *The Policy Factor: Agricultural Performance in Kenya and Tanzania*. London: Lynne Rienner.

Lofchie, Michael. 1993. Trading Places: Economic Policy in Tanzania and Kenya. In *Hemmed In: Responses to Africa's Economic Decline*, edited by T. M. Callaghy and J. Ravenhill. New York: Columbia University Press.

Maliyamkono, T.L., and M.S.D. Bagachwa. 1990. *The Second Economy in Tanzania*, *Eastern African Studies*. London: James Currey.

Mans, Darius. 1994. Tanzania: Resolute Action. In *Adjustment in Africa. Lessons from Country Case Studies*, edited by I. Husain and R. Faruqee. Washington DC: World Bank.

Mbinga Coffee Curing Company Ltd. 1996. Annual Report 1995/96. Mbinga: Mimeo.

Msambichaka, Lucian A., Humphrey P.B. Moshi, and Fidelis P. Mtatifikolo, eds. 1994. *Development Challenges and Strategies for Tanzania: An Agenda for the 21st Century*. Dar es Salaam: Dar es Salaam University Press.

Overseas Development Administration. 1993. Final Impact Evaluation of the Tanzania Songea - Makambako Road Project, Volume I. London: ODA.

Raikes, Phil, and Peter Gibbon. 1996. Tanzania. In *Limits of Adjustment in Africa: The Effects of Economic Liberalization, 1986-94*, edited by P. Engberg-Pedersen, P. Gibbon, P. Raikes and L. Udsholt. Oxford: James Currey.

Rasmussen, Torben. 1986. The Green Revolution in the Southern Highlands. In *Tanzania: Crisis and Struggle for Survival*, edited by J. Boesen and others. Uppsala: Scandinavian Institute of African Studies.

Sarris, Alexander H, and Rogier van den Brink. 1995. From Forced Modernization to Perestroika: Crisis and Adjustment in Tanzania. In *Adjusting to Policy Failure in African Economies*, edited by D. E. Sahn. Itacha and London: Cornell University Press.

Schmied, Doris. 1989. *Subsistence Cultivation, Market Production and Agricultural Development in Ruvuma Region, Southern Tanzania*, *Bayreuth African Studies Series*. Bayreuth: Bayreuth University.

Tripp, Aili Mari. 1997. *Changing the Rules: The Politics of Liberalization and the Urban Informal Economy in Tanzania*. Berkeley and Los Angeles: University of California Press.

Turuka, Florens Martin. 1995. *Price Reform and Fertiliser Use in Smallholder Agriculture in Tanzania*. Vol. 51, *Rural Development in Africa, Asia, and Latin America*. Hamburg: Lit Verlag Munster.

United Republic of Tanzania. 1985. Tanzania Government Programme for Economic Recovery. Dar es Salaam.

United Republic of Tanzania. 1989. The United Republic of Tanzania Economic Recovery Programme II (Economic and Social Action Programme) 1989/90 - 1991/92. Dar es Salaam.

United Republic of Tanzania. 1996a. *Hali ya Uchumi wa Taifa katika Mwaka 1995* [Economic Survey 1995]. Dar es Salaam: Government Printer.

United Republic of Tanzania, Marketing Development Bureau. 1995. The Impact of Market Liberalisation of Export Crops (A Review of Coffee, Cotton, Cashewnuts and Tobacco). Dar es Salaam: Marketing Development Bureau.

United Republic of Tanzania, Ministry of Agriculture. 1990. Taarifa ya Kilimo Mwaka 1989/90, Mkoa ya Ruvuma [Agricultural Report 1989/90, Ruvuma Region]. Songea: Ruvuma Region Agricultural Office.

United Republic of Tanzania, Ministry of Agriculture. 1992a. The Study of Input Supply, Distribution and Performance of Liberalisation of Input Distribution System. Volume II: Fertilizer. Dar es Salaam: Ministry of Agriculture.

United Republic of Tanzania, Ministry of Agriculture. 1992b. The Study on Input Supply, Distribution and Performance of Liberalization of Input Distribution System. Volume III: Seeds. Dar es Salaam: Ministry of Agriculture.

United Republic of Tanzania, Ministry of Agriculture. 1992c. The Study on Input Supply, Distribution and Performance of Liberalization of Input Supply System. Volume IV: Agrochemicals. Dar es Salaam: Ministry of Agriculture.

United Republic of Tanzania, Ministry of Agriculture. 1996b. The Agricultural Policy of Tanzania 1996. Dar es Salaam: Ministry of Agriculture.

Van Der Geest, Willem, and Andreas Kottering. 1994. Structural Adjustment in Tanzania: Objectives and Achievements. In *Negotiating Structural Adjustment in Africa*, edited by W. Van der Geest. London: James Currey.

World Bank. 1990. Memorandum and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Development Credit of SDR 150.4 Million to the United Republic of Tanzania for an Agricultural Adjustment Program. Washington DC: World Bank.

World Bank. 1991a. Tanzania Economic Report: Towards Sustainable Development in the 1990s. Volume I: Main Report. Washington DC: World Bank.

World Bank. 1991b. Tanzania Economic Report: Towards Sustainable Development in the 1990s. Volume II: Background Papers. Washington DC: World Bank.

World Bank. 1994. Tanzania Agriculture: A World Bank Country Study. Washington DC: World Bank.

Appendix Table I

Low/High Input Requirement Crop Classification

(ratio of input expenditure over income from crop sales*)

	Songea		Morogoro	
Crop	Ratio	Classification	Ratio	Classification
Bananas	0.0	L	0.0	L
Beans	0.1	L	0.0	L
Cabbage	n.a.	n.a.	4.9	H
Coconuts	n.a.	n.a.	0.0	L
Coffee	12.6	H	n.a.	n.a.
Maize	39.2	H	12.4	H
Paddy	n.a.	n.a.	0.0	L
Sunflower	0.0	L	n.a.	n.a.
Tobacco	13.0	H	n.a.	n.a.
Tomatoes	n.a.	n.a.	0.5	L

Note: * Average of the ratios for 1986/87, 1990/91 and 1994/95.
Classification: L = low input requirement; H = high input requirement.
Source: Farming Household Survey (FHS).