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THE AGRARIAN SECTOR AND ECONOMIC DEVELOPMENT IN TANZANIA.

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1.1 INTRODUCTION

Agriculture is central to the Tanzanian economy and will continue to be so for the foreseeable future. About 90 percent of the population is directly or indirectly engaged in agricultural activities, while about 50 percent of the Gross Domestic Product and more than 75 percent of the foreign exchange earnings accrue from the agricultural sector. About 90 percent of the food consumed is produced by the agricultural sector even in recent drought years. It provides raw materials for the industrial sector. In turn agricultural producers are the major market for the industrial goods produced. It is also the biggest employer of the Tanzanian labour force.¹

Since independence Tanzania has been preoccupied with the pressing requirement of reshaping rural institutions to ensure that increased productivity and higher levels of living spread throughout the rural areas. Notable among rural institutions likely to be of critical importance are those governing land tenure. This is true not merely because land tenure systems determine who may use and develop particular pieces of land, but because the control of land as a primary productive resource in the country has helped to shape the essential relationships of power and privilege that determine how rural populations are integrated into or excluded from the spread of specialization and exchange within the nation. This form of change in the agrarian structure is necessary because they affect the extent and pace of introduction of new productive techniques, the impact of expanding markets and credit; and whether the peasant obtain higher incomes necessary to create an internal market and the higher levels of living that constitute the primary goal of development.

1, United Republic of Tanzania, The Agricultural Policy of Tanzania, Government Printer, Dar es Salaam, March 31, 1983 p.1.

Part 1 of this paper summarises land tenure systems which emerged after independence. Part II examines the objectives and constraints facing rural development in Tanzania. Part III reviews the agrarian structure in Tanzania and its influence on economic development i.e. the performance of the agricultural sector.

2.1.0 LAND TENURE SYSTEMS IN LDCs.

Many developing countries inherited a wide range of land tenure systems. In this paper we highlight their main characteristics and indicate the extent to which they may foster or hinder the necessary integration of rural population into national development plans. Reformed land tenure systems are likely to contribute to increased productivity and higher levels of living for the broad masses of many developing countries. Attempts to immediately increase agricultural productivity by simply introducing large scale productive units with capital intensive productive equipment like tractors and combines unlikely to contribute to the creation of conditions necessary for balanced national development.¹ In the short run and with only a few exceptions, such projects consume large amounts of scarce capital mainly foreign exchange with relatively low returns and in some respects negative consequences for national development.

There are several factors why the above contentions may be true, namely:

1. The lack of research concerning appropriate techniques to use in tropical soils. This has led to the expenditure of huge sums of money on the wrong kinds of equipment.
2. Lack of appropriate skills on the part of the typical peasant leads to inappropriate use and frequent breakdowns of equipment.

1. Ann Seidman, "Planning for Development in Sub-Saharan Africa, (Tanzania Publishing House, Dar es Salaam 1974) p.166.

3. Difficulties of obtaining spare parts for machines has resulted in large amounts of capital being tied up in idle equipment while new parts are imported. The initial importation of a wide variety of makes of equipment has aggravated this problem by requiring many different types of spare parts which are expensive to keep on hand (see appendix D).

4. The utilization of scarce capital in agriculture does not contribute to employment of the growing numbers of underemployed rural workers. Instead as tractors substitute for labour, numbers of younger peasants crowd into urban slums seeking employment, while the shortage of capital for implementation of a planned industrial project hinders the construction of factories in which they may be employed. It should be noted that foreign aid tied to the sale of specific machinery has been a significant factor contributing to unemployment in many LDCs.

5. The initial high capital and wage costs per unit of output of this pattern of agricultural production render it incapable of competing in the domestic market with crops produced by peasant families who use their own (unpaid) labour and provide for their own subsistence. This limits the competitiveness of its output on the world market unless heavy subsidies are introduced.

1.2.1 LAND TENURE AND LAND USE IN TANZANIA

In Tanzania all land is publicly owned and vested in the state. But the maintenance and improvement of the quality of land depends crucially upon the land user, and often demands considerable investment of labour and resources for example, the work of ridging or terracing or the investment of manure, compost or chemical fertilizers. It is essential therefore that all users feel confident that their investments of effort and money will be beneficial to them, their families as well as to the nation as a whole.

The main forms of land tenure in Tanzania are:

1. Customary land tenure;
2. Communal land tenure
3. Leasehold
4. Rights of occupancy.

In practice most land in Tanzania is held under either customary or communal systems, and most agricultural land is held under either customary or communal systems and most of it is not properly surveyed or mapped. Few users of land possess documents showing legal rights and legal duties, or even their boundaries-which is not to say that these are not generally known and jealously guarded. The present villages know their boundaries but if they about on another village, or on a private or public farm quite a genuine dispute could arise through the lack of formal or documentation. This exercise of survey and mapping of villages greatly disturbs the traditional land holding arrangements. To allow for the best possible use and care of agricultural land, allocation to different users will in future be made according to the following principles.¹

(a) all leases, Rights of Occupancy, etc may have a Land Rent (payable to Government) fixed or valuable from time to time in recognition of national ownership and the nation's responsibility for national development.

(b) Villages will be allocated land on a 999 year basis-in other words, virtually on a basis of permanency. They will have the power to sub-lease any part of their land for shorter periods, but these sub-leases will not normally be for less than 33 years, and may be for as long as 99 years. The Ministry of Land and Urban Development in consultation with other relevant Ministries, with Local Authorities, and with the villages themselves will work out a Land Tenure system of systems which maximize land care, utilization and improvement while respecting as far as possible the traditional land practices and beliefs in different areas. In particular, each Household will normally be given its own long-term sub-lease so as to provide reasonably permanent occupancy of the house and the Household Shamba, but the right to free sale will not be included in that lease; if the family wish to surrender their sub-lease they must return it to the village Government in return for compensation for the value of the house and other buildings, of any land improvements which have been made, and of any permanent crops.

1. URT, The Agricultural Policy of Tanzania, Ministry of Agriculture, March 31st 1983.

The family holding on the Block Farm will also be allocated for a number of years (not necessarily the same long period) so as to encourage the user to enselve and fertilize it and in other ways to improve its facility; this must also be surrendered to the Village Government for re-allocation when no longer required by the user or his heir

(c) All land allocated to institutions, enterprises, or individuals, for commercial farming will be given on leases of not less than (and usually more than) 33 years. The user will be entitled to a document setting out his boundaries, and the conditions of his Lease. When surveying and mapping of the area has been completed, the Leaseholder will be given his registered Lease Documents, but in the meantime an interim document will be registered giving him full legal protection. His possession of the land will thus be fully protected by law as long as he observes the condition of his lease. He will be given the right to appeal before the implementation of any decision to acquire his land for public purposes or for any other reason, and if the appeal is not upheld will be paid full compensation for any improvements effected to the land as well as for buildings etc., erected.

(d) The Ministry of Land and Urban Development will act urgently to streamline the procedures and systems of allocating land to applicants and users so as to remove as quickly as possible the confusion in granting land occupancy which sometimes occurs. A Register of Agricultural Land Occupancy, and the conditions attached to any allocation, will be kept both at District and at the Ministry Headquarters.

3.1.0 RURAL DEVELOPMENT IN TANZANIA

Tanzania has charted out a development strategy of socialism and self-reliance. Consistent with its goals of political and economic independence and the creation of a nation state, it seeks to achieve a balanced economic growth and equity in the distribution of economic opportunity and incomes.

The objective of the socialist transformation of Tanzania's productive forces is based on President Nyerere's understanding of traditional African family and society. The achievement of this objective rests on the support and commitment of the majority of the population to these goals and objectives. This approach is governed in part by the stated objectives of Tanzanian development strategy as contained in the Arusha Declaration, and in part by the observation of certain practical ambiguities. There are two main strands here. The first is the problem of reconciling domestic food self sufficiency with the foreign exchange earning role of the agricultural sector. The second is the problem of reconciling the rural income objectives of strategy with the tendency for peasants to receive a progressively smaller proportion of the market value of their crop sales.

The goal of self-reliance as it has been followed in Tanzania places heavy demands on the output capability of the agricultural sector. This is both by virtue of its objective of good self sufficiency and because its industrial component necessitates rapid growth in foreign exchange availability for the importation of capital and intermediate goods. Given that the industrialization strategy is fundamentally inward-oriented, virtually the entire burden of foreign exchange earning is placed on agriculture (World Bank, 1977, p.106).

The various demands on agricultural production are not by any means automatically compatible. In the course of the empirical analysis of this paper, the prospects of the achievement of this sector are severely weakened if:

- (a) Agriculture is required to yield a surplus in a situation of declining real producer prices.
- (b) That surplus does not find its way into productive uses either inside the rural economy due to its absorption in rising marketing costs and
- (c) Major export crops are neglected on the grounds that they represent an imperial division of labour out of which Tanzania must escape as quickly as possible.¹ In terms of priorities of implementation it is not very realistic to combine an industrial policy which places heavy demands on foreign exchange earnings with a simultaneous effort to

eliminate dependence on traditional export crops. Nor is it consistent with the objective of raising rural incomes to expect peasants to give up an increasing proportion of the real product of their labour.

3.1.1 The Household Economy

In the Tanzanian rural economy, the peasant household remains the basic economic decision making unit, engaging in both production and exchange activities to satisfy the needs and to provide for the welfare of its members. Any analysis of the household economy must place the household in the context of the larger economic system into which it is integrated. The crisis in Tanzania's agricultural production can be explained in terms of the decline in both food and export crop production. This reflects the response of small holders, to a situation of increased risk uncertainty. They are behaving in a manner that promises to protect their already low standard of living to ensure their own survival.

Small holders normally face the uncertainties of weather, the unreliability of rainfall. The Tanzanian peasant farmers who have been incorporated into the production of crops for sale in official markets face increased growing uncertainties from three sources:

- (i) Necessary inputs often are not available when needed;
- (ii) Harvested crops are regularly not collected by the crop authorities and often payments to the producers are not made. Even if the products are collected payments are often late. This angers the peasants.
- (iii) Consumer items are available at prices commensurate with the income received from crop sales.

(Footnote 1 on page 6)

1. The smallholder basis of most export crop production in Tanzania should have modified the enthusiasm for breaking with the imperial division of labour (especially because they are the predominant source of cash income for Tanzanian peasants). The same holds true with respect to the foreign exchange requirements of the self-reliant industrial strategy.

As a result of the above factors which became predominant since the 1970s, many small holders have withdrawn from the market economy, and in the process have come to view the Government as part of the problem.

3.1.2 AGRICULTURAL SECTOR'S CONTRIBUTION TO ECONOMIC DEVELOPMENT

A large proportion of Tanzania's rural population are engaged in agricultural production. They produce their own food requirements and earn their cash incomes for purchasing manufactured goods and services. The ample availability of manufactured goods and services can work as an incentive to stimulate agricultural production unlike when the basic necessities such as soap, kerosine, sugar salt to mention a few, cannot be obtained even if people had the money to buy them.

The contribution of the agricultural sector to gross national income is largest relative to other sectors, although this contribution has been declining.¹ Table I shows the contribution of agriculture to GDP at constant 1966 prices (%). In real terms (at constant prices) the contribution of the sector declined steadily from an average of 59.9 per cent in the period 1961 - 63 to 43.8 per cent during the First Five Year Plan Period (1964-69), to 39.5 during the Second Five Year Plan Period (1969-1974) and finally to 37.7 percent in the Third Year Plan period (1975-1981). This decline can be partly explained by deliberate efforts to effect structural change in favour of non agricultural sectors especially industry and commerce. The decline is also explained by the generally lower growth rates of the sector from 5.5 per cent per annum in 1961 - 63 to 3.2 percent (1975 - 1981) due to technical and organisational problems. It should be noted that agricultural sector's contribution to GDP (in nominal terms) has increased to over 50 per cent in the last six years due to relatively faster increase in agricultural producer prices in official terms.

¹ B. Ndulu and L. Msambichaka; the Agricultural sector in Tanzania an Overview of Performance and major Constraints, paper presented to ERB seminar, University of Dar es Salaam, 1984.

The subsistence sector's share in agriculture has remained constant at about 50 per cent.

Table 1. Contribution of Agriculture to GDP at constant 1966 Prices(%)

1962-63	1966	1970	1972	1974	1976	1978	1980	1981
59.9	45.3	41.7	40.1	46.3	37.0	39.4	37.6	36.1

Source: Central statistical Bureau: Statistical Abstracts 1966, 1970 and Economic survey 1981 (contains revised GDP figures since 1976)

Adopted in Ndulu, Msambichaka, 1984.

The assertion that price policy was weakly defined in the early post-Arusha period is supported by reference to the evolution of prices in current and real terms over the period 1969/70 to 1973/74

(Table 2). The crops subject to price control up to the level of the economic committee of the cabinet in this era were the staple grains (maize, paddy and wheat), the domestic oilseeds (groundnuts, sesame, sunflower and castor), cashewnuts and cotton. All but the last of these were marketed through the National Agricultural Products Board (NAPB), and the price established referred to the NAPB into store price paid to the regional cooperative unions.

TABLE 2 EVOLUTION OF PRODUCER PRICES OF SELECTED CROPS BETWEEN 1969/70 AND 1973/74, CURRENT AND REAL TERMS

CROP	1969/70	1974/74	% Increase	
	T shs/kg	T shs/kg	Current terms	Real terms a
<u>Food crops</u>				
Maize	0.28	0.33	+17.9	-22.9
Paddy	0.52	0.57	+ 9.6	-28.3
Wheat	0.57	0.57	0.0	-34.6
<u>Export crops (b)</u>				
Cashew	0.91	0.91	0.0	-34.6
Cotton	1.06	1.10	+ 3.8	-32.1
Pyrethrum	3.00	2.75	- 8.3	-40.0
Tobacco	4.02	5.60	+39.3	- 8.9

SOURCE: MDB (1979 c, p.37)

- Notes:(a) Deflated by NCPI. see Appendix A
 (b) Average price paid for allopathes.

It should be noted that in real terms the substantial decline for all crops between 1969/70 and 1973/74 was due to a de-emphasis on the price incentive. There were therefore low-returns to crop production contrary to the aspired for social incentive which was the central tenet of the Arusha Declaration. The World Bank (1977, Annex VI, p.31) suggests that the neglect of price policy was deliberate and geared to the aims of:

- (i) preventing rising urban food costs, and
- (ii) Avoiding disproportionate cash income gains to progressive farmers.

A further point to note about this period is that the balance of price incentive between domestic food and export crops was not significantly altered. Both groups suffered more or less similar degrees of deterioration in real terms.

After 1973/74 the evolution of producer prices took an overwhelming bias of upward adjustments towards domestic food crops (Table 3). This emphasis arose directly from the food deficits of 1974/75 and the consequent elevation of the food self sufficiency objective to an urgent national priority. The stress felt on food at that time has not been only confined to the realms of price, it has also involved the diversion of considerable proportion of domestic and foreign aid development expenditure to food related projects such as strategic grain reserve programme, national maize programme, early crop warning scheme, go down construction, large scale grain production etc.

TABLE 3 EVOLUTION OF PRODUCER PRICES OF SELECTED CROPS BETWEEN 1973/74 AND 1978/79 CURRENT AND REAL TERMS.

CROP	1973/74		1978/79		% Increase/Decrease	
	T.shs/kg		T.shs/kg		Current terms	Real terms
<u>Food Crops</u>						
Maize	0.33		0.85		157.6	34.0
Paddy	0.57		1.20		110.5	9.5
Wheat	0.57		1.25		119.3	14.1
Sorg/Millet	0.50		1.00		100.	4.0
Cassava (b)	0.31		0.65		169.7	9.1

CROP	1973/74	1978/79	% Increase/Decrease	
	T.shs/kg	T.shs/kg	Current terms	Real terms a
<u>Export Crops (c)</u>				
Cashew	0.91	1.64	80.2	6.2
Cotton	1.10	2.30	109.1	8.8
Pyrethrum	2.75	4.52	64.4	-14.5
Tobacco	5.60	8.34	48.9	-22.5
Coffee	5.60	9.05	61.6	-15.9

SOURCES: MDB (1979 C, p:37)

Notes: a) Deflated by modified National Consumer Price Index as given in Appendix A

b) grade makopa

c) Average prices paid for all grades.

4.1.0 THE AGRICULTURAL SECTOR'S PERFORMANCE IN FOOD AND EXPORT

PRODUCTION

The performance of the agricultural sector in food production has not been satisfactory. Tanzania has become a large food deficit country as indicated by large food import volumes. (Appendix B). From Appendix B one notes that except for 1968 and 1969 Tanzania has been a net importer of food. Since 1974 the country has affected by severe drought and this led to increased import food volumes with peaks in 1974 where there were food deficits as well as 1980. Ndulu, Msambichaka 1984 p.6 point out that the food problem is partially a relative problem. Over time non-agricultural population has adopted a consumption pattern which is heavily biased towards "preferred cereals" (rice maize and wheat) which are also heavily consumption subsidized.

The agricultural sector in Tanzania contributes significantly to the foreign exchange earnings of the country. The sector is a net contributor of foreign exchange generator in production and distribution while most of it is used by the industrial sector which is heavily import dependent.¹

¹ See K. Mporogomyi and S. Kapunda industrialisation and Foreign Exchange Constraint in Tanzania, paper presented by the Economic Policy Workshop on Tanzania, April 1983.

Table 5 shows that the volume of imports paid for by the agricultural sector has declined to 35 percent in 1982 from the peak of about 70 percent in 1973. This decline is explained by factors such as the decline in the volume of exports by about 34% and the worsening terms of trade in the period which accounted for 11 percent of the decline in the contribution (World Bank 1981, pp. 53-54). Over the same period there was a rapid expansion of imports for industrialization which took place irrespective of the poor export performance of the agricultural sector.

Table 5: AGRICULTURAL EXPORTS RELATIVE TO TOTAL EXPORTS.

1973	1974	1975	1976	1977	1978	1979	1980
76.4	78.3	79.5	83.9	87.6	86.8	82.0	83.1

Source: Marketing Development Bureau: Price Policy

Recommendation for 1982: Summary

4.1.1 SCALE AND PRODUCTIVITY IN THE AGRARIAN SECTOR

Given the small size of the typical Tanzanian farm, the issue of the size of farm holding needed to permit expanded productivity has been a subject of considerable debate. It has been argued that given the shortages of skill and capital, increases in productivity can only be achieved by introducing labour intensive improvements to increase yields per acre. Tanzania is at present experimenting on the use of improved seed varieties such as hybrid seeds, imported fertilizers, tractorization and appropriate simple technologies for eliminating diseases and pests, and small irrigation projects. It is expected that appropriate land tenure adopted should facilitate peasant participation in larger irrigation schemes and investment of accumulated surpluses in improved machinery and equipment to increase the land area utilized as well as output per acre.

Large scale productive units should be considered in this paper as being of at least five acres. Planners at national level should consider an appropriate system of land tenure and associated rural institutions which will stimulate the peasants to increase productivity in the context of national development goals. Parsons has argued¹ that: "....."As the productive capacity of agriculture is increased and development supported by the integration of science, technology and capital into the farm economy with the correlative conversion of agriculture into a market oriented economy, so have the customary tenure systems to be modernized by bringing the powers of the state to bear upon the system of tenure relations."

In formulating an appropriate land tenure system, several criteria must be considered.² Scidman (1974 p.165) shows that the most important criteria appear to be the following:

1. Economic size and layout of the farm: Tenure systems should foster establishment of farms, in terms of size and layout, facilitate the use of technologies and labour in relation to their relative availability in the economy as well as geographical conditions.

2. Incentives and opportunities: The system adopted should create the incentives and opportunities to induce the farm operators to use the most efficient productive methods, given the availability of unskilled labour and shortages of skilled manpower and capital.

1. Parsons, Land Reform in Nigeria, p.9.

2. F.A.O. United Nations, Africa Survey: Report on Possibility of African Rural Development in Relation to Social and Economic Growth (Rome, 1962). p.18.

3. Capital investment: If productivity is to increase over time, the tenure system must create the conditions needed to encourage the farmers needed to invest a significant share of the surpluses produced in improved technologies as skills improve and planned new job opportunities are made available in other sectors of the economy. Over time, these conditions include the establishment of productive units involving a single area large enough to accommodate the use of increasingly modern cultivation and reaping machinery.

4. National Development perspective: The tenure system should ensure that as rural populations expand their productivity, their incomes also grow sufficiently to create the internal market necessary for domestic industrial growth as well as to provide them with higher levels of living that constitute the primary aim of development.

It should therefore be noted that the creation of a balanced, internally integrated economy depends critically on the continuing expansion of an internal national market as productivity increases. Inevitably, the only market otherwise available for expanded output, both agricultural and other, will be limited to the uncertain export market and the high income elite in the associated export enclave.

President Nyerere¹ holds that
 "To make out socialism and our democracy a reality we should ---adapt to modern needs the traditional structure of African society. We must, in other words, aim at creating a nation in which Ujamaa farms and communities dominate the rural economy and set, the social pattern for the country as a whole".

The introduction of Ujamaa village in Tanzania was an attempt to establish a higher degree of cooperation in production and common land ownership utilizing relatively more labour intensive techniques by building on presumed traditions. The success however, achieved by these Ujamaa village has been unsatisfactory.

There have attempts to build Ujamaa projects, but to date only a fairly limited number have been able to implement the principles.² However, several difficulties need to be overcome if production in Ujamaa villages has to improve:

1. Research is required to ascertain the extent to which traditional practices can really modernize agriculture. Such research should focus on the extent to which substantial class differentiation may hinder production.

2. Many Ujamaa villages established experience shortages of adequately skilled leadership and managerial and technical manpower and this causes serious difficulties i.e. mismanagement of group production which discourages some peasants from all desire to participate in group or cooperative production. The kind of leadership to promote Ujamaa production endeavour does not merely require managerial or technical skills, but ideological insight as well as the ability to work with and mobilize peasant participation. Experience in Tanzania shows that there is a danger that mismanaged cooperative projects have undermined the interest of peasants and willingness to participate in future projects.

3. Peasants must be given adequate incentives. Incentives play a crucial role in achieving economic and social objectives. Market economies tend to stress on material and monetary incentives and rewards as the driving force of economic activity but they utilize other schemes to improve worker performance. Socialist economies rely to a great extent on non material and rural incentives, but experience in Tanzania shows that these cannot work and material incentives must be introduced to achieve national objectives. The Tanzania Government's appeal to the people to increase production as "a matter of life or death" and national duty. Yet recent increases in producer prices for food and export crops indicate a recognition by the leadership that rural exhortations is without material incentives are insufficient to maintain a development dynamic and to reverse declining production.

It should be noted here that the present economic crisis in the Tanzanian economy focuses attention on the fact that the incentive problem has received less than the attention it requires.¹ Yet declining levels of output across almost all sectors of the economy indicate that workers and peasants are unwilling to work without adequate remuneration.

4. Ujamaa villages in Tanzania face serious technological constraints.

The severe scarcity of capital necessary to acquire the modern machinery and equipment which could provide an important incentive as well as the requirement for more effective immediate resolution of the three problems outlined above.

The above facts suggest that land tenure policies are in the short run likely to be conditioned by constraints imposed by inherited conditions relating to land, manpower skills and capital. Ujamaa policies in Tanzania should avoid fostering individual land ownership while seeking to encourage increased investment and output, widespread appropriate education of leadership manager cadre capable of helping to build Ujamaa production over time, and formulation of new sets of working rules would in the long run foster increased Ujamaa productive activity to take advantage of technological possibilities of scale as existing constraints of manpower and capital are overcome.

(Footnote 1 on page 14) 1. J. Nyerere, *Socialism and Rural Development* (Dar es Salaam 1967), p.15.

(Footnote 2 on page 15) 2. See for example L. Cliffe "Class Struggle in Ujamaa vijijini pp.5ff., also L. Cliffe and G. Cunningham, "Ideology, organization and the Settlement Experience in Tanzania".

(Footnote 1 on page 16) 1. See R.H. Green, Economic Research Bureau, paper 74.11 University of Dar es Salaam, pp60-72.

5.1.0 CONSTRAINTS AFFECTING AGRICULTURAL DEVELOPMENT IN TANZANIA.

Tanzania's immediate problem is to ensure that there is enough staple food for all the population. This problem as already printed out can be resolved either through increased food imports or through increased local production of basic food crops. Tanzania's stated food strategy is to achieve self sufficiency by increasing food productivity through minimising the farmers' major production constraints.

The agricultural sector has been starved of investible resources. As a proportion of total government development budget the share going to agriculture after increasing from 10.5 percent in 1972/73 to 29.1 percent in 1975/76, dropped to 7.8 percent by 1979/80. As a proportion of national capital formation this share declined from 7.5 percent in 1976 to 4 percent, 1980 real terms (Ndulu, Msambichaka: 1984). Through observation one notes that there is a widening gap between verbal pronouncements or priority in agriculture and the actual resource allocation pattern. In terms of investment productivity, the agricultural sector has demonstrated higher returns per unit shilling of investment than industry.¹ The agricultural sector remains the most productive in terms of net foreign exchange generation productivity.

There has therefore been a negligible proportion of resources allocated for the development of the smallholder production. This has left the agricultural sector underdeveloped both technologically and husbandrywise. Nyerere makes an elaboration of the above contention:

"Because of the importance of agriculture in our development, one would expect that agriculture and the needs of Agricultural producers would be the beginning, and the central reference point, of all our economic planning.

1. B.J. Ndulu, "Investment Patterns and Impacts in the Post Arusha Tanzania" paper, presented to the Economic Policy Workshop on Tanzania, Arusha, April 1983.

Instead we have treated Agriculture as if it was something peripheral or just another activity in the country, to be treated on a par with all the others, and used by the others without having any special claim upon them

.....We are neglecting Agriculture. If we were not, every Ministry without exception and every parastatal and every party meeting, would be working on the direct and indirect needs of the agricultural producers..... We must now stop this neglect of agriculture. We must give it the central place in all our development planning. For Agriculture is indeed the foundation of all our progress". (President J.K. Nyerere: 20/10/1982).

From the above statement it should be noted that if agriculture is to play its expected role and develop there is need of stopping rhetoric commitment to the sector and give it its due attention resource wise. In terms of import requirements, the agricultural sector required \$185 million in 1981/82 for 12 major crops as shown in Appendix D. It also needed \$25 of oil products. All these import requirements were the amount of imports needed to maintain agricultural production. Roughly half of this total was needed for production purposes, a quarter for processing and a quarter for transport. Appendix D also shows the foreign exchange generation by each of the seven major export crops i.e. coffee (mild and hard), cotton, sisal, tobacco, tea, cashewnuts and pyrethrum. On the other hand, Appendix E shows the estimated import requirements of five major food crops in Mainland Tanzania.

Other constraints affecting the agricultural sector in Tanzania include the following:

- (a) (i) Technological constraints. The handhoe is still the major implement used in tilling land in Tanzania. Only a little portion of the land is cultivated by oxen and tractors. This causes difficulties in the quality of soil tilled and the demands of modern inputs.
- (ii) Input supply constraints: Here there are two major problems namely that input volumes available are not sufficient and are therefore distributed to a few drops only (see appendix D and E).

On the other hand these inputs are not timely delivered. Inputs referred to here include fertilizers, improved seeds and chemicals for protecting plants.

(iii) Pricing as already mentioned has been used by the Government as an incentive to promote the development of the agricultural sector. Other incentives include input subsidies and moral incentives.

6.10

CONCLUDING REMARKS

The Tanzanian Government needs to evaluate the entire complex of associated institutions to ensure that they contribute to the implementation of whatever approach to land tenure it adopts. The agricultural sector must be planned simultaneously with industry to insure, the creation of an internally balanced economy, reducing dependence on the inherited export enclave.

The present Agricultural Policy of Tanzania is not something new. It is vague on the Private Sectors' participation. This might scare prospective investors. The government's role in the development of the agrarian sector must go hand in hand with improvement in the associated institutions while working out rules providing for marketing and farmer education. Credit and taxation need to be reviewed to insure that they are supportive of national plan perspectives. Several points raised in the paper help to show that the Tanzania Government neglected investment in agriculture while research was not emphasized.

Finally, achieving subsistence seems to be the major objective of many Third World countries, and Tanzania in particular, through agrarian agriculture. The growth of rural population in Tanzania threatens to create mounting pressures on the further fragmentation of smallholder agriculture. Unless the current low productivity peasant agriculture is transformed rapidly into higher productivity farming (through improved farming practices), the masses of impoverished rural dwellers face an even more precarious existence in the immediate future.

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APPENDIX A:

The Measurement of the Cost-of-Living Confronting Peasants in Tanzania (Ellis: 1980).

The calculation of real trends in the prices and incomes rural crop producers in Tanzania involves a prior decision on an appropriate cost-of-living index to use as a deflator. There are a number of difficulties attendant on the choice of such an index which are summarised as follows:

- (a) The official National Consumer Price Index (NCPI) is an urban index, calculated on the basis of a quarterly price survey covering 186 items in 18 towns. The weights used are derived from the urban population components of the 1969 Household budget survey (Tanzania, 1972).
- (b) There is a great difference between the rate of inflation suggested by the NCPI and that obtaining in an alternative cost of living index available in Tanzania, the Dar es Salaam Minimum Wage Earners Retail Price Index. The former rose by 149.3% between 1970 and 1978; the latter by 203% over the same period (Bank of Tanzania, 1979, pp87-88). This is the reverse of what might be expected on an a priori basis because transport costs, distribution problems, and lower general availability of items would suggest higher prices in the regions than in Dar es Salaam city.
- (c) The NCPI implies that the rate of inflation over the decade of the 1970s in Tanzania is lower than either the IBRD International Index of Inflation or the United Nations Index of unit values of Manufactured Goods Export by Developed Countries. It is quite unlikely that this could be the true position.

The approach adopted by the ILO (1978, pp180-190 and Appendix II) is to utilise the NCPI modified to exclude the food category from the weights. This procedure is justified on the grounds that peasants do not need to purchase food from outside the rural sector (Ibid, p.256).

It has certain disadvantages amongst which the main one is that the NCPI food category does not only contain staples like maize flour: it also contains salt, sugar, beans, meat, fruit and vegetables which (depending on location) peasants may purchase to raise their nutritional status above the bare minimum. Moreover, the ILO assumption embodies the erroneous logic that because peasants are able if necessary to subsist wholly outside the monetary economy, their cost-of-living is cheaper than that of other economic groups. Rather, the subsistence consumption of peasants should be valued at the price for which it could otherwise have been exchanged in the monetary economy since this crucially affects the decision about whether or not to produce for the market.

A partial and by no means entirely satisfactory solution to some of these problems is to exclude from the NCPI not food but other components which more definitely do not enter the cost-of-living confronting peasants. The four such components excluded in the modified NCPI utilised in this paper are: Rents (which refers to urban housing and for which the index declined from 104.9 in 1973 to 41.5 in 1978); Personal Care and hygiene (which by inspection of the Household Budget Survey is revealed to contain all kinds of fancy toiletries hardly likely to reach peasants); Recreation and entertainments (The content of which is not applicable to peasants); and Miscellaneous (The index of which inexplicably only increased by 4.3% between 1970 and 1978). The effect of excluding these from the weights and re-calculating the NCPI on the basis of the remaining components is to increase moderately rather than diminish the rate of change of the cost-of-living.

The following table shows this modified NCPI which is used to deflate the rural price and income trends appearing in the text and Appendix C. Also shown for comparison is the NCPI itself.

Year	NCPI	Modified NCPI
1970	100	100
1971	105	105
1972	110	110
1973	104.9	104.9
1974	95	95
1975	85	85
1976	75	75
1977	65	65
1978	41.5	41.5

NATIONAL CONSUMER PRICE
INDEX YEAR 1969=100

MODIFIED NCPI INDEX AT
JUNE EACH YEAR JUNE 1970=100.0

1969	100	1969/70	100.0
1970	103.5	1970/71	104.
1971	108.4	1971/72	110.4
1972	116.7	1972/73	126.6
1973	128.9	1973/74	152.9
1974	153.6	1974/75	203.5
1975	194.3	1975/76	213.2
1976	207.7	1976/77	236.4
1977	231.7	1977/78	264.0
1978	258.1	1978/79	293.9

SOURCES: Tanzania, Economic Survey, Vamins years

Bank of Tanzania, Economic and Operations Report,

June 1979.

APPENDIX B. PRODUCTION AND IMPORT OF PREFERRED FOOD GRAINS

(MAIZE, RICE AND WHEAT) IN TANZANIA 1961-1980

(in 1000 Tons)

Year	Total Cereal	Total Purchases by NMC	Total Sales <u>1</u>	Total Imports	Imports as a % of food	Imports as a Percentage of sales by NMC
1961	543.0	..	..	75	13.8	..
1962	626.0	..	..	40	6.4	..
1963	862.	..	..	25	2.9	..
1964	730	128	..	32	4.4	..
1965	583	113	140	222	3.7	15.7
1966	1320	160	133	29	3.2	21.8
1967	876	158	162	24	2.7	14.8
1968	806	187	183	0	0	0
1969	735	105	202	0	0	0
1970	862	290	206	31	3.6	15.1
1971	940	145	293	33	3.5	11.3

1972	874	201	260	163	18.6	62.7
1973	825	141	25	26	3.2	8.
1974	990	53	292	429	43.3	146.9
1975	969	128	224	406	41.9	181.3
1976	1517	169	253	83	5.5	32.8
1977	1165	284	260	126	10.8	48.5
1978	1847	269	406	131	7.1	32.2
1979	2222	274	386	103	4.6	26.6
1980	2452	218	288	356	14.5	123.6

source: (i) HOPKINS, R.F. Fodd Aid: The Political Economy of International Policy Formation, Swathmore College, October 1980, pp228-229, and 231

(ii) National Milling Corporation(NMC) Reports)

1 Sombe/corn flour converted to maize equivalent at 0.85 to 1975;=

Paddy expressed as rice at 0.65 wheat flour converted to wheat at 0.75

APPENXIX C FERTILIZER ALLOCATION BETWEEN THE MAJOR CROPS FOR 1981/82

CROPS	PARASTA TALS AND COMPANIES	TRDB	TFA	OTHER TFC DISTRIBUTION	OTHER	TOTAL	REVISED TOTAL \$1000(1)
1. COFFEE	2327	-	347	393	24	3090	4360.
2. COTTON	1668	-	-	-	-	1668	2370
3. SISAL	-	-	-	-	-	-	-
4. TOBACCO	6530	-	360	230	1060	8180	5800(2)
5. PYRETHRUM	-	-	-	-	-	-	-
6. TEA	1130	800	40	140	-	2110	3000
7. CASHEW	-	-	-	-	-	-	-
8. SUGAR	2210	-	-	-	-	-	-
9. MAIZE (NAFCO)	1190	3940	710	370	700 KILIMO	6410	12900(3)
10. RICE	840	-	130	20	-	990	1410
11. WHEAT	-	-	-	-	-	-	-
TOTALS	14895	4740	1587	1553	1784	24129	34980

- NOTES: 1. Import prices for each fertilizer type were used in the main part of the table. However, TFC import component costs are considerably higher, we assumed by a factor of 42%. Thus we revised all the estimates up by 42% in the right hand column so total usage corresponds to TFC total estimated import requirements for 1981/82.
2. Only half of the amount for tobacco was counted against the tobacco crop as we assumed half was used on Maize, as this is a widely held view by those working on tobacco in the field.
3. This is 9100 plus 5800 transferred from tobacco (see note 2 above).

Data Sources: Parastatal and Private Company estimates incl. TRDB

TFC distribution data for 1979

TFC import requirements for 1981/2

Adopted from M. Schluter & M. Sackett

MDB, April 1981.

APPENDIX D:

ESTIMATED IMPORT REQUIREMENTS OF MAJOR CROPS IN MAINLAND TANZANIA
FOR 1981/82 (US \$ 1000)

Production Inputs	Mild Coffee	Hard Coffee	Cotton	Sisal	Tobacco	Tea	Cashew	Pyreth.	Totals
	26140	1370	11670	10360	8550	5460	390	240	64180
Fertilizers	4160	200	2370	---	5800	3000	---	---	15530
Agricultural Chemicals	16140	470	3790	1130	580	330	---	30	22470
Tools & Hand Equipment	1680	480	760	50	---	100	---	10	3080
Tractors & Spareparts	740	---	1380	2380	280	210	---	30	5020
Field Machinery Renewals	1700	---	1880	3530	380	450	---	---	7940

Field Vehicle 180 70 200 940 350 390 130 — 2260
Spares & Renewals

Field Oil & 1460 70 1210 1830 840 680 110 10 6210
Lubricants

Processing Costs 390 530 11440 9680 2370 3280 5090 300 33080

Machinery Spares 270 250 2790 2990 400 1930 1220 40 8890

Machinery Renewals 100 200 3000 4480 200 980 1500 — 10460

Fuel Oil — — 670 520 530 890 1220 40 3870

Electricity 20 80 400 200 50 260 300 40 1350

Process Inputs — — — 1380 — — 70 140 1590

Packaging — — 4580 110 1190 220 780 40 6920

Transport 3240 1780 6270 4410 1690 3530 1580 200 22700

Road: Farm to 1210 790 2380 2930 890 1840 1120 140 11300
Factory/Depot

Road: Depot to 940 120 530 580 410 1510 340 40 4470
market

Shipping: T.H.A. 440 180 400 900 100 150 120 20 2310
& Coastal

Grand Total 29770 3680 29380 24450 12610 12270 7060 740 19960

Production (Tonnes)* 44000 18000 60000 90000 15000 18000 60000 20000

Unit Value (\$/Tonnes)** 2500 2070 1800 580 2200 1500 1000 2150

Export Value (\$million) 110 37 108 52 33 27 60 4 432

Imports as Percentage of Export Value 27 10 27 47 38 45 12 17 28

Notes: *Based on highest quantity in the period 1978/79 to 1980/81 (estimated).

** Value of o.b. Tanzanian ports

— Syndicate no or negligible imports.

SOURCE: Marketing Development Bureau, Dar es Salaam, Ministry of Agriculture, Estimates of 1981/82 Import Requirements for the production, Processing and Marketing of Major Crops in Mainland Tanzania. December, 1982.

APPENDIX E Estimated Import Requirements of Major Food Crops in Mainland Tanzania for 1981/82 (US \$ 1000)

<u>IMPORT ITEM</u>	<u>MARKETED MAIZE</u>	<u>MARKETED CASSAVA</u>	<u>SUGAR</u>	<u>NAFCO WHEAT</u>	<u>NAFCO RICE</u>	<u>TOTAL FOOD CR.</u>	<u>EXPORT FOOD CROPS TOTAL</u>
<u>Production Inputs</u>	16460	10	23480	3330	3820	47100	111040
Fertilizers	7450	--	3140	--	1200	11790	27320
Agricultural Chemicals	250	--	2150	230	1060	3690	26130
Tool & Hand Equipment	--	--	--	--	20	190	3260
Tractors & Spares	1840	--	3990	440	200	6470	11460
Field Machinery Renewals	2500	--	4800	600	420	8320	16260
Field Vehicle Spares	190	--	400	60	40	690	2950
Field Oil & Tubes	3380	--	3090	500	580	7550	13750
Management	750	--	5850	1500	300	8400	9910
<u>Processing Costs</u>	3780	270	12440	180	130	16800	49580
Machinery Spares	1250	70	3620	50	60	5050	13900
Machinery Renewals	450	30	4840	20	20	5360	15820
Fuel Oil	1280	120	1840	--	--	3240	7070
Electricity	200	20	200	30	20	470	1780
Process Inputs	200	10	350	30	10	600	2050
Packaging	400	20	1590	50	20	2080	8960
<u>Transport</u>	20760	2660	2740	1,020	210	27390	49890
Trucks Farm-Factory/Depot	11220	1700	2740	--	--	15660	26820
Trucks Depot/Market	8580	420	--	1020	50	10170	14670

** Value of c.b. Tanzanian ports

Source: Marketing Development Bureau, Dar es Salaam, Ministry of Agriculture, Estimates of 1981/82 Import Requirements for Major Food Crops in Mainland Tanzania, December, 1982.

		-	29	-			
T.R.C.	870	200	---	---	---	1,070	5690
TAZARA	90	---	---	---	60	150	150
T.H.A.+ Coasfal	---	340	---	---	---	340	2630
Shipping							
Grand Total	41000	2940	38660	4530	4160	91290	210510
Production Level (Tonnes)*	400000	36000	140000	25000	12000	413000	---
Unit Value**	230	180	480	290	550	---	---
Import Parity Value(\$1000)	92000	6480	67200	7250	6600	179530	614530
Imports as a Percentage of Import Parity Value	45%	45%	58%	62%	63%	51%	34%

Notes: *Based on highest value in 1978/79 - 1980/81 (estimated).

** Into-store Tanzanian ports (i.e. C+F plus port Costs).

--- Indicates no or negligible imports.

SOURCE: Marketing Development Bureau, Ministry of Agriculture, Dar es Salaam, Estimates of 1981/82 Import Requirements for the Production, Processing and Marketing of Major Crops in Mainland Tanzania, December 1982.



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