AGRICULTURE TRANSFORMATION ISSUES IN TANZANIA

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[1] The views presented in this report are those of the author and they do not necessarily reflect the official stand of his employer.

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1.0. Background

1.1. Location

The United Republic of Tanzania is located 50 km south of the equator, on the Indian Ocean. It has common borders with eight countries: Kenya, Uganda, Burundi, Zaire, Zambia, Malawi and Mozambique. Tanzania is one of the large countries in tropical Africa, with a land area of 944,800 sq. Km. and a population of about 27 million.

1.2. Topography

The topography if Tanzania is generally made of a plateau interrupted in some places by highlands and coastal strand. The plateau forms the largest portion of the country and lies at an altitude in the range between 1,000 to 1,500 m. above the sea level. The plateau is characterized by mildly sloping plains interrupted by scattered hills and low lying wetlands. The climate varies very much from one place to another in relation to corresponding altitude and latitude. The mean temperatures in various localities vary from 24^0C to 34^0 whereas the mean rainfall range from below 500 mm. to over 2,500 mm.per year.

1.3. Rainfall

The major rainfall period runs from December to May, but some areas in the North experience a biomodal rainfall pattern with peaks in October-November and April-May. Whereas 20 percent of the country may receive an annual rainfall of more than 750 mm with certainty, only 3 percent expect to receive more than 1250 mm per annum on average. The central part of the country gets less than 500 m. per annum. In most places evapotraspiration exceeds precipitation, thus making rain fed agriculture poor. The main climatic feature is the long dry pleasant weather from May to October followed by a period of low rainfall which is often concentrated into relatively few days of heavy showers.

Food crop production dominates the agricultural economy totally 55 percent of agricultural GDP with livestock accounting for 30 percent and the traditional cash crops for only 8 percent.

2.0. The Importance of Agriculture Sector to Tanzania

Agriculture is the strong hold of the Tanzania's economy, supporting employment, food production and exports. The sector accounts for about 45 percent of Tanzania's yearly output (Gross Domestic Product-GDP). The country's economic growth over the years has been synonymous with agricultural growth. Experience has shown that the years of agricultural buoyancy have also been years of good economic performance and likewise, the years of poor agricultural performance have been years of economic stagnation. The other sectors, besides agriculture, which make up the economy of the country are Mining, Manufacturing, Utilities, Construction, Trade/Tourism, Transport, Finance and Public Administration (Appendix 1).

The main traditional export crops include coffee, cotton, cashewnuts, tea, tobacco, sisal and pyrethrum. Maize is the principle commercial food crop with cassava and bananas important as subsistence crops. Other important food crops include sorghum, millet, paddy, wheat and beans (Appendix 2).

Production of most of these crops is mainly dependent on smallholders and some 84 percent of the employed population work in the agricultural sector. Tanzania's 3.5 million farm families work in small holdings, where the area cultivated average 0.9 hectares. About 93 percent of all farmers cultivate less than 2.0 hectares. It is only in the sisal industry that the production is confined to estates. However, estates are also an important component of the tea, wheat and sugar industries and also make some contribution to coffee and rice production.

Tanzania's macro-economic policies since the late 1960s and throughout the 1970s to mid 1980s have largely sought to enhance its development through the public sector that was considered as the sole means of spearheading economic growth. Meanwhile, in spite of such a macro policy emphasis, agricultural production has been and continues to be undertaken mainly by private individuals (the small holder farmers). The Government had been heavily involved in the provision of agricultural support services to these farming individuals. The heavy involvement of the government in the agricultural sector has thus been to the following areas:

- Support to Agricultural Marketing;
- Support to Agricultural Input Supply;
- Support to Rural Financial Services;
- Support to Rural Primary Processing Services;
- Support to Agricultural Extension and Research services.

Throughout the 1970s and to the mid 1980s, the government had a belief that through its intervention, in particular in the first four areas above, it could transform the agricultural sector so that it could achieve the objective spelt out by the macro policy, namely, achieving food security through self sufficiency in food production and an improvement in the generation of foreign exchange earnings through agricultural exports. The following section reviews the issues of the agricultural sector in the state dominated interventions.

3.0. State Dominated Transformation Strategies in the Agriculture Sector

3.1. Support to Agricultural Marketing

3.1.1. Pre-Independence Multi-Channel Marketing Systems. At independence (1961), Tanzania inherited a multi-channel input supply and crop marketing system which was predominantly free-market with limited government control. Following independence, significant changes were introduced. Policy was based on principles of socialism and self reliance formerly enunciated in the 1967 Arusha Declaration.

The overriding objective was the creation of a nation in which the hallmark was equality among citizens. Policy reflected a strong antimarket philosophy in which prices were seen as playing no useful role in the allocation of resources. Price changes were viewed as symptoms of profit making and thus of a capitalist mentality. Consequently, policy makers att ached an intrinsic value to fixed nominal prices, including exchange rates and interest rates. Lack of faith in the market coupled with a belief that socialism should be realized by direct guidance from the top, led to polices which eliminated private traders and brought about an economy under tight government control.

3.1.2. Development of Cooperatives. Cooperative systems were already well established voluntarily at independence, especially in cotton, coffee and tobacco areas. Following independence, the government initiated a crash programme to increase the geographical coverage of cooperatives and to extend them to as many crops as possible. By 1966 the number of primary cooperative societies had approximately doubled to 1,500, and by 1973 there were 2,300. A three-tier single system of marketing was established for the major crops, based on the primary societies, twenty regional cooperative unions and crop-specific state marketing boards. Private traders were thus eliminated from the national marketing system.

Growth in agricultural production was strong in the immediate post-independence years, led by small holder cash crop production which expanded at over 5 percent per annum from 1961 to 1967. However, as the decade progressed, there was an increase in fraud, corruption and mismanagement within the cooperative system. This led to rapidly rising marketing costs which acted as a disincentive to agricultural production. Agricultural growth slowed between 1968 and 1974 to approximately 3 percent per annum, and there was no net growth in agricultural exports.

3.1.3. Establishment of Crop Authorities. In 1973, reflecting concern over the growing inefficiency of the cooperative system, growing tension between the central cooperative movement, and frustration that it still lacked adequate control, the government decided to undertake compulsory villagisation of the population, following the principles set out in the Arusha Declaration. This represented a major change in policy direction away from cooperative-based marketing and support systems. The crop marketing boards were transformed into crop authorities, which had comprehensive mandates covering input supply, crop development and marketing. The three-tier marketing systems were formally abolished in 1976, and assets and functions of the cooperative unions transferred to the crop authorities. A total of 10 crop authorities were eventually created, responsible for procurement, processing and marketing of twenty seven major and fifteen minor crops. For most of these crops, the Authority was the monopoly buyer of marketed surpluses, purchasing from farmers at season. The crop authorities proved to be highly inefficient. They accumulated large debts and failed to perform basic services such as crop collection and payment of farmers. In addition, they absorbed excessively large margins which coupled with an over valuation of the Tanzanian Shilling and high levels of taxation, led to low and declining real producer prices. With the exception of the 1976/77 coffee and tea price booms, the downward trends in real prices were most severe for export commodities.

A more moderate decline in prices, the importance of subsistence production, and the existence of parallel markets, allowed food production to continue to grow during the 1970s. The output of sisal, cotton and cashewnuts suffered major falls, with the result that, despite moderate increases in the output of coffee and tea, total agricultural exports declined sharply. By 1982, this decline, coupled with adverse changes in the terms of trade, had reduced the import purchasing power of total agricultural exports to only 30 percent

of that in 1966. As a result of the poor export crop performance, agricultural GDP between 1973 and 1982 grew at only an estimated 1.1 percent per annum, below the rate of population growth of 2.8 percent.

3.1.4. Re-Introduction of Cooperatives. By 1980, the problems relating to the crop authorities had become so serious that the government decided to resuscitate the cooperative movement. A new Cooperative Act was passed in 1982 and by 1984 a Cooperative system had been re-established. This retained some of the features of the 1975 Village Act. In particular, primary societies were to be multi-purpose, production based organization based on a single village. The crop authorities were transformed back into marketing boards and the three-tier marketing system was re-established. The performance of the Crop Authorities/Marketing Boards in the procurement of export crops is summarized by Appendices 3 and 4.

3.2. Support to Agricultural Inputs Supply

Following independence (1961), Tanzania adopted an interventionist approach not only to agricultural marketing affecting crops (as noted in the above sections), but also with respect to factors of production. In the case of farm inputs, the absence of a developed indigenous enterprise meant that state involvement was seen as the only means of rapidly providing systems serving small holder farmers. The great importance of agriculture in Tanzania meant that agricultural services related to the supply of inputs were particularly heavily influenced by interventionist policies. Like the marketing of agricultural crops, inputs were marketed through the same public institutional channels. This included chemical fertilizers, agro-chemicals, veterinary drugs, seeds and farm implements.

3.2.1. Chemical Fertilizers. Data from the 1986/87 Agricultural Survey of Tanzania indicate that about 14 percent of farmers in Tanzania used chemical fertilizers, 27 percent used improved (not certified) seeds, 12 percent insecticides or herbicides and 24 percent farm yard manure. Chemical fertilizer use varies by income levels and adoption rates, but also differ by the size of the holding. It has been indicated that input use levels average 2 kg per ha of fertilizer, well below the optimum level of determined by research. It has also been indicated that the level of fertilizer use varies slightly by literacy level. Farmers who can read and write use slightly over the mean amount (23.2 kg per ha.) and farmers who can not read and write use slightly less (18.8 kg per ha.). The use of high analysis fertilizer is still low and the overall use has somewhat been erratic. During the years when fertilizer use was increasing fertilizer prices were subsidized to varying levels. From 1976 to 1984 subsidy policy reduced farm gate prices by about 50 percent. While there was no explicit subsidy from 1984, repeated currency devaluation overtook the increases in fertilizer selling prices permitted to the public Tanzania Fertilizer Company (TFC) so that by 1988/89 there was an implicit subsidy of up to 80 percent. Nevertheless, the fertilizer demand has not been fully satisfied by TFC due to distribution bottlenecks, lack of Government ability to absorb the cost of annual subsidy and lack of foreign exchange (before late 1980s). Consequently, fertilizer has been available, first, in amounts below demand, and secondly, been received after planting.

Coffee and Cotton dominate in the use of agro-chemicals, mainly fungicides and herbicides. They account for about 50 percent. Chemicals were purchased through the two produce boards and distributed to cooperative unions. Payment was deducted from crop receipts after harvests. From 1988/89 the two boards have faced financial constraints and haven't been able to sustain the level of the required inputs. This has meant coffee and cotton farmers' using levels well below recommended levels. On the other hand,

there has been an overall concern about the use of agro-chemicals on the killing of not-targets, beneficial organisms, the development of resistance among target species and the disruption of ecological equilibrium.

3.2.2. Seeds. Certified seeds represent 2 percent of seed planted. The market of certified seeds shared by Tanzania Seed Company (TANSEED), a Government parastatal which in 1992/93 produced 1,400 tonnes of maize seed and GARGILL, a private sector company, which produced 800 tonnes. The TANSEED performance has been declining due to financial problems as selling prices have always been set by Government well below costs of production. Thus quality and quantity by TANSEED production has been declining. In view of this situation, a new strategy has been put in place to guide the development of the seed industry based on concepts of demand-led production, private initiatives, competition and market pricing. Key actors will involve liberalization of production and marketing, and a deregulated legal framework for the flow of seed research ingredients and seed itself to private sector. The public sector will withdraw from several activities.

3.2.3. Veterinary Drugs. Veterinary drugs, vaccines, acaracides are virtually the only cash imports to the traditional livestock sector. About 90 percent of these inputs have been procured by Government under commercial tender, with additional supplies received sporadically through donor grants. In view of the poor performance by Government to procure and distribute these inputs, opening up of the industry to the private sector has been effected. Nevertheless, it will take sometime for the private sector to build up a distribution network as some of the infrastructure (such as dips) are still run (most of which are depleted) by district councils.

3.2.4. Farm Implements Marketing. The use of modern farm implements in Tanzania is limited and confined largely to estate production of sugar, wheat, tea and sisal. The majority of small holder farmers employ hand tools, the most important of which is a hand hoe. It is estimated that 70 percent of Tanzania's crop area is cultivated by hand hoe, 20 percent by ox-plough and 10 percent by tractor. Certain parts of the country, where cattle are an integral part of farming activities, small farmers resort to animal drought equipment such as ox-ploughs. The meaning of this is that farm sizes in the small holder sector are small and production is therefore, limited. Similarly, small holder farmers with such rudimentary hand tools cannot make full use of modern implements whose application cannot induce optimum results in production.

There is no local production of tractors, and they are therefore, totally imported either in sole units or in parts for assembling within the country. Apart from tractors, Tanzania makes very little use of harvesting, threshing and sorting equipments. National demand for tractors is estimated at 1,800 units per annum while that for ploughs is pegged at 350,000 units between 1984/85 and 1988/89 and 40,000 units since 1989/90. If one looks at ownership of the implements by small holders, one observes a tremendous decline in number of tractors. In 1980/81 there were 10,000 tractors, 240,000 ploughs and 8,000 harrows. By 1991/92 availability of these implements in the rural farming community stood at 5,000, 347,000 and 6,000 units respectively. Sales of tractors have also declined in recent years. In 1988 Trama sold 2218 units of between 70 and 120 HP but in 1992 only 82 units were sold. In car for Fiat tractors and Riddoch Motors for Ford tractors have all registered a similar declining trend in sales.

A wide range of hand tools and animal drought equipment are in use in the rural areas. Most of them are produced locally. The demand for these tools is, however, bigger than the country's capacity to supply. For ox-ploughs and hand hoes, local production meets roughly 50% of the demand while matchets'

domestic production lags far behind demand. The use of draft animals appears to be expanding. About one million draft oxen are employed in ploughing of maize, sorghum, rice and cotton (about 20 percent of the land area). However, the key limitation is the presence of trypanosomiasis, which weakens animals until they are unable to work. Also lack of appropriate simple, inexpensive, but effective design seem to be hampering the development of animal drawn implements.

3.3. Government Services to Smallholders

The Government, apart from being directly involved in the marketing and input services through its institutions, has also played a big role in providing service to the agricultural smallholders. Research and extension continue to be almost completely Government funded. Large estates have been able to fund for their own extension efforts and finance some of their most important research requirements. Nevertheless, the research and extension undertaking have been declining and undertaken in fragmented manner. Linkages between extension and research have been weak. The major contributing factor has been low funding by Government to these services. Funding to key Government agricultural services has been declining in real terms for a decade. These declines, with a static level of services and employees, have caused a dramatic reduction in real salaries, coupled with a reduction in real resources available per staff member for operations (vehicle operating expenses, per deems, equipment etc.). Consequently, the effectiveness of the research and extension services has considerably suffered (in terms of staff morale and run down facilitating equipment).

Total Government expenditures as a share of the GDP has continued to decline. This is contrary to the logic investment as Tanzania, being extremely dependent on agriculture for income and export growth, is expected to have allocated more resources to this sector. For example, through the 1980s Government expenditure to agriculture as a share of the GDP declined from 32.7 percent in 1980/81 to about 23.1 percent in 1986/87 and only increased to about 26.4 percent in 1991/92 (though still below the 1980/81 level). Furthermore, the expenditure on agriculture as misdirected as it went to support parastatals (which were undertaking commercial activities) that were inefficient. About 67 percent of the 290 commercial parastatals were in agriculture. These parastatals consumed about 70 percent of the Ministry of Agriculture's development budget in the early 1980s; consequently of the total allocation only 30 percent was directed to public services that is extension and research.

3.4. Land Use

Tanzania has about 487,100 km^2 of arable land of which a small proportion of about 10 percent of the country's total land area is actually cultivated. About 6.6 per cent of the area under cultivation is under large scale farming (agriculture under right of occupancy) while nearly 93.4 percent (46,000 km^2) under small scale farming, cultivated under customary tenure or smallholder farming. About 69 percent of the total land (611,238 km^2 is pasture or grazing land of which only 71.8 percent of it (i.e. 438,790 km^2) is actually under use and the rest unused due to the infestation of tsetse flies.

Land use potential is severely limited by agro-ecological factors and the remoteness of better endowed parts of the country. Poor infrastructural services provision and inaccessibility have tended to limit population movement into other areas of great fertility which are largely undeveloped. This tendency

has evidenced land pressure in many areas particularly in North-Eastern Highlands. As more land in those areas is brought to production the availability of suitable land for future development is now a limiting factor. The present use of land is one of the relatively intensive use close to settlements and in some valleys. In many of these areas (in particular cereal and food production) people have shortened the fallow period and over cultivated with subsequent decline in soil fertility. Large movements of pastrolist heards have led to increased conflicts and land tenure disputes are becoming more wide spread in areas of higher population densities.

Land property rights are still not properly recognized as this resources is more or less held in common. The result has been a general lack of proper land care and management. Thus as use of land is unsustainable levee is common. This practice gives way to deteriorization including fertility loss, overgrazing and erosion.

3.5. Land Settlements

The Arusha Declaration of 1967 brought changes in tenure arrangements. The most important event was "villagization" under which rural dwellers were brought together, often involuntarily into villages located and controlled by Government Authorities. The intention was to encourage communal production while permitting a more efficient provision of social services (water, health and education) infrastructure and often other public services (such as agriculture extension). Land use in recognized villages was a mix between individual tenure (often over a new, undeveloped plot), communal plots or "block farms" where plots were located side by side to facilitate mechanization. Between 1969 and 1973 the number of reorganized villages rose from about 800 to about 5,600. This operation had a disruption on agriculture cultivation and planning. In 1980s, with a recognition of negative impacts, there was a relaxation in this form of rural organization approach, consequently about 40 percent of the moved people had to go back to their traditional communities. A major negative impact was on perennial crops in particular cashew production was seriously affected. Cashew farmers had moved away from their original farms to distant areas which made it impossible to regularly go back and attend their farms.

3.6. Support to Rural Financial Services

3.6.1. Before 1967 the banking sector was controlled by the private sector. Many of the International Banks that operated in the British sphere of influence were represented in the country and they included Barclays Bank, Grindlays Bank, Standard Chattered Bank and Bank of Baroda. Local Banks included Land Bank, Post Office Savings Bank and others. With the exception of the last two banks which served large scale farming and small farmers respectively, the rest were mainly concerned with industries and commerce. The only known non-governmental organization designed to support the rural development was the Community Trust Fund of Tanzania which was set up in 1962. Individual money lenders are also known to have existed but they were mainly confined to minor settlements of the rural sector engaged in transactions involving crops and livestock.

A major change occurred in 1967 when the Government nationalized the private banks and consolidated them into a single bank known as the National Bank of Commerce (NBC). At the same time the Government also set up a Central Bank known as the Bank of Tanzania (BoT). The Bank of Tanzania,

NBC and other state owned banks that were established in the 1970s were aligned to serve the state controlled economy.

3.6.2. The rural financial sector is expected to provide a range of services to the rural farm and off-farm enterprises. These include financing for crop purchases and input distribution, medium and long term credit for agricultural investments by estates, agro-processing and support for smallholder sector. Short term financing for crop purchases and input distribution form the bulk of formal sector lending to agriculture, accounting for over 80 percent of total bank lending to the sector. Customers to this facility have always been cooperative unions and crop marketing boards.

3.6.3. The use of formal credit is rare at farm level. Studies have shown that some 65 percent of farmers finance their operations from own savings. Relatives and friends provide about 18 percent, the formal system, about 12 percent and money lenders 5 percent. Credit is not available to most farmers, but there is also a lack of awareness and fear of indebtedness in rural communities.

3.6.4. Agriculture has normally accounted for about 55 percent of NBC's total loan portfolio. Overdraft facilities to cooperatives and parastatals for the marketing of primary commodities have traditionally accounted for about 90 percent of NBC's agricultural lending. Loan recovery for crop finance has been poor, averaging about 27 percent (1984-1990), because of continued lending to inefficient parastatals and cooperative unions under Government directives. Consequently, by 1990 most of NBC's loan department was not performing to the extent that it could no longer service the agriculture sector under such terms.

3.6.5. The Cooperative and Rural Development Bank (CRDB) which was established in 1971 was to provide services to cooperatives and rural sector. It has mainly provided lending for seasonal inputs, farm mechanization, livestock, rural transport, fisheries and other rural activities (and with limited financing, to cooperatives for cr op purchases). The largest share of loans has gone to rural transport, followed by farm machinery, small scale industries, livestock and seasonal inputs. CRDB has also suffered the same problem as NBC. By 1990 nearly two thirds of its lending portfolio was considered unrecoverable.

3.6.6. In view of the above problems, non-performing and lagging deposit mobilization, the banks were increasingly forced to borrow from the Central Bank (BoT) to finance crop buying and input distribution. In 1989 the Government established A Presidential Commission on Banking Reform. In 1991 new Government Policy was issued as well as a new Banking and Financial Institutions Act. This made the existing banks strictly autonomous institutions, operating on ethics of commercial supremacy with no interference f rom Government. The bank licensing regulations also allowed for establishment of private Banks. Currently four private banks have been established.

3.6.7. The banks have responded by establishing strict procedures for approving and supervising credit lines extended to the cooperatives. Under such circumstances some of the cooperatives have decided to make own serving mobilization to create revolving funds for crop purchases. Overall the current Banking and Financial Institutions Act provides limited financial services, particularly credit, directly t small holders. Small holder's access to formal lending mechanisms is limited by the high transaction costs associated with lending of small amounts to a large number of small holders and by the lack of collateral such as land. Rural financing is now a developmental issue to the agriculture sector.

3.6.8. Currently efforts are underway to test mechanisms for providing formal credit directly to small holders e.g. formation of Rural Credit and Savings Schemes. Although the schemes have made good progress in mobilizing savings, they are just beginning to gain experience in loan administration. A number of these schemes employ group lending methodologies and mechanisms for savings mobilization to reach small holders. Otherwise, the formal Banks have sidelined financing of the small holder farmers as the interest rates charged are high and some as high as merchandise enterprises.

3.6.9. It is recognized that rural credit availability can promote agricultural growth as it enables farmers t adopt new technologies, e.g. purchase of certified seeds, use of fertilizer etc. Thus endeavors to mobilize farmers for alternative ways of accessing credit are being undertaken. It is possible to mobilize savings from the farmers organized in group-savings. By January 1993 there were 575 Savings and credit schemes involving 78,411 members with a total deposit of Sh. 354 Million (US$ 590,000) of which Ssh 107.9 Million (US$ 179,830) had been loaned to members. For example, Sasakawa Global 2000 (an NGO) operates in 19 districts involving 283 villages working on an acre holding, each farmer under the programme is loaned with a package of technology consisting of improved seeds and fertilizer to grow maize, wheat and sorghum under close supervision of an extension worker. In 1990/91 there were 9,442 plots of maize, 878 plots of sorghum and 30 plots of wheat. Yields for maize range between 20 to 40 bags per ha. Repayment of the loans either in cash or in kind is done after the harvest and so far the recovery rate is 96% reflecting the highly favorable economic returns received by the member growers. A farmer is allowed to remain in the programme for three years after which he is expected to have adopted the technology and sustain it on his own.

3.7. Support to Agriculture Commodity Processing Services

3.7.1. Primary Processing of Export Crops

(i) Coffee. Traditionally, there have been five coffee curing plants in Tanzania with a capacity of 101,860 tonnes of clean coffee. Two of these (one located in Bukoba-Bukop and the other located in Mara region) are owned by Cooperative Unions while the one located in Moshi town (Tanganyika Coffee Curing Company-TCCCC) is owned jointly by the Unions in the Northern zone and the Tanganyika Coffee Growers Association (TCGA). Until recently, the Coffee Board used to own the newly installed plants in Mbozi and Mbinga. These two have also been passed to the cooperative Unions of Mbecu na Mbozi for the Mbozi plant and to MBICU for the Mbinga factory.

While total annual coffee production averages 50,000 tonnes, the installed capacity is by far in excess of the demand of the demand thus leading to vast unused capacity at four plants. The Mbozi, Mbinga and Tarime plants are reported to be underutilized by 50, 48 and 52 percent respectively while 70% of the capacity remains idle at the Moshi plant. It is only Bukop which is fully utilized at 99% of the capacity.

(ii) Cotton. There is a total of 343 ginneries in Tanzania and out of them 23 are located in the eastern Cotton Growing areas. Most of the ginneries are old and in poor state of repair. As a result they are operating at 37% of their installed capacity of 674,245 bales per annum. In the last three years production of seed cotton has averaged above 400,.000 bales, meaning that there has been a huge balance of unginned cotton each year.

Ownership of the ginneries has been changing hands of ownership between cooperative unions and the Cotton Board. Prior to their dissolution in 1976, Cooperatives owned all the ginneries. With the dissolution, the Board took over the ownership which lasted to 1984 when the re-established Unions once again repossessed them. Under such circumstances, no planned maintenance and re-investment has been done, leading to their delapilation and failing to gin all cotton within a given marketing season.

(iii) Cashewnuts. The Cashewnut Marketing Board owns twelve factories capable of processing 113,000 tonnes of cashewnuts per annum. With the exception of three factories which are located in the City of DAR e's Salaam (2 factories) and Mtwara town, the remaining 9 factories are located in rural areas where the crop is grown. However, this capacity has not been fully utilized in any given season. In f act some of the factories have never been used since their installation. This has necessitated most of the cashewnuts to be exported in raw form.

(iv) Pyrethrum. There are two pyrethrum extracting plants with a total installed capacity of 5,200 tonnes. These plants are Mafinga in Iringa region and Tanganyika Extracting Company (TECO) located in Arusha town in Arusha region. Both are owned by the Tanganyika Pyrethrum Marketing Board (TPMB). The Mafinga pyrethrum extracting plant has a rated capacity of 4,500 tonnes per year but at present operates at 36% due to technical problems and low pyrethrum flower production. The plant processes dry pyrethrum flowers into crude extract, pyrethrum powder and dried marc.

(v) Tobacco. There are two tobacco processing factories in Tanzania. One plant is located in Songea town for fire-cured tobacco and the other one is located in Morogoro for flue-cured tobacco. While the Songea factory has changed hands several times between Ruvuma Region Cooperative Union and the Tobacco Board it is presently wholly owned by the Union. The factory is old and requires heavy rehabilitation of both machinery, equipment and buildings. It operates at 50% of its installed capacity.

The Morogoro plant is owned by the Tobacco Board and is capable of processing 41,000 tonnes of the flue-cured tobacco. Although it requires some rehabilitation for more efficient operations, it is in better condition compared with the Songea factory. Capacity utilization at present is et at 30% due to low production of the crop. The ownership of this factory is likely to change when the liberalization of the crop becomes effective soon. Large scale tobacco farmers and Cooperative Unions handling flue-cured tobacco are likely to press for acquisition of some of the shares of the factory.

(vi) Sisal. The sisal industry has been liberalized following Government decision to sell a large number of it's sisal estates. Private companies are now competing in the production of sisal fibre and sisal products. At each of these estates the first process of converting sisal leaves into fibre takes place and at present 24,209 (1992) tonnes of sisal fibre are produced annually. The production of sisal fibre has declined from over 250,000 tonnes per annum in the 1970s to an average of about 30,000 tonnes per annum in the 1990s. Over 60% of the total production is derived from private sector estates.

At the secondary level, there are six Sisal Spinning mills which produce twine, yarn and ropes. These belong to TSA, Amboni Group and other private investors.

(vii) Tea. There are 21 tea factories in the country, six owned by Tanzania Tea Authority (TTA), 14 owned by the private sector and one jointly by TTA and the private sector. Factories owned by TTA draw their raw materials from small holders as well as from their own estate and convert them into bulk

made tea. These factories run at 63% of their installed capacity and process about 40% of the industry's total output.

Private factories draw their r aw materials from their own estates surrounding them. They are more efficient and operate at 68% of their installed capacity. These factories handle about 60% of the total national production.

3.7.2. Food Crops Processing Factories

(i) Edible Oil Mills. There are 42 edible oil mills capable of crushing 412,000 tonnes oilseeds into roughly 41,000 tonnes of cooking oil.

Most f the existing mills are located in cotton growing areas using cotton seeds at their raw materials. Other oilseeds used are sunflower, sesame and coconuts. In terms of ownership, cooperatives and the private sector dominate the scene. Cooperative Unions own 19 of the mills with a total installed capacity of 165,600 tonnes of seeds pr 40.1%. The private sector controls 19 mill capable of c rushing 176,500 tonnes of seeds or 43.8%. Parastatals own only 4 mills with installed capacity of 70,800 tonnes of seeds.

(ii) Grain Processing Industry. Until 1984 the National Milling Corporation (N.C.) held a monopoly in the grain milling industry. N.C. owned five grain mills located in strategic areas of the country.

With the introduction of Economic Recovery Programme (EDP), N.C. has failed to compete with the private sector. Since 1989 it has been marginalized in both grain crop procurement as well as grain milling. Most of its mills have either been rented or lying idle and a few of them have been sold.

Since the collapse of N.C., several private companies have set up grain facilities. In DAR e's Salaam alone 8 new mills have been set up to process maize flour, rice and wheat flour. Other large mills are reported to exist in Dodoma (one mill or wheat flour), Arusha (one maize mill) and Mwanza. In addition to these, nearly every village in the country has a hammer mill for both maize and rice. This means that there are more than 8,000 such units in the villages. Further, all urban centres, possess several of these units meaning that there are literally tens of thousands of these equipment throughout the country.

(iii) Fruits and Vegetable Processing Industry. There are many units engaged in fruits and vegetable processing throughout the country. The biggest units were owned by NMC in Dar es Salaam and in Korogwe. The collapse of NMC has also virtually meant the closure of these plants, leaving the private sector dominating the scene.

4.0. Interaction of Agriculture and Other Sectors

The agricultural sector is part and relates to the rest of the economy. Measures to improve its performance have an impact on the rest of the economy. Also improvement measures on other sectors have

effects on the performance of the agricultural sector. In Tanzania the following areas have shown to influence agricultural growth:

(i) Foreign Exchange: The value of agricultural exports have been at the controlled exchange rates and not at the market rates. This has constrained competition and investment.

(ii) Budget for Agricultural Services: Adequate funds to invest into agriculture services, namely, research and extension are essential. Nevertheless there has been a decline in the overall budget allocation to agriculture.

(iii) Roads and Rail Services: Tanzania has a road network of 88,000 km.; out of which about 10,300 km are trunk roads, 17,730 km are regional and 32,000 km are district. The remainder are unclassified. Little maintenance work was undertaken on the road network during the 1970s and 1980s and road surface quality deteriorated. Investment in roads is essential for increased traffic, reduced transport costs, improve access to agricultural inputs, markets and renumerative prices and social services improvement. Adoption of new levels of technology and improved husbandry techniques is a function of literacy and educational level informing population. Over the past twenty years the Government has made great strides in reducing wide spread illiteracy in rural areas. Also diseases will inevitably affect farm family output and hence agricultural growth.

(iv) Other Factors (External): Decline in International Commodity Prices: In late 1970s the real value of Tanzania's exports was affected by the increase in prices of oil. Further import capacity was again squeezed when the real value of exports was sharply reduced in real prices of coffee, cotton and tea exports. This situation affected returns to the farmers.

External Shocks: Through the early 1980s there was a period of economic decline and slow growth caused in part by external factors: the oil price shocks of 1973 and 1979 and the War with Uganda of 1979-80.

5.0. Issues of Agricultural Transformation in Tanzania

The preceding sections of this report have attempted to highlight factors of agricultural transformation since independence. It has shown the extent at which the Government influenced incentives into the agricultural sector with less involvement of the private sector. However, this approach and its institutional arrangements had a weakness which was a disincentive to agricultural growth and poverty alleviation in the rural areas. The major areas of concern to agricultural transformation can be listed as follows:

(i) The dissolution of voluntary farmer organized marketing system through their rural cooperatives and frequent changes in the marketing institutions and systems, hindered the development of a market led marketing system and disrupted the development of cooperative initiatives and expansion.

(ii) Over the years, escalating costs of the parastatals/boards and cooperative unions denied these marketing agents from offering renumerative producer prices which would have motivated the farmers to step up production of the targeted crops.

(ii) Government control of all producer and consumer prices prevented the signaling of shortages and the generation of supply response.

(iv) Through the massive support from the financial institutions (sometimes under Government directives), the agricultural sector was not expected to enhance the growth of the financial sector. Contrary to this expectation, inefficiencies and mismanagement of borrowed funds by the institutions which were to support agricultural growth through procurement of crops and supply of inputs led to borrowed funds from the banks not repaid. The inefficiency, mismanagement, and over investment in parastatal monopolies shifted resources out of the hands of farmers, consumers, and the state, which adversely affected farm level investment and caused losses in the banking system.

(v) The over-valuation of exchange rate (the Tanzania Shilling) slowed agricultural exports, reduced international competitiveness and caused severe shortfall and foreign exchange availability.

(vi) Organization of farmers into collective agriculture (villagization) reduced security to land tenure and investment in land as well as conservation soil fertility. This was inevitable as farmers through Government administrative measures were separated from their traditional farming lands and some of them from their perennial crops.

(vii) During this period of direct Government involvement in production, resources were thinly allocated into so many activities. Consequently, the major support services of extension and research were severely underfunded.

(viii) Deterioration of roads affected the marketing of agricultural and other essential incentive goods to farmers. In particular remote agriculture potential areas suffered.

(ix) The agricultural sector was expected to facilitate the role of supplying raw materials to agri-based industries. However, the general decline in production of both food crops as well as export crops anted earlier affects the industrial sector. Established guided by the policy of Import Substitution, the industrial was similarly starved with the supply of basic agricultural raw materials. This explains why most of the agricultural primary processing plants operated below their respective installed capacities. Operating at such low capacities, these plants denied Tanzanians of any realistic expansion in employment to the established industrial base. During the years when the Government was about to institute reform measures, the bad state of most of the industries necessitated the industrial sector to close a good number of the factories, thus throwing a significant amount of the industrial labor force into the streets as unemployed.

6.0. Economic Recovery Programme (ERP) and Agriculture

By the end of 1985/86 financial year, the Government agreed that it made no sense to pursue on policies that had been embedded with a lot of controls. Changes were not only necessary, but very urgent if Tanzaniz was to avoid an economic disintegration. In June 1986, therefore, the Government announced an Economic Recovery Programme (ERP) which affected a wide range of economic factors. Major reform policies included abolition of official consumer prices and subsidies, and freeing of exchange rates, interest rates, agricultural marketing system and the general trade regime. All these policies are on one way or

another expected to affect the transformation of the agricultural sector not a viable sector able to build up a sustainable economy for the country.

Reform measures that the country adopted as early as 1980 were first initiated as an effort to expand upon reforms launched earlier in certain sub-sectors (grains), as well as to introduce Reforms in other sub-sectors (export crops). Like any adjustment programmes, the true impact of the recent policy changes and institutional changes may not be evident for several years to come. Additionally the impact of re forms on Tanzania's agricultural sector should be considered in conjunction with the positive effect of other macro-economic and structural reforms, such as exchange rate liberalization and export marketing and pricing reforms. Nonetheless, undeniable progress has been made in Tanzania's agricultural sector since the inception of the agricultural structural programme.

6.1. Improved Producer Incentives through Determined Market Prices

While it may be too premature to determine the longer term impact of the reforms affecting the agricultural sector, evidence exists that the reforms that have been implemented are bearing results. The marketing of food crops has in particular undergone a major change because of the deconfinement of domestic trade which started in mid 1980s, as now been completed. As the distortions in the exchange rates and other prices, inefficiencies of monopolistic parastatals and cooperative unions and restrictive regulations have all been tacked under the Economic Recovery Programme (ERP), the agricultural sector is now open for growth. The economy will continue to depend on smallholder farmers to respond to food security and foreign exchange earning opportunities as long as this can only be possible in a market led agriculture marketing. There is of current increased adoption to fertilizer use, hybrid seed and other productivity enhancing technology in the high potential agricultural areas. Further, the parastatal reform will bring about a wide ownership of primary and secondary agricultural processing factories.

All food crops are now freely marketable and this has brought about competition and development of markets and has led to the increase in producer p rices and production of main staples since 1989/90 when the food trade was totally liberalized. The level of improvement in prices does, however, differs from area to area depending on the accessibility and availability of markets. Similarly, the liberalization of export crops which started with three traditional export crops (coffee, cashewnuts, cotton and tobacco) in 1994/95 saw producer prices offered by competing marketing agents rising significantly in that year when compared with official producer prices that ruled in the previous season.

6.2. Improved Efficiency and Reduced Costs of Marketing

With the liberalization, competition among the marketing agents (both official and private) has resulted in a significant reduction of the irrelevant cost items in the marketing structure affecting the liberalized export crops. This development has given room to the actors to pay renumerative producer prices of the affected export crops to the farmers. Motivated by such price increases, the four liberalized export crops experienced, or the first time in Tanzania's history, the absence of any unbought stocks remaining in the hand of farmers in all areas were private traders operated in competition with cooperatives. Similarly, the high producer prices offered in 1994/95 through the competitive marketing system has enabled them to acquire a share above the 70% level on the fob realizations of the liberalized

export crops. This share of the producer prices on fob realizations had been the everlasting objective of the controlled marketing channels but was never achieved in any year by the official marketing organs without running into huge losses.

With respect to the food crops, producer prices determined by market forces have led to producer of the main staples speculating for better prices by holding stocks, thus making the flow of food in the commercial sector lasting longer than previously noted in the controlled channel whereby price speculation was ruled out by the annual fixed producer prices. The farmers' speculation on prices throughout the marketing season of the food crops has helped out the evening out of consumer price peaks during the off season, on one way, and has enhanced the achievement of food security objective of regular food availability at affordable prices throughout the season. This achievement has been reflected by the limited levels of maize imports into Tanzania during the last eight years, the bulk of which have been aid imports in support of refugees.

6.3. Easing of the Burden of Government Budget

Structural Adjustment Programme has contributed positively towards relieving some pressure on the annual national budgets, by removing the burden imposed by Government subsidies related to food crops and inputs. One of the severe strains on Government was the operation of Marketing Boards, the National Milling Corporation (NMC) and cooperative Unions. With liberalization of agricultural marketing, these organizations are or have undergone some restructuring resulting in a removal of their burden to Treasury and resource misallocation.

6.4. Construction of New Processing Facilities and Utilization of Idle Capacities

In both, the food and export crops sectors, the extent of the marketing competition has gone further to the processing aspects affecting the liberalized crops. Food crops particularly, grains have witnessed the erection of privately owned milling facilities (smaller in scale) in both rural and urban areas. New ginneries for cotton have constructed and old ones rehabilitated; cashew factories have been leased to private operators etc.

7.0. Reformed Agricultural Marketing Systems Challenges

For whatever change that is adopted, normally, such a change comes with problems of a new dimension. This is true with respect to the changes that have taken place in the new liberalized marketing arrangements of both food and export crops. Below are some summarized areas which pose challenges to the smooth operation of the adopted liberalized marketing policy.

7.1. Challenges Associated with Structural Changes

Under the former marketing arrangements, the official buying actors (cooperatives and boards) carried out their marketing functions guided by the monopolistic environment that was set by the then

governing policy of restricted entry of participators. Consequently, these official agents set u p their respective support marketing infrastructures which reflected their spheres of operation. Thus, in the case of the National Milling Corporation (NMC), the corporation's storage and milling facilities, each had a capacity that reflected NMC's monopolistic position in handling exclusively the country's total grain trade. Similarly, the cotton ginneries, all of which were owned by cooperatives, had individual capacities that reflected a cooperative's monopolistic area of operation, coffee curing plants had been set with capacities reflecting monopolistic zonal lines of the Coffee Board and cashew factories were also set along district production capacities of the crop to process an entire crop of a given district under one monopoly buyer.

The change of the marketing policy towards a competitive system in which multiple actors are involved has reduced the individual scales of operations of all those individual buyers and processors due to competition. Cooperatives, the owners of ginneries set up under comopolistic environment, will soon find such facilities operating under capacity as new smaller ginneries by new small operators are being set up in reflection of a competitive cotton marketing environment. Actually old monopolistic storage and milling facilities of the NMC were rendered ideal the sooner competitive small scale private traders dominated the grain trade throughout the country. In instances where the old monopolistic processing facilities are being leased or sold to new private traders (like the cashew factories), the new operators who have opted to run such facilities are pressurizing the Government to institute a law that should guarantee exclusively to each factory operator with a crop to the tune of the leased factory capacity.

7.2. Challenges Associated with the Supply of Inputs

Though the monopolistic marketing organs (cooperatives and marketing boards) played the role of handling agricultural outputs, it should not be overlooked that they too were performing a vital role of supplying inputs to farmers. Being the sole buyers of the crops in their respective areas, the cooperatives or boards were in position of supplying the inputs related to a specific crop on credit basis whose recovery was through deductions from sales of the related crop to the supplier of inputs who happened to be the sole buyer of the crop. Such credit arrangements are difficult to operationalize under the new liberalized system in which multiple buyers of the crops are involved. As there is no guarantee that a farmer who has been loaned some inputs by one trader will later on sell his crop to the same trader so as to allow him to deduct from the sales realizations of the crop the value of the loaned inputs, private traders, as well as cooperatives, are hesitating in supplying some inputs to farmers using a credit systems to which farmers were used to under the old marketing policy. As a result, the new liberalized policy faces a challenge of farmers not producing the affected crops to the desired levels for a lack of inputs.

7.3. Challenges Associated with Quality of the Traded Crops

Under the controlled marketing system, it was easy to institute some quality standards of all produce that was bought from farmers because the number of buyers of a given crop were limited in number (cooperatives). The new liberalized system, however, has opened doors to multiple buyers for each crop, all of whom are disposing their respective procured crop into final markets at their own accord. With food crops, the quality problem is great because the former buyer and regulator-NMC- has not been given some regulatory functions related to the export crops are finding it hard to institute some quality standards for the liberalized export crops because they lack a financial capacity to undertake such policing role.

7.4. Challenges Associated with Remote Farmers

It is interesting to note that in Tanzania the production areas of both leading food crops and traditional export crops is confined to border regions which are either distant from the consumption centres or the ports of exit. The bulk of maize traded in the country is grown in the South-Western Highlands of Iringa, Mbeya, Rukwa and Ruvuma, on one hand, and the North-Eastern Highlands of Kilimanjaro and Arusha, on the other. All these regions are border regions. Similarly, the production of coffee in the country is confined to the Lake zone, another border area, while tobacco is grown in Tabora, Ruvuma and Mbeya regions-again border regions. The cashewnut crop, though grown along the coast (near the ports of exit) is also grown in border regions of the Indian Ocean. Resulting from this state of affairs and given the liberalization policy environment, two problems have surfaced. One is the fact that some of the producers of these crops in the leading producing regions are located in remote areas where private traders are not prepared to go and buy. Consequently farmers producing them in such localities may soon abandon the crops for lack of any buyers. The second challenge is a result of the first. In the absence of such buyers, the Rukwa maize, the cotton and coffee grown in Kigoma, the Kagera coffee and the beans, maize and coffee in Kilimanjaro and Arusha regions have always found problems of being bought by the internal operators. As a result of this vacuum, these crops from such localities have been subjected to illegal cross border sales into neighboring countries. The challenges posed here are of two dimensions, namely, the illegal cross border related to food crops threatens the country's food security objectives while illegal cross border trade related to export crops poses the challenge of a loss through un-recorded foreign exchange earnings accruing to the country of origin.

7.5. Challenges Posed to Local Manufacturing Industries

The liberalized marketing policy has given freedom to the operators to dispose the traditional export crops into foreign markets without making any provision of furnishing the local manufacturing industries with these crops which are the main r aw materials to such factories. Already the textile industries are reported to be starved with supplies of lint from domestic sources as all operators (including the cooperatives) in the cotton trade strive to dispose their lint stocks into the lucrative export markets. Cotton is a living example in which the liberalized marketing policy affecting the export crops is conflicting with the industrial policy of import substitution that led to the establishment of a sound textile manufacturing industry in the 1970's.

7.6. The issues which have evolved are reform esternalities and in a way will not cause the Government to pull back, but pose as a challenge for the Government in managing the reforms.

8.0. The Role of Government in Managing the Agriculture Sector

As earlier noted, the Government had overstretched itself in its provision of services in agriculture and consequently its impact was not forthcoming. Under ERP the role of Government is to provide services which can not be availed by the private sector. Thus the Ministry of Agriculture is charged with provision of agriculture research and extensio services. Further, MOA has to enhance the capability and

ability to collect information on prices, production, yields, marketing interactions in order to review and analyze incentives to farmers and the efficient operation of the private sector. Also in order these services to be effective or operational it will need to enhance the incentives of extension workers as well as research scientists. The staff morale (salary and other incentives) are currently being tackled under the Civil Service Reform Commission.

For an effective research and extension service to be enhanced it is inevitable that budgetary allocation will have to be stepped up. It is established for Tanzania whose economy depends on agriculture that for research and extension to be effective annual budgetary allocations have to be set up at a minimum of 1.5 percent of agricultural GDP. In order to rectify the situation the Government has taken steps to redefine areas for priority public investment in the agriculture sector to be funded by both local and donor resources in a coordinated manner. The project approach funding by donors was sometimes not coherent with sector policies.

Further to providing an investment environment for the private sector in marketing, input distribution, credit processing etc. adjustment of restrictive legislation and institutional framework is on course. This includes the new Cooperative Act of 1991 which has provided a framework for restructuring of rural cooperative movement into independent, voluntary, economic viable organizations. On the other hand the state run parastatals (food and cash crop parastatals and marketing corporations) are being divestituded to operate as private commercial ventures. The divesture of parastatals is being undertaken by the Presidential Reform Commission.

The 1983 Agriculture Policy has been reviewed and updated in order to incorporate major policy changes introduced since mid-1980s under the ERP. The thrust of the agriculture policy is to create an enabling environment for private sector to participate effectively in all aspects of agricultural production.

Appendix 1: Real GDP Growth by Sector in the Pre-Reform Era, 1976-1994

Industry	% of GDP	----------Growth Rates----------							
		1976	1977	1978	1979	1980	1981	1982	1983
Agriculture	40%	1.1%	-1.7%	0.8%	3.9%	1.0%	1.3%	2.9%	4.0%
Mining	1%	7.9%	-18.2%	5.8%	-5.5%	2.1%	0.0%	-9.8%	6.9%
Manufacturing	11%	-6.0%	3.4%	3.3%	-4.9%	-11.2%	-3.3%	-8.7%	2.7%
Utilities	2%	10.9%	17.2%	11.2%	25.8%	4.3%	0.7%	-1.7%	6.3%
Construction	4%	3.5%	-14.4%	12.3%	6.0%	-4.5%	4.5%	-41.0%	20.2%
Trade/Hotels	12%	-2.0%	0.5%	1.5%	0.0%	-2.1%	-4.0%	-2.1%	1.1%
Transport	7%	-2.0%	2.8%	-3.8%	11.3%	-2.5%	-9.1%	-13.0%	0.6%
Finance etc	11%	2.6%	5.7%	5.9%	6.2%	6.8%	1.9%	4.3%	5.9%
Public Admin.	14%	6.6%	20.0%	8.6%	-2.1%	0.1%	11.4%	-0.4%	0.2%
Total	100%	0.4%	2.1%	2.9%	2.5%	0.6%	-0.5%	-2.4%	3.4%

Real GDP Growth by Sector During the Reform Process, 1986-1991

Real GDP Growth by Sector During the Reform Process, 1986-1991

Industry	% of GDP	----------Growth Rates----------						
		1986	1987	1988	1989	1990	1991	1992
Agriculture	45%	5.7%	4.4%	4.5%	4.6%	6.6%	4.6%	
Mining	1%	-11%	-3%	-7%	1%	19%	45%	
Manufacturing	8%	-4%	5%	7%	8%	-3%	4%	
Utilities	2%	18%	7%	-2%	-12%	1%	4%	
Construction	3%	17%	49%	12%	-27%	9%	3%	
Trade/Hotels	11%	11%	5%	4%	10%	-1%	4%	
Transport	6%	-0%	6%	3%	1%	2%	3%	
Finance etc	12%	9%	0%	3%	3%	2%	3%	
Public Admin	12%	-11%	1%	3%	4%	2%	2%	
Total	100%	3.3%	5.1%	4.2%	3.3%	3.5%	3.8%	

Source: Economic and Operations Report BoT.

Appendix 2: Production Estimates of Main Staples (000 tonnes)

Market Years	Maize	Paddy	Wheat	Cassava	Beans	Sorghum/Millet
1970/71	719	171	57	na	na	na
1971/72	621	187	60	na	na	na
1972/73	887	301	88	na	na	na
1973/74	761	343	85	na	na	na
1974/75	1,367	408	82	986	217	435
1975/76	1,449	532	69	1,182	249	525
1976/77	1,664	483	64	1,348	185	604
1977/78	1,465	595	55	1,252	197	826
1978/79	1,720	403	na	1,411	218	1,157
1979/80	1,726	448	87	1,207	310	849
1980/81	1,500	308	na	1,456	272	705
1981/82	1,654	492	na	1,658	297	970
1982/83	1,651	538	58	1,967	282	793
1983/84	1,939	548	74	1,894	540	760
1984/85	1,093	427	83	2,052	441	1,024
1985/86	2,211	547	72	2,031	321	943
1986/87	2,359	644	72	1,709	425	954
1987/88	2,339	615	75	1,736	385	682
1988/89	3,128	718	97	1,948	503	804
1989/90	2,445	740	106	1,724	388	568
1990/91	2,331	624	84	1,566	428	750
1991/92	2,226	392	65	1,777	317	850
1992/93	2,282	641	59	1,708	406	719
1993/94	2,159	614	59	1,902	187	478

Appendix 3: Official Purchases of Export Crops in Tanzania

Marketing Year	1986/87	1987/88	1988/89	1989/1990	1990/1991	1991/1992	1992/1993	1993/1994 Prov.	1994/1995 Est.
				QUANTITIES 000 TONNES					
Mild Coffee (clean)	27.5	32.8	43.7	38.2	37.6	37.0	44.2	31.6	na
Hard Coffee (clean)	14.0	12.9	13.6	15.0	18.3	11.0	13.2	12.3	na
Seed Cotton	216.9	253.7	191.7	113.5	147.0	267.0	308.2	149.0	124.0
Sisal*	33.2	33.3	33.3	32.3	35.0	35.0	na	na	na
Flue-Cur. Tobacco	15.0	11.1	10.2	9.5	8.5	10.7	18.8	na	na
Fire-Cur. Tobacco	1.4	1.8	1.4	1.5	3.3	6.0	4.6	na	na
Tea (made)	14.1	13.8	15.9	20.2	18.1	19.5	21.1	21.6	na
Cashewnuts (raw)	16.5	24.4	19.3	17.0	33.0	41.2	39.3	46.6	na
Pyrethrum	1.2	1.4	1.3	1.6	1.7	2.4	2.1	0.5	1.7
Cardamon	0.3	0.1	0.2	0.2	0.2	0.2	na	na	na
Cocoa	2.0	2.0	2.2	2.3	2.4	2.4	na	na	na

INDEX OF QUANTITIES PURCHASED (1986/87 - 100)									
Mild Coffee (clean)	100	119	159	139	137	135	161	115	0
Hard Coffee (clean)	100	92	97	107	131	79	94	88	0
Seed Cotton	100	117	88	52	68	123	142	69	57
Sisal * (fibre)	100	100	100	97	105	105	0	0	0
Flue-Cur. Tobacco	100	74	68	63	56	71	125	0	0
Fire-Cur. Tobacco	100	129	100	110	239	429	329	0	0
Tea (made)	100	98	113	143	128	138	149	153	0
Cashewnuts (raw)	100	148	117	103	200	250	238	282	0
Pyrethrin	100	117	108	132	143	200	175	42	138
Cardamon	100	33	67	67	67	67	0	0	0
Cocoa	100	100	110	115	120	120	0	0	0
WEIGHTED AVERAGE INDEX OF EXPORT CROP PURCHASES (1986/87 = 100) **									
Index	100	111	105	83	96	124	139	79	29

Notes: * Sisal production is for calendar year (i.e., 1985/86 refers to 1986)
** Index is weighted by farm gate value of each product 1986/87

Appendix 4: NMC Purchases of Main Staples (000 tonnes)

Year	Maize	#Rice	Wheat	Cassava	Millet Sorghum	Millet Beans	Total
1971 / 72	43	45	57				145
1972 / 73	96	47	51	14	1		209
1973 / 74	74	39	28	19	2		162
1974 / 75	24	15	14	18	2		73
1975 / 76	91	12	24	17	4		148
1976 / 77	127	15	27	20	16	11	216
1977 / 78	213	35	35	37	48	31	399
1978 / 79	220	34	29	64	75	28	450
1979 / 80	161	30	27	44	22	34	318
1980 / 81	105	13	28	7	21	16	190
1981 / 82	89	15	23	9	11	14	161
1982 / 83	86	21	31	19	5	11	173
1983 / 84	71	22	28	31	5	8	165
1984 / 85	85	12	33	20	2	4	156
1985 / 86	178	16	50	13	15	6	278
1986 / 87	173	11	34	14	6	29	267
1987 / 88	229	43	43	9	6.3	35	365
1988 / 89	124	49	44	-	-	3	220
1989 / 90	149	16	47			7	219

Paddy converted to rice equivalent
* Includes 35,000 tonnes maize for SGR

Appendix 5: Fertilizer Availability (All Types) 1980 to 1990.

Metric tonnes											
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Domestic Production	50,852	69,031	13,662	31,237	51,565	41,403	47,037	19,278	5,989	27,181	17,448
Imports	68,641	54,449	54,449	85,783	64,090	126,415	60,691	118,937	136,560	104,111	105,890
Total	119,493	123,480	68,111	117,020	115,655	167,818	10 7,728	138,215	142,549	131,292	123,338
Distribution	107,091	96,569	77,867	89,868	99,474	118,069	133,439	139,496	114,437	123,930	136,498
Balance	12,402	26,911	(9,756)	27,152	16,181	49,749	(25,711)	(1,281)	28,112	7,362	(13,160)

Appendix 6a: Production and Importation of Improved Seeds by Type (Tonnes)

Producer	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89
TANSEED									
Pre:Hybrid Prod. 1850	2,228	1,452	1,135	1,593	1,433	1,437	1,922	2,762	1,745
Imports:Maize Hybrid	1,820	250	250	1,354	1,245	1,300	1,300	2,396	1,661
-M. composite	1,499	517	1,414	1,620	1,853	1,985	1,951	1,576	1,273
-Sorghum	1,484	827	1,644	1,066	644	479	472	369	338
-Wheat	429	604	1,265	820	1,229	558	659	681	380
-Paddy	561	552	84	80	245	180	58	192	69
-Beans	107	115	222	567	833	637	596	414	222
-Soya beans	16	17	47	6					
-Millet	39	38	62	75	1	1			
-Sunflower	48	54	57	225	45	18	20	74	39
-Green Grams	6	3	9	3	1	2	2		1
-Simsim	4	2	13	6	1		1		
-Cowpeas				3	3	1			
Procurement									
-Wheat	795	465	513	1,100					
-Maize comp.				96					

Appendix 6b: Distribution of Improved Seeds by Type (tonnes)

	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Maize Hybrid	2,220	1,460	1,446	2,538	1,786	2,452	2,091	2,423	1,993	1,993
M. composite	1,478	876	815	1,115	1,264	1,368	1,221	1,310	1,287	1,185
Sorghum & Millet	1,001	1,395	813	669	772	356	252	76	2,151	95
Wheat	665	1,431	412	404	747	1,034	586	224	102	242
Paddy	446	624	384	324	288	82	22	53	69	11
Beans	102	143	128	153	161	410	365	513	187	201
Sunflower	38	28	63	28	98	131	17	18	33	43
Others	28	22	15	3	14	10	3	12	5	4

Source: Tanzania Seed Company

Appendix 7: Production of Farm Implements in Tanzania

	1987	1988	1989	1990	1991
Ox-ploughs	13,871	1,000	20,000	17,000	22,096
Hand Hoes	1,759,973	1,734,090	1,207,346	900,000	977,324
Matchets		100,000	50,000	65,000	147,606

Source: Agricultural Mechanization Section (MOA)

Appendix 8: National Demand for Hand Tools and Drought Equipment

	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Ox-ploughs	10,000	70,714	40,000	40,000	40,000	40,000	40.000
Hand Hoes (mill)	2.3	0.4	2.5	2.5	2.5	2.5	2.5
Matchets (Mill)	1.0	1.0	1.2	1.2	1.2	1.2	1.2

Ministry of Agriculture

Appendix 9a: Agric. Implements by Type Produced by ZZK

Type	1982	1983	1984	1985	1986	1987	1988	1989	1990
Handhoes	23,000	163,748	110,375	22,634	133,866	120,346	214,210	339,380	398,784
Axes	-	-	350		12,165	12,439	9,676		8,757
Slashers	-	-			25,766	4,700	6,357	36,347	40,111
Pangas	-	-				212		12,747	319
Shovels	-	349	6,548	223	18,005	4,970			
Randas	-	-						7	
Wh. barrows	-	54	549	987	1,369	5,923	6,620	2,309	4,980
Trolleys	-	-				1,371	628	918	616
Ox-ploughs	86	1,764	1,110				99	49	42
Trac. ploughs	-	-						30	26

Source: Zana za Kilimo Ltd., Mbeya

Appendix 9b: Number of Farm Implements Distributed by UFI* (‘000)

Item	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Handhoes	2,134	1,871	2,957	2,498	3,394	1,864	1,194	2,192	2,514	2,308	1,971	1,730	2,420	2,260	
Ploughs	5	1	5	8	6	15	6	17	31	76	2	25	32	15	17
Barrows (No)	137	231	124	76	100		15	240	152	82	192		41	28	62
Pangas	362	791	885	679	1,650	728	62	720	536	110	729	381	21	878	670
Axes	99	83	39	196	292	134	56	105	70	54	120	60	107	176	184
Tractors (No)	653	447	349	494	356	613	395	751	379	623	948	661	499		

Appendix 10: NBC Lending Portfolio to Economic Sectors (Sh million)

Economic Sector	1986/87	1987/88	1988/89	1989/90	1990/91
Agricult. Production	640	1,400	3,284	5,215	6,154
Marketing:Agric Produce	18,871	36,800	48,564	58,368	68,877
Buildg. & Construction	291	325	814	1,093	1,290
Commercial			2,389	3,820	3,374
Exports	295	635	600	1,337	1,578
Industry & Manufacturing	4,730	10,100	19,785	23,304	27,499
Imports/Distribution	2,361	4,650	8,523	11,334	13,374
Hotels/Tourism	89	190	350	607	717
Transportation	649	1,500	1,610	2,213	2,611
Financial Institutions	69	49	89	265	313
Others	305	345	1,006	1,184	1,302
Sub Total	28,300	55,994	87,014	108,740	127,089
Commercial Bills	1,044	2,110	3,215	3,998	4,508
Grand Total	29,344	58,104	90,229	112,738	131,597

Appendix 11: CROB's Loan Disbursement by Sectors (Sh million)

Sector	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90
Seasonal Inputs	221.8	78.9	73.2	70.0	37.9	50.6
Farm Machinery	67.6	77.4	63.1	51.4	24.8	426.4
Farm Development	75.7	33.1	116.4	18.6	16.2	42.5
Livestock	10.0	21.9	43.6	40.5	87.1	69.5
Commerce	0.5	1.0	3.7	3.2	6.6	11.6
Small Scale Indus.	28.5	22.0	55.9	44.9	36.2	86.8
Fisheries	4.2	5.3	10.2	6.6	6.4	20.5
Rural Transport	126.9	114.0	307.6	245.1	232.2	789.1
Storage	1.6	0.5	0.5	0.3	0.6	15.7
Total	536.8	354.1	674.2	480.0	448.0	1512.7

Source: CROB

Appendix 12: CROB's Rates of Interest on Loans

	Interest rates from:				
	1.1.87	1.1.88	1990	1.2.92	1993
Short term loans and OD					
Primary Prod. & Mark.					
(I) Village & Coop. Soc.	20.00	20.00	27.00	29.00	30.00
(ii) Marketing Boards	25.00	26.00	29.00	29.00	30.00
(iii) Small scale farming	22.00	22.00	22.00	25.00	30.00
(iv) Estates/Plantations	27.50	27.50	29.00	29.00	30.00
(v) Cooperative Unions	23.00	24.00	29.00		30.00
Secondary Production					
(I) Small scale indust. (rural)	20.00	21.00	29.00	29.00	30.00
(ii) Small scale indust. (urban)	22.00	23.00		29.00	

Source: CRDB

Appendix 13: Ownership of Coffee Curing Plants

Mill	Ownership %Shares	
TCCCO	KNCU	51%
	TCGA	31%
	ACU	10%
	Others	8%
Mbozi Coffee Curing Plant	TCMB	100%
Mbinga Coffee Curing Plant	TCMB	100%
Bukop Ltd.	KCU	100%
Tarime Plant	MRCU	100%

Appendix 14: Capacity Utilization at Mafinga Plant (n. tonnes)

Year	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Installed Capacity	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Present Production	1,100	1,375	1,006	1,183	1,308	1,197	1,459	1,532	1,813	1,548
%	24%	31%	22%	26%	29%	27%	32%	34%	40%	34%

Source: TPMB

Appendix 15: Sisal Fiber Production by Estates

Private Estates	1986	1987	1988	1989	1990	1991	1992	% change
Amboni	12,184	11,748	12,259	1,951	12,139	12,662	9,979	-18%
Ralli	2,997	3,003	3,141	3,254	2,870	2,556	2,336	-22%
Karimjee	1,498	1,343	1,182	1,112	1,269	1,193	1,067	-29%
Lugongo	824	1,159	1,248	1,289	1,407	1,348	1,282	56%
J.V. Group	701	736	617	494	382	536	251	-64%
TanFarms					871	625	833	-4%
Marungu					858	782	454	-47%
Others	1,414	2,201	3,126	3,232	1,590	1,760	1,300	-8%
Total	19,618	20,190	21,573	11,332	21,386	21,462	17,502	-11%
Total TSA	10,533	12,980	11,695	10,933	12,357	14,200	6.707	-36%
Grand total	30,151	33,170	33,268	22,265	33,743	35,662	24,209	-20%
Private as % of Gr. total	65%	61%	65%	51%	63%	60%	72%	

Source: TSA (Tanga)

Appendix 16: Production of Sisal Twine, Yarn and Ropes

Year	Tancord	TASCO	TIC	Sisal Kamba	Usambara	Anboni	Total
1984	4,755	6,871	3,644	561	1,616	5,787	23,234
1985	3,263	3,535	2,873	-	917	4,337	14,925
1986	3,695	6,723	2,620	-	1,485	4,841	19,364
1987	3,626	5,032	2,560	-	1,251	4,664	17,133
1988	3,932	5,321	3,366	-	1,722	5,399	19,734
1989	2,389	5,260	3,388	-	2,017	5,975	19,029
1990	4,463	7,422	2,634	-	1,991	5,399	21,909
1991	4,199	7,041	2,053	-	1,795	6,113	21,201
1992	8,159	5,381	1,050	-	1,569	5,062	21,221

Source: TSA (Tanga)

Appendix 17: Tea Primary Processing

Make of Mill	Ownership	Installed Capacity Tonnes	Utilized Capacity			
			1988/89	1989/90	1990/91	1991/92
Katumba	Tanzania Tea Authority	2,000	85	80	67	88
Mwakaleli	"	1,000	70	69	87	67
Lupembe	"	1,250	92	92	78	70
Mponde	"	1,000	93	95	82	70
Bulwa	"	1,000	45	42	24	25
Bukoba	"	1,000	72	50	42	26
Average		1,208	76	71	63	58
Ambagulu	Private	1,000	50	58	60	64
Dindira	"	860	60	65	56	69
Brook Bond:3 plants	"	6,500	100	109	102	111
Luponde	"	1,000	40	39	38	41
G.W'son	"	3,400	60	61	62	67
Karimjee Jivanjee	"	950	na	66	56	60
Bombay Bura:2 plants	"	670	na	37	34	35
Balangali	"	270	na	93	102	109
Average		1,831	39	66	64	70

Source: TTA

Appendix 18: Geographical Distribution of Oil Mills

Region	No. of Mills	Installed capacity (m. tonnes)	Utilized capacity (%)
Arusha	2	14,400	3.5
Kilimanjaro	1	5,400	1.3
Tanga	4	30,600	7.4
Morogoro	2	52,200	12.6
Coast	4	22,200	5.4
Dar es Salaam	3	38,500	9.3
Lindi	2	20,400	5.9
Ruvuma	2	9,900	2.4
Iringa	1	4,500	1.1
Mbeya	1	5,400	1.3
Tabora	1	5,400	1.3
Singida	1	4,500	1.1
Kigoma	1	7,500	1.8
Shinyanga	7	78,300	19.0
Kagera	1	15,000	3.6
Mwanza	7	88,000	21.5
Mara	2	9,900	1.0
Total	42	412,100	.100

Source: Cotton Board of Tanzania

Appendix 19: Location of NMC Grain Mills

Region	Location	Type of Activity
Dodoma	Dodoma town	Maize milling
Moragoro/Tabora	Morosoro/Tabora	Rice milling
Dar es Salaam	Chang' ombe	Maize milling
	Mzizima	Maize milling
	Mzizima	Rice milling
	Kurasini	Wheat Milling
Lake zone	Isaka	Rice milling
	Mwanza	Rice milling
	Shinyanga	Rice milling
Northern zone	Arusha	Maize and Wheat millling
Southern zone	Iringa	Maize milling
	Mbeya	Rice milling
	Kyela	Rice milling
	Mtwara	Maize/Cassava milling

Appendix 20: Fruits and Vegetables Processing Plants

Name of Plant	Ownership	Products	Capacity
Debaga Veg. And Fruit Canning Company	Private	Tomatoes Peas and beans Fruits	3.0 tonnes 0.5 tonnes 2.5 tonnes
Matombo Fruits Processing Plant	Private	Fruits but plant not operational	na
Morogoro Food Processing Industries	Private	Pineapples Mangoes Oranges Papaya Tomatoes	5000kg/day
Muheza Fruit Canning Plant	Cooperative	Mangoes Citrus fr. Tomatoes Pineapples	1-15 t/day 1.0 t/day 1.5 t/day 1.0 5/day
Soni Fruit Canning Plant	Parastatal	Passion fr. Tomatoes Pears, plums Mangoes	0.5 t/day 0.5 t/day 1.5 t/day 1.0 t/day
Tropical Food Ltd. Dar es Salaam	Private	Fruits	na
TANGOLD Products Ltd-DSM -Korogwe	NMC	Fruits & Vegetables Fruits & Vegetables	90,000 t/annum 19,200t/annum
Vitamin Foods Ltd.	Private	Fruits & Vegetables	3,200 t/day

Appendix 21: Official Producer Prices of Domestic Crops
A. Current Prices; Sh per kg

	76/77	77/78	779/80	80/	81/82	82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92
Preferred Staples															
Maize	0.80	0.85	01.00	1.0	1.50	1.75	2.20	4.00	5.25	6.30	8.20	9.00	11.00	13.00	15.4/30
Paddy	1.00	1.20	11.50	1.7	2.30	3.00	4.00	6.00	8.00	9.60	14.40	17.30	19.00	26.00	31.40
Wheat Grain	1.20	1.25	11.35	1.6	2.20	2.50	3.00	4.50	6.00	7.20	9.00	10.35	13.00	32.00	38.40
Drought Staples															
Sorghum/Millet	0.90	1.00	11.00	1.0	1.00	1.60	2.00	3.00	4.00	4.80	6.00	6.60	7.25	8.00	
Cassava Gr. I	0.50	0.60	00.65	0.6	0.70	0.90	1.20	2.00	3.00	3.60	4.50	4.95	5.45	6.00	
Oilseeds															
Sunflower Black	1.10	1.50	11.70	1.8	2.00	2.90	4.00	6.00	8.40	10.10	12.65	13.90			
Jupiter	1.10	1.50	11.50	1.6	1.80	2.60	3.50	5.25	7.40	8.90	11.15	12.25			
Mixed	0.80	1.25	11.40	1.5	1.70	2.50	3.20	4.80	6.70	8.00	10.00	11.00			
Sesame	2.50	3.00	33.50	4.0	4.50	5.70	7.00	10.50	14.70	17.65	22.10	24.30			
Groundnuts	2.50	4.00	44.00	4.2	4.38	5.80	8.00	12.80	17.90	21.50	26.90	29.60			
Copra	2.30	2.50	22.30	2.5	3.00	4.20	6.00	9.00	12.60	15.10	18.90	20.80			
Soya	2.25	2.25	22.25	2.2	2.25	3.00	4.50	6.75	9.40	11.30	14.15	17.00			
Other Crops															
Beans Gr. I	2.00	3.50	33.50	3.5	3.50	3.50	5.00	8.00	12.00	14.40	21.60	24.85	27.30	35.00	
Sugarcane	0.09	0.10	00.10	0.1	0.14	0.17	0.24	0.32	0.36	0.46	0.60	0.75	0.92		
Grapes Gr. A	3.50	3.50	34.00	4.0	5.00	6.00	9.00	15.00	16.50	21.50	26.90	35.00	38.50		
Gr. B						5.00	9.00	13.00	14.30	18.60	23.25	30.20	33.20		

Gr. C							6.00	10.00	11.00	14.30	17.90	23.25	25.55		
B. Constant Prices; 1989/90 = 100															
NCPI (end of year)	95	106	157	198	234	314	401	558	716	948	1260	1587	1896	2535	2940
Preferred Staples															
Maize	15.97	15.21	112.08	9.58	12.15	10.57	10.40	13.59	13.90	12.60	12.34	10.75	11.00	9.72	9.9/19.4
Paddy	19.96	21.47	118.12	16.7	18.63	18.12	18.91	20.39	21.19	19.20	21.66	20.67	19.00	19.45	20.25
Wheat Grain	23.95	22.36	116.30	15.8	17.82	15.10	14.19	15.29	15.89	14.40	13.54	12.37	13.00	23.94	24.77
Drought Staples															
Sorghum/Millet	17.96	17.89	112.08	9.58	8.10	9.66	9.46	10.19	10.59	9.60	9.03	7.89	7.25	5.98	
Cassava Gr. I	9..98	10.73	17.85	6.22	5.67	5.43	5.67	6.80	7.94	7.20	6.77	5.92	5.45	4.49	
Sunflower Black	21.96	26.83	220.53	17.2	16.20	17.51	18.91	20.39	22.25	20.20	19.03	16.61			
Jupiter	21.96	26.83	218.12	15.3	14.58	15.70	16.55	17.84	19.60	17.80	16.77	14.64			
Mixed	15.97	22.36	216.91	14.3	13.77	15.10	15.13	16.31	17.74	16.00	15.04	13.14			
Sesame	49.90	53.67	542.27	38.3	36.45	34.42	33.10	35.68	38.93	35.30	33.25	29.04			
Groundnuts	49.90	71.55	648.31	40.2	35.48	35.03	37.83	43.50	47.41	43.00	40.47	35.37			
Copra	45.91	44.72	327.78	23.9	24.30	25.36	28.37	30.58	33.37	30.20	28.43	24.86			
Soya	44.91	40.25	327.17	21.5	18.22	18.12	21.28	22.94	24.89	22.60	21.69	20.31			
Other Crops															
Beans Gr. I	39.92	62.61	542.27	33.5	28.35	21.14	23.64	27.19	31.78	28.80	32.50	29.70	27.30	26.18	
Sugarcane	1.87	1.72	11.22	1.02	1.11	1.03	1.13	1.10	0.94	0.93	0.90	0.90	0.92		
Grapes Gr. A	69.86	62.61	548.31	38.3	40.50	36.23	42.56	50.97	43.70	43.00	40.47	41.82	38.50		
Gr. B						30.19	42.56	44.18	37.87	37.20	34.98	36.09	33.20		
Gr. C							28.37	33.98	29.13	28.60	26.93	27.78	25.55		
1991/92 prices															

Appendix 22: Purchases of Main Staples

	Purchases (000 tonnes)						Purchases as % of Production					
Markt. Years	Maize	Paddy	Wheat	Cassava	Pulses	Sorghum	Maize	Paddy	Wheat	Cassava	Pulses	Sorghum
1970/71	na	na	na	na	na	na	na	na	na	na	na	na
1971/72	43	45	57	na	na	na	6.9%	24.1%	95.0%	na	na	na
1972/73	96	47	51	14	na	1	10.8%	15.6%	58.0%	na	na	na
1973/74	74	39	28	19	na	2	9.7%	11.4%	32.9%	na	na	na
1974/75	24	15	14	18	na	2	1.8%	3.7%	17.1%	1.8%	0.0%	0.5%
1975/76	91	12	24	17	na	4	6.3%	2.3%	34.8%	1.4%	0.0%	0.8%
1976/77	127	15	27	20	11	16	7.6%	3.1%	42.2%	1.5%	5.9%	2.6%
1977/78	213	35	35	37	31	48	14.5%	5.9%	63.6%	3.0%	15.7%	5.8%
1978/79	220	34	29	64	28	75	12.8%	8.4%	na	4.5%	12.8%	6.5%
1979/80	161	30	27	44	34	22	9.3%	6.7%	31.0%	3.6%	11.0%	2.6%
1980/81	105	13	28	7	16	21	7.0%	4.2%	na	0.5%	5.9%	3.0%
1981/82	89	15	23	9	14	11	5.4%	3.0%	na	0.5%	4.7%	1.1%
1982/83	86	21	31	19	11	5	5.2%	3.9%	53.4%	1.0%	3.7%	0.6%
1983/84	71	22	28	31	8	5	3.7%	4.0%	37.8%	1.6%	1.5%	0.7%
1984/85	85	12	33	20	4	2	7.8%	2.8%	39.8%	1.0%	0.9%	0.2%
1985/86	178	16	50	13	6	15	8.1%	2.9%	69.4%	0.6%	1.9%	1.6%

1986/87	173	11	34	14	29	6	7.3%	1.7%	47.2%	0.8%	6.8%	0.6%
1987/88	229	43	43	9	35	6	9.8%	7.0%	57.3%	0.5%	9.1%	0.9%
1988/89	124	49	44	na	3	na	4.0%	6.8%	45.4%	0.0%	0.6%	0.0%
1989/90	149	16	47	na	7	na	6.1%	2.2%	44.3%	0.0%	1.8%	0.0%
1990/91	na	na	na	na	na	na	0.0%	0.0%	0.0%	0.0%	na	0.0%
1991/92	na	na	na	na	na	na	0.0%	0.0%	0.0%	0.0%	na	0.0%
1992/93	na	na	na	na	na	na	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1993/94	na	na	na	na	na	na	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Appendix 23: Imports and Exports of Main Staples - In ‘000 tonnes

Year	Maize				Rice				Wheat Grain Equivalent			
	Imports			Export	Imports			Exports	Imports			Export
	Comm	Aid	Total		Comm	Aid	Total		Comm	Aid	Total	
1966/67			14.3	7.0			7.6	2.0				
1967/68				0.5			5.7	0.4			13.6	1.0
1968/69				32.0				0.1			36.7	
1969/70			46.9	28.0							36.7	
1970/71				24.0				0.5			11.6	
1971/72			92.3	29.0				4.0			45.4	
1972/73			78.9					7.0			8.2	0.1
1973/74			291.1				72.6	7.0			91.0	0.3
1974/75			225.4				14.3				28.8	
1975/76	80.0	27.0	107.0		21.0		21.0		16.0	46.0	61.0	
1976/77	34.6	7.0	41.6		5.0		5.0			34.0	34.0	
1977/78		34.3	34.3		27.0	22.0	49.0			41.0	41.0	
1978/79				49.0	21.0	20.0	41.0		16.0	62.0	78.0	
1979/80	32.5		32.5	28.0	5.0	50.0	55.0			33.0	33.0	
1980/81	188.1	86.5	274.6		14.2	51.0	65.2			48.7	48.7	
1981/82	27.5	207.1	234.6		11.0	59.2	70.2			83.1	83.1	

1982/83	17.0	106.4	123.4			29.4	29.4	9.4	20.0	29.4
1983/84	125.1	69.2	194.3		30.4	26.7	57.1		46.3	46.3
1984/85	110.9	17.6	128.5		13.7	22.4	36.1	11.5	21.8	33.3
1985/86	3.1	3.0	6.1		8.5	24.4	32.9	5.5	16.3	21.8
1986/87	85.0	8.8	93.8		56.0	27.5	83.5		53.5	53.5
1987/88				90.8	31.0	21.3	52.3	20.0	13.7	33.7
1988/89				14.4	2.5	17.0	19.5	11.00		11.07
1989/90										
1990/91										
1991/92										
1992/93										
1993/94										

Appendix 24: Official Purchases of Export Crops in Tanzania

Marketing Year	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94 Prov.	1994/95 Est.
Quantities, 000 Tonnes													
Mild Coffee (clean)	38.7	36.1	36.1	38.6	27.5	32.8	43.7	38.2	37.6	37.0	44.2	31.6	na
Hard Coffee (clean)	14.7	13.0	12.9	14.2	14.0	12.9	13.6	15.0	18.3	11.0	13.2	12.3	na
Seed Cotton	128.2	140.7	155.1	108.2	216.9	253.7	191.7	113.5	147.0	267.0	308.2	149.0	124.0
Sisal *	46.2	38..3	32.3	30.2	33.2	33.3	33.3	32.3	35.0	35.0	na	na	na
Flue-Cur. Tobacco	9.6	9.0	10.7	12.1	15.0	11.1	10.2	9.5	8.5	10.7	18.8	na	na
Fire-Cur. Tobacco	3.9	2.1	2.7	0.4	1.4	1.8	1.4	1.5	3.3	6.0	4.6	na	na
Tea (made)	17.6	15.2	16.7	15.5	14.1	13.8	15.9	20.2	18.1	19.5	21.1	21.6	na
Cashewnuts (raw)	33.0	48.3	32.1	19.0	16.5	24.4	19.3	17.0	33.0	41.2	39.3	46.6	na
Pyrethrum	1.6	1.4	1.5	1.4	1.2	1.4	1.3	1.6	1.7	2.4	2.1	0.5	1.7
Cardamom	0.3	0.4	0.1	0.2	0.3	0.1	0.2	0.2	0.2	O.2	na	na	na
Cocoa	1.4	1.4	1.2	1.6	2.0	2.0	2.2	2.3	2.4	2.4	na	na	nan
Index of Quantities Purchased (1974/75=100)													
Mild Coffee (clean)	98	92	92	98	70	83	111	97	96	94	112	80	0
Hard Coffee (clean)	115	102	101	111	109	101	106	117	143	86	103	96	0

Seed Cotton	62	68	75	52	105	123	93	55	71	129	149	72	60
Sisal * (fibre)	36	30	25	24	26	26	26	25	27	27	0	0	0
Flue-Cur. Tobacco	63	59	70	79	98	73	67	62	55	70	123	0	0
	130	70	90	13	47	60	47	51	111	200	153	0	0
Tea (made)	127	109	120	112	101	99	114	145	130	140	152	155	0
Cashewnuts (raw)	28	41	27	16	14	21	16	14	28	35	33	40	0
pyrethrum	34	30	32	30	26	30	28	34	36	51	45	11	35
Cardomom	50	67	17	33	50	17	33	33	33	33	0	0	0
Cocoa	280	280	240	320	400	400	440	460	480	480	0	0	

Appendix 25: Agricultural Performance in Forex Generation: Million US $

Commodity	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Coffee													
Arabica Unroasted	166.95	133.04	125.35	122.00	136.17	113.14	102.48	114.83	97.69	147.99	78.27	79.86	86.25
Robusta Unroasted	42.47	34.88	21.66	19.64	19.40	6.83	20.15	35.78	22.77	36.71	31.13	15.48	21.16
Roasted	0.05	1.00	0.39	1.78	1.45	1.26	1.28	0.77	0.58	0.00	0.00	1.05	0.62
Total	209.47	168.92	147.40	143.41	157.01	121.24	123.91	151.39	121.04	184.70	109.40	96.39	108.03
Cotton													
Raw	61.28	54.46	59.88	48.43	77.02	54.68	58.24	48.81	30.20	30.40	43.90	75.26	64.90
Cotton Seed Cake	5.97	3.57	3.85	5.89	4.83	2.94	2.22	2.51	1.79	1.17	1.23	2.43	2.00
Total	67.24	58.03	63.72	54.32	81.84	57.62	60.46	51.32	31.99	29.46	44.12	77.69	66.90
Sisal													
Fibre	25.82	28.27	31.40	30.62	32.59	23.55	12.47	10.38	6.05	5.20	5.90	4.86	4.27
Rope, Twine, Etc	14.04	15.04	26.65	28.06	10.86	12.51	7.94	9.86	5.48	2.77	2.92	8.30	14.65
Total	39.87	43.31	58.05	58.68	43.46	36.07	20.41	20.25	11.53	7.62	8.66	13.16	18.92
Tobacco													
Unmanufactured	23.90	28.79	18.13	12.44	17.50	18.72	10.93	8.90	13.89	12.70	11.90	15.35	12.02
Cigarettes	0.45	1.56	2.07	2.20	2.90	2.10	2.73	2.71	1.50	0.99	1.01	2.06	3.35
Cashewnuts													
Raw	21.29	20.88	17.65	7.32	34.52	9.25	6.23	21.60	11.76	15.00	12.40	16.05	7.39
Kernels (Raw eg.)	9.63	8.82	10.10	15.37	25.35	15.98	6.58	7.16	1.56	1.66	1.75	3.43	6.31
CNSL	0.34	0.52	1.34	0.73	0.60	0.32	0.17	0.06	0.12	0.15	0.15		
Total	31.26	30.21	29.09	23.42	60.48	25.55	12.98	28.82	13.43	15.77	13.96	19.48	13.70
Tea													

Made Tea	20.16	21.78	19.96	22.08	20.28	18.19	20.67	23.02	17.35	13.60	17.70	16.30	16.16
Pyrethrum													
Crude Extract	2.11	2.32	2.56	1.65	1.63	3.28	0.88	1.75	2.15	3.33	1.79		
Marc	0.11	0.17	0.12	0.15	0.05	0.09	0.06	0.09	0.12	0.17	0.10		
Powder	0.34	0.26	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total	2.56	2.75	2.80	1.80	1.68	3.37	0.94	1.85	2.27	3.50	1.88	2.53	2.28
Cardamon	3.28	3.24	4.38	2.68	1.93	1.68	1.96	2.13	0.46	0.37	0.20	0.18	0.31
Cocoa Beans	1.93	3.63	3.04	2.56	1.93	1.26	2.73	2.71	2.88	2.06	2.82	3.02	3.96
Oilseeds													
Castor Seed	0.57	0.78	0.49	0.37	0.24	0.21	0.03	0.03	0.23	0.00	0.00	0.05	
Sesame	0.23	3.24	2.19	2.81	1.57	1.47	0.68	0.58	0.63	0.00	0.00	1.09	
Total	0.79	4.02	2.68	3.17	1.81	1.68	0.72	0.61	0.86	0.00	0.00	1.14	na
Total Mainland	400.92	366.24	351.32	326.78	390.83	287.50	258.45	293.68	217.19	270.76	211.65	247.30	245.63

Source: Customs and Excise Dept and Bank of Tanzania

Appendix 26: Agriculture Share of Total Domestic Lending

End of Year	Total Lending	Agric. Production	Agric. Marketing	Agric. Exports	Total Agric. Lend. Share
1993	271,064	8.4%	26.3%	4.2%	38.9%
1992	163,028	8.4%	26.3%	4.2%	38.9%
1991	198,683	6.8%	38.5%	1.4%	46.8%
1990	144,130	9.2%	34.2%	1.4%	44.8%
1989	86,176	6.2%	45.3%	0.7%	52.2%
1988	73,458	8.2%	50.8%	0.8%	59.8%
1985	17,529	3.7%	55.8%	2.5%	62.1%
1980	7,400	6.0%	63.1%	1.4%	70.5%

Source: Economic and Operations Report BoT

Appendix 27: Market Determined Producer Prices (Sh/kg)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Food Crops:						
Maize-Gr. A:	14.52	27.99	41.09	55.53	64.42	
Paddy	27.99	35.44	54.30	91.36	106.57	
Wheat	40.37	53.92	65.01	98.89	140.52	
Sorghum/Millets	23.42	31.45	42.25	72.91	71.51	
Export Crops:**						
Coffee:Milds	126.00	155.00	230.00	250.00	400.00	931.00
:Robusta	55.00	60.50	70.00	100.00	90.00	300.00
Cashew:SG	84.00	110.00	137.00	125.00	270.00	300.00
:UG	56.00	73.00	89.00	100.00	110.00	na
Cotton: Gr. A	28.00	41.00	70.00	60.00	80.00	120.00
:Gr. B	11.00	14.00	22.00	17.00	35.00	na
Tobacco:Flue	90.00	117.00	245.00	295.00	365.00	600.00
:Fire	70.00	91.00	168.00	220.00	243.00	510.00

Notes:
* = Average of nine months
** = Effective year of Market determined prices is 1994/95

Source: The Marketing Development Bureau (MDB)

Appendix 28: Financial Status of Cashew Handling Unions 1990/91

Unions	Crop Financing Overdraft	Bank Interest	Total Bank Debt	Actual Crops Financed	Expenditure Outside Crop Financing
	(ShMill)	(ShMill)	(ShMill)	(ShMill)	(ShMill)
CORECU	844.75	40.78	885.53	783.17	61.58
DARMCU	285.29	6.42	291.71	249.90	35.39
LIRECU	714.80	61.77	776.57	653.06	61.74
MARCU	1,154.70	86.99	1,241.69	1,067.71	86.99
RURECU	706.82	83.98	790.80	622.81	84.01
TARECU (Tanga)	384.60	71.66	456.26	302.49	82.11
KYERUCU	835.44	38.02	873.46	424.00	411.44
TOTAL	4,926.40	389.62	5,316.02	4,103.14	823.26