

Working Paper No 2009/20

SEPTEMBER 2008

## **Tanzania's Agricultural Institutions in Flux: Lessons from Coffee and Cotton Producing Villages**

Hannah Bargawi\*

### **ABSTRACT**

The discussion on Tanzania's cotton and coffee sectors have recently moved towards policy prescriptions that can remedy institutional problems, focusing on the role of new institutions, especially interlinked and niche markets as well as producer organisations in filling the void left by the formal national government bodies. However, much of the existing literature and policy-debates have not sufficiently addressed how the process of replacing and transforming existing institutions is taking place and interacting with the given social and economic dynamics in historically cash-crop growing villages in rural Tanzania. Given Tanzania's rich and complex colonial and more recent "socialist" history it is evident that the process of restructuring and replacing existing institutions is complex and uneven, particularly at the ground-level. The focus here is on evidence from field research in cotton and coffee producing villages in rural Tanzania to uncover some of the post-liberalisation institutional features and the way these have affected producers in a differentiated way.

### **KEY WORDS**

Cotton, Coffee, Tanzania, Rural Producer Organisations, Institutions, Peasants, Power

\* Hannah Bargawi is a PhD candidate and member of Individual Project IP12.1, "Primary Commodities" based at SOAS, University of London. Contact at [hb19@soas.ac.uk](mailto:hb19@soas.ac.uk).

The Author is grateful to SNF and NCCR-Trade for generous financial assistance and support, which have enabled the completion of this work.

---

**NCCR TRADE WORKING PAPERS** are preliminary documents posted on the NCCR Trade Regulation website (<[www.nccr-trade.org](http://www.nccr-trade.org)>) and widely circulated to stimulate discussion and critical comment. These papers have not been formally edited. Citations should refer to a "NCCR Trade Working Paper", with appropriate reference made to the author(s).

## 1) Introduction

Tanzania's cotton and coffee sectors share a history of colonial coercion and export expansion linked to social tensions, land pressures and seasonal labour shortages. (Curtis, 2003, Kimario, 1992, McHenry, 1994, Monson, 1995) Between colonial cash crop production and liberalisation of these sectors in the 1990s a vast amount of policy and institutional change has taken place. Furthermore, both sectors have undergone, comparatively speaking, dramatic and swift liberalisation processes alongside disappointing sectoral performance.<sup>1</sup> Roughly 15 years have now passed since the widespread liberalisation of Tanzanian export agriculture and with this a major upheaval of the marketing and institutional environments surrounding the cotton and coffee sectors. The removal of the state from input and output markets in agriculture left huge institutional gaps, leaving producers of these crops particularly exposed to the new production and marketing realities. It is therefore no surprise that the debate on Tanzanian export agriculture has increasingly moved to an analysis and appreciation of these institutional challenges and how private and non-state actors can positively engage to remedy the problems.

Many studies, particularly important contributions by Gibbon, have analysed the marketing and production set-up in the cotton sector in the years immediately following liberalisation (Gibbon, 1999, Gibbon, 1998, Gibbon, 1998, Gibbon, 1998). More recent studies of the cotton sector have taken a comparative, macro perspective in their attempts to convey the current institutional and marketing structures and failures in Tanzania. They have frequently highlighted the nature of poor coordination and cooperation between agents in the Tanzanian production and marketing chain, compared with other cotton producing countries in the region. The falling quality of Tanzanian cotton has partly been attributed to these problems. (Maro and Poulton, 2004, Nylandsted Larsen, 2003, Poulton, et al., 2004, Tschirley, et al., 2006) In a similar vein, studies on Tanzania's post-liberalisation coffee sector have predominately focused on coordination failures, increased transaction costs and subsequent declining quality of Arabica coffee following liberalisation. (Itika, 2005, Ponte, 2001, Ponte, 2004, Winter-Nelson and Temu, 2002).

Much of the literature on both the cotton and coffee sectors in Tanzania and sub-Saharan Africa more generally have since moved to analysing potential solutions to the institutional problems experienced in these sectors. (Baffes, 2005, Baffes, 2004, Itika, 2005, Nylandsted Larsen, 2006, Tschirley, et al., 2006, Winter-Nelson and Temu, 2002) We can summarise their conclusions under three broad headings. These cover interlocking markets for inputs and outputs; niche and speciality markets for cotton and coffee; and local level, producer-driven institutions. In some cases the latter are seen as an indigenous and semi-spontaneous response to the new liberalised environment. (Havnevik and Harsmar, 1999, Winter-Nelson and Temu, 2002) Other studies have concluded that producer-driven institutions require further encouragement and "freedom" in order to maximise potential benefits to members and to help other policy recommendations to succeed. (Goreux and Macrae, 2003, Itika, 2005, Mwakalobo, 2000, Onumah, et al., 2007). Literature arising from the value chain tradition has increasingly favoured the movement into niche and speciality markets for cotton and coffee, seeing these as a mechanism through which power and value can be retained by producers. (Baghdadli, et al., 2007, Gibbon, 2003, Kaplinsky, 2005, Onumah, et al., 2007) Interlocked

---

<sup>1</sup> Cotton yields are amongst the lowest in Africa. Production has been erratic and input use has declined dramatically. Furthermore, cotton production in Tanzania remains rain-fed, labour-intensive and low in quality. Similarly Tanzanian coffee has been suffering from declining yields and quality and low input use, compared to other SSA coffee producers. Baffes, J. "Tanzania's Cotton Sector: Reforms, Constraints and Challenges" *Development Policy Review* 22, no. 1(2004): 75-96, Gibbon, P. "Free Competition Without Sustainable Development: Tanzanian Cotton Sector Liberalisation, 1994/95 to 1997/98." *Journal of Development Studies* 36, no. 1(1999): 128-150, Gibbon, P., and S. Ponte. *Trading Down: Africa, Value Chains, and the Global Economy*. Philadelphia: Temple University Press, 2005, Ponte, S. (2001) Coffee Markets in East Africa: Local Responses to Global Challenges and Global Responses to Local Challenges, Centre for Development Research, Ponte, S. *Farmers and Markets in Tanzania: How Policy Reforms Affect Rural Livelihoods in Africa*. Oxford: James Currey, 2002, Winter-Nelson, A., and A. Temu. "Institutional Adjustment and Transaction Costs: Product and Inputs Markets in the Tanzanian Coffee System." *World Development* 30, no. 4(2002): 561-574.

and niche markets, as well as producer-driven institutional structures are seen as crucial to improving entry for producers to markets for inputs, information, transport and other services left in an institutional vacuum following liberalisation (Thorbecke, 2000). Through these channels it is purported that bargaining and “market” power is placed further in the hands of producers (as a homogenous group) and that the sectors as a whole will benefit from improved quality, output and productivity.

Our aim in this paper is two-fold. The first is to reassess the institutional and marketing arrangements to cotton and coffee today, uncovering the areas in which the withdrawal of the state has resulted in dramatic gaps and institutional failures. The second major aim of this paper is to then analyse some of the more recent formal and informal institutional responses that have emerged in answer to these challenges. In particular we hope to draw attention to some of the unequal outcomes in six Tanzanian villages from these new, ad-hoc institutional arrangements.

Whilst recent studies have been illuminating in their analysis of the cotton and coffee sectors in Tanzania, some gaps regarding our understanding and analysis of interlocking and niche markets as well as producer-driven institutions in the Tanzanian context are evident. Research on interlocking markets for other crops and countries (Bhaduri, 1986, Crow, 1999, Harriss-White, 1996, Vakulabharanam, 2005) reflects the historic and social nature of these markets and subsequent problems in terms of distribution and access to these relational exchanges. Lessons in this area can also be learned from institutional arrangements in the area of rural finance, most notably micro-credit arrangements in India and sub-Saharan Africa. (Bhaduri, 1986) (Pankhurst and Johnston, 1999). When it comes to the potential of niche markets, the main issues relate to the fallacy of composition and the potential of these schemes to be truly producer-driven and owned. Furthermore there are questions over the opportunities of all to participate in these speciality markets. “It is apparent that most of the marketing innovations are private-sector-led and tend to be mutually beneficial to them and producers. However, the specificity of many of the linkages often limits the scaling up of participation by farmers and implies significant self-selection that leads to exclusion of large sections of the farming population.” (Onumah, et al., 2007) As research on the history and evolution of producer movements, particularly cooperative societies in Tanzania has shown, (Kapinga, 1996, Kimario, 1992, Maghimbi, 1992, McHenry, 1994, Moshi, 1992) the multifaceted political and social nature of these associations complicates our perception of these institutions as straightforwardly “enhancing the functioning of liberalized markets in Africa” p.252 (Winter-Nelson and Temu, 2002)

So far, in reference to Tanzania’s coffee and cotton sector the research agenda has not sufficiently addressed the above shortcomings. The influence of relationships between different actors in the production and marketing chain for cotton and coffee on the functioning of the market and its current institutional structures requires closer attention. The history of trader-producer relations in cotton and coffee markets as well as a closer examination of current relations between private agencies and producers will prove important here. In reference to niche markets, an examination of current externally-financed projects in the case of cotton and coffee markets is necessary. Finally, producer-driven institutional structures in the form of village-level societies need to be understood in the context of historically derived and socially moulded relations within villages and between producers and other actors. Following an examination of these structures and relationships in today’s cotton and coffee sectors, partially aided by interview data from 6 different villages in rural Tanzania, a clearer understanding of the potential effects of reforming and/or strengthening existing institutional structures should be achieved.

The paper is structured as follows. Section two reviews some of the theoretical literature surrounding the nature and role of institutions in agriculture, demonstrating the need to clearly define terms and parameters. The current marketing and institutional set-up in Tanzania’s

cotton and coffee sectors can then be described more closely in section three. Following this schematic description, section four draws on fieldwork information gathered in 2006-2007 from a variety of points in the production and marketing system for cotton and coffee. Section five is devoted to a discussion and explanation of these observations whilst section six concludes.

## **2) A theoretical background to the study – institutions and agriculture**

Literature on the role of institutions in agriculture is relatively new but nevertheless vast in scope and intellectual origin. The notion of stable and development-enhancing institutional structures for successful agricultural development has been part of the more general focus in academia and policy-circles on “getting institutions right”. Douglas North’s and Oliver Williamson’s foundations to the new institutional economics (NIE) have heralded a new era of attention on “creating and enforcing efficient property rights” and “lowering transaction costs” (North, 1997) amongst other things. As North explains, “the central issue of economic history and of economic development is to account for the evolution of political and economic institutions that create an economic environment that induces increasing productivity.” P.98 (North, 1991)

This can therefore also be applied to agricultural growth and productivity, with attention focused on establishing the most beneficial institutions and organisations for rural growth and development. Much of this has focused in policy terms on creating institutions that lower farmers’ risks, promote efficiency and solve market failures or asymmetries. “Gone is the belief that pre-capitalist institutions are irrational and an obstacle to development. In its place is the belief that the continued presence of customary institutional arrangements such as sharecropping and multi-stranded patron-client relationships is the result of a complex exercise in rationality by self-interested, profit-seeking individuals”(Evans, 1993, p.21) The most recent World Development Report has brought together much of this research and thinking, highlighting that “The last 10 years have seen a broad effervescence in institutional innovations to fill the deficits in land markets, financial services, input markets, and producer organizations” (World Bank, 2008, p.138)

However, the understanding of what “development” or “rural transformation” encompasses differs in understanding between NIE economists and other leading thinkers. Furthermore the methods and actors involved in achieving this end can be understood as dramatically opposed, depending on ones perspective. For NIE economists the goal of institutional development is market efficiency, investment and “growth”, where the main actors in this process are individuals. In opposition to this others (Dorward, et al., 1998, Harriss-White, 1999, Harriss-White, 1999, Havnevik and Harsmar, 1999, Kydd, et al., 2002) have argued that institutions do matter to long-term economic development but that their functions and the actors involved may differ. Rather than focusing on individuals, these authors have advocated a closer consideration of the state and social groups based on class, religious and ethnic affiliations. Furthermore their attention has been on creating institutional structures that ensure longer-term structural change and transformation in agricultural markets. The notion of market-efficient institutions in peasant agricultural markets, such as the cotton and coffee sectors in Tanzania is dichotomous, considering that markets themselves are underdeveloped, frequently non-existent and extremely diverse. For the purposes of this study on the Tanzanian cotton and coffee sectors, it is crucial to consider institutions from this latter perspective, as having a social context and history.

“The relevant question is not can institutions be engineered so as to reduce the size of the deviation of real market behaviour from unattainable and deinstitutionalised norms, but which institutional modifications have the greatest returns in terms of development objectives” p.25 (Harriss-White, 1999)

A useful starting point for defining institutions in our work is provided by Nabli and Nugent. "...an institution is defined as a set of constraints which governs the behavioural relations among individuals or groups." P.1335 (Nabli and Nugent, 1989). This broad definition includes everything from markets for inputs, output and labour, to formal organisations and associations and informal norms, traditions and rules of conduct. It therefore encompasses both institutional environments and institutional arrangements. (Dorward, et al., 1998)

In institutional terms we can understand the process of liberalisation in Tanzania and across sub-Saharan Africa as a process in which state-supported institutions were gradually "replaced" by market-friendly ones, leaving the state's function as one of overseer and regulator of the market. Following liberalisation of export crop sectors in Tanzania in the early 1990s, various gaps in the liberalised production and marketing system have required "institutional filling". In the relatively short period since liberalisation both coffee and cotton sectors have experienced a vast array of different institutional "solutions" with varying successes. These experiences have in turn sparked a vast amount of research and literature<sup>2</sup> in order to better understand their shortcomings and potential lessons. As well as analyses of interlinked markets, input-distribution systems and micro-credit arrangements, one area gaining increasing interest in rural institutional development is that of cooperation within the peasantry and ways to solve collective action problems in the marketing system.(DFID, 2004, Mercoiret, 2003, Obare, et al., 2006). Chayanov (1991), writing about cooperative structures in the early 20<sup>th</sup> Century in Russia predates this new fascination with coordination and cooperation among agricultural producers. This literature has arisen from very different motivations and perspectives but the general case in favour of producer organisations within Tanzanian agriculture is extremely complex and will require our further attention in part five of this paper.

A crucial element lacking in most NIE approaches discussed above and in reference to agrarian institutions has been the role "power" and pre-existing social relationships play in underpinning and transforming both old and new institutional structures. In rapidly changing production and marketing environments, as in Tanzania, where institutional changes have been dramatic, especially over the last 60 years, it is clear that not everyone is affected in the same way by these changes. Furthermore how different groups and individuals are affected is determined by the pre-existing distribution of power in society. "Hence, at times of reform and change, such as structural adjustment and market liberalisation in Africa, formal institutions governing economic activity may change rapidly, but the informal ones will adjust much more slowly and, in the meantime, may pull in opposite directions to formal institutions." P.11 (Dorward, et al., 1998) The power struggles that underlie the institutional map tend therefore to be complex relationships not easily studied or captured and their analysis does not necessarily lead to replicable, policy-friendly conclusions. Our work is couched within this dilemma. However, through fieldwork in cotton and coffee-producing villages and interviews with a variety of producers, agents and stakeholders involved in these sectors we hope to shed some light on the complexities of the institutional set-up in Tanzania's past and current agricultural sector.

---

<sup>2</sup> Recent examples include: Ajakaiye, O., et al. (2006) Institutions and Pro-Poor Growth Inception Phase, Country Case Study: Tanzania Development Studies Institute, London School of Economics, Dorward, A., J. Kydd, and C. Poulton (1998) Smallholder Cash Crop Production under Market Liberalisation: A New Institutional Economics Perspective. Wallingford, Cab International, Havnevik, K. J., and M. Harsmar. *The Diversified Future: An Institutional Approach to Rural Development in Tanzania*. Edited by EGDI. Stockholm: Almqvist and Wiksell International 1999, Itika, J., S. "Institutional Constraints as "Rules of the Game": Reflections on Coffee Production and Marketing in Moshi Rural District." *Eastern Africa Social Science Research Review* 21, no. 1(2005): 39-56, Kähkönen, S., and H. Leathers. "Transaction Costs Analysis of Maize and Cotton Marketing in Zambia and Tanzania." *USAID Technical Paper* Agriculture, Natural Resources and Rural Enterprise, no. 105(1999), Poulton, C., et al. "Competition and Coordination in Liberalized African Cotton Market Systems." *World Development* 32, no. 3(2004): 519-536, Winter-Nelson, A., and A. Temu. "Institutional Adjustment and Transaction Costs: Product and Inputs Markets in the Tanzanian Coffee System." *World Development* 30, no. 4(2002): 561-574.

“Both neoclassical and Marxian theory are set on a grand scale for which fieldwork is not always appropriate. Institutional theories of power within markets ... are... also not easy to observe through fieldwork. For these reasons we may have to abandon the theoretical ship and take to its lifeboats.” P.270 (Harriss-White, 1999)

Having established our understanding and definition of institutions, and reflected on the importance of underlying power dynamics, we must now clearly define this conception of “power”. In this work we draw heavily on Bhaduri (1983, 1986) and Harriss-White’s (Harriss-White, 1999, Harriss-White, 1999) exposition of power in peasant markets. They determine power to be both a structural and a behavioural concept, where in the former sense “power can mean access to resources. The front-runner here is assets” p.270 (Harriss-White, 1999) and in the latter behavioural sense “power is enforced not only by traders over producers at the point of exchange but also at every point of transfer of ownership and/or transaction, and in complex ways. .... Economic power uses information as an instrument. Control over its generation, its diffusion and its costs means control over profitable trading opportunities.” P.271-272 (Harriss-White, 1999)

When considering “power” in rural markets some important distinctions can be made to aid our analysis. One major distinction is between *market* power and *non-market* power. (Dorward, et al., 1998). While the relative extent, effects and outcomes of market power can be illuminated through the involvement of different actors at different points in the production and marketing system for cotton and coffee, the role and channels through which non-market power is significant to the cotton and coffee marketing system is far more complex. Harriss-White (Harriss-White, 1996, Harriss-White, 1999) particularly draws our attention to how non-market power between producers may be important in understanding the existence, functioning and exploitation of certain institutional structures in rural areas. Within the cotton and coffee markets the direction and actors who are able to manipulate their power over others have changed with time. This has involved both state and increasingly non-state actors and agents, from the national to the village level. Producer organisations have been a particularly important institutional instrument through which non-market power relations have transformed.

An important aspect not yet discussed relates to any fruitful measurement and assessment of non-market power relations in the context of Tanzanian cotton and coffee-producing areas. Harriss-White’s (Harriss-White, 1996, 1999, Harriss, 1991) contributions through identifying various characteristics of producers and agents in Southern India is a useful starting point. She demonstrated how five crucial areas can be used to assess power in rural markets. These pertain to i) economic assets; ii) distribution, control and costs of information; iii) behavioural indicators; iv) credit and finance; v) non-economic indicators of political and coercive power. We adopt and adapt these categories to make them applicable to the current Tanzanian context of cotton and coffee production. Further useful insight in this respect can be taken from the work of Seppällä (1998) who has written in detail on the conceptions of differentiation in the context of a Tanzanian village, highlighting particularly the village-level political and elite positions relevant to our analysis. We will return to this issue in section four, when considering our fieldwork villages and the institutional structures relevant to them.

Before we can turn to the results from fieldwork and a closer assessment of the realities of village-level institutional struggles in the cotton and coffee sectors of Tanzania it will prove crucial to better understand these sectors. We therefore assess, in the following section the Tanzanian cotton and coffee marketing and stylised institutional structures more concretely.

### **3) Cotton and coffee institutions and marketing in Tanzania**

In order to thoroughly assess the Tanzanian institutional and marketing systems for cotton and coffee we focus our attention on four broad areas, namely the cotton and coffee purchasing

and processing structures; the system for input provision; the pricing system; and finally the system for providing information and extension services as well as research and development. We focus on these four areas because they demonstrate the most salient issues confronting cotton and coffee producers and the Tanzanian agricultural sector more generally.

a. Purchasing and processing market structures: from monopoly to “perfect competition”

Cotton was introduced to Tanzania at the turn of the 20<sup>th</sup> century by German settlers and was initially focused in the Eastern growing zone. Over the 1920s and 30s better varieties were imported and production expanded into the Western zone, increasingly taken forward by smallholders rather than the original plantation model the Germans had attempted to introduce. Cotton production in Tanzania, as in most of sub-Saharan Africa as well as in Southern India remains a predominantly smallholder activity. “In the early twentieth century, Asian businessmen dominated seed cotton purchase and ginning, while governments assumed responsibility for research and extension, seed multiplication, quality control, and lint export.” (Tschirley, et al., 2008) While the purchasing and domestic marketing of Tanzanian cotton had originally been under private ownership, over the 1950s and 60s a process of primary society and cooperative union control over the domestic sale and trade of cotton became entrenched. By 1968 the cooperative unions and the Tanzania Cotton and Lint Seed Board (TCLB) became, respectively, the sole buyer and exporter of cotton in Tanzania. (Baffes, 2004)

Over the 1970s, following the Arusha Declaration in 1967, the policy focus shifted to returning agricultural control and decision-making to the newly-formed Ujamaa villages. As a consequence the cooperatives, whose involvement was felt to have become too extensive and controlled by larger farmers with vested interests, were eliminated. (Baffes, 2004) Following the removal of cooperatives a two-tier system of village unions linked directly to the newly established Tanzania Cotton Authority (TCtA) was instated. Over the late 1970s and early 1980s the Tanzanian economy entered a crisis period, partly driven by the international oil shocks and the ensuing debt crisis which had severe consequences on the demand for agricultural export crops, including cotton as well as for the productivity and longer term development of these sectors. Mainly due to these economic pressures, the cooperative unions were reintroduced between 1980 and 1984 and were put in charge of purchasing cotton at a fixed price and transporting this to the Tanzania Cotton Marketing Board (TCtMB, the successor of the TCtA). However, on this occasion the government was carefully to avoid mistakes of the past by ensuring that cooperative principles were in line with their own socialist vision. (McHenry, 1994)

The 1990s saw the beginning of the liberalisation process in Tanzania’s agricultural export sectors. Gradual steps were taken to remove fixed producer prices and to open markets. In 1994 the Cotton Act allowed private companies to compete with the Tanzania Cotton Board and the cooperative unions in the domestic ginning and marketing of seed cotton. Following this the export market was also opened to private companies and today’s sector looks, in theory at least, as the free marketers would have hoped for. In the first few seasons following liberalisation a large number of new domestic buyers entered the market in the Western Cotton Growing Area (WCGA) increasing the purchasing competition at the village level. (Nylandsted Larsen, 2003) A particular advantage of selling through the cooperative unions, was their ability to provide producers with an additional payment for their crop, following exportation and receipt of final income. Despite this theoretical advantage of the cooperatives, in more recent years, they have been unable to compete with the private traders and ginneries and are currently not financially viable. In the last buying season (2006/07) cooperative unions in the WCGA were unable to obtain loans from banks and therefore could not purchase cotton from producers. Neither did these cooperative unions gin or export cotton in 2006/07.

Leaving the historic patterns of processing to one side, we can focus here on the current processing structures for cotton and coffee. For cotton the majority of processing, apart from simple sorting and cleaning of the crop, is done beyond the farm gate in ginneries which produce cotton lint as well as by-products that require further processing to produce cotton seed cake and cotton oil. These ginneries are usually located some distance away from villages and following liberalisation are run by either cooperative unions or private companies. For the case of cotton those involved in the purchasing of cotton at the village level may legally also process/gin and export the crop. As a result a large number of Tanzanian private ginneries are also involved in domestic purchasing and exportation of cotton lint. Cooperative societies have however, almost entirely stopped ginning cotton, as they have been unable to compete with private traders on producer prices.(Baffes, 2004) In terms of the processing infrastructure in Tanzania, compared with other countries in East and West Africa, Tanzanian ginneries still predominantly rely on relatively outdated roller gins, with only the most capitalised ginneries with multinational links having access to the superior saw gins. A result of this is lower quality lint output but also much lower ginning costs, when compared with other countries. (Tschirley, et al., 2008)

Turning now to Tanzania's coffee sector, the experiences here largely parallel those of cotton marketing and purchasing, at least until recently. The coffee sector shares similar production structures to cotton, with almost 90% of coffee being produced by smallholder peasants.(Ponte, 2004) Prior to independence coffee was produced by peasant producers and sold through Asian and European businessmen who had direct contacts with importers in the West. (Kimario, 1992). In a similar experience to the cotton sector, cooperative organisations such as the Kilimanjaro Native Cooperative Union (KNCU) were initially encouraged and then disbanded in the 1970s and favour of the Ujamaa village units and then reinstated over the 1980s. (Baffes, 2004) In the coffee sector an additional stage in the purchasing chain, namely the coffee auction, must be mentioned. Following the reinstatement of the cooperatives in the 1980s these were given responsibilities for purchasing the semi-processed crop from producers, transporting this to the Tanzania Coffee Marketing Board (TCfMB) who would auction the graded and milled coffee to private exporters.

Following liberalisation of the sector in the early 1990s private companies and traders were given permission to compete with the existing cooperative unions in the purchase of the crop at the village level. The coffee auction system has however, been retained so that domestic traders and purchasers of coffee are legally separated from those purchasing the crop at auction for export. Furthermore the cooperative unions in the case of coffee have retained their financial viability, allowing them to provide producers with additional payments, dependent on prices and following the sale of their crop at auction.

For coffee, the processing system differs somewhat from that of cotton, in that a large portion of coffee processing is done by producers themselves. For the most part, Tanzanian smallholder producers pick the ripe cherries, wash, remove the pulp and then dry these to produce coffee bean parchment. Those purchasing coffee parchment from producers, whether this be cooperative unions or private companies then transport the parchment coffee to curing factories where the process of hulling and grading the coffee in anticipation of selling the crop at the bi-monthly coffee auction takes place. Some major differences in the processing structure between cotton and coffee can be noted. The first is the continued involvement of the cooperative unions in the coffee processing system. KNCU is still very active in the process of purchasing, transport and grading the Kilimanjaro coffee crop unlike Nyanza and Shirecu unions in the cotton sector. A second important aspect concerning the processing of the coffee crop is the legal prohibition of multiple licences so that different private actors are involved in village-level purchasing and processing of the crop versus those purchasing coffee for export at the auction. (Itika, 2005).

b. Input distribution arrangements

An area of intense institutional debate in Tanzanian cash crop production is the system of input provision and access and the changes in this over recent years. (Dorward, et al., 1998, Havnevik and Harsmar, 1999, Putterman, 1995, Winter-Nelson and Temu, 2002) Compared to other producing countries Tanzania's cotton and coffee production is almost 100% rain-fed and application of fertilizers and pesticides have decreased with time. (Ponte, 1998, Tschirley, et al., 2006, Winter-Nelson and Temu, 2002) This is at least in part explained by policies and external factors over the last 30 years which have not been favourable for the adoption of new production techniques by Tanzanian producers.

Starting in the 1970s and early 1980s a substantial reduction in aid to the country led to a drastic reduction in imports of agricultural inputs, including pesticide and fuel (Skarstein, 2005). Until the early 1990s cooperative unions were still in charge of input provision through the village primary societies but their ability to provide these came under increasing difficulty as financial woes intensified. As cooperative unions lost their monopsony purchasing power at the village-level, producers were able to obtain subsidised inputs from the cooperatives but then sold their crop to private buyers offering higher cotton and coffee prices. This desertion by producers at the point of purchase left many cooperative societies with vast debts and hindered their future ability to provide an input service. Furthermore, fertilizer subsidies were gradually lowered from 70% in 1990/91 to 0 in 1994/95 and producers in the mid-1990s were for the first time, at the mercy of local, open market input prices for fertilizers and pesticides (Skarstein, 2005).

As a result of the above fertilizer and pesticide application has declined, although exact figures for Tanzanian cotton production are hard to estimate. (Gibbon, 1999, Ponte, 1998). "Once input supply (mainly chemicals and seeds) and credit for purchasing inputs were no longer integrated into a single cotton marketing channel, use of inputs declined sharply. Loss of the single marketing channel pushed up the costs of marketing chemicals and led to a collapse in supply and distribution." (Baffes, 2004 p.5) For coffee, a comparison of regional figures for Kilimanjaro region indicate a reduction in use of pesticide, insecticide and herbicide by households from 51 to 35 percent between 1994/95 and 2002/03. (United Republic of Tanzania, 1996, United Republic of Tanzania, 2006)

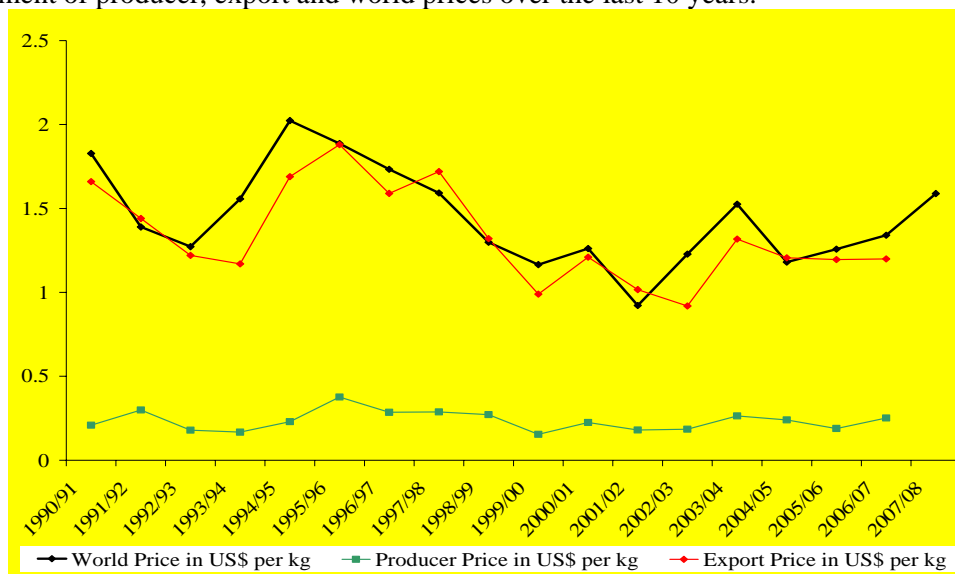
Over the late 1990s stakeholders in the Tanzanian cotton and coffee sectors became aware that the free purchasing and marketing system for these crops were not compatible with the traditional system of input provision through the cooperative unions. Therefore a new framework for seed and pesticide provision needed to be established and this came for cotton in 2000 in the form of the Cotton Development Fund (CDF). The CDF is a tri-partite (farmer, ginner and government) input-provision system, whose main aim is to supplement the price of agro-chemicals and cotton seeds for planting. 2001/02 was the first season of the CDF's operations. The contribution of each producer is noted in a passbook and the following season, depending on the amount sold, each producer receives a certain entitlement to inputs.

Perhaps some lessons from the coffee sector's failed attempt at a system of producer input vouchers in the late 1990s can help us understand the challenges of the CDF system for cotton. In the case of coffee the voucher system was meant to work in a similar way to the passbook system for cotton, with entitlement to vouchers deriving from the amount of coffee sold in the previous season. The coffee voucher system failed soon after its inception due to a variety of reasons. Itika (2005) has summarised these as mainly relating to the high cost of inputs in the first place, with vouchers only contributing a marginal amount to the extortionate cost. Furthermore, the lack of shops stocking coffee-related inputs in rural areas and the low production amounts of smallholder producers, leading to limited access to input vouchers, all contributed to the failure of this input distribution system.

### c. The pricing system

Tanzania removed its fixed producer prices for coffee and cotton soon after liberalisation. Prior to this prices were set by the crop boards and producers were guaranteed a fixed pan-territorial and pan-seasonal price through the functioning of the cooperative unions. Following liberalisation basic, floor prices for cotton were gradually eliminated. The TCtB initially tried to maintain an indicative floor price to producers, but the viability of this came into question in 2004, when world prices suddenly declined over the season and private ginners refused to pay producers even this basic price. For coffee, the continued economic viability and functioning of the cooperative unions has allowed these to provide producers with a more stable producer price, although once again competition from private traders has posed problems for the unions.

Today producers are at the mercy of the price cooperative unions and private companies are willing to pay for their crop. In theory this therefore means that producers are more closely linked to the world price, as buyers of cotton and coffee at the village-level look to world prices to determine what they pay producers. Figure 1a and 1b below do highlight the co-movement of producer, export and world prices over the last 10 years.

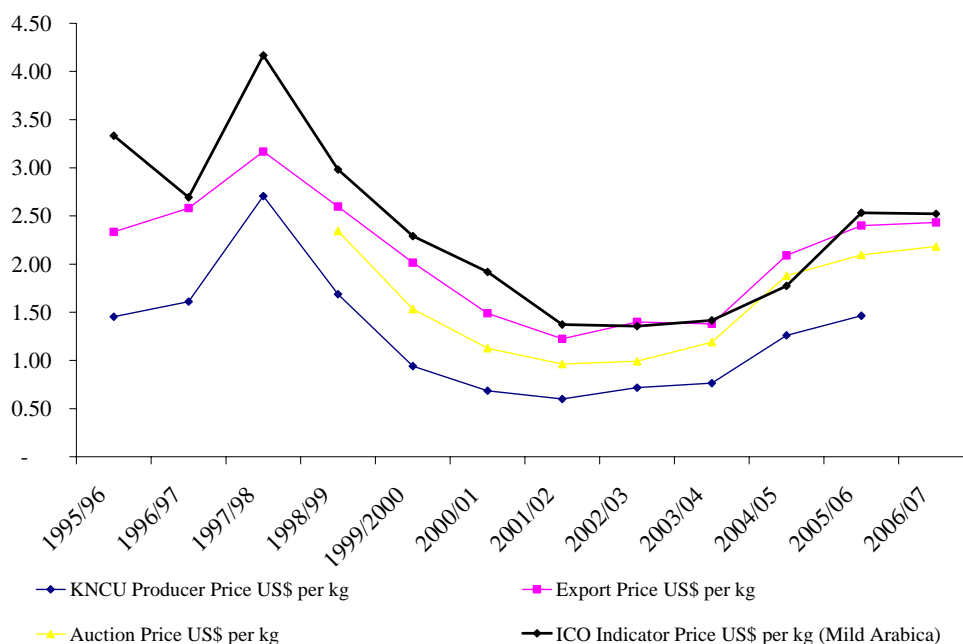


**Figure 1a: Nominal cotton prices in US\$ per kg**

Sources: World Prices are taken from Cotlook, [www.cotlook.com](http://www.cotlook.com) (1990/91-2006/07) A Index Price\*; Producer Prices are taken from Government of Tanzania, *Economic Survey, 2006* (1990/91-2005/06) and our own survey (2006/07); Export Prices are derived from Tanzania Cotton Board (1990/91-2006/07).

Exchange rate: International Financial Statistics, Official rate at end of period – National currency per US\$)

\*The A index is an average of the cheapest five types of cotton offered on the European market and is the most frequently quoted international indicator price used by ginners, traders and government agencies in Tanzania.



**Figure 1b: Nominal Coffee Prices in US\$ per kg**

Sources: ICO Indicator Price for Mild Arabica are taken from [www.ico.org](http://www.ico.org) (1990/91-2006/07) Export and Auction Prices were obtained from the Tanzania Coffee Board; KNCU Producer Prices are taken from the basic KNCU price offered to producers prior to receipt of final payment.

Exchange rate: International Financial Statistics, Official rate at end of period – National currency per US\$

The two graphs highlight some further important issues with reference to cotton and coffee prices. The first is the relatively higher percentage of world prices received by Tanzanian coffee producers over their cotton counterparts. Coffee producers in Tanzania can expect to receive on average around 50% of export prices, whereas cotton producers are lucky to obtain even half this percentage. Furthermore, the above graph does not address the changes to pan-territorial or pan-seasonal price setting in the cotton and coffee marketing systems. Pre-liberalisation producers were guaranteed a set price over the season and across different production and marketing locations. For cotton this system has been totally dismantled whilst for the coffee sector some elements of this system remain in place. The cooperative union in Kilimanjaro region for example, is still able to offer producers a set price at the beginning of the season which can then be adjusted upwards following the onward sale of the crop at auction. Similarly, prices across the region in which KNCU operates should be unified across geographical areas.<sup>3</sup>

#### d. Information provision, research and extension

The history of Tanzania extension services and research is closely linked to government involvement in the sector. The brief “socialist” history over the late 1960s and 1970s in which rural areas underwent villagisation coincided with a state-led extension and education program, encouraging producers to plant certain crops over others with incentives given by

<sup>3</sup> For cotton a further important issue concerning prices relates to the importance of by-products. Following the ginning of cotton to produce cotton lint and the subsequent milling of the husks two further by-products, namely cotton oil and cotton seed cake are produced. Over the last 10 years the importance of these has been minimal to processors and exporters, compared to the money made on the export of the main cotton lint crop. Traditionally the use of by-products has been limited to the use of cotton seed cake for cattle feed within Tanzania and neighbouring countries while the oil has been sold on local markets for cooking. Regional Agricultural Trade Expansion Support Programme. "Cotton-Textile-Apparel Value Chain Report Tanzania." RATES. The recent rise in demand for bio-fuels as well as increases in food prices in part driven by the demand for cattle feed may have increased the potential use, demand and therefore prices of these by-products, although evidence of this remains weak and further research of these effects is required. Auld, D., et al. (2006) Lint, Cottonseed Oil, or Biodiesel? - Breeding Cotton for the Next Decade. Indianapolis. While this may be having a positive impact on prices beyond those analysed above, it is evident that these benefits will not accrue to producers but instead remain with those involved in the processing and milling of the cotton.

subsidised input and output prices. The process of advice and support to producers was frequently very tightly controlled. Policy-success was, however, not necessarily reflected in improved performance of the agricultural sector over the 1960s and 1970s, although reasons for this are manifold. (Kashuliza and Mbiha, 1992) Research and development of cotton and coffee was conducted by state institutions both centrally and at the regional and district levels. (Komba, 1992) The process of technical upgrading to include improved varieties of cotton seed and more resistant strains of coffee trees was aided by regional crop-specific research institutes which also provided short training courses on crop management over the 1970s. For information regarding prices and markets for cotton and coffee producers have largely relied on the cooperative and primary society structures when these have been in place.

With the advent of liberalisation the systems for information and technical knowledge provision have suffered. With respect to research, extension and crop-cultivation knowledge, Tanzania's Department for Research and Development (DRD) was overhauled and decentralised in the 1990s, resulting in a reduction in public institutions relating to research and crop development. (Beintema, et al., 2003) Coffee research was among the areas privatised whilst cotton research was retained in public hands through a crop-specific, regional research institute, Ukiriguru. Coffee research has been re-established through the Tanzania Coffee Research Institute (TACRI) in 2000, a non-profit, donor-funded research institute. For cotton, the decentralisation of activities took the form of encouraging private sector and NGO involvement in research and extension. The cooperative unions, lacking financial backing, have been less able to provide producers with the necessary information regarding prices and the market more generally. Furthermore, in the case of cotton, cooperative unions have failed to be directly involved in the purchasing or processing of cotton in the last few years, leaving producers to rely on private buyers and agents as well as radio broadcasts to obtain accurate information on prices and market conditions. For coffee, cooperative union involvement has been retained and therefore producers here have benefited from improved access to coffee-related market information.

Whilst both TACRI and Ukiriguru perform important work they are currently under-funded and lack important infrastructure to allow them to transfer their research activities into practice. (Agbamu, 2000, Beintema, et al., 2003) This under-funding is reflected in national figures on research expenditure which show Tanzania's expenditure on research as a percentage of agricultural output to be less than half of the African average in 2000. (Beintema, et al., 2003) Filling the void left by state support for these activities some NGOs and private companies, frequently with international donor assistance, have entered the "market" for research and extension. However as we will see in section four various problems relating to access, equality and continuity of these projects are not uniform and require closer investigation.

#### **4) The realities of the production and institutional system and channels of real and perceived power relations in Tanzanian cash crop production and marketing**

So far we have considered the stylised marketing arrangements for cotton and coffee in Tanzania. With this background in mind we can now turn to the realities of the institutional and production system for the Tanzanian cotton and coffee sectors. This section relies heavily on information gathered during 2006-2007 from a variety of sources, predominantly from six rural villages in three regions of Tanzania.<sup>4</sup> Following a brief description of the fieldwork areas, we return to our previous headings relating to the marketing system for cotton and coffee and evaluate the real institutional struggles occurring in Tanzanian villages today.

##### **a) Overview and introduction of the fieldwork areas**

---

<sup>4</sup> For further detail regarding fieldwork methods and the case study villages please turn to the appendix of this paper.

The information below largely relies on a mixture of focus groups and interviews with producers, extension staff and other stakeholders at the village and regional level. These mixed methods were used in six different villages in rural Mwanza and Shinyanga and Kilimanjaro regions. It is useful at this point to briefly discuss these villages in more detail. For cotton, Mwanza and Shinyanga regions represent the main cotton-growing areas of Tanzania with recent figures indicating that around 30 percent of Tanzanian cotton originates from Mwanza region while a further 60 percent is cultivated in Shinyanga region. (United Republic of Tanzania, 2006) Households rely to varying degrees on cotton as their main cash income source although the dominant production system in these regions is described by Morris as the “the livestock-sorghum-millet-cotton-rice system” (Morris, 2001) In Mwanza region two villages, Iteja and Mwagala village, both in Misungwi district were selected. These two villages, while geographically proximate face very different social, economic and agricultural challenges and therefore proved interesting case studies. The third village, Mwambiti, lies in Meatu district in Shinyanga region, a historically more remote area, also facing interesting and complex conditions worth further investigation.

Turning now to our coffee villages, these are all within the Kilimanjaro region. Kilimanjaro represents the region in which coffee cultivation in Tanzania originated, although for Arabica coffee it has now been overtaken by production from the southern highlands of Tanzania. Robusta coffee predominantly originates from the regions to the West of Lake Victoria and is not cultivated in Kilimanjaro region. In terms of total coffee output, (both Robusta and Arabica coffee) Kilimanjaro region made up roughly 20% of Tanzania’s total production in 2002/03. (United Republic of Tanzania, 2006). The region benefits from higher than average rainfall and the predominant farming system here is the “coffee-banana” system with lower-lying land devoted to maize and bean cultivation. Almost all land planted with coffee is intercropped with shade-providing banana trees and occasionally also other crops. As with the cotton sector the history of complex land inheritance rights have resulted in smaller plot sizes than the national average and an encroachment on lower lying land for the cultivation of food crops such as maize, beans and rice. Partly as a result of these inheritance issues, coffee production has been in decline in the region over the last 30 years. (Maghimbi, 2007). Wanri, Kiruweni and Narumu villages in Kilimanjaro region are diverse and form interesting case studies for further evaluation of the sector.

b) Market and institutional structures and channels of real and perceived power struggles and inequalities at the village level

For this section we can return to the headings used in section three, when discussing the stylised production and marketing system for cotton and coffee. However, here we can flesh out some of the observations made in other research by adding our own observations and addressing questions of power within and beyond markets.

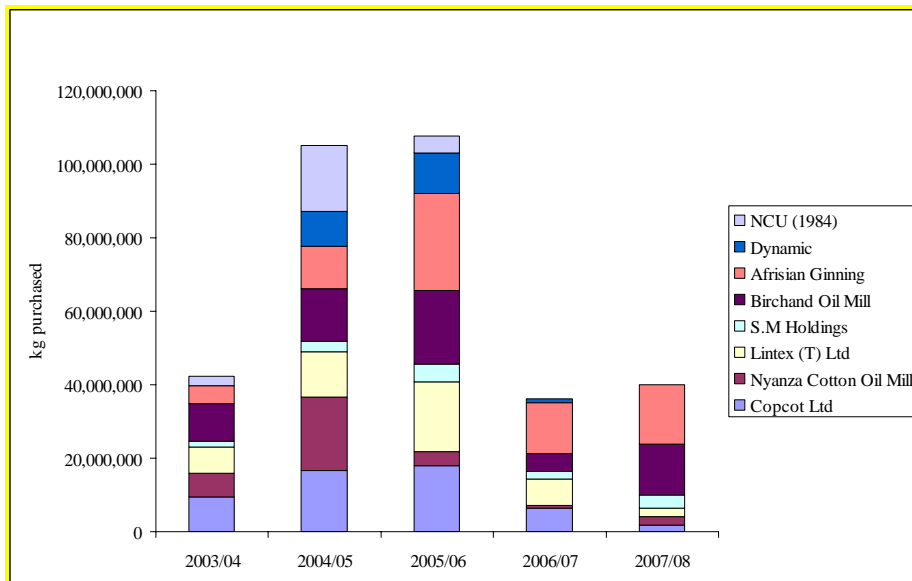
**Purchasing and processing market structures in reality:**

As we have previously seen the purchasing and processing system for cotton and coffee today resembles that of a free market, with cooperative unions competing with private traders for the purchase of cotton and coffee from village buying posts. Today’s purchasing and processing system for cotton is therefore dominated by private, regionally-located ginneries that are legally licensed to purchase at village buying posts from within a given radius (around 50km) of their ginnery. However it is evident that ginners have purchased cotton from beyond their officially designated area following liberalisation (Gibbon, 1998). More recent evidence from our villages for the 2006/07 season suggests that the pressure to engage in this type of illegal purchasing has become even greater. This is partly due to ginning over-capacity in Tanzania with production levels well below the available ginning facilities. Furthermore, ginners and exporters increasingly engage in contracts with importers based on quantity. Ginners are under pressure to fulfil these contracts as they can incur a heavy penalty from importers if these contractual obligations are not met in quantity and on time. One might expect these features relating to the purchasing and processing of cotton to lead to a

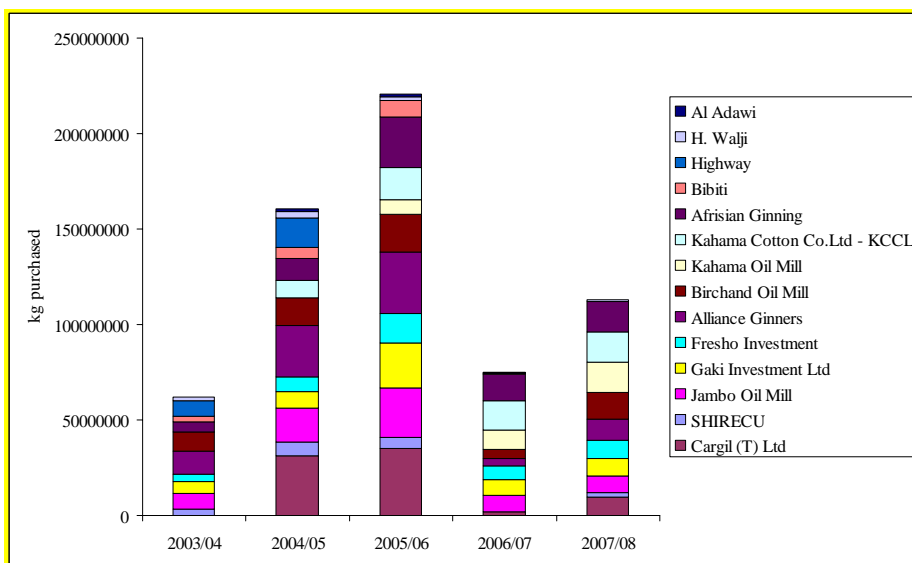
redistribution of power away from ginners and towards producers, as evidently demand for the crop is intense. Instead, the ginning over-capacity in Tanzania combined with the over-ambitious contractual obligations of ginners have resulted in a system of early and intensely competitive but very localized purchasing of cotton at the village level. It has also led to a lowering in quality of cotton lint exports.

The geographical effects of the new marketing structure are already in evidence when considering the purchases of the top gineries in Mwanza and Shinyanga region in the last season (2007/08). Figures 2a and 2b highlight the concentration and intense competition between ginners in Shinyanga region, the most abundant production area. This compares with only two main competitors in Mwanza region, the second largest production region in Tanzania.

**UPDATE TO 2008/09 – ALREADY DONE IN EXCEL FILE**



**Figure 2a: Purchases made by Mwanza's main registered ginners (2003/04-2007/08)**



**Figure 2b: Purchases made by Shinyanga's main registered ginners (2003/04 – 2007/08)**

Source: Tanzania Cotton Board, [www.tancotton.co.tz](http://www.tancotton.co.tz), various years and documents

This feature is also reflected in our villages, with a lack of buyers in the two villages in Mwanza region, compared to fierce competition in Mwambiti village in Shinyanga region. Mwambiti village further benefitted from the presence of an organic cotton project, who acted as a private purchaser of organic cotton at premium prices.

What is evident from our interviews is that competition between ginners is only intense in areas and villages where they can guarantee a large enough purchase to meet their contractual obligations. In areas and villages where general production is low, ginners only visit if they have built up a relationship with particularly large, wealthy producers that warrant them collecting the crop from the farm-gate. It was also evident that producers tended to sell their crop as early as possible within one season, for fear that buyers would leave and not return within that year. As a result a number of less influential producers in Mwagala and Iteja villages either failed to sell their crop at all over the last few seasons; had to incur additional transport costs and sell their crop from buying posts in neighbouring villages; sold their crop very early in the season; or had stopped producing cotton altogether in favour of alternative crops such as rice and market vegetables, which most argued were not as profitable as cotton had been in the past.

There was also a deep sense of misinformation regarding the continued role of the cooperative union within cotton villages, which is demonstrated by the case of Mwambiti village, where the local primary society had severed ties with the regional union, SHIRECU. Over the last five seasons numerous private traders and ginners had entered the market in Mwambiti village and one particularly politically well connected ginner had been able to come to an arrangement with the local village society to purchase cotton at the primary society buying post. In exchange for this privilege the Mwambiti primary society received a commission on the purchases made by the ginner. This arrangement resulted in the majority of cotton producers in the village selling to this buyer at the primary society buying post. The reasons given for this action were not driven by price alone. Instead, producers frequently felt under obligation to support their primary society or hoped to receive part of the collected commission money at the end of the season. For many producers, there was a misconception about the new input-distribution system (the CDF) and that access to inputs was restricted to producers who had sold through the local primary society buying post. Finally, many producers simply retained their links to the primary society in the hope that things might change in the future. In this way those in charge of the primary society have not necessarily been acting in the best interests of village producer members, encouraging them to sell to a particular private ginner who has strong local political ties.<sup>5</sup>

For coffee, the purchasing and processing system still includes the involvement of the cooperative unions and associated primary societies within villages. These organisations compete with private buyers in their purchasing of coffee from producers at village buying posts. In theory therefore the system resembles a competitive domestic purchasing and processing system and market power should be relatively well distributed. However, the reality is quite different. For the most part producers in all three villages favoured selling their crop through the cooperative union, as this system allows them to access secondary and final payments for their crop, taking advantage of any seasonal increases in the price of coffee. This had led many private companies to stop purchasing coffee from village buying posts, aware that they cannot compete on the issue of seasonal price stability with the cooperative union. This is reflected in the case of Narumu village, where no private buyer has been present during the last two to three buying seasons. In Kiruweni and Wanri villages, where private companies did still have a presence they tended to compete with the cooperative union on quality rather than price, purchasing the lowest quality coffee that had been rejected by the cooperative union at below-average prices.

---

<sup>5</sup> This particular ginner was also the local Member of Parliament for the district.

A further important feature regarding the purchasing system and wealth effects can be noted in reference to the choice over selling to private buyers versus cooperative unions. In Kiruweni and Wanri villages the tendency to sell to private companies was associated with urgent cash requirements so that the predominant sale to private companies occurred early in the season when private companies were offering the lowest prices. Therefore storage and the option of selling to private companies later in the season or awaiting further payments from the cooperative union may only be an option for the most affluent coffee producers.

Two final points can be raised regarding the purchasing system and the observations in our villages. The first is the introduction in Kiruweni village of an NGO, Kilicafe, which has access to a central pulper unit and has attempted to copy elements of the cooperative society's ethos and pricing scheme. The second is the relevance of competing branches of cooperative societies at the village level, with strategically located and mobile producers able to sell to the branch offering the highest price whilst still benefitting from additional seasonal payments.

Kilicafe is a non-profit making farmers' organisation, funded by Technoserve, a US NGO. Kilicafe operates throughout Arabica coffee-growing areas in Tanzania and one of the three Kilimanjaro coffee-producing villages analysed here had set-up a farmers group in conjunction with the organisation. Those producers selling through Kilicafe should, according to the organisation's principles, be able to access better processing equipment, produce better quality coffee and therefore obtain a higher coffee income. In addition to extension services offered by the organisation, producers should also benefit from the ability to sell coffee directly to overseas buyers, without having to go through the Tanzania coffee auction. Furthermore producers selling their ripe cherries through the organisation should be able to obtain further payments as the season proceeds, in a similar vein to the cooperative union model. The setting up of the Mrimbo Uuwo farmers' group linked to Kilicafe initially attracted a large number of producers from within Kiruweni village. Six years on the situation is very different. Firstly, not all producers in Kiruweni were aware of the existence and potential benefits of this farmers' group within the village. Those that were aware and had joined the organisation at its inception in 2001 had since stopped paying Kilicafe their membership fee over the last 3-4 years and had instead returned to selling to the cooperative union or to other private buyers. Whilst these producers vouched for the improved quality of coffee processed through Kilicafe's central pulper unit, they also highlighted the flaws in organisation and management of the group, with little or no benefit trickling down to producers. For many the failure to pay producers the incremental payments throughout the season was an issue whereas others felt the management of the local farmers group was cheating them out of fair payment for their crop. As a result of these problems membership numbers for the local group have almost halved in recent years. (Towo, 2004)

A particular feature of the coffee-purchasing system in Kilimanjaro region relates to the existence of competing cooperative union branches. In Kiruweni village where two KNCU branches (Mwika and Rombo) are in close proximity of each, producers located on the border of these districts within the village or those with access to transportation, were able to choose between two KNCU branches. Many producers opted to sell to the more solvent KNCU branch, in this case KNCU Rombo, as this resulted in higher prices and prompter payment to producers. This feature was not evident in our other case study villages, but may be relevant for other villages that lie between wards and districts and where cooperative unions retain purchasing influence.

From this discussion it is evident that the formalised picture regarding the purchasing and processing of cotton and coffee differs markedly from the reality in our case study villages. In the cotton case the system can hardly be deemed competitive across all areas of cotton production in Tanzania. The smallest and poorest producers in some production areas have found it increasingly difficult to access any purchasing market for their crop, relying instead

on illegal marketing channels or turning to alternative crops when these are available. For coffee the presence of the cooperative union has ensured that most producers have a buyer of last (or in this case often first) resort within their villages. Here the “competitive” nature of the market comes into question when considering the decision to sell through private rather than cooperative channels. This decision is frequently not driven by choice but instead by necessity, highlighting the differential access to the market for coffee as well.

### **Input distribution arrangements – fair access for all?:**

We ended our previous discussion in section three of the input distribution arrangements for cotton by concluding with tentative remarks on the Cotton Development Fund (CDF) introduced in 2000. The success of the CDF remains to be seen, although initial reports from our three villages suggest some unevenness in distribution and access.<sup>6</sup> Problems with the current system include ginners noting the incorrect amount in producers’ passbooks limiting the latter’s access to the maximum amount in the following year. This is exacerbated by many producers’ inability to read and write and therefore to verify the information noted down by ginners. Furthermore, the CDF is unable to provide inputs unless cotton was produced in the previous season, making it difficult for those in more erratic production areas to participate in the scheme. This is a particular problem for producers in Mwangala and Iteja villages, where cotton and rice production act as important substitutes depending on rainfall. Maro and Poulton also point to some further issues with the CDF in other districts of Tanzania within the first year of operations. “If Magu and Bariadi are excluded from the calculations, only 15% of the chemicals made available through CDF this season were taken up by producers. The rest will have to be returned to CDF via village and district administrations.... This was mainly due to the decision to purchase and distribute water-based pesticides to producers i.e. Decis and Karate, rather than oil-based ones which were used in Magu and Bariadi and had been used in the past by producers.” (Maro and Poulton, 2002, p.20)

Fieldwork interviews and focus groups suggests that access to the CDF is highly uneven both within and between villages with many producers still not aware of the function and potential benefits of the passbook. For many producers, there were misconceptions concerning access to the CDF, assuming that inputs could only be obtained if producers had sold through their local primary society buying post in the previous season. As a result many of the poorest producers across the three villages, but more acutely in Mwangala and Iteja, were unable to obtain inputs through the CDF and tended not to apply any inputs at all on their cotton crop. In Mwangala and Iteja village even the wealthiest producers often struggled to access the fund and many relied on alternative channels to access inputs. For example, one of the wealthiest and most powerful producers interviewed in Iteja village obtained his 8 litres of pesticide free of charge from Ukiriguru, the local research institute.<sup>7</sup> In Mwambiti village on the other hand the dominant pattern of input access was through the CDF or for those producing organically through free inputs from the organic cotton project based in the village.

For coffee, the failure to provide inputs through any institutional mechanisms has had severe consequences in our Kilimanjaro villages.<sup>8</sup> Producers in all villages have been forced to access inputs on the free market over the last few seasons and as a result have reduced their application and use of these. There are between village differences in the brands and types of inputs used by producers as well as differences in the prices paid for these and in the channels through which they have been acquired. All but one producer interviewed in Wanri village applied a minimum of Thiodane insecticide (although most applied both insecticide and fungicide) on their coffee crop in the last season. In Kiruweni village, however, almost half of

---

<sup>6</sup> We focus here on the implications of the CDF for input provision in the form of pesticides only and do not address the distributions of cotton seeds.

<sup>7</sup> It was unclear from the interview why exactly this had occurred, although insight from local research staff indicated that this may have been a reward for this particular producer’s commitment to cotton production. Clearly this ad hoc provision of inputs to certain large producers unfairly disadvantages the least powerful and smallest cotton growers in Tanzania.

<sup>8</sup> For reasons of brevity, we focus here on pesticide and fungicide inputs.

those interviewed had stopped applying any inputs on their coffee crop. For those that continued to apply inputs here, the majority focused on insecticide spraying over fungicide application. In Narumu village once again a number of producers could no longer afford to apply inputs. Those producer still using inputs in Narumu tended to apply both insecticide and fungicide on their crop.

When it comes to the relative prices paid for these inputs and their relationship to producers' position and influence at the village level some interesting remarks can be made. Those paying the lowest prices for insecticide and fungicide inputs tended to be producers with close associations with the cooperative union or those holding important political or elite positions within the village. This situation is particularly relevant for Narumu village where the two producers obtaining inputs at the lowest prices in the last season were the chairman of the local farmers' research group and the local area KNCU chairman. In Wanri village those benefitting from some of the lowest input prices included the local agent for one of the private buyers and one of the larger producers who maintained strong political ties within the village.<sup>9</sup> In Kiruwani village however, the picture was more blurred as many producers had stopped applying inputs in the last few seasons and therefore price comparisons were not as straightforward.

Finally in reference to access to inputs for coffee production we can note that a minority of the poorest producers across all three villages relied on alternative means to obtaining these expensive inputs with occasional devastating results. These producers relied on a system of group buying among a small group of producers. Alternatively, some producers acquired these inputs through their neighbours or friends, without any clear knowledge or awareness of the brands and expiration dates of these products. As a result some producers, particularly in Kiruwani village complained of expired and obsolete pesticides killing their coffee trees. Once again these comments regarding the failed performance of coffee inputs was limited to smaller scale producers with limited village-level influence.

Input access in cotton and coffee markets has been diverse and current institutional structures are clearly lacking. While the cotton sector has reintroduced an institutional instrument of input allocation the CDF system has shown to be flawed for numerous reasons, most notably the potential of exploitation of producers by ginners and a failure to accurately inform producers of its workings and benefits. In the case of coffee the failings are more acute. The lack of a systematic instrument to solve the input distribution problem has led to a severe reduction in input use as well as innovative yet often detrimental makeshift solutions to cost-sharing by the poorest producers.

#### **Cotton and coffee prices as reflections of power struggles and inequalities:**

Section three highlighted the general producer price developments for cotton and coffee and while in general terms figure 3 may hold, at the village and individual level enormous differences in the prices received by producers are evident. Tanzanian cotton producers obtain market prices offered by buyers (ginners) at village buying posts over the buying season (between June and August). In theory, competition between buyers within villages should result in increased choice for producers and therefore competition between buyers based on price. Some research has indicated that compared to other countries that have maintained a more central marketing system Tanzania has done particularly well in this respect, offering producers in general terms some of the highest prices. (Poulton, et al., 2004, Tschirley, et al., 2008). We have previously discussed the current purchasing and processing system for cotton which has obvious implications for the prices received by cotton producers. The behaviour and contractual obligations of ginners discussed above have

---

<sup>9</sup> He had worked as a farm-manager for the local Member of Parliament between 1974 and 1997.

exacerbated the uneven pricing of cotton in different geographical areas and between producers across Tanzania. This has meant that in areas where cotton production and therefore competition is intense, prices received by producers are subsequently also higher. In areas where producers are at the mercy of one of two buyers or are forced to transport the crop to a neighbouring village in order to sell, the story is rather different. Here prices are largely determined by the vendor and producers are price-takers. This is reflected in the prices received by producers in the three cotton-producing villages in our study, as highlighted in table 1. Producers in Mwambiti village were able to obtain much higher prices when compared to producers in Mwagala and Iteja. The higher average prices in Mwambiti also reflect the involvement of the private organic cotton project here. Producers involved in this project were able to garner the highest overall producer prices and the project's presence in the village may have placed pressure on other private buyers to also raise their price.

**Table 1: Summary of Cotton prices received by Producers in 2006/07**

Nominal average price per 1 kg in TSH in 2006/07 season					
Village	Export price: National level	Producer price: National level	Producer price: District level	Producer price: From interviews	Spread of prices: From interviews (%)
Iteja	1513	450	300	273	44%
Mwagala	1513	450	300	293	46%
Mwambiti	1513	450	350	344	29%

Sources: Export and producer prices are taken from the Tanzania Cotton Board, [www.tancotton.co.tz](http://www.tancotton.co.tz). District level price data for 2006/07 were obtained from district offices in Meatu and Misungwi district. Producer prices from the survey show the average price reported to have been received by cotton producers over the 2006/07 season. The spread of prices shows variation around the average price within each of the villages.

Beyond the simple analysis of prices received by producers, we must turn to the issue of within-season price changes. With the removal of pan-seasonal pricing, producers receive the market price at the particular point of sale. This price may change due to external factors, as occurred in 2004/5 when the cotton price dropped internationally between June and August 2004. However, more frequently, seasonal price developments reflect the nature of competition between ginners as well as cash requirements by producers. This means that when production and supply is high towards the beginning of the season, prices are relatively low and rise as the season proceeds. This has meant that those producers able and willing to store their crop are able to obtain a higher price later on in the year. Producers able to engage in storage in all three villages, tend to be wealthier producers with access to storage facilities and enough cash income from other sources to allow them to wait to sell their cotton. More information on this can be found in a previous study on cotton producers and prices. (Bargawi, 2008).

In the coffee case the situation concerning prices is somewhat different due to the continued influence of the cooperative unions which have the potential to act as price-setters in the domestic purchasing system for coffee. Evidence from interviews with producers and stakeholders highlighted the way in which many private buyers use the KNCU initial price as an informal base price with which they must compete. This has, however, not necessarily resulted in more stable producer prices for coffee, both within and between villages, when compared to the case of cotton. One important caveat relates to the payment system of the cooperative unions, paying producers up to three times over the year and thereby mitigating any potential price increases prior to sale at auction. Private companies are unable to offer this service and are forced to therefore offer producers a higher initial price without further payment later in the season. A comparison of prices must therefore take note of whether or not producers have already or are still expecting to receive further payments from KNCU.

Initial KNCU prices differed markedly between producers and villages, so that in Narumu village, where KNCU faced no competition from private buyers, producers had experienced the lowest overall prices out of the three villages. On the other hand Kiruweni producers received the highest overall prices. In a similar reflection of the situation in cotton areas, the presence of Kilicafe, who purchased the best quality cotton at the highest producer price, as well as the presence of two competing KNCU branches may have increased the pressure on overall prices here.

There was also evident unevenness in receipt of the seasonal further payments. In Wanri village there was no clear pattern in who had received the final payment for last year's crop and who had not. Around half of those selling to KNCU had received this additional payment while the other half was still waiting to receive this. In Kiruweni village of those producers selling to KNCU no one in this village had received their final payment yet. However, this was far less of an issue as overall prices, both those paid by private companies and KNCU branches, were much higher in the first place. Finally in Narumu village, where overall prices were the lowest, a minority of producers had received the final payment for last season, with all of these being members of the farmers' research group and one holding the position of KNCU committee member.

This one-off picture does not however highlight the problems associated with the timing and receipt of the second payment in general. Obtaining the second payment on time is particularly important for less well-off, smaller producers who rely on the receipt of this to afford coffee inputs for the following season as well as to cover educational associated costs, such as uniforms and school equipment expenses. Over the last two to three years the general movement of prices has been to increase as the season has proceeded, allowing the KNCU to offer producers significant additional income following the sale of the crop at auction. However prior to 2005 this has not always been the case and there have been numerous seasons over the last two decades during which the KNCU has struggled to make these additional payments. It is perhaps not surprising that those producers involved in the management and running of local and district KNCU branches as well as wealthier producers were least likely to complain about failings of the KNCU in paying them on time or at all over the last two decades. Comments regarding the unpredictability and failure of payment of producers as well as local level KNCU mismanagement issues more generally originated from less influential producers for the main part.

Since the introduction of private companies in the domestic buying process, the deteriorating quality of the Tanzanian coffee crop has been well documented. (Itika, 2005, Ponte, 2002, Ponte, 2001) Interviews with producers confirmed this trend, with half of those selling to private companies stating their production of low quality coffee as the reason for selling to a private company over the local KNCU branch. When considering the prices offered to producers it is unclear as to how bigger part quality differences really played in determining the price paid to them. Of those complaining of declining coffee quality, prices did not necessarily reflect this development. Generally speaking, few producers mentioned a drop in the quality of their own coffee, especially those producers still selling their crop through the KNCU. In Kiruweni village for those producers aware of the activities of Kilicafe, all agreed that coffee processed through Kilicafe's central pulper unit (CPU) was superior to what they could process at home and this is reflected in the high price received by the Kilicafe chairman for his coffee crop. The links between input use, transportation and storage issues and coffee quality did not come out as clearly as expected from the interviews and focus groups. Despite many producers complaining of lack of access and high prices for inputs only a minority mentioned a resultant drop in coffee quality. Instead the focus was on the links between processing techniques and quality with producers highlighting their superior cleaning and sorting routine as imperative to their continued production and sale of superior quality coffee.

A closer reflection on producer prices for cotton and coffee in our case study villages has highlighted the huge discrepancies in national and even regional data. This is in part a reflection of market power dynamics, with buyers of cotton particularly driving local producer prices. The role of the cooperative union in coffee markets has in part been beneficial by stabilising seasonal producer prices, although payment timing clearly differs from producer to producer and from village to village. Differences in producer prices also reflect non-market power dynamics within villages as well as the presence of speciality and niche buyers. Therefore the wealthiest producers with access to storage, transport, niche markets, information and close links to the village elite, are able to garner the highest prices and promptest payment compared to the poorest, cash-deprived producers for both cotton and coffee.

#### **Ad hoc extension and information provision in cotton and coffee markets:**

Extension advice and information access for both cotton and coffee has become increasingly informal, as government has retreated from direct involvement in the agricultural sector. The role of cooperative unions, private companies, village extension staff and regional research institutes require closer attention here as do the involvement of an organic cotton project in one of our cotton villages and a speciality coffee project in one of the coffee villages.

For cotton the main stakeholder in the provision of information and extension is the still partially government-funded research institute, Ukiriguru. Cooperative unions have not been involved in the sector in recent years and their involvement is therefore limited in terms of research and extension advice through primary village societies. Whilst Ukiriguru conducts important agronomic research in cotton, low staff numbers make it increasingly difficult for the organisation to transfer this knowledge into practice. Our fieldwork results indicate very little involvement of Ukiriguru or the private sector in extension and information provision, from the perspective of producers. Most producers across all villages relied on radio broadcasts for information on prices whilst extension officers were able to provide producers with information on cotton husbandry among other things. However, extension staff noted the difficulty in producers implementing this advice due to, for example, lack of funds to purchase the necessary inputs. Furthermore extension officers themselves often turned to private buyers and Ukiriguru for information, including price information. Only those involved in the organic cotton project in Mwambiti village were able to access a package of extension advice, price information and bio-inputs. However, this was limited to the two wealthiest and largest producers in Mwambiti who were contractually involved with this project. Many other producers in the village were either not aware of the project's existence or were unable to produce the quality necessary to participate in the project.

A similarly crude picture emerges regarding private extension and information provision for coffee, with next to no private sector extension or information provision but a more active role for the cooperative union, KNCU and particularly for TACRI, the now privatised crop-specific research body. TACRI's role, particularly in the development and provision of a new fungicide-resistant coffee tree has proven interesting. A number of producers have been able to benefit from these new variety trees at differing costs. Access and distribution of these new variety trees has been encouraged by TACRI since 2004 through village level farmer's research groups. All three villages analysed here were said to have such farmers' research groups linked to TACRI. However on closer inspection these were only active in two of the three villages, Wanri and Narumu. In Wanri village access to the new trees was limited to three of the largest and wealthiest producers in the village who obtained these at TSH 500-1000 per tree directly from TACRI, rather than through the village farmer's research group. In Narumu on the other hand it was evident that many producers had no awareness of the farmers' research group and were still purchasing traditional variety trees (if at all) from various private sources. It was only the farmers' research group chairman and other members of the group that were accessing the new variety trees free of charge. Finally in Kiruweni village, where no farmers' research group was active the only producer to plant new variety

trees was the chairman of the local Kilicafe speciality growers association, obtaining these at TSH 500 per tree directly from Kilicafe in Moshi.

In our coffee-growing villages, the importance of the cooperative union in providing information and advice was retained to a much greater extent than for cotton. The provision of price, input and quality information is a particularly important function performed by KNCU and handed down to producers through their primary societies. From interviews with producers in all three villages and with KNCU officials it was clear that this stylised process did not always work in a straightforward way. Many primary societies had failed to forward the information from KNCU on to their members.<sup>10</sup> In theory, producers in Kiruweni village involved with Kilicafe, the speciality coffee growers project should also benefit from extension services provided by this externally-funded organisation. However, as discussed above, the organisation's governance and managerial failings have led to declining membership so that from those interviewed in this village, only the local Kilicafe chairman was able to benefit from the extension and information package provided by them.

The overall picture from the cotton and coffee villages that emerges here is one of piece-meal and frequently unfair provision of extension advice and information, particular when various NGO and "civil-society" organisations have attempted to fulfil the functions of government bodies. Often those benefitting from these services are those producers least in need i.e. the wealthiest and most politically influential. While the regional research institutes have made significant progress in their remit to conduct agronomic research, budgeting constraints make it extremely difficult for these institutions to systematically transfer these research findings into practice. Fundamentally, even with a thorough system of research and extension provision, without the necessary support in other areas, most notably input access and distribution, even the best intended advice will not be useful.

## **5) Tanzania's rural institutional history: Explaining our observations**

So far we have discussed in detail the stylised and "real" institutional system for cotton and coffee production in rural Tanzania under four main headings. While these four broad areas are not exhaustive they highlight the major challenges of the cotton and coffee sectors and the areas which policy-makers have focused their attention on. There are clear parallels that can be drawn from the experiences in both sectors, particularly in relation to the large institutional and regulatory gaps in both sectors. Furthermore, where institutional structures, be they indigenously formed or externally imposed, have attempted to solve problems they have often worked within existing relations of power, favouring those who might be least intended and least in need of the potential benefits.

As we will see in the following section, this process is not necessarily a new one in the context of Tanzanian cash crop production. The messy and changing role of the state and cooperative societies has influenced the way in which institutional structures have developed. Within these existing organisations, power and political influence remain crucial factors in determining winner and losers from liberalisation and institutional change. On top of these existing structures new ones have also emerged. This process has frequently been driven by external agencies and in each of the cotton and coffee cases an important example has been illuminated. The case of the organic cotton project funded by a private company in Mwambiti village, as well as the NGO-driven speciality coffee growers association in Kiruweni village acted as our case studies here.

Tanzania's complex rural history has placed villages and producers within them in a difficult position, where relative power of individual producers is not necessarily linked to their ability

---

<sup>10</sup> Unfortunately, we do not have sufficient information on this phenomenon to analyse it further here.

to reap successful outcomes for the sector as a whole. We therefore turn here to uncovering this institutional and social history in Tanzania, reflecting in particular on lessons for interlinked markets and the potential for external involvement in these sectors. This is initially done by briefly addressing and identifying the Tanzanian cash crop peasantry and its relations with external actors and the state over time. Secondly, the changing power dynamics of the cooperative societies and producer organisations must be addressed. The relations, tensions and hi-jacking of these institutions by the state or individual producer members at various points in Tanzania's past highlight the embedded nature and uniqueness of these institutions.

a. A brief history of peasant organisation and revolt in Tanzania

Tanzania is often seen within the literature on agriculture as having a homogenous and "peaceful" rural population where conflicts are minimal and where democratic institutions are well established. (World Bank, 2000, World Bank, 1994) This myth of homogeneity is clearly dismissed by a closer consideration of history itself, particularly pertaining to the cotton and coffee sectors. In the cotton sector, "coercion, intimidation, and other mechanisms of social control figured prominently in German schemes in Tanganyika." (Isaacman and Roberts, 1995, p.22) This contrasts to the coffee sector where the colonial regime actively discouraged coffee production in the early 20<sup>th</sup> century and where producers faced competition from European settler producers. (Kimario, 1992) In both cotton and coffee markets peasant cultivators at this time did not simply adhere to the demands of their colonial masters and had many subversive ways of undermining their demands. In the cotton-growing areas this was done by not applying the correct amounts of labour and non-labour inputs; by refusing to collect the crop and by refusing to sell the crop to the export sector. Colonial powers frequently misinterpreted this behaviour and "dismissed them as just another indication of uneconomic behavior of lazy and incompetent African farmers" p.37 (Isaacman and Roberts, 1995). In Kilimanjaro region one of the responses to the colonial policies was the creation of the Kilimanjaro Native Planters Association in 1925 by native peasant producers. (Kimario, 1992)

A clear reflection of the levels of peasant despondency and revolt over cash crop production can be seen in the Maji Maji rebellion of 1905, during which political and ideological factors combined to bring together diverse peasant producers in opposition to the German colonial government of the time. (Iliffe, 1967, Monson, 1995) This discontent was also seen in cotton growing areas around Lake Victoria, as Kimario describes. "For a long time the cotton farmers were not happy with the marketing facilities and services which were provided by Asian middlemen. Low prices, unfair determination of weights and grades of cotton bought from the farmers and other malpractices created such a great tension between the farmers and the Asian middlemen that the struggle developed into a political and racial wrangle. Farmers' appeals to the government to rectify the situation were ignored." (Kimario, 1992, p.10) Similar problems were shared by coffee growers surrounding Kilimanjaro who revolted against the external colonial replacement of the KNPA by the newly established KNCU, which "farmers felt ..... had become a government owned organization rather than their own." (Kimario, 1992, p.6)

The organisation of producers described above became further entrenched through the setting up of producer cooperatives. These were usually promoted by wealthier and better connected producers in areas where cash crops had become a major part of household and village production. These cooperatives were seen as a way of opposing the perceived exploitation of producers by both colonial bureaucrats and Asian middle-men and traders. (Havnevik and Harsmar, 1999, Moshi, 1992) The KNPA for coffee and the Lake Province Growers Association (LPGA) for cotton were important examples of producer-driven organisations that were aimed at increasing the bargaining power of producers involved in cash crop production.

It is therefore evident that peasant cash crop producers in Tanzania have a long and complex history that has involved both tacit and active organisation and opposition to colonial state actions as well as against traders and middle-men involved in the cotton and coffee sectors. This relative short but volatile history has meant that many producers still remain wary and suspicious of current private sector involvement in “assisting” or “interlinking” with them. Many of the middle-men and colonial agencies against which producers rebelled and organised have since been replaced by international capital, through MNCs and their agents. However, in both cotton and coffee markets, many of today’s Tanzanian-Asian trading companies originate from families that have a long history within Tanzanian agricultural trading and marketing. (Gibbon, 1998, Isaacman and Roberts, 1995, Nindi, 1992)

We can therefore understand some of the observations regarding the current ad-hoc and missing institutional systems in Tanzania in part through this history. Whilst both cotton and coffee sectors have attempted to solve various institutional gaps through interlocking markets for inputs, such as the failed input vouchers scheme for coffee and the current CDF for cotton, these set-ups retain inherent weaknesses. Similarly the entry of externally funded NGO/ donor projects in cotton and coffee areas have often been greeted with scepticism and apprehension on the part of producers and can be questioned in terms of their longer-term viability and sustainability. Issues of trust and relation-building between producers and traders, private companies or NGOs clearly need to be better understood within the complex history discussed here.

b. The changing face and functions of producer organisations and rural cooperatives in Tanzania

We have previously discussed the changing role of the cooperative system in the context of cotton and coffee marketing in section three above. Here we therefore focus on the political features of these organisations and the implications of these developments for our observations in section four.

Over the independence period, the original producer cooperatives were reformed by the colonial state and the Victoria Federation of Cooperative Unions and the Kilimanjaro Native Cooperative Union emerged in their place. These new organisation, despite initial problems grew successful over the 1940s and 50s and helped the cotton and coffee sectors, respectively, to expand and production rose dramatically. (Kimario, 1992) Following independence in 1964 and the move to Tanzanian “socialism” in the late 1960s, cooperative unions were initially encouraged and formed an important part of the state’s policy towards agriculture and rural development. Cooperatives became a crucial mechanism that allowed the government to connect to cash crop producers and rural households and through which it could pass on its visions and policies. By 1975 there were over 2000 registered cooperative societies in Tanzania. (Moshi, 1992) Deborah Bryceson sums up the post-colonial state position vis-à-vis cooperative societies in Tanzania. “This was the nationalist and popular solution to marketing organization.” P.559 (Bryceson, 1981)

Whilst the continued existence of cooperative societies relied in theory on the principles of democracy and equality, the reality was quite different. Larger and politically well connected producers tended to control cooperatives within villages and districts, leaving smaller peasant cultivators behind. (Ponte, 2002) Furthermore, the use of the cooperative movement by the state to facilitate their own policies and objectives, in many ways undermined the original foundations of these institutions.(McHenry, 1994) “Because of this erosion of cooperatives were viewed by their members as alien and bureaucratic institutions run by the government.” (Moshi, 1992, p.71)

Following the adoption of Ujamaa and the unique policy of villagisation, which promoted community development and self-reliance, the role of the existing cooperative societies was increasingly made redundant and they were eventually banned in 1975. Some have argued

(Kimario, 1992) that the cooperative movement had become too strong for the government to control. "As such, it was feared by bureaucrats that the movement which had not quite embraced the socialist ideology as spelt out in the Arusha Declaration could make it difficult for them to implement socialist programmes in the rural areas." P.62 (Kimario, 1992) Instead of the cooperatives newly formed Ujamaa villages were seen as the key production and decision-making unit and state policies focused on the centralised provision of services to these villages. (Bryceson, 1993, Ponte, 2002) The new system ensured a direct link between the state and producer villages. Whilst the power of the wealthiest producers who had controlled the cooperative societies was eliminated through this new marketing system, new state bureaucrats and agents soon filled this power vacuum. (Bryceson, 1981, Ponte, 2002). Overall one can conclude that the process of transforming cooperative societies into Ujamaa villages involved a process of shifting power from one set of powerful agents, the kulak farmers to another set of power brokers, the new state bureaucrats. (Hyden, 1980, McHenry, 1994)

The failure of agricultural production and rural development within Tanzania combined with external and macro-economic events (the 1970s oil shocks; debt crisis; deteriorating terms of trade for exports) led state institutions to question the decision to abolish the cooperatives. The two-tier marketing structure that had replaced the cooperative system had been a disaster and Tanzanian export producers were particularly detrimentally affected through payment delays, low prices and failure to collect crops. The government yielded to demands from within the country and from international donors in 1982 when it reinstated cooperative unions in the rural economy. (McHenry, 1994, Ponte, 2002)

Following the capturing of the cooperatives by wealthy, kulak-type producers in the 1950s and 60s, the government attempted to ensure that the new cooperative marketing system was under state and more importantly party control. The early 1980s was a period of intense power struggles in Tanzanian agriculture with the cooperative unions at the heart of this. By 1985 a decision had been taken to shift the system to one of village cooperative societies controlled by an overarching apex union. However, the indecisiveness of the government over the form of the cooperative system and the wrangling over control of these institutions at the regional and village level, left many members despondent and pessimistic about the system as whole. (McHenry, 1994, Ponte, 2002)

In 1991 with liberalisation of agriculture around the corner, the cooperative system was once again overhauled. Cooperatives were now made voluntary in membership and were focused around a particular economic sector or crop. Furthermore the apex union that had existed up to this point was disbanded and regional and crop-specific cooperative unions took its place. Finally, the 1991 act aimed at giving cooperative societies greater political and state independence, at least on paper. The system has, on the surface, remained largely unchanged since the 1991 act. However, the process of liberalisation and marketing competition from private traders has once again challenged the viability and existence of cooperatives at all levels in Tanzania. (McHenry, 1994) Most cooperative societies, especially in the cotton sector, have been stripped of their original monopsony buying and service provision functions and of their material and financial foundations. As a result, whilst their ideologies are largely retained they mostly lack the material and financial resources to operate.

These developments and changes are often not transmitted down to all members of these organisations, namely the majority of cash crop peasant producers. This is reflected in our observations in cotton and coffee-producing villages, where many producers retained membership of their primary society and cooperative union, despite particularly negative experiences with payment delays and input access through them. Reasons for this related to producers' sense of obligation towards these organisations as well as their sense that membership "couldn't hurt" and may even lead to social and economic benefits in the future.

Furthermore, facing competition from private companies and agencies in the provision of services and markets, many cooperative societies at the village level have seen their leaders and managers manipulate and exploit these institutions to their own personal advantage. This development links back to the development in the 1950s and 60s when wealthy and larger kulak-type producers seized control of these organisations. However, it is not evident that all leaders and managers of today's cooperative societies are necessarily the most dynamic and productive peasants, nor do these leaders necessarily represent the interests of their members any longer. In cotton-growing areas in particular many of the largest and most dynamic peasant producers in Mwangala and Iteja villages were not involved with the remnants of the cooperative system here. Instead these producers relied on other private ties and links to access markets for inputs and outputs. Similarly in Mwambiti village, various misconceptions regarding the primary society's role were in evidence. In Kilimanjaro region KNCU still retained some of its existing functions and financial viability. However once again here various discrepancies between and within different KNCU primary societies were reflected in the array of producer prices received; the diverse length of time taken to pay producers; the differentiated access and cost of inputs; and finally the varied access to extension services. Leaders and managers of local primary societies linked to KNCU were clearly at an advantage when it came to these areas.

From the above overview of the complex history of cooperative societies in Tanzania it is evident that their function and power has been partially determined by the needs and interests of government as well as by those of certain powerful producers and does therefore not uniformly represent the concerns of Tanzanian producers at a particular point in time. Not only is the cooperative movement vulnerable to internal pressures and distortion of motivations and funds by individual members; they are also prone to external pressure from government and other influences. The case of Tanzania clearly demonstrates both of these concerns.

## **6) Conclusions**

This investigation had two major aims. The first was to demonstrate the institutional vacuum left by the liberalisation of cotton and coffee sectors in Tanzania and a description of the status-quo concerning the regulation and management of these sectors. The second aim was an investigation into the unequal outcomes of some of the current ad-hoc and piece-meal institutional responses to the gaps left by the state. We began by reviewing the theoretical literature surrounding the nature and role of institutions in agriculture in section two, demonstrating the need to clearly define terms and parameters and highlighting the socially embedded character of rural institutions. In section three we covered the main changes in the institutional and marketing system for cotton and coffee under four broad headings. This highlighted some of the major failings in the post-liberalisation marketing and production system for both cotton and coffee. The most crucial lacunas were the exposure to price fluctuations, an erratic and geographical purchasing market and limited extension services for cotton whereas for coffee the main problems are related to input provision and distribution failures and a lack of systematic extension service provision as well as quality deterioration.

In part four of the paper we turned to the realities of institutional and marketing arrangements by considering six Tanzanian villages. This section drew on fieldwork information gathered in 2006-2007 from a variety of points in the production and marketing system for cotton and coffee. Here some of the current formal and informal production and institutional structures were illuminated. These institutional solutions included ones motivated by producers themselves, the state as well as those introduced by external donors, NGOs or private actors. From the discussion of our fieldwork villages it was evident that underlying village dynamics have been intrinsic to the way in which certain producers have been able to use market and non-market power relations in their favour. A discussion of the social and historic context in which these institutional changes have proceeded in section five helped us appreciate and

explain the observations made. A particular focus was placed on the changing functions and roles of cooperative societies within Tanzanian politics and rural society. This discussion allowed us to highlight some of the historic ways in which the most powerful and influential in society have been able to use market and non-market power to their advantage. Furthermore it highlighted the relevance of these processes for current institutional developments in Tanzania, where the piecemeal attempts at organisation and regulation of the cotton and coffee sector have been far from even in their distributional consequences.

The current policy agenda on agriculture and rural development in Tanzania has failed to recognise these issues in its attempts to solve Tanzania's institutional problems in agriculture. Instead, international donors and NGOs may be exacerbating the current situation by entrenching unequal village relationships and working within current highly uneven village institutional structures. Furthermore current attempts at building up interlinked markets and involving private actors and NGOs in niche market developments have also faced problems. This can partially be related to their failure to address the historic links between producers and traders and the state in Tanzania. There is therefore a clear need to better understand existing village-institutions and the underlying power dynamics in cotton and coffee-growing areas, as well as elsewhere in Tanzanian agriculture before existing institutional structures are either reformed or replaced.

## References

- Agbamu, J. U. "Agricultural Research-Extension Linkage Systems: An International Perspective." *AGREN Network Paper* 106, no. a(2000).
- Ajakaiye, O., et al. (2006) *Institutions and Pro-Poor Growth Inception Phase, Country Case Study: Tanzania Development Studies Institute, London School of Economics.*
- Auld, D., et al. (2006) *Lint, Cottonseed Oil, or Biodiesel? - Breeding Cotton for the Next Decade.* Indianapolis.
- Baffes, J. "Tanzania's Coffee Sector: Constraints and Challenges." *Journal of International Development* 17(2005): 21-43.
- Baffes, J. "Tanzania's Coffee Sector: Constraints and Challenges in a Global Economy." *World Bank Findings* 237(2004).
- Baffes, J. "Tanzania's Cotton Sector: Reforms, Constraints and Challenges " *Development Policy Review* 22, no. 1(2004): 75-96.
- Baffes, J. "Tanzania's Cotton Sector: Reforms, Constraints and Challenges." *Development Policy Review* 22, no. 1(2004): 72-99.
- Baghdadli, I., H. Cheikhrouhou, and G. Raballand. "Strategies for Cotton in West and Central Africa." *World Bank Working Paper No. 108* (2007): 1-88.
- Bargawi, H. K. "Cotton Price Fluctuations at the Ground-level: Assessing the Difference in Impact in Rural Tanzania." *Journal of Life Sciences* Forthcoming Special Issue on Cotton(2008).
- Beintema, N. M., T. M. Ngahulira, and T. N. Kirway. "Tanzania Country Brief." *Agricultural Science and Technology Indicators Country Brief No. 3* (2003).
- Bhaduri, A. *The Economic Structure of Backward Agriculture.* London: Academic Press 1983.
- Bhaduri, A. "Forced Commerce and Agrarian Growth." *World Development* 14, no. 2(1986): 267-272.
- Bryceson, D. F. *Liberalizing Tanzania's Food Trade: Public and Private Faces of Urban Marketing Policy, 1939-1988.* London: James Currey, 1993.
- Bryceson, D. F. "Peasant Commodity Production in Post-Colonial Tanzania." *African Affairs* 81, no. 325(1981): 547-567.
- Chayanov, A. *The Theory of Peasant Co-operatives.* London: I.B. Tauris & Co, 1991.
- Crow, B. (1999) *Researching the Market System in Bangladesh*, ed. B. Harriss-White. London, Palgrave Macmillan, pp. 115-150.
- Curtis, K. R. (2003) *Smaller Is Better: A Consensus of Peasants and Bureaucrats in Colonial Tanganyika*, ed. W. G. Clarence-Smith, and S. Topik. Cambridge, Cambridge University Press.
- DFID. "Use of civil society organisations to raise the voice of the poor in agricultural policy ". DFID.
- Dorward, A., J. Kydd, and C. Poulton (1998) *Smallholder Cash Crop Production under Market Liberalisation: A New Institutional Economics Perspective.* Wallingford, Cab International.
- Evans, A. "'Contracted-Out': Some Reflections on Gender, Power and Agrarian Institutions". *IDS Bulletin* 24, no. 3(1993): 21-30.
- Gibbon, P. (2003) *Commodities, Donors, Value-Chain Analysis and Upgrading*, UNCTAD.
- Gibbon, P. "Free Competition Without Sustainable Development: Tanzanian Cotton Sector Liberalisation, 1994/95 to 1997/98." *Journal of Development Studies* 36, no. 1(1999): 128-150.

- Gibbon, P. "King Cotton under Market Sovereignty: The Private Marketing chain for Cotton in Western Tanzania, 1997/98." Centre for Development Research, December 1998.
- Gibbon, P. "Limping towards a Ditch without a Crutch: The Brave New World of Tanzanian Cotton Marketing Cooperatives." Centre for Development Research December 1998.
- Gibbon, P. "Peasant Cotton Cultivation and Marketing Behaviour in Tanzania since Liberalisation." Centre for Development Research, December 1998.
- Gibbon, P., and S. Ponte. *Trading Down: Africa, Value Chains, and the Global Economy*. Philadelphia: Temple University Press, 2005.
- Goreux, L., and J. Macrae. "Reforming the Cotton Sector in Sub-Saharan Africa." *World Bank Africa Region Working Paper Series No. 47* (2003): 1-67.
- Harriss-White, B. (1999) *Agricultural Markets from Theory to Practice*. London, Palgrave Macmillan.
- Harriss-White, B. *A Political Economy of Agricultural Markets in South India: Masters of the Countryside*. London: Sage Publications, 1996.
- Harriss-White, B. (1999) *Power in Peasant Markets*, ed. B. Harriss-White. London, Palgrave Macmillan, pp. 261-286.
- Harriss, B. "Markets, Society and the State: Problems of Marketing under Conditions of Smallholder Agriculture in West Bengal." WIDER, November 1991.
- Havnevik, K. J., and M. Harsmar. *The Diversified Future: An Institutional Approach to Rural Development in Tanzania*. Edited by EGDI. Stockholm: Almqvist and Wiksell International 1999.
- Hyden, G. *Beyond Ujamaa in Tanzania: Underdevelopment and An Uncaptured Peasantry*. London: Heinemann, 1980.
- ICRA (1997) *The Sukumaland Casestudy*, International Centre for development oriented Research in Agriculture.
- Iiffe, J. "The Organization of the Maji Maji Rebellion." *Journal of African History* 8, no. 3(1967): 495-512.
- Isaacman, A., and R. Roberts (1995) *Cotton, Colonialism, and Social History in Sub-Saharan Africa*. Portsmouth, Heinmann.
- Itika, J., S. "Institutional Constraints as "Rules of the Game": Reflections on Coffee Production and Marketing in Moshi Rural District." *Eastern Africa Social Science Research Review* 21, no. 1(2005): 39-56.
- Kähkönen, S., and H. Leathers. "Transaction Costs Analysis of Maize and Cotton Marketing in Zambia and Tanzania." *USAID Technical Paper Agriculture, Natural Resources and Rural Enterprise*, no. 105(1999).
- Kapinga, D. S. "Political process, professionals and the "uncaptured peasantry": the case of village producer cooperatives in Tanzania, 1985-1995." University of East Anglia, 1996.
- Kaplinsky, R. (2005) *Revisiting the Revisited Terms of Trade: Will China Make a Difference?*, Institute of Development Studies.
- Kashuliza, A. K., and E. R. Mbiha (1992) *Structural adjustment and the performance of the agricultural sector in Tanzania, 1980-1990*, ed. P. G. Forster, and S. Maghimbi. Aldershot, Avebury.
- Kimario, A. M. *Marketing Cooperatives in Tanzania: Problems and Prospects*. Dar es Salaam: Dar es Salaam University Press, 1992.
- Komba, A. Y. (1992) *Technological factors in peasant production in Tanzania: Three decades of learning by doing*, ed. P. G. Forster, and S. Maghimbi. Aldershot, Avebury.

- Kydd, J., A. Dorward, and C. Poulton (2002) *Institutional Dimensions of Trade Liberalisation and Poverty*. Paris.
- Maghimbi, S. (1992) The abolition of peasant cooperatives and the crisis in the rural economy in Tanzania, ed. P. G. Forster, and S. Maghimbi. Aldershot, Avebury, pp. 216-235.
- Maghimbi, S. "Recent Changes in Crop Patterns in the Kilimanjaro Region of Tanzania: The Decline of Coffee and the Rise of Maize and Rice." *African Studies Monographs Supplement* 35(2007): 83-85.
- Maro, W. E., and C. Poulton. "System Overview Report for Tanzania." DFID, September.
- Maro, W. E., and C. Poulton. "Tanzania Country Report: 2001/2002 Production Season." DFID, January 2004.
- McHenry, D. E. *Limited Choices: The Political Struggle for Socialism in Tanzania*. Boulder: Lynne Rienner Publishers, 1994.
- Mercoiret, M. R. "Enhancing the Capacities of Rural Producer Organisations." World Bank.
- Monson, J. (1995) Rice and Cotton, Ritual and Resistance: Cash Cropping in Southern Tanganyika in the 1930s ed. A. Isaacman, and R. Roberts. Portsmouth, Heinemann, pp. 268-284.
- Morris, M. "Understanding Household Coping Strategies in Semi-arid Tanzania." Final Technical Report. DFID.
- Moshi, H. P. B. (1992) Cooperative and agricultural development problems and policy options: The Tanzanian experience 1961-1990 ed. P. G. Forster, and S. Maghimbi. Aldershot, Avebury, pp. 58-73.
- Mwakalobo, A. B. S. "Resources Productivity and Allocation Efficiency in Smallholder Coffee Farmers in Rungwe District, Tanzania." *AGREST Conference Proceedings Series* 4(2000).
- Nabli, M. K., and J. B. Nugent. "The New Institutional Economics and Its Applicability to Development." *World Development* 17, no. 9(1989): 1333-1347.
- Nindi, B. (1992) Agricultural marketing reforms and the public versus private debate in Tanzania, ed. P. G. Forster, and S. Maghimbi. Aldershot, Avebury.
- North, D. C. "Institutions." *Journal of Economic Perspectives* 5, no. 1(1991): 97-112.
- North, D. C. (1997) *Institutions Matter*, ed. T. Persson. Singapore, World Scientific Publishing Co.
- Nylandsted Larsen, M. "Market Coordination and Social Differentiation: A comparison of Cotton-Producing Households in Tanzania and Zimbabwe." *Journal of Agrarian Change* 6, no. 1(2006): 102-131.
- Nylandsted Larsen, M. "Re-regulating a Failed Market: The Tanzanian Cotton Sector 1999-2002." Centre for Development Research, April 2003.
- Obare, G. A., B. A. Shiferaw, and G. Muricho. "Leveraging Rural Institutions for Collective Action to Improve Markets for the Poor: Lessons and Policy Conclusions." CGIAR, August.
- Onumah, G. E., et al. "Empowering Smallholder Farmers in Markets: Changing Agricultural Marketing Systems and Innovative Responses by Producer Organizations " *ESFIM Working Paper 2* (2007).
- Pankhurst, H., and D. Johnston (1999) *Diversity in Practice: An international NGO's experience of micro-finance*, ed. S. Jones, and N. Nelson. London, Intermediate Technology Publications, pp. 91-101.

- Ponte, S. "Brewing and Bitter Cup? Deregulation, Quality and the Re-organization of Coffee. Marketing in East Africa." *Journal of Agrarian Change* 2, no. 2(2002): 248-272.
- Ponte, S. (2001) Coffee Markets in East Africa: Local Responses to Global Challenges and Global Responses to Local Challenges, Centre for Development Research.
- Ponte, S. *Farmers and Markets in Tanzania: How Policy Reforms Affect Rural Livelihoods in Africa*. Oxford: James Currey, 2002.
- Ponte, S. "Fast Crops, Fast Cash: Market Liberalization and Rural Livelihoods in Songea and Morogoro Districts, Tanzania." *Canadian Journal of African Studies* 32, no. 2(1998): 316-348.
- Ponte, S. "The Politics of Ownership: Tanzanian Coffee Policy in the Age of Liberal Reformism." *African Affairs* 103, no. 413(2004): 615-633.
- Poulton, C., et al. "Competition and Coordination in Liberalized African Cotton Market Systems." *World Development* 32, no. 3(2004): 519-536.
- Putterman, L. "Economic Reform and Smallholder Agriculture in Tanzania: A Discussion of Recent Market Liberalisation, Road Rehabilitation and Technological Dissemination Efforts." *World Development* 23, no. 2(1995): 311-326.
- Regional Agricultural Trade Expansion Support Programme. "Cotton-Textile-Apparel Value Chain Report Tanzania." RATES.
- Seppälä, P. *Diversification and Accumulation in Rural Tanzania*. Edited by N. Afrikainstitutet. Stockholm: Elanders Gotab, 1998.
- Skarstein, R. "Productivity in Tanzania. From Promised Success to Real Failure, 1985-1998." *Journal of Agrarian Change* 5, no. 3(2005): 334-362.
- Thorbecke, E. (2000) Agricultural markets beyond liberalization: The role of the state, ed. A. Van Tilburg, H. A. J. Moll, and A. Kuyvenhoven. Boston, Kluwer Academic Publishers, pp. 19-53.
- Towo, E. "The Gender Dimension of Rural Producer Organisations in Tanzania." NIBR.
- Tschirley, D., C. Poulton, and D. Boughton. "The Many Paths of Cotton Sector Reform in Eastern and Southern Africa: Lessons from a Decade of Experience." *MSU International Development Working Paper* 88(2006).
- Tschirley, D., et al. "Comparative Analysis of Organization and Performance of African Cotton Sectors: Learning from Experience of Cotton Sector Reform in Africa." World Bank.
- United Republic of Tanzania (1996) National Sample Census of Agriculture 1994/95: Tanzania Mainland, ed. N. B. o. S. Ministry of Agriculture.
- United Republic of Tanzania (2006) National Sample Census of Agriculture 2002/2003: Smallholder Agriculture, ed. National Bureau of Statistics. Dar es Salaam.
- Vakulabharanam, V. "Growth and Distress in a South Indian Peasant Economy During the Era of Economic Liberalization." *Journal of Development Studies* 41, no. 6(2005): 971-997.
- Winter-Nelson, A., and A. Temu. "Institutional Adjustment and Transaction Costs: Product and Inputs Markets in the Tanzanian Coffee System." *World Development* 30, no. 4(2002): 561-574.
- World Bank. "Agriculture for Development." World Bank.
- World Bank. "Agriculture in Tanzania since 1986: Follower or Leader of Growth?" June 2000.

World Bank. "Tanzania agriculture: A joint study by the Government of Tanzania and the World Bank." World Bank,.

## APPENDIX A: Research methods overview

### a) Fieldwork methods

The following section relies on information gathered from village focus groups, semi-structured producer interviews as well as interviews with stakeholders in the Tanzanian cotton and coffee sectors. This data was obtained over the 2006-2007 production season, with an initial research trip and interviews completed in October-November 2006 and more thorough research conducted during March-June 2007. The research was conducted with the generous assistance and help of two regional research institutes, namely Ukiriguru research station in Mwanza and Shinyanga regions and TACRI in Kilimanjaro region. These institutions provided assistance in the form of village and producer selection, transportation, translation and data interpretation and analysis. Following discussions with these organisations three villages in predominantly cotton and coffee growing areas were selected to give a thorough and diverse experience of production and marketing of these crops.

At the village level, following focus groups with key village decision-makers and producers, a selection of between 10-15 producers in each of the villages were chosen by focus group participants to provide an in-depth and complete picture of village experiences over recent years. A focus was placed here on diversity, encouraging focus groups to select producers from diverse backgrounds, of different size, wealth, gender; production technique and institutional access. In total 69 producers across the six villages were interviewed. Following these semi-structured interviews within each of the villages, extension officers for each of the villages were also interviewed, as were heads of local primary schools. Whilst the individual producer interviews cannot be taken as representative of village experiences, taken in combination with the focus group results and the interviews with extension agents and primary school heads a clear picture regarding village dynamics and experiences could be established. These interviews covered village, farm and producer characteristics; the experience of liberalisation and institutional crop changes in general and for them in particular; their responses to these institutional and marketing challenges; current institutional structures for the provision of inputs, information and extension and their role in these structures. Labour and input use over time also formed an important part of the interview, as did the experience of prices and price changes in recent years and responses to these changes. One important aspect of this work has been to attempt to establish differences within villages in how institutional changes have been experienced. In order to assess more concretely the most and least powerful and wealthy at the village-level the following categories were used to assess differences: assets in the form of land, livestock; cotton output; observations on house size and material make-up of the house; village political and elite positions held; and the use of family versus non-family labour. These were collated to form a relative index of wealth and power within the villages.

As well as the data gathered from interviews and focus groups, information in the form of observations and informal discussions with researchers and village members proved crucial. This was particularly important for the determination and underlying dynamics of power relations within villages and between producers and other institutions and stakeholders. Beyond the villages themselves interviews with a number of private and public actors also formed part of the research project. A number of key stakeholders and private individuals involved in the cotton and coffee marketing system were interviewed. Subjects here included changes in the domestic market for cotton and coffee and relevant institutional changes; their past, current and future involvement in the sector; their relationships to producers; and their perception of the challenges to the production and marketing system today. Once again these individuals were not randomly selected and may not reflect all opinions concerning the performance and institutional challenges of the cotton and coffee sector in Tanzania. However, a total of around 30 interviews were conducted, covering the main government bodies,

marketing boards, cooperative unions and private exporters. Domestic traders for coffee were more difficult to identify as the field research was conducted outside the main buying season.

Further to the first-hand data collection, an attempt was made to collect and collate as much secondary information from district, ward and regional offices as is available. Information on production, productivity, prices and marketing systems for cotton and coffee were sought, although the availability and accuracy of this information is limited. Some further gaps and weaknesses in the research methods can be identified under two main headings: the unit of analysis and non-sampling errors. In the first instance the unit of analysis in this research is two-fold - that of the village and that of the producer. As our interest here is in the ways different producers have experienced production, marketing and institutional changes, the unit of producer and village are the most salient. Our analysis, especially in coffee-growing areas does include some female producers and some particular remarks relating to this are made later in this section.<sup>11</sup>

Turning to the issue of non-sample error, it is evident that the nature of this research, relying largely on first hand data from a variety of sources brings with it the expected problem of errors and biases beyond the selection of respondents. To briefly summarise the issues here, problems of recall are particularly relevant to this research project, as respondents were asked to remember events, changes and their responses to these over the last 10-15 years. The initial use of focus groups and subsequent checking of producer interview results with extension officers helped to minimise these errors, although they could not be entirely avoided. The majority of the research was undertaken in Swahili, requiring the researcher to rely on an interpreter. This process of translation may have led to significant errors in results and analysis, although close working with local researchers and a basic knowledge of Swahili by the researcher attempted to counteract this problem. The final major concern in this work is any potential institutional bias by producers, especially towards government institutions and cooperative societies. Aware that there may be repercussions from any unkind remarks regarding the government and associated institutions may have led to exaggerated reports of their effectiveness. Furthermore, some respondents, for fear of government tax collection may have underreported their production and price figures. Reassurances from the researcher and interpreter regarding the use and application of the information gathered as well as the confidential nature of the interviews were used to gain the trust and confidence of respondents. Whilst not all errors and biases could be avoided in this research project, working closely with local researchers and research organisations that know the agro-climatic environment, the villages and the marketing systems well helped to identify and, wherever possible, minimise these errors.

#### b) Case Study Villages

##### **Iteja Village, Mwanza Region**

Iteja village lies around 50km south-east of Mwanza town and roughly 8km south of Misungwi town, along the Mwanza-Shinyanga road. The village began as an Ujamaa village but now many farmers have returned to their previous plots and spread across both sides of the main road. The village has a population of just over 5000 inhabitants, with roughly 800 households. The major activities in the village involve subsistence and cash-crop farming as well as livestock-keeping. "Small trade" and mining are also mentioned as secondary or additional income sources for villagers. The main crops cultivated include maize, rice, sorghum, sweet potato, cotton and groundnuts. Soil fertility is low to moderate and whilst cotton was introduced and successfully encouraged by the cooperatives in the 1960s, more recently rice cultivation on the lower slopes has been introduced. Currently, cotton and rice are important substitutes, depending on rainfall. (ICRA, 1997)

---

<sup>11</sup> Whilst in cotton-growing areas the presence of larger, estate-type growers is limited for coffee-growing in Kilimanjaro region this is of importance and the relevance of these in terms of institutional and marketing changes are not addressed in this paper.

### **Mwagala Village, Mwanza Region**

Mwagala village existed before Ujamaa and lies around 5km east of the main Mwanza-Shinyanga road, around 30km South of Mwanza town. The village lies on higher ground (above 1250m), around 4km away from the government's Lake Zone Agricultural Research and Development Institute (LZARDI) at Ukiriguru. The close proximity to this institute has resulted in some peculiar and relevant issues. The village is often used as a testing ground for research and experimentation at Ukiriguru. Furthermore the opportunity for seasonal, waged employment at Ukiriguru occasionally arises for inhabitants of Mwagala village. The village has a population of almost 3000 made up of around 500 households. The main activities of inhabitants here are agricultural production and more limited livestock keeping. The main soil here is sandy, Luseni soil and fertility is low. Crop intensification has occurred due to limited land availability and there are almost no opportunities for fallow land. Sorghum has been replaced by maize and rice varieties and cotton has been replaced with tomatoes and other horticultural crops. Major crops grown are diverse, ranging from cotton and horticultural cash crops to maize, sorghum, sweet potato, green gram, chickpeas and rice. Furthermore, off-farm employment has increased in recent years. (ICRA, 1997)

### **Mwambiti Village, Shinyanga Region**

Mwambiti, an Ujamaa village, lies around 5km away from Mwanhuzi town in Meatu District, an intensive and productive cotton-producing area of Shinyanga region. Mwambiti itself is around 100km away from Shinyanga town. The village is easily accessible from the main road running between Mwanhuzi and Shinyanga and lies on a flat plain with naturally fertile soils, resulting in relatively easy soil preparation. Rainfall is too low for rice cultivation and cotton remains the main and only cash crop and by far the most important income source for households in Meatu district. Sorghum is the main food crop, followed to a more limited extent by maize and sweet potato. Incomes from cotton can vary dramatically between seasons but overall they are higher than the rest of Shinyanga and Mwanza regions. (ICRA, 1997) Considerable parts of the farm are left fallow because farmers are following crop rotation with cotton, sorghum and maize. Partly for these reasons the village is part of an organic cotton production project, run by a private Swiss company, offering organic producers extension services as well as a premium for their output. There are almost 3500 inhabitants made up of 450 households. Almost all inhabitants are in some way involved in agricultural production and livestock keeping, with over 80% of village farmers producing cotton on a regular basis.

### **Wanri Village, Kilimanjaro Region**

Wanri Village lies on the Western slopes of Mount Kilimanjaro within Hai district, around 45km North-West of Moshi town. It has around 3000 inhabitants and over 75% of these depend on coffee for their main income source. Coffee production has been in decline in this village, with many producers turning to livestock production and dairy milking as well as food crop production instead. Labour use on coffee production has also been on decline with many turning away from permanent or seasonal employment of labour and relying on family labour alone. Following liberalisation of the coffee sector and subsequent declines in the coffee price many young people have moved from the area in favour of alternative livelihood strategies on lower lying land.

### **Kiruweni Village, Kilimanjaro Region**

Kiruweni Village is located around 40km East of Moshi Town, on the border between Mwika and Rombo Wards within Moshi Rural District. It contains a population of around 4000 people made up of around 875 households with most of these depending on coffee production to some extent. The village is spread across higher and lower lying land and has been experiencing a shift in production on the higher slopes away from coffee and towards banana cultivation. Whilst there are difficulties in accessing the village by road a nearby twice weekly market in a neighbouring town gives food crop (especially banana) producers an

outlet for their crop. Once again this village has suffered from the out-migration of its younger population and an overall sense of decline in coffee cultivation. Despite these developments, the entry of a speciality coffee growing project, Kilicafe, has attempted to revive coffee production in the village.

#### **Narumu Village, Kilimajaro Region**

Narumu Village is the closest to Moshi Town of the three case study villages, lying around 25km west of Moshi, made up of a population of around 2100 people in 430 households. The village straddling altitudes between 1000 and 1400 metres and benefitting from superior coffee growing conditions, located less than 5km away from TACRI's main offices at Lyamungu. TACRI's presence as well as the location of a nearby coffee estate have had important effects on the village, with many producers turning to these institutions for seasonal employment opportunities. Furthermore, through the work of TACRI's farmers' research group producers in Narumu village have been able to access new resistant trees varieties. Despite the village benefitting from a regular bus service from Moshi town centre as well as its proximity to TACRI, the sense of coffee decline is palpable, not least by the number of Pombe<sup>12</sup> bars in the village. Once again the issue of outmigration of young people is a concern here, while the use of labour here is more restricted to family-labour.

---

<sup>12</sup> Pombe is a type of locally brewed beer, popular in rural areas of Tanzania.