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TANZANIA'S PRODUCTIVITY CRISIS:
A SOCIAL AND INSTITUTIONAL PROFILE

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Dedicated To

Edward Moringe Sokoine

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PREFACE

This report differs from the usual AID country profile in several ways. It is heavily oriented towards institutional issues, leaving the details of social analysis for others (such as Clark University's Eastern Africa Country Profiles: Tanzania). Circumstances dictated that this report was drafted by the senior consultant after the SIP team had dispersed, so that while individual members contributed invaluable documentation the main opinions and language have not been reviewed by the team as a whole. Vital documentation was lost in transit between Washington and Boston in early 1984, necessitating two further visits by the team leader to Tanzania. Each time further changes in the Tanzanian system were noted, making it evident that any descriptive document covering the whole of the United Republic is bound to become rapidly out of date. Most major changes up to September 1984 have been incorporated into the report as it now stands.

Alert readers will find many statistical inconsistencies in the pages to follow. Columns do not total, percentages are incomplete, and aggregate figures on the same activity may be widely discrepant. An effort has been made to reproduce statistical data as they occur in the original reports, but users should be forewarned that there is abundant evidence of poor quality control in the primary documentation.

No review this comprehensive can rest upon the efforts of a single author. In addition to help from the SIP team, the senior consultant wishes to acknowledge special assistance from Adolpho and Ophelia Mascarenhas of Dar es Salaam's Institute of Resource Assessment, Robert and Betty Maxwell of West Virginia University, and Dr. Robert Munn for access to West Virginia's Daily News holdings. As always, errors of interpretation and fact are the senior author's responsibility. Finally, the SIP team records whole-hearted cooperation from Tanzanian officials in all aspects of this somewhat painfull inquiry.

CHAPTER ONE
INTRODUCTION

Why Have a Social and Institutional Profile (SIP)?

1.1 A SIP analysis is intended as a summary of the social and institutional environment which AID Missions need to recognize when designing projects and when determining their country strategy (the CDSS). It is important to recognize that a SIP analysis is not a substitute for the CDSS statement. Rather than being a policy document, the social and institutional profile of a country is meant to provide the basic background information to facilitate the choice of effective development strategies.

1.2 In the Tanzanian case, a wealth of new statistical and institutional information has become available in the last few years.[1] To standard book length treatments by several authors with a long acquaintance in Tanzania (Hyden, Coulson, Mwansasu and Pratt, Yeager, and Resnick) must be added the ILO Basic Needs Report, the World Bank's Agricultural Sector Strategy Report, publication of the 1978 Census results, and numerous other official documents. In particular, two recent documents prepared under AID funding provide much of the background which ordinarily constitutes a SIP analysis. These are: East Africa Country Profiles: Tanzania (prepared by a Clark University team) and Tanzania Development Performance and Implications for Development Assistance (by Mudge, Crosswell and Kwan). In sum total, these documents make it unnecessary to repeat in this Report the usual information on geography, population trends, etc. which occupy much of the other SIP analyses which have been prepared to date.

1.3 There is, however, an additional purpose for undertaking a SIP analysis of a given country. It is increasingly being recognized that institutional capabilities are one of the most significant resources which a country may possess. Economic and social analyses have in the past largely ignored assessment of institutional capacity. For a nation like Tanzania, this is a critical gap. Tanzania has invested heavily in the creation of a distinctive institutional matrix, one which is

[1] Much of which is summarized in United Republic of Tanzania, Statistical Abstract 1973-1979 and a key FAO/KILIMO report, Tanzania National Food Strategy (1984).

unique to this country and resembles neither US nor socialist models. Since there are over 400 new institutions comprising this network, outsiders who need to operate effectively within Tanzania require a descriptive map simply to interpret current events (see Annex I).

1.4 For Tanzanian policy-makers, the country's 400 or more parastatal institutions pose the necessity of facing some difficult choices. The aggregate economic needs of the total institutional network now exceed what Tanzania can support from its present foreign exchange earning. The reasons for this shortfall are complex (see chapter two), but the result has been a clear-cut "current economic crisis" affecting all aspects of life since late 1979.

1.5 In response to this situation, the Tanzanian Government has initiated its own structural adjustment program. It has implemented sweeping changes within the institutional pattern: i) reintroduction of co-operatives, ii) a return to local government, replacing the 1972 "decentralization" form of its regional administration, and, iii) restrengthening technical functions (the "agricultural policy"). It has also signalled major changes in land tenure and greater openness to private sector initiative.

1.6 The above "changes" represent a fundamental broadening of public discussion to include measures which were previously unacceptable to the Party. However, they remain statements of intent--the "what" of social policy--rather than evidence of accomplished modification--the "how" of realized practice. In this sense, our SIP team's field interviews in September of 1983 came at an awkward and sensitive moment, when almost daily Presidentially appointed task forces were delivering their (still confidential) proposals to the Party for consideration and final approval. Either our review should have come earlier, when it could have fed suggestions into the policy formulation process, or later, when the changes will be more clearly agreed by the various segments in the Tanzanian institutional system. Indeed, we received some indication that Tanzania's national leadership has received about as much outside advice as it can tolerate.

Timing and Focus

1.7 The grounds for perservering in the preparation of a Report for which there appears to be no definite constituency are twofold, reflecting both internal and external considerations. Internally within Tanzania, we encountered a number of very bright and capable middle-rung officials who stressed the great importance of the task with which we had been entrusted. Some individuals seemed worried that time is running out for the Tanzanian system in its present form; others felt that the Government's remedial measures were not being taken seriously enough. All agreed on the need for more effective organizational measures to buttress the economic instruments being stressed in official documents.

1.8 Externally, the new circumstances have direct implications concerning where donor assistance ought to be directed. It should be recognized that behind-the-scenes pressures from certain donors upon the Tanzanian Government have been intense. Perhaps because of these long drawn negotiations, several of Tanzania's major donors have individually decided to reduce--sometimes quite drastically--their external assistance. Whatever the merits of the individual, bilateral considerations, the aggregate impact of this shift is bound to have very serious reprecussions in Tanzania. Over the past decade, Tanzania has become accustomed to relying on external funding for many essential administrative inputs (e.g. housing, vehicles, equipment, experts, and even recurrent finance). In a time of acute shortage of foreign exchange, the national economy is very ill-prepared to adjust creatively to the cut-off of kinds of support its institutional infrastructure has hitherto enjoyed. This shift is accentuated during times when the dollar is strong, since Tanzania's UNDP contributions from European donors are valued in dollars (giving a further de facto reduction of between 20-40% in UNDP assistance).

1.9 For USAID/Tanzania, the circumstances just outlined present both an opportunity and an immediate problem. The opportunity exists to support the new policy directions with programmatic and/or financial assistance. Some senior Tanzanians went so far as to propose that AID might become a principal source of external assistance to enable Tanzania's private sector to contribute more effectively to Tanzanian

rural development. Another proposal being weighed in 1983 within USAID/Tanzania was for it to concentrate effort on the revitalization of co-operatives and local government, since these represent pluralistic institutional forms which the US has often supported in the past. In May of 1983 the Technical Subcommittee for USAID's existing Training for Rural Development Project (TRD) reviewed the situation and concluded:[1]

> These policy and institutional changes have major implications for the trajectory of Tanzania development over the next 5-10 years, implications which neither the USAID nor the Tanzanian Government has been able to consider fully. The Tanzanian Social/Institutional Appraisal is meant to provide the resources and serve as a mechanism through which some of these implications can be identified.

1.10 Accordingly, the TRD Technical Subcommittee set down the following preliminary scope of work for the SIP analysis:

> 1. Describe and assess the development implications of ongoing and foreseen policy and institutional changes in the area of rural development.
>
> 2. Describe and assess the development implications of ongoing and foreseen policy and institutional changes relating to the roles of cooperatives and parastatals in Tanzania.
>
> 3. Describe and assess the development implications of ongoing and foreseen policy and institutional changes relating to the respective roles of central ministries, regional authorities, district authorities, and local governments, focusing particularly upon the 1982 Local Government Act;
>
> 4. Discuss the extent to which the objectives of these changes are mutually compatible; and
>
> 5. Discuss apparent implementation issues in all these areas and make recommendations for their successful resolution.

1.11 The above terms of reference explain why an examination of co-operatives and local government constitutes a large part of this Report. Our exercise enjoyed full access to the relevant Tanzanian Government and USAID officials, who stressed the need to make <u>implementation issues</u> our central focus. In addition, in the four months before the SIP team began its work, further institutional issues

[1] Unfortunately, the SIP team did not gain access to the official letter of introduction from the Ministry of Manpower Development until the final week of field interviews.

emerged. With Tanzania's agricultural economy grinding to a halt because of restrictions on vital imports—spare parts, scientific supplies, and even science textbooks—it becomes imperative that external donors should instead concentrate upon relieving the key bottlenecks which constrain the effectiveness of both the private sector and of the research-extension-training system. And, finally, AID Washington's interest in the transfer of technology suggested a fourth alternative: that USAID's assistance should concentrate upon Tanzania's agricultural support institutions (such as TPRI, UAC, the Sokoine University, research parastatals, and the input delivery system). Here a major opportunity is presented by the Tanzania Government's upgrading of the Faculty of Agriculture into the nation's second University. With the possibility of this agricultural university incorporating the lessons of the US land-grant experience, this one institution alone could absorb the larger share of USAID/Tanzania's very modest assistance.[1]

1.12 The major problem affecting all of USAID/Tanzania's options arises because during 1983 and 1984, Tanzania was in default on the repayment of earlier US development assistance loans. This situation brings into play automatic US restrictions on addition of any new funds under the Brooke amendment. Even without the complication of the Brooke amendment's provisions, the Tanzania USAID Mission is at a critical juncture in the evolution of its agricultural sector assistance. Several earlier projects giving assistance to village development, the seed industry, farmer training, and extension support were coming to termination in 1983. It is clear that USAID/Tanzania can expect at best only a very modest program substantially below what had been planned in the past. With perhaps 5-10 resident AID staff and an annual country budget of between 5-10 million dollars, USAID's influence in Tanzania would depend upon its strategic significance rather than upon its size. The main purpose of this SIP Report will be, therefore, to provide AID/Washington with the background data and analysis needed for undertaking an informed review of all options open to USAID/Tanzania.

[1] USAID/Tanzania has funded study visits by senior Tanzanians to India and to the USA in order to facilitate planning for the new University. In August 1984, the study team's draft report was under review though by this time the default situation precluded further AID funding.

Choices Open to Tanzania

1.13 The most central issue for Tanzania remains, then, the question whether its current remedial measures (principally the Structural Adjustment Program) are going to reverse the negative trends experienced up to mid-1983. As we will see later (in chapter two on the economic crisis and in chapter seven, where we review the Government's response), the evidence is mixed: some of the new policies have not been implemented vigorously, and have failed to yield the hoped-for "turn around," while in other areas determined action does seem to have arrested further deterioration. Thus in late 1984 we can be somewhat more optimistic than we were in mid-1983. Significant changes in Tanzanian policy are occurring, sufficient to merit serious consideration and support by any western donors interested in Tanzania's well-being.

1.14 The half-hearted implementation of certain parts of Tanzania's recovery program probably derives from the still unresolved conflict between two contrasting views as to why Tanzania is experiencing such severe dislocations at the moment. These views differ in at least four fundamental respects:

- where they locate the primary causes (external vs. internal).
- the assumptions they make about likely Tanzanian institutional responses (the kinds of internal changes needed).
- the kind of factors and components which are treated as prime movers (economic vs. social, ideological vs. organisational).
- the rapidity of likely recovery.

1.15 One family of explanations—which are basically those embodied in the Government's own Structural Adjustment Program—stresses the primacy of economic conditions and locates much of the responsibility in Tanzania's recent economic environment. Termed the "economic shocks" explanation, this viewpoint underlies the ILO's Basic Needs Report and is endorsed by Tanzania's Party leadership. We thus discuss this explanation first within chapter two, where the present economic difficulties are reviewed in detail.

1.16 For the US Government (and other donors like the World Bank), it would be helpful to acknowledge that recent empirical research on the economic performance of African countries largely substantiates the "economic shocks" argument (in contrast to the World Bank's own perscriptive views contained in the "Berg" Report).[1]

1.17 For Tanzanians, however, we stress that being correct about the ultimate origin of Tanzania's weak situation does not necessarily exclude its own institutional incapacities as contributory causes, nor does it make remedial measures based on the long-run view effective in the short-run (as SAP assumes). Those who emphasize this second aspect we term the "productivity crisis" advocates. They point out that Tanzania's difficulties arise because of a structural decline in its agricultural exports—a decline which has been accelerated by Tanzania's rural development policies as implemented. Even were Tanzania's leadership to receive hard currency support to permit a reduced continuation of present programs, the root tendencies would remain uncorrected. Because underlying causes of low productivity are not tackled within Tanzania's SAP, this explanation predicts that once donors curtail external financial support, Tanzania's economic difficulties would soon reappear. (One assumes that this view lies behind the IMF'S reluctance to extend standby credits to Tanzania during the five years these have been under negotiation.)

1.18 It is unfortunate that these two explanations have polarized the dialogue between Tanzania's economic analysts and those employed by external donors. This report takes as its basic position (endorsed by the senior author) the view that both explanations are in large part "correct", being complementary to each other. If so, the implication remains that Tanzania's current SAP measures, with their revenure enhancement focus, may yet prove insufficient to counteract the negative pressures now unleashed. We hasten to add that not all of us are equally certain on this point. Nevertheless, if even parts of the "productivity crisis" explanation are true, then Tanzania's leadership must vigorously implement further measures which address the

[1] See David Wheeler (1984) "Sources of Stagnation in Sub-Saharan Africa," World Development, vol. 12, no. 1, pp. 1-21.

internal workings of Tanzanian organizations (beyond the mere "cost-cutting" now being advocated).

1.19 There is, then, an urgency about the recommendations we make in this Report. Once economic systems begin to malfunction at all levels and in many sectors, the causal mechanisms underlying adverse performance become interconnected. As they become increasingly interlocked, the negative features are rendered impervious to corrective actions by the usual economic policy instruments (e.g. devaluation). A real danger can materialize that while a country gets into difficulties step by step, once enmired it cannot incrementally extract itself. A shut-off of donor financing at this point would push Tanzania towards rampant inflation which, given all Tanzania's other aberrations, might become nearly impossible for the leadership to reverse—no matter what their ideology (the Ghanaian syndrome).

1.20 There are those who might welcome such a situation, which would leave Tanzania incapable of taking effective action on the international scene. The analysis in this Report makes it clear such an outcome would not be in the national interests of the United States. Tanzania controls access to the sea for a number of neighbouring countries, which are even poorer and weaker than it is. It occupies a strategic situation on the Indian Ocean, and is one of the few Black African nations with substantial undeveloped natural resources and ample land. Our final chapter indicates that the national leadership has signalled a return to the kind of mixed economy which is widely found throughout the East and Southern African region. If Tanzania's western oriented (and largely US trained) leadership fails in making this transition, the likely alternative would be a military regime with little regard for US interests. As two senior USAID analysts put it not so long ago (Blue and Weaver, 1977:61):

> Many of the points made by critics, both left and right, are valid. Nyerere and his successors may, ultimately, have to move sharply in one direction or another. They may choose to give up the socialist version and adopt some sort of controlled capitalism . . . Or they may choose to go the 'real' self-reliant route, break out of the international capitalist system, and force a rapid transformation of the economy and society.

TABLE 1.1

Summary of Major Events and Policies

1961	3 year dev. plan issued. World Bank report. Agric. Credit Agency established. Independence (December).
62	Nyerere resigns to tour country. VDC & "Peoples Plan" launched. COSATA. Expatriates panic. Nyerere returns.
63	Village Settlement Agency formed. TYL settlements, RDA in Ruvuma. Min. of Planning. Zanzibar revolution.
1964	Army mutiny. TFL dissolved. Union with Zanzibar. National Youth Service. NDC. Co-operatives emphasized.
65	Collapse sisal market. Block farms. One-party elections. 5 Year Plan. UDI brings break with Britain.
66	German aid cancelled. VSA settlement stopped. Inquiry on VFCU. Students sent home. EAC agreement. TAZAMA.
1967	Arusha Declaration. Nationalizations, SCOPO, NBC, NIC, STC set up. RDF fund. Ed. for Self-Reliance. Ujamaa.
68	Leadership code applied. Friendship Textile mill, Nyerere visits China. NMC. Co-op College Moshi. Green guards
69	Ujamaa villages get priority. NDC restructured. NAFCO. 2nd 5 Year Plan. District Councils downgraded.
1970	Operation Dodoma. Workers councils. DDCs. Adult Education year. U Dsm replaces UEA. National elections.
71	Mwongozo Guidelines. Housing nationalized. Asians panic. MDB & TRDB set up. Op. Kigoma, Phase I. Uganda coup.
72	Decentralization. PMO set up, RDDs & DDDs. Councils phased out. Iringa Declaration. School vocationalization.
1973	KILIMO reorganized. NAPB merged into NMC. Livestock Loan. Cash crop parastatals. NEC says move to villages.
74	Drought. LIDA & TLMC. Price Commission. Nation-wide "operations". RIDEP guidelines. Musoma Resolution.
75	Ujamaa & villages Act. Drought continues, food imports. NMC expands. NEC adopts UPE. Planning/PMO reorganized.
1976	Staff cuts. National Maize Project. Co-ops ordered disband. Operation Maduka. 3rd 5 Year Plan. EAA break-up.
77	EAC break-up. Border closed. TANU becomes CCM. RIDEPs. Nyerere visits USA. Tilt towards private industry.
78	Village managers. Cholera outbreak. National census. Student protests. Amin invades N. Tanzania. Militia forms.
1979	War & famine in Uganda. Cholera again. DSM port troubles. MIFUGO/KILIMO split. 20 Year Plan. IMF dispute.
80	Shortages, food imports. Research parastatals. MIFUGO becomes Min. Village shops. IMF agrees. Obote returns.
81	Anti-corruption drive. Co-ops & Councils to return. National Economic Survival Program. Rehab. negotiations.

TABLE 1.2

Summary of Socio-Economic Indicators[a]

(for 1982 unless otherwise indicated)

Population:		
Estimated (mainland)	1980 Rural (000)	16,069
	1980 Urban (000)	2,109
	1980 Total (000)	18,178
Estimated (mainland)	1985 Rural (000)	18,047
	1985 Urban (000)	3,294
	1985 Total (000)	21,341
National Economic Performance:		
Exports (T Shs mn)		3,484
Imports (T Shs mn)		8,392
Balance of visible trade (T Shs mn)		-4,906
Recurrent revenue generated (T Shs mn)		12,000
Recurrent expenditure (T Shs mn)		14,736
Development expenditure (T Shs mn)		4,479
of which from domestic sources (T Shs mn)		2,459
of which from loans & grants (T Shs mn)		2,020
Wage Employment:		
Total wage employment		676,017
Total wage increase 1981-1982, rate change		14.0%
Average annual increase per worker, 1981-82 change		7.7%
Annual increase in (urban mainland) price index		28.9%
Education:		
No. of children entering primary school		568,000
% change increase, Std. I enrollment from 1981		14%
Total no. of children in primary schooling		3,626,000
Increase t primary school enrollment since 1981		2.6%
No. selected for secondary school entry (Form I)		9,178
% of primary leavers selected to enter Form I		2.6%
Total no. completing Form IV (high school)		1,788
Total no. of public secondary schools		83
Villagization:		
Total number of registered villages		8,109
Villages with a health facility (mean 19 regions)		27%
Villages within 5 km of health facility (" " ")		58%
Villages within 10 km of health facility (" " ")		88%

[a]Most totals refer to mainland Tanzania only. 1982 figures are derived from 1982 Economic Survey; agricultural and population data from (1984) Tanzania National Food Strategy. Village health facility data (1978) from Thomas & Rundquist.

TABLE 1.2

Summary of Indicators, continued:

Health:

Total number of hospitals	149
Total number of doctors (1981)	950
Total number of hospital beds	22,350
Total number of health centers	239
Total number of dispensaries	2,644

Agriculture:

Cost (1981) of 65 HP tractor (T Shs)	160,000
Total ha tractor cultivated, 1980 (000 ha)	622
Total ha hand cultivated, 1980 (000 ha)	5,394
Total ha fully irrigated, 1980 (000 ha)	21
Total ha partially irrigated, 1980 (000 ha)	120
Total indigenous cattle, 1981 (000)	12,203
Total improved dairy stock, 1981 (000)	58
Estimated total goats, 1981 (000)	5,901
Estimated total sheep, 1981 (000)	3,730

CHAPTER TWO

THE REVENUE/PRODUCTIVITY CRISIS[1]

Introduction

2.1 It is with regret that we begin this social and institutional profile by reviewing Tanzania's current foreign exchange crisis. The economic dimensions of this crisis are thoroughly documented in a number of sources. Particulary useful are the World Bank's 1981 and 1982 publications, and the Bank-financed Advisory Group's Report (also issued in 1982), though all are restricted documents. The basic statistics documenting the extent of Tanzania's foreign exchange deficit are widely known from the Tanzania Government's own economic reports (see Table 2.1). Why then take as our starting point yet another discussion of Tanzania's adverse balance-of-payments situation?

2.2 The basic reason is that for USAID/Tanzania, there is no alternative. Under the Brooke Amendment passed by the US Congress, USAID/Tanzania cannot fund any new projects until repayment on Tanzania's bilateral debt to the USA is resumed. Since Tanzania's shortfall in its foreign exchange earnings (or FE) is the basic reason why it is in a situation of defaulting on its bilateral loan repayments, until the country can improve its balance-of-payments situation USAID will be excluded from further activity in Tanzania.

2.3 Thus this SIP analysis cannot, for the time being, assist USAID/Tanzania either in selecting or designing new projects (the usual role for a SIP exercise). What it must do instead is to review the performance parameters and the Tanzanian Government's response in order to formulate a rough estimate of whether or not a more healthy balance-of-payments is in prospect. It can also pinpoint for the donor community key initiatives which analytical attention indicates are essential to reverse the downward spiral of escalating external debt. By knowing what policies are needed, USAID/Tanzania can at least monitor the situation more intelligently while seeking to maintain a dialogue with the responsible Tanzanian officials. There is no advantage for USAID in our recapitulating the descriptive

[1] Section two of this chapter draws heavily upon work by John Harris presented in chapter 4 of the 1982 JASPA report (Basic Needs in Danger) and reprinted in Boston University's African Studies Center Working Papers No. 82.

TABLE 2.1

TANZANIA'S RECENT ECONOMIC PERFORMANCE[a]

(T Shs mn)

	1971	1978	1979	1980	1981	1982
Balance of Payments						
Exports	1,988	3,671	3,671	4,187	4,373	3,484
Imports	2,726	8,798	8,986	10,003	9,120	8,392
Balance of visible trade	- 964	- 5,127	- 5,005	- 5,816	- 4,747	- 4,908
Balance of v. trade, services & transfer payments	714	- 3,643	- 3,252	- 4,605	- 2,280	- 3,468
Balance of payments	79	1,947	- 512	- 1,092	- 16	- 907
Money Supply						
Total:	2,624	9,396	13,807	17,255	20,570	23,895
in circulation	986	2,915	4,055	5,064	6,577	7,989
short t deposits	1,072	3,912	6,380	8,100	8,785	10,179
long t deposits	566	2,570	3,371	4,061	5,209	6,519
Cost of living index, urban mainland (1969 = 100)	108	260	294	397	480	619
Public Finance	70/71	78/79	79/80	80/81	81/82	82/83
Recurrent rev.	1,683	6,812	7,757	8,872	9,783	12,000
R. expenditure	1,631	8,295	9,229	10,136	12,903	14,736
Dev. expenditure:	840	4,741	5,184	4,759	4,484	4,479
domestic sources	570	2,314	2,864	2,887	2,646	2,459
foreign sources, loans & grants	270	2,427	2,320	1,872	1,838	2,020

[a]Figures only for Tanzania mainland, rounded to nearest T Shs mn from published totals

Source: United Republic of Tanzania, The Economic Survey, 1982 (June 1983), pp. 10-11.

facts about Tanzania's current economic performance, which are readily available in Tanzania and which are soon out-of-date. The overall situation has been summarized by one of us as follows (Harris 1983:20):

> The generally accepted facts of recent Tanzanian economic performance (are) that export crop production has fallen; food production for the market increased substantially through 1979 until bad weather depressed crop marketing in 1980 and 81; essential consumer goods have become unavailable in rural areas through official channels; industrial output has fallen since 1980 as a result of incapacity to obtain essential inputs, fuel and spare parts; transport has become a serious bottleneck with a growing portion of the rail and road-haulage capacity unserviceable for lack of maintenance, spare parts and fuel; that despite rising margins between selling and buying prices, crop marketing authorities have incurred large losses covered by borrowing from the banking system; that government revenues have fallen relative to expenditure causing large recurrent-budget deficits; and that there has been widespread disengagement from the official markets resulting in some combination of increased non-marketed production for own consumption in the rural areas and flourishing parallel markets for both agricultural and consumer goods.

Taking this descriptive background largely as a "given", we will instead focus upon an analysis of necessary remedial measures.

2.4 Beyond the self-imposed limitations of US policy, this Report does also carry implications for other donors and for the Tanzanian Government. By all the evidence available in Dar es Salaam (as of September 1984), there is no immediate prospect for early amelioration in Tanzania's balance-of-payments situation (Tables 2.1-2.3). If Tanzania instead faces another 4-10 years of continued FE shortfall, how should donors redirect their assistance portfolios? Some donors have begun to reallign the nature of their support--note, for example, the World Bank's shift towards export rehabilitation loans. But by and large the donor community has not yet worked out the full implications of a continuing FE constraint in regard to more judicious selection of projects. We hope this SIP analysis will provide an intellectual base for carrying out such a reassessment.

TABLE 2.2

THE WIDENING RECURRENT REVENUE/EXPENDITURE GAP

(T Shs mn)

	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84[b]
Recurrent Revenue	5250.3	6057.0	6669.2	7759.1	7934.1	9977.3	12602.5	12500.0
Recurrent Expenditure	5022.2	5840.1	8911.6	7543.4	9789.8	13213.9	14589.3	15620.0
Gap	238.1[a]	217.0[a]	-2245.4	225.7[a]	-1955.7[a]	-2236.6[a]	-1986.8	-3120.0

[a]Apparent discrepancies in published source; corrected totals for the gap are as follows: 228.1 (76/77); 216.9 (77/78); 215.7 (79/80); -1855.7 (80/81); -3236.6 (81/82).

[b]Projected estimates.

Source: Table 3 in United Republic of Tanzania, Speech by the Minister for Finance...to the National Assembly on 14th June, 1984. Dar es Salaam: Government Printer.

TABLE 2.3

CENTRAL GOVERNMENT REVENUE & EXPENDITURE

(T Shs mn)

BUDGET	1981/82 Estimates	1981/82 Actual	1982/83 Estimates	1982/83 Actual	1983/84 Estimates
Recurrent:					
Revenue	10,681	9,358	8,749	13,000	11,265
Expenditure	12,205	13,500	14,144	14,589	15,620
Development:					
External funding	5,497	...	2,584	2,020	2,731
Total revenue	6,622	5,500	4,816	4,480	5,830
Bank borrowing (& other deficit financing)	1,850	3,227	5,395	4,604	7,454

Source: Economist Intelligence Unit, Quarterly Economic Review of Tanzania, Mozambique. Annual Supplement. 1984, p. 13 (derived from Tanzanian Economic Surveys and budget speeches).

2.5 In presenting this analysis, we do not share complete agreement within the SIP team. Rather, we find the same split in diagnosis which has been evidenced among Tanzania's economic advisors at the national level. Consequently the senior author of this report has marshalled the main points under each viewpoint, which are presented here in sequence as the "economic shocks" vs. the "productivity crisis" interpretations of Tanzania's current difficulties. It is also apparent by late 1984 that the initial attempts to reverse Tanzania's economic performance--which the SIP team observed underway in mid-1983--have been inadequate to achieve the desired improvement. The first draft of this Report contained numerous examples from the Structural Adjustment Program's first year indicating weak follow-through. It is now apparent one year later that the Tanzania Government has become more serious in its SAP implementation efforts, so that our initial criticisms have been overtaken by events. Even so, in his 1984 presentation the Minister for Planning and Economic Affairs is reported as having admitted the SAP measures, which were launched two years ago, have been insufficient. Output has continued to fall in most sectors, with GNP down 3% from 1980 estimates and the value of manufacturing output (measured in constant prices) down a further 3.4%. Minerals were down 10.1% compared with 1982, and agricultural output down 14.2%. In the words of the Economist Intelligence Unit's third quarter report (1984:8):

> Thus SAP's aim to reduce the external constraint has not been met, and in particular the target of increasing the value of exports by 10 per cent compared to 1982/83 has not been realized.
>
> The programme also required TSh 10,260 mn for 1982/83 foreign aid... The actual total aid inflow has not yet been revealed, but Malima stated that the final figure has been much less than required.

2.6 The consequences of continued economic failure are so serious for the Tanzania Government that we have felt justified in examining further alternatives within the policy arena beyond our terms of reference. The justification for doing so is twofold. First, the Tanzanian Government's own measures consist largely of economic targets, without full analysis of necessary implementation steps. Second, achieving improved performance has become a matter influencing the very survival of Tanzania's present system.

The 'Economic Shocks' Interpretation

2.7 Our chapter designation, "the revenue/productivity crisis," captures in a nutshell the two central features of Tanzania's continuing economic problems. As might have been expected, policy makers within Tanzania at first interpreted the root difficulty as being one of insufficient revenue generation—the "economic shocks" viewpoint (a label taken over from the title of Green, Rwegasira, and Van Arkadie's book on this topic). The economic statistics made it plain that a revenue shortfall is still occurring (Tables 2.1, 2.2 & 2.3). With the benefit of hindsight, we can see that the current revenue crisis has multiple causes of a highly interactive nature:

- Tanzania's initial response to the 1973-74 drought was to increase commercial imports of food, which halved the country's external reserves.
- The 1973 decision to move all rural Tanzanians into villages became a strong disincentive to growing perennial export crops like coffee or cashew nuts, reinforced by price slippages relative to food crops (which were easier to market outside the formal system).
- Many of the new institutions and parastatals established in the mid-1970s began to come on stream with recurrent cost demand.
- Two rounds of OPEC price increases in the 1970s leave Tanzania paying about 60% of its total FE earnings on fuel imports.
- The 1976 break-up of cooperatives and attempted transfer of their functions to crop authorities disrupted the marketing of most export crops.
- A vigorous growth of parallel markets diverted an increasing proportion of real production out of the export crop sector.
- The persistent over-valuation of the Tanzanian shilling was in effect a "tax" on export crop producers and crop handling organizations, whose own liquidity was thereby threatened.
- The 1976-77 breakup of the East African community necessitated in-country industrial investments, some of which were highly dependent on either imported feedstocks or imported parts and management.
- The 1978-79 War in Uganda was internally financed, and further strained supplies of transport, fuel, food, and consumer goods.
- A cholera pandemic coupled with flooding and droughts disrupted crop movements throughout much of rural Tanzania, accentuating the negative impact from other factors already itemized.

- By 1980, Tanzania's terms of trade were 11% lower than in 1973 and 21% lower than in 1966 (World Bank 1981:ii).
- Export volumes declined by more than one third since the mid-1960s (World Bank 1981:ii).

2.8 In facing these "shocks", Tanzania's leadership has the double disadvantage of five years of initial success (1964-70), followed by five further years (71-75) when astute management buffered the worst impact of drought and the energy-cost explosion. External advisors coming on the scene in the early 1980s have usually been unaware of this earlier experience, which strongly conditioned Tanzanian perceptions of the post-1977 situation. Let us digress briefly to describe why the full seriousness of Tanzania's revenue crisis was not adequately appreciated within the Party leadership.

2.9 First, the initial phase of Tanzania's move towards a socialist economic system coincided with several better than average seasons between 1964-69, with 1966 (just prior to the Arusha Declaration) being particularly good. Against a background of much critical commentary from donors and economic "experts" alike, the Party leaders implemented steps to disengage Tanzania from Kenya's preponderant economic influence while taking over control of its own currency, the banking system, and vital exports. These moves occurred at a time when the price of the country's main export earner (which was then sisal) fell catastrophically (down from 1,700 shs. per ton to 765 per ton at the end of 1965). In the country's First Five Year Plan (drawn up by a Frenchman), it had been anticipated that external sources would contribute over 50% of planned investment; actual amounts of aid proved so low the Plan was abandoned. Nevertheless, overall growth of GDP for this period was on average 5% per annum. Manufacturing value added grew by about 10% annually (however from a very low base). And the Government successfully raised the rate of capital formation (from 16% of GDP in 1965 to 25% in 1970) and the level of domestic savings even while reorganizing the economy. This was achieved without either running down foreign reserves or incurring excessive external debt (Green et al. 1970:5-6).

2.10 Second, when the first round of major "economic shocks" did occur, Tanzanian leaders were able to mobilize economically effective responses.[1] No coups occurred, as happened in Ethiopia and Niger under similar strains. Indeed, the overlaid and unfolding train of events was such that for each criticism the external analyst might raise, there was a local rejoiner redirecting responsibility outwards. Villagization the cause of low output? Then why was the 1973-74 food crisis Africa-wide, afflicting many regimes irrespective of their policies? Did Tanzania fail to use price mechanisms? No, it was the deliberate stimulation of food crops by higher prices after 1973 which saved the country from importing more food but at a cost of depressed export crop production. Was the new capital in Dodoma a luxury? Then why haven't donors directed the same criticism at Malawi next door, where the case for moving the capital was much weaker than in Tanzania? Are deficits dangerous? Not if a country's development policies are attractive enough to command external grant funding—as Tanzania's were during most of the 1970s. Too much being spent on infrastructure and institutions? But what western country has managed to maintain high levels of investment despite over half its external earnings being prempted by fuel imports? ....and so the arguments went, back and forth, while in truth the Tanzanian leadership was preoccupied in crisis management. The day-to-day exigencies of coping with war, famine, and cholera in the face of deteriorating terms of trade and an escalating fuel bill rendered Tanzania's economic policy makers almost impervious to the kind of academically-rooted analysis being offered without solicitation from the IMF, and, eventually, other western donors.

2.11 As the World Bank's 1981 Economic Memorandum on Tanzania (a basic starting reference on our topic) noted, "achieving and sustaining a high level of investment has been a major element in Tanzania's development strategy" (1981:5). This absolutely central feature of Tan-

[1] The principal argument advanced (quite convincingly) by Green, Rwegasira and Van Arkadie in Economic Shocks and National Policy Making (1980). A good exposition of the contrary case can be found in Michael Lofchie (1978) "Agrarian Crisis and Economic Liberalisation in Tanzania," J. of Modern African Studies, vol. 16, no. 3, pp. 451-75.

zanian policy can be explained in part by the country's historic circumstances--the initial location of many of its services and institutions in Kenya next door--and by its geography, the dispersal of its higher potential lands around the periphery (see chapter 3). But it also constitutes the one fundamental promise shared by capitalist and socialist theoreticians of economic development. There are few practicing economists who would be willing to declare that rates of investment are not a key ingredient in facilitating economic development. Where a "socialist" country like Tanzania differs from, say, Kenya next door is the depth of its determination to persist investing under even adverse short-run economic conditions--a point confirmed by Wheeler's regression analysis of sources of stagnation in sub-Saharan Africa (1984). In Wheeler's words (1984:19):

> Among the policy variables, the most important seem to be those which measure some form of retrenchment capability. The 'habit' results are consistent with a model which accords great importance to appropriate allocation policy for regimes whose overvaluation of exchange rates forces them to ration foreign exchange. They suggest that even when rationing is instituted, the results can vary substantially according to the rules which are employed. Rationing systems which adhere tightly to previous levels ... during periods of foreign exchange reduction appear to have done substantially worse, ceteris paribus, than those which have retained more flexiblity. This result is consistent with the arguments of those who claim that many African states have mistakenly starved themselves of intermediate manufacturing and agricultural inputs in order to maintain long-run investment programmes, even in the face of evidently low domestic capacity utilization.

2.12 Roemer (drawing upon chs. 2 and 3 in Killick's classic study, Development Economics in Action) points out that in Ghana's case, Nkrumah's "big push" for economic development (1961-66) was derived from the thinking of "the most influential development economists of the day" (1983: 9):

> The strategy of the early 1960s was based on the notion of a 'big push' of massive investment that would break the 'vicious circle of poverty' and propel a 'take off' into self-sustained growth. It was an unbalanced growth strategy, with import-substituting industry the leading sector operating behind a high protective barrier, and agriculture yielding its labor surplus to man the new factories.

According to Roemer (who has also worked in Tanzania) Nkrumah's strategy borrowed eclectically from Harrod, Domar, Scitovsky, Rosenstein-Rodan, Hirschman, Lewis, Prebish, Singer, Nurkse, and Kaldor—and one must also add Rostow. Killick (1978:53) points out that Lewis, Kaldor, and Dudley Seers actually served as Nkrumah's economic advisors at one time or another. The twist Nkrumah added was his reliance upon public enterprizes to imple- Ghana's development plans, and his distrust of local entrepreneurs (Roemer 1983:9-10). All of which could be said of Tanzania as well, except that in Nyerere's case his leadership remained popular and he was able to replace his first generation of expatriate economic advisors (Svendson, Van Arkadie, and Green) with US trained Tanzanians (Rweyemamu, Rwegasira, and Malima).

2.13 It is important for outsiders to recognize that the basic, underlying motivation of most economic policymakers in "late starting" African economic systems (like Tanzania, Zambia, and Malawi) has been to lessen their dependence upon the arbitrary swings of primary commodity prices. The overwhelming impact of externally determined commodity prices seems obvious to those living within a vulnerable economic system like Tanzania's.[1] Adverse terms of trade reappear as a central topic in nearly every economic performance review. For example, the Minister of Planning's 1981 economic speech points out that during a time when import prices (1972-80) rose 240%, the price of coffee dropped over 50% (between 79 and 81), and the amount of tea Tanzania had to export to pay for one tractor rose from 5 tons in 1972 to 17 tons in 1981 (URT 1981:12). This background explains why as soon as coffee prices temporarily improved in 1977, the Party launched a major industrial diversification drive although the nascent industries it established now strongly contribute to the revenue crisis. It also explains Tanzania's continued infrastructural investments despite four years of adverse trade imbalance.

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[1] A layperson's commensense conclusion which is, however, supported in recent economic analyses. For example Wheeler's regression analysis of factors influencing African growth between 1960-80 supports the idea that "the economic fortunes of most African states, including those deemed 'best managed' ... are heavily dependent on world trade cycles" (1984:3).

2.14 In Tanzania, then, the general theoretical premise shared by many western economists in the early 1960s which stressed the key role of investment rates was buttressed in the early 1970s by a more focussed attention to industrial policy. Two economists were especially influential in this regard, Rweyemamu and Schumacher. Rweyemamu's Harvard thesis was republished in 1973 as a book, Underdevelopment and Industrialization in Tanzania. Moving from Dean of Social Sciences in the University to being Economic Advisor to Statehouse, Rweyemamu advocated selective industrialization to increase the value of exports and to create the intermediate industry needed to change Tanzania's capacity for further economic growth. Rweyemamu's influence lay behind the Government's adoption in 1974 of a revised Long Term Basic Industrial Strategy (1975-1995). Its main emphases were (SIDO, 1984:1):

- restructuring of industry (away from unselective import substitution)
- adjustment of consumer preference to use local products
- reduction of the share of imports through import substitution
- ranking of investment priorities on multiple criteria
- development of rural and small-scale industry sectors.

2.15 The latter point reflected awareness of Schumacher's arguments, published in the influential 1973 book, Small is Beautiful. Schumacher had visited Tanzania to advise Nyerere, and in April of 1973 the Party National Executive issued guidelines on the establishment and development of small scale industries in Tanzania (reviewed in chapter 4). At roughly this same time, Tanzania was heavily involved in promotion of adult and nonformal education just when these topics were coming to the attention of international donors, e.g. Coombs' 1974 book for the World Bank, Attacking Rural Poverty. Tanzania had already been closely involved with the IIEP in Paris, whose approach to educational planning was based upon Schultz and Harbeson's development of the concept of human capital. Finally, in the mid-1970s, the international donor community discovered the "basic needs strategy" for economic development—a conception which was the mirror image at the theoretical level of Tanzania's already formulated rural development policies.

Even with regards to the machinery for implementation, Tanzania was prepared with its "integrated regional development plan" (or RIDEP) approach. For the first time, donors began to support untried rural development programs with soft loan financing. Here the World Bank under MacNamara took the lead, adopting one of Tanzania's poorest and most remote areas, Kigoma Region, as its showcase "integrated rural development project" but adding quickly several more RIDEPS (in Shinyanga, Tabora, Mwanza, and Mara). On their part, the Tanzanian leadership swallowed their pride and quietly adopted the Kenya Tea Development Authority (KTDA)--which was then and still is generally regarded as an African "success story"--as the model for a whole family of cash crop authorities established in the early and mid-1970s. Under the Basic Needs/IRD strategy, the financing of export crop development alone was considered ill-advised. Instead, the agreed aim was to finance a package of complementary measures including not only an export crop but also infrastructure, transport, processing (if necessary), and extension (though the funds for the latter were seldom well spent).

2.16 By the late 1970s, the adverse economic performance being generated by all of this project activity was already sufficient to suggest several unpalatable lessons. First, Tanzania simply did not have the technical packages outside of the favored highland areas to generate loan-stimulated real production. Second, the risks of adverse seasons were higher than had been allowed for. Third, the heavy investment in social services was not yielding the anticipated payoff in improved rural productivity. Fourth, it was a tremendous mistake to accept external loan financing in support of high risk production activities and untested institutional expansion. Fifth, the KTDA cash crop authority model did not perform well under Tanzania's different policy environment. Sixth, the pace of institutional change was such that Tanzania's supervisory and planning bodies were overwhelmed. Instead of the tightly planned, socialist economy which Western commentators have sometimes assumed was operative, Tanzania instead found itself committed to achieving ambitious goals without realistic planning. And, seventh, it should have been obvious that investment by itself is insufficient to stimulate lasting development.

2.17 These are bitter lessons for a poor, western-oriented socialist nation to absorb. Although outsiders sometimes blame Nyerere's stubborn adherence to socialist goals as the reason for Tanzania's lack of organizational learning,[1] we have seen above that the country's policies have in large part mirrored predominant western ideas about rural development in the 1970s. Indeed, Tanzania's attractive portfolio of rural development policies proved quite advantageous during the initial years of export downturn. For nearly a decade, it was Tanzania's success in securing external aid on highly concessional terms which compensated for the growing deficits on the nation's trading account (if we for the moment ignore the brief, coffee-price led 1976-77 recovery). Tables 2.4 and 2.5 summarize the contribution of external aid in this respect. Here the influx of World Bank and IDA funds played a key role, but hard currency support from Sweden has also been of crucial assistance. As Table 2.5 indicates, while the US government's direct, bilateral assistance to Tanzania in 1979 was about 4% of total aid, five small countries (Sweden, Netherlands, Norway, Canada, and Denmark) contributed over 40% of all aid and Sweden and the Netherlands gave more in grants than was covered by all multilateral lending and grants (Harris 1983:17). Furthermore, while the European donors have converted a number of poorly peforming loans into grants, the poorly performing US loans upon which Tanzania has defaulted have become the official reason for termination of further US bilateral aid to Tanzania.

2.18 To summarize the "economic shocks" position, then: i) the major cause of difficulty arises from adverse terms of trade, especially in regard to necessary fuel imports; ii) virtuous economic performance is shown by continuing investment; iii) attractive policies can offset trade imbalances by securing aid support for worthy activities; and, iv) persistence will ultimately pay when over the longer-run the years of drought and low prices will be offset by good times or (as some once hoped) by structural readjustment between the North-South nations. Meanwhile, the necessary remedial actions should consist of measures

[1] See, for example, Ken Adelman's article "The Great Black Hope: Africa's leader of Illusions: Julius Nyerere," Harper's, vol. 203 (July 1981), pp. 14-19.

TABLE 2.4

SOURCES OF FOREIGN EXCHANGE

(US mn at 76-78 Import Prices)

	1966	1973	1980	Change 66 to 73	Change 75 to 80
Merchandise Exports	722	659	370	- 63	- 289
Net Invisible Receipts	-33	15	19	48	4
Gross Aid Disbursements	69	224	377	155	153
Other Capital Flows, Errors & Omissions	-17	69	-6	86	-75
Import Capability:	741	967	760	226	- 207
Use of Reserves	-83	-76	84	7	160
Actual Imports	658	891	844	233	-47

Source: J. Harris (1983), p. 13 derived from World Bank, Economic Memorandum on Tanzania (1981), p. 56.

TABLE 2.5

SOURCES OF GROSS AID DISBURSEMENT, 1979

($ US mn)

Source	$ million	% of Total
Loans	139.5	30.3
Bilateral (of which)	45.4	9.8
OECD countries	32.2	6.9
China (Peoples Republic)	3.6	0.8
Other Socialist nations	0.0	0.0
OPEC countries	3.4	0.7
Multilateral (of which)	94.1	20.4
IBRD	32.9	7.1
IDA	39.0	8.5
IMF Trust Fund	16.4	3.6
Grants		
Bilateral (all OECD nations)	294.4	63.9
Sweden	69.7	15.1
Netherlands	145.9	10.0
Germany (Federal Republic)	34.4	7.5
Norway	29.0	6.3
U.K.	27.4	5.9
Canada	24.5	5.3
USA	19.2	4.2
Denmark	17.4	3.8
Other socialist countries	0.0	0.0
OPEC countries	0.0	0.0
Multilateral	27.0	5.9
EEC	20.3	4.4
U.N.	6.7	1.5
Total	460.9	100.0

Source: J. Harris (1983) "Tanzania's Performance in Meeting Basic Needs: The International Context," p. 15.

to reverse the foreign exchange and revenue squeeze, e.g. by switching aid from projects to generalized import support, by once again favoring export crops through higher prices and devaluation, by export rebate schemes as an incentive for larger-scale private producers, and by new revenue generation devices (reimposition of the personal tax, user fees for social services, etc.). Measures of this kind were first announced in the 1981 National Economic Survival Program, were then repeated in NESP II (1982) before reappearing in amplified form in the Structural Adjustment Program (1982-84).

The 'Productivity Crisis' Interpretation

2.19 The fundamental criticism of the "economic shocks" explanation is that by redirecting attention outwards, it glosses over those factors which Tanzania could have controlled. The principal cause of the crisis has been a long term structural decline of the export sector. Had exports grown at the modest rate of 3% per annum, and given the changes in terms of trade which have occured, exports would have commanded 2.3 times as many real imports in 1980 as were commanded by actual exports that year. Alternatively, at actual 1980 import levels, 86% (instead of 44%) of their value would have been covered (Harris 1983:18). In short, by showing only an average level of performance (2% per annum below what had already been achieved in the late 1960s), Tanzania's rural development institutions might have experienced difficulty but certainly nothing like the present "crisis". A strong case can be made that the present revenue crisis is also a productivity crisis with profound implications for the whole direction of Tanzanian institutional investments.

2.20 First, perhaps the strongest criticism of the "economic shocks" view is that Tanzania's own policy makers failed to employ the same logic internally when evaluating producers' likely response to the officially controlled pricing system which was put in place in 1973/74. There is always a problem when assessing agricultural price responsiveness caused by the lag before farmers receive payments and the large

TABLE 2.6

PRODUCERS' SHARE OF F.O.B. PRICE IN TANZANIA (%)

	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81
Coffee	69	48	46	45	49	68
Cotton	—	46	46	45	44	53
Tobacco	—	52	52	49	79	85
Tea	—	43	34	47	60	60
Cashew	—	42	30	44	31	33
Pyrethrum	—	65	50	39	32	38

Source: FAO/UNDP (1981) Strategy and Programming Review Mission, Tanzania. Vol. 1, Main Report. Table 11 (p. 25).

TABLE 2.7

TERMS OF TRADE FOR SMALLHOLDER PRODUCERS

	Net Barter Terms of Trade			Income Terms of Trade		
	Export crops	Domestic crops	Total crops	Export crops	Domestic crops	Total crops
1969/70	100.0	100.0	100.0	100.0	100.0	100.0
70/71	96.9	97.5	97.0	101.8	187.8	111.4
71/72	95.3	89.6	94.6	102.8	121.1	104.8
72/73	88.5	81.6	87.5	96.3	129.4	99.9
73/74	76.0	76.1	76.1	78.3	119.3	79.4
74/75	63.5	78.0	64.5	68.8	39.0	65.6
75/76	90.5	112.9	93.2	84.5	87.1	84.8
76/77	110.0	107.9	109.7	102.5	103.4	102.5
77/78	79.5	106.6	85.4	73.7	166.6	84.0
78/79	67.4	98.2	74.5	62.7	153.4	72.8

Source: FAO/UNDP (1981) Strategy and Programming Review Mission, Tanzania. Vol. 1, Main Report. Table 10 (p. 24). Derived from F. Ellis (1980), ERD Paper 80.3.

masking effect of climatic fluctuation. Nevertheless, Frank Ellis has demonstrated in several papers (see Tables 2.6 and 2.7) that Tanzanian producers were behaving rationally during the mid and late 1970s, and that in general (with 1976/77 the one exception) the net barter terms of trade (which determine the actual farm-gate incentive level) turned against export crops from 1974 onwards. Furthermore, for four years (from 1976/77) coffee producers received less than 50% of the F.O.B. price of coffee even when the T Sh was greatly overvalued and when actual payments were often delayed by the Coffee Authority. This represented a crucial lapse of national economic management, because coffee contributes much more to Tanzania's total value of exports than might appear when it is merely listed among other export crops (Table 2.8). To a large extent, Tanzania's FE crisis might be better viewed as a coffee production crisis which persisted for four years while little of a positive nature was done about it at the national level.

2.21 For example, if we take 1980's exports as indicative of the situation, coffee accounted for more than three times the value of the next most important crop, cotton. From the standpoint of instruments amenable to policy manipulation, the declining coffee production should have been where the Tanzania Government was directing priority attention. Instead, the actual circumstances facing growers in the 1970s were:

- great uncertainties about how villagization would affect their continued ownership of coffee trees.
- nationalization of expatriate owned coffee estates in Arusha and Kilimanjaro Regions in 1973/74, with a subsequent drop in production on nationalized farms.
- disbandment of the co-operative movement, where the coffee co-ops were among the few financially sound and well managed ones.
- little attempt by KILIMO to strengthen robusta production of green coffee (buni) in the Pare, Usambara, and Uluguru Mts., where "official" crops recommended by the Party were instead being pushed.
- turmoil in West Lake Region, which included loss of the coffee processing plant, transport breakdowns, and probable smuggling.
- a break-down of coffee purchasing arrangements, so that on several occasions growers did not receive payment for coffee delivered and so could not in turn repay their own production debts.
- a continued relative decline in the attractiveness of coffee prices (here see Ellis, 1982:266).

TABLE 2.8

1981-82 EXPORT PERFORMANCE & 1983 TARGETS[c]

(T Shs mn)

Exporter	Crop/Product	Exports in 1981	Exports in 1982	Target in 1983
CAT	Green coffee	1,233.86	1,297.94	1,468.16
TSA	Sisal fiber	264.12	201.65	230.02
TCA	Lint cotton	537.89	382.06	423.31
	Seed cake	41.46	13.22	14.54
	Cotton seed	10.94	1.87	-
CATA	Rawnuts (cashew)	283.80	118.36	184.00
	Kernels (cashew)	205.05	125.66	138.00
	CNSL	5.52	4.45	5.00
	Powder & shell	2.56	0.50	1.00
TTA	Tea	119.43	109.90	126.00
TPB	Pyrethrum extract	8.60	21.56	
	Pyrethrum powder	0.54		24.00
	Pyrethrum dry marc	1.21	0.97	
TAT	Tobacco	175.55	166.49	210.33
GAPEX	Cardamon	13.08	14.89	15.00
	Cocoa beans	19.36	12.87	20.00
	Sesame seeds	12.28	17.83	20.00
	Beeswax & honey	9.33	2.24	7.00
	Kapok fiber	-	1.65	3.00
	Pigeon peas	-	60.24	5.00
	Mimosa extract	-	13.29	14.00
SUDECO	Sugar	7.00	35.00	35.00
NAFCO	Cocoa beans	-	0.32	0.75
LIDA	Livestock	-	-	15.00
TOTAL Mainland Ag. Exports:		2,951.58[a]	2,602.96[a]	2,964.11[b]

[a]Totals not provided in source.

[b]Incorrect total as given in source (instead of 2,959.11).

[c]Derived from current figures 14 June 1983, BET Board of Directors' Report, Dar es Salaam.

- a drastic decline in coffee quality. Whereas in 77/78, 44% of Tanzania's coffee was average or better (with 9% in the top 4 grades), by 80/81 91% was below average.

- a very hesitant response by the Ministry and the Coffee Authority to the outbreak of coffee berry disease (CBD), which had been known and combatted in Kenya since the mid-1960s.

2.22 Second, this inattention to economic consequences of official policy took place at the very time when the number of economic monitoring institutions was being increased. The Marketing Development Bureau in Dar es Salaam was providing annual price reviews, with detailed recommendations for each major export crop. A Board of External Trade (BET) was established, whose staff were specifically responsible to see that exports were maintained. It had the legal powers to have insured that the most crucial producers received priority in foreign exchange allocations. Then there was the Bank of Tanzania (BOT), with its own staff experts to perform a similar function. Other possible sources of economic advice included, of course, the Price Control Commission (established in the mid-1970s), the University's Economic Research Bureau, the Ministry of Planning and Economic Affairs, the Ministry of Finance, the Economic Committee of the Cabinet, economic advisors in the PMO and in State House itself, and the Party's own economic surveillance staff. More recently, the Government created the SAP Secretariate, the National Productivity Council, and the National Consultative Economic and Planning Council (the latter an advisory body to the Ministry of Planning). On their part, some donors provided the Tanzanian Government with analyses attempting to pinpoint where economic slippage was occurring. Thus we cannot attribute the Government's lack of focussed remedial actions to missing economic intelligence or a lack of market information.

2.23 Considering that all these institutions employed experts who were being paid for monitoring the Tanzanian economy, it is puzzling to find the Government's official targets remained resolutely optimistic long after the performance downturn was already apparent within official statistics (e.g. the rosy Third Five Year Plan targets). Nor did Tanzania make any concerted attempt to enter the lucrative Gulf

States market despite Tanzania's transport advantage over other producers (such as Brazil) which did successfully penetrate this market during these very years when Tanzania's exports were declining. The lesson for socialist nations is clear: if intermediary institutions are inserted with powers to control the export sector, then it is imperative that such organizations employ good economists who wield real power. What Tanzania appears to have created instead is an army of junior economists with a vague interest in collecting statistics and no continuing access to the levers of Party power.

2.24 Third, the decline in commodity exports cannot be blamed upon a lack of agricultural service infrastructure for the major export crops. As we have noted, from the early 1970s onwards Tanzania was investing heavily in the establishment of crop and livestock parastatals whose main official purpose was to monitor and stimulate commodity production (Table 2.9). According to Nyerere's own figures, whereas in 1967 the nation had 64 parastatals, by 1974 it had 139 (1977:38). By 1975 there were ten cash crop authorities: CAT (coffee), CATA (cashews), GAPEX (oilseeds), NMC (cereals), SDC (sugar), TAT (tobacco), TCA (cotton), TPB (pyrethrum), TSA (sisal), and TTA (tea).[1] These replaced the earlier organization of marketing boards, which had served the major export crops. A similar structure of livestock parastatals was also established, most of them located under a supervisory Livestock Development Authority (LIDA).

2.25 Nor can it be said that these new institutions were starved of human and financial resources. Being parastatals, they offered better salaries and substantially better fringe benefits than did the mainline Ministry of Agriculture (KILIMO). During the mid-1970s, therefore, many of KILIMO's better staff left the Ministry to take up positions in the crop authorities. Furthermore, the crop authorities enjoyed a strong comparative advantage in securing technical assistance projects and hence hard currency support. This is clearly indicated if we lock at the World Bank/IDA loan portfolio to the agri-

[1] See Marketing Development Bureua (1974) Profiles of Major Ministry of Agriculture Parastatals. Dar es Salaam: MDB, Min. of Agric., 126 pp.

TABLE 2.9

CROP PARASTATAL INVESTMENT BUILD-UP [a]

(T Shs mn)

Parastatal:	77/78	78/79	79/80	80/81	81/82
GAPEX	33	69	111	157	209
SUDECO:					
Headquarters	405	478	727	836	939
Kilombero	502	485	534	560	558
Mtibwa	168	175	174	163	165
Kagera	—	152	356	481	585
TPC	276	266	254	237	220
CATA (parent)	181	335	404	463	488
CAT	n.a.	n.a.	n.a.	n.a.	n.a.
TSA	n.a.	n.a.	n.a.	n.a.	n.a.
NAFCO	220	256	314	387	n.a.
NMC	165	193	245	273	267
TPB	40	61	80	92	113
TTA	45	53	62	69	93
TAT	192	153	155	168	178
TCA	160	167	141	136	166

[a] Cumulative permanent investment

Source: KILIMO figures.

cultural sector during the period up to 1980. In order of activation, we then have: $ 10.8 mn to smallholder tea (TTA) (1972); $ 18.5 mn to livestock development (LIDA) (1973); $ 17.5 mn to cotton development in Geita (TCA) (1974); $ 21.0 mn to Cashewnut development (CATA) (1974); $ 10.0 mn to Kigoma rural development, also with a cotton component (1974); two loans for $ 9.0 mn each to SUDECO for sugar development in the Kilombero (1974); a further $ 10.0 mn for dairy development (1975); $ 18.0 mn for the national maize project (1976); $ 9.0 mn for fisheries development in Kigoma (1976); $ 7.0 mn for Sao Hill forestry development (1976); $ 8.0 mn for tobacco processing (TAT) (1976); $ 12.0 mn for Tabora rural development (a main TAT tobacco area) (1977); a further TAT tobacco handling loan of $ 14.0 mn (1978); $ 12.0 mn for Mwanza and Shinyanga, both being central areas for TCA's cotton production (1978); and, finally, a $ 27.5 mn second cashewnut (CATA) loan (1979). From this single source, then, Tanzania had a total of $ 213.3 mn of loan funded projects under implementation by mid-1980. The heavy concentration upon support to cash crop authorities comes out clearly if one examines the main cash crops within the "RIDEP" loans, which were to districts where cotton and tobacco were the principal cash crops. Of this total portfolio, only 8% (the National Maize Project loan) was administered by the Ministry of Agriculture, and none of it was directed towards the ailing coffee industry. (It was only when some of these same agencies began returning with requests for new equipment before their earlier loans had even expired that the Bank became alarmed, and turned its attention to "sector rehabilitation".)

2.26 Fourth, the sharpest controversies arise, however, in trying to assess how far Nyerere's villagization program (which reached its peak in 1974/75) inhibited the country's agricultural performance (see Table 2.10). The effects of relocation upon perennial tree crops like cashew nuts and coffee are potentially quite serious. Here it is instructive that cashew nut production suffered the worst, an observation consistent with the fact that cashew producers in southeastern Tanzania were relocated into villages while many coffee producers in

TABLE 2.10

DEGREE OF VILLAGIZATION BY YEAR

Year	Total No. of villages	Total Population in the villages	Village residents as % of total population
Feb. 1967	48	5,000	0.04
Dec. 1968	180	58,000	0.5
Dec. 1969	809	300,000	2.5
1970	1,956	531,200	4.3
1971	4,484	1,545,240	12.3
1972	5,556	1,980,862	15.3
1973	5,628	2,028,164	15.3
1974	5,008[a]	2,560,472	17.6
May 1975	6,944	9,140,229	61.6
1976	7,684	13,061,000	85.0
Dec. 1977	7,373[b]	13,506,044	85.0
July 1978	7,631[b]	13,775,532	87.0

[a]The decrease during this year was due to mergers of small villages into larger ones.

[b]Only listing villages registered under the 1975 Village and Ujamaa Village (Registration) Act. Some villages have not yet been registered either because of too few people or because the villagers "are expected to resettle in a more suitable area."

Source: J.H.J. Maeda (1981) "Promoting Rural Development Through Villagization," pp. 134-142. In, JASPA, Development, Employment and Equity Issues in Tanzania. Addis Ababa: JASPA, ILO.

Figures derived from Economic Survey (1970/71); and Maendeleo ya Vijiji vya Ujamaa, Prime Minister's Office (compiled from various issues).

northern Tanzania were not. The central issue is not whether relocation disrupts crop production--as it obviously must for a season or two unless resettlement is very carefully timed--but rather if villagization has had a persistent negative impact on output (as many external observers have suggested). As it happened, the confluence of poorly planned villagization with two years of deepening drought (1973-75) in Tanzania means that we will never be able to fully answer this question, interesting as it is from a theoretical standpoint.[1]

2.27 However, there are two subsidiary issues central to the productivity question which have escaped scrutiny because of the larger controversy over whether or not Ujamaa villages were ever viable economically. It must be stressed that the main "economies of scale" which villagization was supposed to tap were those related to the centralized provision of social services (water, health care, and primary schooling). Here the "economies" presumably accrue to rural households, who are saved the effort of walking to school and clinics, except in those instances where an entire village can be served cheaply with piped water (yielding village-level economies in service provision). As Rene Dumont and others have since pointed out, these "economies" must be weighed against the costs of walking longer distances to one's fields, of shortages of fuelwood, of reduced crop security, of increased public health risks arising from dense settlement, and of diminished forage and fallow. Party leaders hoped that villagization would be accompanied by tractor farming, yielding major "economies" in land preparation (but not necessarily in weeding and harvesting). Here, too, the reality of field conditions in much of rural Tanzania results in very low returns from village-owned tractors. With shortages of fuel, parts, crop storage, and trained village accountants, the village which invests in a tractor is more likely to encounter diseconomies of scale. The combination of generally high seasonal risks and poor support services for equipment overwhelm the small increments in technical efficiency which larger-scale, village production was supposed to bring.

[1] For references to the large literature on Tanzanian villagization, see the topical listing within the Bibliography.

2.28 The other unresolved productivity question arising out of villagization is a consequence of the program's slow institutionalization. In the evolution of any new social institution, there are always unanticipated stresses which must be resolved over time. Areas of friction within the newly formed Ujamaa villages have included: i) how to rectify poor initial planning without complete relocation, ii) how to do land use planning to optimize soil productivity, iii) what to do with undersize villages, iv) an organizational framework for sharing certain specialized services between villages, v) how to manage the group farm and distribute work and profits fairly, vi) what rights to give outsiders (like teachers) who must reside within the village, vii) how to discipline errant or corrupt staff assigned to the village by the Government, viii) regulations for conflict of interest situations where a leader was also involved in village business, ix) the rights of absentee members, and, x) what compensation families could expect if evicted or moved. Von Freyhold's graphic description of daily life as observed in Tanga Region's villages makes it clear these were real problems, with real impacts upon farmers' commitment to village life and production (1979:87-88).

2.29 It is indicative that when the Prime Minister's Office (PMO) did finally draft legislation applying to Ujamaa villages after the program had been underway for seven years, the resulting Villages and Ujamaa Villages Act of 1975 <u>was silent on most of the key operational questions we have just itemized</u>. The Act has considerable detail on the formal machinery for village governance--possibly the reason why it was hailed as being a considerable step forward in Tanzania--but almost nothing to guide members in the critical area of their property relations and common enterprizes. The village was thus given secure tenure over its land, but <u>not</u> for its individual members. In regard to production, the Act vaguely specifies that the Village Council would be empowered "to do all such acts and things as are necessary or expedient for the economic and social development of the village."

2.30 The core arguments that critics of Ujamaa productivity have advanced are therefore: i) returns from communal farming have been extremely low, ii) no regularized system for work allocation and profit sharing has emerged, such that it could become a national model, iii) peasants' losses of previous investment in houses and crops make them reluctant to reinvest in such enterprizes, and, iv) the booming parallel economy now offers many Tanzanian peasants (Flory and Bromley, 1984:26):

> ...the option of withdrawing from the official economy without giving up the ability to obtain consumer goods or a cash income. This is a threat that the government must take seriously. It must be careful not to kill the goose that lays the golden eggs. In other words, the threat of peasant withdrawal ultimately limits what the government can squeeze out of the agricultural sector.

Party leaders would probably insist to the contrary that Ujamaa production has been a success in southern Tanzania, where villagization was carried out earlier than in the north, and that poor implementation does not mean the policies themselves were at fault. While as a group we find ourselves divided on this issue, we can agree that in any system productivity is largely determined by the quality of implementation given to particular measures. If Ujamaa settlement has suffered from poor implementation for the seventeen years since the policy was introduced, then this failure in of itself becomes significant.

2.31 Fifth, the low output from Tanzania's major rural development programs has been parallelled by an equivalent decline in work productivity within the industrial sector (see Tables 2.11 and 2.12). Kim's study of the performance of 35 Tanzanian manufacturing establishments provides a useful comparison between entirely private and mixed or wholly publically owned enterpizes (Table 2.12).[1] He notes that all Tanzanian industries have operated under a pervasive price and import control system. During the period under his review (1970-75), in all years except 1971 "government enterprizes incurred sizable deficits" whereas private sector firms had positive surpluses in five of the six years--and the one adverse

[1]The general pattern for "mixed" ownership instances was for 60% Government shares, with a government appointed manager. Such enterprizes showed performance similar to that of the wholly government-owned establishments.

TABLE 2.11

GDP AND PRODUCTIVITY IN INDUSTRY

Year	GDP in Industrial divisions in 1966 prices (shs mn)	Employment: persons (thousands)	Overall Social productivity per person/year (shs)
1967	1,120	87	12,874
1972	1,431	125	11,448
1974	1,528	159	9,610
1977	1,567	148	10,946
1978	1,532	148	10,351
1979	1,574	156	10,089

Source: J. Jedruszek (1981) "Policy Implications of the Development in Productivity of Labour in Tanzania, pp. 186-199. In, JASPA, Development, Employment and Equity Issues in Tanzania. Addis Ababa: JASPA, ILO, p. 191.

TABLE 2.12

FACTOR UTILIZATION

	Private Enterprise	Public Enterprise	All Enterprises
No. of employees per enterprise	201.3	280.7	228.5
Man-hours per worker	2,282.0	2,533.8	2,360.0
Value added per m/hr (TSh)	9.73	8.13	9.21
Wage rate per m/hr (TSh)	3.73	4.72	4.05
Labor share in gross product[a]	0.38	0.58	0.44
Operating capital per man/hour (TSh)	29.24	15.13	24.61
Fixed capital usage per man/hour (TSh)	19.97	3.74	14.52

[a]Ratio of wage rate per m/hr to value added per man-hour

Source: K. Kim (1981) "Enterprise Performances in the Public and Private Sectors: Tanzanian Experience, 1970-75." J. of Developing Areas, 15 (April), p. 477.

instance was largely attributable to massive losses by one firm in his sample (Kim 1981:474). There was also a clear contrast in the relative labor-share in the gross product, and in the amount of operating and fixed capital employed per man-hour (with the "public" enterprises employing more labor at higher rates for smaller increments in output). Jedruszeck's longer term (1967-77) comparison of workers' productivity indicates that employment continued to grow faster than did output. His conclusions merit quotation at some length, since they are central to our argument (1981:192);

> ...there was a nearly steady decline in the absolute level of total factor productivity expressed in constant prices. In the period 1967-1977 there was an average decrease of 1.6% per year and the overall decrease in absolute level of productivity amounted to 14.4%. The additions to output, which were growing in those ten years by 3.8% per year, were due mainly to the extensive factor expansion of labour force.
>
> The data for particular industrial divisions support strongly this observation. In the whole manufacturing division e.g. in the period 1967-1977 employment rose 2.6 times but contribution to the GDP expressed in absolute terms only 1.8 times. Employment rose there on average 11.1% a year while the production in constant prices only 6.5% a year.
>
> The deterioration in effectiveness of use of labour factor--disregarding the reasons for it--is striking and implies very serious material losses in industrial production.... This is a phenomenon too expensive in social and economic terms to be left without any attempt to change it.

2.32 Productivity indices of the kinds employed by Kim and Jedruszeck reflect only very gross relationships. The actual slippages in productivity at particular levels may be far greater than relationships expressed in mean aggregate figures show. The Tanzanian labor force has received much study (by Bienefeld, Sabot and others). It appears that workers' characteristics are overshadowed by institutional factors, particularly during the post-1971 period. On the positive side, the involvement of labor union leaders as rivals to Nyerere in the 1960s resulted in a TANU takeover which left labor relations firmly under Party control. A significant benefit has been the virtual absence of

strikes since the early 1970s (see Jackson, 1979). On the negative side, the cost has been Party advocacy of workers' rights (articulated in the Party's Mwongozo guidelines). After several confrontations between management and workers in the late 1960s and early 1970s, a consensus was established which gave workers deeply entrenched rights. Every organization was told to set up a Workers' Council, dismissals required workers' approval (through a workers' committee), and there were to be liberal leave provisions (maternity leave, etc.). Thus while yet a poor country, Tanzania implemented progressive labor regulations modelled on those of the European welfare state. Of all these measures, the restrictions on dismissal were probably the most damaging to labor productivity. The negative effects became more pronounced in the late 1970s, when because of shortages and interruptions in electricity or water the level of capacity utilization dropped markedly. Throughout the 1970s, Party leaders have strongly defended the Mwongozo provisions, while middle and senior managers have often blamed the premature implementation of these guidelines for low worker productivity (Hyden 1979).

2.33 Thus while Tanzania's Party leaders have recognized that workers' productivity was a major problem for several years now, the obstacle has always been how to devise incentive systems which do not violate either the test of evident fairness or the Party's own ideological commitments. Several times incentive schemes have been tried, only to be subsequently withdrawn. Within a socialist state it is very difficult to devise appropriate policy instruments for this purpose without running the danger of further increasing the rigidities and inefficiency one is trying to ameliorate. For example, three years ago a National Productivity, Incomes and Price Policy was launched (in Government Paper No. 1 of 1981). A National Productivity Council was established in October of 1982 and a Secretariate created. Once again, a new agency emerges. The Minister for Planning and Economic Affairs admits in his June 1984 budget speech that the Council's "main activity during 1983" was recruitment of staff and "estab-

lishment of working premises for the Council" (1984:14). The official machinery through which the Council is supposed to change Tanzanian productivity consists of three committees, one each for Incomes and Prices, Productivity Evaluation and Dissemination, and for Targets and Productivity Assessment. Outsiders are likely to query whether yet another planning body, charged with "educating the public" about productivity and embarking "on a dialogue with various Institutes and Bodies" will serve any genuinely productive purpose. The Minister's own views to the contrary are stated as follows (1984:14):

> The importance of these Committees is even more apparent today, considering the negative trends in productivity caused by a series of difficulties... Moreover, poor labour turnover and gross negligence worsened the situation even further, making it difficult to pin-point the real causes for low levels of productivity in the various sectors of the economy. Preliminary investigations by the Council have revealed that most of the institutions and areas of work visited had no prior knowledge of the existence of the National Policy on productivity...

2.34 Tanzania's managers might have been in a stronger position to complain about their workers' low productivity had the symptoms of their own managerial inattention not been equally prominent throughout this same period. It is paradoxical that Tanzania's public corporations have--in theory if not in practice--well articulated control mechanisms. First, all appointees from Director level upwards are presidentially approved--and thus subject to immediate revocation should an individual show signs of weak performance. Second, the public corporations usually have General Managers to whom the subsidiary companies report. In his capacity as "accounting officer" for the corporation, the General Manager is vested with <u>direct control</u> over all large transactions undertaken by the organization. Indeed, the Tanzanian systems are so centralized that often the top manager must sign many financial documents in person. Third, the General Manager reports to a Board of Directors. The Board's Chairman is generally someone of long experience and high seniority. Fourth, by law the parastatals must submit their accounts for external audit, and the Tanzania Audit Corporation's commentary is published annually.

Fifth, many key parastatals are also "under" the related sectoral Ministry (Agriculture, Education, etc.), which is supposed to exercise general supervision and has a place on the Board. Sixth, the Party organs and representatives--and it should be noted that each major institution will have its own Party branch, headed by a Chairman--are supposed to safeguard the national interest. Party officials file confidential reports on institutional staff, and most senior managers have attended mandatory seminars at Kivukoni, the Party's ideological college. And, seventh, there is always as a last resort the possibility of investigative articles or accustory letters in the Dar es Salaam Daily News.

2.35 During the time of economic crisis from the late 1970s onwards, it would seem that the effective control mechanisms have been those external to the institutions involved, i.e. dismissal by the President, Party investigations, and newspaper critiques. Headlines such as the following have become frequent: "Company Managers Sacked," "Party Probes Shinyanga TCA," "Ukerewe RTC Manager fired," "TES Head Loses Job," "Nine Sacked in Zanzibar"--and so it goes, week after week.[1] Anyone who lived in Tanzania during the low point in the late 1970s and 1980-81 can recite the "horror stories" which the Government owned press has brought to public attention: the railcar of prime Kongwa beef ordered before Christas which TRC delivered to Dar es Salaam after Christmas in unreferigerated state; the warehouse full of sugar which was allowed to spoil from a leaking roof at a time when common people had to stand for hours in line to obtain a few kilos; the two Water Corporation employees who toured Europe at public expense in order to purchase purification chemicals which any Tanzanian embassy could have ordered by phone... It was stories like these, large and small, which conveyed to the average citizen the impression that Tanzania's senior managers despite drawing their allowances and holding the required Board meetings, were actually not very serious about their managerial duties.

[1] These are actual headlines taken at random from Daily News issues in early 1981.

2.36 However, the average citizen had plenty of direct experience of service deterioration to reinforce such a conclusion. Hear, for instance, how a company accountant described travel on the TRC railway:[1]

> We flew to Dodoma, then wanted to come back by train. To get the bookings, when we arrived Tuesday the first thing we requested KAUDO (a parastatal) to try to arrange bookings for our return trip. One little girl spent nearly full time the whole week going down to the railway station, trying to get bookings. Finally on Friday the man from the office went down with her, took two hours--2:00 to 4:00 pm--before he could get two second class tickets for Saturday morning.
>
> The train leaves (Dodoma) at 7:30 in the morning, was supposed to reach here (Dar es Salaam) at 10:00 pm. Instead it arrived at 4:30 am because a freight train was derailed on the way. We went second class, there was only one new coach in the whole train, the dining car. There was no water in any of the other coaches, maybe one light bulb in every four sockets... I tried to find a toilet that worked, in the first class coaches the toilet doors wouldn't lock and the basins were full of dirty water, all plugged up. It was a terrible experience.

2.37 A manager might reply that it is unfair to use a single example like this as being representative of the service offered by one of Tanzania's largest corporations. In any case, it could be argued that TRC was operating with antiquated equipment and a shortage of parts, so that its poor service cannot be attributed to the TRC management. While such explanations are commonly offered (and usually accepted) in Tanzania, are they in actual fact valid? In this case we are fortunate in having very detailed evaluations of TRC (and TAZARA) operations by external Canadian railway consultants, so that some definite answers about Tanzanian organizational productivity can be arrived at.

2.38 First, we should note that using the TRC as an example is not unfair. The TRC had in 1980 some 16,000 employees, 3,800 revenue wagons, and 116 diesel locomotives.[2] Its operations do <u>not</u> require sophisticated technology new to Tanzania, and they vitally affect hundreds of thousands of peasants and workers. The TRC's two main lines have been in operation since German times. They were run <u>by Tanzanians</u> for several decades

[1] From an interview in Dar es Salaam, December 1981.

[2] These and subsequent figures are from a CIDA study (1980) <u>Tanzania Railway Transport Sector Study</u>, Book I, Vol. A. <u>Summary</u>. References are to paragraph numbers in the text.

with far fewer staff and less resources than they have today. Whereas in 1972 the TRC's rail service carried 1,680,000 tonnes and 4.2 million passengers, seven years later it carried only 850,000 tonnes and 2.8 million passengers--an average decline per annum of about 9% on freight and 7% on passengers, so that by 1978 it could meet only about half the potential demand.[1] Had it not been for the continuous economic decline in the years which followed, TRC's shortcomings would have reached disastrous proportions.

2.39 Second, comparative figures contrasting TRC's record with that of other African railways show it next to the bottom in traffic carried per employee, and at the bottom in the amount of goods traffic per wagon (exceeded in the latter case by Mali, TAZARA, Malawi, Senegal, Benin, Zaire, Ethiopia, and Nigeria).[2] Several of these other railways also use old equipment, and were operating under similar shortages.

2.40 Third, it is important not to confuse symptoms with causes. During the time in question Tanzanians were often told that poor railway service was unavoidable because of derailments caused by old track. We might note that on the section of line going westwards from the Coast--the same route described above, and one traversed by most traffic on either of the TRC's routes--while the TRC had 30 derailments in 1978, the total jumped to 91 in 1979 with 40 of them occurring on the first short stretch of track out of Dar es Salaam.[3] It is true that 1979 witnessed unusually heavy rains. However, the Canadian consultants point out that the root problem was often that drains had been left uncleared, so that the heavy runo f soon destroyed the abutments on older bridges which had survived since German times. Again, when the soil is saturated the condition of the ballast becomes critical--so that derailments occurred where there was less ballest than specifications require. Thus one might conclude that the basic cause of TRC's poor performance in 1979 was managerial, even if the proximate cause appeared to be the unusually heavy rainfall.

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[1] CIDA (1980), paras. 1.05 and 3.16.

[2] CIDA (1980), para. 2.13.

[3] Daily News, 27 December 1980.

2.41 Fourth, blockages caused by poor maintenance of track were compounded by a general "capacity crisis" which the TRC evidenced in 1979. This is how the consulting engineers described the situation they found:[1]

> In September....about a quarter of the entire wagon fleet was under load and immobilized. The yards at Kigoma and Mwanza were congested due to the delays in transhipping the wagons onto the marine carriers. With loaded wagons no longer able to be accepted on yard tracks, (they) had to be stored at Tabora and other line points, backing up all the way to Dar es Salaam... With so many wagons loaded with goods awaiting transhipment beyond Kigoma and Mwanza, a shortage of empty wagons developed throughout the system. Important maize and fertilizer movements on the Tanga line virtually ceased.

2.42 The TRC is by no means the worst of the Tanzanian transport parastatals in regards to the quality of its management. An even more dismal record was being realized by Air Tanzania at roughly the same period, as any reader of the Daily News for late 1980 and early 1981 can attest.[2] A similar pattern of expenditure getting completely out of hand was found across the whole spectrum of Tanzania's crop and livestock parastatals. Let us use for our final example the situation in cashew nut processing, since this has been well documented by Ellis and once again is a case where basic managerial mistakes were masked by many contributory difficulties.[3]

2.43 Ellis shows that the total marketing costs for cashew nuts rose from shs. 581 per ton in 1973/74 to shs. 1,622 in 1978/79, a five year increase of 179%. Of this, purely administrative costs went from shs. 85 per ton to shs. 470 (1980:16). Thus Ellis argues it is misleading to blame increased fuel costs as the main factor. To the contrary, "the fundamental origin of the growth in unit costs is...located in the unit overhead expenses of central administration. The latter roughly doubled their share of total unit cost, from 14.6% in 1973/74 to 29% in 1968/79" (Ellis 1980:17). Of course, when the

[1] CIDA (1980), para. 4.21.

[2] E.g., see 2 Dec. 1980, 2 -29 Dec. 1980, 24 Jan. 1981, and 25 April 1981. On the latter date, the new General Manager admitted 7 of 11 aircraft "were grounded for lack of spares and proper maintenance."

[3] Frank Ellis (1980). ERB Paper 79.1. Dar es Salaam: Economic Research Bureau.

throughput of raw nuts was declining (from 143,349 tons to about 60,000) the overhead unit charges were bound to rise. Nevertheless it is indicative for our argument that during this time of declining production the Authority's head office expenses almost doubled (from shs. 5,057,353 to 9,600,000). Meanwhile the Authority's management incurred on growers' behalf IDA long-term loan repayment obligations rising from shs. 4.6 million in 1980/81 to shs. 45.1 million by 1984/85, a contribution to unit cost for this one item (assuming production levels off at about 70,000 tons per annum) of shs. 680 per ton (Ellis 1980:33). This fundamental error--for which the World Bank should bear at least equal blame--was never openly confronted, in part because there were at least 15 distinct contributory factors and nobody could agree which were the underlying causes of the overcapacity crisis. As Ellis comments (1980:4):

> Indeed the list of possible explanations suggested in one or other official pronouncements on the subject has grown ever more varied and inventive with the passage of time, often giving the distinct impression that the more reasons which can be suggested the less necessary is an investigation based on actually asking peasants themselves...

2.44 We have so far identified five areas where Tanzanian institutions have evidenced declining productivity during the late 1970s: i) the fall-off in export crop production, ii) ineffective economic monitoring despite a plethora of controls, iii) massive investment in crop authorities with liberal access to manpower and external financing, iv) disappointing results from villagization, and, v) declining labor productivity both at "shop-floor" and at managerial levels. Most external observers would find this a sufficiently comprehensive list, and would merely insist that unless fundamental changes can be instituted <u>in all five areas,</u> Tanzania's economic performance will continue to be institutionally constrained.

2.45 However, Tanzania's current economic difficulties suggest an even more disquieting interpretation: the possibility that the nation's heavy investments in social and economic infrastructure are not yielding

the anticipated benefits which might have justified the sacrifices Tanzanian peasants have made during the past decade. We note this suggestion goes against the grain of all Tanzanian political rhetoric, and much conventional development advice. A descriptive "social-institutional profile" would hardly seem an appropriate place for launching speculative notions concerning the productivity of factor investments. Such analysis is, nonetheless, essential in this specific instance precisely because Tanzania has devoted such a large proportion of its very scarce resources in support of a 'basic needs' strategy for national development. Indeed, in most socialist countries, a commitment to service investments in schooling, health, and infrastructure is the norm. Tanzania's experience to date suggests that our usual conceptions of "human capital", "modernization", and "basic needs' satisfaction" may gloss over particular preconditions which must be met before generalized service investments become economically effective. If this were in fact correct, it would have profound implications concerning Tanzania's future strategy, and it would also explain why expansion of social infrastructure under IDA loan financing has compounded Tanzania's current economic difficulties.

2.46 The simplest way to conceptualize Tanzania's service productivity problem is in terms of effective capacity utilization, a term borrowed from the industrial sector. If we think of Tanzania's main social services—water supplies, adult education, primary schooling, dips (for cattle), village shops, clinics, police protection, and secondary education—as service delivery systems, then it becomes clear that such systems can be physically in place but not yet effective in offering the desired service. Actual service delivery to clients is an interactive outcome of a cluster of contributory factors: supply availability, transport, staff skills, workers' morale, work habits—even such things as whether there is electricity or charcoal for cooking! Such factors are taken for granted in an already "developed" economy. However, Tanzania's experience shows that they are themselves strongly influenced by the state of the larger institutional and economic system—e.g.,

teachers who are not paid their salaries or doctors who cannot obtain drugs soon lose interest in doing a professional job. In chapter 5 we argue that Tanzania's physical plant is already larger then its foreign exchange earning capacity can support, an overextended situation made worse by the dispersed nature of the country's service network. Henn gives the following description of Tanzania's health service, a picture which could be duplicated from the educational sector (1980:4):

> The high cost of vehicles and gasoline and the difficulty in obtaining spare parts has resulted in the country's health services system operating at only a fraction of its capacity. Supplies sometimes spoil before they are ever distributed, and most rural health facilities suffer from a lack of both medicines and equipment. A large proportion of the health sector's vehicles and equipment is inoperable because of lack of skilled repair personnel or lack of necessary spare parts.

The key point here is that effective capacity is not, in fact, guaranteed by completion of physical structures. The preoccupation of the Party (and external donors) with completing buildings neglects to consider the fact that unless such facilities are maintained and are supported by adequate recurrent financing, they will rapidly deteriorate and clients may never receive the intended benefits.

2.47 It is extremely important for Tanzania's Party leaders to realize that this situation can easily generate a "perverse cycle" of interactive responses, wherein the short-run "solutions" only accelerate the general deterioration. For example, the Government may come to rely upon externally funded projects to supply its transport and equipment needs. These in turn emphasize physical construction, and are often divorced from existing supply systems. Meanwhile, the funds that should have been reserved for institutional support within the regions get spent on adding still more capital facilities. Gradually over time government ministries and departments adjust their own operations to fit within recurrent cost constraints, so that field inspection ceases and normal professional support collapses. Eventually a situation is reached where almost

all the Government's internal budget is committed in advance to salary payments. As the country's overall economy further deteriorates, a time may come when even salary obligations cannot be met--usually the final step before a coup occurs.

2.48 Our analysis within this report suggests strong reasons for concern in this regard. First, Tanzania's leaders have chosen to develop dispersed networks of small institutions in several sectors. For example, as of 1981 the nation had 19 Grade C type Colleges of National Education and 16 Grade-A type teacher training colleges. The Grade C colleges originated as mission-sponsored boarding primary schools, and the struggle to incorporate such a large number of sub-grade units has diluted the impact of better trained staff and the Ministry's support capacity (which was already not strong). About the Grade A Colleges, UNESCO has this to say (1981:118):

> ...although all have been built as training colleges and look nice physically, yet almost all suffer from lack of learning materials, laboratory equipment and chemicals, audio-visual workshops, textbooks, and up-to-date library reference books.

Exactly the same pattern is evidenced in the health sector, where many ex-mission hospitals were permitted to add training wings for intermediate level staff. And, of course, we see an equivalent dispersion of effort in the agricultural training sub-sector, where KILIMO has sought donor support to build a large number of small colleges and research institutes. In aggregate, such networks are strongly affected by the adequacy of transport, inspection, supplies, and general Ministry support. Most have never received their initial complement of equipment, and their isolated locations make it unlikely that deficiencies can be remedied by their own efforts within the local economy. As a consequence, while Tanzania's colleges and institutions present to the eye attractive buildings, they lack nearly everything required for effective service delivery except blackboards, files, and wooden benches.

2.49 Second, and of more immediate relevance, we saw earlier that

the Government's own figures (Tables 2.2 and 2.3) project a widening gap between revenue and expenditures, even when making strong assumptions about the ability of District Councils and Co-operatives to generate new revenue. The plain fact is that the situation is not yet under control, so that further squeezing of the recurrent budget is inevitable. The squeeze will be compounded by a rising rate of inflation--as the 1984 Budget speech itself warns--and by the fall-off in donor support which Tanzania is currently experiencing. The latter phenomenon will have particularly adverse impacts, precisely because Tanzanian field institutions have grown accustomed to meeting many essential needs from donor financing.

2.50 If this situation is true of "higher level" institutions like Agricultural Institutes and Teachers Colleges, what chance do the more remote rural services stand of delivering effective benefits to peasants? An insidicus danger is that rural development projects will be implemented in such a fashion or in such contexts that no real benefits are realized at the local level. Kjaerby gives an example from villages in Hanang District of Arusha Region, where the Government has several times attempted to settle the unruly Barabaig pastoralists (1981:6):

> The first serious attempt at development among the Barbaig came after 1968 when the villagization policy began to be implemented. In the years which followed, the government started to provide economic and social infrastructural facilities...
>
> Assessing this development effort ten years after its inception, one can only conclude that it has been a failure. The dips and veterinary centres were, in fact, constructed in both villages; Dirma also got a piped water supply, a school and a police post. However, Gehandu still has no water. Consequently the dip has never been used and the veterinary centre has mostly been unmanned and without stocks of drugs and equipment. A school was built only recently through self-help efforts of the villagers and the cattle auction ring is in disrepair.
>
> In Dirma the police post was unmanned, and the veterinary Centre and the dip have suffered from recurrent shortages of acaricide and drugs. The centre is, in fact, just an empty structure... For about two-thirds of the year, no water reaches the village

through the pipe... Consequently the dip has been inoperative most of the time.

Between 1974 and 1976 the school remained closed because the teacher spent most of his time supervising wage labor on the village farm. During most of 1976 and 1977 the school had no teacher and some of the parents decided to send their children to school ... about 20 km away.

On paper, then, these two villages enjoy the "fruits" of "progress": schools, water supplies, dips, a veterinary centre, and police protection. In reality, what they have probably deduced is that their Government cannot make good on its own promises.

2.51 The justification for calling this an insidious situation is fourfold. First, the capital investment costs already incurred in such villages are only marginally less than would have been required for effective investments. Second, the projects will be shown at the district and regional levels as having been completed--with the clear implication that villagers are receiving the intended services. Third, the partial and disorganized field situation at the end of a long supply lines means that these services never actually enter the national system in terms of their "up stream" input requirements. As a consequence, incremental growth corresponding to real world commitments does not occur in the national support system, and effective maintenance arrangements do not emerge. Fourth, the villages concerned will lose their "window of opportunity" for gaining district resources while the District and Regional leaders will continue adding still other projects which further overstretch their already overcommitted resources. It was this situation which the Party is trying to correct by the re-institution of District Councils, in the hope that somehow the District will monitor its own needs and find new sources of finance not available to the national system.

2.52 From the viewpoint of an external sceptic--which most of us do not share but which has influenced donor actions--the low productivity of Tanzania's social investments is still not being addressed by the country's leadership. The argument goes as follows. First,

the kind of situation we have just portrayed is found broadly within many of the more remote parts of Tanzania, the "second rung" regions like Kigoma, Kagera, Tabora, Singida, Mtwara, and Lindi which are the most affected by poor transport. Second, it is hard to see how the mere renaming of district government will confer advantages which were not already available under the earlier "decentralized" system. After all, under "decentralization" the Regions and Districts were supposed to recieve 40% of the nation's development budget--a target which the central government was never able to attain because of its financial stringencies. In the Barabaig example, resettlement was a "high priority" regional focus and received funding additional to what these villages could have otherwise expected. Nor is Hanang especially remote in comparison to other Tanzanian Districts. Third, is not the real problem perhaps that under the Tanzanian structure policy decisions are reserved for Party-controlled bodies <u>who are not held responsible for implementation?</u> For example--and here the senior author speaks from personal experience--the veterinary staff in Arusha Region were fully aware that the number of dips being built exceeded the available transport and acaricide supply capacity. It was their evident inability to get rational re-adjustment in the Party's ambitious programmes which might explain the deep disaffection which many KILIMO and MIFUGO staff feel towards the Government's official rural development programs. When senior Party leaders blame technician's lack of enthusiasm and commitment as the "cause" of poor implementation, they fail to understand that low staff morale will be inescapable if policy is divorced from implementation while at the same time the implementing agencies are again and again held accountable for meeting unrealistic work targets.

2.53 More generally, a sceptic would predict that the situation of operating beyond its resources if left unchecked is in the longer run <u>particularly damaging to a poor, socialist nation</u>. Under socialist approaches, national leaders rely heavily upon exhortation, in the hope that peasants and workers will accept individual sacrifices for

the common good. However, in the situation as we have just portrayed it, many peasants will not receive economically effective assistance. Real productivity will not increase as a result of the government's programs. Inflation will erode people's savings, and whatever progress does occur people will associate with their own private efforts. The Government's own staff will become alienated and ineffective. Once this happens, the national system will lose much of its ability to support, encourage, and control rural development. With socialism still regarded as an "experiment" within Africa--in the sense that all adults can remember a happier period when the economy seemed to work more efficiently--it becomes likely that both the regime in power and socialist approaches in general will become discredited.

2.54 It may come as a relief for any Tanzanian reader of this report when we note that even under the most severe interpretation of this argument, there is no intrinsic reason why such failings are particularly socialist in nature. "Capitalist" primary schools are, after all, not very different from "socialist" ones! The root causal mechanism postulated here is the danger of operating for extended periods beyond a nation's resource capacity. There are many, non-socialist Latin American nations which are today experiencing difficulties much like the ones we have just described. Alternatively, a military regime which is serious about accelerating rural development is quite likely to follow the same path, with similar consequences. Indeed, the military government of an African state will usually insist that power is retained by those who are not primarily the implementers of its policies. If it then sets ambitious objectives, when shortcoming occur those who are implementing will fail to take corrective actions because they are not in complete control and feel unable to modify "official policy". This is exactly the working situation which is created at all levels within the Tanzanian administration, with the added encumbrance that there are intermediary officials (the Area and Regional Commissioners) who further buffer elected Party leaders from accepting the consequences of their joint actions. Thus when mistakes occur, neither the Party leaders nor the implementers learn from them.

2.55 It misses the point entirely to ascribe weaknesses of the kinds we have reviewed above as being merely the failings of individual projects or even individual officials. When similar patterns of performance breakdown emerge independently at many points in different sectors, it can be said the causal factors have become rooted in the system. From the productivity viewpoint, pressure on individuals--whether through work targets, close policing of routines, etc.--does not deal with the basic causes, and thus will ultimately fail. Unless incentives and socialization patterns which create and reinforce the systemic faults are identified, systemic performance on the average and over the longer run will not improve. (We will return to this aspect in chapter , where we analyze specific causes of low parastatal productivity.) The main criticism one can make of the Tanzanian Government's remedial efforts to date is that they are directed against symptoms, and not causes.

2.56 Senior Tanzanians have sometimes reacted to criticism of their institutional productivity as if it implies in some way that Tanzanians cannot manage complex, modern enterprizes. To the contrary, the "productivity crisis" interpretation emphasizes that at an earlier period Tanzanians were quite successful in maintaining respectable economic performance. However the system which has emerged over the past decade now that the institutional matrix is more nearly complete requires a large administrative input for rather meager output--in short, what measures of work productivity are all about. By this interpretation, without having intended to, Tanzania's Party leadership has let a structural situation develop wherein individual Tanzanian managers have a strong incentive to do things which in aggregate sabotage overall systemic efficiency. While in the short run these managers keep their individual organizations competitive within the Tanzanian environment, the interactive consequences for the whole system are negative. Unfortunately, faults of such a nature reside largely within the processes for getting tasks done rather than in organizational structures, and so are relatively invisible within the documentation each agency keeps on its own activities. Hence the difficulty of "proving" the productivity interpretation.

2.57 Most of the SIP team did not share the "productivity crisis" view, which directly contradicts the usual "basic needs" strategy for national economic development. Those interviewed stressed the resilience and patience which Tanzanian citizens have evidenced during the prolonged economic crisis. The Government has continued to offer basic social services during cholera outbreaks, an unprovoked war, and despite tremendous difficulty in obtaining fuel and vehicle replacements. Simply to keep routine services in operation is in these conditions a major achievement which outsiders fail to appreciate. Most Tanzanian officials have been forced to show considerable ingenuity and commitment, which is overlooked by disparaging critics who have not themselves experienced the tremendous operational problems one encounters in the field. If anything, the experience of common difficulties has increased cooperation between individuals, and rendered more palatable the stringent measures which the Government has been forced to adopt.

2.58 Circumstances dictated that this report was drafted after the SIP team dispersed and without opportunity for further consultations between us. It is likely that members of the team would have disassociated themselves from much of the "productivity crisis" interpretation, which the senior author has emphasized throughout this chapter. We note that this diversity of professional opinion is perhaps inevitable when the issues at stake are critical but the evidence is incomplete and ambiguous. One finds a similar spread of opinion at the national level within Tanzania, with senior government officials tending towards the "economic shocks" explanation while donors and other Tanzanian staff favor the "productivity crisis" viewpoint. What everyone agrees is that a continuation of the present declining economic performance will be disastrous for the Tanzania Government. This fact underlies the prominence of productivity issues in all of the chapters that follow, which examine in sequence the agricultural, private, and then public sector institutions which the Government has established since 1961. In our concluding chapter, we return to the overriding question of whether or not the actions taken since 1981 will be sufficient to reverse Tanzania's declining economic fortunes.

CHAPTER THREE

AGRICULTURAL BACKGROUND

Paradoxical Aspects

3.1 Tanzania has a very diverse ecology which can potentially support a broad range of crop and livestock enterprizes. There is unfortunately no single source which contains all the main facts needed to understand the country's ecological background.[1] A root difficulty which we address in this chapter is that for several reasons Tanzania's development situation can be portrayed in quite different ways--ways which have corresponding implications concerning the choice of short-run and long-run development strategies. Let us note briefly some of the major contradictions which greatly complicate finding a sensible rural development stragegy:

- While on average, Tanzania is underpopulated with large expanses of underutilized arable land, the tsetse free areas are often overpopulated.
- The northern-central portions of Tanzania are drought-prone whereas large portions of western and southern Tanzania consist of marshlands subject to seasonal flooding.
- Small pockets of volcanic soil have high fertility whereas there are large areas with low fertility.
- The high potential areas lie scattered in islands around Tanzania's periphery, far removed from export connections and Tanzania's major urban concentration (in Dar es Salaam).
- Tanzania has lands capable of being irrigated, but these are often in remote areas where key components for agricultural development are lacking.
- With surplus labor, Tanzania still experiences acute labor shortages within the large farm/estate sector.
- Tanzania's central rangelands suffer from overstocking while large areas of western and southern Tanzania cannot be used because of tsetse infestation.

These distributional aspects suggest that transport costs and the quality of institutional organization will always be important. In this regard, Tanzania is more like Zaire than it is the more typical African country with a compact geographical heartland (e.g. Kenya, Bostwana, Ethiopia, Niger or Mali).

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[1] The best overview is Lundgren's (1976) Land and Land Use in Kenya and Tanzania, supplemented by Morgan (1972), Pratt and Gwynne (1977), and the case studies in Anandajayasekeram, Ndunguru and Lupanga (1981).

3.2 Let us begin by reviewing Tanzania's environmental complexity. Take, for the moment, the example of Tanzania's northern regions (Tanga, Kilimanjaro, Arusha, and Mara). Starting from the coast, we encounter in similar sequence the same broad agricultural zones one finds in neighbouring Kenya: i) a narrow coastal belt (with Tanga being an ex-sisal shipping entrepot much like Mombasa); ii) the Usambara and Pare Mts., like Kenya's Teita Hills; iii) the Kilimanjaro and Mt. Meru highlands, to which Moshi and Arusha have the same relationship as Nairobi to the closely similar Kikuyu highlands; iv) the Maasai occupied Rift Valley being an extension of Kenya's; v) Ngorongoro with its adjacent wheat farming at Karatu being a down-scaled version of the Mau and Eldoret; vi) the Serengeti plains (which cross over to become the Masai-Mara in Kenya); and, finally, vii) Mara Region's hills with the lake-side town of Musoma replicating Kisumu in Kenya. This transect yields, then, seven major agricultural zones with different major crops, distinctive ways of life, and much internal variation. For Kenya, such a listing encompasses most of the nation's arable land, lacking only description of the arid northeastern salient to make it complete. For Tanzania, however, the listing applies to less than one quarter of the nation and does not include the area with the country's highest development potential!

3.3 To complete the picture for Tanzania at a comparable level of detail would require several pages of descriptive information (see Conyers 1973). If, instead, we only consider clusters of regions that exhibit similar sequences in farming/land system types, we would have at least five or six additional groupings. Treating the northern regions as our first zone, we should also recognize: the semi-arid central plataeu (parts of Singida, Dodoma, Shinyanga, Iringa, and Tabora Regions); the coastal zone (stretching from Mtwara in the south to Tanga in the north); the lake zone (the regions around Lake Victoria); the southern highlands (the Morogoro to Mbeya salient); the southern miombo zone (Ruvuma and the other regions along the Mozambique border); and, perhaps, a western zone along Lake Tanganyika (Rukwa and Kigoma).

3.4 One becomes accustomed to "hair-splitting" scientific classification schemes. Lest it be assumed that this dividing up of Tanzania into seven zonal clusters is one such effort, it should be noted that Conyer's identified more than 35 agro-economic zones (1973) based upon empirical characteristics and even a minimum listing of farming systems yields at least 25 major types.[1] The variability in physical traits evidenced "on the ground" in Tanzania is striking: sandy soils on the ridges, clay soils in the valleys; granitic mountains in the South, volcanoes in the North; shallow Lake Victoria vs. extremely deep Lake Tanganyika; mist forest on top, rain forest on the slopes, and thorn scrub in the foothills -- and so the list could go on, page after page. The basic point is that these are real differences, which have pronounced effects upon the prospects for agriculture and health, and thus for Tanzania's human development. Given this variability, the lack of a basic reference which synthesizes for planners what is known about Tanzania's natural environments must be counted as a major disability.

3.5 The country's ecological diversity explains in part why Tanzania has few locally effective technological packages. It also accounts for the pressure to have a large network of research stations, covering all zones and most major crops. Even then, the intra-district variability is such that research cannot be extended very far and field extension agents must exercise astute judgement in deciding which practices to promote. Rather than deal with the bewildering complexities of real-world farming in Tanzania, the Party leaders have often tried to "speed up" agricultural development by dictating "modern" agricultural practices, e.g. use of chemical fertilizers even in low rainfall areas where no positive response is evidenced. Again and again the Ministry of Agriculture has resorted to "blanket" or "standard" agronomic recommendations. These are communicated to harried district officials, who are supposed to enforce them throughout an entire zone, e.g. by promulgating a rule that every family must plant one hectare of cotton.

3.6 The absence of proven technological packages is not adequately comprehended by donors. It was a major (though hardly exclusive)

[1] See Table 3.1 overleaf. The main preliminary source on Tanzanian farming systems is Anandajayasekeram et. al. (eds) (1981) The Proceedings of the Conference on Farming Systems and Farming Systems Research in Tanzania.

TABLE 3.1

TANZANIAN FARMING SYSTEMS[a]

Zone	Constituent Systems	Type Areas
Coastal	1. Fishing	Pangani, Pemba, Bagamoyo
	2. Perennial crops	Zanzibar, Kibaha
	3. Estate agriculture	Korogwe
Piedmont	4. Coastal hills	Mandera, Kichi Hills
	5. Southern plateau	Rondo, Newala
	6. East-central	Turiani, Kisaki
	7. Northern	Kisangiro, Gonja
Miombo	8. Wet miombo	East Handeni
	9. Dry miombo	Tumbi, Nachingwea
Steppe	10. Pastoral areas	Kiteto
	11. Ranching areas	Kongwa
	12. Bush collecting	Yaida
	13. Arable dry farming	Bariadi, Lolkisale
Plateau	14. Dry plateau	Singida, Kondoa
	15. Intermediate plateau	Ismani, Karatu
Montane	16. Annual crop montane	Nguru, Luguru
	17. Perennial crop montane	Marangu, Rungwe
	18. Estate agriculture	Usambara, Mufindi
Lake	19. Fishing	Kigoma, Itungi
	21. Plateau	Bukoba
	22. Highland	Gombe, Kasulu
	23. Piedmont	Rukwa
Riverine	24. Floodplain	Rufiji, Kilombero
	25. Irrigated	Mbarali

[a]Source: J. Moris, "Farming Systems in Tanzania," In, P. Anandajayasekeram et al. (1981), p. 135.

reason for the failure of the World Bank's various Tanzanian rural development projects in the mid-1970s.[1] The lack of genuine technological improvements is masked by the research agronomists' claim that they have numerous recommendations which peasants have not yet adopted. However, if one checks more closely, many of the claimed "improvements" require increased labor input by farmers, depend on the availability of purchased inputs (especially insecticides), or show a positive response only in high rainfall years. (The research stations, of course, have access to inputs and usually do not record labor requirements associated with their recommendations.) Under typical local conditions of limited labor, unavailable inputs, and a highly variable rainfall regime, the supposed yield benefits do not actually occur.[2]

3.7 When technical assistance projects are implemented on the basis of overoptimistic yield projections, there are bound to be subsequent difficulties in loan repayment and in maintaining local enthusiasm. The World Bank's "integrated" rural development programs in Kigoma and Geita suffered from this problem, as did both USAID's Masai Range Project and its Arusha Village Development Project. In much the same way, when individual extension agents are forced to promote enterprises and/or husbandry practices which are not locally profitable, their credibility will be undercut. To say that Tanzania's agrarian programs have failed because of "inadequate incentives" is thus at the same time true and misleading. The "incentive failure" frequently derives from faulty technologies, which are in turn the consequence when "short cuts" are adopted. In this regard, external donors, the Ministry of Agriculture, and the Party leaders have all made the same mistakes, with the same consequences.

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[1] With, of course, disastrous consequences for Tanzania's ability to repay these same loans. After the fact this was realized by the Bank, which commissioned a review of this aspect by P.M. Tamboli. His report remains an essential starting source, see "Agricultural Technical Packages Tanzania--A Case Study" (February 1980).

[2] The main exception is with fertilizer applications on hybrid maize in areas with reliable rainfall, i.e. the highlands. It is the absence of irrigation (and thus effective water control) in the lowlands which distinguishes African farming from the more optimistic situation in Asia. (From an interview with J. Deutsch of CIMMYT, formerly stationed in Ilonga.) For the situation on maize packages, see J. Deutsch & I. Croon (1983).

3.8 With the exception of maize in the higher rainfall areas, and improved cotton seed, most yield increases in Tanzania have arisen from expansion in the areas cultivated rather than from increases in farm productivity. This is reported as a general trend throughout tropical Africa (Anthony et al. 1979:289-91).[1] There appear to be several reasons. First, as already pointed out, yield increases which depend upon imported inputs are strongly affected by the restriction on imports. Second, most technical research was until recently aimed at support for the export crops (coffee, sisal, cotton, and tobacco). Third, and probably most importantly, Tanzanian peasants have resisted changes which entail intensified husbandry. This suggests that there must be unrecognized labor bottlenecks, at least seasonally, making peasants reluctant to do the extra work many technical recommendations require. It is quite possible, for example, that the critical constraint is the availability of female labor; and this in turn may reflect other features of the rural system (access to earnings, etc.).

3.9 As a "solution" to Tanzania's food needs, further expansion of cropping is no longer feasible in a number of Tanzania's northern districts. In the parts of Sukumaland around Mwanza and Shinyanga, for example, there is hardly any fallow land left. Population densities at places like Ukerewe Island, the Kilimanjaro districts, or Rungwe in Southern Tanzania approach the theoretical limits for non-irrigated, rain-fed cultivation. In such instances, the absolute density of population per square kilometer can be misleading; it may be that the drier, plateau areas with poor soils and limited carrying capacity are the most overstressed, e.g. Shinyanga, Singida, and Kondoa. Here a technological revolution will be required simply to retain present populations on the land.

3.10 At present, short term relief to overpopulation in the highland areas is occurring through spontaneous settlement within what can be termed the "piedmont" fringe along the base of mountain ranges.

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[1] The book Agricultural Change in Tropical Africa produced by a Stanford Food Research Institute team (Anthony, Johnston, Jones and Uchendu) was based in part on Tanzanian data (Geita district) and is strongly recommended. For case studies on different farming systems, the key reference remain's Ruthenberg's (1968) Smallholder Farming and Smallholder Development in Tanzania.

The strategic role of the "piedmont" areas ought to be more widely recognized in Tanzania. Being at the foot of adjacent highlands, the "piedmont" tends to have deeper soils and sub-surface water. What is happening is that trading settlements below the mountains have been absorbing the surplus population from the higher areas. Many of Tanzania's early settlement schemes and, later, Ujamaa villages were also located in this zone, which contained sisal estates and the external communication links (roads and railways). Some of Tanzania's most rapidly growing urban centers are also located here (e.g. Morogoro Mbeya, Moshi and Arusha) as are the nation's three largest centers for technical agronomic research (the Morogoro Faculty, Uyole, and TPRI). For all of these reasons, the potential exists for higher marginal returns to further investment within the "piedmont" zone--a key consideration when development capital is scarce.

3.11 There are still major uncertainties in assessing what Tanzania's natural resource endowment could yield under different technologies and alternate development strategies. The reasons for this level of uncertainty are as follows:

- Much of southern and western Tanzania consists of relatively unpopulated "Miombo" woodland. To date, modern agricultural technologies have not been very successful within "miombo" areas, and opinion is divided concerning their potential.
- The great bulk of Tanzania's scientific research has been done in the northern half of the country, at the centers established during the colonial regime (Lyamungu, Tengeru, TPRI, Amboni, Ukiriguru, Mpwapwa). This left much of southern and western Tanzania untouched, an isolation which was reinforced for security reasons during the long liberation struggle in Mozambique.
- Tanzania's potential for irrigation development is probably substantial, but not yet known in detail except for a few major areas such as the Kilombero, Usangu, and the Rufiji delta.
- All agree that the presence of tsetse fly (and hence trypanosomiasis) limits the use of the "Miombo" zone, which coincides roughly with areas receiving more than 700 mm of rainfall per year. However, it is also known that dense human occupation can relieve tsetse infestation; alternatively, a technological breakthrough in controlling the tsetse might occur.
- Relatively little effort has been devoted to developing new economic crops, though there are a number of promising options (Jojoba, cardamon, lucinae, etc.).

What gives one pause is the realization that the thinly populated parts of southern and western Tanzania strongly resemble Nigeria as it was a hundred years ago--and today Nigeria is Africa's most populous state.

Water Relationships

a. Rainfall

3.12 Tanzania lies in what is called the "inter-tropical convergence zone", representing what Trewartha (1966) terms a "problem climate".[1] Here moisture relationships assume the central role which temperature has in the northern lattitudes: the arrival, distribution, and amount of rainfall overrides all other factors--even the quality of soils--as the most important constraint on agricultural production. In general, rainfall is unreliable and becomes more so as the average annual level declines--a trait true of much of tropical Africa. Put in other words, where rainfall matters the most (in the sub-700 mm zone) it is the least reliable. The Eastern African nations, however, suffer an added disability because their moisture bearing winds originate over the Indian Ocean (the "monsoons") and the change in prevailing wind direction becomes particularly unstable around the equator.

3.13 Tanzania's densely populated northern districts adjoining Kenya derive all their rainfall from the monsoonal winds, and consequently share central Kenya's pattern of a bi-modal rainfall distribution. The "short rains" occur in October-November-December, when slopes facing northeast receive the heaviest precipitation; the "long rains" occur in March-April-May, when moisture-bearing winds instead arrive from the southeast. Sometimes the two peaks co-incide, but more typically January and February are hot and dry. Usually the "short rains" are less reliable than the "long rains," and in the North April is the month with maximum precipitation. Westwards and southwards these peaks merge into a unimodal and longer "rainy season" that is spread over the months from November to May. Unfortunately, there are years when a 3-4 week dry spell comes at the January-February break, just severe

[1] See "Tropical East Africa," pp. 121-137. In, G.T. Trewartha, The Earth's Problem Climates. Another basic source is I.J. Jackson, Climate Water and Agriculture in the Tropics (1977), based in part on field research in Tanzania. Finally, see J. Kenworthy (1964) "Rainfall and Water Resources of East Africa," pp. 111-137, In, R. Steel et al. (eds.) Geographers and the Tropics.

enough to kill the crops in the field. Unfortunately, too, while we know southern Tanzania has a unimodal pattern, the zone of transition is wide and poorly demarcated. Morogoro, Dodoma, Masailand, Singida, and much of Sukumaland (the Lake Regions) all fall into the ill-defined transitional zone. Yet these are tsetse free lands with comparatively dense human populations relative to their carrying capacity. To minimize the danger of drought, people have occupied the mountain slopes (since generally up to about the 3,000 m level, the reliability and amount of rainfall increases with altitude). Tanzania's mountainous areas are therefore densely populated, particularly in the north, except where forest reserves have been established.

3.14 The above account represents what was known about Tanzanian rainfall up until a few years ago. What it neglects is the fact that there are large inland lakes near highland areas where the prevailing winds depend upon localized temperature differentials (and are therefore more reliable than the distant, monsoonal sources). Rainfall averages conceal the critical aspect of reliability--and yet statistics which permit such calculations have been available for several decades. Once mapping of reliability was done, some unexpected findings emerged.[1] In northern Tanzania, there are four islands with reliable rainfall--and all of them are heavily populated (Bukoba, Musoma, Kilimanjaro, and the Usambaras). But there is a much larger southwestern arc of land, starting at the Iringa/Kilombero juncture and continuing southwards to Ruvuma and westwards through Mbeya almost to Kigoma where there is a 95% chance the maize crop will receive adequate rainfall at the tasseling stage. It is this underdeveloped southern zone which has added potential for population absorption, as well as prospects for giving Tanzania the food security it presently lacks. Furthermore, the five areas with reliable rainfall are in different parts of the nation and exhibit different seasonal patterns. From this standpoint, rather than growing sisal for export Tanga Region should grow maize for domestic consumption.

[1] See analysis done by the FAO Early Warning Systems and Crop Monitoring Project, D.P.J. Van de Vyvere, "Agro-Climatic and Land Suitability Study," Working Paper No. 10 (1981).

3.15 Insofar as rural population concentrations are concerned, the long run aim in Tanzania should be to discourage further intensification in the North--where land and water resources are fully committed--but to encourage further growth all along the higher potential southwestern salient. From such a perspective the TAZARA railway and the TANZAM highway make excellent sense, and even the Mufindi pulp and paper mill becomes marginally more justifiable.[1] The southwestern highlands block with its further connections into Ruvuma and Rukwa Regions is the only moderate to high potential area large enough to become a self-sustaining core for long run agrarian development. This fact would be even more evident if there were connecting transport routes through the adjacent Kilombero Basin, which also has substantial long-run development potential. Indeed, in size this zone is roughly equivalent to the entire high potential areas in Kenya.

3.16 The paradox arises because short run optima all point in the other direction. In the short run, the production of food in the remote southern regions for consumers living in distant Dar es Salaam or the North is economically unjustifiable. Not only must inputs come from far away (the fertilizer factory in Tanga lying at the extreme opposite corner of the country), but the transport to markets has a high foreign exchange component. On the balance, Tanzania might well lose more foreign exchange producing maize in Ruvuma than it would importing it directly. We should note that there is no magic formula which can resolve the tension between what is good in the short vs. the long run for Tanzanian rural development. Average locations somewhere in between incur the costs of both alternatives without the benefits--the root problem with the decision to put tobacco processing in Morogoro. Furthermore, by acting on short-run optima we preclude realizing the benefits which the long run optima might have yielded. Dar es Salaam will never be near Tanzania's higher potential lands; if--as now seems quite likely--it remains Tanzania's major domestic market, Tanzania can never enjoy lower cost food production in the regions which have reliable rainfall.

[1] While similar considerations justify moving the capital from Dar es Salaam, the Party leaders made a major error in not locating it along the TAZARA route where investments would have had a multiplier effect.

3.17 Why were these distributional aspects of Tanzanian development not realized earlier? First, since German times it has been in northern Tanzania where development was concentrated and where the basic statistics required for planning were available. Second, the central railway to the West was designed to tap exports from the Congo. Because it was routed through the dry central zone, it had little developmental impact (in contrast to the large impact of a similar railway in Kenya, where the route crosses the nation's highest potential lands). Third, the Malagarasi and Kilombero Rivers flood seasonally, cutting off the lands to the west and south. Even today, there are no all weather road connections which transect these gigantic flood plains. Fourth, throughout the liberation struggle in Mozambique, outsiders were forbidden to travel or conduct research in the southern regions. Colonial neglect of their resources was thus perpetuated for a further decade. It is only natural that projects are located where prospective returns can be estimated, and not enough was known about the South and West to even identify promising possibilities.[1] Fifth, for Tanzanians from the populous North the very idea of life south of the Dar es Salaam to Mbeya axis seems inconceivable. Most have never visited the South, unless forced to by governmental transfers. (These days Northeners sometimes threaten to resign rather than accepting southern postings.)

3.18 The continuing foreign exchange crisis could not have come at a worse time for development in Tanzania's South and West. True, the TAZARA railway does transect the zone,[2] and at long last British aid is building an all weather road into Ruvuma. But most of the secondary investments needed for attracting people and for stimulating agricultural production (feeder roads, storage depots, etc.) have yet to occur. In a sense, then, because there was no overall locational strategy underlying Tanzania's heavy institutional investments in the 1970s, while the necessary funds

[1] For example, an FAO/UNDP Survey of the Pangani/Wami River Basins done in the 1960s exhausted all its considerable resources (22 experts) on the Pangani River--which had been mapped since German times--and never got to the Wami. We now realize that while the Pangani River's water is almost entirely subscribed, the Wami's is not.

[2] See the URT/Finnish Government (1978) Uhuru Corridor Regional Physical Plan which synthesizes a vast amount of information about the zone.

were spent, the projects were not concentrated geographically into the zone where they would have generated multiplier effects. Now that the development potential of the South and West is finally being documented, the foreign exchange crisis will probably preclude further investment.

3.19 Two large areas subject to seasonal flooding—the Malagarasi Plain in western Tabora and the Kilombero Basin in Morogoro Region—merit individual mention under the topic of water management. Both are special environments more like the Kafue river flats southwards in Zambia than the familiar Rift Valley highlands of northern Tanzania and Kenya. Because of their remoteness, they are seldom visited (either by outsiders or by Tanzanian officials).

i) The Kilombero Basin is a former lake bed, so flat that incoming rivers have deposited deltas and flow in channels above the level of the surrounding marshland. This geologic feature is situated below the Iringa/Mufindi escarpment; once the Kilombero marshes fill with water they return it to the atmosphere in a self-perpetuating cycle of evaporation and precipitation which in turn extends the rainfall period on the escarpments above. With its high water table and extended rains, the Kilombero can produce maize and rice planted after the April-May rainfall peak in northern Tanzania. This opens up the technical feasibility that Tanzania could utilize the Kilombero to compensate for drought-induced shortfalls in food supplies within the northern half of the country. In any case, the FAO surveys of irrigation potential done in the late 1950s and early 1960s identified significant prospects for further irrigation development in the Kilombero. (The present "Kilombero" schemes for overhead irrigation of sugarcane actually occur outside the main basin.)[1]

ii) The Malagarasi River plain is interconnected with several lakes in western Tabora, and also floods seasonally. On a smaller scale, marshlands like these are found through much of tropical Africa where they play a key role in traditional rice cultivation. In ex-French West Africa they are called "bas fonds", while in Zambia the term is "dambos". They are important for several reasons: they can produce rice, the clay soils retain moisture, they have higher fertility than surrounding areas, and they were usually underutilized under traditional technologies. In the

[1] A useful source on the Kilombero which summarizes and criticizes the FAO series is by Jätzold and Baum (1968), The Kilombero Valley.

Tanzanian instance, the riverine plains are also often an important game habitat and an obstacle to movement during times of seasonal flooding. A strong case could be made for an exchange of scientific information about how these distinctive environments can be better utilized, perhaps on a regional basis through UNEP in Nairobi.

Water Relationhips:

b. Irrigation

3.20 In any country which is afflicted by recurrent drought, the prospect of irrigation may seem to offer a technological solution which will alleviate food insecurity. The 1973/74 drought had this effect in Tanzania, and made the national leadership aware that relatively little had been done to exploit Tanzania's irrigation potential (see Table 3.2). With a decade's further experience, we can make several generalizations about Tanzania's irrigation potential:[1]

- Irrigation is almost always an expensive form of agricultural development, and where it involves mechanical land preparation and/or pumping these costs may have a high FE component.
- To recover high initial costs, irrigated production must deal with higher value crops and be near centers of demand.
- Intensive agricultural production in turn requires high levels of management, both in water handling and in crop husbandry.
- Except for traditional furrow irrigation in a few areas of the North, Tanzanian peasants do not have an indigenous tradition of irrigated farming and do not show high levels of cooperation.
- Access to nonporous, moderately fertile soils is another major constraint since such soils are either already under intensive use or they tend to occur in remote areas.
- Major irrigation works in the tropics are almost always associated with an increase in diseases.
- Gravity-fed systems are much to be preferred over pump-fed systems, given the likelihood of frequent equipment breakdowns.
- Carefully done initial design is especially important; its absence been a source of problems in Tanzanian schemes to date.

[1]Technical sources on irrigation in Tanzania include R.M. Doeree (1972) The Economics and Planning of Irrigation (FAO, no. TA 3096); A. Hazlewood & I. Livingston (1982) Irrigation Economics in Poor Countries (Pergamon); J.O. Ngana (1983) Small Scale Irrigation in Coast Region, I.R.A. Research Report No. 55 (Dar es Salaam), and T. Weaver et al. (1984) Rapid Mini Appraisal of Irrigation Development Options (Dar es Salaam: USAID). Two other recent sources include Hekstra (1983) and Mbawala (1981).

TABLE 3.2

MAIN IRRIGATED AREAS BY REGION & MODE

Type:	Region:	Hectares (ha)
I. Traditional Smallholder Irrigation (Estimated)		
	Kilimanjaro	38,390
	Mbeya	17,500
	Arusha	15,347
	Ruvuma	14,580
	Other	20,377
	Subtotal	106,194
II. Large-scale, Government		
	Morogoro	9,622
	Kilimanjaro	6,710
	Mbeya	3,240
	Coast	800
	Subtotal	20,372
III. Large-scale, Private		700
	Grand Total	127,266

Source: Ministry of Agriculture and Livestock Development (1981) Tanzania National Food Strategy, vol. 1, Main Report. Rome: FAO for KILIMO, Table 21, p. 45

- Schemes need to be designed with ample drainage, since even in dry areas there are occasional times of very heavy rainfall.
- There are almost always other forms of land use going on within the perimeters, and these uses of water and land should also be allowed for.
- In the dry seasons, domestic use of irrigation water is common.

3.21 Tanzania's existing irrigation policies incorporate most of these lessons. As being implemented at present, Tanzania's irrigation shows:

- Small projects instead of large ones.
- Labor intensive construction methods (the ILO pilot projects).
- Location of the Irrigation Division in the Ministry of Agriculture.
- Interest in rehabilitating former schemes before starting new ones.

These are sensible policies, and Tanzania deserves credit for sticking to them despite temptation to embark on much larger investment programs in places like the Kilombero Basin.

3.22 However, Tanzanian leaders have not entirely escaped the alluring aspects of irrigation. There is a tendency to assume that the best location for irrigation is in those areas which are most drought prone, i.e. north and central Tanzania. Such an assumption would only be correct if several conditions were met, including access to large reservoirs which can even out water supplies between good and bad seasons. This is <u>not</u> the situation in Tanzania's two drought afflicted zones, where instead the following observations apply:

- In oversubscribed areas, water taken for irrigation will often be removed at the expense of alternative and downstream users. If soils are either sandy or porous (as many volcanic soils are), the attempt to irrigate may incur large water losses which the people locally can ill afford.
- When there are droughts, people's domestic water requirements must take priority over irrigated cropping. Thus in most small water supplies during times of drought irrigation cannot serve as the means to insure a "safe" food supply.
- Because much of the Rift Valley zone is comprised of inland basins, drainage is poor and there are high evaporation losses. As a consequence, the low lying soils are often saline. While there may be some room for experimentation in growing salt-tolerant forage grasses, this zone by and large does not offer attractive irrigation prospects.
- Water in the main river systems (the Pangani and the Bubu) is either being used for hydroelectricity or likely to be needed for urban development. Thus diversion of water into irrigation is not advisable.

- It is also insufficiently realized that northern Tanzania's coffee crop (particularly the estate-grown component) depends heavily upon overhead sprinkler irrigation. When the Bank of Tanzania denies such growers permission to import spare parts for their sprinkler systems, it is directly constraining Tanzania's FE earnings.
- For all of the above reasons, irrigated crop production within the drought afflicted regions is not a viable technological answer to meet their food needs. Irrigation can greatly assist Tanzania in the future, but the most promising sites lie outside of the northern and central zones.

3.23 There is one possible circumstance where the above remarks may be too cautious. In Tanzania it is usually the custom to irrigate during the "long rains" at the same time as rain-fed crops are planted. In the north, the "long rains" are followed by a period of cool, cloudy weather which depresses maturation. If there are sites which draw water from major rivers, a case could be made to develop a "short rains" rice crop (such as is grown at Mwea in Kenya to the northeast). Harvest would then occur in the hot, dry February weather and the grain would be available before the "long rains" planting period (when people are most short of food and so under temptation to eat their seed). A few "short rains" schemes of this nature could play a major role in alleviating the usual "hunger period" while peasants are waiting for their crops to mature during the "long rains."

3.24 In advocating a slow, incremental approach to irrigation development we are responding both to the current FE constraint and to awareness of Tanzania's very weak institutional capacity in this field. Nonetheless, a SIP report is also obligated to identify longer run opportunities. We would be remiss if we did not point out that there are several major areas with adequate soils—a particularly scarce resource in Tanzania—and surplus water where larger-scale irrigation might be (theoretically, at least) cost effective. These sites actually cluster in Morogoro Region, being located on the Ruvu, Wami, and Kilombero drainages. They are within easy reach of the Dar es Salaam (and export) markets. They are not far from transport and power connections (TAZARA and the Kidatu line). And they lie within the same ecological zone as the Sokoine University's experiments at Morogoro and the Ilonga Research Institute (the site for USAID's FSR project). The Korean-assisted Dakawa scheme is one such venture, though

it suffers from poor design, but there are several others already in operation (Ruvu, Kilombero, and Mtibwa). Considering that this area is crossed by both railways (TRC and TAZARA) and two highways (to Dodoma and Mbeya), that it has a near vacant research/and/training complex (at Katryn near Ifakara), and that water-surplus drainages with good soil are not commonly found, it is puzzling why so little attention has been paid to investigation of further irrigation development. At a minimum the major potential sites should be identified, since other infrastructural investments are being made which should take into account the region's future growth potential. When development does eventually occur in this strategically located salient, it may provide much needed traffic for the underutilized TAZARA line.

3.25. From the Tanzanian Government's perspective, the area most likely to be next targeted for irrigation investments are the Usangu Plains, site of the present Mbarali scheme (near Makambako on the junction of the TAZARA line with the Mbeya highway). The Mbarali environs are well described in two publications by Livingstone and Hazlewood.[1] Originally an FAO scheme which failed (because of poor land levelling and other difficulties), Mbarali was taken over by the Chinese and today is counted a "success". A modest-sized scheme (roughly 8,000 acres, 6,500 irrigated at any one time), Mbarali's "success" has stimulated the idea of using other, adjacent rivers in the same way and thereby quadruple the area under irrigation. Such a rapid expansion might well destroy the precarious control which Mbarali's Tanzanian staff have achieved, and would represent another classic case of a sound start being overwhelmed by grandiose planning. While the Usangu Plains remain Tanzania's most favorable site for further irrigation expansion, there is one significant opportunity cost not identified in the Hazlewood and Livingstone book. Irrigation in Usangu draws water out of the top end of the Ruaha drainage, the same river on which are located two major dams (Mtera and Kidatu) and a river which sometimes dries up completely. In the tropics, good damsites are rare. By an accident of geology, the Ruaha River flows through several (as yet) undeveloped sites in the narrow section where it cuts through the Iringa

[1] See A. Hazlewood & I. Livingstone (1982) Irrigation Economics in Poor Countries, Illustrated by the Usangu Plains of Tanzania (Pergamon), and the Commonwealth Secretariat (1978) The Development Potential of the Usangu Plains of Tanzania, 3 vols.

highlands to join the Rufiji. Furthermore, the Ruaha is the only major river near enough to provide water to the new capital in Dodoma (assuming it remains designated as such). Thus further expansion of irrigation at Usangu comes at a high opportunity cost, since the water thereby lost to the Ruaha system is a particularly valuable national asset.

3.26 Meanwhile at the Ruvu scheme, less than an hour's drive from Dar es Salaam and with ample water, the NAFCO management find they can irrigate less than half the scheme's designed capacity of 2000 ha. and yields are low.[1] If this is true at Ruvu, what chance do the more remote projects stand for realizing cost-effective operation? Indeed, as a FAO consultant pointed out more than a decade ago, irrigation in Tanzania is carried out under widely different systems: some operated by villagers, some by estates, and some by mechanized NAFCO farms with Dutch, German, FAO, Chinese, Korean, and even Japanese assistance.[2] As mechanized farms, Ruvu and Mbarali involve the peasants only as day laborers—a strange contrast in a country officially committed to village development. Other schemes, like Kilombero, originated as out-grower settlements linked to a commercial estate. This diversity makes it difficult to transfer managerial experience from one area to another. The Sokoine University of Agriculture has an agricultural engineering option, but as of late 1984 had neither irrigation specialists nor students enrolled in it! Thus any attempt at rapid expansion in irrigation development is bound to run into severe managerial, supervisory, logistic, and technical problems.

3.27 There are several modest initiatives which could contribute significantly to the more effective operation of Tanzania's existing schemes:

- Review of the most cost-effective approaches to scheme rehabilitation, drawing upon the Chinese, ILO, and private sector experience (Mtibwa).
- Consolidation of experience with Water User organizations and their incorporation into the Tanzanian Ujamma village structure.
- A regional sharing of project design experience for irrigation schemes.

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[1] T. Weaver, et al. (1984) Rapid Mini Appraisal of Irrigation Development Options (Dar es Salaam: USAID), p. 16.

[2] R. Boere (1972) The Economics and Planning of Irrigation (FAO), p. 3.

Water Relationships:

c. Domestic Supplies[1]

3.28 Problems associated with the water supply constitute probably the largest perceived need within Tanzania's villagization program. A recent USAID sponsored survey of villagers in the country's southwestern regions found that more than 55% had a quarter mile or further to go to get water, and 70% indicated they did not have access to clean water (Schultheis & Seshamani, 1982, p. 6.5). Awareness of these needs has stimulated a major Tanzanian Government program to improve village water supplies, assisted by SIDA and the Dutch government. Donor experience shows that immediate shortages are as apt to result from pump breakdowns and poor maintenance as from inadequate absolute amounts of supply. The 1973/74 villagization effort was done in a hurry and sometimes put entire villages where there was no water. In other cases, large herds of cattle or even irrigated gardens compete with families for a dwindling supply. It is often claimed--though this is a difficult observation to document in fact--that misuse of land on the slopes is increasing erosion and fluctuation in water supplies in the valleys. By and large Tanzania does not have ample sub-surface acquifers which can be tapped by well drilling (as has been done in parts of the Sahel or the Western USA). Within the family, management of domestic water usually falls in the woman's sphere; minor improvements can have a dramatic positive impact on family well being.

3.29 There is also a perverse cost/benefit trade-off related to the technology for village supplies. A major negative impact which accompanies low-cost installations is the increased risk of contamination. (Contaminated water is probably the principal reason in tropical conditions for high rates of infant mortality, since the largest single cause of death is dehydration accompanying diarrhoea.) In the lowland areas the problems of water-linked disease (malaria, schistosomiasis, cholera, etc.) are so serious that village concentrations may result in higher mortality rates despite the greater ease of access to health care. From the health standpoint, enclosed water systems linked to individual taps are greatly to be preferred, but such installations are expensive and require mainte-

[1]A useful reference describing some existing programs and outlining what USAID might attempt in a water supply project is Daniel Dworkin (1980) Rural Water Projects in Tanzania. AID Evaluation Special Study No. 3. Washington D.C.: Agency for International Development.

nance.[1] (Indeed, in Morogoro Region while the Dutch at first concentrated on building new water supplies, the break-down rate was so high they soon shifted the emphasis of their program to concentrate upon institutionalizing a maintenance capability within the villages being served.) In the long run, the utilization of Tanzania's underpopulated southern and western regions depends upon achieving control over water-related diseases. Unless Tanzanian peasants begin to practice better s nitation, their involvement in development projects such as the Ujamaa village program makes them more rather than less vulnerable to health risks.

3.30 On the planning side, there are both negative and positive observations to be made. Negatively, ever since the early 1970s the water development ministry (MAJI) has concentrated on the preparation of 20 Year Water Master Plans (see Table 3.3). In fact, the kind of comprehensive, macro-planning such exercises entail is only useful if it is delimited according to river basin catchments, and these typically overlap more than one region. By diverting its scarce manpower and foreign assistance into the preparation of Master Plans, MAJI has postponed the kind of localized, incremental planning which is needed for locating projects intelligently, without gaining greater control over the river systems being studied.

3.31 On the positive side, Tanzania has done an outstanding job for a poor country in monitoring water development issues. The institution responsible has usually been the Institute of Resource Assessment (known until last year as BRALUP for "Bureau of Resource Assessment and Land Use Planning"). This is one of the few Institutes in Tanzania which has maintained a consistent record of investigation and publication, year after year, and many of its monographs deal with aspects of water resource planning and utilization.[2] Its expertise is sufficient to recommend Dar es Salaam as the site for any regional reviews donors might make of water-related issues.

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[1] An aspect treated in detail by Bradley et al. (1972). Other key recent sources include Falkenmark's (1982) Rural Water Supply and Health and Lium and Skofteland's (1983) Water Master Planning in Developing Countries.

[2] Two important earlier sources are Dennis Warner (ed.) (1970) Rural Water Supply in East Africa, BRALUP Res. Paper no. 11, and G. Tschannerl (ed.) (1971) Water Supply, BRALUP Res. Paper no. 20. See also I. Andersson et al. (1983) Domestic Water Supplies in Tanzania. a Bibliography with Emphasis on Socio-Economic Research, IRA Research Paper 1.

TABLE 3.3

HEALTH, SANITATION, AND COMMUNITY PARTICIPATION (CP) IN TANZANIA'S REGIONAL WATER MASTER PLANS[b]

Region[a]	Donor	Year	Health	Sanitation	CP Brief	CP Major	CP Pilot Projects?
Dodoma	(Tanzania)	1974	Yes	-	-	-	-
Shinyanga	Holland	1974	-	-	-	-	-
Tanga	Germany	1976	-	-	-	-	-
Mtwara	Finland	1977	Yes	-	-	-	-
Lindi	Finland	1977	Yes	-	-	-	-
Kilimanjaro	Japan	1977	-	-	-	-	-
Kagera	Sweden	1978	Yes	-	Yes	-	-
Mara	Sweden	1978	Yes	-	Yes	-	-
Mwanza	Sweden	1978	Yes	-	Yes	-	-
Tabora	IBRD	1979	-	-	Yes	-	-
Coast	Canada	1979	Yes	-	Yes	-	-
Kigoma	Norway	1982	Yes	Yes		Yes	-
Rukwa	Norway	1982	Yes	Yes		Yes	Yes
Iringa	Denmark	1982	Yes	Yes		Yes	Yes
Mbeya	Denmark	1982	Yes	Yes		Yes	Yes
Ruvuma	Denmark	1982	Yes	Yes		Yes	Yes

[a] Arusha, Morogoro and Singida are as yet uncommitted. Note however that Morogoro and Singida have had earlier technical assistance for water development (Dutch & Australian).

[b] Source: Brandström, P. and Shirima, D. (1984) "Community Participation and Water Master Planning in Tanzania, Concept and Implications," pp. 59-86. In, M. Falkenmark and Lundqvist, J. (eds.) Water For All. Tema V Report. Linköping, Sweden: Univ. of Linköping, Dept. of Water in Environment and Society, Table 1.

TABLE 3.4

ESTIMATED LIVESTOCK NUMBERS (1981)[a]

(000 head)

Region	Indigenous & beef cattle	Improved dairy cattle	All cattle	Sheep	Goats	Pigs
Arusha	2,149	12.5	2,161	1,155.9	1,597.1	36.0
Coast (& DSM)	114	2.7	117	5.8	24.0	1.5
Dodoma	1,063	0.6	1,064	229.9	461.5	1.3
Iringa	544	3.6	548	112.3	203.4	11.0
Kagera	503	3.8	507	65.7	217.3	0.6
Kigoma	73	0.2	73	35.1	80.0	0.2
Kilimanjaro	391	22.5	417	246.9	433.7	32.0
Lindi	8	0.2	8	7.8	8.9	1.0
Mara	1,139	1.5	1,141	271.7	354.6	0.8
Mbeya	952	1.9	954	74.6	114.4	48.0
Morogoro	303	3.8	307	61.1	105.7	6.0
Mtwara	12	0.5	13	6.9	68.4	1.7
Mwanza	1,143	0.9	1,144	277.4	399.2	0.8
Rukwa	205	0.1	205	22.2	40.4	10.0
Ruvuma	44	0.2	44	14.3	65.4	11.5
Shinyanga	1,652	0.7	1,653	485.0	593.8	0.3
Singida	820	0.1	820	259.2	530.7	0.2
Tabora	1,109	0.4	1,108	230.7	311.1	0.5
Tanga	579	2.4	581	167.2	299.8	1.1
Mainland Total	12,803	58.5	12,862	3,729.7	5,909.9	164.5

[a]Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 2, A Framework for Action. Rome: FAO for KILIMO, Tables 3.2 & 3.3, pp. 120 & 121. Based on Ministry statistics (updated 1978 census).

the prior existence of a Tanganyika Packers' plant and (one hears) political pressures—it put livestock pricing at the mercy of the TRC's unreliable operations. Weight losses and a high death rate are almost inevitable when stock must be trekked hundreds of miles from producing areas to Dar es Salaam; and, in turn, the low prices these conditions necessitate further discourage production for the national market.[1]

3.35 It should be stressed that building new ranches on tsetse cleared land is bound to be a high cost, high risk undertaking. The initial (phase I) 5 year IDA credit was for approximately $ 1.3 million to develop five parastatal ranches (1966-71). Phase II (1973-79) was for an additional $ 18.5 million aimed at developing eleven parastatal ranches, helping four District Development Corporations with beef ventures, and providing the external financing element in village cattle ranches for Dodoma, Singida, Arusha, and Shinyanga Regions. Before the project began an economist working in Dar es Salaam warned it was likely to fail (Mackenzie 1972:102):

> From the preceding sections of this paper several things become evident about this Phase II programme. First, it is to be initiated during a period of disturbance and change and it will have to counter a severe distrust of existing market procedures. Second, it anticipates a time horizon of five years for developing along an integrated front of complex programmes requiring taxing demands on both technical and administrative personnel. Third, it is huge in relation to anything yet attempted in Tanzania or elsewhere ... under peasant and pastoral management. Fourth, the total investment is very large and the loan component and its foreign exchange content are likely to require careful examination in relation to alternative growth prospects.

These were prophetic words, amply confirmed by the Project's terminal evaluation.[2]

3.36 When large development projects like these fail, the usual scapegoat to blame is "weak management". And, unfortunately, this was a factor because most of the Ministry's livestock specialists were by training veterinarians with little production experience. However, we

[1] For discussion of the policy issues at stake, see W. Mackenzie (1972) "Conflicts and Obstacles in Livestock Development," East African Journal of Rural Development, vol. 5, nos. 1-2, pp. 81-102.

[2] The project's completion report issued by the World Bank's Eastern Africa Projects Department in July of 1981 is an excellent review of the difficulties of Tanzanian livestock development.

should not overlook a fundamental design error, the adoption of 32,000 ha as a standard size for the IDA ranch units. Anyone who attempts to control cattle in such a large area under local conditions will soon discover that it imposes impossible managerial demands. Vehicle travel becomes a necessity, boundaries cannot be controlled, trespassing will often occur, and so there will be frequent disease outbreaks and losses of stock. Without large herds in the initial years, bush regeneration will take place and with it a return of the tsetse fly... One is told in Dar es Salaam this size was chosen because it was the minimum needed for sufficient cash flow to cover salaries, operating costs and loan repayment. Nevertheless, it was a bad choice which all but guaranteed that NARCO's ranches would suffer from "weak management".[1]

3.37 The one major exception where the policy of stimulating parastatal production in remote areas may be justifiable is on the Kitulo Plateau southeast of Mbeya. This area was originally envisaged by FAO as an ideal site for wool production, because of its cool climate and the nearly total absence of road connections. Under successive FAO projects it has become a major investment in large-scale dairying based on the introduction of high yielding "exotic" dairy breeds. Here cattle which do poorly elsewhere in Tanzania can be grown under temperate zone conditions (at an altitude around ten thousand feet), and the area was only thinly settled because the climate was too cool for most arable crops. It has become one of LIDA's major development projects. While some reports have been highly critical of this investment—because of unnecessary mechanization of milking parlors and doubts about the quality of forage—there is a large potential market in Mbeya town, which showed an astonishing 514% growth between 1967 and 1978 (indicating it will probably become Tanzania's "second city" after Dar es Salaam).

3.38 A large share of Tanzania's livestock production enters parallel markets rather than the official marketing chain. Except for losses into neighbouring countries, the operation of a parallel market is probably on balance a positive factor. It permits livestock producers to

[1] For a description of the NARCO program, see B.M. Akimali (1978) "A Decade of Commercializing Beef Ranching in Tanzania," Paper presented to the 5th Scientific Conference of the Tanzania Society of Animal Production.

gain reasonable returns, and thus continue to produce commercially. This fact, however, caused great difficulties for USAID's Livestock Marketing Project which was designed to assist the livestock marketing parastatal (then called the TLMC, or "Tanzania Livestock Marketing Co."). As observed in the field, the problem had three interrelated components:

- There are large and unpredictable swings in supply, caused by producers who do not offer stock to the national system until they are convinced a major drought is underway.
- A commercial firm with its bureaucracy of accountants, drivers, money-guards, veterinary assistants and market masters is an intrinsically high cost answer to the need for a purchasing organization which deals in small numbers of animals spread over a large area.
- The low national prices (based on transport costs and death losses incurred en route to Dar es Salaam) are usually outbid in the auction ring by private butchers. Since these do not trek animals for any distance and operate with low overheads, they can offer more attractive prices for a small proportion of the animals coming to sale. Producers in turn then refuse to sell the other less desirable animals at the very low prices offered nationally.

These difficulties are not in essence "socialist" in origin; before it was nationalized (1974/75) Tanganyika Packers also offered low prices to producers, for the same reasons. Such problems will continue to complicate Tanzania's long and troubled effort to bring its traditional livestock producers into the modern sector for many decades yet to come.

3.39 A likely reason for the cautious attitude of MIFUGO officials towards working with existing livestock producers is, therefore, the Ministry's prolonged involvement with earlier USAID and UNDP projects which failed to achieve their objectives.[1] The Ministry has made several valiant efforts to establish village ranches, village bull-breeding stations, and even village dairy units. Very few have stayed in operation for more than a season or two, with even the best of them being only marginally successful in economic terms. The case-by-case nature of such projects has worked against the emergence within MIFUGO of a consensus about how village projects should be managed.

[1] Other than the TLMC project described above, the largest of these was the Masai Range Development Project (1970-79) which attempted to establish ranching associations among Maasai pastoralists. For a case study of this project, see Moris (1981:99-113); the terminal evaluation was influenced by the high staff turnover and contained numerous errors.

3.40 While donors can sympathesize with the reasons for Tanzania's neglect of its privately owned livestock, the evident deterioration of pastoral lands in Dodoma, Singida, and Shinyanga regions suggests that action cannot be indefinitely postponed. Desertification is a real problem in parts of northern and central Tanzania, and overstocking is a contributory factor.[1] Given that most of Tanzania's national herd is under private ownership (the 1981 UNDP/FAO Report estimates NARCO controls only 100,000 beef cattle), it is time for MIFUGO to turn its attention towards this sector. We should note that during this same period Somalia's exports to the Gulf market from the traditional sector has risen to an unprecedented level of 2.4 million sheep units in 1980, and even Australia has greatly increased its live sheep exports to the same markets.[2] MIFUGO's present short-run strategy of promoting commercialized dairy and beef production necessitates continuing access to FE (for veterinary drugs, milking machines, spare parts, etc.) and is quite vulnerable to inefficient management within the constituent production units.[3] At the very least, now that Agriculture and Livestock are recombined, MIFUGO's activities and linked parastatals should be included within PPMB's scrutiny.

3.41 Tanzania's earlier experience of donor-assisted projects came at an overoptimistic time when donors had little understanding of the technologies they were sponsoring. USAID's field missions should realize that this situation has changed. There is an emerging body of tested field experience, which has been incorporated into the Africa Bureau's (1982) Livestock Development Assistance Strategy Paper.[4] Several excellent sources are also available which synthesize the international experience.[5]

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[1] See United Republic of Tanzania (1977) The Threat of Desertification in Central Tanzania, a paper prepared by Henry Fosbrooke.

[2] See E. Reusse (1982) "Somalia's Nomadic Livestock Economy," World Animal Review, no. 43, p. 11.

[3] Strategies contained in the official statement of the MLD's policies, (1983) The Livestock Policy of Tanzania (Dar es Salaam: URT), 25 pp. However, as already noted, this document does acknowledge the need for a long-term shift towards working with existing "traditonal" producers.

[4] Included as an appendix to a very useful volume, J. Simpson & P. Evangelou (eds.) (1984) Livestock Development in Subsaharan Africa. Boulder: Westview Press.

[5] In addition to the above volume by Simpson & Angelou, see also S. Sandford (1983) Management of Pastoral Development in the Third World, London: ODI; AID (1980) The Workshop on Pastoralism and African Livestock Development, AID Program Evaluation Report No. 4; and J. Galaty et al (eds.) (1981) The Future of Pastoral Peoples, Ottawa: IDRC.

ILCA in Addis Ababa has actively supported rangelands research in several African countries (Kenya, Mali, and Ethiopia). Systematic procedures have been worked out to test the comparability of technical results within the Rift Valley zone (which Tanzania shares with Kenya and Ethiopia), and much which has been learned within these other countries would be applicable to highland parts of Tanzania. In Tanzania itself, the Ministry has arranged the continued support of FAO to the livestock sector--both operationally, by providing senior livestock experts, and with additional planning and statistical assistance. Given the sizeable numbers of Tanzanian MIFUGO staff who received US training under earlier AID projects (the livestock marketing and Masai range projects), Tanzania does have a core of well trained and dedicated livestock production staff. What it lacks is an agreed framework for offering livestock extension --here the influence of the senior veterinarians remains predominant, since they equate "extension" with the mere delivery of livestock services--and a clearcut strategy which specifies how to effectively engage the traditional sector. Provided these two basic ingredients could be agreed upon, there is substantial underutilized capability which could be mobilized within donor-assisted projects.

3.43 The necessity of making further organizational changes arises at present because of the re-amalgamation in 1983/84 of the Livestock (MIFUGO) and Crop (KILIMO) Divisions (which were officially under separate ministries for the past four years). In addition, under the Government's cost-cutting drive in 1984, both LIDA (the supervisory parastatal created a decade ago) and the Livestock Marketing Company (TLMC) have been abolished. Lest it be assumed these moves augment MIFUGO's resources, it should be noted the assets of these parastatals are being held against their debts. Thus in late 1984 TLMC's valuable transport was being auctioned off, while District Councils were struggling to operate the primary livestock markets (using MIFUGO staff) without benefit (in some cases) of the necessary transport. Indeed, this appears to have been a general pattern: parastatals have returned staff but nothing else to the "strengthened" Ministry of Agriculture.

Crop Development

a. Inputs

3.44 The general aspects of crop production in Tanzania have already been reviewed earlier in this chapter. Here we take up additional specific details which the outsider coming to Tanzania needs to understand about its agricultural situation.

3.45 The distribution of moderate to high potential soils is a significant constraint on agricultural development almost anywhere in the Tropics, but particularly in Africa.[1] Outside the volcanic areas along the Rift Valley, most of Africa represents very ancient land surfaces. Soils are generally deficient in nitrogen, in organic matter, and in other nutrients; they are in addition prone to "ironstone cap" formation. Here superficial appearances can be misleading: "red soils" formed on volcanic materials can be very fertile, while only a few miles away similar looking soils may be quite infertile. There are prounounced differences in soil type, with transitions along the slope from clay to red to sandy soils within a short distance.[2] Soils on Tanzania's drier plateaus are extemely erodable, and were the focus of soil conservation campaigns during colonial times.[3] Certain crops only do well on certain soil types, cotton and rice needing clay soils, whereas tea requires acidic soils (usually found in high rainfall areas and hence on the mountain slopes). There are pronounced interactions between certain soils types and the vegetation and fauna, e.g. where leguminous tree species, dung beattles, or termites are present. In many areas, the micro-variability in soil types is great, but where the land is undisturbed the vegetation can sometimes indicate associated soil types.

3.46 Against these reasons why soil information is important, we must set the fact of weak institutionalization of a soils' reconnaisance capability. Very little attention was paid to soil characteristics during the colonial period. When FAO assistance was obtained after independence to establish a national soils' laboratory, it was placed out of the main-

[1] For materials on Tanzania's soils, see E. Lind and M. Morrison, "soils" in East African Vegetation, Longmans, pp. 166-187; C. Anderson (1963) Soils of Tanganyika, Dar es Salaam: Ministry of Agriculture; and A. Cook (1975) A Soil Bibliography of Tanzania, BRALUP Res. Paper no. 39.

[2] Milne developed the soil scientists' concept of catena from observations in Tanzania, see (1947) "A Soil Reconniasance Journey..." J. of Ecology, vol. 35, pp. 192-265.

[3] See Anders Rapp et al. (eds.) (1973) Studies of Soil Erosion and Sedimentation in Tanzania, BRALUP Research Monograph No. 1.

stream at Tanga. The three other centers which have some capability in this area were CIDA soils specialists working on wheat in northern Tanzania, the Faculty of Agriculture's Soil Science Department at Morogoro, and the IRA (BRALUP) staff.[1] A failure to appreciate the importance of information about soil characteristics has affected Tanzania's agricultural development programs in several ways:

- In the 1973/74 relocation "operations", Ujamaa villages were sometimes located on unsuitable soils or else, where land was scarce, the housesites were put on the best agricultural land.
- Planners have failed to recognize that freely drained, alluvial soils are a scarce resource, and should be mapped before other investments are undertaken.
- There is an emerging problem of soil exhaustion around the larger villages, made worse when very nutrient demanding crops are grown.
- Fertilizers have often been distributed under a high subsidy to places where there is little empirical evidence that peasants using the fertilizer will realize an economic response.
- Local variability in soils remains a principal reason why centrally dictated "standard packages" often do not benefit the peasants upon whom they are being imposed.

3.47 The whole issue of input delivery systems is controversial in Tanzania, and has been the subject of several recent reviews.[2] Specialized, high volume farming is normally associated with a heavy use of purchased inputs: seeds, fertilizers, insecticides, and herbicides (and often adopted by farmers in that order). But there are extraordinary complications when this package is introduced into subsistence farming situations where the institutional supports are rudimentary, the technologies faulty, and the returns questionable. To use purchased inputs profitably, a farmer needs to have accurate technical information and adequate credit; the inputs must be available from the service delivery system at the right time and place; often they must be applied jointly to realize the full benefits; the farmer should understand the hazards associated with their use; and it is probably necessary that the farmer is producing for the market rather than home consumption.

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[1] There are several BRALUP reports on soils' survey methodology and soils reconnaisance, with applications to the Rufiji delta and Rukwa Region.

[2] See Weiler, E. et al. (1982) Input Marketing Study of the Mbeya Region. Dar es Salaam: TRDB/KILIMO/FAO Mbeya RIDEP, 110 pp.; Marketing Development Bureau (1977) Input Distribution in Tanzania, Dar es Salaam: MDB, Ministry of Agriculture for FAO/UNDP Project SF TAN 27; DANIDA (1981) "Report on Village Storage Facilities and Input Supply Pick-Up Service," Dar es Salaam: DANIDA; Singh, B.R. (1982) Report on Farm Services and Inputs. Dar es Salaam: FAO/Kilimo.

3.48 To these general considerations must be added several further complications peculiar to Tanzania:

- Technical packages are weak, rendering problematic the repayment of input costs from profits.
- Farmers are accordingly often delinquent on loan repayments, and they have become accustomed to seeking and obtaining political relief after a bad season.
- The principal institutional framework for issuing inputs to the smallholder sector was until 1976 the co-operative movement, a task its successor institutions have had great difficulty performing.
- The aggregate levels of "institutional risk" in the input delivery systems have been quite high.
- Fertilizers produced in Tanzania have higher foreign exchange costs than if they had been imported directly in finished form.
- Fertilizers generally show a poor response in areas with unreliable rainfall.
- The Government has operated a heavy fertilizer subsidy approaching 50% of product cost in an effort to encourage fertilizer use.
- Many Party officials remain firmly convinced that use of fertilizers is an essential component in agricultural modernization.
- The World Bank's "integrated rural development" programs often had loan financing for use of inputs as a major component.

In actual fact, farmers will usually adopt cost-effective inputs without much external urging. Their reluctance to do so in the drier parts of Tanzania ought to have warned the Tanzania Government and donors alike that loan financing for seasonal inputs may be inadvisable at early stages of development, e.g. Kigoma Region. In the 1984 Budget speech, it was announced that the fertilizer subsidy will be withdrawn. At the same time the Government is moving away from pan-territorial pricing, while raising crop prices to partially offset the removal of subsidies. These moves should greatly reduce the attractiveness of maize production in the Southwest, which is however where rainfall and soil conditions are optimal.

3.49 Tanzania's actual fertilizer uptake for 1980 by regions is shown in Table 3.5.[1] The long-run situation in regard to fertilizer demand is that except for volcanically derived soils in Arusha and

[1] Derived from a recent Ministry of Agriculture Report (1984) Tanzania National Food Strategy (2 vols.) which contains many of the background statistics one needs on Tanzania's agriculture—as our heavy use of this source in this chapter indicates.

TABLE 3.5

FERTILIZER UPTAKE BY REGIONS

(tonnes)

Region:	Actual in 1980	Projected in 2000
Shinyanga	2,607	39,528
Mwanza	2,923	34,445
Mara	1,158	20,563
Singida	484	4,448
Dodoma	356	2,262
Arusha	2,751	49,902
Kagera	1,104	38,043
Kilimanjaro	5,901	30,004
Lindi	166	7,259
Mtwara	428	6,268
Morogoro	4,653	72,420
Coast (and DSM)	1,704	12,487
Tanga	3,929	40,993
Tabora	12,234	38,127
Kigoma	1,661	13,848
Iringa	22,248	67,282
Mbeya	16,048	74,790
Rukwa	6,340	52,871
Ruvuma	17,675	48,512
TOTAL	104,370	654,052

Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 1, Main Report. Rome: FAO for KILIMO, Table 18, p. 39.

Kilimanjaro Regions (and a small pocket at Rungwe in Mbeya Region), Tanzania's soils tend to be seriously deficient in nutrients and organic matter. When cultivated intensively for an extended period, these soils lose their natural fertility rapidly (in marked contrast to the volcanically derived soils), and hence stabilized village settlement must eventually be accompanied by increased fertilizer use. Soils are said to be deficient in nitrogen, moderately deficient in phosphorous and sulfur, and locally deficient in potassium.[1] Trace element deficiencies also occur, and may be quite significant for particular crops. While Tanzania is still a comparatively low user of fertilizer in contrast to neighbouring countries (1979 figures)—i.e. only two-thirds Kenya's use per caput, half of Malawi's, and only one sixth of Zambia's—it is likely that were price and distribution constraints not so prominent, demand would increase substantially (explaining the Ministry's six-fold increase predicted by the year 2000).[2]

3.50 As already indicated, the actual situation with regard to Tanzania's fertilizer production and use is rather more complicated than summarization of long-run needs might suggest. First, carefully conducted local trials to diagnose actual needs and responses have been missing in many areas, and—when eventually obtained—give varying and inconclusive results. Second, the siting and planning for TFC's one major plant in Tanga was unfortunate.[3] At first designed to produce only phosphate fertilizers the product mix had to be changed, and the factory did not exceed 50% of its installed capacity (130,000 tonnes) until 1981, nine years after it opened. Furthermore, as of 1980 prices, Tanzania could have imported all of the 52,000 tonnes produced at T Shs 3.2 million <u>less</u> in foreign exchange than it cost TFC to import raw materials and bags. The 1981 ex-factor cost averaged T Shs 4,000 per tonne compared to a c.i.f. international price in Tanga of 2,000 T Shs. (Spurling 1982:8). Third, as one of the few parastatals <u>without</u> trans-

[1]Based on Andrew Spurling (1982) "The Supply and Distribution of Fertilizers," Background Paper X, World Bank Agriculture Sector Strategy Report.

[2]The contrast to Zambia is affected by Zambia's commitment to hybrid maize, which requires linked fertilizer application. Data from Spurling (198

[3]Cf. Andrew Coulson (1977) "Tanzania's Fertilizer Factory," <u>J. of Modern African Studies</u>, vol. 15 (1):119-125.

port of its own, the TFC's distribution was badly hampered by the deteriorating railway (TRC) performance in the late 1970s. Fourth, to encourage food crop production after the 1973 drought, the Government excused many villages from repaying fertilizer loans (some sources say fertilizer was issed free to maize growers during the 73/74 and 74/75 seasons). Despite the heavy subsidies which continued under the Government's National Maize Program (as of 81/82 the Treasury was in fact paying 60% of the value of transported fertilizer), repayment continued to be poor (Spurling 1982:4). And, fifth, the disbanding of co-operatives in 1976/77 left the TRDB responsible for administering credit directly to the villages--a task for which it had neither transport nor staff. While the TRDB's record had been relatively strong to that point, the subsequent non-payment on politically dictated village loans came in time to threaten the financial viability of the TRDB itself.[1]

3.51 For these and other reasons, then, it is probable that few Ujamaa villages in Tanzania were receiving the correct inputs in the right amount and on time before commencement of the crop season. The 1981 FAO/UNDP Strategy and Programming Review Mission notes seven likely reasons for late fertilizer delivery (1981:30):

- late ordering by villages
- late forwarding of village orders by district to region
- late forwarding of District orders by region to TRDB
- slow processing by TRDB
- late shipment by TFC
- shortage of railway wagons
- transport problems TRDB to villages.

This listing omits the added complications which arose when TRDB was ordering inputs to be handled through another parastatal, e.g. the Tanzania Cotton Authority, the Tea Authority, and the Tobacco Authority.[2] Furthermore, the causes of late delivery are cumulative, so that delays increase downwards. By 1981, one could predict delivery of inputs was almost <u>always</u> late to the more remote areas, a particularly serious lapse in the case of fertilizer which does not store well and for which villages had little or no storage capacity. This, in turn, further depressed village loan repayment.

[1] See Jean Due (1980) <u>Costs, Returns and Repayment Experience of Ujamaa Villages in Tanzania (1973-1976)</u>. Washington: Univ. Press of America.

[2] A weakness singled out by the Minister of Finance in his June 1981 Budget Speech, where he criticized the 90 mn T Shs uncollected debts owed to TRDB by the crop authorities, debts largely incurred through advancement of inputs to villages. (URT 1981:6).

3.52 Alongside fertilizer, the availability of improved seed is also a prime consideration for Tanzanian farmers both because of varietal-linked yield increases and because in times of drought villagers may exhaust endogenous supplies. Under the East African common market which Tanzania inherited at Independence, seed could be freely imported from Kenya's large-farming sector. In addition, the TFA headquartered in Arusha Region sometimes initiated direct contracts with local estates for seed production in years when Kenya's seed supplies seemed problematic. These arrangements operated effectively up until the region-wide droughts of 1973-74, but left Tanzania without approved sources or any scientific system for seed certification.

3.53 This background lay behind the Ministry of Agriculture's approach to USAID for assistance in developing internal seed production capacity, formalized in the joint USAID/Tanzania Seed Multiplication Project. Begun in 1970, this $ 6,854,000 project was phased over a decade (to FY 1982) to allow adequate time for establishing seed farms and institutionalizing the certification system. Legislation was passed establishing a Seed Certification Agency (TOSCA) as well as TANSEED, the parastatal production company. The project plan provided for construction of a national seed certification laboratory (located at the Faculty of Agriculture, Morogoro, to facilitate exchange of technical experience), and the Tanzanian Government turned over three farms for producing foundation seed (at Arusha, Kilosa, and Dabaga near Iringa). The USAID contribution included farm and laboratory equipment, expatriate farm managers, counterpart training, and a seed specialist to be located at Morogoro in the terminal phase (1980/81).

3.54 As so often happens, actual performance lagged considerably behind projections. For nearly two years the Morogoro laboratory stood vacant, awaiting arrival of air conditioners from overseas; staff housing at Morogoro was not built; much of the seed produced (particularly from the Kilosa farm) was insect infested, while the Arusha farm suffered from drought and trace element deficiencies in the soil. Meanwhile, TANSEED of necessity turned to contract growers (generally the larger estates) whose supply was easier to arrange than depending upon the Ministry-sponsored seed

farms. The Project had envisaged an elaborate three-tiered structure whereby the Ministry's seed farms would produce "foundation seed" under tight quality control, which TANSEED might then have bulked by commercial contract growers for eventual mass release. Meanwhile TOSCA's experts would insure that quality was maintained. USAID consultants have since queried (rightly so, in our view) whether such an elaborate and high-cost system was really necessary at this stage in Tanzania's development.[1] In any event, the Project's terminal evaluation praised the Project's Tanzanian staff for having been able to issue good seed despite great constraints, and laid the blame for the project's low apparent productivity on the bureaucratic logjam between TANSEED, TOSCA, KILIMO, and all the other agencies involved in input delivery.[2] For whatever reasons, TANSEED's production of certified seed between 1977-80 constituted only a small portion of the country's total seed requirements (see Table 3.6). On its part, KILIMO turned to external donors in 1981 with a request to fund yet another "national" seed laboratory--this one to be built in Iringa! (UNDP/FAO 1981:107)

3.55 In regard to farm tools (principally hoes and ploughs), the situation represents the opposite strategy from that adopted in the seed industry. Here the Tanzanian Government has opted to encourage donors (China and India) to install older types of plant which would be regarded as outmoded by contemporary "western" standards. (The presumed benefits are more labor intensive technology and less dependence upon imported parts and expertise.) There are two large-scale manufacturers of farm implements: the Ubungo Farm Implements Co. (UFI) in Dar es Salaam, built by the Chinese (1970) with a capacity of 1.3 mn hoes and 12,000 ox-ploughs per year; and Zana Za Kilimo (ZZK) in Mbeya, being built since 1978 with Indian Government assistance. Both plants have been affected by electricity cut-offs and foreign exchange shortages, with ZZK not coming into production until late 1982. In the case of UFI, its profits on imported

[1] Walker, D.D. and Potts, H.C. (1982) "The Development of Tanzania's National Seed Industry, Report of the ICD/MSU Mission, December 1982." Dar es Salaam: USAID (unpublished report).

[2] As of September 1984 the terminal project evaluation report still had not been released, but was reviewed by the senior author in Washington, D.C. There is, however, an excellent earlier report by A. R. Hagan, et al. (1979) Tanzanian Seed Industry Survey, Washington, D.C.: USAID, 187 pp.

TABLE 3.6

CERTIFIED SEED PRODUCTION (1977-80)[a]
(000 tonnes)

Crop	1976/77	1977/78	1978/79	1979/80
Hybrid maize	895	1,362	1,478	1,903
Composite maize	3,420	675	500	1,581
Wheat	923	322	532	735
Sorghum	1,414	1,460	133	458
Rice (paddy)	427	359	255	400
Other seeds	81	150	176	212
Mainland Tanzania total	7,160	4,328	3,074	5,289

[a]Source: TANSEED figures, given in:
Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 1, Main Report. Rome: FAO for KILIMO, Table 15, p. 37.

finished goods have apparently offset the marginal profitability on its locally produced items. Its distribution system was the subject of major criticisms in 1983, when for various reasons peasants could not obtain its products from official outlets.

3.56 A problem which has emerged is the low quality of some of Tanzania's locally produced implements. Reviewing ZZK's products, an IFAD team comments (1983, A II p. 24):

> No provision has been made for competent design staff to be attached. The manufacture of ox-ploughs undertaken so far has been on the basis of an Indian design, which is not adjudged to be suitable for Tanzanian conditions. Very inadequate field testing of prototypes was carried out. The first thousand ploughs were made without either proper fabrication jigs or adequate inspection and quality control procedures. Many of the ploughs in stock at end-March 1983 were so poorly made as to be unusable in the field.

This should not have happened. The ZZK plant is under management contract from the Karnataka Implements and Machineries Co., Ltd. (KIMCO), reputed by IFAD to be a Government of India undertaking. In addition, Tanzania has for many years had a KILIMO-sponsored Tanzania Agricultural Machinery Testing Unit (TAMPTU) located in Arusha, which was in 1973 taken over by the Ministry of Industries and renamed the Centre for Agricultural Mechanization and Rural Technology (CAMARTEC). (CAMARTEC also inherited staff from the Arusha Appropriate Technology Project.) Then there is also the University's Faculty of Engineering in Dar es Salaam, which has for years taken direct interest in small-scale rural industry, and which has recently established excellent design and testing facilities in the Institute for Product Innovation, a GTZ aid project. All in all, Tanzania has plenty of expertise capable of doing product testing, but no viable mechanism to insure that these resources are drawn upon when new enterprizes are launched.

3.57 A final word is needed about AISCO, a small parastatal unit established under the Board of External Trade to handle all agricultural imports. The establishment of AISCO has added one further source of delay to what was already a cumbersome system for obtaining needed parts and equipment (a sore point among Tanzania's estate producers).

TABLE 3.7

ESTIMATED PRODUCTION OF MAJOR CROPS (1980)

(000 tonnes)

Cereals:	1980	Other Crops:	1980
Rice (paddy)	291	Sugar (refined)	119
Maize	1,726	Beans[a]	423
Millet	392	Cashewnuts	63
Sorghum	551	Other nuts	9
Wheat	87	Vegetables	767
Other cereals	61	Fruits	447
Total cereals	3,108	Vegetable oils	61
Cereals/per caput (kg)	178	Other foods	84
		Coffee	50
Starches		Tea	17
Cassava (dry)	1,207	Tobacco	19
Bananas	2,153	Cotton	179
Other starches	579	Sisal	82
Total starches	3,939	Castor	1
Starches/per caput (kg)	217	Pyrethrum	2

[a]Note that seed beans sold to Europe are a major commercial crop in Arusha Region, so that this total is not all available as food inside Tanzania.

[b]Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy. Vol. 1, Main Report. Rome: FAO for KILIMO, Table 8.

Crop Development

b. Export Crops

3.60 Because of its diverse topography and complex ecology, Tanzania has the potential for growing a wide spectrum of crops, ranging from tropical ones like cocoa nuts on the Coast to temperate fruits in the Iringa highlands. As Table 3.7 shows, Tanzania currently produces over twenty major crops and many additional minor ones (not shown). Within the major crops, there are sometimes (as in the case of tobacco and coffee) significantly different types which require their own growing conditions. Furthermore, several of the country's export crops were initially promoted in particular geographical areas: sisal on the coast, coffee on Mts. Kilimanjaro, Meru and Rungwe, tobacco in Tabora, cotton in the "lake zone", and pyrethrum and wattle in Mufindi. Other regions were entirely missed, e.g. Singida and Kigoma, and have had to export labor instead.

3.61 In chapter two, we pointed out that Tanzania's crisis in export earnings might have been alleviated if the country had focussed its development efforts on just coffee, the top exchange earner. The association of export crops with particular regions and ecological zones in part explains why the government cannot easily withdraw its support even when the relevant cash crop authority may be accumulating large losses or the crop is no longer profitable to farmers. For the regions concerned, "their crop" represents a large sunk cost in service facilities which cannot be easily shifted to support other enterprizes. This is particularly the case for the major export crops, all of which have linked processing investments. It has been the donors' mistakes in the processing sector--especially in regard to meat, tobacco, and cashew nuts--which have saddled these industries with a mounting debt burden (see Chapter 2 on the cashew nut industry). The Tanzanian experience suggests that economic recovery depends upon astute decisions in each industry, and what works in one may not be effective in the others. For this reason, let us briefly review the major export crop industries individually.[1]

[1]The best source for this purpose are the MDB's annual price review reports, which cover the various major crops in separate annexes and which have been drawn upon for the general comments which follow.

3.62 Tanzania's "coffee industry" is an amalgam of two major production types. About 200,000 ha is estate grown, where overhead sprinkler irrigation is often used to safeguard yields and water fermentation (in coffee "factories") to insure high quality. Most of the estates were located in Arusha and Kilimanjaro Regions, and a sizeable number were among the farms nationalized in 1974-75. The estate sector has for years contributed a large share of the higher grades in Tanzania's coffee exports. According to the Coffee Growers' Association figures (TCGA), whereas in 1977/78--a high point, when coffee contributed 41% of Tanzania's foreign exchange earnings--when 9% of Tanzania's coffee was in the top 4 grades and 44% average or better, by 1980/81 less than 9% was average or better. This quality differential has a major impact on coffee earnings, but is not adequately reflected in prices paid to growers where the estates subsidize the smallholders and where a grower's quality differential is not reimbursed until the last (often deferred) payment for the season's crop.

3.63 Smallholders in turn relied on primary co-operatives to supply inputs, pulperies (though not in all cases), and common marketing. Within the co-operative movement (as we shall see in chapter 6), the country's coffee co-operatives were by a wide margin the strongest in the nation (and during some periods the only solvent ones). In other less favored areas, such as the Usambara Mts. in Tanga Region or the Uluguru Mts. in Morogoro, while peasants grow coffee they must process the berry by hand (into buni, which receives very low prices), and have enjoyed little government encouragement in doing so. The two main species of coffee, arabica and robusta, do well in different environments; arabica prefers the volcanic mountains like Meru and Kilimanjaro, while robusta (used for mild, instant coffee) does well in Kagera Region and on poorer soils.

3.64 Tanzania's coffee industry suffered from several major dislocations in the mid-1970s, whose impact unfortunately overlapped the peak prices of 1977/78. First, the nationalization of Northern Tanzania farms (which exempted a few of the highest quality producers)

took place during a prolonged drought, when disruption of irrigation immediately depressed the estate yields. Second, the disbandment of the co-operative movement in mid-1976 left the primary societies' affairs in disarray just when prices were rising. Third, the Government then reorganized higher level marketing, reconstituting the Coffee Board into the Coffee Authority of Tanzania, or CAT (from 1977 onwards). As Table 2.6 (p. 27) shows, whereas producers were receiving 69% of the F.O.B. price for coffee under the old marketing arrangement, by 78/79 after CAT's takeover they received only 45%. Fourth, coffee berry disease (a fungus probably introduced into northern Tanzania with smuggled seedlings from Kenya) was depressing yields within the peasant-grown sector at this time. And, fifth, the combination of a boiler blow-up in Bukoba's instant coffee factory and the Uganda War destroyed much of Tanzania's coffee output from Kagera.

3.65 As established under the Coffee Industry Act of 1977, CAT had the usual Tanzanian structure with a General Manager who reports to a Chairman and Board of Governors. Directly under the General Manager were four departments ("directorates") for production, marketing, finance and administration. Up to June 1982, the CAT had 3 major zonal offices (Northern, Southern and Western), with 2 sub-zones (for Arusha and Ruvuma). It is also responsible for three subsidiary companies, one in Moshi and two in Bukoba. The Bukoba TANICA plant processes green coffee into instant coffee for sale both locally and externally. CAT also found itself operating a few of the nationalized coffee estates, once their declining productivity became evident. In 1982/83, CAT was once again under transition with the re-introduction of co-operatives and instructions to hand over its extension staff to the Ministry of Agriculture. It was severely criticized for lax financial control in a 1979 MBD review of the crop parastatals (Report B4). Prior to its present reorganization, CAT was listed as having 1,393 employees (1982), 158 of them in its head office in Moshi.[1]

[1] Marketing Development Bureau(1982) Price Policy Recommendations for the July 1982 Agricultural Price Review, Annex 7. Coffee. Dar es Salaam: MDB, Ministry of Agriculture, 51 pp.

3.66 With coffee, as with several of Tanzania's export crops, there is a severe external market constraint which accounts for the great importance of maintaining high quality production. The international coffee trade (as of mid-1983) was regulated by the International Coffee Council on behalf of 73 member states in the International Coffee Organization (47 exporting countries covering nearly all producers and the major consumers). Under terms of the 1976 International Coffee Agreement, a quota system is in effect. Because of weak international prices, Tanzania's export quota was cut in 1981 from 800,000 to 685,000 bags. This quota represented only 62% of CAT's domestic purchases in 80/81 (of 1,113,000 bags or 66,761 t), so that much of the balance had to be sold at discounted prices on the non-quota markets, e.g. to Algeria (MDB 1982:32). The main donor working with CAT to improve output quality has been the EEC, which is financing Phase II (post-1981) of the Coffee Improvement Program.

3.67 Sisal was during the colonial period Tanzania's most important export crop, generating about a quarter of Tanzania's total earnings (comparable to the place coffee holds today). As a hard fiber, sisal is mainly used for field twine but can be processed into a variety of finished goods (baskets, carpeting, reinforcement, etc.). From the mid-1960s onwards the competition from synthetics brought about a price collapse from which the industry has never fully recovered. Though Tanzania was the world's second largest producer (with 20% or so of the market), the share held by Brazil (the largest producer) is so predominant that Tanzania is forced to sell at prevailling prices and any attempt at restricting output is quickly countered by purchasers resorting to Brazil or Kenya for their supplies.

3.68 The prominence of the large-scale, estate producers during the colonial period coupled with the price collapse of the 1960s led to the early nationalization of many estates a few months after the 1967 Arusha Declaration. A new parastatal, the Tanzania Sisal Corporation was formed in 1967 to manage the nationalized estates.[1] Sources

[1] Established under the Tanzania Sisal Corporation Act (1967) which was superceded in 1973 by the Tanzania Sisal Industry Act which brought into being the Tanzania Sisal Authority (TSA).

differ concerning the number of estates taken over (between 30-45), belonging to twelve companies. As of 1979, it was claimed that over 137 million shs. compensation remained to be paid--an obligation which the TSC handed over to its parent authority the TSA when the TSC and TSA were amalgamated in 1977. Before amalgamation, the TSC had about 20,800 workers (1974) and the TSA 177, of which 22 were senior staff (1976).[1] It is perhaps indicative that while the TSA controlled in 1979 almost 200 million shs. of funds, within the whole organization there was "not one fully academically qualified accountant" (MBD 1979:3). The TSA operates under the usual Tanzanian pattern, with a General Manager to whom divisional heads report; the GM in turn is answerable to a Presidentially appointed Board (10-15 members) headed by a Chairman. As of mid-1977, the TSA undertook to decentralize its functions to several zonal offices.[2]

3.69 The 1967 nationalizations--three more estates were added in 1968 and some twenty additional ones in 1974--left the Government in control of more than half Tanzania's total sisal production. However, the plantations taken over tended to be those in dire economic straits. Many owners had anticipated nationalized by ceasing to replant, postponing factory improvements, or by selling out (one reason Tanzania withdrew from the East African Currency Board in 1966, in order to stem the flight of capital). Whereas the most profitable and well-run plantations (such as the Swiss-owned, Amboni group) remained in private hands, the ones inherited by the sisal corporation were already near collapse.[3] Given the low prevailing sisal prices, the TSC put a substantial amount of funds into an ill-fated diversification program, attempting to convert its worst performing estates into dairying, horticultural crops, tea, or even maize production. For a variety of reasons this effort failed. Thus, after 15 years of subsidy and 4 years after a complete reorganization, the government controlled estate sector was described in the Daily News (12 November 1981) in the following words:

[1] Figures from the respective Annual Manpower Reports.

[2] This paragraph is based on material from MDB's 1979 "Report B 8. TSA. Tanzania Sisal Authority," 55 pp.

[3] For a description of the plantations after nationalization in 1970, see Ndawula-Kajumba (1977) Socio-Economic Aspects of an African Plantation System, ERB Paper 77.1.

> abandoned sisal estates—mostly overgrown by bushes—overaged and uncut sisal leaves, decaying decorticators, ramshackle vehicles, dilapidated buildings, rusty workshops and, above all, frustrated sisal growers are reflective of the deteriorating situation.

The period from 1974 to 1982 saw production halved, dropping from 94 thousand tonnes worth Shs. 464 million to about 48 thousand tonnes worth Shs. 214 million (MDB 1983). This decline virtually wiped out the associated small-scale machinery services, most of which had been in the hands of Asian family businesses within Tanga and Morogoro.

3.70 A major further difficulty has been the adverse trend in the labor market. Traditionally, the majority of sisal workers did not originate in neighbouring highland areas (such as the Usambara or Pare Mts.) but instead came from remote parts of southern and western Tanzania (Gulliver 1955). In the 1970s, by government policy this interregional migration was actively discouraged. In addition, it was likely that workers were afraid of jeopardizing their claims to land at home by being away, since the southern and western regions were the first to be villagized. In response, the TSA tried to encourage "outgrower" production by villagers (in 1974/75 and again 1977/78) under a heavy subsidy for cut leaf (production reaching about 8,000 mt in 1975). When the subsidy was dropped, smallholder deliveries effectively ceased (Spurling 1982:31). Local residents within the sisal producing regions—mainly Tanga, but also Morogoro, Kilimanjaro, Coast, and Mtwara—refused to come forward to do the arduous work of sisal cutting. The plantations were thus trapped between low price ceilings and rapidly rising labor costs—a situation exacerbated in April 1980 for the private estates when the government imposed a confinement order requiring that all spare parts and materials be ordered through inefficient parastatal trading corporations (such as AISCO). Meanwhile the TSA's estates resorted to underplanting, a tactic which ameliorated their cash flow problems but at a cost of crippling longer-run earnings. (As a perennial crop, sisal requires several years before leaves can be cut). This background, then, explains why TSA was one of the parastatals being considered for possible termination in 1983/84.

3.71 Cotton is in many respects the small-holder equivalent of sisal, being also a fiber crop which competes with food crops for land and inputs and also subject to strong competition from synthetics on the international market.[1] As with sisal, in Tanzania it is a regionally-based crop with about two thirds of annual production coming from Mwanza and Shinyanga regions. While it has never been Tanzania's predominant export earner, cotton has usually been an important crop accounting for between 10-15% of the nation's export earnings over the decade of the 1970s (though with a marked slump in the mid-1970s). The crop is grown almost entirely by smallholders without benefit of large-scale irrigation, or parastatal scheme management (unlike some other African countries like the Sudan). The mid-1970s slump is usually attributed to the 1973/74 villagization exercise, when the physical relocation of villagers coincided with a time of drought. Cotton does best on heavy clay soils, which are widely found in Tanzania's lake regions but which can also produce rice (peasants' preferred crop at times when cotton prices are low).

3.72 From the viewpoint of the farmer, cotton has been a problematic crop even at the best of times. First, to get the highest yields it should be planted early—putting it in direct competition with labor for food crops (and this in drone-prone regions where farmers have a strong reason for giving food production priority). Second, the crop is heavily attacked by a wide spectrum of insect pests. The drought resistant food crops grown in Sukumaland accomodate some of these same insects, so that when farmers spray cotton the insects simply move into the food crop stands. Official recommendations these days call for between 8-12 sprayings per season—making farmers dependent in turn upon an outside agency (the TCA) for credit, imported inputs, and spare parts. The third problem is the labor intensive nature of cotton, which requires a heavy input at picking time (usually done by women and children). Unless farmers practice all the recommendations jointly, output falls off sharply and at current prices it may not be worthwhile even to pick a crop still in the field.

[1]Except for an excellent but dated article by von Rotenhan (1968) and a Ministry Handbook (1964), the major sources on Tanzania's cotton production are unpublished Ph.D. theses. See especially Hankins (1974), McHenry (1971), Shapiro (1974), and Malima (1971).

3.73 The cotton industry is serviced by the Tanzania Cotton Authority (or TCA) which came into being in 1973 (the Cotton Industry Act, No. 3). The TCA replaced the Lint and Seed Marketing Board, continuing to occupy its Dar es Salaam facilities (hence "Pamba House" shared with the Ministry of Agriculture). However, the TCA's main organizational node has remained its Mwanza offices which have long served as headquarters for Tanzania's peasant-grown cotton industry. (Here see our notes in chapter 6 on the founding of the co-operative movement.) Control follows the usual Tanzanian system of having the General Manager report to a Board (10-15 members) under a presidentially-appointed Chairman. The TCA began life in 1973 with 805 employees in a strong financial position at a time of high prices. It was also the recipient of early IDA loan support, a Shs. 145 million credit for cotton expansion in Geita district (MDB 1974:96-98).

3.74 While the former Marketing Board had been fiscally cautious and had confined its attention to the crop handling aspects, the TCA followed the example of the co-operative movement within the Lake zone in expanding into seed-cake production and other ancillary activities. By 1977, it had 1,655 established posts: 87 in its head office, 1,054 in Mwanza Region, and a bit over 100 each in Kigoma, Shinyanga, and Geita; Musoma had 19 staff and Morogoro 25. This staffing picture generally reflects the TCA's areas of concentration. It is also worth noting its 1977 intention (from the Manpower Report) "to replace the existing expatriate accountants who are estimated to be 20 and to be self-sufficient in this field by 1982" (MMD 1982:24).

3.75 In recent years, TCA has experienced a strongly adverse financial trend. KILIMO figures compiled in mid-1982 showed that while on its current trading account TCA showed a profit in 1977/78 and 78/79, from 79/80 the trend became negative with TCA's bank overdraft rising from shs. 232 million in 77/78 to a cumulative total of shs. 1,090 million by mid-1982. These losses have completely eroded the Authorities assets. As with TAT, TCA has had problems in recovering loans from villages, an outstanding debt for inputs of shs. 41 million in 1982.

3.76 KILIMO's supervisors had difficulty in ascertaining TCA's true financial situation because the organization appeared to have little financial control over its own field operations. In the PPMB's own words, accounts supplied by TCA "are mostly estimates and appear rather unreliable." Based on TCA's own data, cost of sales rose from 59 to 95% of sales revenue over the period 77/78 - 81/82. Administrative expenses remained fairly constant at about 30%. Most of TCA's losses occur in regard to its mandated role (from 1977 onwards) of purchasing the cotton crop from villages. In 1982, KILIMO recommended urgent overhaul of TCA's financial system, which suffers not from lack of data but rather inconsistency, incompleteness, and poor reliability.

3.77 An equally depressing picture emerges at the production level. Tanzania's total cotton output has fallen 35% from the average of about 60,000 t achieved earlier (1970-75). World prices reached a ten year low in real terms in 1982, when Tanzania's production (82/83) was about 43,000 t. In an effort to increase production, the Government announced a 40 per cent (5% real) increase in producer prices for the 84/85 season, which MDB estimates would generate losses of Shs. 422 million for TCA. As MDB notes, "clearly, Government should make appropriate budgetary provision for price support subsidy in that year's budget" (MDB 1983:34).[1]

3.88 Cloves also contribute significantly to Tanzania's exports, over 3,000 t worth 393 million shillings in 1983 (MDB 1983), but because they are grown almost exclusively on Zanzibar and Pemba Islands they were usually not shown in mainland statistics until 1983/84. (Zanzibar is a small place, and the feeling among Zanzibaris that they were subsidizing mainland extravagance was a source of dissension underlying the changes in Party leadership in 1984.) Details on Zanzaibar's clove production were not available to us in 1983. However, it is generally known that the Islands' clove plantations have suffered from serious outbreaks of "dieback" and "sudden death" in recent years (Zanzibar Government 1978).

[1]Though dated 1983, the MDB's 1983 price review was not published until early 1984, allowing inclusion of some 1982/83 statistics in the 1983 report.

3.79 Tanzania's cashew nuts are another regionally-based industry, like Zanzibar's cloves being a perennial tree crop confined to the coastal zone (mainly in the southern regions of Mtwara and Lindi, but also extending through Coast Region into Tanga). As with cloves, Tanzania is a major world producer. At the high point in the early 1970s, it produced over 100,000 t of raw kernals worth nearly 200 million shillings, which came from an estimated 350,000 ha of plantings (MDB 1983). Almost all this crop originated from peasant-owned stands averaging about one hectare each. Cashews are drought tolerant, do not require high soil fertility, and can be grown extensively with relatively little labor input. As a long bearing tree crop, cashews seem ideal for peasant producers, since they are complementary to the rice and other horticultural crops traditionally grown in the coastal zone. It also seemed, as of the early 1970s, that Tanzania could mechanize cashew processing in order to export the higher value processed nuts. Total export earnings (including processed nuts) peaked at nearly shs. 500 million in 1981, when prices for rawnuts were over shs. 11,000 per t and for processed kernals nearly shs. 38,000 per t (MDB 1982).

3.80 The above background explains the World Bank's ill-timed intervention in "support" of Tanzania's cashew nut industry, through financing a major expansion and mechanization of cashew processing. The Cashew Authority (CATA) is another of the parastatals formed in 1973 (the Cashewnut Industry Act, no. 18), following the break-up of the National Agricultural Products Boards into three separate units (CATA, GAPEX and NMC). Its headquarters are in Mtwara, supplemented by major facilities in Dar es Salaam and Coast Regions. It has the usual structure of a General Manager reporting to a board chaired by a presidential appointee. CATA had several changes in structure and management during its early years, coupled with "extreme shortages in the financial management and accounting areas." Its persistent staffing problems no doubt reflect Mtwara's isolated situation, where intermittent shortages of water and electricity are common (MDB 1979, B5:7-8). The

Authority plays a central role in village-level cashew marketing for some 700 villages, to which it sends its own field teams to grade, record, and buy each peasant's crop.

3.81 World production of cashew nuts comes almost entirely (90%) from 4 countries--India, Tanzania, Kenya, and Mocambique--with total annual output running between 300,000 and 400,000 tonnes for the past decade. While India's production has risen from 90,000 t in 1974/75 to 120,000 t in 1981/82, over the same period Tanzania's fell from 119,000 t to 44,000 (MDB 1982, 5:16). Traditionally, Tanzania's cashews were mostly shipped to India for processing. At the time of the World Bank's initial involvement, there were two processing units in Tanzania, the Tanita (10,700 t throughput) and Mtwara (6,800 t) plants. Under two IDA loans, the Bank added processing capacity in Lindi, Nachingwea, Masasi, Newala, Kibaha, and Mtwara itself, raising throughput potential fivefold to roughly 100,000 t (MDB 1982, 5:6). Since actual production (CATA purchases) dropped to less than 33,000 tonnes in 1982/83, it is not surprizing that CATA faces acute cash flow and debt repayment problems (MDB 1983:31).

3.82 How did the World Bank get its own projections so wrong? One reason is, of course, India's aggressive protectionism which for a period even removed the price differential between raw and processed nuts. But while this may explain why CATA loses money on its processing operation, it does not answer why peasant output has dropped to one third earlier levels. Inside Tanzania, one hears numerous "explanations" (see Ellis' amusing review in ERB Paper cited earlier). The principal cause has undoubtedly been villagization, which took place earlier in southern Tanzania and which completely disrupted peasants' individual holdings. Added to this in subsequent years have been drought, a disease and pest build-up, failure to replace aging trees, and low official prices. From 1981/82 the price situation has been rectified, but meanwhile Tanzania has lost its predominant position in the world market and nobody knows what to do with CATA's expensive processing capacity lying idle.

3.83 Tobacco and tea are also industries where expansion in the peasant-grown sub-sector took place after indpendence, even becoming "success stories" for a brief period. As it happens, Tanzania's peasant-grown tobacco is unusually well documented.[1] There are three types grown, mostly flue-cured (80% of so of the total) produced in Tabora, Iringa, Mbeya and Rukwa Regions, but some fire-cured tobacco in Ruvuma and a little burley in Morogoro and Tanga. Starting from a base of 12,000 t worth 134 million shs. in 1974, Tanzania's production rose to a high point of 16,000 t worth 262 million shs. in 1976 before a dramatic decline to 7,000 t in 1979. 1982 output has been estimated at 9,200 t, valued at 170 million shs. (MDB 1983). The great bulk of this comes from Tabora and Iringa, 75% or more from smallholders living in "tobacco villages" but some still derived from larger farms in Iringa (formerly run by Greeks belonging to the SHTGA). Some of Tanzania's production decline can be ascribed to the squeezing out of SHTGA growers in the 1970s and to Zimbabwe's vigorous re-entry into the international market--during UDI, Rhodesia's tobacco exports were restricted--but mostly the problems have been internal to the industry itself. The decline in quality and output of Tanzanian tobacco has occured <u>despite</u> receiving major support from the World Bank to the Tobacco Authority (TAT). It is in marked contrast to the successful record of tobacco production among small-holders in western Kenya and in Zimbabwe, though Malawi's tobacco farmers have experienced some of the same problems that Tanzania's have.

3.84 For the villager living in western Tanzania, tobacco has been a demanding crop because of its heavy input requirements (which must be obtained on credit from the TAT), because of a high degree of skill needed, because of major investments farmers must make in curing barns, because tobacco is demanding of soil nutrients and

[1]See J. Boesen and A. Mohele (1979) <u>The "Success Story" of Peasant Tobacco Production in Tanzania</u>, Uppsala: Scandinavian Institute of African Studies; R. Feldman (1975) "Rural Social Differentiation and Political Goals in Tanzania," pp. 154-182, In, I. Oxaal et al. (eds.) <u>Beyond the Sociology of Development</u>, London: Routledge; W. Scheffler (1968) "Tobacco Schemes in the Central Region," In, H. Ruthenberg (ed.) <u>Smallholder Farming and Smallholder Development in Tanzania</u>. Munich: Weltforum Verlag; S. Mueller (1980) <u>The Agrarian Question in Tanzania: The Case of Tobacco.</u> Boston Univ. African Studies Center, Working Papers No. 32. Boston: Boston University, 25 pp.

competes directly with food crops, and because of the large amount of firewood needed in tobacco curing.[1] In Mueller's words (1980:12-13):

> The inputs used in tobacco are fertilizer, "seedbed packs (containing insecticides, fungicides and seeds), packing material (tarline paper, jute twine, and hessian cloth) and barn flues in the case of fire cured tobacco"... An initial investment is required to clear the land and to build curing barns and grading sheds. Furthermore, in the case of fire cured tobacco, peasants must also pay for the transportation of firewood or haul it on their backs. Although there is a 50 percent subsidy ... the Tobacco Authority ... actually reimburses the Government for the inputs and then deducts them from the world price, thereby lowering the producer price. Effectively then, there is no real subsidy to the direct producer .... The cost of tobacco inputs as a percentage of gross income has risen from 20 percent to as much as 50 percent.

Mueller also points out that tobacco is an unusually risky crop when grown under Tanzanian conditions (1980:15):

> ...its production consists of a number of stages where any modifications or cutbacks in constant and/or variable capital increases the potential for loss. At many points during production and marketing, individual producers are dependent on state organizations outside the village.... Inputs which must be imported sometimes do not arrive on time for a variety of reasons.... Once inputs are delayed, for whatever reason, the result may be delays in planting, curing or marketing...
>
> TAT is responsible for transporting firewood to tobacco villages; however, often it does not do so, leaving individual farmers to perform their own cutting and hauling. Hence the tendency to use too little firewood in the curing process, thereby increasing the likelihood of loss and reducing the quality (the grade) of the tobacco produced. Although TAT is supposed to pick up the cured tobacco from village baling sheds several times a week, there are often delays of up to several weeks. Most villages do not have adequate storage facilities, and the tobacco is often ruined.... Once tobacco is sold, producers may not get paid for up to three months, due to delays in accounting between TAT and TRDB. Even then, the returns are only 40 percent of the total purchase price, as 60 percent is automatically deducted to repay for the inputs which have been received on credit. Farmers have been known to ask "what urban workers would do without three months salaries" (Interview 1978) and more and more are switching to maize where one gets paid at the point of sale.

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[1] See A. Temu (1979) Fuelwood Scarcity and Other Problems Associated with Tobacco Production in Tabora Region, Tanzania. Morogoro: Division of Forestry, Faculty of Agriculture, Forestry and Veterinary Science, 22pp., (an account based on the author's Ph.D. thesis research).

The exhaustion of firewood around established villages has emerged as a significant production constraint, as have other less recognized problems such as rapid soil depletion and a build-up of nematode infestation. Until recently, TAT had almost no concept of extension work, failing both to insure growers received reliable seed and to provide its own extension staff with basic guidelines concerning what and how to "extend". Indeed, one of the main changes which the establishment of TAT in 1972 involved was to transfer to the Authority all extension functions for tobacco which had formerly been under the Ministry of Agriculture (MDB 1974:92).

3.85 Another mistake may have been to locate TAT's headquarters in Morogoro--a compromise because this was the transport juncture between western and southern Tanzania. However, this meant that BAT's already developed facilities at Urambo and Tumbi Research Station in western Tanzania were far removed from managerial decision-making, and from TAT's processing and storage facilities (all located in a new IDA-financed complex at Morogoro). Morogoro lies in the hot, sometimes humid coastal zone. Its labor force is notoriously slack, even by Tanzanian standards; stored leaf can easily become moldy; and every tonne of tobacco processed must be transshipped twice. By 1978, TAT which employed 728 workers in 1974 had grown to 1,757, nine of them non-citizens (MMD 1982:14). The IDA tobacco project (1971-1976) in fact realized only about a quarter of projected increases in tobacco area and even less than that of anticipated output. Tanzania's export situation has meanwhile been jeopardized by a precipitatuous decline in its tobacco quality. By September 1983 the situation was so bad that TAT could no longer meet Tanzania's tiny internal demand for finished cigarettes--reportedly because the shut-off of imports left TAT without cigarette paper. Since sales tax revenues on cigarettes are a significant component in the Government's revenue, once again State House had to intervene by calling the industry's representatives into conference in Dar es Salaam. None of these points are news in Tanzania, but they explain why TAT is seen as one of the weakest crop authorities.

3.86 The tea industry in Tanzania though small (2-4% of total export earnings) is an interesting case for two reasons. First, direct comparisons are possible to tea production in neighbouring countries (Kenya, Uganda, and Malawi), all of which--like Tanzania--began their smallholder-grown tea from the nucleus of an existing, estate-grown industry.[1] Second, the Tea Authority (TTA) was Tanzania's pilot crop authority (established under the Tea Ordinance Act of 1968), modelled closely on Kenya's highly successful KTDA.[2] Total tea production peaked in 1977/78, at 18,462 t; (MDB 1982); since then it has declined to 11,900 t (MDB's 1983 provisional estimate for the 1982 season).

3.87 Tea is grown within Tanzania in several widely scattered locations: the Usambara Mts. (Tanga Region); Mufindi and Njombe (Iringa Region); Rungwe (Mbeya Region); and Bukoba (Kagera Region). The reason for this dispersion is both historic--the clustering of estates producers in Mufindi and also the Usambaras--and ecological. Tea requires acidic soils and reliable rainfall. In East Africa, these two conditions tend to occur either near the great lakes (e.g. Bukoba), or else on mountainous slopes at higher altitudes. While there were a few estates in the Usambaras which purchased green leaf from surrounding smallholders (and still do), the main impetus for entry of Tanzanian peasants into tea production came after Independence at government initiative. Today the smallholder component constitutes roughly one third of Tanzania's total output, e.g. TTA factoris in 81/82 produced 5,116 t within a total of 15,595 tonnes. Of the total planted area of 19,490 ha, 48% is found on private estates, 6% on TTA's estates, and 46% on the farms of some 9,400 smallholders with a mean plot size of .34 ha (MDB 1982). These aggregate totals conceal significant local differences. For example, much of Bukoba's tea comes from traditional, intercropped farming and a substantial share of smallholders (46% of ha and 35% of growers) are found in a single area around Rungwe.

[1] See Dan Ethrington (1971) "Economies of Scale and Technical Efficiency: A Case Study in Tea Production," East African J. of Rural Development, vol. 4, no. 1, pp. 72-87.

[2] G. Lamb and L. Muller (1982) Control, Accountability, and Incentives in a Successful Development Institution: The Kenya Tea Development Authority. World Bank Staff Working Papers, No. 550. Washington, D.C.: The World Bank, 71 pp.

3.88 TTA's headquarters is located in downtown Dar es Salaam, just above FAO's. The General Manager reports to a Board of Directors. Under him come (as of 1980) four departments (administration, production, marketing, and finance/planning) as well as four field branches located in TTA factories within the different production zones. The Authority supervises smallholders—registering them, providing planting material, arranging credit and inputs, and organizing leaf collection and buying--as well as running its own estates, building and operating tea factories, and supplying Brooke Bond Liebig's with made tea for internal Tanzanian consumption (20% or more of its factory output). While TTA had 1,666 employees (as of the 1978 MDB Annual Report), many of these were seasonal laborers and according to World Bank figures the Authority reduced its headquarters staff from 240 in 1974 to 93 in 1979. As it had in Kenya, the World Bank provided initial IDA loans for new factories, linked schemes for outgrower expansion, and the construction of "tea roads" so that rapid leaf collection could be extended to a wider area around each factory. At that time it was planned that regional co-operative unions would hold 49% of the shares in each of the new factories, with the Bank supplying IDA fertilizer and input financing through the co-operatives and TRDB (MDB 1974:109-110). It was originally planned that the factory profits would furnish the larger part of TTA's revenue. In actuality, since construction the factories have run at a loss and the TTA has had to rely instead for revenue on selling of tea stumps, a cess on made tea, and government subventions.

3.89 The disappointing trend in tea production relates both to output and to quality. TTA factory output dropped from 5,555 t of made tea in 77/78 to 3,986 t in 81/82 (MDB 1983:32). The Rungwe factory at the center of smallholder production operated far below capacity "due to mechanical problems at the factory, lack of green leaf transport vehicles and shortage of pluckers" (MDB 1982:3). While private estates operated under even greater constraints, their output decline was less than half of TTA's. As MDB notes, their performance was "a tribute to the management capability of the private tea producers" (MDB 1982:1). Poor response from smallholders can be explained by the fact that in real price terms the amount realized by the producer declined from 3.13 shillings in 1972 to 1.50 shillings in 1981 (MDB 1982:19).

3.90 Sugar production in Tanzania is from sugarcane, not sugar beets. Almost all the officially marketed production comes from four sugar companies, two located in Morogoro Region (Kilombero and Mtibwa) and one each in the North (TPC) and in the West (Kagera). Mtibwa and TPC represent former estates which were put under public ownership while retaining expatriate management. Responsibility for sugar development rests with the Sugar Development Corporation (SUDECO), a public corporation (as contrasted to a crop authority) formed by executive order in 1974 (under provisions of the Public Corporations Act, no. 17 of 1969). SUDECO wholly owns its subsidiary companies, which have an installed capacity of 221,000 t but were in 1980/81 producing about 118,000 t. Even excluding Kagera—out of action during the War in Uganda—capacity utilization was 69% and declining as of late 1981. This necessitated an embarrassing intervention by the World Bank to finance a sugar rehabilitation project even before its original loan to the sugar industry had terminated.[1] The individual companies are large employers, Mtibwa having 3,972 employees (36 non-citizens) and Kilombero having 8,408 (21 non-citizens) in 1978; at this time SUDECO employed 142 in its headquarters unit (MMD 1982:12-13).

3.91 At the very bottom of the list both in size and in profitability come the Tanganyika Pyrethrum Board (TPB) which in 1978 had 134 employees, and the General Agricultural Products Export Corporation (GAPEX), which had 570 (MMD 1982:14-15). TPB has continued to expand its administrative expenditure (mid-1982), though pyrethrum production fell from 4,000 t in 72/73 to 1,600 in 82/83. This decrease mostly reflects the intense competition from synthetic pyrethroids, which reduced the overseas selling price from $ 62.60/kg in 1980 to $ 41/kg in June 1983 (MDB 1983). GAPEX which like SUDECO is a public corporation handles a range of minor crops which are usually low-volume, high risk crops to market (cardamon, cocoa, castor seed, pulses, beans, and mimosa extract). Up to 80/81 it had a positive working capital situation, but since then has accumulated growing losses.

[1] Which appeared to be working, at least from KILIMO's figures on industry profitability as of mid-1982. Data reflecting the recent collapse in sugar prices in 1981 is not yet available.

c. Agriculture in Zanzibar

3.92 Except for cloves, the foregoing review makes no mention of Zanzibar's agricultural production. In future, this omission will become unnecessary. After twenty years, Zanzibar's statistics are finally beginning to appear in the United Republic's documentation. The gap until now arises because at the operational level the Mainland's and Zanzibar's ministerial structures remained totally separ

3.93 Based on a 1978 Zanzibar Government document, We have Completed the Fourteenth Year, certain rudimentary aspects of Zanzibar's agriculture can be described. At the consumers' level, the Zanzibar Government directly subsidizes a number of agricultural commodities: rice, sugar, wheat flour, ghee, meat, and tinned milk. Rice cultivation has been the Ministry of Agriculture's top priority (at an earlier stage even enjoying USAID support and more recently help from FAO). Of 35,700 acres devoted to rice in 76/77, 16,600 were under mechanized (state farm) production, vs. 19,000 acres hand grown (by smallholders). Other significant crops in 76/77 on Zanzibar and Pemba include Bananas (27,142 acres), maize (10,363 acres), sorghum (9,986 acres), tannia (4,729 acres), cowpeas (2,385 acres), pigeon peas (2,467 acres), and mung beans (1,725 acres). The Ministry began a new sugar plantation at Mahonda, with a yield in 1976/77 of 60,000 t (giving about 6,000 t made sugar). A second planned estate of 1,000 acres would bring the Islands' total to 4,000 acres capable of producing 80,000 t of raw cane.

3.94 Coconuts traditionally have been an important Island crop. The low yields obtained in recent years reflect the fact the extension services paid no attention to coconuts. Farmers left their trees to survive is semi-wild state, without giving any assistance after planting. This situation is addressed by the National Coconut Development Program (or NCDP), a German aid assisted project, which is one of the few operational programs involving both the mainland and the Islands. Out of NCDP's 1,200 extension staff, about 150 occur in Zanzibar or Pemba (of which 25 are diploma holders, 40 have certificates, and the

rest are auxiliaries). The focus of the campaign is on getting farmers to plant improved varieties and to employ recommended husbandry, i.e. no fires, insect control, ring weeding, ferilizer, mulching, and intercropping with food crops. The NCDP operates a cycle of training sessions for staff and farmers alike; if adopted, its recommendations can boost production from an annual average of about 21 nuts per tree in a neglected stand to a maximum of 72 per tree when new varieties are given fertilizer. A side benefit is that food crops grown in among the coconuts also show significantly higher yields. The Zanzibar State Trading Corporation (ZSTC) handles all the Islands' agricultural exports, among them being coconut oil and copra cake.

3.95 The chief problems facing the Islands' livestock industry are the very limited areas available for grazing, and the many health and nutritional problems associated with keeping improved stock in the hot, coastal climate. It is estimated (1978 figures) that the total number of beef cattle on Zanzibar is 2,955, supplemented by smallstock and a few dairy animals. Zanzibar's third dairy farm (at Bambi) received assistance from Heifers' International. A small dairy plant (500 liters/day) serving the town of Zanzibar became operational in late 1977. The Veterinary Services have concentrated on control of East Coast Fever and the possibility of introducing artificial insemination. The Zanzibar Livestock Development Department also had a small FAO/UNDP project (URT/73/028) aimed at developing two pilot units for smallholders keeping cattle, one (0.5 ha) being a simple 2 cow stall-feeding unit and the other (2.0 ha) being slightly more elaborate and including a rotation of intensively grown food and fodder crops (Reynolds and Lund 1981). The Islands' government has also negotiated access to a 88,000 acre ranch for its use in Bagamoyo District, on the mainland opposite Zanzibar. Indeed, the main potential for the Islands' future agricultural development would seem to be through commercial undertakings in the coastal zone opposite Zanzibar and Pemba. The crops and climatic conditions would be similar, but such plans would require better communication links than now exist to the mainland.

d. Food Crops

3.96 In mainland Tanzania, attention to food policy often follows adverse seasons, when a food deficit forces the Government to consider raising producer prices. Then, typically, worry arises that peasants may be shifting resources out of export crops and the emphasis shifts back to export crop promotion. As a consequence, food policy varies from receiving a high priority to low priority, and sometimes promotional measures overlap good years and cause an embarrassing surplus. This situation is an inevitable consequence of the large role of subsistence, rain-fed production under circumstances of high risk as the basis of Tanzania's food supply. Factors influencing peasants' decision-making are only poorly understood, and each season may evidence a different pattern from the one which preceded it.[1]

3.97 Basic aggregate data on Tanzania's food supply situation are readily available within country. Most useful are the MDB's annual price recommendations, one volume of which is typically devoted to maize, rice and wheat. There is also an excellent overview report, the Ministry of Agriculture's National Food Strategy (1984). However, the user of Tanzanian data should keep several things in mind: i) MDB estimates are generally not based on actual field surveys, but represent instead reasonable guesses which MDB's field staff send to Dar-es Salaam; ii) data are weakest for the "minor" crops and most marginal regions; iii) the largest "unknown" is the extent of non-cereal production (bananas, cassava, etc.) and its movement through the unofficial trading network; and, iv) each season tends to be a case unto itself, making forward projections very hazardous.[2]

3.98 A main message of this report is that over the longer run, there is no necessary reason why Tanzania should encounter major food deficits. The country's resource endowment—the lake induced precipi-

[1] Key sources on food in Tanzania include Keeler (1982) The Consumption Effects of Agricultural Policies in Tanzania, Renkow et al. (1981) The Potential Effects of Alternative Structures and Pricing Policies..., Yaeger and Miller (1982) Food Policy in Tanzania, Zwanberg and Hogan (1981) Implications of the Drought Syndrome..., and various TFNC reports.

[2] Assistance for conducting field surveys on farm costs and returns to the MDB staff was one possibility mentioned for future USAID support.

tation in Kagera, Mbeya and Musoma Regions, its substantial but underdeveloped irrigation potential, the atypical rainfall regime in Tanga Region, and the relative abundance of land resources in the South and West—all combine to give Tanzania a reasonable hope of some day achieving food self sufficiency. Nevertheless, in Keyne's oft-quoted phrase, "over the long run we are all dead".

3.99 In the short run, Tanzania's deteriorating infrastructure, its balance-of-payments crisis, and the continued concentration of human populations around Dar es Salaam or on drought-prone lands of north-central Tanzania are likely to accentuate food deficits. At present the nation's diverse geography constitutes a marked disadvantage. Even in times of apparent drought there will be certain regions which do receive rainfall, making overall reports vague and contradictory (as happened in 1983/84). Perhaps Dodoma has a marked food deficit but nearby Singida gets a reasonable crop (as in 1984). The question then is to what extent Singida's surplus will meet Dodoma's needs through unofficial channels? Nobody can say with certainty, so that until drought is widespread there is a tendency to discount scattered reports of hardship. The biggest imponderable is how well the unofficial market can meet people's needs. Parallel market trading of food staples now represents the larger part of Tanzania's marketed food, but is not monitored officially.

3.100 Regional patterns of surplus relative to deficits are shown in Table 3.8 overleaf (1980 estimates). These figures support the observation made above, that Tanzania's regions exhibit varying patterns. By the Ministry of Agriculture's own reckoning, the country has no less than 16 major agroeconomic zones, comprised of 45 sub-groups "where agricultural conditions are sufficiently homogenous to warrant the adoption of a single, uniform agricultural policy" (KILIMO, 1984: 7). Since technical packages to match these 46 units do not yet exist, past attempts at imposing uniform recommendations on entire districts and regions have probably introduced an additional source of uncertainty into situations where production was already quite risky.

TABLE 3.8

REGIONAL SURPLUS/DEFICIT FOR FOOD CROPS, 1980

(000 tonnes)

Region:	Rice	Maize	Millet	Sorghum	Wheat	Cassava	Bananas
Arusha	- 15.1	15.9	--	3.5	20.5	- 0.1	17.2
Coast & Dar es Salaam	- 54.7	-114.9	-4.9	-10.9	- 46.0	5.1	- 6.2
Dodoma	- 4.1	6.0	1.6	- 7.4	- 4.4	- 0.5	0.1
Iringa	--	40.9	--	1.6	24.8	0.5	- 0.1
Kagera	- 1.2	-4.2	--	0.1	-2.0	1.2	22.6
Kigoma	- 5.5	-11.8	--	0.1	0.4	3.1	6.9
Kilimanjaro	-13.5	- 5.0	- 0.2	-1.2	-0.3	--	-67.9
Lindi	0.3	- 1.9	0.1	0.2	- 0.2	1.8	- 0.3
Mara	- 1.0	11.4	0.3	11.4	- 0.2	2.9	0.4
Mbeya	12.5	10.9	0.9	--	-5.9	0.6	8.6
Morogoro	0.5	6.9	--	3.5	-6.7	8.8	2.6
Mtwara	- 0.2	- 1.9	--	4.3	- 1.1	18.4	0.6
Mwanza	- 2.8	-2.8	0.2	-0.3	- 3.3	10.9	- 3.6
Rukwa	6.6	45.4	32.2	20.9	1.5	3.1	0.2
Ruvuma	2.4	28.4	0.1	6.0	4.6	3.4	-0.1
Shinyanga	13.9	1.0	-22.4	20.2	- 0.3	2.7	--
Singida	0.3	0.3	25.1	15.9	- 0.9	0.3	0.3
Tabora	1.3	3.9	1.6	0.2	2.9	3.8	0.2
Tanga	-4.2	-15.2	--	0.9	7.9	2.0	2.8

Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 1. Main Report. Rome: FAO for KILIMO, Table 3, p. 7.

3.101 Estimates of food deficits represent potential movements of food rather than total production, for which figures were given earlier (Table 3.7). In total production, bananas and cassava apparently outweigh cereals in respect to their quantitative contribution to the national food supply (mean production per head of 217 kg as contrasted to 178 kg for cereals). As in many other African countries, a danger exists that too much attention will be given by donors and KILIMO to the cereal crops. Unanticipated changes like the rapid spread of cassava mosaic (taking place in coastal Tanzania in 1979/80) or of fungus diseases in bananas can have a dramatic effect on the overall food requirements. Another worrisome feature in 1983 was the spread of the scania beetle, which reportedly could completely destroy stocks of maize flour held under usual village conditions. "Minor" problems of this nature if not checked could reduce total food supplies by, say, 20% in even a good year--indicating the precariousness of the government's ability to safeguard food self sufficiency.

3.102 In regard to long distance, traded food, maize is by far the country's most significant staple (especially since the "officially" marketed total represents the smaller proportion of actual food movements). Estimates of food grain procurement, sales, and imports (based on NMC figures) for the seven years from 75/76 to 81/82 are given in Table 3.9. Maize is not an ideal lowland crop, with the best yields occurring in highland areas similar to those of Kenya and Zimbabwe (where hybrid maize represents a production "success story"). However, mechanized large farms account for only a small amount of Tanzania's production (coming principally from NAFCO farms or TSA estates, which sometimes inter-row crop sisal and maize). Most production is by villagers, even in high risk areas like Handeni, Singida or Shinyanga where government and Party officials have been trying to promote a return to the traditional crops of sorghum and millet. It has been estimated that roughly 75% of domestic production is retained for home consumption; total purchases by the National Milling Corporation (NMC) were in 1981/82 some 113,000 tons.

TABLE 3.9

PURCHASE, SALE & IMPORT OF FOOD GRAINS (1976-82)[b]
(000 tonnes)

Crop		1975/76	76/77	77/78	78/79	79/80	80/81[a]	81/82[a]
Maize								
	Procured	91.1	127.5	213.2	220.4	151.5	104.6	113.0
	Sales	145.4	132.8	109.0	145.0	224.7	258.4	350.0
	Imports	106.5	41.6	34.2	49.0	4.5	274.6	200.0
Wheat								
	Procured	24.5	27.1	35.3	28.8	26.6	27.9	34.0
	Sales	60.3	68.7	38.7	95.1	58.1	45.1	84.0
	Imports	60.2	33.5	40.5	61.3	32.5	48.7	50.0
Rice								
	Procured	12.0	14.6	35.1	34.0	30.2	12.6	20.0
	Sales	34.7	52.3	74.6	74.6	53.7	80.0	60.0
	Imports	24.8	5.3	48.1	41.2	54.7	65.2	40.0
Total								
	Procured	127.6	169.2	283.6	283.2	218.3	145.1	167.0
	Sales	240.4	174.5	272.3	314.7	336.5	363.5	494.0
	Imports	201.4	80.5	122.8	53.5	91.7	388.5	290.0

[a]Provisional figures.

[b]Source: NBD 1982/83 Price Policy Recommendations, Annex 1. Cited in: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, Vol. 1. Main Report. Rome: FAO for KILIMO, Table 2.

The concentration of production in places with a high variability in rainfall, e.g. Iringa, Arusha, and Handeni, accentuates the inter-seasonal variations in maize production. Where rain is more reliable, as in Mbeya and Songea, transport costs become prohibitive. Maize production in southwestern Tanzania increased under the pan-territorial pricing of the 1970s, which also subsidized movement of fertilizers into these same areas. No doubt the removal of this subsidy in recent years will once again encourage maize production in the higher risk areas which happen to lie nearest the main population concentrations.

3.103 Rice and wheat are grown quite differently from maize. Rice has long been a staple food in parts of lowland Tanga, Morogoro, Mbeya and Mwanza regions which contain swampy areas ideally suited to traditional, small-scale irrigation. Without official encouragement, rice producers mainly used indigenous varieties and family labor to farm small plots under "recessional" irrigation. Officially marketed rice comes from a few main schemes, such as Mbarali on the Usangu plains near Mbeya or Mkomazi in Tanga region. Elsewhere little attention was paid the crop by either KILIMO or regional authorities. Sometimes, as in the Lake regions, official campaigns aimed at promoting, say, cotton, have interferred with farmers' preference for growing rice. In years when high prices were permitted, farmers' production response has been good and one suspects this is all that is really required to get higher output over much of Tanzania.[1]

3.104 Tanzania's wheat production can be portrayed as either a miracle of modern agricultural engineering or as an economic disaster, depending upon which side of the story one chooses to emphasize (Freeman 1982). Wheat is extremely susceptible to rust in wet seasons, and is therefore grown on the drier upland areas of Kilimanjaro and Arusha regions. Originally introduced by European settler farmers, wheat briefly became a smallholder crop grown by Iraqw farmers in Mbulu and Hanang districts as well as by European estates on West Kilimanjaro (Raikes 1970). However, in the late 1960s and early 1970s seed bean produc-

[1] In recent years the Faculty of Agriculture at Morogoro has been involved in testing IRRI derived varieties; earlier farm budgetary studies by Shapiro in Geita and Yoshida in Rufiji provide data showing the greater profitability of rice as compared to cotton.

tion for export to Europe displaced wheat on many of the farms where wheat had been introduced. Also, a deliberate Party decision appears to have been made to squeeze out the larger peasant producers (or kulaks) among the Iraqw (Freeman 1982:490). Land which had been farmed by Iraqw and Barabaig peasants (the latter being a pastoral group whose traditional rangelands proved excellent for wheat) was taken over to create a complex of state-farms operated by NAFCO with CIDA assistance. Production is highly mechanized, with one Canadian advisor and mechanic for each 10,000 acre unit; the complex of farms around Lake Basutu in Arusha Region was projected to go from 7,300 acres in 1976 to 70,000 in the 1980s (Freeman 1982). Of course, this has also meant that scarce foreign exchange would be required to repay costs of expatriate management, spare parts, tractors, and fuel. Indeed, by the MDB's calculations, for every $ 100 worth of wheat produced, $ 62 must be spent in foreign exchange (MDB 1983:6). Wheat purchases in 1982/83 by NMC rose to 31,200 tonnes, the highest total since 1977/78; 90% of it came from Arusha Region (MDB 1983).

3.105 In many respects, Tanzania's overall "economic crisis" derives from performance in the food-crop sub-sector for reasons that are both positive and negative. On the positive side, Tanzanian peasants have shown themselves quite responsive to economic incentives—which, in the late 1970s and early 1980s, has meant producing "food crops" for unofficial sale rather than export crops. This movement out of the export crop sub-sector is one basic cause of Tanzania's foreign exchange crisis (as argued in the 1982 ILO Report and in chapter two of this report). Thus the costs to the Tanzania Government are partially offset by increased security of food supplies, and by increased real incomes being received by at least some rural producers.

3.106 On the negative side, few outsiders realize that losses incurred in handling food grains are the single largest component in the massive debt which Tanzania's crop parastatals have accumulated. As of mid-1982, the NMC had a debt against its working capital of shs. 1,962 million, accumulated losses of 1,672 million, and an im-

balance between accounts receivable and payable of shs. 1.68 billion. NMC's capital deficit was at this time more than shs. 1.4 billion. This, despite several earlier attempts at restructuring NMC's unpaid debt which has grown to such proportions that it threatens even the integrity of the National Bank of Commerce. The "NMC mess" as it is often termed among donors within Tanzania has remained unresolved for nearly a decade, growing steadily worse year after year. It has become so significant that it merits separate note within this chapter.

e . National Milling Corporation

3.107 The National Milling Corporation was set up in 1968 after the Arusha Declaration, in an effort to bring the country's main food processing enterprizes under public control. Under the stimulus of continuing drought from 1973/74 onwards, NMCs responsibilities were widened to include the logistics of food imports and distribution. As of late 1974, NMC operated an array of formerly independent businesses: three major wheat mills, the nation's four largest maize mills (and several smaller ones), six paddy mills, a fruit canning unit, animal and poultry feed preparation, and a winery (in Dodoma). Under development were automated bakeries in Dar es Salaam, Dodoma, Tanga and Arusha as well as major expansion of processing capacity at most sites (MDB 1974). In the same year a National Price Commission was established to regulate retail pricing (Whitworth 1980). Creation of the Price Commission institutionalized famine generated restrictions on the private sale and transport of food grains, a temporary practice which had often been imposed also during the colonial period. Now the NMC became the recipient of numerous further government directives: concerning the strategic grain reserve, pan-territorial transport pricing, advance cash payment to peasants, mandatory purchasing of minor crops in remote districts, subsidies, and so forth (Keeler et al. 1982:48-51). All of these were Party-dictated policies with significant costs, which NMC was forced to accept without knowing how they would be paid. As the Government's main food purchasing agent, NMC inherited responsibilities over food policy for which it was ill-prepared.

3.108 In defence of NMC, it should be stressed that responsibility for food crop purchasing and marketing is bound to be a risky, no-win proposition in the Tanzanian context. Most maize and much of Tanzania's paddy crop are grown by small-scale, village producers. Their first goal is to meet their own subsistence needs. Because of poorly developed transport and storage, any organization doing marketing for the subsistence sector will often experience high losses, and will be forced consequently to maintain a wide margin between its purchasing and selling prices. Under conditions of rain-fed production, in good years there will be a temporary surplus, depressing the unofficial market prices and leaving the NMC to handle large volumes of produce on short notice. In bad years, local scarcities will enable unofficial traders to offer high prices and NMC's share may drop to nothing at all. The official system is thus forced into the situation of being a buyer of last resort, unable to capitalize on high prices in the bad years but expected to absorb large surpluses for which it lacks adequate storage in the good seasons. A dual pricing structure is bound to emerge, and its operation will tend to accentuate the difficulties which the official purchasing organization experiences. This is precisely what happened to NMC after 1974, made all the worse by the Party's ill-considered directives forcing it to trade in marginal crops which were difficult to store and nobody wanted to buy. The costs of providing adequate marketing arrangements for low volume, annual crops grown in remote places like Singida or Kigoma become prohibitive when attempted by a large-scale, bureaucratic agency. The co-operatives tried in the early 1960s, and went broke; the NAPB tried in the late 1960s, and also foundered: and now it was NMC's turn.

3.109 To these intrinsic strains were added specific, historic factors which greatly increased NMC's burdens in the 1970s. First, we should note that NMC acquired its mills through nationalization. Unlike the case in export crops, where at least a potential exists to retain expatriate management on contract terms, the Asian mill managers probably had little incentive to assist the government in taking over their

trade. Second, the movement of producers out of wheat into seed beans was not anticipated, and resulted in a supply shortfall during a time of drought. Third, the NMC was itself mechanizing bakery production--a move which disrupted long-standing relationships between many small urban bakeries and both their suppliers and consumers. Fourth, when the Government attempted to villagize Tanzania's rural population despite the drought, peasants rapidly used up their food reserves. Many were unable to plant new crops while trying to rebuild their homes, and so became totally dependent on receiving food aid during the transitional year. The Prime Minister's Office (which had organized the resettlement effort) then responded by directives making the NMC responsible for famine relief--financed through bank overdrafts, on which NMC paid interest. Fifth, to stimulate food production after 1974 the Party also directed that NMC pay villages in cash, and in advance of deliveries. When subsequently produce either did not materialize or else was sold on the parallel market, the record-keeping proved so poor that NMC could not recover the debts. Sixth, from mid-1976 with the abolition of primary co-operatives, NMC was selected to become the principal crop buyer in remote areas which did not have any other established cash crop agency. These were usually the very poorest regions, places like Kigoma or Singida, which had already defaulted in previous dealings with the co-operatives. And, seventh, the last blow was the War in Uganda, where once again the NMC was asked to deliver food not only for the army but to counteract famine in northern Uganda (Keeler et al. 1982:49). Such pressures might have overwhelmed even a tightly managed, well-staffed parastatal; for the NMC, one of Tanzania's weakest parastatals, their impact was catastrophic.

3.110 Documentation on the NMC is relatively good, provided one has access to the necessary reports (themselves an outcome of donors' continuing concern).[1] Let us, therefore, review NMC's problems in

[1] Key documents being MDB's (1979) Report on Investigations into the Financial and Operating Position of KILIMO Crop Authorities, Report B 2. NMC: A. Keller et. al. (1982) The Consumption Effects of Agricultural Policies in Tanzania and Renkow, M. et al. (1983) The Potential Effects of Alternative Structures and Pricing Policies in the Markets for Maize in Tanzania (both by Sigma One Corp., Raleigh, N.C.): and Annex 1 (Maize Rice and Wheat) in each year's MDB price review reports.

some detail, since the organization mirrors many of the problemmatic features shared by other Tanzanian commercial parastatals.

3.111 The NMC in 1978/79 had 4,240 employees. Of these, 24 (0.6%) were university trained, another 37 (0.9%) held diplomas, 674 (16%) had some other training, but 3,465 (or about 82%) had no specialized training at all (MBD 1979:81). After a SCOPO/IDA recommended reorganization in the same year, the NMC was left with 8 central departments (planning, procurement, audit, etc.) and 24 branch offices (1 in each region and 4 in Dar es Salaam). Each of the headquarters sections and each of the field branches reported, in theory at least, to the General Manager. As of the end of 1978, there were roughly 400 people in the headquaters office (located on Pugu Road in Dar es Salaam); 1,200 in NMC's Dar es Salaam branches, and about 2,600 upcountry. NMC's procurement volume at this time was running about 400 to 500,000 mt annually, but we should note it continued to operate numerous subsidiary operations (bakeries, the Dodoma winery, canning, etc.) as well as handling food imports.

3.112 Before we turn to NMC's financial performance--which has usually been central to donor's concern—it should be noted that lax financial control persists in part because the above organizational structure makes the General Manager responsible for far too many control linkages. His actual inability to exert effective control is a natural consequence of a combination of factors: i) the extreme paucity of skilled staff, especially at the branch level; ii) numerous procedural irregularities which make it impossible to compare performance between units on a standardized basis; iii) the large number of unit heads reporting to him directly; iv) the absence of disaggregated cost data according to function and origin; v) the diversity of enterprizes being managed; and, vi) the likelihood that any given General Manager in such a sprawling organization will try to cultivate subordinates' personal loyalties. The overlap between regional zones, types of enterprize, and administrative functions creates a high degree of ambiguity about who does what—and this in a system where control is conceptualized

as being intrinsically of a "top-down" nature. (The 1979 MDB review reported that many branch managers were uncertain whether they were accountable directly to the GM or instead to him through the various departmental heads.)

3.113 A natural consequence has been that NMC persistently runs up large losses on each year's trading account. As of 1982/83, out of 13 listed crops handled by NMC only 7 contributed positively to overhead. The net loss on the 13 for that year stood at over 400 million shillings. True, administrative costs rose 50% between 1977/78 and mid-1982, but they did at least remain below 15% of total revenue. Much more significant were NMC's unpaid financial charges, which by mid-1982 represented 26% of its outstanding overdraft and 30% of its cumulative losses. As already noted, the NMC debt was by 1982 threatening the very survival of the National Bank of Commerce, which had once been considered one of socialism's "success stories" within Tanzania (eventuating in a two billion shilling injection of finance for NMC by Treasury).

3.114 MBD's 1979 review of NMC operations provides several explanations why NMC's financial control has been so ineffective. First, there is the obvious fact that the organization was extremely short of senior accountants--a deficit shared with many Tanzanian parastatals. Second, some of the accounts were simply not there--branches which are supposed to report quarterly would be months late, and sometimes didn't report at all. An attempt in August of 1977 to decentralize account-keeping to the branch level only made performance worse (MDB 1979:20):

> While there may have been reconciliation of problems before, inspection of some of the branch returns show the information in them is incomplete and all these areas will need to be clarified before any meaningful accounts can be produced.

Partly this situation arose because branches were even weaker than the headquarters in regard to access to skilled accountants. However, this situation in and of itself gives branch managers an excuse for tolerating incomplete and late financial reports. As the MDB noted

(1979:11):

> Currently if a staff member does not do what is asked of him, i.e. figures requested are not submitted, no action seems to be taken. The system grinds to a halt... Either personnel have to carry out their duty to the organisation or they need to be replaced by people who will.

Third, the financial control sheets appear to have been poorly designed. For example, while all branches submitted forms monthly, the layout on the sheet lacked space for a running or cumulative total so that to verify the current situation a manager would have to go back to earlier forms. Gaps of this kind in the record-keeping explain why sub-units find it so difficult to achieve their trial balances at the year's end, and why complete accounts are often years late. In general, Tanzanian accountancy systems are oriented towards preventing misuse of funds—the legal function—rather than towards indicating the current financial status, the managerial function. (Of course, if accounts arrive at the head office several years after transactions were approved, they typically can serve neither purpose.) Fourth, the existing records are not organized in such a way that costs can be allocated between enterprizes, branches, and functions. Many unattributable costs are simply absorbed into the organizational overhead. The absence of systems for internal transfer pricing is a characteristic weakness in Tanzanian parastatals, which explains why overhead costs can suddenly balloon without anybody knowing exactly why. And, fifth, there is a particular mind-set which accompanies being forced to undertake uneconomic activities at the Party's directive (MDB 1979:69):

> ...in discussions with NMC personnel, everyone saw cost escalation as inevitable and that ultimately the Government would meet any shortfall. The problem with this attitude is that it does not provide cost control and is unlikely to lead to cost reduction policies.

Indeed, this attitude is the logical outgrowth of pressures which were being put on NMC that it <u>must</u> purchase various minor crops in remote areas, at whatever cost. According to MDB, this message

has been absorbed at all levels (1979:10):

> Yet the greatest handicap in the management area apparent at various levels was in the interpretation of NMC's role. Any discussion on cost reduction was negated on the premise that costs were incidental to fulfilling a mandate of crop procurement.

For example, there were in 1979 some 22 specific crops which contributed individually less than 1% each to NMC sales, but which obviously absorbed a disproportionate amount of managerial attention and financial commitment in the form of unallocated organizational overheads.

3.115 If we step back momentarily from the details of NMC's operations, we can identify certain general lessons which other Tanzanian parastatals need to absorb:

1) A root problem remains that the crop-buying units in the field at the village level (village councils until 1983, primary co-operatives since 1984) lack the necessary facilities and procedures for operating commercially. When producers encounter high risks—as they typically do in most of Tanzania—they will either withdraw ("exit" as Hirschman terms it) or else they may exert political leverage ("voice") to obtain relief. Either response makes crop purchasing more costly for the intermediary agency—a difficulty affecting all crop authorities.

2) In an organizational structure short of skilled accountants and weak in middle-level management, decentralization alone may make things worse rather than improving accountability.

3) The causes of poor financial control are cumulative and interactive; individual remedies are not likely to be effective.

4) Policies whose costs are not yet known but which are imposed upon the organization from above, i.e. by the Party, foster in return an attitude that ultimately the government must make up the losses.

5) Financing crop puchasing subsidies by means of bank overdraft excuses the Party leadership from facing the costs of its own decisions. A further negative consequence is that the parastatal must then pay interest on funds so received, often without knowing what the total bill will be or how it can realistically recover its funds.

Natural Resources

3.116 In regard to Tanzania's natural resources, the very diversity of environments which constitutes a problem constraining some forms of development becomes instead an asset. If carefully managed, the country's natural resources could become a major source of foreign exchange. Tanzania has the largest mountainous and highland areas in Black Africa, excepting only Ethiopia. It has alpine moorlands, mist forests, rain forests, acacia woodlands, miombo woodlands, thorn scrub, and magnificent open plains (the Serengeti). Its coasts have beautiful beaches, a picturesque traditional culture, remote islands, and exotic marine life. It has many inland lakes, some like Victoria an inland sea; others, like Lake Tanganyika, among the world's deepest. It has Africa's tallest mountain, Africa's most famous prehistoric site (Olduvai Gorge), Africa's largest game reserve (the Selous), and the continent's most spectacular scenery (Ngorongoro Crater). It has the world's largest seasonal migration of ungulates, the 1.2 million wildebeeste which each year traverse the Serengeti/Grumeti circuit. These are all resources with marked potential as tourist attractions. As the wildlife resources of most other African states dwindle, Tanzania's comparative advantage in attracting tourists will--in theory, if not in actual fact--continue to increase.

3.117 Furthermore, the basic legal and infrastructural components needed for tapping this potential have already been put in place. The most attractive sites have already been established as National Parks (Table 3.10). These contain diverse habitats, and can easily be visited in sequence to constitute a circuit (both being key considerations for development of tourism). Most also have well equipped lodges (although these days in run-down condition). The underutilized Kilimanjaro International Airport has been in service for over a decade, and the Dar es Salaam Airport expanded (in 1983-84). There is an excellent Wildlife Management College at Mweka (near Moshi) capable of training staff for the Park service. And, of course, the opening of the border with Kenya in late 1983 makes it feasible once

TABLE 3.10

VISITORS TO NATIONAL PARKS

Park:	Area (sq km)	1973	1975	1977	1979
Serengeti (1951)	14750	82,306	95,039	45,859	35,913
Lake Manyara (1960)	320	68,664	61,112	21,112	28,571
Ngorongoro (1959)	8320	86,128	73,297	41,003	29,449
Arusha (1960)	120	14,132	14,478	10,634	12,246
Mikumi (1964)	3230	14,976	17,178	16,041	26,839
Ruaha (1964)	13000	1,653	1,875	1,441	1,308
Tarangire (1970)	2600	10,856	10,617	7,574	7,209
Kilimanjaro (1973)[a]	750	--	--	5,450	6,055
Katavi (1974)[b]	2250	--	--	--	--
Rubondo (1977)[b]	450	--	--	--	--
Gombe Stream (1968)[b]	50	--	--	--	--
TOTAL		278,715	273,596	149,114	147,590

[a]Tourist accomodation records begin from 1977.

[b]Tourist accomodation has not yet been implemented in these parks.

Source: United Republic of Tanzania (1979) Statistical Abstract 1973-1979. Dar es Salaam: Ministry of Planning & Economic Affairs, Tables A.2, W.1, pp. 2, 395.

again for Tanzania to tap some of Kenya's tourist trade by encouraging joint visits to both countries.

3.118 The reality is at present quite different. Despite the opening of new parks, the total number of visitors to Tanzania's national parks was cut in half by the closure of the Kenya border in 1977 (Table 3.10). As of 1983/84, Air Tanzania's service to the Kilimanjaro Airport had become erratic at best, and at worst a positive disincentive to tourists. The parastatal hotels are overpriced and run-down. The service is so poor that many tourists vow they will never return. If these seem harsh comments, we must recognize that most tourists expect their hotel rooms to have air conditioners that operate, and light bulbs which work.. Many Tanzanians, who are accustomed to such difficulties from long acquaintance, do not realize how stark is the contrast which greets the incoming tourist. Hear, for example, what some tourists have said in the international press:

> SIR--I found your article on Mr Nyerere's socialist paradise (October 20th) on the mark, but optimistic. No hordes of tourists are going to use the new French-build airport to see Tanzania's game parks until the Tanzanian tourist corporation cleans up its act. It would be beneficial if it would provide heat in the winter-time, hot water, and something to eat at lunch and dinner besides roast pork, fruit salad and creme caramel.
>
> It would help if the moonscapes that are Tanzanian roads were repaired once in a while and if more petrol were provided for tourist buses. The government must also scrap an asinine new law which limits tourist visas to seven days. Most small-town local authorities see tourists about as often as they see polar bears...
>
> Letter to Economist (US edition). 10 Nov. 1984.

> SIR--Tanzania will never have a tourist industry while it maintains its artificial exchange rate, which is five times the black market rate. Tourists are forced to change money officially for tours and hotels and, as a result, prices are outrageous.
>
> In Arusha, a half-day safari for two costs $ 200 while in Nairobi it costs $ 20. We met a number of tourists who, like us, were so shocked with the prices that they were not going on any tours but were getting back to Kenya as quickly as they could. We made our decision after being quoted $ 700 for a one-and-a-half day safari.
>
> Letter to Economist (US edition), 23 Feb. 1985.

3.119 Of course, there are others who would question the appropriateness of having <u>any</u> international tourism in a poor, socialist nation. We have already identified the two main arguments in favor of increased tourism, viz.: i) Tanzania's comparative advantage based on the sheer quality of its potential attractions; and, ii) the country's substantial existing investment in underutilized facilities. There are some additional considerations:

- In much of northern Tanzania, a vestigial community of non-African citizens remains (though sometimes living in quite constrained circumstances). Such individuals have the skills needed for offering a widened spectrum of lower-cost, personalized tour opportunities without "corrupting" indigenous socialism. Modest development of small, low-cost lodges could provide a sensible use for the surviving large farms and estates, many of which are located within reach of tourist attractions.
- Several of Tanzania's major national parks and game reserves exist either along international borders or in gaps between existing centers of development. In northern Tanzania, these parks safeguard critical forest areas with a significant role in regulating groundwater recharge and river flow regimes. Roads developed for game viewing also provide boundary control. In central Tanzania, parks like the Ruaha or game reserves like the Selous protect the Ruaha and Rufiji drainages where much of Tanzania's hydroelectric potential is found. Thus there is a basic complementarity of land use between wildlife preservation and water conservation which can be tapped for tourism as well.

But the most telling argument is simply that in the short run, a revitalization of Tanzania's tourist industry would not require large amounts of new capital, and is one of the few possibilities for earning foreign exchange where local operators already have the skills necessary. Whether, however, the <u>attitudes</u> and governmental controls which now stifle international tourism in Tanzania are amenable to rapid change is open to question. If one is willing to ignore this last question, then assistance to Tanzania in developing less expensive modes of tourism, perhaps combined with an educational thrust--"early man at Olduvai"?--might be something donors should consider. It is one of the few areas for assistance where the actions required are almost entirely matters for Tanzanian initiative independent of the usual commodity constraints affecting the agricultural sector.

3.120 It would be a mistake to think of Tanzania's natural resources solely in relation to possibilities for tourism. From the standpoint of basic needs, the contribution of woodland to the energy budget through charcoal production is substantial. At present Tanzania's main source of energy for vitually all households except those on salaried income--and even for many of them--is either wood, or, in towns, charcoal. The charcoal trade is entirely private, done by small entrepreneurs collecting from charcoal burners who operate in forest reserves with or without permits. We do not have reliable estimates on charcoal production, but as elsewhere in the Tropics it constitutes one of the largest inputs from natural resources.

3.121 Another valuable contribution comes from fishing, marine and inland, which is estimated (1979 figures) to be about 175,000 tonnes annually (Table 3.11). Almost all of this is for local consumption, and in some areas where use of dried fish is traditional, fish protein is a significant element in local diets. Tanzania has 53,500 square kilometers of inland waters, not counting disputed use of Lake Malawi. Lake Victoria is the largest component (34,050 sq km), followed by Lake Tanganyika (13,350 sq km) and then a number of shallow, saline lakes in the Rift Valley zones (Eyasi, Rukwa, Natron and Manyara). In addition, there are various little known "swamps" like the Malagarasi swamp between Kigoma and Tabora or Lake Kitangiri between Singida and Shinyanga. There has been some FAO/UNDP assistance to fisheries on Lake Tanganyika, and Norwegian assistance to undergird development of Tanzania's marine fisheries (as well as Japanese aid). If the estimate of total potential catch at 440,000 tonnes per annum is correct, Tanzania utilizes less than half its potential at present. The Ministry of Lands, Natural Resources and Tourism (MALIASILI) has several small training colleges and research units, for forestry centered at Olmotonyi near Arusha and for marine fisheries centered around Dar es Salaam. The potential inland and marine resources are certainly sufficient to be taken seriously in Tanzania's overall planning of national development.

TABLE 3.11

POTENTIAL AND ESTIMATED FISH CATCHES[b]

(000 tonnes)

Source	Estimated Potential Catch:	Estimated Actual Catches				
		1971	1973	1975	1977	1979
Marine waters:	75	21.9	23.0	32.0	46.0	45.0
Inland waters:	365	158.9	138.1	144.3	160.8	128.8
L. Victoria	120	42.5	49.6	46.6	65.4	55.1
L. Tanganyika	135	50.2	55.9	64.3	61.8	44.2
L. Malawi	90	20.9	13.0	15.0	15.0	15.0
L. Rukwa	)	6.6	4.8	3.1	3.0	3.0
L. Kitangiri[a]	)	15.6[a]	0.4	0.7	0.6	-
Nyumba-ya-mungu	) 20	16.6	2.7	4.6	5.0	1.5
Other waters	)	6.5	11.7	10.0	10.0	10.0
Total Catch:	440	180.8	161.1	176.3	206.8	173.8

[a]Lake Kitangiri is a minor lake on the border of Singida Region. While very productive it sometimes goes dry and this total must be suspect.

[b]Source: Ministry of Natural Resources and Tourism figures, in: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy. Vol. 1, Main Report. Rome: FAO for KILIMO, Tables 28 & 29, p. 56.

Energy Development

3.122 The energy input required for agricultural development is usually seen as a choice between fossil fuels and hydro-electricity, with a minor role for alternative sources (solar and wind-generated power). Tanzania relies almost entirely on imported fossil fuels in the large-scale farming and transport sectors, to an extent beyond what is dictated by necessity. Since roughly 60% of its FE is now being spent on energy imports, the obvious question arises whether the country could shift to other sources of energy available internally. The critical role of FE in the economic system makes this a necessary question to ask. Before we look at some answers we should recognize that Tanzania has one of the lower levels of per capita energy consumption—even in comparison to other poor African countries—and it has managed to hold down total consumption to the same level for the past decade, a very considerable accomplishment for a young nation at the initial stages of industrialization (Berry, Mascarenhas and Steward, 1982:36, 70).[1]

3.123 It needs to be clearly stated that there are genuine technical possibilities for further reducing Tanzania's dependence upon imported fuel. (Whether these are feasible and cost-effective is a different matter.) For instance, during colonial times many sisal estates ran their own small-scale hydroelectric generating plants (water turbines). Their field transport was provided by wood fuelled tramlines. The railways were powered by wood fuelled and then coal-burning engines, some of which remained in service until very recently (and Tanzania does have soft-coal resources). The major highways to Arusha and Mbeya from Dar es Salaam lie alongside long distance hydro-electric power lines. Tanzania produces sugar and could convert this to methanol, should Brazil's experiments with renewable energy become effective. It also can produce oil seeds, should Zimbabwe's earlier experiments with vegetable-oil powered farm equipment prove workable. There are numerous small rivers flowing

[1] According to this same source, Tanzania actually reduced its consumption of oil imports from 800,000 tonnes in 1972/73 to 700,000 tonnes in 1980. Aggregate figures like these conceal important changes in internal consumption, and with the rapid rise in parastatals throughout the decade it seems likely the private sector has cut its consumption even more.

from off the country's many escarpments, making small-scale power generation an attractive possibility. The country has soft-coal deposits in the Southwest—nothing dramatic, but sufficient to constitute a viable alternative to imported oil if a means of transport could be developed (presumably by rail either to Songea or to Lake Malawi). There are even certain sites ideal for "wind harvesting" because of a diurnal temperature differential, yielding strong night winds. The major difficulty with all these proposals is that they require still more capital investment, and usually a fairly high degree of managerial acumen.

3.124 Such alternatives are overshadowed within Tanzania by the as yet underutilized option of hydropower development (Table 3.12). Initial attention was directed towards using the Pangani River. Power installations occur at Hale (21 mw), Pangani Falls (17 mw), Nyumba ya Mungu (8 mw) and Kikuleta (2 mw). The Nyumba ya Mungu dam was Tanzania's largest immediate post-independence construction project. It was imed at creating a storage reservoir on the Pangani headwaters which would regularize river flow for maximum power generation at downstream sites (Hale and Pangani Falls). Despite Nyumba ya Mungu, the Pangani drainage is short of water in dry years and future urban growth in Arusha and Moshi will further reduce its flow. (Tanzanian policy makers locating new projects in Arusha and Moshi have generally not realized that most forms of industrial development are heavy users of water.) This is unfortunate, because by accident of geography it is relatively cheap to pump water from the Pangani River over the divide into a large portion of drought-afflicted Handeni District. One pipeline serving villages in Handeni has been constructed, but any use of water for this purpose must be taken at expense of power generation lower in the Pangani.

3.125 The next substantial investment (in the early 1970s) was to dam the Ruaha River where it flows through a hard rock gorge northeast of Iringa. The Kidatu supply (100 mw) is twice as large as all Tanzania's earlier supplies, but suffers from a small storage basin and wide variations in the Ruaha's flow. Tropical rivers are motor-

TABLE 3.12

SOURCES OF COMMERCIAL ENERGY CONSUMPTION

1960 - 1978

Year:	1,000 tons coal-equivalent Coal:	Oil:	Hydro:	Total:	Tons of coal-equivalent per head:
1960	2	395	9	406	.041
1965	2	525	22	549	.047
1970	4	730	38	772	.058
1971	5	836	38	879	.064
1972	7	916	39	962	.068
1973	2	975	36	995	.068
1974	3	1,022	38	1,063	.071
1975	2	976	41	1,019	.067
1976	2	954	48	1,004	.064
1977	4	993	51	1,048	.065
1978	12	1,063	55	1,130	.068

Source: Consultancy Report to the Tanzania Petroleum Development Corporation, cited in, ILO (1982) Basic Needs in Danger, p. 134.

ious among power engineers for their wide fluctuations between the rainy season flood peak and dry season flows, but the Ruaha's location along the dry side of the Mbeya-Iringa highlands is especially unreliable. Thus in the late 1970s work commenced on Mtera dam to create a large storage reservoir upstream from Kidatu. As with Nyumba ya Mungu which it resembles Mtera has been built principally to gain over-the-year storage (it holds 2 years' flow); the dam itself is a low structure without much potential for direct power generation. To service Kidatu and now Mtera, TANESCO has built its own training institute near Kidatu. Power transmission lines have been extended through Iringa to the new capital site at Dodoma and as far southwards as Mbeya.

3.126 Most senior policy makers in Tanzania are unaware that in the narrow section of rocky escarpment between Mtera and Kidatu are several additional dam sites--one for a high (400 plus feet arched concrete) dam and others for incremental, low installations. Since the Mtera dam is already constructed, and the country's major power infrastructure goes through the area, these sites become highly attractive for future development in phases as the country's need for electricity grows. On the negative side, the main highway to Iringa was routed right through the bottom of two potential sites; any water used from the Ruaha for Dodoma's future development will diminish what is left for power generation; and upstream irrigation development in Mbeya Region will also reduce flow in the Ruaha.

3.127 Development of the Ruaha system is overshadowed by a most attractive damsite downstream in the main Rufiji system at Steigler's Gorge. Here a single high dam would create a lake some 110 km long, ending the seasonal flooding in the Rufiji delta and providing large amounts of power relatively near to Dar es Salaam. Compared to Tanzania's other investments, the Steigler's Gorge project (which has been intensively studied by NORAD in cooperation with RUBADA, the parastatal authority created to organize the project) would be very large--especially if downstream flood control and irrigation works are added in. It would require the larger part of Tanzania's already

constrained manpower and foreign exchange resources. There are also serious technical questions about the dam's impact on the hydrologic balance in the Rufiji delta. Drawing on Egypt's mixed experience with impacts from the Aswan high dam, many have argued that the loss of silt-laden floodwaters would over the longer run constitute a cost rather than a benefit to farming systems in the delta. The present combination of recessional rice cultivation and fishing in the delta is highly productive.[1] This suggests the possibility of a design allowing for an "artificial flood", but of course the water released would be relatively free from silt because of the long storage reservoir. Another technical possibility would be to divert clean Rufiji water at Steigler's into the Ruvu system--there is only a short distance and slight height differential between the two watersheds at the Steigler's site--thus assuring ample water for Tanzania's largest population and industrial center in Dar es Salaam. (The pumping system from the Ruvu to Dar es Salaam already exists, and further industrial development in Morogoro may render Ruvu water too polluted for Dar es Salaam's future domestic water needs.)

3.128 We could go on to discuss still other attractive hydropower sites in western Tanzania, e.g. planned developments on the Kagera River or others near Kigoma and on rivers flowing into Lake Malawi. The fact of the matter is that much of southern and western Tanzania was never investigated hydrologically during the colonial period. Tanzania's total potential for hydroelectric power generation appears to be substantially larger than earlier investigators assumed, sufficient that Tanzania could one day export power to Kenya or other neighbours if this were desirable.

3.129 The irony is, then, that Tanzania's acute foreign exchange constraint forces the leadership to continue to utilize imported fossil fuels which in turn cause the FE shortage. However, the country's poor record in managing large projects with a major technological component (such as TAZARA) suggests that a "crash program" to break out of its energy dependency would not be effective either.

[1] See H. Bantje (1979) The Rufiji Agricultural System, BRALUP Research Paper No. 62, and A. Sandberg (1974) Socio-Economic Survey of Lower Rufiji Flood Plain, BRALUP Research Paper No. 34, Dar es Salaam: Bureau of Resource Assessment and Land Use Planning, Univ. of Dar es Salaam.

Organizational Units

3.130 In this review of the agricultural situation not much has been said about farmers, village organizations, and village production. The striking thing to outsiders is the small degree of interconnection between Tanzania's past production policies and its general philosophy of "Ujamaa development"—a contrast which radical critics frequently pointed out throughout the 1970s. Under either irrigation or livestock development, the bulk of development funds went to comparatively large-scale fully mechanized units. There were a few village schemes in each sub-sector, but nothing like the countrywide "production brigades" of, say, the Chinese experience. And, of course, the externally-owned estates persisted though they operated under a continuing expectation of eventual takeover. This yields four main organizational types:

i) individual peasant smallholders
ii) village groupings of smallholders
iii) parastatal farms and ranches
iv) estate farms

We discuss the features of three of these in our description of Tanzania's private sector (chapter four).

3.131 The categorization of investment totals between the above types would (if the figures were available) show that most support went into parastatal farms and ranches, and some into "Ujamaa villages".[1] It is a correct deduction (as we will see in our next chapter) to conclude that individual smallholders as well as the large farmers and estates were cut off from most assistance. The one principal exception was where they utilized their own organizations, like the co-operatives or the TFA, as an alternative channel.

3.132 But the extent of effort is not so easily measured. An enormous amount of staff time was expended in trying to bridge the organizational gap between Ujamaa villages and larger-scale mechanized operation.[2] For

[1] Until 1974, the term "Ujamaa village" was applied loosely to any grouping of farmers to meet the Government's policy objective. After the 1975 Act, the "Ujamaa" designation was in theory reserved for villages at an advanced stage of co-operation. The term will be used here in its broader, pre-1975 sense (as it often is within Tanzania).

[2] For vivid accounts of the frustrations involved, see M. von Freyhold (1979) Ujamaa Villages in Tanzania. New York: Monthly Review Press.

over a full decade KILIMO staff operated under a Presidential Circular (no. 1 of 1969) which directed that priority be given to Ujamaa villages. In practice this was interpreted as an injunction against working with individual smallholders. Almost all input loans were directed to Ujamaa villages. Technical field staff spent thousands upon thousands of hours in village meetings, trying to arrange tractor ploughing, distribution of bulls, contributions towards facilities like dips (an acaricide bath structure), IDA loan repayment, and the building of village go-downs (warehouses).

3.133 On one key issue, however, the Tanzania Government structure left no doubt: rural development has since independence been seen as being in principle a political matter, leaving KILIMO and MIFUGO staff to participate in advisory roles only. This premise—which is firmly institutionalized in the Tanzanian system—presupposes that the main task is to mobilize the peasants. In turn, KILIMO and MIFUGO staff are expected to have effective technologies ready, but even here the Party's central decision on "standard recommendations" must take precedence over the individual officer's professional judgement. This is how one serving officer described his duties (In Keregero and Carter 1982:5-6):

> The Regional Development Committee had directed that cotton be introduced to replace sunflower as a cash crop in this area of work.
>
> In order to enforce the directive the Extension Worker went around telling farmers that it was mandatory for each of them to have an acre of cotton to reach the target acreage set for the village. We strictly inspected farms to make sure that each adult farmer prepared an acre of land for cotton and to discourage the production of sunflower.
>
> Fearing penalties, most farmers prepared an acre of land each although they did not like growing cotton because it required a lot of labor compared with sunflower and would not make much difference to their income. When they learned that the extension worker would not be able to keep track of them they planted sun flower instead of cotton.

3.134 The realities of Tanzania's agricultural situation have rendered futile virtually all attempts at bringing peasant villagers across into mechanized, large scale production. The basic reasons are as follows:

- The natural riskiness of production in Tanzania is very high, for reasons that cannot be controlled (rainfall, pests, etc.).
- Effective use of inputs depends on the adequacy of the inter-agency matrix handling a particular crop (i.e. seed, inputs, storage, purchasing, and transport). At many sites the combined interaction of support systems is totally unreliable.
- High storage losses are typically encountered whenever there are large amounts of a crop to be kept in one place.
- Farmers are unable to obtain spare parts and repair services for many kinds of imported equipment (tractors, sprayers, etc.).
- Village units never evolved effective managerial structures capable of assigning tasks fairly, supervising fieldwork, taking responsibility, and distributing profits in an acceptable manner.
- Many villages have been unable to safeguard their common funds, so that members cannot trust their leaders to protect savings or to reinvest profits wisely.
- The basic technical packages which can guarantee higher yields are simply lacking.

Any one of these seven obstacles would be sufficient to strongly constrain expansion into larger-scale, specialized production. Taken jointly, they insure that economies of scale have not occured and that peasants who cooperate are generally penalized economically for doing so. Of course, not all crops or all environments are equally problemmatic. There are a few success stories at the village level (generally associated with remoteness and a highly commited leadership), just as there are some large-scale estates which show consistently superior production. But much the more typical pattern is for cyclical movement, when for a time a farmer (or a whole village) succeeds at a more commercialized level but then after one or two bad seasons lapses back into subsistence production.[1]

3.135 External commentators from either Left or Right have almost universally misinterpreted the implications of this situation. Put bluntly, the calculus of the situation is such that specialized, larger-scale production generally does not pay. This failure to reap the benefits of technological improvement influences villages and farmers alike. It makes farming in Tanzania a high cost, high risk operation--and therefore an enterprize unusually dependent upon the skill and knowledge of its management and the quality of its support services.

[1] A process documented by Raikes for the first generation of African wheat farmers in Mbulu (1975:94). See also evidence from Zambia given by Jan van Donge (1982) "Politicians, Bureaucrats and Farmers," J. of Development Studies, vol. 19, no. 1, pp. 88-107.

Institutional Implications for USAID/Tanzania

3.136 A review of USAID's project portfolio in the 1970s indicates that much of its assistance to Tanzania concentrated on buttressing the institutional framework for rural development.[1] The ten main projects of this nature were (in shortened designation):

1) The Masai Range Project 2) The Tanga Tsetse Project 3) The Livestock Marketing Project	Ministry of Livestock Development
4) Arusha Village Development 5) Training for Rural Development, I	PMO and Ministry of Manpower
6) The Seed Project 7) KILIMO's Manpower Development 8) Agric. Ed./Extension Project 9) Agricultural Research 10) Farming Systems Research	Ministry of Agriculture, University and Research parastatals

3.137 Several of the above projects suffered from a slow start-up, caused by delays in building technician's housing, lack of transport, etc. A slow start-up especially affected the Masai, Seed, and Morogoro Extension projects.

3.138 Because of these delays, coupled with the absence of key Tanzanian staff while they were under external training, there was only a brief period before project termination when projects were fully staffed with Tanzanians back in post working under the US technicians. This had the practical consequence that institutionalization in all its aspects--creation of an enduring administrative framework, instituting improved managerial techniques, establishment of planning routines, and localizing the information handling capacity--did not occur. In at least three of these projects (Masai Range, Seed, and Morogoro Extension) the achievement of project goals was severely compromised by the phasing out of external assistance at just that point when an operational capability had been briefly established.

3.139 The above list suggests that USAID has already been involved in many of the areas which are critical for technology transfer. From the USAID officials who were involved, one often hears something to the effect that: "We've helped them for nearly ten years; it is time they

[1] Table 5.13 overleaf lists USAID's major agricultural projects as of 1981, which marked a turning point in AID strategy.

TABLE 5.13

SUMMARY OF USAID'S AGRICULTURALLY-RELATED PROJECTS (AS OF 1981)[c]

Project Title	Initial Year	Funding (US 000s) through FY 80	
Seed Multiplication	1970	6,854	
Masai Livestock & Range Management	1970	4,768	
Agricultural Research	1971	7,151	(8,496)[a]
Agriculture Credit	1974	3,750	
Agriculture Manpower Development	1974	4,555	
Farmer Training & Production	1979	2,528	
Livestock Marketing & Development	1974	4,427	
Agricultural Education & Extension	1978	2,356	
Arusha Planning & Village Development	1978	11,097	(14,591)[a]
Resources for Village Production & Income	1980	3,175	(45,000)[a]
Arusha Women's Participation in Development	1979	400	
Farming Systems Research	1982	--	(25,000)[a]
Training for Rural Development, I	1979	6,000	
Training for Rural Development, II	1981	--	(25,000)[a]
Tsetse Fly Research[b]	1973	n.a.	
Rift Valley Pilot Rice[b]	n.a.	n.a.	
Improved Rural Technology[b]	n.a.	n.a.	

[a]Projected total funding, if diferent from total through FY 80. However, note that these amounts were in several cases subsequently reduced.

[b]Regional and/or Centrally-funded projects.

[c]Source: "USAID in Tanzania," (1981), Dar es Salaam: USAID/Mission, 22 pp.

stood on their own feet." Nevertheless, the bald fact remains that today Tanzania still does not have an adequate seed industry, viable technical packages for Arusha's industrious smallholders, control over the tsetse fly, or a workable solution for modernizing Maasai pastoralism. When we recognize that full-scale field operation usually did not occur until the final two or three years of project activity, an alternate explanation emerges: perhaps the root problem is that we still do not know how to institutionalize desirable projects within Tanzanian administrative settings. When projects are terminated before institutionalization has taken place, most of their benefits cease and the whole effort becomes questionable. It can be predicted that the two continuing projects, TRD and FSR, will suffer the same fate (irrespective of the quality of contractor's efforts).

3.140 A further problem has been the rapid turnover of USAID/Tanzania's Mission staff. Since the mid-1970s, there have been three complete replacements of USAID's agricultural sector staff.[1] We must point out that Tanzanians typically respond to officials as individuals, depending upon personal knowledge and exchanged loyalties. When an effective USAID officer leaves, the ties he or she has established also lapse.

3.141 On both the USAID and the Tanzanian Government sides, the institutional mechanisms for consolidating previous experience are very weak. Few incoming Americans realize that Tanzania has often been studied by US scholars, and a great deal is known about the nature of Tanzania's problems. Similarly, many Tanzanians have completed their advance training in the United States--a well established pattern going back to the mid-1960s. It is embarrassing to discover on return visits that key documents--sometimes reports prepared only a year earlier--have simply disappeared.[2] When dealing with such a complex agricultural economy and institutional network, USAID officials need the support of a well-organized and complete information retrieval system.

[1] Which perhaps explains USAID's unfortunate withdrawal from Arusha Region, the one part of Tanzania with a vigorous and recognized private sector capable of receiving official Party support.

[2] Many key documents which were used by the senior author in the Mission in December of 1981 had vanished by September of 1983.

3.142 Insofar as is possible, USAID/Tanzania should avoid selecting new projects which:

- have a large initial construction component
- require a major commitment of recurrent expenditure
- expect US technicians to reside in remote areas
- depend upon rapid realization of benefits
- have as essential components a large equipment or supplies element.

3.143 These restrictions cast a different light on the oft-repeated dictum that "small projects require just as much USAID management as do large ones." (We were told several times in Dar es Salaam that the Mission was reviewing its project portfolio to concentrate funding upon a few major initiatives.) In point of fact, the guideline is itself false. A more accurate restatement would be that:

i) New projects are much more management-intensive than old ones, since it is in the initial stages when the actions requiring USAID involvement are clustered.

ii) Projects involving physical construction (with linked aspects of purchasing, equipment supply, etc.) are much more management-intensive

In Tanzania, having a large project nearly always means the project team must create its own physical facilities. The facilities in turn must be equipped--an extremely time intensive task when it is attempted from the Dar es Salaam end of a long "pipeline". And, of course, assembling a compatible team of Swahili-speaking specialists covering several subject areas usually exceeds what any one contract institution can supply. In Africa generally small projects should be preferred over large ones; and this is particularly so in Tanzania, given its foreign exchange constraint and the enormous difficulty of arranging local construction and parts' supply.

3.144 USAID should resist pressures to make data gathering a major component in its future agricultural sector projects. In three instances (the Arusha VPDP, TRD, and the Farmer Training projects) far too much effort was absorbed in conducting expensive field surveys which were never fully

analyzed or used. In the Tanzanian context, where communications are difficult, fuel is scarce, and staff may be poorly supervised, attempts to carry out rural surveys are extraordinarily demanding of senior staff time.

3.145 Another institutional lesson is to avoid projects which call for coordinated action between several ministries. It can be predicted that interministerial co-operation will not survive the withdrawal of external funding, though for a time the injection of such assistance may appear to bring about effective liaison. This warning applies unfortunately to a number of priority project areas where multi-agency involvement is all but mandatory: e.g. nutrition, irrigation, range development, and school agriculture.

3.146 Whatever USAID/Tanzania should choose as its focus in the agricultural sector, allowance must be made for extremely slow implementation.[1] We have already stressed that new construction should be avoided. Even so, on average it will probably take three years to finalize a project design and begin disburesement, and another three to put a contract team on the ground with housing and vehicles. These necessary lead times imply that any larger project must have almost a decade to show results, with genuine field impact only occuring in the final 3-4 years. Such considerations suggest that the Mission loses a great deal when it terminates projects that have already incurred these high establishment costs. Most USAID project managers will never see the outcomes of the projects they have designed (assuming existing turnover rates continue).

3.147 Finally, there are many attractive technical possibilities which might merit donor assistance within Tanzania: improvement of food storage, expansion of irrigation, feeder roads, nutrition, generation of better technical packages, livestock development, etc. Consequently the selection criteria cannot be based on need alone. Instead of being related to objectives, the determining factors must be rather the <u>likely effectiveness</u> of implementation: i.e., the institutional dimension which has been our topic in this chapter.[1]

[1]This section is written as if USAID/Tanzania were in a position to consider having further projects in the country. While because of the default situation this may not be a realistic hope, we feel the guidelines are applicable to any donor interested in assisting Tanzania's agricultural development.

CHAPTER FOUR
THE PRIVATE SECTOR[1]

Introduction

4.1 Under the general category of "the private sector," we have chosen to group several interrelated topics: sector policy, transport, small-scale industries, financial infrastructure, and the nature of Tanzania's production units themselves. Though not all of the organizations to be described are themselves private, all play an essential role in supporting private economic and service activities. Here we should note that private, religiously-based organizations have a significant place in both Tanzania's commercial and in its service sectors. Many Tanzanians ha their first acquaintance with US citizens through the activities of missionary organizations or through private educational contacts--two linkages which the current US attitude towards Tanzania overlooks.

4.2 It took the current economic crisis, however, to make plain that the private sector in Tanzania is still active far beyond what its minor place in policy statements up to 1981 might suggest. The economic crisis was (and still is) to a significant degree a private sector crisis. Smallholders were deserting the export crops, while private transporters could no longer obtain the fuel and spare parts they needed to stay in commercial operation. Furthermore, the small but strategic large-farming sector had been cut off from foreign exchange and was near the point of total collapse. Much of the top quality export production so essential to maintaining Tanzania's market position had come from the large-scale estate producers (particularly in coffee, sisal, and tea). This precarious situation finally stimulated Tanzania's economic policy-makers to incorporate private sector activities under the umbrella of official planning. However, it was soon discovered that the country lacked the basic statistics and information required on many aspects of the functioning of the private sector. We are indebted to officials in the Ministry of Planning and in the Bank of Tanzania for such assistance as they were able to give, but it is clear several important gaps remain.

[1] Prepared in draft by the SIP team's economists: J. Harris, W. Mbaga, J. Semboja, and assisted by C. Kazi. The transport sector analysis has been added subsequently.

The Survival of the Private Sector

4.3 Despite the pursuit of a socialist development strategy, Tanzania retains a significant private sector which continues to function. A recent statement by the Ministry of Planning asserts that:[1]

> Even after the Arusha Declaration both the Party and the Government realized and appreciated the significant role of the private sector in the overall economic development of the nation. However, this realisation has not been fully explained to the general public and there has not been a clear guideline on private sector investment.

In support of this statement, senior officials point out that the backbone of agriculture remains Tanzania's smallholders; private estates continue to be important in several export crops; more than half of industry is in private hands; the largest part of transport is private; and private activities in hotels, tourism and consultancy are also significant. Within the Tanzanian system, the cooperative movement is seen as a private sector institution. And, finally, private voluntary agencies (or NGOs) have a major role within the service sector.

4.4 Beyond establishing the obvious point that private activities are still crucial to Tanzania's economic performance, this listing suggests three further generalizations which are central to the overall argument of this chapter:

- What may be termed "the private sector" is in fact a grouping of heterogeneous activities having differential access to resources, technology, and assistance. The various individuals and organizations lumped together under this categorization have little in common, and are subject to differing institutional constraints on their decision making.
- There is no single source which adequately describes Tanzania's private sector. In this chapter, we have drawn together the fragmentary information available in attempting to provide a "first cut" overview of the size, distribution, and characterization of private sector activity in various sectors of the

[1] Investment Policy of the Private Sector, 19 August 1983 (mimeo.).

economy. While major gaps remain in this picture, our description does incorporate the available materials and highlights the key issues which policy makers should address.

- The heterogeneous composition of Tanzania's private sector may also account for the difficulty the Tanzania Government has experienced in influencing its activities by means of uniform policy instruments. The diversity is so great that sometimes policies which benefit one part of the private sector may, paradoxically, harm another part.

4.5 Throughout the 1970s, many Tanzanians would probably have seen the Party (TANU to 1977, and then the CCM) as being fundamentally antagonistic to private sector economic activities. To understand why this perception persists, let us quote at some length from the 1981 CCM Guidelines. (These were promulgated in 1981, and are still taken as the official and binding policies of the Party; copies are widely circulated and quoted to buttress arguments in policy debates and seminars.) The following passages convey the Party's position:

> The nationalisation of foreign banks and big capitalist farms, the establishment of parastatal organisations and the setting up of publically owned industries are some of the examples of the Party's determination and resolve to build a new economic system that was congruent with the socialist society that was being aspired to be built. (p. 7, para. 24)

> The major means of production such as banks, industries, internal and external trade, big farms, railways, posts and telecommunications are all now owned by the public. (p. 7, para. 25)

> However, the detractors and enemies of socialism, both internal and external, have persistently been spreading rumours that our policy of socialism and self-reliance was the main cause of our present problems. These enemies know pretty well that what they were saying was untrue.... For in the past fourteen years since the Arusha declaration, in some instances the Party, government and its instruments have been used to expand and strengthen the capitalist sector in industries, trade, transport, construction, etc. And this capitalism which has developed over this period in question has largely been instrumental in spreading and consolidating activities and influences whose overall effect has been that of sabotaging and weakening our public sector. (p. 11, para. 35)

> Today capitalism has many more temptations than was the case at the time when the Arusha Declaration was announced because, in

> spite of our having a very big public sector, due to our weakness in not combating and curbing capitalist tendencies, capitalism has succeeded to expand and to infiltrate even the public sector itself. This is partly why capitalism now dares not only to disparage and vilify socialism openly and arrogantly but also to induce and manipulate some of our leaders so as to take them and subsequently the Party, away from our policy. (p. 17, para. 52)
>
> It has become apparent that for the entire period of eighteen years since the Arusha Declaration the government and its instruments as well as some of the leaders have engaged in activities which have resulted in the strengthening and expansion of the capitalism in the country. From now on, the Party would be more alert and keen and would ensure that the power and resources of the government, its instruments as well as efforts of the Party would be deployed fully to strengthen and promote socialism. (p. 39, para. 102)
>
> It must be ensured that the government and public corporations do not offer or give out construction works projects to capitalist constructors unless that are not other alternatives.... The present practice of awarding to individuals tender for supplying foodstuffs to public institutions...is eliminated step by step.... Transportation by public institutions needs to be strengthened and expanded...the allocation of lorries and buses should be carried out with the aim of expanding socialism in the sector of transport and communication. (p. 40, para. 103)

Since such statements must be approved by the Party's National Executive Committee (NEC), it is not surprizing that private entrepreneurs failed to appreciate the "significant role of the private sector" which it is now being said was allowed under Government Policy.

4.6 The events which forced a reconsideration of the Party's official position were, of course, the "economic shocks" of the mid and late 1970s: drought, high energy imports, low commodity prices, and the War in Uganda. To these must be added the 1977 break-up of the East African Community and the linked closure of Tanzania's border with Kenya. This made it essential to encourage internal production of a range of specialized products Tanzania had formerly obtained through Kenya.

4.7 The actual contribution of the private sector to the Tanzanian economy arises mainly in regard to smallholder agriculture and, prior to 1976, the cooperatives. Official figures are given in Table 4.1, but are inconsistent with what is known from other sources. Following the Arusha Declaration, there was a fall in the private sector's contribution to GDP—from above 80% to about 77% and then stabilized. Private capital formation fell abruptly from about 50% to less than 30% in the early 1970s (figures which are consonant with other information about the growing role of government). However, the abrupt rise after 1975 in the reported proportion is not likely. Given that over half of gross investment by 1978 was being channeled through governmental intervention, and given the increasing role of parastatals at this time, these figures are probably in error. After 1973 there is data on the share of wage employment in the private sector which shows a constant or declining share of around 27%. Since the private share of employment remained below 30% and other evidence suggests the capital-labor ratio in the private sector is lower than in the public, we can infer that the private sector's share of investment remained well below 30%.

4.8 Perhaps the official figures have been adjusted to reflect what the Government had hoped would happen after the "tilt" toward private industry in 1977. Instead, a subsequent shortfall in foreign exchange necessitated a reimposition of tight import controls, while a vigorous parallel market grew up in response to persistant shortages. Party leaders felt betrayed when individual entrepreneurs tried to use measures for economic liberalization as a means for evading exchange controls. Business leaders on their part interpreted the Government's continuing campaign against individual traders ("operation maduka," etc.) as proof that the relaxation would be only temporary. The fact is that an overvalued currency, stringent import controls, input-starved commercial activity, and the parallel market have become interconnected parts of a larger system whose precise functioning remains unclear. Policies aimed at any one segment are bound to be influenced by other developments in the total system, though not necessarily in the predicted ways.

TABLE 4.1

CONTRIBUTION OF THE PRIVATE SECTOR TO THE ECONOMY (PERCENT)
GDP, CAPITAL FORMATION AND EMPLOYMENT[a]

YEAR:	Gross domestic product:	Capital formation:	Employment:
1966	85.3	57.2	n.a.
1967	81.3	47.2	n.a.
1968	80.9	50.1	n.a.
1969	79.8	47.8	n.a.
1970	78.6	31.9	n.a.
1971	76.8	28.0	n.a.
1972	76.3	28.7	n.a.
1973	75.8	29.2	28.8
1974	74.0	28.5	27.0
1975	74.4	34.3	28.3
1976	76.8	50.2	27.9
1977	n.a.	49.5	27.7
1978	n.a.	49.8	23.5
1979	n.a.	47.8	n.a.

[a]Figures for GDP and CF include private households and those for employment include private entrepreneurs only.

Sources: (i) National Accounts of Tanzania, 1966-76
(ii) Statistical Abstracts, 1973-9
(iii) Hali ya Uchumi Wa Taifa Katika Mwaka 1982 (Annual Economic Survey for 1982).

What the Party clearly intends is to gain the advantage of increased private sector participation, while limiting such activity to defined channels which minimize the enrichment of individual entrepreneurs. Thus, for example, at the same time as the Daily News runs headlines such as "Encourage Private Investors--PM", it also reports that Bunge has passed the Sabotage Bill, making permanent the campaign against "economic and organizational crime". The continuing portrayal by Party leaders of legitimate economic activity within a moralistic framework arises out of a deeply rooted ambivalence towards the private sector. The leadership would like to enjoy the benefits of a vigorous commercial revival--which the economy desperately needs--but is still reluctant to allow individuals to act in the ways which such liberalization implies. The Government's statements and policies over the past two years have taken a zigzag course tending towards greater private sector participation but including numerous signals to the contrary. In these circumstances, donors and private entrepreneurs alike have been reluctant to underwrite the initiatives which the Government's new policies were intended to stimulate.

4.9 The most important of these new policies in regard to this chapter's topic is the investment policy for the private sector issued in August of 1983. In essence, this policy consists of a set of guidelines towards private investment. It begins with the statement quoted at the start of this chapter, re-emphasizing the "significant role" of the private sector in the overall economic development of Tanzania. General guidelines include statements that joint ventures with government or parastatals are allowed, that "private investors will enjoy all the privileges which are extended to public institutions," and that issues such as "capital dividend, profit etc. will depend on individual project and negotiation between Government and the investors" as governed in part by the Foreign Investment Protection Act of 1963. Rights to long-term leases in agri-

culture are outlined. It is asserted that "private commercial farms will be free to make their own commercial decisions provided that the decisions are based on the framework of law and regulation within the country." Provisions are made for special tax treatment for private investment in mining--although on big mining projects, joint ventures with majority Government participation are stipulated. Within industry, the necessity for private investments to accord with priorities specified by the structural adjustment program (SAP) is outlined. It is also proposed that "private sector enterprises with significant export will be allowed to open external account...to enable them to buy spare parts and other important inputs."

4.10 In addition, explicit mention is made to facilitating private investment for exploitation of natural resources, including establishment of fishing industries, tour operation and tourist hotels. The need for (but not an articulation of) a clear policy on the utilization of private vehicles for transport of people and goods is noted, and the desirability of rehabilitation of the private transport fleet is recognized. However, it is significant that in the trade sector, the guidelines say merely that "villages and cooperative shops should be assisted with loans from banks or ... grants from the Government." With regards to construction, the only statement is that a policy is required to determine and control house rents.

4.11 The clear impression conveyed by these statements is that large scale private enterprise in directly productive sectors will be encouraged. This has been reinforced by public announcement on several occasions, e.g. a meeting in 1983 between prominent members of the Asian community and Prime Minister Sokoine, who urged them to establish large-scale commercial farms on their own or in participation with foreign private investors. On the other hand, there is ambivalence within the Party about the role of smallholders in peasant agriculture and small entrepreneurs in private transport coupled with hostility towards small-scale private trading enterprizes.

The Transport Sector[1]

4.12 Tanzania's transport sector is of crucial importance to the nation's economic development, and will retain this significance no matter what kind of economic regime the national leadership espouses. This is true for all of the usual reasons affecting any primary producer on the periphery of the international system, but also so for certain reasons peculiar to Tanzania's situation and geography. A basic initial insight to understanding Tanzania's "development dilemma" is the realization that these pecularities impose significant costs which must be absorbed by any organization--public or private--doing business in Tanzania. In broad brush summary, the main points which need to be understood are:

- the incomplete nature of Tanganyika's colonial investment in transport infrastructure.
- the inherently low returns to unit investment because of the location of higher potential areas in isolated "islands".
- the centrality of Tanzania's transport efficiency as an influence upon neighbouring land-locked states.
- heavy loads destined to or from neighbouring states (Zambia and Kenya) have in the past greatly reduced the life of Tanzania's major highways (to the north and to the southwest).
- long distance transport in Tanzania frequently involves more than one mode of transport, e.g. road and rail, or rail and ferry.
- Tanzania operates two national railway systems, TRC and TAZARA, which have different gauge and completely separate organization.
- Tanzania operates three lake shipping routes as well as marine coastal shipping north, south, and to Zanzibar.
- single purpose transporters (e.g. crop parastatals) must often send vehicles one way empty for long distances, doubling costs.
- the dispersed location of Tanzania's main crops--excepting perhaps cotton and pyrethrum--makes it likely that common processing will entail high transport costs for some producers.
- while rail and air transport come under public corporations, much of road transport is offered by private operators whose services are essential for many rural communities.
- maintenance of the road network by Tanzania's Ministry of Works has been starved of funding except where donors have underwritten feeder roads for specific project areas (Arusha, Lushoto, etc.).
- As the organization also responsible for maintaining government vehicles, the Ministry's inefficiency has had a pervasive impact on public sector productivity.

[1] Essential reading on this topic is a SIDA sponsored study by Bo Sedin Consultants AB (1982) Tanzania, Fact Finding Mission--Transport Sector, Stockholm, 30 pp. & appendices.

4.13 While the various components of Tanzania's transport system appear relatively straight-forward when examined individually, there have been pronounced problems in coordinating the joint operations of the system. First, we note this does not involve just Tanzania. zania's transport efficiency influences and is influenced by major users in five neighbouring countries (with Kenya, Uganda, Malawi and even Somalia being potential clients). In four of these cases (northern Zambia, eastern Zaire, Burundi, and Ruanda), transport links to the sea through Tanzania remain the shortest and therefore potentially least-cost land-based access.[1] Second, the necessity of tranferring cargo from rail to ship to road or vice versa puts the whole system at the mercy of its weakest links--as the TRC "capacity crisis" discussed in chapter two illustrates. Third, it is unfortunate (because there were alternatives, such as greater use by Tanzania of Tanga) that Dar es Salaam has been made the principal outlet for both Tanzania and Zambia. Thus capacity blockages which originate in either country's trade will quickly affect the other one--as Zambia discovered to its cost when Dar es Salaam became completely clogged in the mid-1970s. Fourth, political events such as the War in Uganda, Kenya's seizure of the Victoria steamers, or the disupute over East African Airways' debts have had strong reprecussions on the operation of the system. And, fifth, the building of agricultural processing and fabrication plants (tobacco, meat packing, milling, and fertilizers) far from the producing areas leaves much of the agricultural sector at the mercy of the nation's transport efficiency. To get fertilizer from the factory at Tanga (where it is already more expensive in FE than imported fertilizer) to Mbeya means moving it over two rail systems and from one corner of the country to the opposite end. And yet the highest demand for fertilizer is in Tanzania's southern highlands zone! Unless Tanzania's transport managers operate with unusually high levels of coordination and efficiency, many people inside and out of Tanzania suffer.

[1] We might note that Tanzania's central railway was built during colonial times to service eastern Zaire's needs, which accounts for its route through drought-prone districts where the line has had little developmental impact.

4.14 This background explains why Tanzania's organizational infrastructure servicing the transport sector is relatively elaborate. The necessity of coordinating mutual transport and energy interests is a main reason behind several of the joint, bilateral Commissions which Tanzania established with neighbouring countries during the 1970s. More recently, the port of Dar es Salaam and the TAZARA railway have been identified as an important entry point for transit traffic into the SADCC area and as such may qualify for regional support from SIDA or other concerned donors. Renewed communications with Kenya may also lead to a revival of some features of the former East African Community, though it is too early to predict what form they might take.

4.15 Internal transport institutions differ between Tanzania and Zanzibar (as they do in most other sectors as well).[1] Zanzibar's transport parastatals are heavily oriented towards shipping, as might be expected. The Zanzibar Government Shipping Corporation (established in 1977) handles all domestic shipping and operates three ships (the mv Mapinduzi, mv Jamhuri and mv Afrika). A separate parastatal, the Zanzibar State Shipping Corporation, services external vessels (185 ships in 1976), while actual loading and storage is done by the Zanzibar Wharfage Corporation (87,640 tonnes in 1976). Road transport comes under the Ministry of Works, Roads, and Telecommunications, which maintains roads on both islands, repairs vehicles, and handles vehicle imports. The inadequate service to Zanzibar by mainland parastatals (like Air Tanzania) in recent years has no doubt contributed to the Islands' desire to maintain their own, parallel transport services.

4.16 At the national level on the mainland, it had been hoped Dar es Salaam's National Institute of Transport (begun in 1975) could provide support and short term training, as well as running a 3 year diploma course. Managerial and financial difficulties instead resulted in the Institute being taken over by its parent ministry in 1982. Licenses for offering road transport have been issued by the transport licensing authority within the Ministry (though perhaps this might be one area

[1] All Zanzibar figures from a 1978 Zanzibar Government document: more recent information was unfortunately not available.

affected by the revival of District Councils). Permits for purchase of new vehicles are handled by the State Motor Corporation.

4.17 As elsewhere in the economy, use has been made of holding parastatals charged with the oversight of individual transport companies. The National Transport Corporation (with 50 employees in 1978) is the holding company for UDA, Dar es Salaam's public bus line, the National Bus Service (NBS), and the Coastal Shipping Line (TACOSHILI) of critical importance to the southern regions. For road traffic to Zambia, a special joint company (ZTRS) was set up in 1966; it is said to have about 600 trucks, which are mainly involved in copper export.

4.18 The public corporations involved in the transport sector tend to be large in size, being (in 1982 figures): Tanzania Railways Corporation, or TRC (17,509 employees); the Tanzania Harbours Authority (11,206 employees); the Dar es Salaam Transport Co., or UDA (1,567 employees) and the State Motor Corporation (1,237 employees). Air Tanzania Corporation (ATC) was listed as having 1,164 established posts (1978), but there is a clear difference in the Annual Manpower Reports between numbers reported under "established posts" and those given for total employment (which may include daily laborers). For example, the 1977 Annual Manpower Report lists 4,413 established posts for TRC and 4,277 for the Tanzania-Zambia Railway Authority, or TAZARA (1982:43). The National Shipping Agencies Co. (NASACO) which has received some limited assistance from Norway is shown as having 753 employees in 1978 (1982:43).

4.19 In chapter two, reference was made to TRC's capacity problems in the late 1970s and to various scandals which have surrounded ATC's operations almost from the Corporation's inception. The poor performance of Tanzania's transport corporations had immediate foreign exchange ramifications. It also undermined the legitimacy of socialist approaches to economic development, since this is one area where average citizens come into direct contact with the nation's parastatal management. The investments concerned are too large to be left adrift, as they were during the initial period of economic crisis (1976-81).

a. Road Haulage[1]

4.20 Tanzania's road haulage system is central to the concerns of this chapter, since the larger share of transporters (estimated at 60%) are still privately owned. In addition, Tanzanian producers generally prefer to employ road transport because of the low efficiency of the rail services. This does not necessarily justify giving priority to road haulage from a national standpoint, however. Tanzania's road haulage costs have a large foreign exchange component, not only because all fuel is imported but also the short working life of imported vehicles and the foreign exchange used to keep roads passable. Table 4.2 gives KILIMO's calculations (derived from MDB) of the comparative foreign exchange costs in using road haulage exclusively, as contrasted with combined truck and rail transport. This underscores the need for railway efficiency, particularly in the transport of cereal crops (maize, rice and wheat), beans, and coffee.

4.21 Table 4.3 gives support to the contention that private transporters constitute the backbone of the road fleet. We have no reason to doubt this overall generalization, but the statistical basis is confusing. A USAID financed study by Lyon Associates noted in 1972 that motor vehicle statistics as published cannot be used with confidence. While all new vehicles are added to the registry each year, old vehicles no longer registered or inoperable ones are not removed. (Comparing actual records against supposed registrations for 1969, Lyon Associates arrived at deflator percentages of 29% for passenger cars, 23% for vans, 22% for lorries, and 30% lower for buses.)[2] It would seem a safe general rule that one should deflate published statistics on vehicle registration by at least 25% to arrive at estimates of the current fleet in each year.

[1] Two excellent baseline studies whose quality would merit a comparative up-date in 1985 are: Trimac Consulting Services, Ltd. (1978) Tanzania Trucking Industry Study. Calgary, Alberta: Trimac Consulting Services, 270 pp. (see esp. chap. 4, "The Tansport System --An Overview," and chap. 5, "The Elements of the Road Transport Industry in Tanzania"); Lyon Associates (1972) Final Report, Tanzania Highway and Maintenance Organizations, 3 vols. Baltimore, MD: Lyon Associates.

[2] Lyon Associates (1972), vol. III, chap. 2, p. 36.

TABLE 4.2

FOREIGN EXCHANGE COSTS OF CROP TRANSPORT (81/82)[a]
(US $/tonne)

Crop:	Truck Only:	Truck & Rail:
Coffee	134	89
Tea	207	168
Tobacco	153	118
Cotton Lint	123	91
Sisal	51	51
Cashewnuts	28	28
Maize	157	57
Rice	85	32
Wheat	157	62
Beans	129	62
Cassava	22	22

[a]The cost of moving cash crops from points of origin to port and food crops to Dar es Salaam.

Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 2, A Framework for Action. Rome: FAO for KILIMO, Table 5.5, p. 182.

TABLE 4.3a

MAKEUP OF TANZANIAN ROAD TRANSPORT IN 1974

Sector	No. of Trucks	% of Total Fleet	Production (mn of t/km)	% of Total Production
Private	6,000	68.2	1,080	59.7
Cooperatives	600	6.8	120	6.6
Parastatals	1,495	17.0	180	9.9
National Road Haulage Co.	315	3.6	108	6.0
Tanzania Road Services	70	.8	30	1.7
Zam-Tan Road Services (ZTRS)	[a] 320	3.6	292	16.1
Total	8,800[b]	100	1,810	100

[a]Included because of registration in Tanzania

[b]Not including approx. 200 foreign registered vehicles operating in Tanzania

Source: Table 2 in Ngila Mwase, The Structure of the Road Haulage Industry in Tanzania (ERB Paper 78.7), 1980, p.13.

TABLE 4.3b

MAKEUP OF TANZANIAN ROAD TRANSPORT IN 1982

Sector	No. of owners[a]	% of owners[a]	Approx. total truck fleet	% of total truck fleet
Parastatals	146	2.62	2,049	18.15
Cooperatives	231	4.14	458	4.06
Companies/ Private traders	5,204	93.24	8,780	77.79
Total	5,581	100	11,287	100

[a]Presumably those licensed to offer commercial haulage services (otherwise the total for the parastatal sector would be much higher).

Source: United Republic of Tanzania, Hali ya Uchakuzi na Mawasiliano Nchini, Mwaka 1982, 1983, p. 21. (Annual Report, 1982, Ministry of Transport and Communications)

4.22 A significant trend in Tanzania since Independence has been the changing composition of vehicles on the road, with proportionately far fewer passenger cars than would have been found without public intervention. A tax on passenger cars was introduced in 1964, and was revised upwards in 1967, 1969, 1970 and on several occasions since then. Its impact on growth rates was immediate: while annual growth rates for numbers of passenger cars had been 4.6% between 1960-65, it dropped to 1.6% between 1965-70 and has been even lower since then. Lyon Associates calculated that the growth rate for vans during the same periods rose from 0.3% to 5.2%, for trucks from 0.7% to 6.1% and for buses from 2.2% to 10.4%.[1] In the early 1970s, the State Motor Corporation took over control of vehicle importation from private suppliers, and the present system for purchase approval was instituted. This all but cut off passenger car imports except for parastatals or expatriates paying in hard currency. However, we do not have up-to-date figures giving the present proportion of passenger cars among registered vehicles.

4.23 Another trend with significant reprecussions has been the mushrooming of parastatal road fleets during the late 1970s. The figures for 1980 in Table 4.3 from the Ministry's Annual Report are surely in gross error. Out of more than 450 parastatals, 146 is far too low an estimate for those which own trucks. The 1974 figures seem nearer to reality, giving 24% for all co-operative and parastatal owned trucks in the national fleet; we would consider the share today is probably over 30% of the total. This growth in parastatal trucking, which is readily observable on the road, derives from favored access to Bank of Tanzania and STC import clearances. The uncounted cost is, however, the tendency of crop authority (and other parastatal) vehicles to make long trips travelling only one way loaded. While general transporters usually can arrange trips so that vehicles are loaded both coming and going, the specific objectives associated with parastatal operations often means travelling one way empty. This effectively doubles the actual per mile costs of transport, even though the increase will not appear within mileage statistics as usually shown.

[1] Ibid., vol. 3, chap. 2, pp. 34-36.

4.24 Statistics on the present road network also show unexplained discrepancies. The World Bank's estimate by regions is given in Table 4.4 overleaf. Other estimates of the length of the road system vary between 45,000 and 55,000 km. Of this, 2,800 km are paved with another 6,800 km gravelled (Bo Sedin 1982:6). The Ministry (MAWASILIANO) is responsible for maintaining a total of 17,600 km (prior to initiation of District Councils; we have no indication yet whether the Councils will re-assume their pre-1972 role in the upkeep of local roads). The many other roads making up the total system are in very poor condition, some having deteriorated completely before even the loans used in their construction have been paid off (e.g. some of the World Bank financed feeder roads). Poor road conditions have thus exacerbated high transport costs for private transporters, with private and public transporters experiencing very high rates of vehicle depreciation.

4.25 Within Tanzania, ministries tend to blame the Ministry for this situation, since it maintains public roads and services most government owned vehicles (only MAJI and a few construction-oriented sections of other ministries are excused from relying on COMWORKS for this purpose).[1] It would seem that during Tanzania's extended financial crisis when recurrent funds were very short, the Ministry simply stopped maintenance on many minor roads. In retrospect, the self-defeating nature of this strategem is evident. As with railways (see chap. 2), on roads a small amount of annual maintenance can forestall much more expensive rebuilding of the roadway itself. It also externalizes to users vastly increased equipment breakdown costs, usually paid in foreign exchange. However, it is not fair to place all the blame on the Ministry. COMWORKS inherited a substantial proportion of its road network from the former District Councils, which as they became financially pressed adopted the same strategy for "saving" funds. In July of 1971 Lyon Associates surveyed COMWORKS' existing stock of 1,445 pieces of equipment for road maintenance; 47% was found deadlined as inoperable. As for COMWORKS' workshops, they observed:

[1] Transport and Works were separated in 1974 and only recently rejoined under one Ministry. The old designation COMWORKS was in use in 1972 and is retained here, though operationally vehicle repairs and road maintenance were and are separate, being under different divisions.

TABLE 4.4

ROAD LENGTH AND DENSITY BY REGION

Region:	Length of Paved Roads (km)	Length of Unpaved Roads (km)	Total Length Roads (km)	km of Road per 1,000 rural pop.[a]	km of Road per 100 sq km land[b]
Arusha	276	3,662	3,938	4.2	5.0
Coast	521	2,878	3,399	6.7	12.4
Dodoma	26[c]	3,008	3,034	3.1	8.6
Iringa	345	3,010	3,355	3.7	9.7
Kigoma	20	972	992	1.6	8.2
Kilimanjaro	324	2,106	2,430	2.7	22.0
Lindi	30	749	799	1.5	n.a.
Mara	4	1,354	1,358	1.9	6.4
Mbeya	360	3,924	4,284	4.1	8.8
Morogoro	384	2,720	3,104	3.5	10.9
Mtwara	29	2,940	2,969	4.1	9.9
Mwanza	80	2,384	2,464	1.8	17.5
Ruvuma	2	2,177	2,179	3.8	6.1
Shinyanga	3	2,598	2,601	1.9	7.9
Singida	7	2,224	2,231	3.7	7.6
Tanga	286	3,062	3,348	3.5	15.7
Kagera	24	2,289	2,313	2.1	9.9
Rukwa	nil	2,632	2,632	5.8	n.a.
Tabora	4	5,449	5,453	6.9	15.3
TOTAL	2,725	50,138	52,863	3.3	10.2

[a] Projected to 1981 from 1978 population figures based on past regional growth rates

[b] Total agricultural land, including unused & fallow land

[c] The post-1981 completion of the paved road to Dodoma will have greatly changed this figure.

Source: M.J. Staab (1982) "Transport and Agriculture," Background Paper IV, for the World Bank Agricultural Sector Strategy Report, Tables 4 & 6 (derived from TISCO, Motor Vehicle Distribution Study, December 1981).

> In general these shops have inadequate facilities, equipment, supplies and handtools to perform even the simplest repairs. In some cases lubrication cannot be properly performed due to the lack of the proper lubricants or lubrication equipment.

As a consequence, rates of equipment usage despite the scarcity of units were "very low":[1]

> Suggested reasons for low usage are: (1) long procurement time needed for spares results in non-availability of the equipment, (2) shortage of qualified operators, mechanics and supervisors, (3) influence of Government policy of labor intensification, and (4) accounting system requiring equipment to be "hired-out" to assigned jobs. Restricted funds available per job limit amount available for charges against equipment.

The consulting engineers went on to suggest that COMWORKS' poor performance was in 1972 largely a consequence of trying to do too much with too little--a perennial Tanzanian trait. They conclude:[2]

> The physical facilities for vehicle and equipment maintenance and repair was, in most Regions, totally inadequate for the large number of units involved. In addition to the Commworks fleet, these shops are expected to provide service for all other Government Ministries, resulting in a demand of several hundred units on the very limited facility which is, in many cases, inadequate to perform even minimum preventative maintenance.

We note that these comments were made in 1972, a high point in Tanzania's financial situation in comparison to recent years!

4.26 The question is whether donors should have addressed this persistent Tanzanian weakness when extending loan financing for the construction of low specification roads. This is even a valid issue in regard to showpiece investments, like USAID's assistance on the Dar es Salaam to Mbeya highway. African countries seem unable to resist sending very heavy loads down their main highways, irregardless of specifications. The consequences on a lightly compacted roadbed--where the main "savings" occur, since less equipment use is required during construction--will be to destroy the sub-surface stressing of the roadbed, sometimes for the highway's entire length! Thus within ten years of its construction, the Dar es Salaam to Mbeya highway now requires rebuilding over much of its route. And, of course, it was built with loan financing.

[1]Lyon Associates (1972), vol. 1, chap. 2, p. 62. [2]Ibid., p. 62.

4.27 Donors have responded belatedly to the crisis in road haulage. The IBRD has instituted a trunk road maintenance project, and is also said to have included some vehicle repairs under its export rehabilitation credit. The Bank is also giving assistance to reorganized regional transport companies (RETCOs). The EEC has launched a major project designed to get the more than 600 sidelined parastatal trucks back on the road (Bo Sedin 1982). However, noting that transport is one area where the private sector could still compete and the willingness of the Government to allow it a larger role, we must question whether further support to transport parastatals makes the best use of very scarce external financing. The answer is probably that in the short run existing organizations were in desperate straights even though in the longer run other arrangements merit donor support.

b. Rail Haulage

4.28 The deterioration in Tanzania's transport sector does feature prominently in the Structural Adjustment Program (1982:28-31). The aim is to shift long distance cargo movements from roads to rail, to remove unnecessary interregional restrictions on movement of goods (which had artifically increased costs), to stress rehabilitation, and to improve the Ministry's planning capacity--all laudable goals.

4.29 A serious obstacle to realizing the SAP objectives has been the declining performance of Tanzania's two major rail systems, the lines to the West and North under the Tanzania Railways Corporation (TRC), and the Uhuru Railway to Zambia's copperbelt under TAZARA (Table 4.5). TRC's problems in the late 1970s were discussed in some detail in chapter 2 (paras. 2.36-42), and are clearly indicated in comparative performance statistics (Table 4.6 and 4.7). TAZARA has also come under severe criticism, but in TAZARA's case much of its difficulties can be traced to a basic mistake made by the donor in providing locomotives which were underpowered for the gradients on the central section, where the route climbs the Iringa escarpment. As with TRC (see our following account), CIDA has provided railway consultants to assist TAZARA's management improve the line's

TABLE 4.5

RAILWAY HAULAGE STATISTICS, TRC & TAZARA[a]

(a) Tanzania Railways Corporation

(Length: 2,600 km)

Item:	Year: 1973	1977	1981	1982
tons carried	1,587,929	1,302,180	1,152,421	1,058,866
passengers	4,518,289	3,700,624	2,389,653	3,284,194
wagons[b]	6,370	5,492	4,458	3,922
pass. coaches	228	274	200	219
locomotives	176	158	202	202

[b]Figures for 1981 and 1982 refer specifically to freight wagons, whereas for 1973 and 1977 totals refer to "rolling stock".

(b) The Uhuru Railway (TAZARA)

(Length:

Item:	Year: 1976	1977	1981	1982
tons carried	92,759	1,271,680	752,000	797,000
passengers	618,928	1,048,820	1,021,478	983,198
rolling stock	1,870	1,870	1,908	1,826
coaches & restaurant cars	100	100	97	97
mainline locomotives (DTH)	85	85	97	80

[a]Source: The Economic Survey, for the years 1977-78, 1982.

TABLE 4.6 ESTIMATED TRC DEMAND — 1978

('000 tonnes)

Commodity:	Estimated Demand:	Actual Traffic:	% Shortfall:
Petroleum	340	170	- 50%
Grains	240	60	- 75%
ZBR transit	240	110	- 54%
Cement	200	74	- 63%
Coffee	96	75	- 22%
Sugar	86	15	- 83%
Cotton lint	59	41	- 31%
Livestock	58	25	- 57%
Fertilizer	50	15	- 70%
Cattle cake	38	14	- 63%
Sisal	30	13	- 57%
All other	500	450	- 10%
	1,950	1,060	- 46%

Source: CIDA (n.d., 1980?) Tanzania Railway Transport Sector Study, Book I, Vol. A. Summary, para 3.16.

TABLE 4.7 COMPARATIVE PERFORMANCE OF TRC

Traffic/Employee ('000 tonne)		Annual Goods Traffic/Wagon ('000 tonne/km)	
Zimbabwe	320	Mali	460
Zaire	100	TAZARA	430
TAZARA	100	Malawi	400
TRC	65	Senegal	360
Malawi	62	Benin	350
		Zaire	340
		Ethiopia	300
		Nigeria	230
		TRC	210

Source: CIDA (n.d., 1980?) Tanzania Railway Transport Sector Study, Book I, Vol. A. Summary, para. 2.13.

operational performance.[1] West German assistance in rebuilding the Chinese DFH_2 locomotives with German diesel electric engines appears to have been successful, and represents an innovative local solution to a major technical bottleneck.[2] The Canadian engineers also put to rest external speculation that TAZARA was repeating TRC's dismal record of non-maintenance of its track (1984:7-9):

> Generally, the track structure throughout the entire TAZARA system appears to be well maintained and in good condition. Both surfaces and alignments are very good, the ballast was clean and has full shoulders and properly filled cribs, and the shoulder of the formation are generally well maintained and free of weeds.

4.30 For the TRC, however, a return to cost-effective operation will be much more difficult to achieve. Here we are also fortunate in having at hand an excellent CIDA evaluation, from which the following points have been taken, given here in direct quotation (paragraph nos.):[3]

1) Inefficient use of present resources: "In 1979, the average turn around (load to load) time for the approximately 3,300 potentially active wagons was roughly 27 days...despite the fact carryings fall short of demand and that the longest scheduled round trip running time...is less than five days." (4.20)

2) Tradition of operating at a loss: "Since incorporation in 1977, the TRC has experienced net annual financial losses...and the forecast for 1980 is an even more substantial net deficit...despite a thirty percent increase in goods tariffs implemented in 1979" (4.306)

3) Lack of financial data: "The financial and accounting systems and controls of the TRC have been and to a large extent continue to be in disarray" (4.306)..."During the field evaluation period, TRC did not have any formal financial statement nor any opening balance position. The available financial information related primarily to operating profit and loss figures based on approximate or refined forecast figures. This presented a major constraint in carrying out a normal financial and accounting status review and evaluation" (4.310).

4) Declining productivity: "Although the present situation is bleak, it is worse when viewed in perspective. Traffic carryings have been on a steady decline since 1972. In that period total goods traffic has fallen from 1,680,000 tonnes to 850,000 tonnes in 1979, an average decline of about 9% per year" (1.05).

5) Failure to utilize in-country opportunities: "Concrete sleepers could be adopted...this would have the major benefit of avoiding a major portion of the foregin exchange expenditures" (4.80). "The concrete sleeper plant in Tanzania built for...the TAZARA railway is not currently in production. The plant was not turned over to TAZARA on completion of railway construction (4.81).

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[1] Canadian Pacific Consulting Services (1984) Operating and Staffing Study for Tanzania Zambia Railway Authority. Progress Report, Dar es Salaam: CPCS.

[2] A. Mkamba (1983) "Experience of Innovation and its Impact on Industries," The Tanzania Engineer, vol. 1, no. 2, pp. 33-34.

[3] CIDA (n.d.) Tanzania Railway Transport Sector Study, Vol. A, Summary.

6) Suppliers refusal to honor orders: "From time to time, because of overdue accounts, some suppliers refuse delivery until payment has been made" (6.09).

7) High cost of internally produced, local items: "Crushed rock ballast is produced for TRC at railway-owned pits... Production is low and the cost is high" (4.64).

8) Incompatibilities in mechanical equipment: "The TRC locomotive fleet currently includes nine different classes of diesel locomotives, using three different types of drives supplied from either different sources in four different countries. This situation has the disbenefit firstly of necessitating a large inventory of spare parts...and secondly of compounding difficulties in procuring them" (6.07).

9) Simple system, unreliably operated: "The control systems are safe, simple and effective when operated as designed... While the Station Masters, as a group, meet the basic requirements...there is a lack of sharpness about processing train movements. In three samples of ten stations each on three different dates, an average of only 66% of stations were prepared to receive and despatch a train" (4.197).

10) New equipment sidelined because of poor maintenance: "The average availability of the TRC diesel fleet during 1979 was only about 60% for road units and 51% for diesel yard switchers. This availability compares to a level in the order of 85% achieved on many railways. This low availability was experienced despite the fact that a large proportion of the fleet is new" (4.124).

11) Failure to carry out field inspections: "One of the differences observed between railroads in many other countries and the TRC, lies in the amount of time officers spend on the line communicating with subordinates and getting to know ...their problems at first hand. Usually, this is considered essential.." (4.34). "Inspection and field trips must be encouraged and must be made easier. The state of inspection coaches is run down. (They) are sound and could be refurbished at little cost compared to the cost of new units" (4.35).

12) Low productivity of bottom-level workers: "The Study Team observed idle persons at many of the shops and other facilities of the TRC... Team observations suggest that average worker productivity is lower than the Corporation can sustain" (4.33). "Total staff actually increased...in 1978" (4.27).

13) Negative effects of external interventions: "Since the TRC is not able to handle all traffic offering, the matter of priorities is constantly arising... As a result, external directives are often received regarding allocation of the TRC's rolling stock... The problem appears to be that external decisions regarding the national interest are frequently made without appreciation of the ramifications of such decisions... This is especially true if the directives are for immediate action" (4.36).

14) Unclear definition of duties and responsibilities: "At the present time there is some uncertainty surrounding the formal definition of responsibilities, duties and delegation of authority within TRC management" (4.06).

15) Divisions operate in unco-ordinated fashion: "The TRC exhibits a lack of coordination. Departments and operating components are perceived as being too independent in their activities and their response to overall railways needs and objectives" (4.24).

16) Shortages of housing: "The stock of housing is presently insufficient to meet needs" (4.45).

17) Staff vacancies because of loss of staff: "Vacancies in the range of 25% and more are common in most departments... It is also understood that TRC is not always presently able to offer sufficient salary or other compensations to attract and hold qualified people... The salary scale paid, for example, for equivalent positions on the TAZARA Railway is reported considerably higher than on TRC" (4.16).

18) Early retirement of experienced staff: "At the age when officers in many countries are making major contributions to their enterprises, officers on the TRC are nearing retirement" (4.32).

19) Inexperience of newly appointed senior managers: "The situation has been made more difficult by the shortage of senior staff and by the inexperience of some of the most senior managers... They are not only new to their TRC jobs, but also new to the railroad industry and the traditions of service that make it work... Without consolidated data for management information, and with key TRC managers lacking the empirical knowledge which could substitute for data, the TRC has suffered from the lack of planned direction when it was most needed" (4.22).

20) Over-emphasis on academic qualification: "On TRC today, it would appear, in some instances, that an over-emphasis has been placed on the importance of academic qualifications in comparison to hands-on experience" (4.31). "This situation of two distinctive groups--one experienced (but) lacking academic type qualifications and one academically well qualified but lacking relevant experience is not unique. However, elsewhere young academically qualified personnel are usually expected to remain at fairly junior levels of responsibility ...as they develop knowledge of the enterprize... Sufficient numbers...are not available in Tanzania...and consequently promotion to senior levels on the TRC is quicker than normal" (4.30).

21) Management Board concentrates on details rather than goals: "A full appreciation of the role of the Board of Directors and its importance in establishing overall goals and objectives appears to be lacking... No apparent specific financial objectives have been established... Both the Board and the senior operating officers find themselves preoccupied with details of operation, and the establishment of long term objectives and overall corporate plans is not receiving the appropriate emphasis" (4.04).

22) SCOPO as a bottleneck: "The mandate of (SCOPO) includes the regulation of wages, salaries, and other compensatory items... Because of this responsibility, SCOPO is involved in such considerations as approval of organizational establishments in TRC. The influence on the Corporation is therefore considerable" (4.37). "The sheer volume of SCOPO involvement in hundreds of parastatals ...gives them little time to initiate such reviews. Presently, the resolution of such fundamental issues is in limbo. Differences which require personal dialogue are being dealt with by correspondence. Exchanges are taking 6 months or more with no resolution in sight" (4.38).

23) JUWATA as a bottleneck: "JUWATA...is far more pervasive than most, even large, union organizations... The perceived power (real or imagined), the pervasiveness of JUWATA and the reportedly time consuming...procedures...have apparently combined to erode management perogatives... The accumulative effect ... is said to have decreased management's ability to direct the work and to obtain desired response from the work force" (4.39)."

4.31 Nearly all the above traits could be documented from several major Tanzanian parastatals; probably a majority of them apply to most of the nation's larger parastatal enterprizes. This is the root reason why one must be cautious in assuming individual perscriptions can effect the changes necessary to reverse systemic momentum which appears to cross-cut the entire universe of Tanzania's rural development institutions.

4.32 The railways case is also valuable because it typifies the constraints which must be dealt with by outside management consultants asked to assist in improving Tanzanian institutional performance.

1) First, there is not the slightest chance that the railways can be "returned" to free-market, competitive operation. Since inception before World War I, the East African railways systems have always been public sector enterprizes. They will remain public corporations for the forseeable future. To put forward a barrage of detailed suggestions derived from the usual world of private enterprize, commercial operations is of no particular benefit to anybody. The setting and constraints which apply to public sector enterprize do fundamentally affect the range of options which can be considered.

2) Second, the Tanzanian railway system did at one time operate with substantially greater efficiency than it does now. It was able to move a greater tonnage with fewer staff under many of the same field difficulties which today seem to cripple its performance. The older, experienced staff who are now being retired to make room for well educated but inexperienced managers did at one time run the system more effectively. It would seem imperative to concentrate on asking why within existing constraints the overall performance has steadily deteriorated during the 1970s (the issue which underlies this entire review of Tanzanian rural institutions).

3) Third, the evident weaknesses of recent performance grow out of an interaction between structural features whose combined effects exceed their individual impact. For example, the fact that supervisory staff do not make inspection trips (for understandable reasons) is made more serious because TRC has an entrenched workers' organization and young, academically qualified managers. We have argued throughout this report that similar networks of interconnected weaknesses lie at the core of Tanzania's low parastatal productivity. The actual causes (as illustrated here) often do not seem of crucial importance at the point where they arise in day-to-day operations---hence the difficulty of remedying them "from above".

Small Scale Industry

4.33 Assistance to small scale industry has been a Party priority in Tanzania since April of 1973, when TANU issued guidelines favoring small-scale establishments. Entrepreneurs receiving assistance can be either private businesses or small co-operatives, but in practice most are the former. Thus in this area, unlike the situation in agriculture, Party policy has been strongly supportive of private sector activity. Official figures estimate that the % of small-scale activity has risen from below 20% to about 44% of all industrial contribution to GDP (Table 4.8). (These estimates may be on the high side were it not for the very low rates of capacity utilization within Tanzania's large-scale industries.) A census of the small-scale sector carried out by SIDO in 1977/78 indicated it was then composed of 3,978 units employing 52,284 people (Table 4.9) Roughly half (2,095) of these units were located in Dar es Salaam, with Morogoro (at 496) a distant second and Kilimanjaro (169) and Arusha (165) in third place. As so often in these listings, the isolated and peripheral regions make up the rear: Ruvuma (18), Rukwa (23), Singida (32) and Kigoma (42).

4.34 Under "small scale industry" are regionally-located "industrial estates"--a rather grandiose designation for quite modest facilities clustering a number of fabrication premises under one roof--as well and district and village industries. Handicraft units, individual or cooperative, also qualify for assistance.

4.35 The main institutional support comes from the Small Industries Development Organization (SIDO), established by Act No. 28 of 1973. The Act specified a wide range of possible functions for SIDO beyond simply promoting the concept: market research, enterprise support, planning, training, technical assistance, and even consultancy help.

4.36 In its own review of the first decade, SIDO divides its growth into three stages. The first years (1973-75) were devoted to building up core staff (294 in 1975) and budgetary support (shs. 11.9 million); SIDO extension offices were opened in every region. In 1976-77,

TABLE 4.8

NATIONAL GDP CONTRIBUTION OF SMALL-SCALE INDUSTRY

Year:	Total GDP	Contribution of industry to GDP[a]	Contrib. of small-scale industry	% industry in total GDP[a]	% s-scale industry in GDP
	----In millions Sbs. ----------				
1976-77	20,267	2,047	---	10.1	—
1977-78	21,484	2,237	431	12.4	2.0
1978-79	22,773	2,445	499	13.0	2.2
1979-80	25,139	2,672	789	13.8	3.1
1980-81	26,647	2,920	1,138	11.5	4.3
1981-82	28,246	2,191	1,346	16.0	4.8
1982-83	29,940	3,488	1,537	16.8	5.1

[a]Contribution of whole industrial sector, including small-scale component.

Source: SIDO (1980) Summary of the Third Five Year Plan for the Development of Small Scale Industries in Tanzania (Sept.).

TABLE 4.9

POSITION OF SMALL SCALE INDUSTRY IN 1977/78

Region:	No. of Units:	Employment (in nos.):	Total Investment: (in shs. 000)	Total Output: (shs. 000)
Tanga	124	2,830	8,466	27,993
Kilimanjaro	169	2,152	19,184	84,262
Arusha	165	4,272	28,914	90,180
Mara	71	1,012	6,911	14,424
Mwanza	120	1,434	4,988	17,720
Shinyanga	60	1,606	10,069	22,268
West Lake	80	1,--7[a]	3,265	4,623
Dar es Salaam	2095	27,496	216,932	447,865
Coast	82	1,579	2,301	8,883
Morogoro	496	2,051	20,714	35,463
Singida	32	646	6,544	11,673
Dodoma	50	733	12,052	15,265
Tabora	61	956	10,450	18,170
Kigoma	42	533	867	1,859
Iringa	68	840	4,384	13,694
Mbeya	70	865	4,867	14,097
Rukwa	23	386	318	1,129
Ruvuma	16	196	779	2,128
Lindi	73	1,102	4,741	9,880
Mtwara	76	1,058	3,157	2,759
TOTAL	3,978	52,284	369,712	845,342

[a]Figures indecipherable on copy.

Source: SIDO, 1977/78 Census of Small Scale Industries.

SIDO built six training and production centers (Mbeya, Lanzoni, Kilosa, Usseri, Kibaha, and Mwambisi) adding to four (Dodoma, Njombe, Usangi and Tabora) it inherited from the National Small Industries Corporation, its predecessor. These centers emphasized training in craft skills--lime making, pottery, etc. By the end of 1977, SIDO had 400 people and an annual budget of 26.3 million shs. In 1978, an ambitious 5 Year Plan was prepared. It aimed at SIDO establishing 1,067 "factory type" and 2,271 "non-factory" rural industrial units requiring a total investment of Shs. 1,668 million. Actual performance in this third phase has been below target but respectable: 732 factory projects and 504 non-factory units, utilizing about 300 million shs. in fixed investment, and employing about 25,000 people (SIDO 1984).

4.37 Probably SIDO's most important contribution has been through its industrial extension service. As of 1983, SIDO had some 60 Industrial Extension Officers; in each region, the SIDO team will consist of a regional manager, an economist, and one technical officer. These teams work with prospective entrepreneurs to insure adequate financial and technical backstopping. Applications from a co-operative or group of craftsmen are given preference, and are forwarded by SIDO to a regional screening team (usually chaired by the RDD). The regional committee approves the initial idea for a given type of industrial undertaking, and interviews applicants when they have been identified by SIDO. SIDO has been able to arrange financing and even equipment imports for its projects, until affected by the foreign exchange crisis after 1981. It prepares both "tailor made" projects aimed at meeting the needs of particular client groups, and "open" projects where a prepared project is thrown open to any applicants. In its first decade of operation, SIDO prepared 698 technical profiles and 819 feasibility studies; its ten training-cum-production centers trained 1,809 people (SIDO 1984).

4.38 SIDO has arranged international training for some of its entrepreneurs, 48 under Sweden's Sister Industry Program, 12 in Hungary, and 45 project managers in India. Numerous other donors have assisted on particular projects, e.g. the Dutch, IDRC, UNIDO and USAID (in Arusha Region).

Financial Services

4.39 Under financial services come both the banking system and various investment organizations, some of them non-governmental and oriented to particular communities within Tanzania. The Industrial Promotion Service (or IPS) is a good example of financial assistance generated by a religious organization for its members, the Aga Khan Group. Others of this type include the Karimjee Jivanjee (K.J.) Group, and several more smaller units. For external donors, of course, there may be problems in giving assistance to such organizations even though they have played key roles within certain industries.

4.40 Less controversial in regard to donor assistance are various officially supported investment funds, such as Tanzania's Community Development Trust Fund (CDTF) which has sponsored small-scale improvements at the community level, and the larger Tanzania Development Finance Ltd. (TDFL). Established in 1962, TDFL's shareholders include the CDC, the Tanzania Investment Bank (TIB), the Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. and the Deutsche Gasellschaft für Wirtschaftliche Zusammenarbeit (Entwicklungsgesellschaft) Mbh. Its purpose is to provide investment capital (75% in foreign exchange) for a wide range of development-oriented enterprizes, many of them private. Review of TDFL's 1981 Annual Report suggests the many activities this fund has supported: printing presses for the Mwanza Printing Centre, support to Vitanda Manufacturing Company making foam mattresses, assistance to a coconut estate on Mafia Island, production and bottling of soft drinks in Mtwara, and so forth. All in all, there are about 90 different companies and ventures which have received assistance. We can foresee a need to use such assistance quite selectively in the future, given the general economic situation. In the shortrun, TDFL might put its emphasis upon:

- consolidation of its existing portfolio,
- rehabilitation of the existing industrial operations,
- replacement of worn out machinery,
- financing of spare parts and imported feedstocks,
- attacking the main factors limiting capacity utilization, and,
- improving industrial productivity.

4.41 In the medium term and longer run, the TDFL's emphasis should shift towards:

- modern small- and medium-scale industries which use mainly local raw materials,
- indigenous African enterepreneurs in the private sector,
- those sector activities which:
  - (i) use local materials
  - (ii) provide potential for exports
  - (iii) create more employment
  - (iv) generate high value added
  - (v) have the most linkage effects (forward and backward)
  - (vi) have comparative advantage in generating products which can be used as inputs by existing industries.

Of course, it is far easier to ennumerate the desirable attributes of future investment than it is to actually identify activities which meet all the requisites which are theoretically desirable. The main point is simply that TDFL should not continue to assist the kinds of import-dependent enterprizes which bulked so large in Tanzania's initial phase of industrialization.

4.42 The Commonwealth Development Corporation (CDC), whose investment capital is ultimately derived from the British Government, has also been active within Tanzania. For the years between 1980-1982, CDC's main investments have been (figures in £ sterling) 1.42 million to the Kibo Match Corporation, 9.9 million to Southern Paper Mill Co., 1.36 million to TDFL, 1.97 million to Tanganyika Wattle Co., 3.55 million to TANESCO (the Kidatu-Mufindi grid system), 1.4 million to Kilombero Sugar Co., .62 million to Tanzania Seed Co., 3.6 million to the Kilimanjaro Textile Co., and .06 million to Ruaha Bottling Co. There would seem to be no reason in principle why CDC could not play a fairly major role in assistance to larger firms within Tanzania's private sector.

4.43 The Tanzania Investment Bank (TIB) was created in late 1970 as part of a general restructuring of Tanzania's financial system. It derives nearly all its working funds from government sources, and pro-

vides medium and long term financing for both private and parastatal enterprizes. Projects must require a minimum of Shs. 100,000 assistance, and loan finance is extended up to 75% of total project cost. TIB shareholders included (in 1981) 60% GOT, 30% NBC, and 10% NIC. It operates under a Board of Directors with 10 members: the Chairman and Managing Director appointed by the President, 5 members by Government, 2 by NBC, and 1 by NIC. The Minister of Finance appoints the General Manager, who has a 5 year term and is TIB's principal Executive Officer. Up through 1981, TIB had 4 departments (operations, finance, planning and administration) with a 5th for projects being added in 1982.

4.44 A sectoral breakdown of TIB's activity over its first decade (70-80) shows 61% devoted to manufacturing, 11% to agriculture, 8% to engineering, 6% to transport and storage, 6% to tourism and hotels, and 8% miscellaneous (1979/80 TIB Annual Report, cited in Bagachwa, 1981:45). In 1981/82, TIB changed its lending portfolio to include import support and project rehabilitation. Of approximately 150 million shs. new loans, 60.8 million was to finance materials and spare parts. The balance of shs. 89.2 million was allocated with 3 million (3.4% to agricultural processing), 75 million (84%) to manufacturing, 8.8 million (9.9%) to wood products, and 2.4 million (2.6%) to mining (1981/82 TIB Annual Report). Total employees in 1982 were 124. Up to June 1980, TIB had given 178 loans since its inception, with an average of shs. 8.5 million per loan (Bagachwa, 1981:8).

Banking and Credit

4.45 There are basically two banks which concern the rural sector, the National Bank of Commerce (NBC), and the TCRDB or Tanzania Co-operative and Rural Development Bank (up to 1983 known simply as TRDB). Before we look at these two institutions, however, it should be noted that the whole banking system was taken over from private hands in 1967 following the Arusha Declaration. Actually, the old East African Currency Board was replaced in 1966 by the newly formed Bank of Tanzania (BOT) which marked the assumption of national control over the monetary system. The BOT then serves as Tanzania's national bank at the apex of the system.

4.46 The National Bank of Commerce (NBC) began its life in 1967 with 38 branches and 26 agencies and about shs. 1,014 million in deposits against 100 million share capital (of which 25 million was paid up). As of June 1980 it had grown to 208 branches and 230 agencies, with deposits of 11,268 million shs. Its employment (1978) was 4,546. NBC basically provides the working capital for the entire monetized sector. Up to May of 1976 it also advanced crop purchasing capital to the regional Co-op Unions, a function they handed over to crop authorities from 1977 onwards. After a very rapid expansion in the early 1970s, 115 agencies were closed down in 1978. As of 1980, each branch served on average 157,000 people.

4.47 NBC's agricultural sector loans rose from shs. 818 million in 1967 to shs. 6,249 million in 1979. Of this, direct production loans dropped steadily from 12.5% to 3.8% whereas the share for produce marketing rose from 23% to 40% (BOT figures cited in Bagachwa, 1981:30). NBC's agricultural loan activities are summarized in Tables 4.10 and 4.11. It is said that by 1981, the NMC alone held about 40% of the total NBC loans portfolio (Bagachwa 1981:30). Since the Bank receives roughly 96% of the country's total deposits, its heavy involvement in parastatal and government loan financing during recent years threatens the entire banking system. Net government borrowing from the banking system was shs. 9,000.4 million as of June 1980, an increase of shs. 2,725 million (43.4%) over 1979 (Bagachwa 1981:vi). It was this situation which ultimately forced the Government to confront the out-of-control situation on the purchasing of export crops.

4.48 The Tanzania Cooperative and Rural Development Bank (TCRDB) is a recent restructuring of the Tanzania Rural Development Bank to bring back into its portfolio responsibility for the re-introduced co-operatives. The TRDB as it was until last year is thoroughly familiar to USAID, which provided project assistance through the resources for village production and income project (No. 621-0155).[1] This project was aimed at financing increased small-scale industrial support through TRDB and strengthening its institutional development. Originally targeted at a 45 million dollar

[1] Ronco Consulting Corporation (1982) Project Evaluation. Resources for Village Production and Income Project (No. 621-0155). Washington, D.C.: Ronco, 90 pp.

TABLE 4.10

N.B.C. Agricultural Loans

(in millions shs. T.)

Year	Agricultural production loans 1.	Marketing of agricultural produce 2.	Total sectoral loans 3.	% of 1 to 3 4.	% of 2 to 3 5.
1967	102.1	190.9	818.1	12.5	23.3
1970	171.6	280.4	1,347.1	12.7	20.8
1972	96.2	531.5	1,548.9	6.2	34.3
1975	165.8	983.9	3,350.0	4.9	29.3
1979	236.8	2,504.1	6,249.0	3.8	40.0

Source: Bank of Tanzania, Economic and Operations Report (June 1979), cited in Bagachwa 1981, p. 30.

TABLE 4.11

Recipients of N.B.C. Agricultural Loans

(in millions shs. T.)

Type of Beneficiary	June 1975	June 1976	June 1977	June 1978
Parastatals	54.0	76.0	80.0	90.0
Ujamaa villages	0.15	11.0	1.0	1.7
DDCs	4.0	3.0	5.0	3.8
Private foreign companies & estates	96.0	73.0	99.0	96.0
T O T A L	154.15	163.0	185.0	197.5

Source: Bagachwa, 1981, p. 31 citing Bank of Tanzania, Credit for Development of Agriculture in Tanzania.

project spread over 7 years, the funding was reduced in 1983 to a $ 15 million level terminating in 1984 instead of 1984 (Ronco 1 83:1). The TRDB had earlier AID support, a $ 3.75 million Agricultural Credit Project (no. 621-0117), from June 1974 to June 1981. In addition, there was some TRDB funding received through the Arusha Planning and Village Development Project (for establishing maize mills and farm implements).

4.49 The TRDB was established in May of 1971, taking over from the National Development Credit Agency (NDCA), which had lent to co-operative societies as a subsidiary of the National Co-operative and Development Bank. By its charter, the TRDB (as it was then) was made the primary lending agency for the rural sector, broadly defined to include crops, animals, forestry, fisheries, and the processing and transport of agricultural commodities (Bagachwa 1981:12). It offered short term production credit (1 year or less) to cover seasonal inputs; medium term credit (3-5 year) for items like farm machinery; and long term financing (5 or more years) for storage facilities or ranch expansion. Prior to 1976, TRDB channelled loans to the 22 regional co-operative unions; after 1977/78 it had to assume much of the responsibility for the financing of short-term crop purchasing--a source of some of its financial difficulties in recent years.

4.50 Control was vested in a Board of Directors, under a presidentially-appointed chairman. The General Manager was appointed by the Minister of Finance and served as TRDB's principal executive and legal officer. TRDB was (as of 1981) organized into five departments ("directorates"): operations, planning and development, finance, manpower, and regional supervision. As of 1983, it had over 500 employees spread between the head office in Dar es Salaam and 20 regional offices, with 15 district offices in districts where there was usually substantial loan activity (Ronco 1983: 5). Loan applications were submitted by potential clients to regional offices, which saw to it that applications met minimum criteria and were adequately formulated. The regional office works through a Regional Loans Committee which can approve loans up to shs. 200,000. Larger loans must be approved by the Central Loans Committee on which members of the Board of Directors sit as well as the managing director (Bagachwa 1981:14).

4.51 In regard to its lending, TRDB has been the institutional mechanism for much of the World Bank's support to particular export crops. It is estimated that as of 1981 on average 50% of the crop financing went to tobacco production (Bagachwa 1981:15). TRDB also assisted livestock enterprizes run by District Development Corporations (DDCs) or else in some instances by Ujamaa villages. While overall performance on the livestock portfolio has been satisfactory, villages and DDCs have encountered serious difficulty in obtaining technical support and in financial management.

4.52 As with NBC, so also TRDB's financial viability had been undercut by poor financial control throughout the whole rural system. First, when the Co-operative Unions were disbanded, TRDB was left for an extended period (up to 1983) holding unrecoverable Union loans until finally Treasury forwarded 59.6 million shillings; meanwhile, TRDB suffered heavily from the loss in interest and the decline in shilling value (Ronco 1983:5). Second, because of variation in donors' stipulations similar loans were given under different conditions. Villagers were quick to note such discrepancies, and demand relief from repayment. Third, the attempt to use crop authorities in place of co-operatives brought its own probelms (Ronco 1983:28):

> On seasonal loans, TRDB looks to the relevant commodity parastatal to make collection from produce payments and to remit funds to TRDB. The crop authorities commonly use funds collected on behalf of TRDB for long periods to finance their own operations. For food crops this is compounded by the small part of food crop production delivered to NMC.

Fourth, when local political leaders intercede on behalf of delinquent villages, villagers often assume the deferments they receive are permanent. Fifth, political leaders have sometimes brought pressure to bear upon the TRDB to advance loans for marginal projects. And, sixth, the poor accounting within TRDB and its lack of effective collection procedures compounds the Bank's other problems in dealing with recalcitrant borrowers. In the original project paper for USAID, it was estimated that to put the Bank back on a sound financial basis would require an injection of about $ 30 million, an estimate which still appeared valid in 1983 (Ronco 1983:27).

4.53 In 1983/84, USAID froze further disbursement under its project at the level of $ 10.75 already obligated, which Ronco felt would leave most of the major improvements needed still incomplete (1983:34). The SIP team did not have further information as to the TRDB's reorganized operations now that co-operative lending has once again been included.

Trade Institutions

4.54 Distinctive to Tanzania are a set of trade institutions—the Board of External Trade (BET), the Board of Internal Trade (BIT), and the Price Commission—which are intermediary between private producers and the market. The Board of External Trade (or BET) was established in 1978 to assist exporters in the areas of trade information, market research, international trade fairs, and training under various export schemes. An initial flaw was BET's concentration on monitoring individual exporters rather than on watching key export commodities upon which Tanzania's economic fortunes rested. Underneath BET come what are termed "export confinee" organizations, generally the parastatals responsible for particular products, e.g. CATA (cashews), GAPEX (general agricultural products), CAT (coffee), TCA (cotton), TTA (tea), LIDA (livestock), TLAI (leather), TAFICO (sea products), Tantimbers (wood products), and ZSTC (cloves). BET's initial regulatory focus is now being reoriented to export promotion by means of several administrative incentives introduced since 1981: export rebates, export credit insurance, exporters being allowed to open external accounts, etc. Nevertheless, it was the view of the SIP team (in mid-1983) that the whole confinement policy should be reviewed to eliminate any unnecessary controls and monopoly powers. The Bank of Tanzania (BOT) has its own mechanisms to insure recapture of foreign exchange generated by exports. If BET must exist, then let it serve exporters by giving them preferential access to local support.

4.55 The Board of Internal Trade (BIT) is the equivalent institution established to regulate internal trade. Under it come a number of wholesale distribution companies, established to replace private trading firms which were mostly under immigrant control: AISCO (Agricultural Implements and Supplies Co.), BHESCO (Building, Hardware & Electrical Supplies Co.), HOSCO (Household and Supplies Co., Ltd.), DABCO (Domestic Appliances & Bicycle Co.), GEFCO (General Foods Co.), NAPCO (National Pharmaceutical Co.), and DARTEX (Dar es Salaam Textile Co.). In theory, these then feed locally produced items to the 20 Regional Trading Companies that supply co-operative shops and other retail outlets. BIT is, in fact, a holding parastatal under the Ministry of Trade; its associated companies

are national trading companies for the categories of manufactured goods given in each one's name. Mwapachu gives a useful overview of BIT's assigned functions, which include deciding what products can be imported, negotiating on behalf of its companies with the Price Commission and with the Minister for Trade, performing management audits, and so forth (1983:24-26, 65-66). In actual fact, like many of Tanzania's holding parastatals its progeny show little evidence of having received beneficial tutelege, and several were in late 1984 being considered for possible disbandment.

Conclusion

4.56 The primary point of this chapter has been to make it clear that there is a private sector in Tanzania, and one which produces the vast bulk of the country's exports as well as running more than two thirds of road haulage and perhaps a half of industrial production. It has been the imminent collapse of these private activities which generated the "economic crisis" in the late 1970s and early 1980s.

4.57 A second observation is that slowly and hesitantly the Government has begun to recognize the centrality of private performance for Tanzania's continued economic well-being. A change in attitude which had begun in 1983 was much more evident by late 1984. We welcome the Government's increased realism in this regard, and believe it provides a genuine opening for greater encouragement by donors in assisting a private sector revival. (This might have been a priority for USAID, as was suggested to us.)

4.58 The third point is, however, that adequate private sector responses are hobbled by low performance of public sector agencies, such as Tanzania's two railway corporations (TRC and TAZARA) or its two main banks (NBC, TCRDB). An extended case study of TRC shows that its woes are only partly explicable by reference to "socialist" policies; and its recovery will require a multi-pronged approach that goes far beyond the usual managerial tinkering. Similarly, institutions like BET and BIT have done little to merit their strategic powers over the Tanzanian economy.

4.59 A fourth observation is that several of Tanzania's key institutions such as TIB, NBC, or TRDB (as it was) have assisted the private sector in the past. Provided they receive clear policy directions from the top, there is no structural reason why they could not do so again in the future.

CHAPTER FIVE

PUBLIC SECTOR INSTITUTIONS

Supremacy of the Party

5.1 It is useful to conceptualize the Tanzanian institutional system as being made up of four sharply distinct sub-sectors: i) the CCM (Party) apparatus, ii) the regional administration, iii) the main technical ministries, and, iv) the parastatals. The parastatals in turn divide into those with commercial functions and those doing training and research, such as the University of Dar es Salaam. Thus even if the private sector is excluded, under the general rubric of "public sector institutions" one finds a wide array of organizational types.

5.2 Among Tanzanians, the supremacy of the Party within this array of institutions has been treated as a key tenet of political loyalty—the one premise above argument or equivocation. Outsiders tend to see this tenet as an arbitrary imposition designed to maximize political control. While it does undoubtedly increase political control, the widespread acceptance of this tenet has rested upon several developments which have reinforced the Party's legitimacy. To Party adherents, proof of the need to put political priorities first is provided by the following achievements:

- The class differences inherited at Independence have been narrowed.
- Powerful minority groups (such as the European estate owners and the Asian mercantile class) have been largely displaced.
- Mass social services have been extended into the countryside.
- Liberation movements in Mozambique and Zimbabwe were supported, and proved successful (despite Western opposition).
- Key economic institutions (such as banking) were taken over by the state, and have been expanded in outreach (again, in the face of strongly negative Western commentary).
- A very high rate of investment has been maintained for over two decades, despite Tanzania being a very poor nation.
- A moderate industrial infrastructure has been created (replacing the Kenyan industries which previously served Tanzania).
- Most of the specialized technical institutions required for agricultural development now exist.
- A viable One Party political system has been created, and has been copied in other African countries.
- The President retained his respect and popularity in the country during two decades of his leadership.

In many instances, the above initiatives were critized by outsiders, who claimed they were premature, too radical, too expensive, or even—as in the case of the banking takeover in 1967—bound to fail. When disastrous consequences did not materialize, the Party's legitimacy was strengthened. And, among Party leaders themselves, there has been a tendency to dismiss external advice as being both unsympathetic and too pessimistic (which it often was during the initial years of Tanzania's socialist experiment). It should also be noted that "the Party" is not a monolithic factor in Tanzania; there have usually been a number of viewpoints within the Party about how policies should be carried out. Within Tanzania, the one distinguishing characteristic unfifying the different factions comprising the Party is loyalty to the President.

General Trends

5.3 The most active period for institution building took place in the late 1960s and early 1970s, when the framework for socialist control of the economy was being erected (following the Arusha Declaration of 1967). In the main, this transition involved the creation of "parastatals", which are (in the commercial sector) public corporations responsible for offering commercial services. From the early 1970s onwards, the relative share of investment and institutional support between the four sub-sectors reflected the Party's goal of replacing the private sector by the parastatal sector. When these institutions have proved inadequate, it has seemed obvious to American advisors that the root problem has been the replacement of efficient private sector institutions by inefficient public sector organizations.

5.4 However, it should be noted that parastatals were supposed to be cost recovering, and that they were created as separate legal entities specifically so that they would not be bound by cumbersome civil services rules. The Mc Kinsey Company did the redesign of Tanzania's newly created State Trading Corporation (1968-70), as well as the subsequent "decentralization" of the entire governmental machinery in 1972. Kenya's highly successful tea authority, the KTDA, was the model for Tanzania's ten cash crop parastatals. The Uyole Agricultural Center complex, while designed by Nordic advisors, nevertheless embodied a

training-extension-research linkage directly modelled on the US "land grant" pattern. Except for the massive TAZARA project built with Chinese aid, the socialist influence over Tanzanian parastatal planning has been entirely "home grown"; USSR and other socialist nation models have been strikingly absent. Thus the failure of parastatals to perform is not seen in Tanzania as being an especially socialist weakness. If anything, these institutions are associated with Nyerere's pro-Western leanings, and their failure opens the door for more radical proposals to restructure the economic system along more authoritarian lines. In the Tanzanian context, "parastatalism" should be viewed as an experiment to see if a publically controlled but pro-western commercial sector could be created. Consequently the failure of this large investment program does not automatically benefit the western donors who have been heavily involved in its creation.

5.5 Up until 1976 when co-operatives were disbanded, there existed in effect a three tier ordering of public institutions each with its own support and control mechanisms. At the top, there were the parastatals which are governed by SCOPO (the Standing Committee on Parastatal Organizations). At the middle, there were regular government departments which constituted the civil service with standardized salary scales and benefits. And, at the bottom, we had the employees of the co-operatives. With the reintroduction of co-operatives and local government as bottom tiers within the system, it can be anticipated that these will once again become a distinct cadre not quite competitive with the more attractive (and nationally mobile) cadres of ministry and parastatal staff.

5.6 From 1977/78 onwards, there were several years with relatively little institutional change. The official view during that period was that the "decentralization" structure adopted in 1972 had been fully successful. With crop and livestock parastatals in place, attention shifted to regulatory institutions such as the Price Control Commision, and the two Boards of Trade (BIT for internal and BET for external trade) as devices to conserve scarce foreign exchange. The current changes (1982-84) therefore represent a major restructuring of the

rural administration on a scale not seen since the early 1970s.

5.7 While Tanzanian leaders have made many institutional changes in the two decades since Independence, the prevailing modes of implementation have not changed. Throughout the period, leaders have relied upon exhortation, on standardized solutions, on the setting of overoptimistic targets, on assistance to "pet" schemes, and on the deliberate fostering of a crisis atmosphere ("operations"). These aspects of institutional performance are hard to document. It seems likely that the larger share of existing performance weaknesses grow out of the cumulative and reiterative impact of the Tanzanian leadership's habitual approaches to program management.

5.8 The array of major parastatal institutions as of 1981 is outlined in Table 5.0 overleaf. Anyone working with the Tanzanian administration needs to learn this list, since organizations are often referred to only by their acronyms, e.g. BET, ERB, SIDO, etc. (A more complete listing of training institutions is given later in Table 5.23.) With well over 400 parastatals, Tanzania's national leadership can no longer exercise detailed control over the many institutions it has created. An up-to-date directory of all parastatals is greatly needed, as is also a compendium of the various Acts which are usually drafted at the time when a parastatal first becomes an independent corporate entity. Similarly, SCOPO cannot hope to exercise its officially stipulated functions when it must deal unaided with so many institutions—a point we will return to later.

5.9 The proliferation of parastatals in the 1970s is only part of the story. At the same time, Ministries were also establishing additional training and service organizations—e.g. the various MATIs and ARIs which KILIMO founded, AFYA's health training institutions, ELIMU's Colleges of National Education, and so forth. It is typical of Tanzania that when the country approached UNESCO with a request to fill the missing function of in-service teacher training, ELIMU asked for no less than 13! (Most African countries get by quite well with only one large in-service college.) And, at the same time, many parastatals were (with Government encouragement) expanding their number of zonal offices and field stations.

THE 1981 INSTITUTIONAL MATRIX

Research

National Council (UTAFITI)
Economic (ERB, BRALUP)
Soils (Nat. Soil Survey)
Census (Bureau Statistics)
Industrial (IRDO)
Marketing (MDB)
Agriculture (UAC, TARO, Fac. of Agric., TPRI)
Livestock (TALIRO)
Marine (Inst. Marine Sci.)
Food (TFNC)
Forestry (For. Res. Inst.)

Crop Parastatals

Cashews	(CATA)
Coffee	(CAT)
Cotton	(TCA)
Food	(NMC)
Oil Seeds	(GAPEX)
Pyrethrum	(TPB)
Sisal	(TSA)
Sugar	(SDC)
Tea	(TTA)
Tobacco	(TAT)

Livestock Parastatals

Authority	(LIDA)
Ranching	(NARCO)
Dairying	(DAFCO)
Milk mkt.	(TDL)
Meat mkt.	(TLMC)
Meat Proc.	(TPL)
Cold chain	(NCCO)
Insemminat.	(NAIC)

Production Parastatals

Fisheries	(TAFICO)
Wildlife	(TAWICO)
Cereals	(NAFCO)
Wood products	(TWICO)
Mining	(STAMICO)
Petroleum	(TPDC)
Electricity	(TANESCO)
Cement	(SARUJI)
Textiles	(TEXCO)
Refining	(TIPER)
Housing	(NHC)

Dev. Corporations

Agricultural Inputs

Fertilizers	(TFC)
Seeds	(TA[illegible]EED, TOSCA)
Supplies	(AISCO)
Implements	(UFI)

Small Industries

Rural industry (SIDO)
Machinery testing (TAMTU)
Village technology (AITC)
Handicrafts (HANDICO)

Transport

Training (Inst. of Transport)
Directorate of Civil Aviation
Shipping (TACOSHILI, EA Supply Line, Chinese-Tanzania Ship. Ltd.)
Railways (TRC, TAZARA)
Airways (ATC)
Harbours (THA)
Roads (Nat. Road Haulage, Nat. Transport Corp., Regional Transport Companies)
State Travel Service
Pipelines (TAZAMA)

Investment & Banking

Industries (NDC, TISCO, TDFL)
Rural credit (TRDB)
Central Bank (Bank of Tanzania)
Commercial (NBC)
Savings (TPOSB)
Housing (THB)
Investment (TIB)
Insurance (NIC, NPF)
Audit (TAC)

Marketing

Standards (TBS)
National Price Commission
Board of Internal Trade (BIT)
Board of External Trade
Distribution (UGAWAJI)
Trade Information Service
Various trading companies: RTCs, etc.

Management Training

Co-operatives (Int'l Co-op College)
Banking (IFM)
Administration (IDM)
Management degrees (UDSM)
High level courses (EA Management Inst.)
Low level courses (CSTC)
Consultancy help (NIP)
Commerce (Dar College of Business Ed.)

Educational Complexes

Kibana Ed. Centre
Uyole Agric. Centre
Inst. of Adult Education
Inst. of Education
Int. Conference Centre, Arusha
Audio-Visual Institute

5.10 What Tanzania's economic planners failed to allow for was that institutions are generally built in stages. The phase of initial construction is followed by numerous further investments: in equipment, staff housing, subsidiary services—a library, clinic, post office, canteen, store, motor pool, etc.—and workers' amenities, specialized staff, communications... As we saw in chapter two, Tanzanian parastatals have had to become especially lavish in this regard, to compensate for deteriorating or nonexistent public services, and to attract staff despite fixed salary scales. Unless parastatals were fortunate enough to have an external donor, they usually started life with only part of even the minimum physical facilities they would need. It has become a tradition in Tanzania to prove one can get by under what might be seen elsewhere as intolerable conditions. Showplace projects like Kibaha set the standard towards which all parastatals aspired, but meanwhile some institutions operated for years without glass in their windows or water born sanitation. Thus in reality the several hundred parastatals officially created during the 1970s represent a pre-emptive claim upon Tanzania's future development. Much of the true development costs to make these institutions effective remains unpaid. But because Party leaders associate such institutions with the foundations for "modern" rural development, nobody becomes especially worried about the aggregate demand such commitments represent.[1] Failure to identify and measure this demand must be seen as a serious shortcoming of Tanzanian economic planning throughout the 1970s.

5.11 What is true in regards to physical development is also true in regards to personnel. Each parastatal requires several department heads, various skilled staff officers (a bursar, director of training, chief accountant, etc.), and a sizeable complement of middle management staff. To a considerable extent, Tanzania's chronic "shortage" of high level manpower is a self-induced phenomenon directly related to the overexpansion of the parastatal network. The "shortage" has also been fed by

[1] Donors have been partly responsible for this situation by preferring to finance new institutions. From the Tanzanian leadership's position, it is believed that a "poor" country cannot refuse external aid and that every increment in physical capital saves upon internal investment.

the 1972 "decentralization" measures (involving the insertion of Mc Kinsey designed staff positions into all districts and regions), the continuing addition of new districts and townships, the localization of the East African Community's corporations after 1977, and by the bureaucratization of the Party structure in recent years. Just the Mc Kinsey measures in 1972 alone are said to have raised the Government's recurrent budget to the regions by about 60% in the first year (Mwapachu 1983:58). With its continuing need to staff so many new institutions, the Tanzania Government can always claim the weak performance of individual units derives from shortages of "high level manpower".

5.12 On the other hand, awareness by the top leadership of the imperative need to curb further growth of the civil service has brought about a consolidation in the number of ministries (Table 5.1). Whereas formerly there were up to 24 ministries, following the mid-1984 consolidation—which it is said was based on plans already drafted by the late Prime Minister Sokoine—there are only 14 ministries and three "super ministries" (Offices of the President, Vice-President, and Prime Minister). The consolidation threatened to leave a number of prominent political figures without jobs, hence the retention of several deputy ministers who do not hold cabinet rank. The Zanzibar Government went through a similar streamlining, with a reduction in its ministries from 16 to 11.

5.13 The Party structure has become considerably more formalized since the merger of TANU and the Afro-Shirazi Party in early 1977. At that time the CCM had 21,947 posts, making it one of Tanzania's larger employers (1977 Annual Manpower Report, 1982:32). Of the three major CCM organs—the Party Conference, the National Executive, and the Central Committee—the National Executive (NEC) acts as the supreme board for all policy formulation. Since 1967, the Party has directed that branches would be formed in all organizations and workplaces. In 1975, "political secretaries" were added in some of the key public corporations to serve as their liaison with the Party's Central Committee (Mwapachu 1983:177). More recently (1982) a separate position of Party Secretary was added at the regional level, and the various departments have been building up their own specialized staff to monitor implementation.

TABLE 5.1

GOVERNMENT STRUCTURE IN MID 1984

The President: Julius Kambarage Nyerere

Ministers of State in President's Office (w/cabinet rank):
Amir Jamal (Cabinet Affairs); Samuel Sitta (Capital Development)
Rashidi Kawawa (Party Affairs); Mustafa Nyanganyi (Int. Cooperation)
Principal Secretary (and Head of Civil Service): Timothy Apiyo

Vice President: Ali Hassan Mwinyi

Min. of State in V/President's Office (w/cabinet rank):
Ramadhani A. Shabani (Union Affairs)
Principal Secretary: Tobias N. Machume

Prime Minister: Salim Ahmed Salim

Min. of State in P/Minister's Office (w cabinet rank)
Getrude Mongella (Com. Dev. & Soc. Welfare); Anna Makinda(Co-ord.)
Kingunge Ngombale-Mwiru (Reg. Admin., Local Gov. & Co-ops).
Principal Secretary: Pius Msekwa

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Agriculture & Livestock Development	Minister: Prof. John Machunda Min. of State: Herman Kirigini P.S.: Prof. Simon Mbilinyi
Communications & Works	Minister: John S.W. Malecela Min. of State: G. Itatiro P.S.: Odira Ongara
Defence & National Service	Minister: Muhidin Kimaryo Dep. Minister: Esli Mwakyambiki P.S.: Stephen Galinoma
Finance	Minister: Cleopa Msuya Dep. Ministers: Stephen Kibona; Arcado Ntagazwa P.S.: Gilman Rutihinda
Foreign Affairs	Minister: Benjamin Mkapa P.S.: Paul Rupia
Health	Minister: Dr. Aaron Chiduo P.S.: Julius Sepeku
Home Affairs	Minister: Salum Amour Dep. Minister: Hamad R. Mohamed P.S.: Elimsuri Malamia
Industry(ies) and Trade	Minister: Basil Mramba Dep. Minister: P.S.: Dr. Felician Mujuni
Justice	Minister: Joseph Warioba P.S.: Damiani Meela

Table 5.2, continued:

Labour and Manpower Development	Minister: Daudi Mwakawago P.S.: Bernard Mulokozi
Lands, Natural Resources & Tourism	Minister: Paul Bomani P.S.: Hosea Talawa
National Education	Minister: Jackson Makweta P.S.: R.M. Linjewile
Planning and Economic Affairs	Minister: Prof. Kighoma Malima P.S.: Ndewirwa N. Kitomari
Water, Energy and Minerals	Minister: Al-nocr Kassum Min. of State: Pius Ngwandu P.S.: Fulgence Kazaura

[a]Source: USAID/Tanzania, August 1984.

Regional Administration

5.14 The current governmental structure for mainland Tanzania is based at the top on 20 Regions (or Mkoa), consisting of a major town like Arusha or Morogoro and its surrounding hinterland (Table 5.1b). This is a large number in contrast to the 9 Provinces in pre-independence Tanganyika, but although there are groupings of Regions into a smaller number of zones these differ from one ministry to the next. For most planning and review purposes, the representation when national meetings are held is according to Regions.

5.15 Next come about 104 Districts (or Wilaya), a total which grows as larger Districts are allowed to subdivide or towns are accorded District status, e.g. Dar es Salaam which has been subdivided into three urban "districts".[1] The practice of designating major towns as Districts grew up in the mid-1970s after the abolition of Urban or Town Councils—to provide specialists f . obvious functional needs in these areas--but has been continued despite the reintroduction of the Councils (1979/80). As of December 1981, no Region had more than 6 Districts—a desirable maximum to insure that regional staff can keep abreast of developments within their territory.

5.16 Below the district level is the Division (or Tarafa), of which there may be as few as two or as many as six units in one District. Those Divisions which were formely treated as sub-district centers because of size or isolation have tended to become Districts in their own right, e.g. Loliondo. However, the Tarafa is not fully staffed by all Departments, and its head has few coordinating powers (which are reserved to the District). For a period (1969-74) Divisional Secretaries were appointed, but lacking transport and housing did not play a particularly influential role. There are about 360 Tarafa in all.

5.17 The most significant fully operational unit below the District is, therefore, the Ward (or Kata). The Ward originated as an electoral unit in the pre-1972 Local Government structure (which in turn grew out of the pre-Independence Local Native Councils). Tanzania has in all about 1,900 plus Wards, giving roughly 15-25 Wards per District. The Ward level is also the foundation of the Party structure; each Ward has a salaried Ward Executive Officer and also an elected Party Chairman.

[1] We were told but could not confirm that there were 116 Districts as of late 1984. Party branches always outnumber districts, since each region is also represented as if it were a district in the Party structure. It is also not clear how many of the 116 are towns which have been accorded district status. Nevertheless, this illustrates our point in regard to the burgeoning salary costs of uncontrolled growth in numbers of districts.

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TABLE 5.1b

POPULATION PROJECTIONS BY REGION (1978-1985)[b]

(000)

Region	1978 (Census) Rural	Urban	Total	1980 Rural	Urban	Total	1985 Rural	Urban	Total
Arusha	873	765[a]	1,638[a]	936	61	997	1,100	77	1,177
Coast	501	16	517	514	20	534	543	34	577
Dares Salaam	95	757	852	97	911	1,008	100	1,447	1,547
Dodoma	903	69	972	945	81	1,026	1,049	124	1,173
Iringa	866	57	923	903	68	971	992	104	1,096
Kagera	989	20	1,009	1,062	24	1,086	1,256	36	1,292
Kigoma	599	50	649	628	59	687	696	87	783
Kilimanjaro	850	52	902	894	59	953	1,001	79	1,080
Lindi	501	27	528	517	31	548	555	43	598
Mara	690	33	723	720	38	758	791	54	845
Mbeya	993	87	1,080	1,041	106	1,147	1,162	174	1,336
Morogoro	858	81	939	896	96	992	990	150	1,140
Mtwara	715	57	772	735	66	801	781	98	879
Mwanza	1,325	118	1,443	1,381	145	1,526	1,518	240	1,758
Rukwa	423	29	452	457	35	492	551	57	608
Ruvuma	546	18	564	577	23	600	656	41	697
Shinyanga	1,302	22	1,323	1,387	27	1,414	1,610	43	1,653
Singida	505	29	534	610	36	646	671	61	732
Tabora	751	67	818	810	83	893	966	140	1,106
Tanga	918	121	1,039	959	140	1,099	1,059	205	1,264
Total	15203	2475	17677	16069	2109	18178	18047	3294	21341

[a]These totals are obviously in error (see 1980 projections), but are reproduced as in the source.

[b]Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 2, A Framework for Action. Rome: FAO for KILIMO, Table 1.5, p. 11. 1978 figures derived from national census, projections by KILIMO.

5.13 Below the Ward level come individual villages, on average 4-6 per Ward but there is wide variability depending on village sizes. Official 1979 figures give a total of 8,300 villages for mainland Tanzania, but many districts lack up-to-date village lists and nobody knows the total for certain. The Villages' Act of 1975 specifies what each village's Government should look like, though again there is some variability from village to village. Power is ultimately vested in the Village Assembly, comprised of everyone over 18, which elects a Village Council of 25 members. Responsible to the Council are five statutory committees--i) education, culture and social welfare, ii) finance and planning, iii) works and transport, iv) security and defence, and, v) production and marketing--and also an elected Village Chairman. The goal is to station a Village Manager in each village, though at present two villages may share the same Village Manager. The Village Manager serves as the executive and advisor for the Council, but is administratively responsible to the Ward Secretary.

5.19 From experiences within Tanzanian regional administration, there are two observations to be noted in regard to how the system works in practice. First, it does seem the points of slippage within the system occur at the top and near the bottom. At the top, having 20 regions to deal with exceeds the capacity of the small group of decision-makers for monitoring field implementation. There are always some regions whose reports arrive late or whose actual status and needs are not considered in a given meeting. This kind of unintentional neglect does not occur at the regional level because the number of districts reporting are small enough that any absences become noticed and rectified. Many regional reviews take a full week, with different districts reporting on separate days, but at least by the end the functional heads and regional Party staff have a reasonably up-to-date grasp of the current situation. The same cannot be said of district level reviews, unless reporting is done by Divisions. The District team hearing reports from some

twenty or so different Wards can easily lose track, and grows accustomed to the absence of representatives from the more remote sections. This is perhaps one reason for the continuing sub-division of larger districts into smaller units.

5.20 For some activities, national leaders try to deal with all Districts simultaneously—as, for example, when national elections are held (where districts constitute the parliamentary constituencies). In the new Local Government structure, too, the primary focus is on District Councils to which regional officials are only supervisory. Useful as District Councils can be in facilitating more direct popular representation, the existence of more than 100 districts makes it impossible to deal with all of them at once unless for exceptional purposes such as the national elections. It would be a mistake to assume (as some Presidential advisors occasionally do) that if the intervening regional level could somehow be eliminated, coordination and assistance from the national level would improve. To the contrary, actions requiring direct linkages to and feedback from all 100 plus districts are, in the Tanzanian system, time consuming and cumbersome. Even keeping track of 20 regions sometimes exceeds the administrative system's present intelligence capabilites.

5.21 A second observation concerns the structural obstacles within the Tanzanian system which make it quite difficult to reach a consensus when a given official is performing well. Distances are great, transport and communications are poor, and much of one's energy is spent on tasks without discernable output. It is striking that at each level officials feel they themselves are working very hard, but those elsewhere—above or below them—are not. At the national level, one hears many complaints about poor performance in the regions. At the regional level, people will say the districts cannot get reports in on time. At the village level, citizens complain they never see their village manager. Outsiders with experience elsewhere in Africa will tell you that individually most Tanzanian officials show a high level of commitment, <u>but the system as a whole gives disappointing results</u>.

5.22 The term "regional administration" is often employed rather loosely in Tanzania to refer to all government officials assigned to work within the regions (as contrasted to those on duty in the Ministry headquarters). In actual fact, there are employees both of the President's Office (the Area and Regional Commissioners) as well as of the Prime Minister's Office (the former District and Regional Development Directors and their functional staff). For a decade (1972-81) this left the main arena of development activities under the Regional Development Directors, who viewed themselves as equivalent to Principle Secretaries in a Ministry. With the changeover to Local Government, the Regional Commissioner emerges as the key coordinating position while RDDs have been retitled and down-graded. This is ironic, since the Regional Commissioners had little to do in the mid- and late-1970s except raising contributions for stadiums and chairing meetings. With the separation of full-time Party officers at the regional level (from 1982), there are now three sets of salaried officials looking over each others' shoulders but reporting respectively to the CCM, Statehouse and the PMO. Pruning these to a single position might make everyone more productive.

5.23 The PMO as a "superministry" emerges from the policy changes with its role enhanced, following the decision to leave both co-operatives and local government within its ministerial jurisdiction (where they had been before). However, there are several other features about the PMO which make it distinctive. First, of course, is the obvious fact that it is headed by the Prime Minister. His rank and prestige in the Tanzanian system buffer the PMO from the public questioning to which other ministries are sometimes subjected. (This absence of feedback has not been helpful to the PMO, whose various divisional heads have seldom worked together smoothly.)

5.24 Second, the PMO incorporates both technical and political functions, the latter shared with "State House" (the President's Office). On many issues related to economic planning and regional administration, it has been left unclear for extended periods whether technocratic or political priorities would take precedence.[1]

[1] An ambiguity which probably does not reflect the Prime Minister's own views, but is a natural consequence of the hybrid nature of Tanzania's administrative-political structures.

5.25 Third, when the PMO was formed in 1972 it incorporated elements of regional administration (the old Local Government), community development, and co-operatives. These administrative divisions had been moved several times, from ministry to ministry. Under the PMO they continued to operate with considerable autonomy. In the mid-1970s there was open rivalry within the PMO over which of its divisions would staff the cadre serving village development. On one side there were "village management technicians" (or VMTs), drawn from the ranks of the co-operative inspectors; on the other, "village managers" (or VMs) who represented the other two elements within the PMO. In Tanzania, divisions within a ministry generally have little to do with each other--indicating that the top level coordinating mechanisms for planning and implementation are usually weak.

5.26 Fourth, the PMO's direct links to the field administration means it will automatically become involved whenever there are crises affecting any substantial segment of the population. During the 1970s (as we have already seen) there were crises aplenty: Ujamaa "operations", drought relief, "operation maduka", the War in Uganda, the collapse of the East African community, and a cholera pandemic lasting four years. As a poor country, Tanzania has few surplus resources to use when a crisis arises. Because its staff are occupied in "crisis management" so much of the time--the reintroduction of cooperatives and local government being only the latest of many such upheavals--the PMO's own ability to plan and coordinate has never been strong. This weakness was critically significant in the mid-1970s, when for several years the Ministry of Planning was abolished and its functions placed under the PMO. As a consequence, the PMO moved very slowly in institutionalizing the Ujamaa villages, and it was never fully in control of its RIDEP program.

5.27 The SIP team was not in a position to observe the new structure for regional administration, implemented since 1983, nor do we have details on the reorganization of PMO in 1984 to bring information services under its umbrella. Theoretical considerations are reviewed in our following chapter where we look at the implications of re-introduction of local government and co-operatives (both under PMO).

Ministry of Agriculture

5.28 As has been the case in other African countries (e.g. in Zambia and Sudan), Tanzania's Ministry of Agriculture has been restructured a number of times during the past two decades. Just before Independence it was a Ministry of Natural Resources, encompassing all the resource-related functions (veterinary services, tsetse, agriculture, etc.). Then it became the Ministry of Agriculture, Food and Co-operatives (shortly after Independence). In 1969, it was further reorganized with research and training as a single division, and a proposal to appoint "directors of agriculture" in each Region who would coordinate all the different technical functions involved in agricultural development. While this change was still being implemented, the "McKinsey" reorganization of the entire government structure occurred. Having "decentralized" Regional Administration (in mid-1972), the Mc Kinsey Co.'s consultants turned their attention to the key "implementing" ministries and in 1973 proposed a different structure for the Ministry of Agriculture (and one which separated research from training). While the Research Division continued with a viable portfolio of duties, retaining control over its "national" research institutions in the regions (and hence their transport and housing), the Extension Division lost its functions to Regional Administration, which was now located in a newly created Prime Minister's Office (the PMO). Within the PMO, technical staff at the regional and district levels (the RADO and DADO, respectively) reported directly to the Regional and District heads (the RDD and DDD) rather than to their own, Ministry supervisors. A further change occurred in the late 1970s, when the Livestock Development Division was removed from the Ministry of Agriculture. At first it was put together with Natural Resources, and then subsequently became the Ministry of Livestock Development on its own. In April of 1984, however, the Livestock Ministry was re-integrated back into Agriculture under one combined Ministry of Agriculture and Livestock Development.

5.29 At first, it was proposed that the reorganized Ministry would have six directorates: 1) crop production, 2) livestock production, 3) planning, 4) irrigation, 5) research and training, and 6) administration and finance. By late 1984, however, it seemed that these various departments (as they are often called in KILIMO) might be grouped under three main divisions (crops, livestock, and planning) whose heads would be upgraded to Commissioner status. The root problem is that any organizational changes also

involve the designation of section and Division heads, a delicate task when (as in this case) the Government is trying to re-unify two separate ministries. Thus while in the abstract Tanzanian senior officials have little trouble specifying what an ideal Ministry structure might look like, in the particular case each change poses a threat to somebody in the present system. The complications of rank and assignment explain why the Ministry has moved very slowly in finalizing its re-amalgamated structure (which was not yet a matter of public record in early December, 1984, though various senior officials had well-thumbed, draft versions on their desks).

5.30 To understand the lack of public sympathy for KILIMO's situation, one must recognize that throughout most of the 1970s the Ministry of Agriculture was one of the nation's weaker ministries. Under the "Mc Kinsey" decentralization, nearly one third of the PMO's Development Directors and Planning Officers were drawn from KILIMO's small pool of agricultural professionals. A second blow--though this time a change welcomed by KILIMO's senior staff--was the formation of numerous crop and livestock parastatals in the mid-1970s. In short order between 1968 and 1973 were formed TTA, NARCO, NAFCO, TLMC, TAT, CATA, GAPEX, TCA, and TSA (MDB 1974). Since these were all production oriented agencies, responsible either for growing or for marketing Tanzania's main export crops (and livestock products), the parastatals urgently required technical staff. As it happened, the only available source was the Ministry of Agriculture's own staff. Since the parastatals offered better salaries and benefits, many of KILIMO's best officers requested release to take up senior positions within the crop authorities. A third outflux occurred when USAID's Training for Rural Development Project began to offer attractive overseas opportunities (for either first or graduate degree training). For the Ministry's younger professionals, TRD's training positions opened the door for a continuation of their own professional training to the B.Sc. or even M.Sc. and Ph.D. levels. The final blow came in 1980-81, when almost the last remaining contingent of senior Tanzanian staff left to joint the newly created research parastatals (TARO and TALIRO). The point is that these losses were cumulative. Even with addition of FAO expatriate staff, by late 1980 Pamba House was just a shell of what it had been in the early 1970s.

5.31 If left unrectified, such a situation will be very damaging to Tanzania's long run agricultural development. First, it means that there will be inadequate leadership on the key implementation measures which have been set out in the new agricultural policy. A major weakness in KILIMO's past mode of operation was over-dependence upon a single official at the top (the Principal Secretary). Unless a Tanzanian PS can draw upon a capable team of energetic Divisional Heads, his or her influence is bound to be limited. Second, as better trained younger Tanzanian professionals return from abroad, their morale and productivity is bound to suffer if they find themselves reporting to timid and ineffective section heads. Third, there are many unresolved issues connected with KILIMO's supervision of technical staff at the regional and district levels. Unless the Ministry's headquarters follows up to insure its regional staff have adequate transport, resources, and work organization, field staff will lose heart and the whole exercise of "re-centralization" will be rendered ineffective. Fourth, whenever donors are considering projects for the agricultural sector, they usually approach KILIMO's senior staff for information and feedback. If they encounter weak or vacillating officials, they are bound to form a negative impression of the chances for effective project implementation. There are, of course, several strong and capable officials at the headquarters' level within KILIMO—but KILIMO's role and current responsibilities within Tanzania cannot be met by the efforts of a mere handful of professional staff, no matter how hardworking such individual officers might be.

5.32 As in some other, hard-pressed African countries, FAO/UNDP staff provide critical middle level management support, to KILIMO (crops) and MIFUGO (livestock) alike. FAO/UNDP projects are generally small and flexible, covering fisheries and forestry as well as agriculture.[1] For a country in exchange difficulties, they provide a vital "safety net" for maintaining at least skeletal services in key technical areas. However, because of the strong US dollar—into which all donations by European countries are valued within the UN system—Tanzania's UNDP budget has experienced an effective cut of more than 30%.

[1] An excellent descriptive account of the FAO/UNDP program is contained in FAO (1981) Strategy and Programming Review Mission for the Agricultural, Forestry and Fisheries Sectors, Tanzania. Rome: FAO/UNDP, 152 pp.

a. Agricultural Policies and Planning

5.33 Tanzania is fortunate in having three strong units—two inside KILIMO and one outside--which provide the raw data needed for agricultural policy formation: i) the Marketing Development Bureau (MDB): ii) the Project Preparation and Monitoring Bureau (PPMB); and, iii) the Tanzania Food and Nutrition Centre (TFNC). All three have done excellent work, and are prime candidates for continued donor support. The MDB provides the basic analyses of production costs and marketing trends upon which national producer prices are based. It was originally an FAO/UNDP project, allowing the bureau to retain 4-5 expatriate economists working under a Tanzanian director. After a UNDP financial crisis in 1976, this support has come from World Bank/IDA funds directed at strengthening KILIMO's institutional capabilities. Similarly, the PPMB has been strongly supported by the Bank. It was the PPMB's recent work on parastatal financing--a donor stipulated preliminary for long-awaited structural adjustment funds--which provides detailed data on where crop authority losses were originating. (Tanzania would certainly benefit from having similar units in other ministries!) The heads of MDB and PPMB hold assistant director's rank, and along with the head of sector planning report to the Director of KILIMO's planning division. The structure of this division was under external review in early 1984, and it was proposed that its head would be upgraded to full Commissioner status under the still unannounced (late 1984) Ministry reorganization.[1]

5.34 With so much hinged upon "getting the prices right"—in Tanzania as elsewhere--the process for arriving at support prices becomes critically important. The goal towards which MDB works is to supply the Economic Committee of the Cabinet with the necessary background papers in time sufficient for the President to announce the coming year's prices on Peasants' Day (July 7th., the date also of TANU's founding). The Economic Committee is in the Tanzanian system sometimes more important than the Cabinet itself; it is always chaired by the President, and has DEVPLAN as its secretariat. MDB's series of price recommendations are then incorporated as annexes to each year's Cabinet Paper.

[1] H. De Meel (1984) "Improved Structure and Operation of Agricultural Planning in the Ministry of Agriculture and Livestock Development." Rome: FAO Consultant's Report (AG:UTF/URT/064/URT), 30 pp.

b. Agricultural Research

5.35 For a poor country in financial difficulties, Tanzania has a large but ill-nourished network of research institutions. The large number of separate facilities reflects the incorporation of four different systems in the period between 1965-75. First, there were commodity-based research stations which were originally financed by charges levied against their parent industries: Lyamungu (coffee), Mlingano (sisal), Ukiriguru and Ilonga (cotton), Tumbi (tobacco), and Maruku (tea). A second set constitute the old Department of Agriculture's zonal research stations which also include large-farms left over from government projects like the colonial Groundnut Scheme: Tengeru (for the northern zone), Mpwapwa and Konga (for livestock), and Urambo and Nachingwea (ex-groundnut scheme units). A third group of research stations were inherited from the East African Community's system for basic research or from the Commonwealth: TPRI for pesticide research near Arusha, Kibaha (now for sugar but originally a EAC project), and Amani (malaria research, but originally the main scientific station in German times). A fourth set reflect donor involvement post-Independence, and are located for the most part in areas which had been missed: Katrin (built by German aid for the Kilombero Valley), Uyole (Nordic aid for Southwest Tanzania), Nyagezi (near Mwanza), Kasulu (World Bank for Kigoma), Morogoro (USAID), and Mtwara (KILIMO). Uyole and Morogoro were principally training complexes, but incorporated large farms and a major emphasis on agronomic research from the start. In sum total, Tanzania had by the late 1970s some twenty or more larger research stations, and another 25 or so smaller units. About two thirds of the stations include a training function; though for over a decade research and training have been separated organizationally. Most also include a large farm operated separately from the field experiments and, in theory at least, supposed to generate food and revenue.

5.36 A survey of KILIMO's five largest research stations in 1976/77 found they tended to cover too many crops and problems; suffered from excessive staff rotation; had no formalized on-the-job training; relied

mostly on B.S. level staff; lacked parts and repair facilities to keep equipment in operation; had unattractive living conditions; and duplicated basic information sources while not keeping up with the current literature in specialized fields (Foote and Røsjo 1978). In the years since, conditions have deteriorated further. We were told that at many stations critical shortages of the basic items required for scientific research, such as laboratory reagents, have brought serious work to a standstill. An independent review by Albrecht (around 1978/79) confirmed all of the Foote and Røsjo observations, and noted also that the young research staff being posted to stations immediately after training were selected without regard for research aptitude and soon became preoccupied with station's ancillary production projects.[1] Thus in addition to "overwhelming" manpower and financial constraints, Tanzania's agricultural research system also evidenced pronounced organizational weaknesses.

5.37 The staffing weakness (Table 5.2) convinced the Tanzania Government that unless terms of service could be made more attractive —implying a changeover to parastatal status—the research stations would be unable to retain their better scientists. Table 5.2 indicates that as of 1979 with only two exceptions the highest trained Tanzanian staff held only M.S. degrees. A typical larger station would have perhaps 2 M.S. holders and from 10-14 B.S. staff, so that necessarily most station sections would be led by someone with only a first degree. Virtually all Ph.D. scientists were as of 78/79 expatriates on short contracts, mostly associated with bilateral donor programs. While there had been some 13 bilateral donors assisting crop research and 6 assisting livestock research, from 1976 onwards the number fell off dramatically as donors switched attention to regional integrated development projects (or RIDEPs).[2]

[1] H. Albrecht (n.d.) "Report of a Study of Research Priorities," unpublished report held by KILIMO's Crop Development Division. Quoted in United Republic of Tanzania (1979) Agriculture and Livestock Research Project, vol. 1, Main Report, p. 13.

[2] Ibid., p. 11.

TABLE 5.2

CROP RESEARCH STAFF BY TRAINING & INSTITUTE[a]

Institute:	B.S.	M.S.	Ph.D	Total:
Ukiriguru	12	2	-	14
Mlingano	13	2	-	15
Ilonga	14	2	-	16
Naliendele (Mtwara)	5	-	-	5
Lyamungu	11	4	1	16
Tumbi	7	-	-	7
Uyole	23	-	-	23
Maruku	6	-	-	6
Kibaha	4	-	1	5
Katrin (Kilombero)	8	1	-	9
Total Tanzanians	103	11	2	116
expatriate contract staff:				41
				157

[a]These numbers do not include the Tea Research Institute at Mari Kitanda opened in 1979 with linked sub-stations in West Lake, Mbeya, and Iringa. They also omit Dutch horticulturalists at Tengeru, and other KILIMO units at Nachingwea, Chambezi, Bihawana, and TPRI.

Source: United Republic of Tanzania (1979) Agriculture and Livestock Research Project, vol. 2, Annex 5, Table 10.

5.38 The above picture is somewhat misleading, since at the typical KILIMO or MIFUGO station (nowadays become TARO and TALIRO units), there are additional Diploma and Certificate-trained field staff who do much of the actual work of supervising scientific experiments. Take, for example, Mwanza Region's well established Ukiriguru station (inherited from Britain's Empire Cotton Growing Association). Out of 444 ha, 69 are devoted to buildings, 220 to pasture for the station's livestock, and only 53 ha actually used for experiments. There are 99 technical officers, of which 9 hold degrees and 59 are lowly qualified field assistants. The station also employs over 200 laborers. It supervises 5 sub-stations, and in addition to 4 main research programs in 1973 was trying to investigate 17 sub-programs. Similar figures apply to the Lyamungu station serving northern Tanzania, with 250 ha of which only 65 are devoted to coffee. Lyamungu had 62 technical staff, 94 nontechnical, and 195 laborers.[1] Over the period from 1975-80, it seems that roughly 66% of the funds supplied by KILIMO to its research units went directly into staff salaries.[2] A major further drain must have been the unprofitable production farms which stations operate under the Party's mandate that all research and training institutions contribute to their own upkeep. For example, as of early 1981 the Uyole Center (not under direct Ministry control) operated a mixed farm of about 800 ha, using 17 tractors, and running at a loss on its farm operations. The field experiments themselves change from season to season as senior expatriates come and go, with little continuity and follow-through. Thus it is on balance not surprizing that despite the expenditure of Tanzanian shs. 54 million annually on crop research, and another 15 million on livestock research, the research system was generating very little by way of improved technical packages to support export crop development.[3] The same national commitment if consolidated on, say, only 6 stations

[1] Figures for Ukiriguru and Lyamungu derived from Ministry of Agriculture (1973) Directory of Agricultural Research Institutes in Tanzania, p. 6, 14.

[2] From budgetary analysis carried out by M. Schluter for the World Bank's 1982 sector review (Background Paper VII, p. 14 and Table 21).

[3] Official figures from the (1979) Agriculture and Livestock Research Project, vol. 1, p. 6. Detailed work by Schluter (ibid.) suggests actual totals for crop research were nearer to 34 million shs., with an additional 11 m for TARO, 8 m for TPRI and 13 for Uyole. Of Morogoro's 1980/81 budget of between 45-50 million shs., perhaps 1-2 million might go towards crop research.

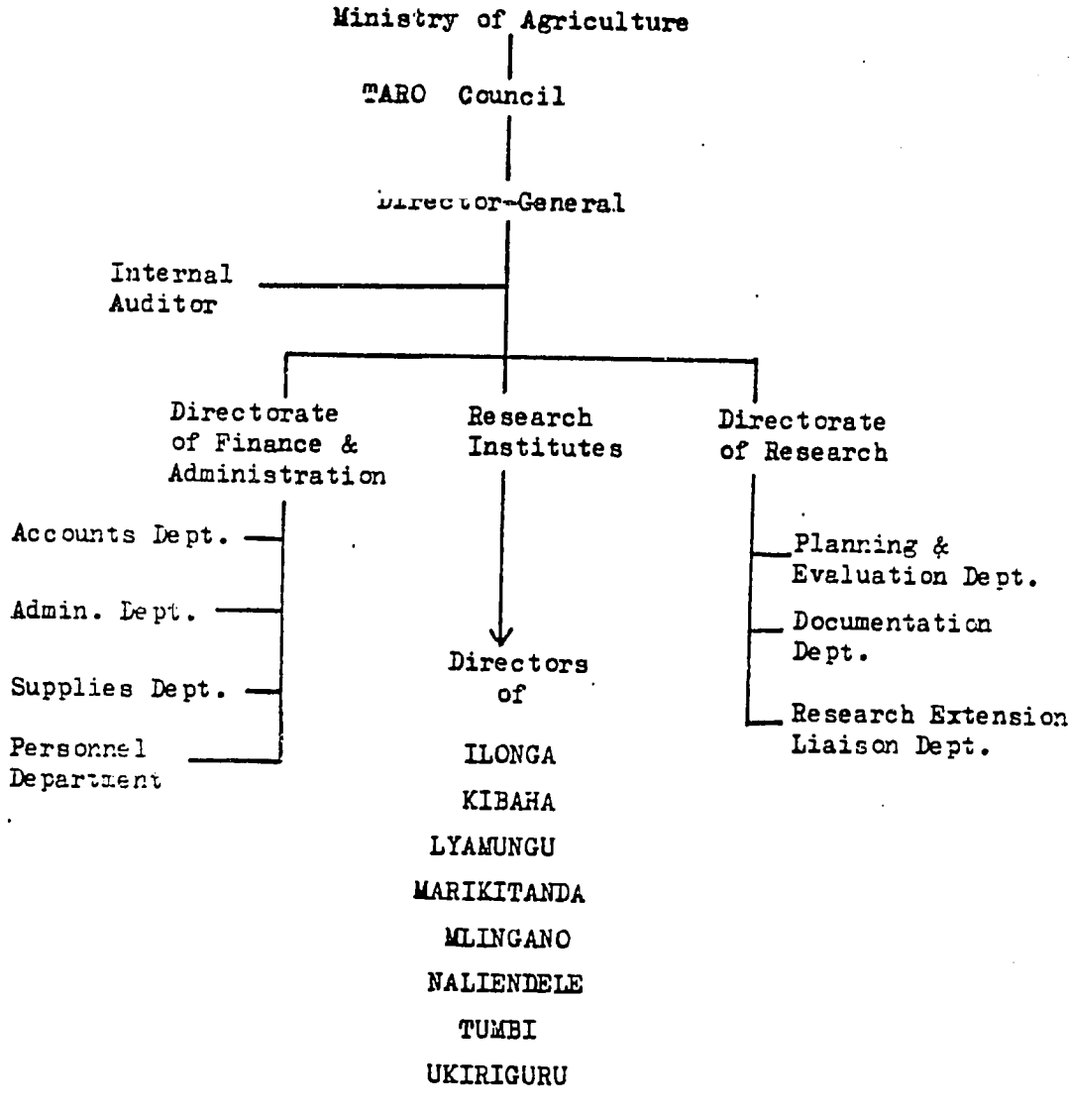
would have provided from 6-9 million shs. each--hardly munificent, but enough to keep essential experiments going on key problems.

5.39 These issues came to the fore in early 1979, when the Ministry convened a major conference in Arusha to consider how its research system would be reorganized. As an outcome, two new parastatals were created: one for crops (TARO), and the other for livestock (TALIRO). (The organizational structure for TARO is outlined in Table 5.3.) In addition, USAID/Tanzania agreed to fund a continuation of its earlier project at the Ilonga Research Institute in Morogoro Region, but expanding its scope to incorporate a farming systems' emphasis (project 621-0156). The new TARO research organization became the project's implementing agency, with the contractor being a US consortium of western universities (CID). The initial life-of-project funding was expected to have been 25 million dollars, with a FY-82 obligation of $ 5 million in the project's first year. (These totals have since been substantially reduced.) However, the Ministry's larger objective of involving other donors was not as successful. The consolidated proposal (1979) contained many further items for capital investment. At just one station, for example (Tumbi, in western Tanzania), KILIMO wanted donor support for 10 staff houses, a laboratory, specialized crop handling rooms, water supplies, 16 km of road-building, 150 ha bush clearing, 2 tractors, 5 land rovers, 1 bus, 1 truck, and a power generator. Many other stations expected the same. In addition, training was requested for 641 B.S. degree staff (400 on crops and 241 on livestock), and 342 at M.S. or Ph.D level. Among these—who would constitute nearly the entire senior cade for Tanzania's ARIs, LPRIs, and MATIs—the Ministry requested exactly one extension specialist, and nobody at all in agricultural education, information services, statistical analysis, or farm survey design.[1] Little was said about how the TARO and TALIRO programs would be coordinated with those of other institutions such as Uyole, TPRI, and Morogoro which were already involved in crop-related research.

[1] United Republic of Tanzania (1979) Agriculture and Livestock Research Project, vol. 2, Annexes. Annex 5, tables 11-14.

TABLE 5.3

ORGANIZATIONAL STRUCTURE OF TARO



Source: Daily News, 18 May 1983

5.40 The reservations which donors like the World Bank expressed in 1979 appear to have been well founded. TARO, in particular, has been a disappointment to those who had hoped that upgrading KILIMO's research stations to parastatal status would dramatically boost their productivity. Within Tanzania as of mid-1984 one sensed renewed interest at the policy level in exploring alternative models for creating viable research-extension linkages. Some saw the UYOLE model, serving several regions from a combined research and training institution, as the answer. Others were proposing that the newly created Sokoine University of Agriculture could become the coordinating institution for all agricultural research, along the lines of a US "land grant" agricultural college system. (This was, in fact, one proposal where USAID/Tanzania could redirect its main assistance.) The Sokoine University issue was not part of our SIP terms of reference, having had its own, USAID financed study team with a separate report in late 1984.[1] Whatever model for the research-extension linkage is ultimately chosen, we stress that in the short run without additional donor support for supplies and equipment, the research stations are bound to fail. The inadequacy of Tanzania's technical packages despite the country having a large (but ineffective) research network emerges as one of the key constraints limiting export crop recovery.

c. Field Extension Services

5.41 Another central question dealt with by Tanzania's post-1981 "new policies" concerned who should recruit, supervise, and support the extension field cadres. As we saw earlier in regard to the PMO, for a decade the Ministry of Agriculture was relegated to the sidelines, with the main responsibilities falling upon the PMO's village-level staff supplemented by specialized advisors from the crop authorities. Since neither source had much competency in agricultural extension, it is perhaps not surprizing that their efforts were ineffective. The critical issue now becomes whether by "handing back" this function to the Ministry of Agriculture, will extension work markedly improve?

[1]The United Republic of Tanzania (1984) Report of Study Team on the Sokoine University of Agriculture, Morogoro, Tanzania.

5.42 The preliminary vedict can hardly be positive. As of late 1984, the Crop and Livestock sections within the recombined Ministry still operated independently in relation to extension and training matters. A common roll of field staff did not exist. The official reports contain widely varying estimates of staff numbers—which is hardly surprizing since one is never certain if both livestock and crop cadres are counted, or if the various crop authority and regional employees are shown. Illustrative figures to show the divergences one typically encounters in Tanzanian statistics are displayed in Tables 3.4-5.7. The last of these, Table 5.7, reflect's the crop divisions field staff as of the Ministry's 1984 budget submission and is probably reasonably reliable.[1]

5.43 Whatever the total numbers, do Tanzania's field extension workers possess the minimal resources needed to accomplish what is expected of them? Here we note that when crop authorities "handed back" the extension cadres—still in process in 1984, though officially already an accomplished fact insofar as payment of salaries was concerned—they appear to have retained transport and, one would guess, the better officers. The lack of transport has crippled KILIMO's takeover activities, since throughout the 1970s most donor support went either to the regions or to the crop authorities, leaving KILIMO and MIFUGO sometimes very short indeed. As we noted earlier, the livestock parastatals under LIDA which were being "wound up" in 1984 had their transport auctioned off to pay outstanding debts—standard commercial practice, no doubt, but a disastrous remedy for those who continue to be responsible for livestock services. In either event, then, KILIMO received back its staff without the resources they require for actual field activities.

5.44 Another rude surprize for the Ministry was to discover that within many regions, untrained auxiliaries had been added to the "extension" rolls in quite large numbers. Because they were recruited directly by regional authorities, such staff did not have KILIMO's usual pre-service training, nor do they meet the educational

[1]The main source on any aspects of Tanzania's agricultural manpower is a USAID financed study by R. Simmons et al. (1980) Tanzania Agricultural Manpower Study, 2 vols. Washington, D.C.: Agency for International Development for USAID/Tanzania and the Tanzania Government.

TABLE 5.4

AGRICULTURAL MANPOWER BY QUALIFICATION & EMPLOYER (DEC. 1978) [a]

Assignment:	Graduates:	Diplomates:	Certificates:	Field Assistants:	TOTALS:
General Extension in the Regions	84	548 [b]	1,757	1,364 [b]	3,753
Engineers (Irrigation)	3	-	-	-	3
Irrigation Division headquarters	12	3	15	-	30
Livestock/Veterinary Extenstion in Regions	71	403	717	2,211	3,402
Planning Division	18	-	-	-	18
Crop Research (inc. HQs)	104	140	279	136	659
Maize Project (HQ)	14	6	-	-	20
Livestock Research (including HQs)	60	79	151	186	476
Livestock Division HQ	9	4	4		17
Training Institutes	96	162	154	25	437
Manpower Development Division HQ	9	9	5	-	23
Administration	1	-	-	-	1
State Farms	7	23	37	14	81
Parastatals and other employers	168	248	624	241	1,281
TOTALS:	656	1,625	3,743	4,177	10,201

[a] June 1977 estimates.

[b] Figures adjusted downwards to allow for estimated losses of 200 diploma staff and 500 certificate staff to the Village Managers scheme (under PMO).

Source: United Republic of Tanzania (1979) Agriculture and Livestock Research Project, vol. 2, Annex 5, Table 19.

TABLE 5.5

MINISTRY OF AGRICULTURE MANPOWER, END 1977

Assignment:	Graduates: Expt.	Graduates: Tanz.	Field Offic./ Asst. FO, G . I	Certi- ficate	Field Auxili- aries[a]
Agric. extension in the regions	26	79	585	1,790	1,335
Livestock ext. in the regions	17	47	426	834	2,209
Training (in MATIs)	38	87	148	148	25
Crop Research	34	98	131[b]	224	136
Livestock Research	18	39	62	133	172
State Farms or other MOA Services	14	72	79[b]	71	18
Crop Authorities & others	27	151	186	587	158
sub-total	174	573			
Total:	747		1,617	3,787	4,053

[a]Agricultural and Livestock Field Auxiliaries, usually with only primary school level training

[b]Including one expatriate technician (in each case). These two are the only expatriates below graduate level; all others at FO or lower levels are Tanzanians.

Source: S.H. Sudad (1980) Major Constraints in Farmer Training at Field Level, Case Studies from Jordan, Malaysia and Tanzania. Rome: FAO, p. 101. Derived from Annual Report (1977) of Manpower Dev. Division, Ministry of Agriculture (Table 14, p. 17).

TABLE 5.6

MINISTRY OF AGRICULTURE STAFF
(1979 actual, 1987 ideal)

Educational Level:	Filled Posts in 1979	Ideal Staffing in 1987	% Increase to Reach Ideal
Ph.D.	33	90	176
M.S.	145	608	325
Gen. degree	35	35	-
B.S.	708	2,170	206
Diploma	1,366	6,137	349
Certificate	2,909	16,205	457
By Merit	162	162	
TOTAL	5,358	25,40	

Source: Ministry of Agriculture and Livestock Development (1982) Tanzania National Food Strategy, vol. 1, Main Report. Rome: FAO for KILIMO, Table 30, p. 60.

TABLE 5.7

CROP DIVISION EXTENSION STAFF BY REGION[a]

Location:	Total Staff:
Headquarters & service projects	619
Arusha	374
Dar es Salaam	62
Dodoma	225
Iringa	340
Kagera	322
Kigoma	290
Kilimanjaro	378
Lindi	147
Mara	198
Mbeya	397
Morogoro	360
Mtwara	235
Mwanza	466
Pwani	200
Rukwa	296
Ruvuma	289
Shinyanga	384
Singida	213
Tabora	440
Tanga	296
	6,531

[a]Crop Division only, as of mid-1983. Does not include Livestock (MIFUGO) staff, nor those on Zanzibar.

Source: KILIMO planning division figures for 1984 budget submission.

requirements which would be desirable (many of them being those whose weak performance in science and mathematics disqualified them from going on into higher education). The re-training and re-integration of these auxiliaries back into an orderly scheme of service became the top priority task of KILIMO's training division in 1983/84.

5.45 The means chosen to accomplish this objective were typical: KILIMO's training division simply warranted funds directly to each RADO, with instructions that the regional agricultural office should organize a cycle of training seminars for regional and district level staff. How to design, implement, and support such training was left to the discretion of each RADO. When it became evident that this task exceeded the training and technical support capabilities in many regions, KILIMO turned as a stop-gap measure to the Center for Continuing Education in Morogoro—ironically, just as USAID phased out its support (December 1983) to this Center. Meanwhile FAO was approached in 1984 to set up a retraining project—an important KILIMO priority, but one which will require more than merely adding one or two professional trainers at the top. KILIMO's own ability to plan and monitor its field training activities is improving significantly, now that (in 84/85) the first generation of specialized, professional staff are returning from overseas training.

5.46 Under the new structure, while KILIMO headquarters relies on the regional level (RADC) for liaison, the pivotal position is actually that of the DADO at District level. DADOs are seen as the principal technical advisors of the District Councils, and members of whatever agriculturally-related Committees the Councils establish. The difficult task facing the financially pressed Councils will be how to give extension cadres the minimum resources they presently lack. As shown in Table 5.8, field staff at present see their main constraints as being the unavailability of inputs and facilities, lack of transport, and the weaknesses of research and technical support. Our message in this section is that KILIMO as of mid-1984 had still not resolved the question of how this minimum support would be provided.

TABLE 5.8

PERCEIVED REASONS FOR EXTENSION WORKERS' INABILITY TO GIVE SMALL FARMERS NECESSARY TRAINING

(n = 49)

Reasons cited (by sample of 49 workers)	Number One Choice		Among First Three Choices	
	no.:	%	no.:	%
Unavailability of inputs & training facilities	13	26.5	24	49.0
Lack of transportation	12	24.5	25	51.0
Lack of research and technical support	4	8.2	21	43.0
Lack of incentives & administrative support	3	6.1	15	30.7
Farmers are slow to learn	3	6.1	14	28.6
Not a problem/no response[a]	14	28.6		
	49	100.0		

[a]Includes 8 (16.3%) who said they were able to train small farmers "to a great extent" and 6 who gave no response.

Source: Sahir H. Sudad (1980) Major Constraints in Farmer Training at Field Level, Case Studies from Jordan, Malaysia and Tanzania. Rome: FAO, Table 6-C, p. 95

Social Services

5.47 Expansion of social services has been central to Nyerere's vision for a modern Tanzania. It should be noted that at Independence Tanganyika had neither a university nor a single advanced professional training program within its borders. By a decision of the colonial government, Tanganyika's higher education had been placed at Makerere University in Uganda. (Makerere's entire output of trained agriculturalists in 1963/64 to meet Tanzania's needs was four students!) The Ministry of Natural Resources--predecessor to today's Ministry of Agriculture--recruited African field staff from the sub-high school (10th grade) level. Teacher training and health education were organized by mission societies, on a grant-in-aid partnership basis.

5.48 TANU's interest in changing this situation was signalled in 1963, when the Party turned over its new national headquarters in Dar es Salaam to allow the fledgling University of Dar es Salaam to open before its campus was constructed. Tanzania was one of the first African countries to institute serious manpower planning.[1] Its educational programs were designed from the start with assistance from the International Institute of Educational Planning (IEEP) in Paris.[2] It has been a leading African country in developing nonformal education, and was one of the pilot areas in UNESCO's functional literacy program. Its adult education programs are internationally acclaimed.[3] In regard to vocational education, Nyerere's 1967 policy statement, "Education for Self Reliance", has been widely reprinted, and remains an admired statement of policy. In 1974, the Party adopted a target of achieving universal primary education (UPE) within three years--an ambitious goal which would strain the educational system to its breaking point. Thus there is nothing rhetorical about Nyerere's preference for being called "Mwalimu" (teacher): a teacher he was before entering politics, and a teacher he has remained.

[1] Assisted initially by the Ford Foundation. This background explains the useful series of reports titled Annual Manpower Reports to the President (these days issued by the Ministry of Manpower Development).

[2] Responsible for several monographs on Tanzania, cf. J. King (1967) Planning Non-formal Education in Tanzania. Paris: IIEP/UNESCO.

[3] Budd Hall (1975) Adult Education and the Development of Socialism in Tanzania. Nairobi: East African Literature Bureau.

5.49 In health services, too, Tanzania's policies have been accorded international recognition. The country's leadership was early to recognize the critical need in a poor nation for a preventative rather than purely curative approach to health services. It has also permitted a large role for private, voluntary organizations--some of them American--up to the present. In actual fact, the connections between Tanzania and US non-governmental organizations are long standing and warm. Many senior Tanzanians have been trained in the USA or else have been associated with US-linked NGOs within Tanzania. In this regard, the social services sector presents a situation which is the opposite from that found in trade and economics, where the USA and Tanzania have few interests in common. The SIP team notes that to base US policies towards Tanzania solely on matters of economic ideology is to ignore the areas where the US and Tanzania share important humanitarian concerns.

a. Ministry of Health

5.50 The evolution of Tanzania's health care services, curative and preventative, are unusually well described in published sources.[1] The changes since Independence and in particular for the period between 1973-78 are shown in Tables 5.9-11. In social services generally, Tanzania's leadership has frequently employed target dates for universal coverage as a mobilizing device, e.g. in regard to provision of clean water, primary education, and health care. For health care, the government's objective remains universal coverage by the year 2000. Dramatic as the changes were between 1961-81, present circumstances call into question the wisdom of continuing to employ over-ambitious targets in this simplistic fashion.

[1] Main sources include: A. Beck (1970) A History of the British Medical Administration of East Africa, 1900-1950. Cambridge, MA: Harvard Univ. Press; D. Clyde (1967) Malaria in Tanzania. London: Oxford Univ. Press; A. Nsekela and A. Nhonoli (1976) The Development of Health Services and Society in Mainland Tanzania. Nairobi: East African Literature Bureau; E. Pridie (1949) A Review of the Medical Policy of Tanganyika. Dar es Salaam: Government Printer; T. Schulpen (1976) Integration of Church and Government Medical Services in Tanzania. Nairobi: African Medical and Research Foundation; R. Titmus et al. (1964) The Health Services of Tanganyika. London: Pitman; and G. Van Etten (1976) Rural Health Development in Tanzania. Amsterdam: Van Gorcum.

TABLE 5.9

DEVELOPMENT OF RURAL HEALTH CARE FROM 1961 - 1980

	1961	1972	Target 1980	Actual 1980
Health Centers (Rural)	22	99	300	239
Dispensaries	975	1,501	2,300	2,600
Medical Assistants	200	335	1,200	1,400
Rural Medical Aids	380	578	2,800	2,310
MCH Aids/Village Midwives	400	700	2,500	2,070
Health Assistants	150	290	1,800	681

Source: A.S. Dhalla (1982) "Country Report on Tanzania," reprinted in The Joint Swedish/Tanzanian Health Sector Review in Tanzania, April 1982.

TABLE 5.10

TREND IN COVERAGE OF HOSPITAL SERVICES (1973-78)

District/Region	Percentage of Population within 10 kms of Hospital 1973	1978	Change (+/-) in % served 1973 - 1978
Kondoa	10	7	- 3
Mpwapwa	9	10	1
Dodoma	13	25	12
DODOMA REGION	11	16	5
"Kilimanjaro"[a]	98	85	- 13
Pare	38	40	2
KILIMANJARO REGION	84	74	- 10
Bagamoyo	11	14	3
Kisarawe	4	14	10
Rufiji	11	15	4
Mafia	37	50	13
COAST REGION	9	16	5
Tunduru	16	19	3
Songea	18	27	9
Mbinga	20	27	7
RUVUMA REGION	18	25	7
Kibondo	13	14	1
Kasulu	43	34	- 9
Kigoma	39	32	- 7
KIGOMA REGION	33	29	- 4
Ukerewe	31	31	0
Mwanza	27	43	16
Kwimba	4	20	16
Geita	8	11	3
MWANZA REGION	14	24	10

[a] "Kilimanjaro" here represents the former district which has since been broken into Rombo, Hai, Moshi rural and Moshi sub-urban districts (grouped together for purposes of comparison).

Source: Ian Thomas (1983) Population and Health Facilities in Tanzania, 1978. Vol. 1, Method and Results. Norwich, U.K.: Overseas Development Group, Univ. of East Anglia, Table 7.3, p. 123.

TABLE 5.11

TREND IN COVERAGE OF ANY HEALTH FACILITY (1973 - 78)

District/Region	Percentage of Population within 10 kms of facility 1973	1978	Change (+/-) in % served 1973 - 1978
Kondoa	83	92	9
Mpwapwa	71	86	15
Dodoma	78	96	18
DODOMA REGION	78	92	14
"Kilimanjaro"[a]	99	99	0
Pare	94	96	2
KILIMANJARO REGION	97	98	1
Bagamoyo	73	89	16
Kisarawe	72	92	20
Rufiji	51	98	47
Mafia	100	100	0
COAST REGION	67	93	26
Tunduru	66	86	20
Songea	65	86	21
Mbinga	75	95	20
RUVUMA REGION	69	88	19
Kibondo	87	93	6
Kasulu	92	95	3
Kigoma	89	85	- 4
KIGOMA REGION	89	91	2
Ukerewe	99	100	1
Mwanza	81	98	17
Kwimba	75	98	23
Geita	58	99	41
MWANZA REGION	73	98	25

[a] "Kilimanjaro" is the former district, which has since been sub-divided into Rombo, Hai, Moshi rural and Moshi sub-urban districts. These are grouped together here for purposes of comparison, 73-78.

Source: Ian Thomas (1983) Population and Health Facilities in Tanzania, 1978. Vol. 1, Method and Results. Norwich, U.K.: Overseas Development Group, Univ. of East Anglia, Table 6.2, p. 95.

5.51 Reasonably up-to-date statistics on health services in Tanzania are readily available in a useful (1982) Report from the Joint Swedish/Tanzanian Health Sector Review, issued by a SIDA supported planning unit in the Ministry. Another valuable source with a wealth of detailed information is Henn's (1980) Tanzania Health Sector Strategy (reflecting past USAID assistance in support of maternal/child care programs). The 1980 national situation in regard to provision of curative health facilities on the mainland is given in Table 5.12 At the apex of the system stand three large referral hospitals: Muhumbili in Dar es Salaam, the Kilimanjaro Christian Medical Center (KCMC) in Moshi, and Bugando in Mwanza. Two of the three are church related institutions, the KCMC linked to Protestant assistance and Bugando to Catholic sources. This continued overseas support has become even more significant at a time when drugs and medical equipment are in very short supply. As can be imagined, the Party's decision to allow a continued, non-governmental role at this level was the object of hot debate in Tanzania (Mayer 1975).

5.52 The case against having large, referral hospitals at all is usually stated in terms of their reduced cost-effectiveness in an overall national strategy for health care.[1] It is alleged that such hospitals serve mainly the elite and the urban populations, at expense of alternative investments in preventative medicine and in rurally-located health centers. The contrary argument is that these are first and foremost training hospitals which would be required in any case; that they tap external sources of assistance which might not be available for local health centers; and that they provide important support and logistic functions for a network of regional hospitals which--at least in theory--can greatly extend their effective outreach. The regional coverage as of 1978 is indicated in Table 5.13.

[1] Sources examining the economics of Tanzania's health care include: Oscar Gish (1975) Planning the Health Sector, the Tanzanian Experience. London: Croom Helm; M. Gottlieb (1975) Health Care Financing in Mainland Tanzania. Syracuse: Syracuse University (republication of materials from ERB Papers 73.7 and 74.1); and W. Mayer (1975) "The Decision to Build the Mwanza Hospital: Insights into Policy Making in Tanzania," Taamuli. vol. 5, no. 2 (December), pp. 25-33.

TABLE 5.12

EXISTING HEALTH FACILITIES, MAINLAND TANZANIA

Total Units:	Level:	No. in 1981:[a]	Facility:	Staff Assigned:	Nos. in 1980:[b]
6	Zone	3	Referral hospital	(Specialists)	Medical doctors: 589 (566 T.)
20	Region	17	Regional hospital	Reg. Med. Off. Reg. Health O.	
104	District	81	District hospital	Dist. Med. Off.	Nurses[c]
457	Division	186	Health centre	Medical Asst. Health Asst.	Asst. Med. Officers: 258 Med. Asts.: 1,400
1,963	Ward	2,500	Dispensary	Rural Medical Aid i/c	Midwives[c] Rural Med. Aids: 2,310
8,300	Village	233	Village health post	2 health workers	Health Asts. 681 MCH aids: 2,070

Sources: [a]"Guidelines for the Implementation of the Health Care Programme in Tanzania", AFYA (1983), p. 43.

[b]Report from the Joint Swedish-Tanzania Health Sector Review in Tanzania, April 14-26, 1982. Citing figures from paper by A.S. Dhalla (1982), p. 16.

[c]The total for nurses/midwives is not shown separately by level at which stationed, and is 7,275 in all.

TABLE 5.13

POPULATION & AREAS COVERED BY CONSULTANT HOSPITALS
(1978)

Hospital:	Population to be covered:	% Pop.:	Area in sq. kms. covered:	% Area:
Muhumbili	6,626,341	39	436,818	49
K.C.M.C.	4,455,415	26	212,676	24
Bugando	5,966,573	35	233,849	27
Total Tanzania Mainland	17,048,329	100	883,343	100

Source: Ian Thomas (1983) Population and Health Facilities in Tanzania, 1978. Vol. 1, Method and Results. Norwich, U.K.: Overseas Development Group, Univ. of East Anglia, Table 7.1, p. 101.

5.53 The Muhimbili Medical Center is the central institution for the medical profession in Tanzania, since it is where most Tanzanian doctors received their training. Originally the teaching hospital for the University of Dar es Salaam, it became an independent parastatal in 1977 retaining the Faculty but having its own pension scheme and headed by a Director General. As in the cases of the Institute of Education and BRALUP, which were also under the University but sought independent status, the change proved a mixed blessing. The position of Dean had to be reintroduced, and the University, on its part, began the search for a donor willing to build a completely new teaching hospital. Linked loosely to Muhimbili is a separate parastatal with its own Director General, the National Institute for Medical Research.[1]

5.54 Below the zonal level--and we hasten to note that 3 of the Ministry's 6 zones do not yet have their referral hospital complexes--the Tanzanian structure puts the senior Medical Officer in charge both of the district or region and the hospital in which this individual is based. On the one hand, this unitary line of command means that the pressures of operating curative services through the hospital tend to take precedence over field activities of a preventative nature. On the other hand, it removes the possibility of disputes over transport, budgetary decisions, etc., which might otherwise arise. The medical "team" in each district typically includes the District Medical Officer, a Nursing Officer, and a Health Officer in charge of the preventative medicine section.

5.55 Up into the early 1970s, an initial problem for the Ministry of Health (AFYA) was how to absorb heterogeneous voluntary agency facilities into a common national system. Some mission societies like the Seventh Day Adventists or the Lutherans in Singida emphasized hospital building as their main focus during the colonial period. Singida District as it was before Independence contained no less than five hospitals--four PVO and one Government facilities--but not a single secondary school. Re-adjustments to give a more equal distribution of service may explain why some communities have less coverage in 1978 than in 1973 (Table 5.10).

[1] With field stations for medical research at Amani, Mwanza, Tabora and at Muhimbili itself.

5.56 A behind-the-scene struggle took place in the 1970s over the future of private, profit-making clinics. Often staffed by immigrant physicians, these were largely found in Tanzania's bigger towns. The disagreement was between Party ideologues, determined to eradicate private medicine, and Tanzania's emerging salaried class which in the urban areas relied heavily upon private practitioners operating out of storefront clinics. The Group Occupational Health and Private Hospitals Act (eventually passed in 1978) is one of the very few instances where Parliament (Bunge) defeated on its first reading a major bill coming to it with the Party imprimateur.

5.57 In contrast, voluntary agency hospitals—often receiving "grants-in-aid" from the Government, administered through joint committees—have continued to be welcome (though contributing a declining proportion of total medical services). Clear differences remain between the two types of facility. Mission hospitals while not profit-making are allowed to charge fees, in contrast to free government services. The voluntary agencies concentrate on in-patients, leaving the heavier out-patient load and most preventative medicine to the Government. They have better access to drugs, but less to vehicles. While 18% of the government dispensaries were stated to be in bad condition in 1978/79, only 2% of VA dispensaries were so described (SIDA/AFYA 1982:10). The parastatal clinics and dispensaries which mushroomed in the 1970s seem intermediate between the two types, being like VA facilities in their focus on curative medicine. Parastatal clinics now substitute for the banned private clinics (some of which converted themselves into occupational health services and so stayed in operation). They represent an attempt by salaried and professional workers to circumvent the overcrowded government facilities. VA hospitals typically resemble a government district hospital, whereas parastatal facilities tend to be intermediate between a dispensary and a rural medical center (depending on the size of the parastatal served).

5.58 Below the district level, primary health care in Tanzania has at its apex a Rural Health Center (RHC) usually put at the divisional

level. RHCs typically have one wing with in-patient beds, but their main focus is on out-patient service and organisational support for preventative services such as maternal-child care clinics. Each center is in the charge of a Medical Assistant, a cadre of health-care professional intermediate between a nurse and an M.D. but performing most of a doctor's functions within the system. As earlier indicated, the Government is still a very long way from having a RHC in each Division.

5.59 At the Ward level, one finds out-patient dispensaries. In theory these are staffed by rural medical aids when there are enough to go around (about 50% staffing in 1978/79). Actual facilities tend to be rudimentary; the 78/79 evaluation found 55% of government and 58% of VA dispensaries did not even have a working referigerator and only 22% had all six of the recommended preventative vaccines. VA dispensaries were much better off, "in many cases" having more drugs than even the government RHCs (SIDA/AFYA 1982:10). The main reason is, of course, the direct import of donated drugs which is permitted to VA units.

5.60 All in all, it is estimated about 32,000 people were working within Tanzania's health sector in 1978/79. 56% of these were stationed in hospitals, 14% in health centers, and 30% at dispensaries. However, about two thirds of the total are ancillary, non-medical staff (sweepers, etc.), with 2% being university trained doctors, another 2.5% medical assistants, and 17% nurses. By 1980, there were 20,000 inhabitants per doctor, as contrasted with 28,000 in 1972 (if Medical Assistants are counted in, the ratio becomes more favorable). Among paraprofessionals, rural medical aids are said to constitute 5% and maternal child-care aids another 2.5% of the total (SIDA/AFYA 1982:9). To support this network, the Tanzania mainland spent about shs 1 billion on recurrent health costs in 1981, shs 52 per inhabitant. A rough breakdown gives 55% on salaries, 23% on drugs and vaccines, 10% on equipment and maintenance, and 9% left for other purposes. Costs of facilities are given in Table 5.14. A praiseworthy feature is that about 65% of expenditure is spent in rural areas, compared to WHO's average for developing nations of 25% (SIDA/AFYA 1982:7).

TABLE 5.14

TARGET CONSTRUCTION COSTS FOR TANZANIAN HEALTH FACILITIES

ITEM:	Reg./district Hospitals	RHCs	Dispensaries
Construction expenditure:	shs. 14 million	shs. 2 million	shs. 165,000
Average recurrent expendtiture per facility:	shs. 2.8 Million	shs. 256,000	shs. 37,400
Expenditure per out-patient visit:	4/60	2/60	1/90
In-patient day:	53/-	29/-	10/-

Source: SIDA/AFYA (1982) Report from the Joint Swedish-Tanzania Health Sector Review in Tanzania, p. 8.

5.61 AFYA has enjoyed a substantial amount of donor support, which is only to be expected in a poor African country where health care is so greatly needed. An added incentive is the Ministry's sensible approach: clear policies, standardized plans for new facilities, and explicit criteria to guide in the location of new projects (size of population served, distance from nearest health facility, etc.). Data on the country's health sector comes from a small planning unit established within the Ministry with SIDA assistance.

5.62 In 1981/82, three donors provided more than 15 million shs. of assistance to the health sector: Sweden (20.5), the UK (20.2), and Danida (18.1). Next comes UNICEF (10.0), West Germany (7.6) and USAID (3.0). Italy gave 2.0 million and 6 other donors between 1 and 2 million each (WHO, FINNIDA, UNDP/UNFPA, Ireland, Netherlands, and the European Community). Socialist countries have provided doctors, 60 from China and 20 from Cuba (with others from Russia and the Eastern European bloc). Altogether there are about 20 donors active, but the first four listed have been by far the most significant. SIDA's development expenditure support alone has accounted for 50% of Tanzania's assistance to RHCs, 20% of the Tanzania Food and Nutrition Centre (TFNC), and 7% of the drugs used in rural areas (SIDA/AFYA 1982:15). DANIDA, in particular, has boosted Tanzania's drug supply with about 30 million DK worth annually; through AFYA it also coordinates the other donors' drug supply plans.

5.63 USAID's main assistance has been in maternal child-care, with a seven year project which came to completion in 1982.[1] Field surveys and training of health care workers have been undertaken in Hanang District, also (as with the MCH project) under central funding. Bilateral assistance has been given to Zanzibar for malaria control, to AMREF (a Nairobi-based Foundation which has been active in both Kenya and Tanzania) for design of medical refresher courses, and to school health in two regions.[2] Since the health care sector was not stressed in the SIP terms of reference, we have not given USAID's role detailed scrutiny.

[1] An evaluation was done in 1982, but its report was not available at the time of the initial SIP team visit in mid-1983.

Health Care Performance

5.64 The Government's emphasis upon building new facilities to even out the coverage of health services is evidenced by Tanzania's fairly respectable figures on client access. It is said that 70% of the population now live within 5 km of some kind of health facility, and 92% within 10 km of one; on average in the 6 regions covered by the 78/79 evaluation, 45% of the population have a health facility where they reside (SIDA/AFYA 1982:11). There are two problems with such statistics, other than the obvious point that they are extremely aggregate in nature: i) they count rural dispensaries as if they were operational facilities, when many are not; and, ii) they do not measure the quality of care given.

5.65 In an attempt to document service quality, the 78/79 Evaluation sent teams into the field. These included external physicians, and observed actual treatments for 183 patients in 3 regions. Reported results can be summarized as follows (SIDA/AFYA 1982:11):

> The time to examine a patient was longer at the hospitals; 65% were examined within 5 minutes. At RHCs and dispensaries 95% were examined within 5 minutes. A larger percentage (70%) were examined within 1-2 minutes in the dispensaries compared to 55% at the RHCs.
>
> The examination was not correct for 4% of the patients at the hospitals, 30% at the RHCs and 13% of the dispensaries. 20 out of 52 observed RHC patients were from one RHC which was not functioning very well.
>
> However, the quality of examination at dispensaries was surprizingly high.
>
> For the quality of diagnosis about the same percentage as for examination was observed.
>
> 9% of the patients at hospitals, 22% at RHCs and 10% at the dispensaries were not treated correctly.
>
> 115 patients answered a question whether they were satisfied with the treatment and 57% said that they were satisfied. Only 5% were not at all satisfied.
>
> As for queing 3,200 patients were observed. 54% of the patients at hospitals arrived before 9 o'clock, 51% at RHCs and 64% at the the dispensaries. The work at dispensaries and RHCs goes on up to closing time 2.30 but very few patients arrive after 1 o'clock.

5.66 In addition to its curative services, the Ministry has made several, less successful attempts at basing preventative medicine within the villages themselves. Ironically, this problemmatic aspect of AFYA's program is the best known abroad where it has been portrayed as a "barefoot doctor" success story. In actual fact, there are several ways to offer improved, village-level services. Weekly maternal child-care clinics at the dispensaries or on a rotating schedule within villages have sometimes been quite popular, an innovation pioneered at a large Nordic project in Kibaha. A research unit on traditional medicine has been established within the Muhimbili Medical Center, and pre-independence negativism towards traditional practitioners has been overcome. Recognition has been accorded to birth attendants ("mid-wives"), with training seminars and other limited types of assistance. (Most are, of course, older women who would remain active in remote communities with or without AFYA's blessing.)

5.67 The least successful approach to offering primary health care at the village level has been AFYA's several attempts to train unpaid paraprofessional "volunteers". In 1969, for example, AFYA attempted to recruit "village medical helpers" to staff "first aid posts" in places without a dispensary. The Ministry's own assessment follows:[1]

> Unfortunately, the training of these workers was not well planned .... There was no standard training schedule, the period of training varied from between 1 and 3 months, to 6 months. Training took place at district and regional hospitals with workers going back to work in their villages of origin. The first aid boxes had specific drugs and equipment, no allowances were given to the workers and there was no scheme of service. As a result, many of them were frustrated and left their posts to work in dispensaries and hospitals in towns. Others started to sell the drugs and equipment and to give injections indiscriminately so as to obtain some income.

In truth, young male school leavers--who were what most villages put forward as their candidates for health care training--were usually not sought out when people had illnesses, and had little genuine commitment to their assignment except to use it as a stepping stone for finding more secure employment outside their villages.

[1] Ministry of Health (1983) "Guidelines for Implementation of the Health Care Programme in Tanzania," Dar es Salaam: AFYA, p. 17.

b. Ministry of National Education (ELIMU)

5.68 Except for the public debt, education at 2,524 million shs. (1982/83 estimates) takes the largest single share (usually around 15%) of the Government's annual budget, as it would in many African countries. An overview of numbers in formal education is given in Table 5.15, derived from Ministry of Education (ELIMU) figures but excluding private schools.[1] The distinctive features of Tanzania's educational system can be summarized as follows:

- heavy stress on several forms of adult education.
- about 500,000 pupils entering primary school in 1982, with 420,000 completing the full 7 year course; of these, 9,116 then joined Form I (beginning secondary), about 2% those completing Std. VII.
- priority given to expanding primary schooling, with a total of 3.5 million pupils (1982) contrasting to 39,000 in secondary.
- in 1974 the Party dictated achievement of universal primary education (UPE) by 1977, becoming the Ministry's major preoccupation.
- There are 313 post-primary technical training centers, giving a 2 year course in simple trade skills; enrollment was 7,531 in 1982.
- Secondary schooling is 4 years to Form IV level, with 35,074 students enrolled in 84 public secondary schools; another 3,909 are taking Forms V and VI (2 year senior secondary) in 1982.
- Roughly 33% of total public secondary students at Forms I-IV level are girls; in 1982, 22% of those at Forms V and VI were girls.
- Public secondary education divides students at Form I - IV level between four vocational or "bias" streams (as they are termed). In 1982, 15,236 were in the agriculture bias, 10,558 in commerce, 3,770 in technical, and 1,923 in home economics; 3,587 were not yet within vocationally allocated streams ("non-diversified").
- Of the teaching force, all but 500 are Tanzanians, distributed as follows: 88,370 in primary schools, 1,900 in public secondary and 1,011 in private secondary, 786 in colleges of education, 96 in technical colleges, and 286 in folk (adult) colleges. This give 92,448 in all levels, with 499 expatriates mainly at the secondary level for an overall total of 92,947 (1982).
- Most private schooling is concentrated at the secondary level: there were in 1982 some 9,000 private primary students; of the 29,761 at Form I-IV levels, 11,383 (38%) were girls; of the 401 private pupils at Form V and VI, 83 (21%) were girls.
- The national output in 1982 at Form VI level was 1,928; there were a total of only 1,071 students enrolled in first degree courses within the University of Dar es Salaam.

[1] Most totals summarized below come from the 1982 Annual Manpower Report to the President.

TABLE 5.15

SUMMARY OF EDUCATION DATA (1982)

LEVEL:		Boys:	Girls:	Total:
I. PRIMARY	Std. 1	249,266	249,955	499 221
(government & private)	Std. 2	236,442	236,219	472,661
	Std. 3	228,476	225,827	454,303
(9,070 in private)	Std. 4	248,276	240,342	488,618
	Std. 5	361,845	333,492	695,337
	Std. 6	257,909	224,646	482,555
	Std. 7	233,184	186,920	420,104
Total:[a]		3,512,799	1,815,398	1,697,401
II. SECONDARY	Form I	6,034	3,082	9,116
(government)	Form II	5,909	2,934	8,843
	Form III	5,897	2,866	8,763
	Form IV	5,758	2,594	8,352
Total:		23,598	11,476	35,074
III. SENIOR	Form V	1,640	481	2,121
SECONDARY	Form VI	1,375	413	1,788
(government) Total:		3,015	894	3,909

Source: ELIMU figures given in 1982 Annual Manpower Report to the President. Ministry of Labour and Manpower Development (June, 1984).

[a]Corrected totals to remove arithmetic errors.

5.69 ELIMU's responsibilities to the nation as a whole are quite broad. They include: i) adult and nonformal education, ii) primary schooling, iii) primary teacher training, iv) secondary schooling, v) vocational education, vi) secondary teacher training, and vii) oversight of the University-level institutions. While for our purposes the principal interest is at the higher levels, it should be clear from the summary just presented that ELIMU's heaviest emphasis has been at lower levels (UPE, adult education, etc.). The presence of the Institutes of Education and Adult Education, both autonomous parastatals, and the involvement of the University's education department staff through subject panels has spread the load somewhat.

1) Adult Education

5.70 From the very first days of Independence, Nyerere and his TANU colleagues have been strongly commited to creating a literate, involved citizenry. It should be remembered that Nyerere was himself capitulated into politics as a young teacher, when in the 1950s he was pressed into defending the Meru people's claims on their land before the United Nations. Under his leadership, TANU (now the CCM) has strongly supported all forms of adult education. Among them have been Tanzania's leadership in establishing one of Africa's first Institutes of Adult Education; implementation of a UNESCO sponsored "functional literacy" pilot project in the lake regions; several radio listeners' "study group" campaigns; an ELIMU sponsored unit doing correspondence education (with SIDA support); several national campaigns to eradicate illiteracy in certain target districts; and establishment of a network of short-course, residential centers, the "folk development colleges".

5.71 The consensus among commentators is that Tanzania's adult education efforts are among the country's most successful programs. Stress on adult education dates from Nyerere's 1969 New Year's Eve address, when Nyerere designated 1970 as the Adult Education Year.[1] This kicked off a campaign to appoint adult education officers in every mainland district; in the first nine months, 324,664 adults were said to have

[1] Reprinted along with his 1970 New Year's Eve address as "Education Never End," pp. 1-15. In, Adult Education and Development in Tanzania, vol. 1. Dar es Salaam: National Adult Education Association of Tanzania.

registered as members of adult education courses. In 1970's New Year's Eve address, Nyerere deepened the commitment, calling for total eradication of illiteracy in five rural Districts (Ukerewe, Mafia, Masasi, Pare, and Kilimanjaro) as well as in Dar es Salaam itself (the only place among the six where it was conceded that a deliberate plan for implementation would be required). Later the stress on annual campaigns was replaced by a general commitment to an "Adult Education Decade" during which time illiteracy was to have been eradicated throughout Tanzania.

5.72 More technocratic in focus but probably also more effective have been the Lake regions' "functional literacy" programs, organized with UNESCO assistance as a pilot project from 1968 onwards.[1] The main program, from 1973-76, was evaluated in the field by Singh and Mbakile (1976). They list as its achievements (pp. 5-6):

- a positive response among learners.
- a positive impact on life style, especially in relation to health.
- attitudinal impacts.
- some acquisition of technical information.
- some participants did acquire literacy skills, though more in reading and arithmetic than in writing.

As is often the case in Tanzania, the quantitative indicators were more impressive than the qualitative ones. The earlier pilot project was said to have produced seven functional literacy primers with accompanying teachers' guides (e.g. on cotton, bananas, rice, fishing, cattle-keeping, home economics, and politics); to have conducted 16,800 literacy classes based on a 2 year training cycle in Kiswahili; to have had a total enrollment of 534,800; and to have started 90 rural libraries and 4 newspapers.

5.73 Less favorable were the operational problems Singh and Mbakile note (1976:5-6):

- lack of coherent in-service training for literacy teachers.
- weaknesses in field supervision.
- inadequate teaching materials.
- lack of competent personnel to do agricultural demonstrations.
- breakdown in production and distribution of rural newspapers.
- lack of appropriate reading materials for rural libraries.

[1] See Viscusi, Margo (1971) Literacy for Working: Functional Literacy in Rural Tanzania. UNESCO Educational Studies & Documents, No. 5. Paris: UNESCO, 39 pp. Also, G. Singh and E. Mbakile (1976) Final Evaluation Report, July 1973-June 1976. Mwanza: Tanzania UNDP-UNESCO Functional Literacy Curriculum Programmes & Materials Project, 145 pp.

The evaluators then catalogue indicators which if widespread would have greatly reduced the economic impact of the program. (This is a central point in our whole analysis of social service productivity.) They warn:

> Apart from the weaknesses ... mentioned earlier, other factors contributed...:
>
> - indications that the training cycle of approximately two years was not enough for the majority of the participants in any program to make them functionally literate;
> - indication that the training cycle was affected by high drop-out and drop-in rates, shorter life of classes in months and sessions, relatively low attendance rates and time utilization.
> - indications that although the majority of participants in most programs were women, it was they who dropped out more often then men.
> - indication that individual deficiency in the knowledge of the Swahili language acts as a stumbling block in the learning process.

In short, these are the kinds of real world difficulties which one suspects influence most adult education programs in Tanzania but are often not reported. They do explain why such activities have a relatively minor economic impact.

5.74 The typical Tanzanian approach to such mass campaigns is illustrated by a 1973 radio listeners' broadcast group campaign titled "Mtu ni Afya" ("man is health"). This was organized by the newly established Institute of Adult Education. Its organizers claim nearly two million people participated, through a sequenced approach which operated very much like a classic "pyramid" scheme. First 240 adult education officers were trained, then these prepared 3,000 district organizers who in turn trained 75,000 study groups leaders.[1] A case study on this campaign has been published in the USA (Hall 1978), and argues it was highly successful.

5.75 Another adult education activity under ELIMU's sponsorship is correspondence education (originally pioneered in Tanzania by the International Co-operative College in Moshi). SIDA assistance permitted establishment of a National Correspondence Institution within the Ministry.

[1] See P. Mtenga (1975) "Strategies for Training Adult Educators for Rural Areas," pp. 58-76. In, Adult Education in Tanzania. Dar es Salaam: National Adult Ed. Assoc. of Tanzania. The case study is by Budd Hall (1978) Mtu ni Afya, Tanzania's Health Campaign. Washington, D.C.: The Clearing House on Development Communication, 74 pp.

Among the 6,125 students enrolled in mid-1974, men overwhelmingly predominated: 5,650 vs. 475 women.[1]

5.76 ELIMU also operates 47 "folk development colleges", a designation taken over from the Scandinavian donor. Actually, small short-course residential centers have been found in Tanzania since shortly after independence: some were "farmer training centers" (FTCs), like those of Kenya (where the concept originated) developed by the Ministry of Agriculture, and others district training centers (DTCs) under Community Development. From 1969/70, most FTCs were merged in with the DTCs and called RTCs (Rural Training Centers) located administratively under Regional Administration. In 1975 a policy decision was made to rename all of them Folk Development Colleges, transferred to the adult education section of ELIMU. Meanwhile the Party created some four or five "zonal party colleges" which continued to offer short courses under the PMO's sponsorship. While it is said that in 1982 the FDCs had 286 teachers (209 men and 77 women), it has been difficult to secure adequate technical staff. The distribution is given as 39 agriculture teachers, 72 for domestic science, 76 for political economy, 22 for adult education, 38 for technical, 16 for commercial topics, and 23 on cultural matters (1982 Annual Manpower Report, p. 72). Accordingly KILIMO re-instituted adult farmer training as FTC "wings" at four of its larger MATIs from about 1977/78 onwards, and were able to obtain USAID assistance for these programs (at Ukiriguru, Uyole, Mlingano and Mtwara). The final evaluation for this project was highly complimentary of both the contractor's and KILIMO's efforts, and recommended continuation.[2]

5.77 The main organizational support within ELIMU for its adult education division comes from the Institute of Adult Education. The Institute has over 300 staff (321 in 1977) in four central departments and 14 regional centers. It offers a one year Diploma in Adult Education, at which enrollment has fluctuated between about 25-50. Most of the Institutes program traditionally consisted of part-time instruction, much of it given in evening classes. (See the 1976 Annual Manpower Report, pp.73-77.)

[1] R.F. Erdos (1975) "Correspondence Education in Tanzania," pp. 138-151. In, Adult Education in Tanzania. Dar es Salaam: NAEAT.

[2] Ministry of Agriculture and Livestock Development (1984) Farmer Training and Production Project: Evaluation Report. Dar es Salaam: KILIMO, 79 pp.

2) Primary Education

5.78 The basic statistics on Tanzania's primary schooling are contained in Table 5.15; ELIMU's subject timetable at different levels is given overleaf (Table 5.16). Soon after Independence the decision was made to shorten primary schooling by one year, from 8 to 7 years' total, and to delay beginning of school until pupils had reached age seven (to minimize the "school leaver" problem for those completing primary school but unable to continue onwards into secondary education). Inspection of the enrollment data shows that boys and girls are evenly matched until about Std. 5, but then girls fall behind quite rapidly. This is a respectable achievement, however, if compared against some other African countries or Tanzania's earlier pattern at Independence.

5.79 Rightly or wrongly—and here we should note that those who study the cost-effectiveness of educational investments differ quite strongly in regard to whether or not expansion of the primary base should take priority—ELIMU has put strong emphasis on primary schooling while holding secondary enrollments down.[1] The biggest boost came after the 1974 Musoma Declaration, when the Party decided that universal primary education (UPE) should be achieved within three years. Other East African countries have also implemented UPE; what distinguishes Tanzania is the very short timetable its leadership set for what is the largest single social service in the country. Virtually all ministries mounted crash programs after 1974 to build the necessary classrooms, and both teachers and instructional materials were in very short supply (1 book for every 10 pupils). As one letter writer complained (Daily News 11 October 1984):

> There were shortages of classes in 1977 when UPE was launched. Today there are still not enough classes and some places one is liable to see pupils of two classes sharing a single classroom. One class facing the blackboard and the other facing the opposite wall.... Even if there are desks and chairs one might find that these are few and 40-60 pupils or more—as classes are usually overcrowded—sharing 10 to 15 desks...
>
> Schools have been forced to introduce two sessions a day. Standards I-IV attend classes during the morning and V-VII attend the afternoon session.... There is an overworking of teachers .... pupils do not get enough time to concentrate on their curriculum.

[1] Contrast, for example, the World Bank's own differences of opinion whether to stress primary vs. secondary enrollments. See C. Colclough (1980) Primary Schooling and Economic Development (Staff Working Paper 399) vs. the 1983 World Development Report on secondary education, p. 106.

TABLE 5.16

SUBJECT TIME-TABLE FOR PRIMARY SCHOOLS

SUBJECT:	Periods per Week (5 Days)			
	Standards I - II	Standards III - IV	Standards V - VI	Standard VII
Kiswahili	12	9	7	6
Mathematics	8	7	7	8
Art	4	3	3	3
Home Economics/ Health Science	1	2	2	2
Physical Education	2	2	2	2
Handicrafts	1	1	2	2
Religion	2	2	2	2
Science/Agricultural Science	-	2	4	4
English	-	4	4	4
Political Education	-	2	2	2
Geography	-	2	2	2
History	-	-	2	2
TOTAL	30	35[a]	40[b]	40[b]

[a]Total as given in source; actual total is 36.

[b]Total as given in source; actual total is 39.

Source: Ministry of National Education (1980) Basic Facts about Education in Tanzania, Appendix B. Cited in UNESCO (1981:163).

5.80 The strain on the educational system caused by UPE was magnified because ELIMU has tried to provide permanent school structures with a reasonably well-trained teaching staff. Local communities are urged to provide materials and labor, but in comparison to some other African countries Tanzania's schools are fairly well built and the proportion of private primary schooling very low. It is estimated that at present 71% of the age 7-14 years' cohort is now enrolled--not universal, but nonetheless an impressive achievement for a poor country. Official targets are for 45 students in each class, though the present average is 40 (Annual Manpower Report 1982, p. 46).

5.81 Probably the largest unanticipated impact of UPE was its immediate "fall out" influence over adult education. Party leaders apparently did not realize that the larger share of "voluntary" adult education teachers came from the primary teacher training force. Once double-shift teaching and other adjustments to UPE took place after 1975, teachers withdrew from unpaid assistance to adult education. While a modest adult education program has continued, even the Institute of Adult Education became involved assisting the UPE effort rather than targeting its main function.

5.82 At the primary and secondary levels, ELIMU recieves curriculum planning assistance from the Institute of Education located physically on the University campus. The Institute was created in 1963, initially as part of the University. In 1972 links to ELIMU were strengthened with the secondment of Ministry staff to the Institute. In 1975, the Institute was made a completely autonomous parastatal under its own Director and Governing Council. The main mechanism used by the Ministry for guidance on educational matters has been to establish subject panels in each academic subject area. Membership on the panels is very flexible, including Ministry staff, Institute co-ordinators, University staff, and practicing teachers. The Institute has responsibility for curriculum evaluation, production of teaching guides, and in-service training.

5.83 Finally, as indicated earlier there are over 88,000 primary school teachers. These are categorized by training depending upon the college facilities at the various CNEs (Colleges of National Education); there were in 1981 some 16 Grade-A and 19 Grade-C CNEs, with 684 teachers (203 graduates and 240 diplomates) teaching 11,347 trainees (UNESCO 1981, p. 123).

3) Secondary Schooling

5.84 Soon after independence and reflecting external advice, ELIMU made the policy decision to have large, multi-stream high schools. The alternative would have been to allow local communities to build their own secondary schools, which would have yielded a plethora of small, under-capitalized units like the "Harambee Schools" in Kenya next door. There were several immediate advantages from staying with large high schools. It was easier to incorporate the mainly Asian schools which Tanzania inherited in its major towns. Large schools seemed to offer economies of administration and supervision. Donor financing --principally by the World Bank--would be easier to plan and secure. And, most importantly, the supply of secondary "school leavers" (as they are termed in Africa) would be kept under planned control to match demand.

5.85 This background explains why (as of 1982) Tanzania had only 83 public high schools (compared with nearly a thousand in Kenya). However, it proved politically impossible to hold the line against communities which were determined to offer their own, private secondary schooling (often with the help of a mission body or other religious organization). From the mid-1970s onwards registration of private high schools has been permitted, and the total number enrolled in them now almost matches the total in public schools (30,162 vs. 38,983). Out of 69,145 students at the high school level in 1982, 45,310 were boys and 23,835 girls.(1982 Annual Manpower Report).

5.86 It should be noted that the proportion of those going on into secondary schooling from the primary level is very low, having been 2.2% in 1982 and 1983 (1982 Economic Survey, p. 169). (Any user of official Tanzanian statistics on education should beware, because it is often unclear whether privately enrolled students are being counted.) If we assume that less than 5% of primary school leavers go on into secondary education, the Party's insistence that primary training should be complete un itself makes good sense. By the same token, however, inclusion of a strong vocational element for the 3-4% who go on into secondary education is inappropriate.

5.87 Another basic decision--which in retrospect seems unfortunate--was to retain the ex-British structure for secondary schooling. This consists of four years (or Forms) to reach a multi-subject, School Certificate (or "O" level), followed by two more years (Forms V and VI) to reach the Higher (or "A" level) School Certificate. While "O" level work encompasses the usual range of general subjects, at the "A" level students specialize in only three as a prelude to university admission. Many of Tanzania's secondary schools lacked the extra laboratories and library needed for advanced Form V and VI instruction. The small number of Form V and VI streams emerged as a serious bottleneck by the late 1970s, a planning oversight by ELIMU and donors alike. (Under the 7th IDA Education Project, additional A level streams are being added at a number of schools.)

5.88 Most public secondary schools in Tanzania also offer one or two out of four occupational "biases": agricultural (15,236 students), commercial (10,558), technical (3,770), and Home Economics (1,933)--the figures for 1982, leaving 7,496 students in non-diversified programs (1982 Annual Manpower Report). Having an occupational bias at the secondary level is the direct outcome of President Nyerere's 1967 Education for Self Reliance policy. Nyerere's ideas were appealling in their simplicity. Tanzania's education, he argued, was truncated. The content of lower levels was dictated by subjects needed by the few who would go on; students enjoyed expensive boarding facilities but contributed nothing to their upkeep; and the cost of secondary education was such that the country simply could not afford graduates who still had no occupational skills. In absorbing these criticisms, ELIMU made three substantive changes to its secondary system: 1) all schools were directed to start commercial projects (termed "self reliance" activities) which in theory are supposed to generate 25% of catering expenses; 2) each school should incorporate specialized skills' training in at least one occupational field, the "bias" element; and, 3) pupils evaluations have been changed to also take into account group work and students' work performance.

5.89 The imposition of occupational training and "self reliance" periods for revenue generation on top of a system already stretched by adding political education periods has not been easy. The official secondary time-table as of 1980 is indicated in Table 5.17. It can be seen that at Forms I and II, pupils receive 40 periods of compulsory instruction, 3 plus periods on an optional subject, 10 hours of "self reliance" activity, and 2 hours on sports each week. There are ten compulsory subjects other than the required practical work. This amounts to a very heavy load indeed.[1] It would appear the Ministry's Secondary and Technical Division simply continued to add subjects without regard for students' absorption capacity or teachers' fatigue.

5.90 Several contradictions have emerged within ELIMU's attempts at implementing its occupational bias programs. Skill training in technical fields requires small groups and experienced teachers; it is inevitably more expensive than equivalent level general education. Tanzania had no effective way of preparing its occupational bias teachers, since degree level agriculturalists and technicians were in much demand. At first it put a small agricultural training unit for the agricultural bias teachers at Butimba, near Mwanza, then moved it to Mpwapwa in Dodoma before finally going to Monduli in Arusha Region (all being primary teacher training colleges, a sore point with trainees preparing to teach at the secondary level). When the agricultural bias 4 year syllabus is compared with KILIMO's post-secondary, 2 year MATI syllabus, it is apparent there is a great deal of overlap. As it happens, the inability of ELIMU and KILIMO to coordinate their curriculum at successive levels of the same system has not been crucial because few agricultural bias students have gone on into agricultural fields after secondary school! Msuka's figures on the allocation of ELIMU's agricultural bias trainees shows that the number proceeding into agricultural training at a higher level was 11% in 1975, but had dropped to less than 7% by 1979 (out of 4,084 students).[2]

[1] One headmistress explained that in her school in the mid-1970s it was found the only way to cover the official syllabus was to keep students at their desks between periods with teachers popping in and out.

[2] T. Msuka (1981) "Tanzanian Experience on Increased Pupil Participation as 'Preparation for Life'," paper for the Nordic Conference on Increased Pupil Participation, Oslo, Norway, p. 19.

TABLE 5.17

SUBJECT TIME-TABLE FOR AGRICULTURE AND HOME ECONOMICS BIAS SECONDARY SCHOOLS, 1980

	Periods per week			
	Forms I & II		Forms III & IV	
SUBJECT:	Agriculture	H. Economics	Agriculture	H. Economics
Compulsory				
Political Education	2	2	2	2
Kiswahili	3	3	3	3
English	5	5	-	5
Mathematics	6	6	6	6
Biology	3	3	4	4
Chemistry	-	3	4	4
Physics	3	3	-	-
Geography	3	3	-	-
History	2	2	-	-
Religion	2	2	2	2
Home Economics	-	8	-	10
Agricultural Science	8	-	10	-
TOTAL	40	40	36	36
Optional Subjects				
Added Mathematics	-	-	4	-
Physics	-	-	4	-
Geography	-	-	3	-
History	-	-	3	-
Home Economics	3	3	4	-
Foreign Languages	3	3	3	-
Teaching Methods	-	-	2	-
Music	3	3	3	-
Arts/Wood/Metalwork	3	3	3	-
Physical Education	3	3	3	-
Self Reliance Projects	10 hrs	10 hrs	10 hrs	10 hrs
Games & Sports	2 hrs	2 hrs	2 hrs	2 hrs

Source: UNESCO (1981) citing Ministry of National Education (1980) Basic Facts about Education in Tanzania.

By 1980, the "bias" program was ten years old, and had 127 teachers involved in the agricultural component. A field survey of 28 teachers in ten schools by Mattee and Rimstad found, however, that few made good use of the NORAD/IDA supplied laboratory/workshop units. These had been added at an average cost (in 1975/76) of about $ 31,000 each (Sheffield 1976:13). By the time of the survey, most had been constructed and equipped for several years. Yet 73% of the teachers said they were unable to use the workshop tools and 62% the farm equipment effectively. In only half the cases were the NORAD/IDA workshops being put to any definite purpose. Less than 40% of those surveyed indicated having ever used the units for either instructional or productive purposes. Reasons were as follows (Mattee and Rimstad, 1980:4-6):

> "The head master keeps the keys and nobody else is allowed into the workshop." "It was not officially handed over when the other teacher left." "We use the old school workshop for repairs by the school carpenter." Or, "Most of the tools have disappeared and we can't get replacements."

In the term previous to the survey, workshop units had been used an average of 2.5 hours per week. Further enquiry disclosed that most tutors' previous preparation in Tanzania's MATIs had emphasized classroom lectures. Teachers arrived at their new ELIMU assignments with "hardly any practical skills to demonstrate to students" (Ibid., p. 4).

From the "productivity crisis" viewpoint, it is important to analyze why so little use was made of ELIMU's agricultural workshops. It cannot have been lack of demand: schools were under heavy pressure to generate agriculturally-derived revenue, and the agricultural bias had the most students enrolled of any. Rather, reasons for low utilization were mainly of an organizational and contextual nature:

- Tools are very hard to obtain in rural Tanzania. Unless tight security is maintained continuously, they will simply disappear.
- Those in operational control of tools tend to be junior staff; if they cannot be fired, the school loses accountability when expensive tools are missing.
- When teachers leave on transfer, it is often unclear what the the inventory status is and each can blame the other for things which are missing.

- Many tools are imported. Using them for "hands on" instruction of beginners will mean a high rate of breakage and subsequent difficulties in obtaining replacements.
- Need for equipment by productive farm enterprizes will often conflict with instructional requirements geared to the orderly presentation of a syllabus.
- Field demonstrations usually require small groups and advance preparation, something teachers under a heavy timetable cannot afford.
- "Hands on" work requires a self-confidant instructor, who has already mastered field operations and understands the necessary safety precautions. ELIMU's tutors tended to be adequate on theory but very weak on practice.
- Inevitably, much field work is physically exhausting and dirty. Unless learners experience other satisfactions associated with their tasks and perceive why they are necessary, they will use their ingenuity to evade or even sabotage the tasks at hand. Covert destruction of equipment is one of the easiest ways to accomplish this goal.
- The nature of agricultural work is such that it may be required on weekends, during holidays, or at awkward hours. To link such activities to the use of a fixed facility requires a high degree of delegation and trust among all concerned.
- Conceptualization of the "whys" to justify how skill training contributes to students' education has been glossed over within the Tanzanian approach to "self reliance." Nevertheless, the "why" aspect is vital to a learner's motivation and thereby to the efficiency of instruction. Without it, students may acquire negative attitudes towards "time wasting" practical work which are directly opposite to what was intended by the policy.

We should think of workshop management, then, as a set of interlocked procedural and skill routines which make serious practical work possible. Under the best of conditions, these routines are hard to institutionalize if those responsible are not highly experienced.[1] They are also quite individualized, making mass instruction difficult. Under Tanzanian circumstances, with young and inexperienced instructors, a high staff turnover, poor security, uncooperative students, and a heavy time schedule, it is not surprizing the workshop units remain underutilized. As in so many other fields, the lack of effective organizational routines within Tanzanian implementing units explains why expensive, loan-financed facilities do not actually contribute to genuine rural development.

[1]These comments derive in part from the senior author's experience attempting to operate field workshops under the Masai Range Project.

Another anomaly was the inherited specializations within the technical bias programs. Under the old City and Guilds' Examinations (given at the Moshi Technical School), trainees had to choose between, say, metal working, woodworking, masonry, or electrical or plumbing skills. The early separation of apprentices in this fashion presupposes an already developed economy with different trades which students will join after graduation. In Tanzania, to the contrary, a self-employed builder will need to know a bit of each of these skills. It also turned out that the workshops for technical training are much more expensive than average secondary facilities, explaining why Tanzania had only four technical high schools (Ifunda, Mtwara, Tanga and Moshi) until the recent addition of workshops at 10 additional schools (1982 Economic Survey, p. 170).

All in all, the inclusion of a vocational bias into secondary education has had both negative and positive aspects. On the negative side, ELIMU showed no ability to coordinate curriculum content within the larger structure of educational and career advancement. The "self reliance" activities have covered on average 5% of total catering costs --hardly enough to justify the tremendous organizational effort these projects entail. Most students have not stayed within their bias vocations when going on for further training, at least not in the agricultural bias stream (the largest of the four). The heavy requirements in time, facilities, teacher commitment, and recurrent costs of vocational subjects has made these very unpopular with school administrators. Teachers were often overworked; the 1980 field survey mentioned above found an average load of 34 hours per week not counting the out-of-class supervision of "self reliance" activities. The consequence has been to foster the very style of "blackboard teaching" which the policy was meant to counteract. On the positive side, some schools—such as Kibaha or the four Cuban assisted units—have operated large farm enterprizes quite successfully. The Ministry has evolved a participative mode for curriculum planning which has drawn upon the experience of hundreds of its own staff through subject panels, seminars, and planning meetings. Most importantly, the program has remained distinctly Tanzanian.

4) Educational Performance

It is perhaps inevitable that users--students and their parents--will judge educational effectiveness by examination results. From what has already been said about secondary education, one might guess that educational quality has suffered. Critics of Nyerere's "Education for Self Reliance" predicted that practical work would lower students' academic achievement. This appears to have been avoided. Msuka's statistics already cited on agricultural bias students show the proportion going on into Form V (based on academic merit) has been between 17-25 percent, roughly the same as for the system as a whole (1981:19). In an empirical test, Maliyamkono hypothesized that schools with higher agricultural yields (assuming this reflected the relative stress given to occupational training) had lower examinations scores; no relationship either way was found (Maliyamkono 1982:46-47). Thus if student performance in academic examinations has been weak, it must be because of general features common to the whole system.

Cause for concern has arisen in Tanzania because of students' high failure rates for 1977-79 in mathematics, physics, and chemistry, ranging from 40% to 60% (UNESCO 1981:20). Yet these are the very subjects which are emphasized for entry into many scientifically-related fields at diploma or University level. Independent documentation on poor Tanzanian student performance was provided when the Ministry administered standardized IEA tests to selected school populations. Some of the results are summarized in Table 5.18-5.20. Tanzanian students were weakest in English reading and in mathematics. Their performance in general science was similar to the unweighted scores from four comparator LDC nations (Chile, India, Iran and Thailand). The depressing aspect relative to English language results is that Tanzanian 10 year olds near the beginning of formal education (primary schooling is not supposed to begin until age seven) perform better relatively than do those in Form IV who constitute the top 2.2% of their age cohort population and who fail to surpass 13 year olds' average performance in developed countries.

TABLE 5.18

RESULTS IN IEA READING TESTS

COUNTRY	Percent of Students Answering Correctly Averaged over Number of Items[a]		
	Population I 10 Years-old (5 items)	Population II 14 Years-old (7 items)	Population III Top Grade, Secondary Sch. (6 items)
Tanzania			
Form I (n = 216)	42.8	32.7	23.0
Form III (n = 247)	42.8	35.9	25.2
Belgium (Fl.)	63.0	67.7	66.1
Belgium (Fr.)	70.4	78.0	76.1
Chile	57.4	51.8	59.3
England	81.9	71.1	76.1
Finland	90.2	67.5	76.1
Hungary	66.4	62.7	66.6
India	49.0	38.4	33.0
Iran	36.4	40.6	31.3
Israel	61.0	63.1	70.5
Italy	65.0	77.7	73.8
Netherlands	67.4	69.8	85.8
New Zealand	--	77.2	80.6
Scotland	69.6	74.1	74.1
Sweden	70.6	70.1	64.0
U.S.A.	67.0	74.5	61.8

[a]Each item (question) has 4 possible, multiple-choice answers. A random guessing score would be 25 per cent.

Source: UNESCO (1981) Development of Education: Opportunities for External Financing, United Republic of Tanzania, Table 5, p. 22.

TABLE 5.19

RESULTS IN IEA MATHEMATICS TESTS

SUBJECT AREA	No. of Items (Questions)	Percent of Students Answering Correctly Averaged Across Items in Each Subject		
		Tanzania Pilot Survey		Average of 12 Developed Countries[a] 13 Year-olds
		Form I 15 Year-olds	Form III 17 Year-olds	
Arithmetic	11	54.8	57.6	58.8
Algebra	9	44.6	53.1	54.7
Geometry	11	43.0	47.8	52.5
Probability & Statistics	4	55.2	63.0	54.5
Measurement	5	52.0	55.8	47.2
TOTAL	40	49.0	54.2	54.3

[a]Belgium (Fl.), Belgium (Fr.), Canada/USA, France, Hong Kong, Hungary, Ireland, Japan, Netherlands, New Zealand, Scotland, Sweden.

Source: UNESCO (1981) Development of Education: Opportunities for External Financing, United Republic of Tanzania, Table 4, p. 21.

TABLE 5.20

RESULTS IN IEA SCIENCE TESTS

Question number	Subject content	IEA question number	All countries, % correct	Mean for 4 LDCs,[a] % correct	Tanzania % correct
			IEA Comparator Population II		Tanzania Form I
81	Biology	10-Test 4A	18.7	16.3	18.7
82	"	6-Test 4B	62.1	59.0	41.9
83	"	10-Test 4B	33.9	19.5	32.3
84	Chemistry	12-Test 4B	39.4	15.8	18.9
85	"	12-Test 4A	16.4	12.3	12.3
86	Physics	29-Test 4A	64.9	46.8	40.6
87	"	28-Test 4B	25.1	16.5	18.1
88	"	-	-	-	11.9
			IEA Comparator Population IV		Tanzania Form III
81	Biology	5-Test 11B	42.6	21.6	24.0
82	"	1-Test 11B	83.0	74.6	58.0
83	"	7-Test 10A	53.5	25.5	35.6
84	Chemistry	11-Test 11B	55.7	29.1	24.6
85	"	9-Test 11B	22.6	13.4	17.0
86	Physics	-	-	-	47.9
87	"	-	-	-	24.6
88	"	20-Test 10A	46.1	36.4	20.2

[a]Unweighted average for scores from Chile, India, Iran & Thailand.

Source: UNESCO (1981) Development of Education: Opportunities for External Financing, United Republic of Tanzania, Table 6, p. 23.

The plain truth is that Tanzania's expensively trained, highly selected Form IV students acquire English language and mathematics' skills roughly equivalent to what a primary school student gets from education in the USA, Canada, Belgium or France. (This, then, explains why senior Tanzanians are so adamant about the need for having a Form V and VI interlude before such students go on into university education.) As the joint UNESCO/World Bank study team comments (1981:22):

> If this is so, it casts doubts on some assumptions used in manpower planning and raises serious implications for the whole future effort of manpower development in Tanzania. Furthermore, it defers to the higher levels of education and training the burden of compensating for the less than satisfactory levels of preparation of their intakes.

The UNESCO/World Bank study mission which provided the above test results coincided in time with a Presidential Commission on Tanzanian education. The Commission was chaired by Jackson Makweta, whom Nyerere subsequently appointed as Minister. The UNESCO/Bank team's report strongly recommended that ELIMU move away from its large boarding schools towards rurally-located, day secondary schools. The main argument in favor of this recommended change--which gives favored regions an edge in future access to secondary education--is that it would substantially reduce per student costs. The economists on the team also recommended double-shift use of present secondary facilities to allow day streams without added capital investment (UNESCO 1981:14). Neat calculations are presented to show that with single stream, 35 pupil classrooms and a 10% enrollment rate such schools would be viable wherever the catchment population exceeds 16,000 people. Of course, the unstated premise is that Tanzanian secondary schools will operate bus services to pick up pupils as do similar day schools in developed nations; one wishes the World Bank's economists the pleasure of this experience within rural Tanzania! Indeed, given the examinations results we have reviewed it seems doubtful whether stretching the Ministry's resources still further ought to be the priority recommendation at this point in time. Maybe this explains why the Makweta Commission's Report had still not been issued in mid-1984, two years after its submission.

Basic Needs in Retrospect

A serious problem with the "basic needs" approach which countries like Tanzania have adopted is the strong dependence of the argument on certain unproved core assumptions. There is, of course, a huge body of correlations which suggest that countries experiencing high rates of economic growth also have higher rates of literacy, primary education, clean water, etc. Do, however, the latter cause the former? We know from many studies that modernization is often an outcome of interrelated trends, where indicators become almost interchangeable because the end result is basically generated by systemic transformation. To pick out one or two categories of investment--such as clean water or universal primary schooling--and make these the primary generators of economic benefits is to go beyond what correlational evidence allows. Perhaps such such projects will stimulate other desired improvements over the longer run and in aggregate; and perhaps they will not.

Historic associations cannot prove anything about the future. It is particularly dangerous to press them into support for policy perscriptions for a "late starting" nation like Tanzania. The perscriptive advice about its educational system which Tanzania has been receiving from outsiders--especially the ILO, UNESCO, and sometimes the World Bank--is far more speculative than proponents will admit. There are strong practical grounds (reviewed in chapter 3) for warning that in an externally constrained economic system like Tanzania's, the predicted relationships may not materialize.

Let us be generous and assume that Tanzania's "basic needs" investments do eventually pay off for individual citizens. Is the typical poor African nation like Tanzania in a position to recapture the state's share of these benefits? Here the arguments marshalled in chapter 3 and in this chapter converge. What seems quite clear is that once a large share of economic activities escape the official

system (as nowadays they do in several African countries), the state experiences great difficulty either in taxing unofficial activity or in raising revenues by any other legitimate means. African countries usually do not have Latin America's tradition of land taxes. The poll tax (or head tax) is still remembered as a hated, colonial imposition; and average citizens have learned many ways around cesses which the state attempts to extract from the marketing chain.[1] This leaves only "user fees" as the means for covering service costs--but realistic user fees are retrogressive for poorer, marginal areas and are also contrary to socialist ideology.

The preceding two propositions--that a basic needs approach does not automatically generate increased economic output, and that African states have real difficulty recovering their investments from private citizens--have serious implications for how social services should be financed. The ability to recapture foreign exchange from a major investment in productive infrastructure like a dam is fairly good. When, however, a country like Tanzania takes World Bank or USAID loans to build low specification feeder roads in Geita or Masailand--roads which can be destroyed by two seasons of hard rain--repayment must reflect diversion from other investments (whether or not it is made in "hard" currency). The seven or more educational assistance loans Tanzania has received from the World Bank (IDA) fall into the same category. (As we saw, the first six did not even deal with the Forms V and VI science output bottleneck.) From this report's "productivity crisis" vantage point, it would seem the Bank has been insensitive to the vast differences between sectors in regard to repayment capabilities. Economic ideologies which see all monetized activity as equivalent and accessible under appropriate fiscal instruments should not dictate lending policies for highly dualistic systems like Tanzania's.

[1] An excellent source with much to say on this topic is Alex Radian (1980) Resource Mobilisation in Poor Countries: Implementing Tax Policies. New Brunswick, N.J.: Transaction Books.

Another consequence of using loan financing to start major programs is the short circuiting of institutional learning which can result. The normal growth pattern when governments do not have access to loans is for incremental additions of one or two facilities each year. Problems can be dealt with as they arise, and the capable managers tend to gravitate into positions of responsibility. All this changes when many field units come "on stream" simultaneously. Administrators are picked from other fields without evidence of relevant performance; problems will occur in all units at once, generating widespread demands for creative problem-solving; and supervisors at the center become preoccupied with physical construction (which in Africa is more management-intensive than elsewhere).

Furthermore, the appraisal and performance criteria used in loan financed projects tend to be set by economists in terms of "gate" measurements—inputs vs. outputs—arrived at by examination of ratios and not from knowledge of the actual workings of the system. It seems economic appraisal has certain similarities to Party directives: it uses arbitrary performance targets, is imposed from above, and usually ignores local and situational implementation constraints. It is also strongly "front-loaded" towards the start-up stages, i.e. concentrating on investment planning rather than providing vital mid-project logistic and organizational support once implementation runs into difficulties. The short attention span of donors and their economists has much the same impact on implementing organizations as does externally institutionalized Party control. Thus ministries trying to implement loan financed programs must satisfy two sets of kibitzers: Party officials, and the donor's economists.

The three economists in the SIP team would probably disassociate themselves from the interpretative commentary just presented. Instead, in reviewing chapter 2 and the arguments here, they stress the key role of secondary investments needed in the social service sectors before primary investments (buildings and infrastructure) can pay off. The central point is that whereas in an advanced, free-market economy one

can usually rely on private profitability to stimulate the necessary second order investments, this cycle of supporting investment may not occur in countries at earlier stages of development (or in a socialist economy). Witness, for example, the low impact on surrounding areas which has accompanied the construction of African railways. The heavy investment cost Tanzania is already paying for TAZARA has not generated anticipated production benefits because many second order facilities—feeder roads, storage, technical packages, etc.—were absent from most of Tazara's route. So also, for the Ministry of Education to build new teacher training colleges as structures without books in the library or chemical reagents in the laboratories has greatly diminished the effective impact of these investments. Our dismay expressed at various points throughout this report on the large number of small institutions Tanzania has been building arises from our worry that these represent a large, unplanned commitment on Tanzania's capability to make the necessary secondary investments. The continuing foreign exchange crisis began to take hold at just the time when Tanzania's ministries had completed physical construction of large numbers of CNEs, MATIs, ARIs, and similar institutions. There is evidence the Ministry of Manpower was aware of this danger, but by the time it acted the situation was out of control.[1]

The nation's declining economic base has itself become an interwined aspect of the overall problem. Since 1977 on some indicators, and as far back as 1972 on others, Tanzania's volume of economic activity has been declining. A 20% drop in one year is difficult to absorb in any economic system. However, when repeated for three or four years running the situation becomes like that of the USA during the Depression. Tanzania's existing industrial capacity lies idle; its agricultural processing plants run at half capacity or less. As a SIP team, we must strongly question whether further demand compressing measures--necessary as they may be to temporarily restore fiscal integrity—constitute an appropriate remedy for an already severely compressed economic system.

[1] See MMD, "Future Technical Training Policy: Proposals to Counter the Present Fragmentation Tendency" (undated circular MU.9/53/543).

Higher Level Training Institutions[1]

There are basically five high level training institutions in Tanzania today: 1 and 2) the University of Dar es Salaam and Sokoine University of Agriculture (separated in late 1984),[2] 3) the Institute of Development Management (IDM) in Morogoro, 4) the Uyole Agricultural Center (UAC) in Mbeya, and, 5) the Eastern and Southern Africa Management Institute (ESAMI) in Arusha. The first four all contain more than 400 student places, and offer extended, three year post-secondary training. ESAMI is a management short course and conference center. In a borderline situation are several second rung institutions which because of size or mission have strategic importance even if not being quite in the ranks of the top five: Kivukoni College (the Party's main training institution), the International Co-operative College in Moshi, the Institute of Development Management (IFM) in Dar es Salaam, and perhaps ELIMU's two technical colleges in Dar es Salaam and Arusha. In a third tier come the strictly ministry-oriented occupational colleges, like Ukiriguru (for KILIMO) or Ardhi (for Lands) and many other smaller units. However, at the moment only our first five have crossed the threshold to be viable intellectual centers on their own.

From this Report's productivity viewpoint, it has probably been a mistake to continue to form new training and research institutions within Tanzania at a time when the main units were short of pupils and adequate central support. Each additional facility--whether Zanzibar's EACROTANAL (Eastern African Centre for Research on Oral Traditions and African Languages), Arusha's CIRDAFRICA (Centre on Integrated Rural Development for Africa), or Dodoma's two fledling institutes, IRDP (Institute of Rural Development Planning) and the Minerals' Center--further overstretches the country's limited institutional support capacity. At present, Tanzania does not need more new institutions: what it does require, however, are at least four or five major ones which do what they are supposed to do. Let us then review briefly the main candidates for possible donor support.

[1]The opinions expressed below do not necessarily reflect those of SIP team members who came from some of these same institutions.

[2]Lumping the Muhimbili Medical Center in regard to its training functions with the University of Dar es Salaam; so also in respect to other professional faculties.

1) University of Dar es Salaam (UDSM)

Having a university was not a high priority of Tanganyika's colonial government.[1] While the possibility was first mentioned in a 1955 report on higher education in East Africa, as late as early 1960 it was thought the country should aim for a Faculty of Law in 1964, and perhaps Arts and Sciences in 1965. All this changed when Nyerere came to power under an African majority in September of 1960. A principal was appointed forthwith, and the first 14 students admitted in October of 1961, using facilities leased in the Party's own new headquarters. In July 1964 Arts and Social Sciences were opened within a newly built campus on Observation Hill, followed by a Faculty of Science in 1965, of Medicine in 1968, and Agriculture (at Morogoro) in 1969. In mid-1970 the old University of East Africa structure was dissolved, bringing into being three separate national universities in Kenya, Uganda, and Tanzania.

In its first decade at its present site (1964-74), the University proved a pace-setter in East African education. Its first principal, Professor Cranford Pratt from the University of Toronto, succeeded in attracting bright, young intellectuals—Walter Rodney, John Saul, Lionel Cliffe among others—as well as distinguished scholars at mid-career. Under Tanzanian leadership, beginning with Dr. Wilbert Chagula, numerous organizational innovations were added: formulation of development studies as a required core program in all faculties, provision that all arts and sciences students would also be prepared for teaching, establishment of institutes of education and adult education, acceptance of "mature entry" students at mid-career, and the redesign of academic majors into occupationally-linked professions, e.g. regional planning instead of just geography. The University's two research institutes (for economics and resource assessment, ERB and BRALUP) had an applied bent lacking from the old East African Institute of Social Research which they replaced. The Government's new policies were often announced and debated "on the hill", giving to everyone concerned the sense that the Univer-

[1] Historical background derived from a (1982) University of Dar es Salaam document, Proposal to Establish a University at the Faculty of Agriculture..., pp. 7-8.

sity held center stage in the unfolding of Tanzanian development.

As of 1982, the University of Dar es Salaam had roughly 3,000 students, the output divided between professional and academic fields as follows (nos. of graduates per year):[1]

B.A./B.A. (Ed.)	280	B.Sc. (Engineering) ...	160
B. Commerce ..	120	B.Sc. (Agric.)	75
M. D.....	50	L.L.B.	40
B. Pharm.	25	B.Sc. (Forestry)	25
D.D.S.	25	B.V.Sc.	25
		B.Sc./B.Sc. (Ed)	250

A Faculty of Engineering was started in 1973, with German assistance; in 1979 an Institute of Marine Sciences added, and in 1980/81 Commerce and Management became a separate Faculty. A separate Faculty of Education was approved in principle, but held in abeyance because of the financial constraints which had become evident by 1981. This proliferation of Faculties is somewhat misleading; overall enrollment has not increased dramatically over the past decade.

A major adjustment affecting all institutions of higher learning in Tanzania was the November 1974 "Musoma Declaration" issued by TANU. The Party leadership reiterated Nyerere's earlier criticisms (stated in his Education for Self Reliance) and stipulated that henceforth to gain entry to higher education a student must do one year's compulsory National Service, and must also have a minimum of two years' work experience including employers' and party branch commendation. Furthermore, students in training would be henceforth on leave without pay other than their usual University allowances, and on completion would be bonded to government service for five years.[2]

Notwithstanding its successful implementation of the Musoma provisions, the University of Dar es Salaam today lacks the sense of elan and participation which made sacrifices palatable at an earlier stage. Classrooms need paint, the water supply is often interrupted (sometimes for weeks on end), and many expatriate lecturers have simply broken their contracts and left. Decline is visible on every side.

[1] Ibid., p. 9.

[2] See G.V. Mmari (1980) "The Implementation of the Musoma Resolutions: The University of Dar es Salaam Admissions Experience," pp. 164-193. In, A. Ishumi and T.L. Maliyamkono (eds.) Education & Social Change. Dar es Salaam: Black Star Agencies.

2) Sokoine University of Agriculture

The Sokoine University of Agriculture is comprised of the three former Faculties (Agriculture, Forestry and Veterinary Science) of the University of Dar es Salaam. Originally a diploma colleage built for KILIMO by USAID in the 1960s (a West Virginia University contract), it became a Faculty of the University in 1969/70. Forestry was added shortly thereafter with NORAD assistance (being transferred from Makerere University). The veterinary component came in the late 1970s at Tanzanian initiative, and has received major assistance from DANIDA (which earlier supported the Faculty's Animal Science program).

The three Faculties in 1982 had grown from a small establishment of 24 academic staff in 69/70 to 150 teaching staff (if one includes Tutorial Assistants and 89 away completing higher degrees).[1] This puts them behind the Faculties at Makerere and Nairobi, but ahead of most other similar programs in East and Southern Africa. 77% of the teaching staff were Tanzanian citizens. The instructional program in agriculture and forestry is three years (120 weeks), and four years in Veterinary Science. The academic years starts in January, divided into four ten week terms with one term each year spent outside of classrooms on pratical assignments. As of mid-1982, there were 314 undergraduate and 78 advanced degree students, supported by recurrent expenditure of about 35 million shs., and a total annual cost per student of shs. 98,800 (versus 57,000 at the main campus). Total student capacity in terms of beds available was 444, not counting two small hostels for short term purposes (visiting staff and the Center for Continuing Education). Physical facilities represented about a billion shillings of investment, with 139 houses for staff, 106 offices 7 lecture theatres, 12 specialized laboratories (5 more under construction), student hostels, a cafeteria for 300, a library, and a dispensary. To the old Morogoro Agricultural College campus of 325 ha, another 2,000 ha were added in 1972 on which a dairy unit of 300 cows and a 1,200 ha crop production farm have been developed. By 1984/85, the first year under its new status, the total University recurrent budget had grown

[1] These an all other figures below from a (1982) University of Dar es Salaam document, Proposal to Establish a University at the Faculty of Agriculture Forestry and Veterinary Science of University of Dar-es-Salaam, Morogoro Campus.

to 94,046,000 shs. which can be contrasted to the total main cmpuus recurrent budget (excluding Muhimbili and independent units) in 81/82 of 140,500,000 shs. A cost breakdown for this total is given in Table 5.21. As with so many Tanzanian parastatals, a major reason for these high recurrent expenditures has been the large number of ancillary and supporting staff not linked to academic functions, 53% of Morogoro's 826 person establishment (1982 figures).

Morogoro's intake capacity in 1982 was 75 students in agriculture, 35 in forestry and 25 in the veterinary program. The high faculty to student ratio has been a continuing embarassment whenever the institution has approached donors. It is an outcome of four factors:

- Low enrollments when the Party's Musoma Resolution dictated that secondary students must first go into two years of field employment;
- The continuing shortage of students leaving secondary school with passes in the science subjects required in agriculture;
- The adoption of a departmental structure and higher degree training in all Faculties, leading necessarily to higher staff numbers;
- A premature, government-dictated attempt to offer specialized options within a very tight three year syllabus (from 1974 onwards).

Only the third of these four factors is under University control; Morogoro staff tend to blame the Party and Government for the very low utilization rates.

From the standpoint of someone who must teach agricultural skills within any of Morogoro's Faculties, the most frustrating aspect is the extremely crowded syllabus (again, a general feature of many Tanzanian programs). In the three years alloted to agriculture and forestry, most of the first year must be given over to basic science instruction--much of it of a remedial nature to compensate for incoming students' weaknesses. KILIMO's diploma students are allowed direct entry, as are some "mature" mid-career candidates given special admission each year. The third year must cover specialized courses related to each student's option: rural economy, animal production, soil science, etc. This leaves only the second

TABLE 5.21

SOKOINE UNIVERSITY OF AGRICULTURE
RECURRENT BUDGET (84/85)[a]
(000 shs)

1. Salaries—Academic Staff	11,538	
2. Salaries—Administrative and Technical Staff	6,372	
3. Salaries—Supporting Staff	8,889	
4. Other Personal Emoluments	9,007	
Subtotal for salaries		35,807
5. Other Charges	37,029	
6. Special Expenditure	4,300	
7. Direct Costs on Students	11,120	
8. Grant to Farm	2,600	
9. Promotion & Salary Increases	3,189	
Subtotal for other costs		58,238
TOTAL APPROVED BUDGET (1984/85)		94,046

[a]Source: United Republic of Tanzania (1984) Report of Study Team on the Sokoine University of Agriculture, p. 39.

year--thirty weeks, actually, because one term is spent on "practicals" --in which to convey basic agricultural principles and the common core of knowledge Morogoro's graduates must depend upon for the remainder of their careers. Several times resolutions have been passed urging the Tanzania Government to permit a full, four year course so that students would have sufficient exposure to assimilate and apply what they are being taught.

Another sore point over the years has been the University's farm. This is a self-accounting unit, in theory supposed to run at a profit (receiving we might note a 2.6 million shs direct grant in 84/85). As with ARIs elsewhere in Tanzania, the actual agricultural experiments are separate from the farm and do not show in its budget. Year after year the farm projects a healthy profit and runs at a loss. Its livestock suffer from tsetse infestation on the outlying pastures. The mechanized arable cropping unit can never seem to get all its land harrowed in time for planting, or weeded in time for harvesting. A combination of high disease risks, unreliable planting dates, poorly disciplined labor, acute input shortages, and officially controlled prices has defeated one farm manager after another (including Tanzania's present Minister of Agriculture). The lesson which neither the University nor the Party have absorbed is that under lowland tropical farming conditions, large-scale mechanized production exceeds existing institutional capacity by a large margin (irrespective of how hard working an individual manager may be). If this is so for a farm with Morogoro's advantages, having Ph.D. advisors and a captive urban market, other parastatal farms also running at a loss have little to apologize for.

Sokoine University's forestry section has its own field units, a delightful training center in the Olmotonyi production forest near Arusha and a research forest at Mazumbai in the Usambara Mts. The forestry component has been from inception a NORAD project--one of the most cost-effective aid projects in the country. There are also proposals to add wildlife training to take advantage of nearby Mikumi Park. For the Veterinarians, there are livestock diseases aplenty--

beginning with the University's own livestock.

A major concern in 1984 was the new University's weak library holdings, where foreign exchange restrictions have hit new accessions. For some time outsiders have suggested that Morogoro be made the national agricultural library, serving KILIMO's various MATIs and ARIs on demand. The Faculty even received Irish aid intended to provide a journal photocopying service—an attractive idea from afar, but difficult to implement when the University lacked the hard currency to maintain its journal subscriptions!

An even more ambitious idea surfaced in late 1983, when the problems of TARO had become widely acknowledged within Tanzania: perhaps under its new structure Morogoro might encompass all of the various field research institutions within the agricultural sector? This would have made the new Sokoine University of Agriculture the direct analogue of a US "land grant" university. At a stroke, it might have resolved many of the tensions and rivalries which have beset the Ministry's own institutes. It would give a means for coordinating more basic science research at the Faculties with field experiments and applied research. Free interchange of staff at a senior level would be facilitated. The University's resources in the design of teaching materials and extension modules could be tapped to design better "technical packages". The research-extension-training linkages could be made operational, as they never have within Tanzania to date. There was even an existing USAID financed project, located in a newly constructed Center for Continuing Education, which might have been linked up with USAID's continuing Farming Systems' Research Project to provide a nucleus of American assistance. Such was the optimistic thinking in Tanzania, leading to the unusual step of there being a direct request by the Minister of Education to the U.S. Ambassador that USAID's small Morogoro project might be extended. Instead, the remaining project funds were drawn upon to send a joint Tanzanian/US study team to visit India, Kenya, and four "land grant" US universities. Their report will constitute USAID's legacy to Morogoro.

3) Institute of Development Management (IDM)[1]

Morogoro's IDM is a parallel institution a few miles up the road from the Sokoine University. It has a campus of roughly 1,000 acres, with residential capacity for 990 students, classrooms for 1,170, 189 staff houses, 72 offices, a library of 28,000 volumes, and a cafeteria and assembly hall. Its physical facilities are an amalgam of the old Local Government and Rural Development Training Center (going back to 1953) and a newer campus complex built with Nordic assistance in the early 1970s. Under the IDM's second phase expansion, it is planned to increase hostel accomodation to 1,200 with added housing and a linked Executive Development Center.

Annual total enrollment which was 362 students in 1972/73 (37 of them women) peaked at 947 in 79/80 and has remained at about this level since then but with a gradually increasing proportion of female students, 176 out of 955 total in 1982/83. The 1981/82 breakdown of students by types of courses taken is shown in Table 5.22. Staffing has also almost trebled over the same period. In 1972 the Institute had 229 members of staff, 65 of them teachers; in 1982 the total establishment was 671 with 125 teachers. This puts the IDM almost on a par with Sokoine University next door in terms of its total academic resources, and it is noteworthy that IDM teaching staff employ the same academic designations (professor, associate professor, lecturer). In regards to actual academic qualification, however, the IDM has had difficulty retaining its department heads (up until 1980 it had five academic departments) and senior academic staff. Teaching is organized through subject panels within the two academic departments (administrative and business studies) created by an amendment (Act No. 22 of 1980) to the original Act No. 15 of 1972 establishing the IDM as a parastatal.

[1] Documentation on Mzumbe examined includes: IDM (1982) Report of the Activities of the Institute of Development Management Mzumbe and Audited Accounts ... June 1982; IDM (1977) "Evaluation of the Performance of the Institute of Development Management (Report by an Evaluation Team set up under Tanzanian-Nordic Auspices)"; Ministry of Manpower Development (1978) "Comments on the Report of September, 1977 on the Institute of Development Management (IDM)..."; IDM (1982) Ten Years as a Parastatal Organization 1972-82; and IDM (1983) Prospectus 1983/84.

TABLE 5.22

DISTRIBUTION OF IDM STUDENTS BY COURSE 81/82

Course of Study:	1st Year:	2nd Year:	3rd Year:	TOTAL Male:	Female:	Total:
Advanced Diploma in Certified Accountancy (ADCA)	128	93	90	257	54	311
Advanced Diploma in Business Administration (ADBA)	76	78	80	207	27	234
Advanced Diploma in Public Administration (ADPA)	47	34	40	88	33	121
Advanced Diploma in Hospital Administration (ADHA)	10	6	9	18	7	25
Advanced Diploma in Economic Planning (ADEP)	35	23	21	62	17	79
Post-Graduate Diploma in General Management (PGDGM)	20			20	-	20
Certificate in Basic Management (BMC)	30			18	12	30
Certificate in Manpower Management (MMC)	28			22	6	28
Certificate in Law (PCM)	49			40	9	49
Total:	423	234	240	732	165	897

Source: Institute of Development Management (1982) Report of the Activities of the Institute of Development Management, Mzumbe and Audited Accounts for the Year Ended 30th June 1982, p. 7.

In regard to specific course programs, the IDM has considerable flexiblity. It offers both short courses and seminars to meet client demand as well as standard, long term diploma programs. Under administrative studies come three "advanced diploma" offerings, in public administration, hospital administration, and economic planning, each a three year course. In business studies, there are two 3 year diploma programs: an advanced diploma in certified accountancy (leading to national certification by the NBAA after one year of approved practice), and an advanced diploma in business administration (allowing a choice in one of three specializations). In addition, the IDM has a "post graduate" one year diploma in general management, targeted at personnel already in middle management positions, and a similar lower level 10 month course for junior managers. There are two nine month certificate programs in law, for primary court and district magistrates, and a one year certificate course in manpower management. The last three are all arranged in close cooperation with the employing ministry, which does candidate selection. Otherwise, for its main diploma courses the IDM tries to match university entrance requirements, and its public administration graduates enter ministry employment on the same salary scale as graduates.

Three points should be noted about the IDM's longer term programs. First, while the IDM is an autonomous parastatal under its own governing board, it is perceived within Tanzania as serving the Ministry of Manpower Development. This impression goes back to the IDM's origins in 1970. Its predecessor, the Institute of Public Administration was removed from the University of Dar es Salaam and put at Mzumbe specifically to serve the (then) Central Establishments Division. The IDM's actual training, however, overlaps several fields and therefore ought to serve all agencies requiring managerial staff. A particular blow to the IDM in the late 1970s was the withdrawal of Prime Minister's Office support when it started its own, diploma granting institution in Dodoma, the Institute of Rural Development Planning (or IRDP).

Second, the IDM does offer advanced accountancy training making it along with the IFM and the University one of three higher level training institutions given this function. With its large number of student places, there is no logistic reason why the IDM could not have been pressed into service to alleviate Tanzania's critical shortage of qualified accountants. The practical difficulties which ruled out such a neat solution are analogous to the bottleneck in Tanzania's supply of agricultural professionals (already reviewed above). Students coming from secondary education are weak in mathematics and computation. Those allocated to accountancy training by the government often have little interest, and good accountants can earn far more in the private sector than they can staying within the stratified public system. The IDM on its part responds to the Ministry of Manpower Development, which did not view providing accountancy training as the IDM's primary purpose.

Third, the structural equivalency between IDM diploma training and degree training makes comparison between the two types of program inevitable. IDM staff think of themselves as intellectuals, fully on a par with the University's staff. They aspire to (and will no doubt eventually obtain) the same qualifications, and they already enjoy the same academic ranks (by IDM's own self-designation). For staff and students alike, IDM qualifications are not widely recognized outside Tanzania, and even within the country they tend to be seen as a <u>second choice option</u>. There are special problems in the IDM's attempt a conferring "post graduate" managerial training in its one year advanced course. Mid-career managers entering such a program are bound to contrast their situation with the Master's qualification a similar effort would obtain from the University. All in all, it seems IDM staff and students are trapped in an anomalous structural situation, having a course identical in length to a degree program, wanting the prestige and benefits of degree qualification but insisting theirs is a different, more practically oriented option. For these and other reasons, student morale has remained quite low. Twice students have gone on a general strike, boycotting classes and examinations for two and a half months (14 December to 28 February) in 1981/82.

While these internal difficulties are serious (and remain largely unresolved), they should not overshadow the great contribution the IDM has made to Tanzanian development. In its first decade of operation, the IDM has graduated 4,272 students, distributed as follows: 1,444 from 3 year diploma courses, 852 from 1 year certificate courses, and 1,976 from other client-oriented short courses (IDM 1982:46). It accomplished this with relatively modest donor assistance--nothing like the large expatriate presence in, say, Uyole (up to 1980/81) or the Germans in the University's Engineering Faculty. Where external assistance was sought, it was employed to buttress new emphases which met particular local needs, e.g. a co-operative program with Birmingham University's Institute of Local Government Studies on urban management (following the 1978/79 re-introduction of Urban Councils), and a continuing series of 2 month short courses on planning and appraisal of agro-industrial projects, jointly run with Bradford University's Project Planning Centre. The IDM has twice been the object of external Nordic evaluation, in 1977 and again in 1982. We are informed that both evaluations have been quite positive about the Institution's achievements (the 1982 Evaluation Report was not available to us in mid-1983).

The unstated question one did not hear asked in Tanzania was why the IDM was not made a Faculty of the Sokoine University when it gained autonomy in late 1984. This would have resolved many of the knotty issues about the future of IDM staff and qualifications. It would also have lead to some economies in administration, since both institutions operate libraries, run bus services to Morogoro town, and already share the same bookstore. Most importantly, this move would have given a boost to IDM's young and ambitious staff at just the point in the Institute's evolution when this is needed. However, the consensus in Tanzania seemed that the amalgamation would bring with it too many organizational problems, and a tug-of-war between two, rival ministries. For whatever reasons, the failure to take this step when it would have been natural and easy is regretable.

4) Uyole Agricultural Center (UAC)

Some Tanzanians may be surprized to find the UAC in Mbeya among our list of the country's main high level institutions. In Tanzania, Uyole usually appears alongside KILIMO's other MATIs as merely one of several institutes giving a three year diploma course. In fact, however, Uyole was built under Nordic aid to have been the diploma granting agricultural college, replacing Morogoro when it was upgraded into a Faculty of the University. It is an autonomous parastatal, with over 60 teaching staff and about 500 residential student places. At present it offers the normal two year certificate course in agriculture, followed by a third year to Diploma level in three subject areas: Crop Production, Animal Production, and Agri-Home Economics. This puts it in a borderline situation, like that of the much larger Muhimbili Medical Center (with an establishment of 2,470 in 1978, very nearly the same as the University of Dar es Salaam), the Dar es Salaam College of National Education (600 student places), and the two Technical Colleges. All have become comparatively large institutions, exceeding the parent ministry's logistic and supervisory capacities.

What lifts Uyole above the other occupational units within our frame of reference is its distinctive organisational structure. The Nordic planners put together at Uyole three separate functions: training, research, and the supervision of linked field experiment stations serving four regions. In addition (as earlier noted), Uyole operates an 800 ha mechanized farm and an impressive array of other agricultural enterprizes. Organizationally, the Uyole Center closely resembles the US "land grant" college system. Originally planned to offer all diploma training in agriculture, its mandate was narrowed to three fields by KILIMO in order to let other institutions have their share. However, Uyole retains significant service functions to its western zone. A previous principal was removed when loose talk began circulating about a "University of Western Tanzania," though of course this is precisely what western Tanzania may need to catch up with the developed North.

5) Eastern and Southern Management Institute (ESAMI)

ESAMI, while physically a small institution on the outskirts of Arusha, is the nearest Tanzania has to a genuine, higher level management institution. A holdover from the East African Community--being almost the only joint activity to survive the Community's collapse in 1977--ESAMI now caters to the whole East and Southern Africa zone. It offers several residential short and medium-term (one year) management diploma programs. Under donor financing, ESAMI can also arrange special focus, short term training as it did for the World Bank on transport sector planning. It is the only institution in Tanzania other than the two universities whose library covers the larger East African region as a whole.

6) International Co-operative College

The Cooperative College in Moshi comes under the Prime Minister's Office. We review it here because of the SIP team's terms of reference, which stressed possible assistance to the co-operatives' sub-sector. It actually consists of two institutions, the College itself with about 50 full-time teaching staff and more than 300 residential places and a linked Co-operative Education Center doing field training for the Co-op Unions within the regions. While the two are legally separate, the Principal of the College is Director of the Center.[1]

According to the now dated 1977 Directory of Training, the College offers a two year diploma course recruiting either from Form VI (the ideal) or Form IV with post-secondary experience (actual). The annual output is about 100, qualified either in management or in accountancy (second year options). The College also offers a nine month certificate course in co-operative management and administration, with an annual output of 100. Other courses and seminars have been offered on co-operative retail, wholsesale, savings, and credit management; on shop management; and co-operative education for women. The stress on training in the operation of village shops was a post-1976 development, coinciding with the Government's attempt to phase out private retail outlets within the Ujamaa villages.

[1]See a special article by Ibrahim Chimgege, "Co-operative Education Centre, 20 Years After," Daily News, 2 July 1984, pp. 4-5.

The Co-operative Education Center preceded the Institute of Adult Education, which resembles it closely in structure. It has more than ten regional "wings" at which one or two tutors are stationed. These field tutors organize seminars, offer short courses, and help in registering and giving counsel to correspondence students. At headquarters, the Center has four main sections dealing with correspondence, radio broadcasts, the co-operative "wings", and women. In its first two decades of operation (1965-84), the Center is said to have registered over 36,000 students of whom more than 11,000 received certificates (Daily News 2 July 1984). We are fortunate in having a carefully conducted follow-up of 405 trainees, representing 29 primary co-operatives.[1] Sampling was done to represent weak, medium, and strong societies in 5 regions. The investigator could find no relationship between the level of knowledge possessed by a society's leaders and staff, and its subsequent performance. Hyden concludes that though training did slightly alter respondents' levels of knowledge, its impact is masked by other features of the institutional environment (Hyden 1974:49):

> The problem with education is that it does not disrupt the existing social structure... In the absence of other forces that cause disruptions, the values and the knowledge imparted through education will be interpreted and used within the existing social structure. This is very much what has happened in co-operatives in Tanzania. Individuals have returned from courses and seminars to the prevailing social system in the rural areas, and very few, if any, have managed to achieve any drastic improvement of performance in their institutions.

The Co-operative Education Center's radio program, Jifunze Ushirika has been in operation since 1967. Its correspondence "feeder system" to residential courses in the College has been a a model of its kind. From inception, the Co-op Center and College have been mainly assisted by the Nordic countries. In 1982/83 they re-activated long standing ties as part of their support to Tanzania's re-institution of co-operatives nationally.

[1] Goran Hyden (1974) "Co-operative Education and Cooperative Development: the Tanzanian Experience," Agricultural Administration, vol. 1, p. 49.

Middle and Lower Level Training

Over the two decades since Independence, the Tanzania Government has invested heavily in a large network of occupationally-related training institutes, generally recruiting at a Form IV level (end of high school) but giving certificate or diploma qualification rather than university degrees (Table 5.23). The motivation for making this large an investment is undoubtedly the view—shared with many other poor African nations—that education is the key to national development. At independence, the nation's civil service was almost entirely staffed by expatriates: out of about 4,000 senior positions, only 346 were held by Africans (IBRD 1961:348). As late as 1959, the total number of African District Officers had been eight. In comparison, today (1980 figures) there are almost 27,000 middle and higher level positions in the civil service, another 15,600 in parastatals, and around 4,000 in private firms (Table 5.24).

The low total of senior manpower found in the private sector (less than 10%) requires comment. As indicated in chapter four, many of the firms making up Tanzania's private sector are owned by immigrant communities which—in the case of "Asians" (a heterogeneous category created by the colonial government)—were sometimes excluded from the agricultural sector throughout the colonial period. The mercantile trading houses were thus family-owned businesses, making up the core "downtown" area of each of Tanzania's larger towns. Immigrant families were (as we argued in chapter 3) extremely cost conscious, employing relatives rather than professional staff and keeping the size of their middle-level management to an absolute minimum. Such firms were for this reason extremely competitive, since many usual overhead costs were shared within the family or simply not incurred. As immigrants and as owners of private businesses, the Asian family firms recognized their precarious economic position after Independence and have usually made strenuous efforts to get their children out of Tanzania into more secure positions within the international world economy.[1] This perpetuated the earlier pattern.

[1]Though Tanzania has never had as overtly anti-Asian legislation as was found in Uganda and Kenya at this time, the 1972 nationalization of rental housing primarily affected the Asian community.

TABLE 5.23

POST-SECONDARY TRAINING INSTITUTES[a]

(nos. in parenthesis = student places)

A. Agriculture/Livestock

1. Central Vety. Labs. (20)
2. Ilonga (120)
3. Kilombero (?)
4. Maruku (100)
5. Uyole (500)
6. Mlingano (80)
7. Morogoro (200)
8. Mpwapwa (200)
9. Mtwara (185)
10. Nyagezi (350)
11. Tengeru (300)
12. Tumbi (130)
13. Ukiriguru (360)

B. Natural Resources

1. College of African Wildlife Management, Moshi (86)
2. Forest Ind. Training (32)
3. Forest Training Inst. (200)
4. Kunduchi Marine Fisheries Res. & Training Inst. (40)
5. Mbegani Fisheries Training Centre, Bagamoyo (55)

C. Prime Minister's Office

1. Home Economics Train. Centre (80)
2. Co-operative College, Moshi (300)
3. Rural Dev. Training Centre, Murutunguru (96)
4. Institute for Rural Development Planning, Dodoma (?)
5. Kiyukoni College (150)

D. National Education[b]

1. Dsm Technical College (1,000)
2. Dsm Secretarial College (390)
3. Tabora Secretarial College (480)
4. Nyagezi Social Training Centre (170)
5. Shinyanga Commercial Inst. (127)
6. Colleges of National Education,
21. approx. 4,000 places in Grade A plus 800 Diploma places

E. Health[c]

1. Bugando (120 MA, 120 N)
2. Bumbuli (65 MA)
3. Muhumbili (310 MA, 300 N)
4. Ifakara (120 MA)
5. KCMC (120 N)
6. Machame (90 MA)
7. Tanga (185 MA)

F. Other Ministries

1. Ardhi Institute (290) (LANDS)
2. Tanzania School of Journalism (40)
3. Dsm Water Resources Inst. (360) (WATER)
4. TANESCO Tech. Inst. (120) (POWER)
5. National Social Welfare Training Institute (100) (WELFARE)
6. Institute of Development Management (1,155) (MANPOWER)
7. Dsm School of Accountancy (800) (FINANC
8. Institute of Finance Management (535) (FINANCE)
9. Nat. Bank Commerce Training Centre (120) (FINANCE)
10. College of Business Education (300) (TRADE)
11. National Institute of Transport (200) (COMMUNICATIONS & TRANSPORT)
12. Ministry of Home Affairs Colleges (3 institutions mainly pre- and in-service for police, immigration, and prisons staff, total 1,071)

G. Extra-Territorial Institutes

1. Eastern Africa Management Institute, Arusha
2. East African Mineral Resources Dev. Centre, Dodoma
3. E.A. Centre for Res. on Oral Traditions & African National Languages, Zanzibar

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[a] Based on URT (1977) Directory of Training Institutions, updated in some instances (education). This listing excludes programs recruiting below Form IV (full secondary), and also does not cover University level programs at Dar es Salaam and Morogoro.

[b] The Ministry of Education also runs 19 Grade C teacher training programs which recruit at sub-Form IV level, for approx. 6,500 places. Because these are often at the same site as Grade A, the combined total of NCEs is 35.

[c] Most Ministry of Health programs recruit below Form IV, with 11 programs for rural medical aids (1,230 places) and 19 programs for Grade B nurses (1,766). MA = Medical Assistants, N = Grade A nursing places.

TABLE 5.24

Distribution of Middle and High Level Manpower Between Types of Employers

Type of organization	Middle & High level no:	%	Total Employment no:	%	Vacant Posts no:	%
CCM and affiliates	329	0.7	2,055	0.6	297	1.7
Civil service	26,707	57.2	189,045	55.7	13,846	77.9
Parastatals	15,588	33.4	119,422	35.2	2,930	16.5
Private firms	4,058	8.7	28,955	8.5	697	3.9
TOTAL	46,682	100%	339,475	100%	17,770	100%

Source: 1980 Manpower Survey, reported in Kuenne & Pinter, 1981, p. 110.

The above background explains why it has been difficult to transfer control and management of private sector firms into African hands after Independence. The middle-level management positions from which experienced managers would normally have been recruited were entirely lacking except in a few of the largest firms. TANU, as a political party, was composed of labor union organizers and teachers, not businessmen. The only way to create an indigenous cadre of business managers seemed to be by formal training--not a very efficient approach in any system! A closely analogous situation existed in the major professional fields (agriculture, architecture, and engineering), except that here the incumbents were mostly British expatriate staff holding colonial service appointments and expecting to return to the United Kingdom at retirement. Of Tanzania's more than 3,000 expatriate civil servants at Independence, 40% left or resigned in the first year. After 1965 with the dispute over Rhodesian UDI, Britain froze technical assistance and Tanzania was left essentially without middle and upper level technicians in many

The Government's response has been the creation of occupational training colleges in virtually every field, a process which began in the late 1960s but which accelerated rapidly throughout the 1970s. A paradox has been that while careful planning of training was characteristic of higher level, university education, no planning at all was devoted to middle-level training which was left to each Ministry to organize on its own. This means that at present the situation is out of control. The Government's Manpower Planning Division has no direct authority over the training sections of each Ministry, and cannot even be certain of obtaining its requested reports. Its one crucial document, the 1977 Directory of Training Institutions, is now badly out-of-date. Donor assistance in recent years has been mostly from German sources, which has resulted in several national manpower surveys (e.g. the 1980 Kuenne and Pinter study from which Table 5.25 is drawn). However, it does appear that donor support might be more usefully directed to the actual planning and monitoring of training programs at the sub-university level.

The smaller, Ministry-run training programs have been strongly affected by the current shortage of hard currency imports. Many were not yet genuinely established when the crisis unfolded. They report similar difficulties: courses are underenrolled (by as much as 50%), students drop out, there are no books, there are too few teachers, staff are insufficiently qualified, and training funds are short. There appears to be no vertical connection between training programs at the certificate and diploma levels and stronger institutions like the two Universities. The training being offered at most Ministry institutes (principally KILIMO, AFYA, and ELIMU) tends to be given in the form of lecture notes copied from the blackboard--an ironic situation, given the high ideals Tanzania's leadership has in this sector. As a consequence, one sees a clear emergence of a three-tier system within post-secondary school training. The best students proceed into higher school certificate (Forms V and VI) and eventually university-level work. Next come those fortunate enough to secure places in the three year diploma colleges, like IDM or IFM. And, finally, the rest are allocated to occupational training in health, agriculture, or primary teacher training where the quality of training received is most uneven and student motivation most problemmatic.

USAID/Tanzania has had three projects giving greatly needed supervisory and logistic support to Tanzania's training efforts: the Morogoro Agricultural Education and Extension Project, located in the former Faculty of Agriculture (terminated in late 1983); West Virginia University's Farmer Training and Production Project; and the Training for Rural Development Project (No. 621-0161) which worked with KILIMO, PMO, and the Manpower Ministry. For projects of this nature the actual outputs (trainees, materials prepared, etc.) are oft-times less significant than the innovations in training procedure which they introduce, and the support they provide to training supervisors in the Ministry. The TRD project is highly regarded in Tanzania, and has sought to examplify a participative, problem-oriented style of training which merits emulation elsewhere in the system. It has included trainess from different ministries and different levels. Participant training under TRD was as of mid-1983 one of the few avenues left for Tanzanians desiring US-based advanced training.

Production and Marketing Parastatals

Production and marketing parastatals are a common organizational form throughout most of Africa—witness Senegal's many agricultural parastatals or Malawi's ADMARC system—but they assume added significance in Tanzania because so much was expected of them. The parastatal label can be affixed to any quasi-governmental organization which is assigned commercial, training, or research functions. As Mpwapachu's valuable review points out (1983:15-37), Tanzania's Party leadership has adopted a number of alternative structures within the parastatal sector.[1] These include public corporations (whose formation is governed by the 1969 Act), which are either unitary or act as holding and investment organs for subsidiary companies (e.g. the Board of Internal Trade); public-owned companies such as TANESCO or BP Tanzania; corporations sole--e.g. the Dar es Salaam Water Supply; district development corporations (established by the District Corporation Act, No. 16 of 1973); departmental public enterprizes, such as the Directorate of Civil Aviation; and multinational enterprizes like TAZARA. Some, like TAZARA, are large organizations meant to operate entirely as commercial entities. Others are little more than a store-front office linked to providing some technical function. The diversity and depth of parastatal organizational structures is not always apparent, but has become a fact of organizational life in most modern states. The complex system we encounter in Tanzania is, then, nothing particularly unusual if one looks across at contemporary Italy or France. The problem Tanzanian officials face when dealing with American advisors is that while the USA has an equally elaborate system, many Americans are not familiar with the operation and control of parastatals.

Tanzania does have several control mechanisms applying to parastatals, notably the Standing Committee on Parastatal Organizations (SCOPO) each parastatal's Board, and a Parliamentary Committee on parastatal finances which acts on recommendations of a similar committee in Treasury (for the annual budget. Outsiders may fail to realize the key role accorded to SCOPO, established by the President after the Arusha Declaration in 1977. SCOPO

[1] Two major sources describing Tanzania's parastatal structures are J. Mwapachu (1983) Management of Public Enterprises in Developing Countries, New Delhi: Oxford & IBH; and, M. El-Namaki (1979) Problems of Management in a Developing Environment, Amsterdam: North Holland.

must also approve all staff transfers (from Ministries to parastatals or between parastatals), which involves control of benefits and terms of service. It has been swamped, and bably needs logistic assistance to do its job.

The SIP team was not specifically requested to review the weak performance of Tanzania's export crop parastatals. The reasons for doing so irregardless of mandate are threefold: i) the various crop authorities do constitute the main institutional infrastructure for agricultural development; ii) the existing record has been a main cause of donors' criticism; and, iii) recovery of Tanzania's export performance continues to depend upon finding ways to make these organizations cost-effective. Let us then hazard some general observations which emerge from our admittedly spotty review:[1]

1) The option of "privatizing" export crop oroduction by simply eliminating the intervening crop handling organization is, in most cases (with the possible exception of TSA's large-scale sisal estates), not feasible. This has sometimes been a sore point between senior Tanzanians and the occasional policy advisor who arrives from abroad without previous African experience. Throughout Eastern Africa, the model for the region's numerous cash crop authorities has been Kenya's very successful Kenya Tea Development Authority (KTDA). Even today, the KTDA is cited for its outstanding record. Tanzanian Ministry officials feel that the similarities between Kenya's and Tanzania's export situation and constraints are sufficient to indicate that at least in theory crop handling organizations like the KTDA can operate at a profit. For export crops with a major processing requirement—such as tea, coffee, tobacco, and sisal--involvement of smallholders as producers necessarily means creating some kind of linking organization. Villagers who farm less than a hectare each of a crop like tea or tobacco simply cannot provide the credit, inputs, processing, and marketing elements individually. If commercial firms do agree to perform this role—as the British American Tocacco Company has in Kenya--they create an organizational superstructure very similar to that of Tanzania's present crop parastatals. Not much is gained, therefore, if Americans accustomed to a large-farming system question the need to have any crop handling organization.

[1]Derived from the senior consultant's personal collection of materials. The individual who had agreed to handle this aspect while the SIP team was in Tanzania subsequently withdrew from the study.

2) Acceptance of the previous point in principle does not require us, however, to excuse the disastrous economic performance of Tanzania's main crop parastatals (see Tables 5.25 and 5.26). The fact that the KTDA next door in Kenya, as well as Amboni Estates in Tanga Region, have continued to operate at a profit while Tanzania's equivalent parastatals were accumulating large losses is particularly damaging evidence. Obviously something within the crop authorities themselves has been going wrong, beyond what can be explained by reference to the external shocks of declining commodity prices.

3) To the credit of Tanzania's Ministry of Agriculture, as of mid-1983 it had on hand as detailed and up-to-date information on the exact financial situation of several major crop authorities as one is likely to find anywhere in Africa. Because the necessary reports are confidential,[1] low level officials in Tanzania or outsiders like ourselves may fail to appreciate the degree of factual information which does exist on Tanzanian parastatal weaknesses. The problem is, of course, the fear among managers that such information might be used to justify their removal from office. It is ironic that because of their high quality, such data cannot be disclosed to contribute to the on-going debate about how to best improve parastatal productivity. Instead, by their very comprehensiveness these excellent reports encourage a moralistic and legalistic attitude among the few policy makers senior enough to have access to them. Once again, as we saw repeatedly in regard to Tanzania's use of financial records for mainly audit purposes, an emphasis upon possible punishments for wrong-doing diverts attention from the more fundamental reforms needed to reward good managerial performance. Better management would make timely punishment unnecessary. In drawing upon some of this confidential literature, our purpose has not been to embarrass the Tanzanian government, but rather to search out as yet unexploited ways to change how Tanzanian parastatals work.

[1] The key references needed for designing administrative reform within Tanzania's parastatals are: i) the Tanzanian advisory group's (1982) Report on a Structural Adjustment Programme, ii) various World Bank project reviews, iii) the rehabilitation reports prepared by PPMB in 1983 on individual industries (such as the Tobacco industry), and, iv) an invaluable three volume PPMB report on the financial situation in crop authorities up to 1983.

TABLE 5.25

CROP PARASTATAL PROFITABILITY TRENDS

(T Shs mn)

Parastatal:	77/78	78/79	79/80	80/81	81/82
GAPEX	26.2	4.5	1.3	- 41.3	- 72.1
SUDECO:					
headquarters	- 5.9	- 69.8	- 90.8	- 51.6	67.8
Kilombero	- 12	3	- 16	- 5	37
Mtibwa	- 69	- 12	- 13	n.a.	27
Kagera	n.a.	- 51	n.a.	n.a.	n.a.
TPC	- 13	- 14	- 18	n.a.	48
CATA (parent)	59.2	45.6	- 6.5	97.5	2.0
CAT	n.a.	n.a.	n.a.	n.a.	n.a.
TSA	n.a.	n.a.	n.a.	n.a.	n.a.
NAFCO	- 0.9	2.2	6.9	1.2	8.2
NMC	- 277	- 268	- 629	- 134	- 364
TPB	- 4.2	- 2.6	n.a.	- 7	- 23
TAT	- 25	n.a.	- 107	- 115	- 114
TTA	1.9	- 2.1	- 7.3	- 32.8	- 15.1
TCA	12	26	- 69	- 191	- 125

Source: KILIMO figures.

TABLE 5.26

KILIMO PARASTATAL PROFIT AND LOSSES (1981)

(in TShs 000)

Parastatal:	Cost of Sales as % of rev.	Fixed Costs as % of rev.	Net Profits or Losses	Overdraft (15-8-81)
Cashewnuts (CATA)	n.a.	n.a.	n.a.	1,135
Coffee (CAT)	n.a.	n.a.	n.a.	443,000
GAPEX	93.0	7.6	- 2,276	21,120 [a]
NAFCO	51.1	51.7	- 200	38,000
Milling (NMC)	117.4	13.4	- 469,304	2,394,000 [a]
Sugar (SUDECO) (parent co.)	90.7	9.4	- 2,637	50,903
Tanganyika Planters (TPC)	68.6	34.4	- 4,688	42,321
Kilombero Sugar	78.3	26.9	- 8,879	35,000
Mtibwa Sugar	71.2	40.8	- 7,039	6,970
Cotton (TCA)	n.a.	n.a.	n.a.	991,600
MOPROCO	91.9	18.8	- 5,258	3,400
Pyrethrum (TPB)	90.3	43.7	- 6,812	30,060
Sisal (TSA)	108.1	29.7	- 34,735	258,723
Tea (TTA)	99.0	23.4	- 18,206	32,090
Tobacco (TAT)	140.9	44.8	- 128,525	447,720
Tobacco Co. (TTPC)	91.3	18.1	- 1,198	9,610

[a] As of 30-6-81. In the case of NMC, TSh 2 bn removed by Treasury.

Source: Ministry of Agriculture and Livestock Development (1984) Tanzania National Food Strategy, vol. 1, Main Report. Rome: FAO for KILIMO, Table 36, p. 80.

4) What most of Tanzania's peasant-grown export crops share is that they are labor intensive and depend critically on high quality output in order to obtain high prices internationally (true of tea, coffee, tobacco and cotton). In all instances but cotton, there were medium and large-scale European producers in Tanzania who provided a substantial share of higher quality output up through the 1960s (and who also generated significant labor demand because of the nature of the crops grown). Little effort was made to retain these producers. Meanwhile, under the newly established crop authorities both financial and quality controls were let slip. The consequences, ballooning costs and deteriorating output, were interactive--each making the effects of the other worse. For donors, "integrated rural development" became the focus and old-fashioned, commodity programs (like BAT's excellent Urambo operation) were looked down upon. Failure to spot what was happening must be accounted in retrospect as one of KILIMO's and the Party's most serious lapses.

5) Another shared feature (for cotton, tobacco, tea and coffee) is that production is spread over widely dispersed geographical locations, and even--in tobacco and coffee--over different types of crop. The attempt at clustering all technical, input supply, processing and marketing functions under a single authority assumed that field units could maintain direct communication with their headquarters. It also put organizational productivity at the mercy of Tanzania's transport network--a constraint about which individual crop authorities could do very little once major processing plants had been erected hundreds of miles from the main supply areas.

6) Individual authorities seemed positively eager during the 1970s to involve themselves in added enterprizes not strictly required for the fulfillment of their primary function. The ancillary enterprizes have usually contributed nothing to profits, but meanwhile constitute a continuing drain on managerial attention. For the same reason, marginal operations like TCA's Kigoma and Morogoro cotton campaigns (neither of which were popular with growers) should have been cancelled long ago.

7) What the various crop industries do not share is their approach to involving peasants as producers. With sisal, smallholder "hedgerow" production was tried, as were also satellite "outgrower" villages (an approach used in sugar production at Kilombero, too). In tea and coffee, to the contrary, a classic "smallholder" strategy based on individual plots was used (though with tea, some "block farms" were briefly attempted). With tobacco, the standard approach had been careful selection of 10 acre "master farmers"; with cotton, communal "block farms" were mandated (and very unpopular). The diversity meant that KILIMO as a Ministry had no common strategy for carrying out field extension, nor were the crop authorities strong in this area.[1] Once Ujamaa villages became the principal focus of government assistance (from 1974 onwards), all previous arrangements were called into question and effective extension work virtually ceased.[2] In theory, the newly created Prime Minister's Office took over responsibility for mobilizing peasant production; in practice, it proved singularly inept in delivering the technical functions which Tanzania's crop portfolio demanded. The weakness in agricultural extension was compounded by lowered producer prices, which almost always followed the takeover of marketing board functions by the crop authorities.

8) A majority of Tanzania's crop and livestock parastatals were established during a brief, four year period (1972-75), based on existing marketing boards. What is instructive in retrospect is that within four or five years, most had doubled their employment. This staffing increase was generated by three kinds of pressure: i) overmanning at the bottom; ii) an expansion of middle-management positions which accompanied the creation of specialized departments; and, iii) the opening of zonal offices in the field. Note that the latter two trends while easily justified in modern commercial organizations (public or private), do not directly contribute to increased turnover--particularly if these positions are filled (as they were in Tanzania) by inexperienced, recent graduates. In a study of Uganda's Co-operative Department, Crawford Young warns of "premature professionalism" (Young

et al. 1981). His point is that young graduates who step directly into junior management positions think their actions contribute greatly to improved output. In actuality, because of their complete ignorance about the operational aspects particular to a given industry (like tea or tobacco), such staff create almost as many problems as they solve. Meanwhile, their salaries absorb a significant portion of the initial public funding used to establish the parastatal. Something very much like this appears to have happened in Tanzania, where the laudable desire to modernize a mercantile trading structure brought with it major overhead costs which neither the Tanzanian Government nor the World Bank anticipated.

9) A comm scenario for the typical crop authority in the 1970s was for it to double in size during a period when the crop being handled was halved. It is little wonder, then, that these organizations evidence negative profitability trends (Tables 3. 25-3.26). Authority managers stress, however, that their worst losses occur when governmentally-announced (and enforced) prices do not accord with economic realities. Again and again in Tanzania the Party leadership has intervened to dictate pricing policies and procurement arrangements—leaving the parastatal concerned to make up the difference through NBC overdrafts. This is an aspect of Tanzanian commercial operations which is not faced by crop parastatals operating in neighbouring countries, at least not to the same extent. Surely the Marketing Development Bureau is correct in advising that direct coverage of subsidies in the national budget is a preferable way for applying Party policies. As it is, parastatal managers feel they are made the scapegoat for the Party's own unwillingness to count costs—an attitude which neither fosters mutual trust, nor encourages managers to learn from their own mistakes.

10) Having noted this, the outside observer is still dismayed by the nearly universal loss of financial control and accountability within Tanzania's crop authorities. While shortage of accountants is obviously one contributing factor—sometimes self-caused, as we

saw in TCA's case—this lack cannot have been the only reason. In Tanzania, one finds again and again that the paperwork required for routine transactions has never been scrutinized from the standpoint of its utility for the day-to-day monitoring of activities. This is a particular weakness in regard to financial forms, with their orientation towards auditors rather than financial controllers. Poor design of forms is exacerbated when files disappear unaccountably or the data is simply missing. We noted that as a rule failure to submit adequate records is not sufficient grounds for dismissal--and cannot be, given the mountains of trivial documentation which the existing systems generate. Again, senior officials are allowed to accumulate large debts, while continuing to receive imprest funds (cash advances)--a lapse those below are quick to seize upon in defence of their own irregularities. Most Tanzanian parastatals do not assign realistic transfer prices to keep track of internal costs. This is a serious fault in a socialist system, where rewards often take the form of subsidized services or ancillary staff benefits. On its part, when the Party imposes actions on a parastatal, it will often mean that uncosted transfers must take place within its internal operations--a further disincentive to accurate record keeping. And, finally, once the general economic system breaks down, nearly everyone begins to use organizational resources to augment private transactions: what Goran Hyden calls Tanzania's "economy of affection" (Hyden 1979).

11) Lest donors become accusatory, we should note that they have been closely involved in financing (and thus creating) the present malfunctioning system. Many of the loans on which Tanzania is currently in default are--if we may be allowed to speak plainly--nonperforming ones. The projects they financed were flawed from the very beginning: based on weak or even nonexistent technical packages, they nonetheless projected linear increases in aggregate output. Little attention was paid to indigenous implementation capacity. Economists wrote the appraisal documents, and economists

approved the loans--but what Tanzania needed was hard-headed, sceptical agronomic and managerial advice. In retrospect, it is difficult to understand why the World Bank continued to build surplus processing capacity long after declining production trends became evident. When actual performance stays at around 25-30% of appraisal estimates across a whole portfolio of rural development loans, it it hard to put all of the blame on the borrower.

12) There are also questions of timing and organizational overload. We can see now that to start ten major crop parastatals all at once was foolhardy: it meant too many agencies drawing from the same constrained staffing pool; too many crops spread over too many regions; too many management-intensive loan negotiations going on simultaneously; and, finally, too much vulnerability to unanticipated events (the "external shocks"). In quick succession, Tanzania's leadership had to cope with the 1973-75 drought, the 1973-74 rise in oil prices, the 1973-75 mass villagization, the 1976-77 disbanding of co-operatives, the 1977-78 break-up of the East African Community, the 1977-79 cholera pandemic (which was very severe in certain regions); the War in Uganda (1979); and, as a consequence, the emergence of widespread corruption (1979-81). Such considerations overwhelmed the Party's capacity for monitoring economic trends--during the very period when the leadership dismantled its own Ministry of Economic Planning. One cannot blame Party leaders for having been distracted, but one can wonder why they continued to take decisions which <u>increased</u> the managerial load on an already overburdened administrative system.

13) In retrospect, there can be little doubt but that the villagization program severely disrupted the planting of perennial crops such as cashews or tea, and also greatly complicated tobacco development. An even larger though invisible impact was the uncertainty which it generated: concerning what KILIMO's role should be, how peasants would producer, what they actually owned, and who should bear the risks of production. The hope that village residence would somehow lead to economies of scale in provision of social services was probably a

chimera—primary schools are just as expensive to build whether families live near them or far away. Certainly, the expectation that joint production through sharing of tractors and input supply would lower production costs proved unfounded. As we saw in the case of tobacco, heavy involvement by outside authorities in village level production simply increases the overall levels of institutional risk with which Tanzanian peasants must cope. Nevertheless, villagization has now been an accomplished fact for over a decade in many parts of Tanzania. It is time for outside observers to recognize that the pluses and minuses of villagization are no longer at issue, so that attention can shift to learning how the Village Councils and be made more effective in facilitating members' agricultural development.

14) The fact that the Party leadership continued to take steps which made the parastatal situation worse, even after villagization was called to a halt, indicates that the split between "policy makers" and "implementers" goes very deep. Those working in the field in the mid-1970s sat through meetings where they were ordered to build dips without cement and rural housing without transport. Any system which institutionalizes the location of all policy decisions in one branch separate from where implementation decisions are made will find that morale and joint-accountability suffers. Socialist regimes tend to set high output targets deliberately. Under circumstances of scarcity, however, there is risk that over time the implementers become alienated and frustrated. In Tanzania at present, there are easily double the number of paid Party officials as there are technical staff employed by the Ministry of Agriculture. For technical staff, continued criticism and exhortation from salaried Party officials has become an irritant which is not contributing to improved productivity. At the higher levels where management decisions are made, the Tanzanian structure brings about a curious inversion: the policies with economic implications which would normally constitute the central business of a managing board are not subject to scrutiny and modification because they originate outside the organization. Instead, Tanzanian boards give

much attention to examining the details of how uneconomic policies are being carried out. A strong manager will likely perceive such scrutiny as blatant interference, leading either to the manager's dismissal or to the board's withdrawal into a routine approval of everything the general manager proposes.[1] Another unexplained weakness is why KILIMO proved so ineffective in supervising its crop parastatals when it was almost always represented on their managing boards. What usually appears to have happened was that the actual membership on boards changed from session to session, with various junior officials standing in on short notice for the Ministry's Principal Secretary. Temporary replacements of this kind will have little awareness of previous decisions, and no real authority to challenge a general manager's views.

15) There is a further observation needed for understanding why Tanzania's productivity slipped in the 1970s as much as it did. Throughout the 1960s, Tanzania still benefitted from immigrant controlled trading houses; externally owned and managed estates; an inherited complex of machinery services and input suppliers; and a frugal, petty-trader class. What these various units shared was an in-grained cost-consciousness. For example, Asian family businesses had to operate under slim profit margins and were most unlikely to add unnecessary middle management staff. Similarly, individual expatriates under contract who supplied critical accountancy and technical functions did so at bargain rates if we contrast the charges for similar functions when offered by a multinational firm (a main point of LeVan Hall's article on transfer pricing, in Coulson 1979). The private estate owner anticipating nationalization was extremely careful about unnecessary plant expansions. For whatever reasons, then, the kind of small-scale, mixed ownership firms which one had in Tanganyika at Indpendence were being operated with very low overheads and a high degree of flexibility. Since these individuals were seen in Party ideology as exploiters, no sustained effort was made to retain their skills once existing structures were "modernized".

[1] An interpretation put forward by Packard in a key 1972 article which remains essential reading on this topic, "Corporate Structure in Agriculture and Socialist Development in Tanzania," East African J. of Rural Development, vol. 5, pp. 163-182.

16) There are other institutional factors arising out of the general administrative environment in Tanzania which further depress parastatal productivity:

- The local concept of "heshima" (respect), which views direct criticism as an expression of disloyalty, and thereby strongly inhibits upwards feedback about performance inadequacies.
- The leadership's desire to "run while others walk," with a consequence that crash programs are not well planned but because they carry a "high priority" label, corrective actions are not taken early enough.
- The past reliance on technical assistance financing and on the project cycle approach to performance monitoring. This conceptual framework suits the economic assessment of costs and benefits. However, it also postpones serious attention to performance variables until the "implementation stage," which is often cut short by delays and by antcipated termination of project funds.
- The gradual erosion of recurrent cost flows for everything but the payment of salaries. A predictable impact is that equipment and plant are not maintained, which in turn builds a high rate of physical depreciation throughout the system.
- To attract good senior staff despite fixed salaries, Tanzanian organizations compete through the offering of uncosted fringe benefits (loans, housing, free electricity, a bus service, clinic, a retail outlet, etc.). These must then be absorbed into the organization's overhead charges.
- Because senior managers are Presidential appointees, they tend to dominate review boards and are rarely challenged as long as they project the aura of Nyerere's backing.
- The inability to dismiss staff except for the most flagrant offences results in an organization accumulating a large number of functionally specific junior workers: grass cutters, "tea ladies", etc. Work traditions dictate that individuals can only do a narrow range of tasks. This rigidity greatly inflates the unit costs of production, particularly during times when there is low capacity utilization.
- Political interventions are common. At root, such actions occur when Party officials or other senior bureaucrats try to externalize costs which their own organization cannot pay. The "loaning" of equipment and transport between Tanzanian organizations is common, but ultimately the donor unit must pay the costs entailed.
- By deliberate choice, Tanzanian units are often built to have larger capacities than would be required at present production levels--ironically, in the mistaken view that this allows them to reap "economies of scale". To operate with an unnecessarily large physical plant is a recipe for adding still more staff and for rapid deterioration in unused equipment.

17) In sum total, the above organizational traits contribute a huge, though invisible, pressure which the Tanzanian firm or agency must counteract in order to be reasonably efficient. We are not arguing at all that poor management is an intrinsic Tanzanian trait. To the contrary, what this argument implies is that in order to show cost-effective operation, the individual Tanzanian manager must work extraordinarily hard. We also stress that there are some quite successful Tanzanian institutions, so that at least the potential for more cost-effective operation exists. At different times in Tanzania one was told that PPMB, MDB, TRDB, MORETCO, and other similar sections were doing an excellent job (though one would not necessarily obtain the same listing today). The Sellander Bridge was rebuilt using local labor in record time. A priority task of productivity analysts within Tanzania should be to identify such units, and then study them intensively to discover how, even under current constraints, they succeed.

18) An element of urgency is added because it does seem that the problemmatic elements in Tanzanian administration are becoming more interconnected over time. The negative factors have increased in weight as the system grows larger. Whereas in the past there might have been only a single reason pushing a manager towards a decision which carries adverse overall consequences, today the reasons for making the wrong choice are multiple. The interconnectedness of Tanzania's parastatal malfunctioning is represented schematically overleaf. We should conceptualize the linking arrows on this diagram as reverberative feedback loops, growing stronger each time they are activated. While a country make get into this dangerous situation step by step, once the network of negative pressures has become highly intertwined, individual remedial measures cease to be effective. The positive responses desired from individual managers no longer occur because even when a given pressure is temporarily removed, there are many other reasons prompting the individual to take the wrong action. This is what we meant when it was stated in chapter

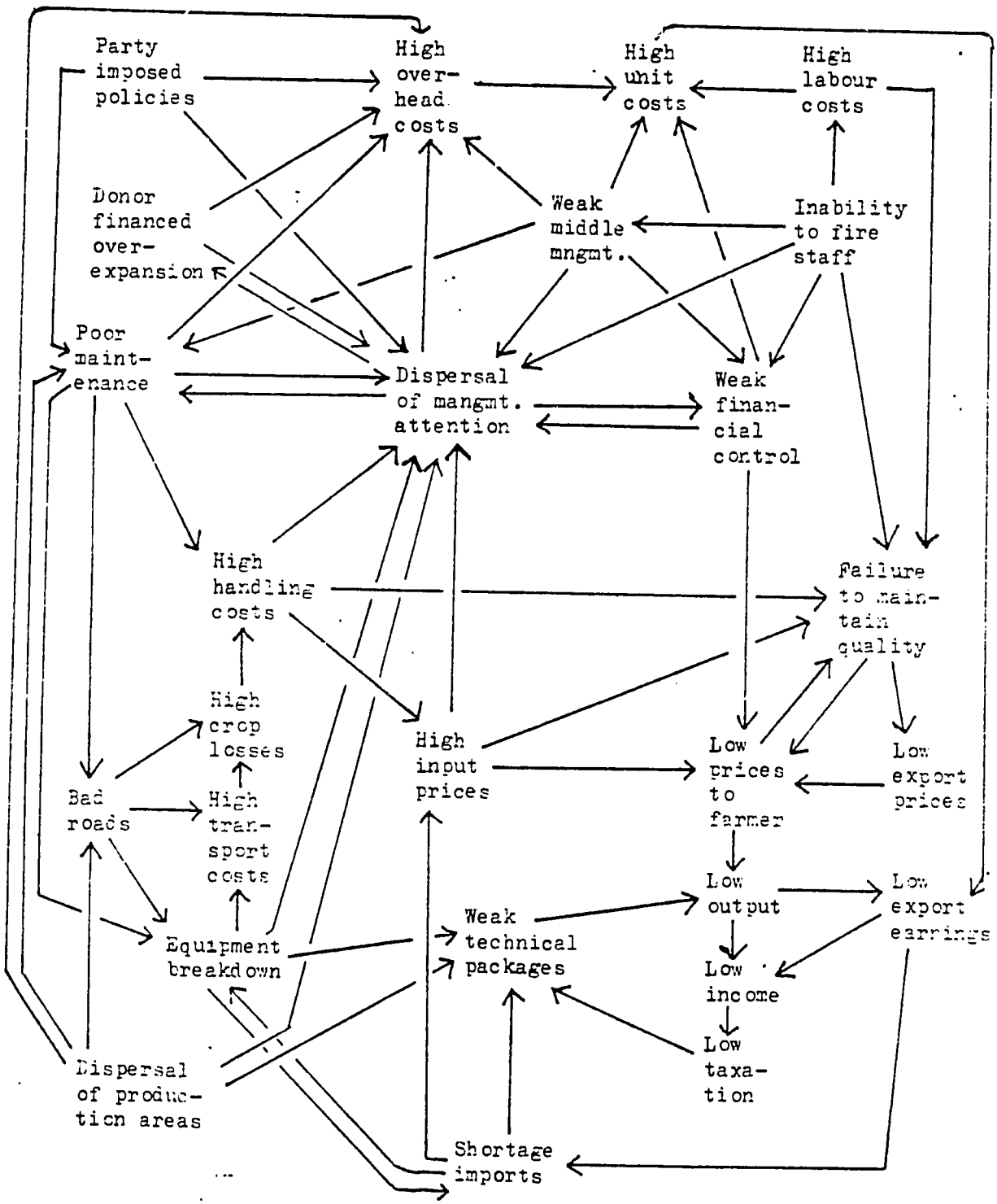

TABLE 5.27. INTERCONNECTIVITY OF CAUSES LEADING TO POOR PERFORMANCE

two that the basic difficulty in Tanzania today is that managers have many proximate reasons for doing things which nevertheless destroy overall organizational productivity. To label this a problem of "weak" or "immoral" management per se is to completely misunderstand how the system functions. A further implication is that the earlier simplicity of control and operation is irretrievably lost. No matter who holds Party leadership, the size of Tanzania's parastatal system (with well over 450 individual agencies) now exceeds what one or two well-informed individuals can control.

19) This organizational context explains why as a team the SIP group was unable to welcome enthusiastically the Tanzanian Government's current restructuring of co-operatives, local government, and the parastatal system. While the changes being implemented (in 1983/84) were sound ones, they will not yield dramatic economies in parastatal operation. The unresolved issue remains how to decide (and then finance) which functions should remain within each crop authority. Among older Tanzanians who remember the more placid economic climate of the 1960s, a strong sentiment exists for a return to the marketing board structure. Regretably, it is doubtful today that by the mere return to an earlier structure, Tanzania can recapture the fiscal conservatism which its marketing boards once evidenced. The whole rationale for a vertical grouping of technical and marketing function is hinged on a sharing of overhead costs. The existing authority structure also has the potential for rapid internal communication, so that when technical bottlenecks arise everyone is informed and an appropriate response can be mobilized. It is by now abundantly clear that whichever organization in Tanzania is made responsible for offering crop credit and purchasing to villages will probably operate at a loss. Thus while the "new" policy of having co-operatives take over this function is sensible, it will not be a markedly less expensive approach. Similarly, the handover of extension staff to the Ministry of Agriculture was done at a time when the Ministry was very weak technically, and was not accompanied by handover of parastatal transport. It is unlikely the "new" three-tier structure will be less expensive than what it replaces.

General Observations

To conclude this chapter on Tanzania's public sector institutions, let us step back from the details on individual ministries to obtain an overview of the organizational landscape. The focus is on common traits shared by many Tanzanian agencies, which jointly make up what can be termed the Tanzanian administrative system.

1) Our starting point is that Tanzanian institutions are very management-intensive in order to obtain a predictable output. Routine actions, such as preparing annual reports or getting the accounts to reconcile, require far more effort from those in command than ought to be necessary. Of course, this trait is by no means confined to Tanzania! But those who have worked in a number of African countries usually agree Tanzania is among the worst in terms of the sheer persistence one must evidence to make things happen. Tanzanians themselves provide proof when they use personal contacts to circumvent normal procedures--thereby solving immediate problems but making overall performance worse. Since this is a controversial observation let us give two brief examples, from AFYA and from an evaluation of KILIMO's parastatals:

> The Ministry of Health has well-trained Tanzanian professionals in most of its senior positions, yet they have so little qualified assistance and are faced with such overwhelming communication an transportation constraints that the overall quality of management within the Ministry is very poor. The same situation exists at the rural levels of the regions and districts. (Henn 1980:4)

> The senior management appears to be well qualified and astute in the performance of their functions.... During the course of this study, where senior management personnel were asked for information, almost inevitably they themselves had to find the information physically. They rarely seemed to have anyone to whom they could delegate even some relatively simple tasks.... The net effect of all this is the utilization of an incredible amount of time to accomplish the most elementary task. (Nelson 1979:29, 31)

One can list many reasons why this should be so: over-centralized decision making, poor communications, unreliable support services, too many steps in routine transactions, low work output from junior employees, etc. Probably all contribute. Nevertheless, while systemic lethargy persists at present levels, individual work productivity will be low.

2) Among the factors contributing to middle-management load, perhaps the most significant is the large number of steps which are often required to complete a bureaucratic transaction. For example, Fernandez found in the early 1970s it took 358 and 592 days, involving 36 and 56 separate administrative actions, to "board" two unserviceable Landrovers (1972:51-55). By his analysis, the task could have been reduced to "only" 24 steps requiring 4 months; that this reduction would appear a major improvement is itself a commentary on the system. Again, Micheal Schluter traced through for the World Bank eight major actions, each with numerous internal steps and clearances, which a Tanzanian tea factory must take to obtain an imported spare part. The point is that Tanzanian agencies (whether public, parastatal, or private) do expend real resources in trying to make things happen: phone calls, letters, fruitless trips to Dar es Salaam, expensive delays while equipment lies idle, etc. A major effort at simplifying procedures and clearances is long overdue.

What does the present situation signify for the system as a whole? First, it would seem reasonable to guess that procedural elaboration grows from above. Any organization tied in knots gets that way when senior managers try to increase control over its constituent activities. Second, this situation is symptomatic of systems with poor feedback from below; those whose work-load is going up are unable to impress this fact upon their superiors. Third, attempts at increasing control in this fashion are inherently counter-productive. The more difficult it becomes to accomplish things through normal channels, the more people will resort to informal means to obtain what they need. Fourth, procedural complexity is cumulative throughout the system. Whereas having six or seven steps to gain a desired action may not seem unreasonably long in the individual case, when almost all actions require similar input the overall effort becomes intolerable. Fifth, this kind of procedural obstacle course invites arbitrary intervention by individual officials. Ultimately, it fosters the growth of administrative corruption.

3) A paradox we cannot fully explain is that while managers of large Tanzanian organizations wield extensive power, coordination between divisions is often poor and overall organizational morale low. In at least three of the four large Ministries responsible for key social and technical services—PMO, KILIMO, AFYA and ELIMU—little operational coordination between divisions takes place. AFYA's situation as it was up to 1980 was described in these words (Henn 1980:3):

> There is a Planning Unit within the Ministry which has been severely hampered in its efforts by the lack of a reliable information or reporting system and by a lack of communication between the various parts of the Ministry. The situation ... until recently has permitted various sections ... to deal indpendently with donors and to develop projects without central coordination.

Explanations might be the personalized delegation of many tasks to only a few individuals (and not necessarily those so entrusted by virtue of position) from the top; a feeling suggestions from one division about another's operations are "meddling"; lack of commitment to the Ministry's overall objectives; or even open competition for resources between sections. The general lack of coherent, flexible, and appropriate planning is a flaw within many Tanzanian organizations, whose general managers have been allowed to go up to 100 percent over budget without censure. Indeed, the top managers' decison-making style contributes to the problem (Nelson 1979:31):

> As an overall observation, the senior management generally appear to be overworked. Too many decisions appear to rest on this level and it was nothing to have twenty people come into a senior executive's office during the course of a two hour interview for directions of one kind or another...

4) Without having intended this outcome, Tanzania's leaders have created a generalized structure for training which consists of many small steps with frequent interruptions. While the objectives at each step seem sensible, the resulting system is relatively inefficient. At most stages, teachers are overstretched with little opportunity to worry about quality. Instruction is defined in terms of classrooms and beds, not vital ingredients such as having an adequate

library, equipped laboratories, or interested students. Proponents will counter that such idems are "luxuries," beyond the economic reach of a poor country like Tanzania. Nevertheless, by failing to design the system as a totality, Tanzania's policy makers have built expensive higher level institutions forced to operate at very low levels of efficiency. The bottleneck in numbers of secondary science students (and their quality) is self-created by the system, made worse by overexpansion of small occupational colleges requiring science passes for entry. The structural contradictions within the system cause poor utilization of resources rather than being themselves a consequence of Tanzanian poverty.

5) There is no doubt that Tanzania's top leadership now recognize the inability to continue to support organizational proliferation. Here our warning is that the forces leading to proliferation appear beyond planned control, with new parastatals being formed faster than old ones can be disbanded. The pressures behind parastatal growth include:

- Donors' desire to have each their "own" project entities.
- Dissatisfaction with existing agencies' performance.
- Claims from "overlooked" regions without major facilities.
- Rivalry between ministries in setting up their own colleges.
- Need to retain specialized scientific staff, i.e. terms of service.
- Field activities which are not suited to government regulations.
- Desire to insulate the organization from direct political control.
- "Big fish" needing new appointments equal to their seniority.

Even when there is agreement in principle that no new parastatals be formed, in the real world of proximate decision-making there will be usually reasons for making one more exception... Donors should recognize that in Tanzania as elsewhere new parastatals will continue to be formed. While "privatization" may sometimes help, more attention must be given to gaining control over the internal workings of the parastatals which remain in the public sector.

6) On various occasions different Ministries (AFYA, ELIMU, PMO, and KILIMO) have tried to circumvent the high costs of technical staff by taking on village-level paraprofessionals. One can cite attractive theoretical arguments (dialogical extension, etc.) in support of this policy. Nonetheless, similar difficulties have emerged in every one of the programs based on this tactic:

- It appears extremely difficult to convey the necessary concepts and skills required in a complex environment within the 1-6 months usually allocted for training such cadres.
- Those joining these "crash program" schemes have usually been unemployed young men seeking entry into more secure jobs outside their villages.
- The marked seasonality of village production makes it unrealistic to suppose villagers will support paraprofessionals by payments in kind. Ultimately, the sponsoring Ministry becomes pressured into salary support even though this was perhaps not intended.
- Older man and women who are household heads within the villages generally do not trust the advice they receive from school leavers, nor do they seek out such people for assistance.
- Implementation of these programs opens the door to haphazardous staff recruitment, since little control is exercised over who gets taken on, but once employed such people find ways to stay.

This is, then, an area where idealistic principles if allowed uncritical sway may create actual work situations totally different from what those at the top wanted. Most ministries have enough staff to make future crash programs unnecessary.

7) Senior Tanzanians when pressed to explain the "current economic crisis" will often say that while policies were good, <u>implementation has been poor</u>. This implies, of course, that the implementers were primarily at fault. Our review in this chapter suggests a more complex interpretation. Often it would seem the present system is unable to resolve <u>how to design</u> implementation of bold, new policies. Wildly unrealistic targets have been uncritically accepted by those at the top; the design of organizations has often been influenced by those who hoped to fill the positions being created; structural incompatibilities between levels are allowed to persist; and long delays occur between the announcement of new policies and actual implementation. These are all signs that imple-

mentation issues receive inadequate consideration in the initial choice of policies. We are not in a position to say why and how the breakdown occurs, but at the least friends of Tanzania's bold policies should recognize where many of the problems originate.

8) Tanzania's Party leadership should be commended for having allowed free criticism of institutional performance in the Daily News. It would not take much additional courage to make public the various performance statistics readily available to donors like the World Bank in Washington, but restricted within Tanzania. In recent years most ministry officials have become accustomed to re-reiving audits, mid-term reviews, and project evaluations. Such documents contain valuable details and criticisms. If Tanzania is ever to develop the capability of its own institutions, such as the IDM or the ERB, individuals working in such places must have access to adequate documentation. The Party could announce that all restricted documents dealing with parastatals and ministries other than defence would be released for general use in the country after three years. Knowledge that this would eventually happen would itself increase pressure on parastatal managers to respond constructively when criticized. The Government might also request that donors routinely send copies of descriptive reports to the major local institutions, e.g. the two universities, ERB, IRA, IFM, NIP, ESAMI, and Kivukoni.

9) The last point has to do with donors themselves. It was observed earlier in this chapter that donors' approaches have sometimes accentuated existing administrative weaknesses. Looking at the large role of World Bank/IDA loan financing in many of Tanzania's low performing programs, we find it difficult to believe there should not be some joint accountability. Similarly, SIDA's generous hard currency support must have played some part in the leadership's continuation of over-ambitious field programs which did not pay off. The changes donors are now demanding of the Tanzanian system would be more palatable if the donors themselves acknowledged their own role in creating some of the problems which Tanzania now experiences.

CHAPTER SIX

COOPERATIVES AND LOCAL GOVERNMENT[1]

Introduction

1. The two major policy initiatives in Tanzania's institutional environment which we were specifically requested to examine are the reintroduction of cooperatives and local government. Both are occurring at a time of economic crisis; both have been adopted in hopes of bringing decision making closer to the people; and both are housed administratively in the Prime Minister's Office (or PMO). For this reason and because they are being implemented at the same time, both are competing for the same scarce human, financial, and institutional resources. Most significant of all, both are reintroductions.

2. The reintroduction of an institutional form which was already present at an earlier period and then abolished is bound to be a complex undertaking. On the positive side, Tanzania has a substantial cadre of senior officials-- some of them holding very high positions indeed--who thoroughly understand the problems of co-operatives and district councils from first hand experience. On the negative side, the conditions which brought about the abolition of co-operatives and district councils in the early and mid-1970s still exist. Enough is known about these difficulties to predict that unless great care is taken, the "new" institutional forms will soon encounter the same pressures and weaknesses which their predecessor organizations did. It should also be noted that co-operatives and local government lost most of their best staff to other organizations--principally the parastatals, which were being created in large numbers throughout the 1970s and which had a strong demand for good managers and accountants--and so start life again in a weakened situation vis-a-vis their stock of experienced personnel. To compound the problem further, the PMO chose to write new legislation for both co-operatives and local government before many of the implementation details had been decided. By September of 1983, we were being told that this legislation was out-of-date because of subsequent changes so that field staff could follow neither the old regulations which they understood nor the new ones which were

[1] Much of this chapter was prepared by George Honadle, drawing upon the Development Alternatives, Inc. experience in Arusha Region, and also his own extensive African background.

already inaccurate.

3. In our discussion of these developments, we will first treat the two types of institutions separately before in a closing section looking at commonalities in the implementation process and reviewing possibilities for donor (chiefly USAID) assistance.

A. COOPERATIVES

Short History of Cooperatives

4. Tanzania's cooperative movement owes its origins to a successful attempt by Chagga coffee growers in the 1920s to circumvent immigrant traders and sell their coffee directly on the London market. With the enthusiastic backing of a British District Commissioner (Sir Charles Dundas), the Cooperative Societies Ordinance was enacted in 1932 and the first 12 cooperative societies registered in Kilimanjaro District. The Chagga coffee growers example was soon copied in neighbouring Kenya and eventually in other parts of Tanganyika: on nearby Mt. Meru (the Meru Cooperative Union), in the south (the Rungwe Cooperative Union), and in the west (the Bukoba Native Cooperative Union). All of these were associations of coffee growers. By 1948, there were 62 registered cooperative societies among African farmers, with a total membership of 52,000 (IBRD 1961:214). Of these, the Kilimanjaro Native Cooperative Union (or KNCU) remained by far the most powerful and influential; in 1953 it exported 7,910 tons of coffee. This success stimulated a parallel effort among Sukuma cotton growers living around Lake Victoria. Once again, the principal aim was to bypass Asian middlemen, the cotton ginners whose power over producers had been strengthened during World War II. Following the coffee growers' example, the cotton growers were organized into the Victoria Federation of Cooperative Unions (or VFCU). By 1960 just prior to independence, the VFCU had no less than 360 primary societies organized into 19 unions, with a total membership of 140,000 (MacDonald 1966:129-30).

5. Thus by the time of Tanganyika's Independence in late 1961 African cooperatives handled almost all the country's peasant produced export crops and a substantial portion of the domestically marketed crops (such as foodstuffs). For over a decade, the co-operative movement had been a principal outlet into which younger African leaders with commercial aptitude had channelled their efforts. Not surprizingly, these same individuals joined TANU, and shared the Party's success when it came to power under the leadership of a secondary school teacher, Julius Nyerere. He in turn picked four of the first TANU Ministers directly from the top ranks of the cooperative movement--all going into key economic Ministries--and the TANU Constitution itself embodied a formal commitment to cooperatives. For example, Article (f) which states the Party's "Principle Aims and Objectives" called upon the government to actively assist in the formation and maintenance of cooperative organizations.

6. With political backing in the post-colonial period, the number of cooperatives grew rapidly. The volume of produce handled by the cooperatives increased from 145,000 tons in 1960 to about 500,000 tons in 1966. To strengthen the marketing cooperatives, the government in 1963 formed the Cooperative Union of Tanganyika (or CUT) as a servicing institution to backstop the individual Unions. It was announced that henceforth no primary societies would be registered which did not affiliate with one of the 34 existing unions (MacDonald 1966:131). In 1963, two more institutional supports were added: a Cooperative College which was built in Moshi near the heart of the KNCU (Burke 1965:68), and a Cooperative Development Bank to act as the unions' banker. Alongside this bank was formed the National Development Credit Agency (or NDCA) which gave loans to the societies (the NDCA was the predecessor to the Tanzania Rural Development Bank).

7. The price of such official support was an increasing degree of control from above. While being moved from Ministry to Ministry (Agriculture to Cooperatives to Regional Administration), the Cooperative Development Division expanded its corps of inspectors from 158 to 286 (MacDonald 1966:

130). Instead of relying upon voluntarism as the basis for forming new cooperatives, politicians wanted to establish as many cooperatives as possible throughout the country. Carrying this theme to an extreme, the government in 1963 through an amendment to the Cooperative Societies Ordinance, stripped the Registrar of Cooperatives of the final power to refuse to register a cooperative because it lacked evidence of viability (Mwase 1973:9).

8. Following such political pressure, cooperatives began to be organized from above without concern for genuine local demand. Officials in other regions which had lacked African-grown cash crops (and hence co-operatives) felt obligated to form primary societies, even in backwoods areas like Singida, Chunya, or Kigoma where there was nothing much to sell. Once a society was registered, peasants could be forced to sell their produce through it. The then Minister of Commerce and Co-operatives, Jeremiah Kasambala, warned the National Assembly in June of 1964 that things were getting out of hand:[1]

> Flattered as I am by the constant references both inside and outside this House to the desirability of establishing new co-operatives of every sort and kind ... I would make it quite clear that as the Minister responsible, I am here to encourage the establishment of successful co-operatives only, and not just a mushroom of hay-wire prestige co-operatives.

9. By 1966 there were 1,533 registered cooperatives. They were being asked to take on new functions, such as warehousing, processing, hotel accomodation, car hire services, tractor ploughing for members, etc. The VFCU served as a notorious example. By 1965 it had ballooned to 450 primary societies, and it owned 11 ginneries, 3 oil mills, 2 rice mills, a sisal factory and 158 tractors--all financed out of cesses on a low value, annual cash crop being grown by smallholders. According to MacDonald--who wrote as an admirer--the VFCU had a budget one third the Government's and its expenditures were three times those of the Ministry of Agriculture (1966:135).

[1] Italics in the original, quoted in Mwase (1973:11). It should be noted that Kasambala himself came out of a background in the cooperative movement.

10. On 26 January, 1966, a seven-man Presidential Special Committee of Inquiry was appointed to look into the troubles of the cooperatives and marketing boards. Its terms of reference were:

> ... to review the staffing, and where necessary, the organizational structure of the Co-operative Movement and the Marketing Boards in order to recommend what steps should be taken to strengthen them for the maximum benefit of the producers and consumers alike.

The Committee found that low prices, heavy overhead costs, losses, corruption, nepotism, dishonesty, inefficiency, undemocratic leadership, and unfair grading of produce were some of farmers' major complaints against the co-operatives. It also claimed that "a major problem of the Co-operative Movement is its susceptibility to political interference"--a finding which the Government's subsequent White Paper rejected (Mwase 1973:45).

11. These findings resulted in the Government's taking over the 19 VCPU Unions after removing their leaders. In 1968, 16 other Unions in less developed regions were also taken under temporary government management (Mwase 1973:12-13). The Revised Cooperative Act of 1968 reorganized the cooperatives and strengthened central controls. A Unified Co-operative Service Commission was created, initially for Union staff only, which opened the door to transfers of personnel between regions. Eventually it was decreed there should be only one Union per Region. Step by step the co-operative movement was becoming more bureaucratized, and hence more removed from its ultimate base among the growers at the primary society level.[1]

12. With the proclamation of the Arusha Declaration in early 1967, a new element was introduced: the expectation that in Ujamaa villages the existing marketing co-operatives should be transformed into multipurpose, production-oriented farming units. The more radical commentators viewed the traditional marketing co-operative as an instrument for exploitation of the weaker peasants by the stronger. It was felt that the existing co-operative movement represented the "kulaks" and rural

[1] Van Hekken and Van Velzen (1972) pointed out that peasants lumped co-op staff with all officials as "serikali", the Swahili word for "government", and continued to identify them as organs of central government rather than as their own instruments for progress.

capitalists. A rapid transformation into some kind of production brigade seemed the only way out which was consonant with the new ideology of "ujamaa" production. The main obstacle was that "ujamaa" policies were treated as being of a highly political nature, and there were no technocratic guidelines to indicate in detail how the desired transformation was to be realized in practice.

13. Meanwhile the expansion of the co-operative movement continued, and with it spread the abuses which the Committee of Inquiry had tried to correct. The TANU National Executive meeting in Kigoma in March of 1971 decided to write-off Kigoma Region's co-operative debts of over shs. 368,000 to the National Bank of Commerce; in the same year, Dodoma's Co-operative Union was reported to have run up a 2.5 million shilling loss (Mwase 1973:129). Difficulties at the primary level are well documented in the literature, and were by no means unique to Tanzania.[1] A Scandinavian researcher who in 1971/72 reviewed the accounts of 1,060 primary societies found that 22% were insolvent. All the societies in Dodoma Region were insolvent, and in both Morogoro and Tanga Regions the number of insolvent societies outnumbered those solvent (Westergaard 1973:30). Westergaard found the large number of deficit societies was his "most striking observation". His advice to the Tanzania Government is still timely today (1973:33):

> There are societies which suffer from chronic deficits and one may well wonder how they are kept alive. In many cases, the primary societies live on overdrafts from the co-operative union and the union in turn ... on overdrafts from one of the banks. Keeping an insolvent society alive means, in the final analysis, that it is subsidized by others... Subsidizing a co-operative society...may be a desirable policy. In remote areas with scattered population where a society may have difficulties in reaching a high turnover, it may be desirable to subsidize such societies... Such subsidies should be made deliberately and openly as a lump sum.

Instead, the Unions were left to absorb these losses.

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[1] In the literature on East African co-operatives, key sources include Hyden (1973) Efficiency versus Distribution in East African Cooperatives, Long (1970) "Co-operative Enterprise and Rural Development in Tanzania," Mutaha et al. (1976) Cooperatives in Tanzania, Saul (1971) "Marketing Cooperatives in a Developing Country," Widstrand (1970) Co-operatives and Rural Development in East Africa, Quick (1977) "Bureaucracy and Rural Socialism in Zambia," Nelson (1967) The Freemen of Meru, Westergaard (1973) Analysis of the Accounts... (ERB Paper 73.2), and Young et al. (1981) Cooperatives & Development.

14. From around 1970 onwards there developed a widening split between members of the co-operative movement and the TANU Party leadership. This split was signalled in July of 1970 when the Co-operative Bank was dissolved, and members told they could use the newly formed TRDB instead. The Bank Chairman criticized the Government's action in a signed newspaper article, and shortly thereafter stepped down from his job. In a "Face the People" interview the then Minister of Agriculture, Derek Bryceson (himself an ex-wheat farmer), called the Co-op Unions "middlemen destined to suffer the same fate as that of all other middlemen" (Mwase 1973:18). A few days later the CUT Annual Conference voted unanimously that the Co-operative Bank's assets above shares (about shs. 5.5 million) be returned to members rather than to the newly formed TRDB as had been recommended (Mwase 1973:8).

15. The above details of a historical nature suggest that the ultimate announcement that co-operatives would be disbanded, which occurred in mid-1976, was in fact a long time in the making. There were still many weaknesses within the primary societies, despite nearly a decade's remedial activities on the part of the Co-operative College and the field inspectors. Many of the Unions remained financially insolvent, and so had repeatedly come under the scrutiny of TANU's national leadership. Marketing co-operatives were an embarrassment within the Ujamaa villages program, where the establishment of communal production was the ultimate goal. Many of the earlier Co-op leaders were no longer active within the top ranks of TANU, and on their part blamed the Government's pressures for the movement's predicament. And, finally, the growers were probably disallusioned by the growing burden of overhead costs which the bureaucratization of the Unions had occasioned.

Reasons for Cooperative Malfunctioning

16. By disbanding the entire co-operative movement, the Tanzania Government avoided coming to direct terms with the underlying causes of co-operative malfunctioning.[1] However, because the Tanzanian experience with co-operatives is well documented, it is possible to specify

[1] It can be noted that similar difficulties were apparent in the neighbouring countries of Uganda, Kenya, and Zambia. The Zambian parallel is especially instructive for understanding the Tanzanian case, here see Quick (1981).

with fair certainty what the reasons for the Tanzanian failure were.[1] These become especially pertinent when policies for reviving the Co-op institutional framework are at issue (as they are in this Report). In very abbreviated form, the main causes of co-operative weakness were:

1) A general inability of illiterate growers to control their society's business through the mechanism of the annual members' meeting.

2) Poorly designed accounting systems, which made it hard to relate costs to returns or to prove what had in fact been done in members' name.

3) Long delays in the submission and approval of accounts, which thereby lost their significance for either management or for control.

4) Temptations occasioned by cash handling in remote areas without adequate banking services.

5) Misuse of co-operative transport and equipment for committee members' private purposes.

6) Attempts to impose single channel co-op marketing on small volume, low value food crops in marginal areas where transport costs were high and growers could easily evade the formal machinery.

7) In some instances, involvement with highly perishable crops.

8) The myriad difficulties of controlling and maintaining transport in situations without good roads or supporting services.

9) Lack of trained staff at the village level capable of doing accounts or managing the warehousing function.

10) Competition from better established local traders in the early years when volumes being handled might still be very low.

11) Attempts to organize primary societies "from above" before growers show an interest or have any commitment.

12) Frequent political interventions, e.g. encouraging leniancy towards insolvent societies or imposing political criteria for staff recruitment and leadership selection.

13) Increased bureaucratization at the Union level, with a consequent financial burden on the stronger primary societies.

14) Involvement of Co-operative Unions in an array of unnecessary and non cost-recovering enterprizes, with a consequent dispersion of managerial attention and members' profits.

15) A continuing loss of better staff to higher paying positions elsewhere in the public and parastatal sectors.

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17. The above listing of reasons for poor co-op performance is hardly unique to Tanzania. Many other African countries have had to cope with similar difficulties, e.g. the comparatively successful irrigation co-operatives in rural Niger. Given sufficient perserverance, a nation like Tanzania could resolve its crop marketing problems even under existing circumstances. However, in contrast to the general situation of African co-operatives, the Tanzanian failures (excluding for the moment the more successful coffee co-operatives) arose out of a heightened interaction of: i) "top-down" formation, ii) remote locations, iii) involvement in low value, annual crops, iv) transport dependency, v) weak institutionalization, especially in regard to financial control, vi) a high degree of political interference, and, vii) a marked passivity towards Union level overspending. There is no need at this point to elaborate on the reasons why these traits are predominant in Tanzania. What is crucial is to recognize that these seven traits are still present in the rural Tanzanian institutional environment. Proof of this fact is provided by the dismal history of "Ujamaa" village-owned shops, which have repeatedly encountered the same difficulties which afflicted the marketing co-operatives, with the same consequences (here see the excellent discussion provided in von Freyhold's review of Ujamaa villages in Eastern Tanzania, 1979:87-88). Indeed, it is the thesis of this report that the transport situation in Tanzania has become worse, so that efforts to revive the co-operatives may encounter a more adverse situation than was faced a decade ago (reflecting also diminished profit margins for major crops and a near total breakdown of the input supply and spare parts distribution in remote areas).

18. It is significant that a majority of the reasons for failure are of an organizational nature, suggesting a deeply rooted inability of Tanzanian organizations to devise effective working routines which safeguard organizational performance. Let us use for our example the key aspect of financial control. Von Freyhold lists the absence of "any reliable system of financial control" as the "most serious problem" in nearly all Ujamaa villages (1979:87). Precisely the same point is

made by Westergaard at an earlier date in regard to co-operative accounts. He found accounting systems in use conformed neither to the Co-operatives Ordinance nor were standardized within and between Regions; there were 6 Regions where (as of mid-1971) no accounts were available after 1968; out of roughly 1,200 societies, about 1,000 were 15 months or more behind in submission of accounts; and in some instances accounts had been "misplaced" and could not be found (Westergaard 1973).

19. Circumstances such as von Freyhold and Westergaard describe mean that society records had little use for their intended purpose of management and control. While in Westergaard's view the principal reason for this state of affairs was the rapid growth in society numbers, he also noted that the accountancy system was badly designed (1973:24). Account headings were misleading; honoraria included in one year's accounts often referred to the previous season; the final crop payout usually came after the end of the financial year and so had to be shown in the next season's accounts; it was not clear how to charge for special services (like tractor ploughing); and it was disturbingly easy to "forget" to carry forward unspect balances shown in the books as having been "returned" to members. All this in a system which was supposed to allow the largely illiterate farmers to keep their committeemen and leaders under control.[1]

20. "Minor" organizational details of this nature had major consequences when they occurred in a majority of the more than 1,500 primary co-op societies which handled Tanzania's main export-earning crops. The ideological explanation which led to the abolition of co-operatives in 1976 failed to recognize the organizational roots of the co-operative movement's problems. The functions the co-operatives had been providing were absolutely critical for rural development: advancement of seasonal credit, the purchase of crops, storage, input supply, transport to regional collecting centers, etc. The official policy was that the cash crop authorities should take over these functions, with the Village Government becoming a de facto multi-purpose co-operative as the base level organization. But the villages were themselves deeply enmired in

[1] An American volunteer who worked with the Arusha (Meru) co-operatives devoted much of his time to simplifying and making effective the cumbersome accountancy system. See "Coming to Grips with Accounts," pp. 99-105, in Nelson (1967).

other organizational problems arising from the Ujamaa resettlement exercise. At just the time when the Prime Minister's Office needed all its resources to assist villagers in implementing the Villages and Ujamaa Villages Act of 1975, its staff found themselves saddled with a nation-wide crisis caused by the change in policy towards the co-operatives. To a much larger degree than outsiders realize, the subsequent problems of the cash crop authorities in the late 1970s--the large bank overdrafts they accumulated in trying to finance crop purchasing activities, the rapid expansion in their overhead costs, the need to open field offices in remote locations, etc.--stem directly from the attempt to make them responsible for what had been co-operative functions. And the PMO found itself almost entirely preoccupied in 1977 and 1978 in devising ad hoc solutions which kept the crop purchasing and handling operations from breaking down entirely. Given that these were years of financial stringency complicated by cholera outbreaks and the War in Uganda, in retrospect we can see that the decision to abolish co-operatives in mid-1976 was ill conceived and spectacularly ill-timed.

The Reintroduction of Co-operatives

21. In February 1981, the Prime Minister's Commission of Inquiry into the Possibility of Reestablishing Cooperative Unions presented its report. For the reasons listed above there was by 1981 a general consensus among Tanzanian leaders that the cash crop authorities were failing to peform the ex-cooperative functions efficiently. It was also widely felt that growers needed a more representative marketing institution, one with which they could identify. Thus it came as no surprize that the inquiry Report recommended that cooperatives be reestablished. A new cooperative Act was approved by the legislature in May of 1982, to go into effect in March of 1983.

22. The new cooperative legislation establishes a three-tiered national system composed of primary societies based in villages, regional or district based secondary societies, and a national apex organization. The new cooperatives are to inherit the assets of the pre-1976 coopera-

tives, and they are to be the main production organizations in the country. (Much of the property referred to has been used, since 1976, by various cash crop parastatals, even though in most cases the transfer of legal title had not been finalized.) Once again, the "new" cooperatives come under the PMO, but the apex organization will be a mass organ (like JUWATA, etc.) of the Party.

23. The reintroduction of co-operatives calls for judgement of two kinds by potential donors. First, a realistic assessment must be made concerning the measures needed to improve cooperative performance and the likelihood such steps actually will be taken. Second, what types of help should donors provide, and which donors have a comparative advantage in dealing with co-operative organizations. Here the SIP team notes the already activated assistance from the Nordic countries to PMO for its re-introduction of co-operatives. In mid-1983, we were told the new project will assist both the International Co-operative College's training outreach, and the regional unions (with one advisor scheduled to assist in each region). In size, this project already exceeds any which USAID might consider. Furthermore, the Scandinavian countries have a strong comparative advantage based not only upon their own co-operative movements, but also on a long history of technical assistance to other East African countries (such as Kenya). We feel that with so many other areas in urgent need of external support, it would not be very cost-effective for USAID to try to duplicate the Nordic support.

24. Whatever donors should assist co-operatives, it will be important not to assume that <u>training</u> by itself is the main need at the moment. Earlier, in chapter 5, we saw how Hyden's follow-up study of the Co-operative Education Center's trainees cast doubts on the premise that giving people skills will change the system (Hyden 1974:49). Von Freyhold's study of Ujamaa villagers gives exactly the same warning (1980:88):

> Training alone, however, would not have been enough. In most villages the idea of financial control was incompatible with the relationship between members and leaders... The suggestion that the financial dealings of a leader needed to be watched was tantamount to a vote of no confidence to which members only resorted when ... some of their money had been embezzled.

B. LOCAL GOVERNMENT

Short History of Local Government

25. During the British colonial period, local government passed through two stages. First, from 1927 to 1954, the Native Authority Ordinance made local chiefs responsible for collecting taxes, maintaining law and order, and constructing and maintaining physical infrastructure (such as village access roads, local court buildings, and other public facilities). The second phase, under the Local Government Ordinance from 1954 to 1963, saw the base of popular participation broadened as District and Township Councils were added to the local institutional profile. Chiefs continued to exist until the TANU government abolished them in 1962. During this second phase, local authorities were also required to initiate socio-economic development projects in their areas of jurisdiction.

26. The close association of local government with British supported chiefs and local councilors ("diwanis") was to have negative consequences after Indpendence. The new political leadership came out of the labor unions and service professions--particularly teachers--and neither group had high regard for the chiefs and diwanis who had been the core membership in the local councils. After coming to power, the TANU leadership was determined to make a sharp break with the past --which it achieved in the governmental restructuring which took place in 1962 (the year when Nyerere stepped out of office to concentrate upon matters of field organization). The solution adopted from 1963 onwards was for political appointees responsible to the President to oversee the senior civil servants at the District and Regional levels. In turn, "local government" now became known as Regional Administration--a term which reflects the actual realities of power and which has been generally used until the 1982-83 re-introduction of local government.

27. While the structure of regional administration has remained quite stable for two decades, with Party officials at the top, the Regional and District Secretaries in-between to serve as linkmen, and civil servants at the bottom of the administrative status hierarchy,

the placement of the Regional Administration as a Division has not. At first (December of 1962) it was located under the Vice-President. Later (August 1963?) it was shifted to the President's Office under a Minister of State for Regional Administration. In October 1965 it achieved ministry status again (Regional Administration and Local Government). In mid-1967 it was put back under the President's Office while Local Government merged into a short-lived Ministry of Community Development and National Culture. In 1968, the two were recombined as the Ministry of Regional Administration and Rural Development under a Minister of State in the President's Office. In mid-1972, it was merged under the "decentralization policy" into the Prime Minister's Office (PMO) where it has remained for the past decade.

28. This history of divisional shuffling from one ministry to another and back has occurred several times within Tanzania's larger ministries concerned with rural development, e.g. with regional administration, co-operatives, agriculture, and water development. It has three consequences which are not immediately apparent to the outsider unfamiliar with Tanzanian administrative culture. First, most middle rung civil servants owe their strongest loyalties to their division and not, as one might suppose, to the larger ministry. Second, within the same ministry one can encounter rivalries as strong as one sees in other countries between separate ministries. Divisions vie with each other for resources and better quality staff, and divisional coordination at the top is often weak. Third, it sometimes appears that ministerial reshuffling is done more to please the "big man" who temporarily finds himself in charge of a new ministry than to meet functional requirements. This once again acentuates the cleavage between politicians at the ministry level and the civil servants under them. Thus while to outsiders a return to a Ministry of Local Government appears to represent a fundamental change in governmental emphasis, senior Tanzanians tend to be more cautious in assessing its likely impact.

The Decentralization Policy, 1972-83

29. While not quite as frequent, fundamental changes have also been

made in the basic structures for rural administration. The first major shift, away from chiefs and local councils in 1962, has already been discussed. From 1963 onwards District Councils took over this function (Act No. 3 of 1963). Membership consisted both of officials under an Executive Officer, and elected councillors each representing one Ward. Underneath these came Village Development Committees, but these proved difficult to coordinate and support. In 1966 (Government Circular No. 1) a District Development and Planning Committee (or DD & PC) was added, reflecting a growing emphasis in the mid-1960s on central planning and a shift away from the "peoples' plan" concept of 1962-63 (which underlay village development committees). A further reorganization occurred in 1969, with Ward Development Committees absorbing the smaller Village Development Committees, and each Ward being provided (in theory, at least) with a salaried Ward Executive Officer. There was a brief attempt in 1970-72 to institute a Divisional level between the Ward and the District, and Divisional Executive Officers were also appointed. However in the DD & PC meetings, funding requests continued to be identified by Wards (of which some Districts had as many as 20-30). At this time also the District Council's taxing power was removed with the revocation of the highly unpopular "head tax" (kodi). This abolition of the local tax rate eroded the financial base of the District Councils and made them dependent on central government subventions for the discharge of their duties. General dissatisfaction with District Council performance led to a reassessment of the entire structure of Regional Administration— a critical analytic task undertaken for the Party leadership by an outside "western" consulting firm, Mc Kinsey and Co., Inc.

30. The "McKinsey Recommendations" as they have come to be called in Tanzania involved sweeping changes in the system, and were generally popular with the Tanzania leadership. From mid-1972 onwards, District Councils were eliminated, and with them the Executive Officers who had sometimes criticized central government decisions. District Development Committees replaced the DD & PC, but had no legal authority to own property, to collect taxes and dues, or to hire their own personnel. The new structure of field administration which lasted a full decade is portrayed in Figures 1-5 (derived from Justin Maeda's research).

FIGURE 1

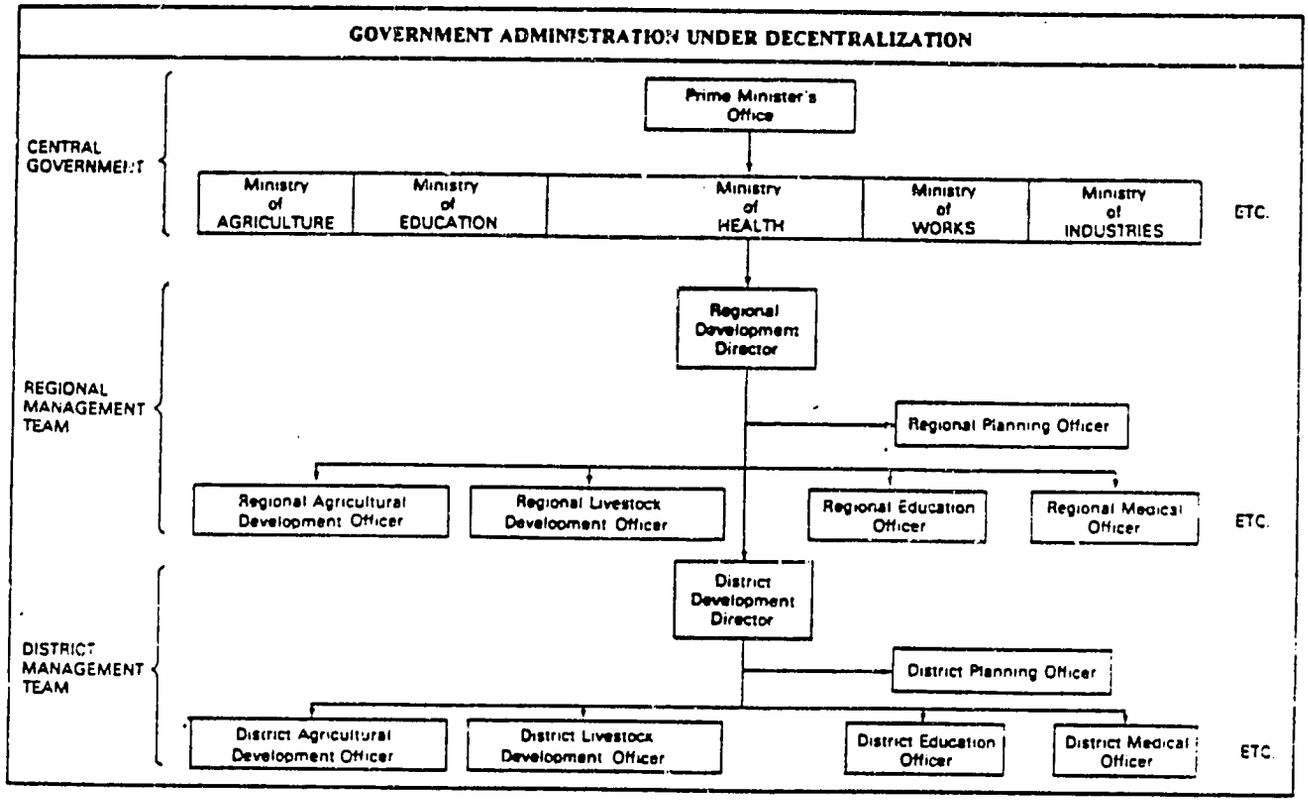

GOVERNMENT ADMINISTRATION UNDER DECENTRALIZATION
CENTRAL GOVERNMENT
Prime Minister's Office
Ministry of AGRICULTURE
Ministry of EDUCATION
Ministry of HEALTH
Ministry of WORKS
Ministry of INDUSTRIES
ETC.
REGIONAL MANAGEMENT TEAM
Regional Development Director
Regional Planning Officer
Regional Agricultural Development Officer
Regional Livestock Development Officer
Regional Education Officer
Regional Medical Officer
ETC.
DISTRICT MANAGEMENT TEAM
District Development Director
District Planning Officer
District Agricultural Development Officer
District Livestock Development Officer
District Education Officer
District Medical Officer
ETC.

FIGURE 2

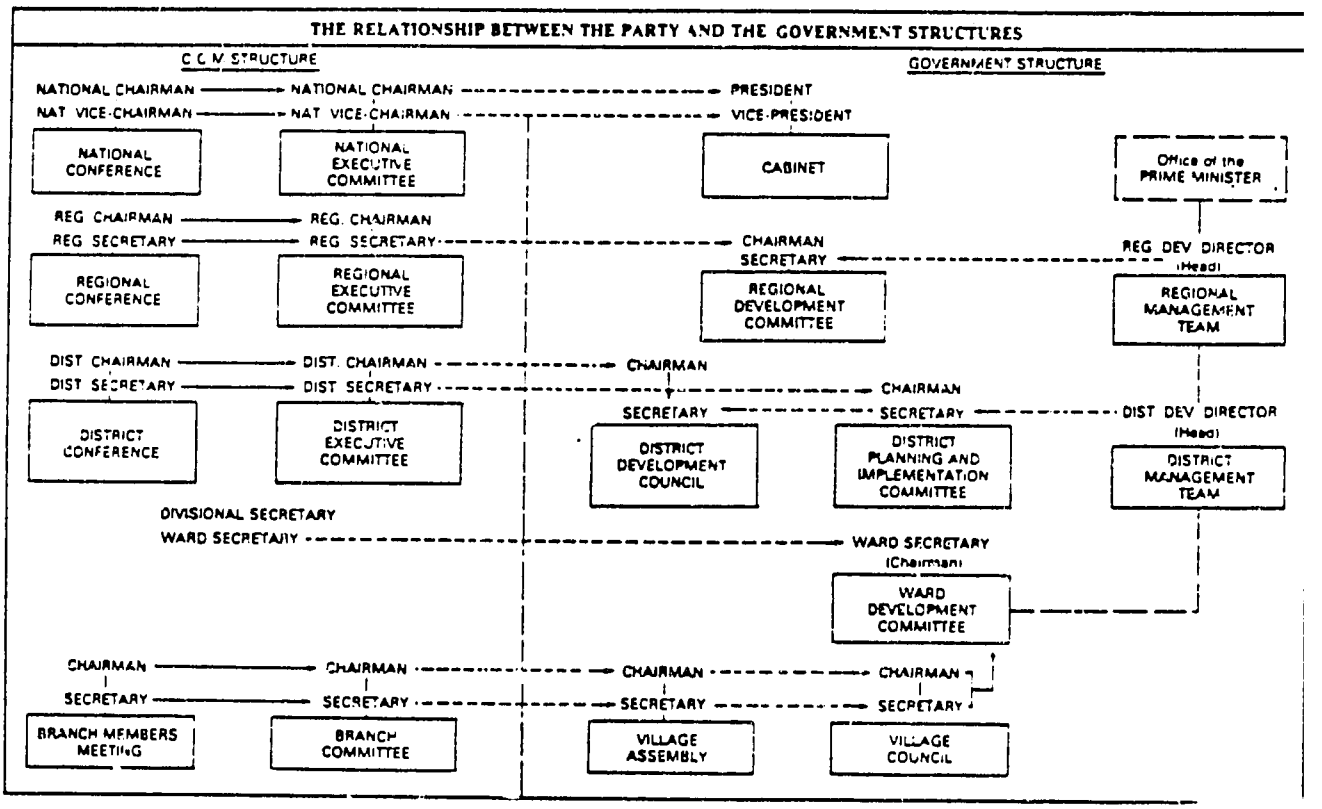

THE RELATIONSHIP BETWEEN THE PARTY AND THE GOVERNMENT STRUCTURES
C C M STRUCTURE
GOVERNMENT STRUCTURE
NATIONAL CHAIRMAN
NATIONAL CHAIRMAN
PRESIDENT
NAT VICE-CHAIRMAN
NAT VICE-CHAIRMAN
VICE-PRESIDENT
NATIONAL CONFERENCE
NATIONAL EXECUTIVE COMMITTEE
CABINET
Office of the PRIME MINISTER
REG CHAIRMAN
REG. CHAIRMAN
REG SECRETARY
REG SECRETARY
CHAIRMAN
SECRETARY
REG DEV DIRECTOR (Head)
REGIONAL CONFERENCE
REGIONAL EXECUTIVE COMMITTEE
REGIONAL DEVELOPMENT COMMITTEE
REGIONAL MANAGEMENT TEAM
DIST CHAIRMAN
DIST. CHAIRMAN
CHAIRMAN
DIST SECRETARY
DIST SECRETARY
CHAIRMAN
SECRETARY
SECRETARY
DIST DEV DIRECTOR (Head)
DISTRICT CONFERENCE
DISTRICT EXECUTIVE COMMITTEE
DISTRICT DEVELOPMENT COUNCIL
DISTRICT PLANNING AND IMPLEMENTATION COMMITTEE
DISTRICT MANAGEMENT TEAM
DIVISIONAL SECRETARY
WARD SECRETARY
WARD SECRETARY (Chairman)
WARD DEVELOPMENT COMMITTEE
CHAIRMAN
CHAIRMAN
CHAIRMAN
CHAIRMAN
SECRETARY
SECRETARY
SECRETARY
SECRETARY
BRANCH MEMBERS MEETING
BRANCH COMMITTEE
VILLAGE ASSEMBLY
VILLAGE COUNCIL

FIGURE 3

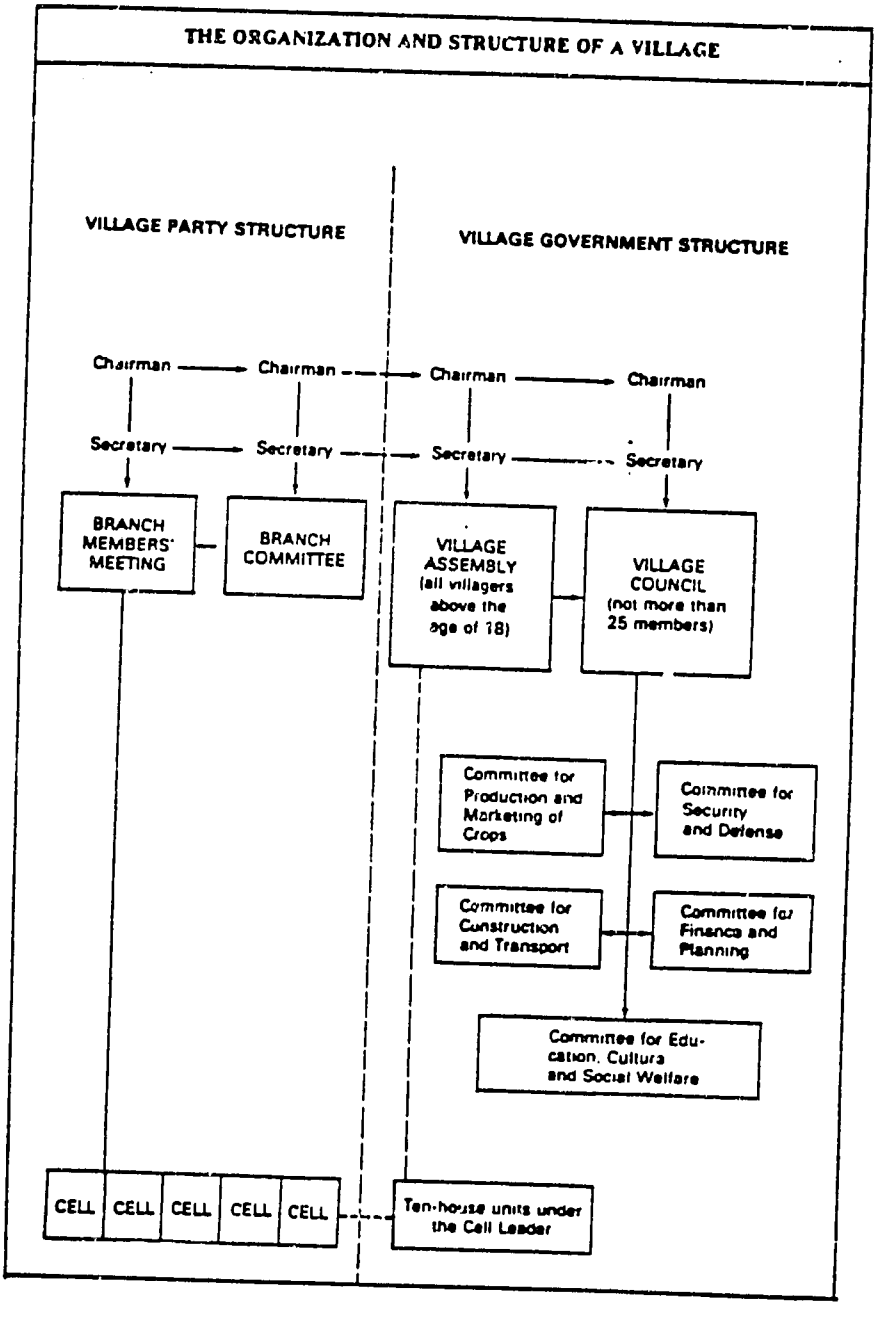

THE ORGANIZATION AND STRUCTURE OF A VILLAGE
VILLAGE PARTY STRUCTURE
VILLAGE GOVERNMENT STRUCTURE
Chairman
Chairman
Chairman
Chairman
Secretary
Secretary
Secretary
Secretary
BRANCH MEMBERS' MEETING
BRANCH COMMITTEE
VILLAGE ASSEMBLY (all villagers above the age of 18)
VILLAGE COUNCIL (not more than 25 members)
Committee for Production and Marketing of Crops
Committee for Security and Defense
Committee for Construction and Transport
Committee for Finance and Planning
Committee for Education, Cultura and Social Welfare
CELL
CELL
CELL
CELL
CELL
Ten-house units under the Cell Leader

FIGURE 4

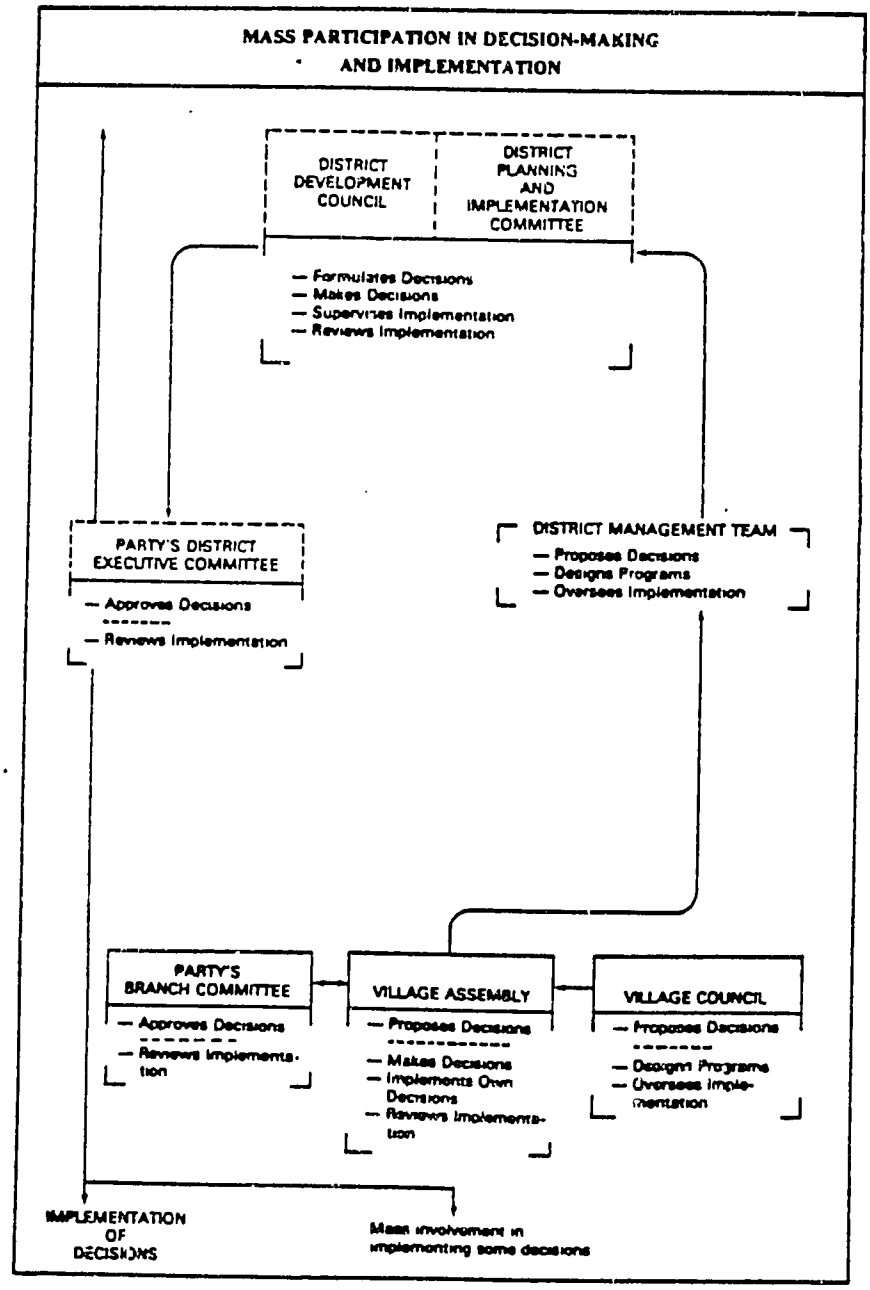
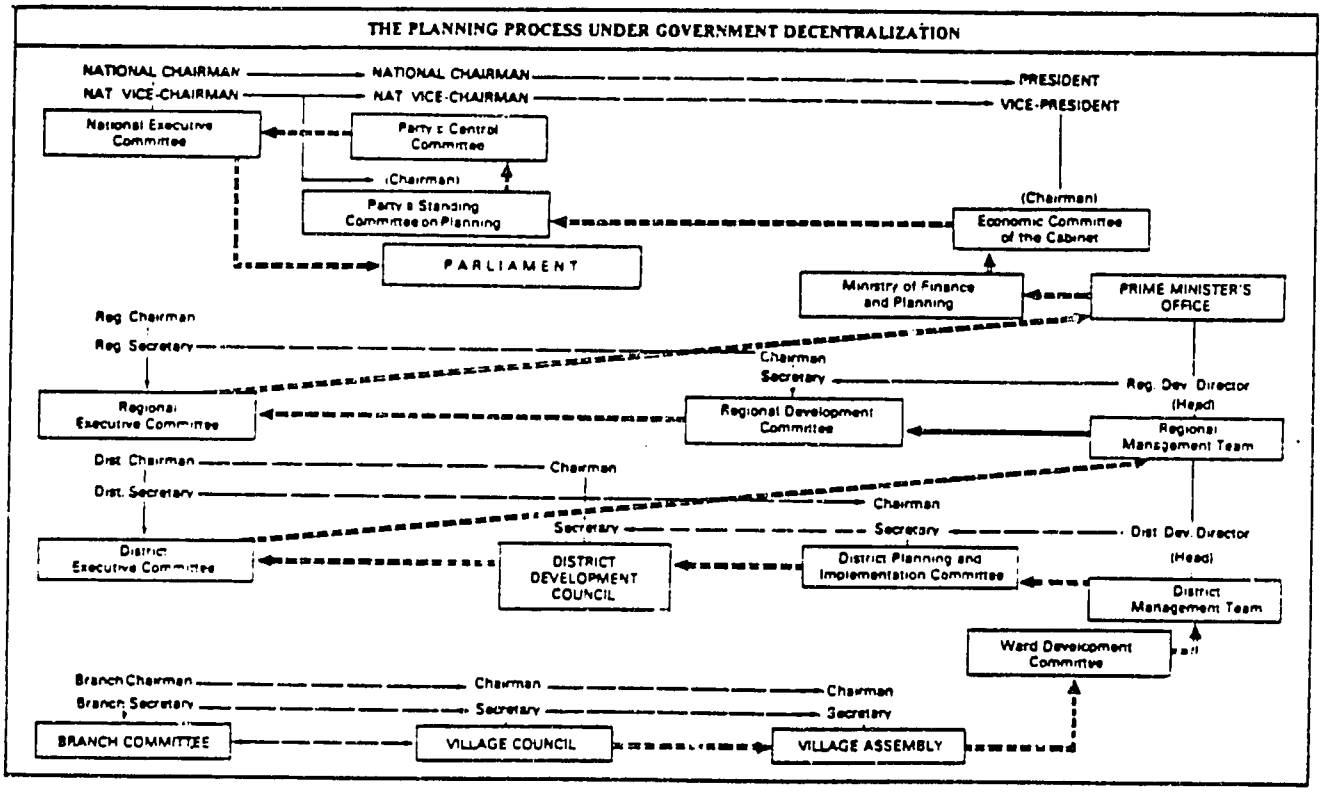

MASS PARTICIPATION IN DECISION-MAKING AND IMPLEMENTATION
DISTRICT DEVELOPMENT COUNCIL
DISTRICT PLANNING AND IMPLEMENTATION COMMITTEE
— Formulates Decisions
— Makes Decisions
— Supervises Implementation
— Reviews Implementation
PARTY'S DISTRICT EXECUTIVE COMMITTEE
— Approves Decisions
— Reviews Implementation
DISTRICT MANAGEMENT TEAM
— Proposes Decisions
— Designs Programs
— Oversees Implementation
PARTY'S BRANCH COMMITTEE
— Approves Decisions
— Reviews Implementation
VILLAGE ASSEMBLY
— Proposes Decisions
— Makes Decisions
— Implements Own Decisions
— Reviews Implementation
VILLAGE COUNCIL
— Proposes Decisions
— Designs Programs
— Oversees Implementation
IMPLEMENTATION OF DECISIONS
Mass involvement in implementing some decisions

FIGURE 5


THE PLANNING PROCESS UNDER GOVERNMENT DECENTRALIZATION
NATIONAL CHAIRMAN
NATIONAL CHAIRMAN
PRESIDENT
NAT VICE-CHAIRMAN
NAT VICE-CHAIRMAN
VICE-PRESIDENT
National Executive Committee
Party's Central Committee
(Chairman)
Party's Standing Committee on Planning
(Chairman)
Economic Committee of the Cabinet
PARLIAMENT
Ministry of Finance and Planning
PRIME MINISTER'S OFFICE
Reg. Chairman
Reg. Secretary
Chairman
Secretary
Reg. Dev. Director (Head)
Regional Executive Committee
Regional Development Committee
Regional Management Team
Dist. Chairman
Chairman
Dist. Secretary
Chairman
Secretary
Secretary
Dist. Dev. Director (Head)
District Executive Committee
DISTRICT DEVELOPMENT COUNCIL
District Planning and Implementation Committee
District Management Team
Ward Development Committee
Branch Chairman
Chairman
Chairman
Branch Secretary
Secretary
Secretary
BRANCH COMMITTEE
VILLAGE COUNCIL
VILLAGE ASSEMBLY

31. The "decentralization policy" incorporated a number of further changes, which have been described in detail by Malhotra, a former teacher at the IDM, Mzumbe (1978:791-96). New positions of Regional and District Development Directors were created, with the RDD carrying formal status equivalent to the Principal Secretary in a Ministry. Under the RDD or DDD came three staff officers for Personnel, Finance, and Planning; of these, only the Planning Officer survived as a permanent feature of the new system. All departmental resources formerly h ld by central ministries (such as Agriculture) were now in theory under allocative control of either the DDD or RDD; this mainly affected vehicles and housing. Functional department heads were enjoined against communicating directly from the district to the regional level without passing through the District Development Director—a prohibition never fully enforced but nevertheless highly unpopular with technical staff.

32. The actual practice of this "decentralized" system evolved slowly and in sometimes unanticipated ways. The most serious flaw lay in the need to institute parallel review bodies at each level to incorporate Party officials and representatives. There was an obvious overlap between the functions of the Regional Commissioner (officially termed the Regional Party Secretary) and the RDD; similarly at the District level between the Area Commissioner and DDD. As Fig. 4 indicates, in place of <u>one</u> District Development & Planning Committee in the old mold, we now had <u>four</u> bodies which met in sequence on each set of initiatives: the District Management Team, the District Planning and Implementation Committee, the District Development Council, and, finally, the Party's District Executive Committee. Fig. 5 shows that it took no less than 16 discrete stages for an initiative to pass from the supposed point of origin within the local Branch Committee up to the Party's Central Committee.

33. In fact, despite the plethora of bodies supposed to "represent" the people, few locally-initiated proposals ever succeeded in passing all the hurdles to become "official" development proposals. People began to say the new structure had "stolen" the Government from them, and pressure mounted in the field for a return to less complex ways of operating local administration. This background, then, accounts for the decision to "reintroduce" Local Government in place of the "Mc Kinsey System".

C. IMPLEMENTATION ISSUES

An Interorganizational Perspective

34. The reintroduction of local government or co-operatives are not discrete events, but rather they are actions producing vibrations and echoes throughout the decision making structure of Tanzania. Previous sections of this chapter outlined the history of these two institutional forms: how each developed in the first decade after Independence, why each was abandoned, and why both have again become "official policy". This section introduces more pervasive issues that affect the efficiency of all of Tanzania's government institutions. But these issues are not unique to this country. To illuminate what is at stake, some examples from elsewhere are incorporated into the discussion. The purpose here is not to offer definitive answers and perscriptions, but rather to convey a preliminary organizational assessment of the factors which donors must consider when weighing what role they might play. This should support AID's ability to engage in constructive dialogue which will enhance Tanzania's ability to achieve long run humanitarian and developmental goals—goals already eloquently articulated by President Nyerere.[1]

35. When a new profile of interorganizational relationships is proposed, we should expect that resistance will be mobilized by those who fear they have much to lose. The one exception to this generalization is perhaps during the first decade after Independence, when the colonial rulers have departed and the new socio-economic formations have not fully crystallized.[2] But these days even a poor country like Tanzania has an elaborate institutional infrastructure that contains many vested interests. In fact, if transition obstacles are not adequately understood, the new initiatives will be stillborn. Seldom is the logic of a new institutional order so compelling that it overcomes, with no effort, the resistance marshalled by those organizations whose vital interests will suffer from the new order.

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[1] See for example his Man and Development, Dar es Salaam: Oxford University Press.

[2] The ease of making institutional changes in the immediate post-Independence period may be one reason why leaders like Nyerere or Kaunda have tended to overestimate their freedom of action in this regard later.

36. This observation is particularly apt when we turn to local government and co-operatives. As we have seen above, these institutional forms have a long history in Tanzania. The Ministry charged with implementing the changes (the PMO) is the same one which was also responsible for both organizational types during the years when they were deemed to have "failed". Furthermore, the external constraints are now tighter. The Party (CCM) has become bureaucratized, and can be expected to intervene "from above" in both areas of activity, which overlap its own charter and perceived role. Financial constraints are much tighter, and made worse by the naive hope we sometimes encountered in our interviews that local government and co-operatives will tap new sources of funding presently denied to the central government. It is this matrix of highly charged attitudes, expectations, and interests which apparently has encouraged a deliberate vagueness about how the new policies will be implemented. It seems that the national leadership has hoped that ambiguity about who controls whom and who gets what might smooth the transition--if what is happening is uncertain, then it is difficult to oppose it.

37. Among the potential sources of conflict are the allocation of resources presently controlled by the crop authorities. (The question is "Do the vehicles, etc. go to the co-ops, the local government, or the line ministries?" Interviews with Tangov officials suggest a lack of consensus.) Both the Agriculture and Livestock Ministries feel that under the new agricultural policies, they will inherit these resources. Other resistance sources include the Regional Development Directors, who stand to be abolished (or at least to lose much influence) and the Regional Commissioners.

38. A more detailed examination of institutional interactions that may arise from the proposed changes suggests numerous points of contention. Figure 6 identifies areas of convergence and divergence arising from the cooperative and local government legislation, as contrasted to the Tanzania Agricultural Policy. The "institutional interaction matrix" presented in figure 7 outlines the potential problem spots in the relationships between the major existing institutional types.

FIGURE 6 : CONVERGENCE AND DIVERGENCE OF NEW LEGISLATION

DIMENSION	PRIOR SYSTEM	1982 LOCAL GOVERNMENT ACT	1982 COOPERATIVE SOCIETIES ACT	1983 AGRICULTURAL POLICY	DISCUSSION
1. Agricultural Extension Responsibility	1.A.-Extension Agents Employees of Regions or Parastatals (Crop Specific). 1.B.-RDOs Control Extension Budget in Regions (Except for Parastatals).	1.A.-Extension Agents under District Council. 1.B.-Kilimo Has Role of Information & Technology Conduit but not Supervision. 1.C.-Budget from D.C.	1.A.-Coops Have Production Focus With Parastatals Sharing Marketing Focus. 1.B.-Coop Unions Will Supply some Inputs.	1.A.-Extension Agents Become Generalists, not Crop Specific. 1.B.-Agents Reassigned to Kilimo And "Vertically Integrated." 1.C.-Agents Will Assist Village Governments. 1.D.-Agents Receive Transport from Kilimo.	1.A.-Parastatals Have Better Fringe Benefits than Ministry or Local Government. 1.B.-Conflict between Parastatals & Coops Likely & Rules for Asset Transfer Unclear. 1.C.-Extension Agents Are Already Being Moved to Kilimo. 1.D.-New Legislation not Consistent.
2. Role of RDOs and Regional Staff	2.A.-RDOs Had Principal Secretary Status. 2.B.-RDOs Administered Civil Service in Region.	2.A.-RDO not Mentioned but Implication that It May Be Eliminated if Prime Minister Sees Fit	2.A.-Secondary Societes will Be Established. 2.B.-DMO Responsible for Establishing Them. 2.C.-RDO not Mentioned Specifically.	2.A.-Regional Kilimo Staff will Assist and Supervise Village Workers. 2.B.-Regional Authorities will Survey and Assess Location and Planing of All Villages.	2.A.-RDOs Are Sources of Opposition to Implementing Changes and may Interfere with District Autonomy. 2.B.-Elimination of RDO under Consideration. 2.C.-New Legislation Consistent.
3. Responsibility for Economic Development Activity in Rural Areas	3.A.-Regional Development Committees. 3.B.-"Management Teams" of Sectoral Technicians Prepare Development Plans. 3.C.-Plan Reviewed By Committees with both Technical and Political Repretatives.	3.A.-District Councils. 3.B.-No More Management Teams. 3.C.-Committees of DC Replace Previous Planning Teams.	3.A.-Coops Share with DCs. 3.B.-Coops Are Multipurpose.	3.A.-Village Self-Reliance. 3.B.-District Staff Help Village Prepare 2 Master Plans.	3.A.-Technocratic Input Diluted. 3.B.-Introduction of Multipurpose Coop Goes against General Record. 3.C.-DCs May Siphon Some Coop Profits into DC Budget. 3.D.-New Legislation Consistent.
4. Role of Regional and Area Commissioners	4.A.-Regional Commissioners Had Ministerial Status. 4.B.-Area Comnisioners Were Party Secretaries. 4.C.-R.C. Could VETO District Plans. 4.D.-Controlled Regional Funds.	4.A.-R.C. Cannot VETO District Plan. 4.B.-R.C. Represents PM. 4.C.-Approves District Bylaws. 4.D.-Controls Regional Funds. 4.E.-Seen as More Technical than Previously.	NOT MENTIONED	NOT MENTIONED	4.A.-Commissioner Status Downgraded. 4.B.-Political Role Diluted. 4.C.-No Inconsistency.

Figure 6 -- Continued

DIMENSION	PRIOR SYSTEM	1982 LOCAL GOVERNMENT ACT	1982 COOPERATIVE SOCIETIES ACT	1983 AGRICULTURAL POLICY	DISCUSSION
5. Role of CCM	5.A.-District Party Chairman Heads District Development Planning Committee 5.B.-Has Final Approval of Regional Plans.	5.A.-Represented CN District Council 5.B.-No Party Review Required	NOT MENTIONED	5.A.-Implementation of Village Plans to be Assisted by District Officials Extension Workers and CCM. 5.B.-CCM to be More Involved in Social Services than Agricultural Production.	5.A.-Although only 15% of Population Is CCM, Party Wants Heads of Both Primary and Secondary Coops to be Members. 5.B.-"Integration" of Technical & Political Inputs. 5.C.-No Inconsistency.

FIGURE 7

INSTITUTIONAL INTERACTION MATRIX FOR RURAL DEVELOPMENT IN TANZANIA -- SEPTEMBER 1983

	District Council (& Local Authorities)	PMO	Cooperatives	Parastatal (Crop Authorities)	Regional Administration	CCM	Kilimo & Line Ministries
District Council		Local government falls under the PMO Local government service commission includes all district staff PMO appoints 3 members of each DC With prior approval of PM, DC can acquire land PM consents to bylaws after review by regional commissioner	Some villages presently registered as coops Responsibility for economic development shared DCs may tax coop profits and use for district activities Every village has only 1 coop	Some parastatal assets may go to DCs District council inherits extension agents of crop authorities Parastatal fringe benefit package likely to remain more attractive than new local government services Small-scale processing plants under village governments	The creation of district councils eliminates many of the leadership functions of regional development directors The financial autonomy of DCs reduces the power of RDOs RDOs may lose their principal secretary status and are opposing the new order Districts, not regions, now supervise extension agents Regional commissioner approves DC's bylaws	Each party organization nominates 2 candidates for each party seat on council CCM seats on council determined by number of party organizations in area District party chairman no longer automatically heads development committee	Village extension officers collect data for Kilimo Assets gained during decentralization revert to DCs Districts control and fund extension agents but technical ministries provide training and technology with regional supervision Extension agents out of national establishment system and into local system but support from Kilimo
PMO			Coops fall under the PMO PMO registers coops NORDIC project thru PMO provides assistance to coops	No formal link	PMO controls personnel deployment Regional officer under PMO RIDEPs are headed by RDOs and under PMO	Party lobbying PMO to require CCM membership from heads of coops	PMO controls personnel deployment PMO is "super ministry" with overall responsibility for rural development

FIGURE 7 -- Continued

	District Council (& Local Authorities)	PMO	Cooperatives	Parastatal (Crop Authorities)	Regional Administration	CCM	Kilimo & Line Ministries
			PMO can direct coops to place its funds in special investments Minister controls central coop fund				
Coops			Primary societies are formed into regional unions and a national apex organization	Crop authorities provide inputs Both may compete for marketing functions Some parastatal assets inherited from previous coops go back to new coops; situation confused Input and storage facilities and processing plants may be shared at primary society level but will be owned by crop authority or marketing board at regional level	Cooperative unions may be based on regions, districts, or groups of districts Establishment of coops further erodes regional role Regional transport companies and cooperative unions responsible for transporting agricultural produce	CCM trying to make party membership requirements for all coop heads (see above) Apex (national) cooperative organization is a "mass organization" of CCM	No direct links now that the coops have been transferred from Kilimo to PMO
Crop Auth.					No formal link	No formal link	Extension agents now receive training and support from Kilimo and are no longer paid by crop authorities Extension agents expected to be generalists and not crop specific

FIGURE 7 -- Continued

	District Council (& Local Authorities)	PMO	Cooperatives	Parastatal (Crop Authorities)	Regional Administration	CCM	Kilimo & Line Ministries
Regions						Regional commissioner status changed under new local government law and role seen as more technical and less political Regional party secretary no longer same as regional commissioner	Line ministry staff were formerly supervised by regional staff but this ceases with the new local government
CCM							CCM role to focus more on social services with production activities considered a technical responsibility At the same time district and regional "management teams" of technicians are replaced by DC committees All ministries responsible to national CCM guidelines
Kilimo & Line Ministries							Ministries equal, except PMO, and they jealously guard status and prerogatives

39. This can be compounded even further when there is a scarcity of material resources and communication . Instructions that are in conflict may arrive at the field in bunches, and only by consulting the date on the letter is it possible to determine which one is the order of the day. In such a situation it is lack of communication and isolation that gives a sense of continuity and direction to a manager's job -- being in constant touch requires more jumping in opposite directions.

40. Under such circumstances, discussion of accountability is a moot point because no large scale human organization is so responsive that it can truly implement flip-flopping instructions. Moreover, program implementation requires a long term effort. Interview responses suggest that this situation is commonly perceived among civil servants. The effect of this kind of management on ministry morale is pervasive and mixed signals continue to occur at both policy and management levels.

41. Other elements of style also effect organizational paralysis or performance. One of these is the use of formal versus informal approaches to policy development. In fact, this is a widely observed determinant of the degree of management success found in rural environments. Recent research on the organization and management of rural development efforts in 19 countries argues that legalistic, overformalized and rule-oriented management styles are major impediments to organizational performance. Successful implementation is invariably related to a manager's ability to recognize and utilize informal procedures, relationships, agreements, and communication channels.

42. This observation seems to be valid in any culture or location. Behind the scenes relationships and maneuvering not only offer much better explanations for why things worked in some situations and not others, but also the ability to capture and guide informal dynamics characterized all outstanding managers.

43. The essence of an informal style is to encourage non-threatening involvement during the formulation of a decision so as to create a sense of joint ownership among those whose cooperation is needed ot implement the decision. When this is achieved, less resistance is encountered during implementation. This holds true in both horizontal interactions and in relationships between superior and subordinate.

44. Tanzania fits this perspective and offers many examples of how informal processes work and how formal ones do not. Interpersonal examples, such as the importance of friendship networks for obtaining scarce resources and getting appointments by being first in line can be marshalled to support the importance of informal practices and to document that they are used. But at more critical policy levels and interactions within the bureaucracy, formal methods appear to dominate. Instead of being shepherded through informal channels and then introduced at meetings, new departures are introduced for the first time in formal arenas, agreed to, and then informal opposition blocks implemen-

tation. Authority is concentrated and secretive during policy development and this creates diffuse and secretive opposition during implementation. The result is a bureaucracy that does not work.

45. Micro level interactions also reinforce this view. In one parastatal a shortage of materials resulted in only one copy of intradepartmental memos. A memo would be routed to all those concerned, in order of status, and then filed. If 5 officials were to see it, and the third one was on safari, it would not be passed on to the last two until he returned and initialed it. This rigid adherence to formal process combined with a resource shortage to lengthen the time needed for even the most elementary administrative action.

46. Material shortages also reinforce secretive management. Inability to obtain public laws, lack of access to records of parastatal performance, and non-circulation of important research documents block information flows and result in widespread suspicion, distrust and managerial defensiveness.

47. This observed tendency is furthered by the Local Government Act, which stresses the "closed" nature of DC committee meetings and records. In fact, this may prove to be an important barrier to the open information flows necessary for administrative reform, local accountability and self reliant development.

48. In a time, such as the present financial crisis, when organizational resources are being diverted to fulfill individual survival needs, secretiveness increases due to fear of punishment. When diversion is widespread, secrecy follows it.

49. For administrative reforms to work, basic changes will be needed in the operation of Tanzanian administrative institutions. The local government initiative, the cooperative initiative and the structural adjustment program all require more effective organizational performance. But improvement will not occur if the scarcity in the environment is so great that resources cannot be applied to the development effort. Thus the causal relationships flow two ways -- administrative performance must improve for the economy to get back on its feet and stay there, but unless the pressure on the bureaucracy is eased, it cannot improve. This suggests that non-project support is more appropriate than strategies which increase administrative demands on already overtaxed organizations.

Incentives and Performance

50. Tanzania has many competent and dedicated civil servants. In fact, the general level of committment to development goals and the desire to see things work is a widespread strength of government officials. (The fact that some cases of severe corruption have been uncovered does not refute this. Excesses exist everywhere.)

51. At the same time that this committment exists, individual actions do not always reflect it. But this does not mean it is not there. Rather, it suggests that the structure of rewards and the requirements of survival push behavior in directions that, although they are immediately productive for the individual, lower organizational performance.

52. An example from another country illustrates the point and simultaneously shows the commonness of the situation. In one area a rural development effort was supporting a bottom-up approach to village planning and small-scale project implementation. As part of the effort, training of government staff in village mobilization techniques, provision of 4-wheel drive vehicles, and support for operating costs were included. Yet performance did not meet expectations (Honadle 1982).

53. Upon examination, management procedures actually blocked performance. To simplify management and to promote accountability for vehicle management, one person was put in charge of each vehicle. That person also received, in cash, a standard monthly allottment to cover the cost of petrol and routine repairs. This did minimize false expense claims, but it also had other consequences.

54. If the cost for the month was less than the allottment, the civil servant could keep the difference, but if it was more, then the extra cost would have to come from his own pocket. Thus there was an incentive not to visit villages and travel to isolated rural areas because such travel increased petrol costs and raised the probability of minor repairs. In fact the result was that the vehicle was used less as the program expected and more as home to office transportation on the paved roads in the urban area.

55. This was a very dedicated individual, by the way, but the need to feed a family on a low salary exerted pressure that resulted in reduced performance. Similiar choices confront many Tanzanian officials. Shortages of basic goods cause public resources to be sidetracked and used for private survival purposes. Although the individual decisions are sensible and rational. the aggregate effect of many such decisions is bureaucratic paralysis.

56. To rectify conditions characterized by parallel markets, bureaucratic paralysis and parastatal financial drains, requires going beyond assigning blame to individuals. Instead it requires a dispassionate and depersonalized examination of the structure of rewards and penalties in the organizational environment. Not punishment, but understanding should be the concern guiding this inquiry.

57. But more than just a study is needed. Foreign exchange constraints must be slackened in the short run so that some pressure will be removed from the bureaucracy -- people cannot be interviewed if they are busy using government vehicles to search for food.

58. Moreover, without a real committment on the part or senior decision makers, such an examination would lead to little more than an unread report gathering dust. And yet, an in-depth administrative self-assessment could help to bring about some of the system-wide preconditions necessary for the success of the local government initiative. If this is not done, local government will succumb to the same pressures presently felt by the national and regional administrations. Thus, the new initiatives serve to emphasize the serious need for a systematic organizational analysis of public sector performance and an assessment of the consequences of different reform strategies.

59. Such an analysis would examine the degree of sluggish organizational performance related to the McKinsey system as well as other factors. For example part of the weakness of the technical line ministries follows from the fact that responsibility for supervising their own field staff was withdrawn from them with the adoption of the McKinsey regionalization approach. Thus a generalist PMO took control of rural development while technical expertise was relegated to a secondary position. The primacy of the party further eroded the place of technical considerations in decision making and political criteria became paramount. The result was a centralization of power in a non-technical ministry -- the PMO -- even though the rhetoric called for decentralization. This also resulted in a great information overload in the PMO and this situation is partly traceable to the regional approach adopted in 1972.

60. Other aspects of suboptimal performance may relate to other organization design factors, however. For example, the operation of production parastatals appears to be much better than service parastatals. A factor contributing to this record is most likely the use of a single organizational design for tasks that afford a satisfactory fit on the production side but a most unsatisfactory one on the service delivery side. This is a hypothesis that deserves further examination.

61. This preliminary analysis, then, indicates that a more intensive inquiry into administrative behavior and organization design is needed if the cooperative and local government initiatives are to be more successful than similiar past attempts to make things work. The Tanzanian institutional environment is a tightly woven fabric and reworking only one thread will have little effect on performance.

D. CONCLUSION

62. As previous discussion demonstrates, the cooperative and local government initiatives are interwoven with line ministries, the PMO, and CCM in an institutional tapestry that is characterized by resource scarcity. The pattern of interinstitu-

tional relationships that is emerging is far from clear. Different legislation embodies different visions of that pattern and different divisions of resources and responsibility.

63. Nevertheless, one thing is clear -- until there is serious attention given to performance incentives and major institutional reform, USAID-assisted project inititatives should be minimized. Instead, support should be judiciously given to immediate non-project emergency efforts and to any requests that might arise for analytic assistance to address the issues of performance incentives and alternative policy and organizational requirements for the implementation of such incentives. Specific conclusions related to cooperatives and local government are noted below.

Cooperatives

64. Numerous studies of East African cooperatives conclude that the major barriers to success are not discrete and easily addressed problems such as inadequate numbers of trained bookeepers or a lack of material supplies and equipment. Instead, obstacles tend to be much more systemic, such as the policy environment, incentives for cooperative leaders to engage in activities that undercut cooperative viability, or a lack of values supporting collective action.

65. In the specific case of Tanzania, both outside observers and Tangov commissions have arrived at similiar conclusions. If these conclusions are accurate, then direct assistance to primary societies to carry out their mandated functions resembles the treatment of symptoms rather than the treatment of critical constraints. Moreover, the Nordic project for cooperative and rural development in Tanzania is already providing assistance to the PMO, the apex organization, and the cooperative college through 1988. Since this is happening and the Nordic cooperative experience gives it a comparative edge over the American experience, it would not be advantageous or efficient for USAID to step in and apply it's resources in this area.

66. Thus both the immediate crisis facing the Tanzanian economy and the need to address more systemic structural and decision making issues suggest that the reintroduction of cooperatives is not a strategic point for the use of limited USAID resources.

Local Government

67. As of September, 1983 the new system was in flux. Both the outline of the new structure and transition measures were being debated on a daily basis and consideration was being given to amending the 1982 act. When the dust settles and the outline of the new local government structure becomes clearer, the implementation of the act will be a sensitive undertaking. Reshuffling

power and authority invariably produces resistance. Both the party and the administration will be active players in shaping the final product.

68. Once the new system is in place it will still require years of testing new ways of interacting before it becomes either effective or efficient. Numerous capacities must be built at the village and district levels and new approaches to decisionmaking will be needed at the national level. As strengths and weaknesses become clearer, modifications should follow. In fact basic changes in the structure of national administration may be necessary to make things work.

69. During the initial phases of the reestablishment of local government, basic policy decisions must be made within the PMO. Some of them will be controversial and even technical issues will be interpreted from a political perspective.

70. After basic decisions have been taken and implementation has begun, capacity building must be undertaken for the system to produce the desired results. Action-oriented training, the introduction of electronic data processing aids for decision making, and consultant assistance to identify revenue sources and mangement incentives are among the activities donors might effectively support.

71. But that support should not involve the location of expatriate advisors at district council sites. Instead, it should stress assistance to intermediary institutions, such as IDM at Mzumbe and IRDP at Dodoma, to strengthen the ability of these institutions to provide direct services. Key intermediaries that will support cooperatives and local governments are displayed in figure 8. They should be the direct beneficiaries of any AID assistance in the areas of cooperatives and local government. The approach of this assistance should be action oriented and involved in actual service provision and it should not be a traditional classroom oriented "training at the institute" focus.

72. Concurrent with support to intermediate institutions, there will be a need to provide central government with tools for analyzing and managing central-local relations and organizational incentives. This should be a component in the assistance to intermediary institutions and the two parts should be closely integrated. Either one without the other ultimately will be ineffective.

73. In the short run, then USAID should not involve itself directly in the reintroduction of local government in Tanzania. There is much suspicion on the part of many Tanzanians toward the value of outsiders' advice -- the McKinsey and Co. approach to decentralization and local government is often blamed for the perceived failure of the previous system. If by the beginning of 1986, or when the new local government system sorts itself out, the government of Tanzania is interested in the kinds of assistance noted above, then USAID should consider providing such

FIGURE 8: TRAINING SUPPORT FOR LOCAL GOVERNMENT AND COOPERATIVES

INSTITUTIONS	EXPECTED SUPPORT TO LOCAL GOVERNMENT	EXPECTED SUPPORT TO COOPERATIVES
1. Institute for Development Management (IDM), Mzumbe	1.A. Provide all training for local government administrative staff and officials.	1.A. Train people who will become staff at Cooperative College, Moshi. 1.B. Train people who will become staff at Community Development Institute, Tengeru.
2. Institute for Rural Development Planning (IRDP), Dodoma	2.A. Provide training in planning for local government planning staff.	None
3. Cooperative College, Moshi	None	3.A. Train Primary Society staff. 3.B. Train Cooperative Union staff. 3.C. Train Tengeru staff.
4. Local Government Commision, Dar Es Salaam	4.A. Provide funding support to sponsor courses for local government officials and staff at instututions such as IDM, IRDP, CDI.	None
5. Ministry of Agriculture Training Institutes (MATIs), throughout Tanzania	5.A. Train local government technical agricultural staff.	None
6. Community Development Institute (CDI), Tengeru	6.A. Provide training to social service staff to local government.	6.A. Provide community development training to cooperative union staff.

assistance. In the meantime, low profile participant training, focused management studies or short term assistance with immediate problems offer better prospects for the application of limited resources. The critical test will be to see whether under its new form Local Government can successfully generate its own revenue base—the precise area of difficulty which led to the collapse of District Councils in the early 1970s. Anything donors can do to assist the Tanzania Government in devising more effective methods for raising recurrent revenue should be welcomed.

74. This chapter has concentrated on the issues underlying Co-operatives and Local Government, rather than detailed review of implementation measures which were still being formulated in mid-1983. The SIP team was not privy to various high level reports which were being received at State House from working parties appointed by the President to recommend on these very matters. It would have been presumptious to guess what the contents of such reports might be. Nevertheless, we close by stressing that it is unrealistic to hope that Local Government will prove cheaper than the regional administration it replaces. There are other reasons for making the change--and ones with which we concur--but Tanzania's economic policies should not be predicated on the assumption that major economies will be realized in providing rural services.

75. If the above conclusion is confirmed by events in the next few years, it suggests that the notion that simply re-introducing co-operatives and local government will solve Tanzania's financial crisis is premature. Useful as co-operatives and councils may be, they do not constitute the the kind of interventions which directly relieves the Government's revenue shortfall. It will take tremendous efforts merely to keep within the old budgetary ceilings. Thus our somewhat somber message is that Tanzania's leaders must look elsewhere for mechanisms which will dramatically improve organizational productivity. As of mid-1983, too much faith was being put in mere structural changes as the country's "answer" to its malfunctioning administrative system. Donors should support these changes, but should recognize much more is needed before a "turnaround" is assured.[1]

[1] A conclusion which echoes the argument advanced by Hyden in his (1983) book, No Shortcuts to Progress.

CHAPTER SEVEN

THE TURNAROUND?

What Kind of Turnaround?

7.1 When the SIP team began work in August of 1983, one could question whether a genuine and lasting turnaround in Tanzania's policies had yet occurred. The SAP measures announced in 1982 consisted basically of economic targets imposed on a recalcitrant system from above. There were daily indications—new parastatals being formed, punitive measures taken against private entrepreneurs, etc.—that the rationale underlying the targets had not been absorbed by decision makers. Donors were wearied by over three years of inconclusive, behind-the-scenes negotiations. They suspected the announced changes would not be implemented, allowing adverse trends to gain further momentum while merely cosmetic improvements were being put into place.

7.2 A year and a half later, it is more apparent that the turnaround in Tanzania's rural development policies has been genuine. Each successive step in the unfolding governmental response—NESP, SAP, the Agricultural Policy, Cost-Reduction, the 1984 budget measures—has been more drastic than the one preceding it. Topics which for years could not be discussed within the Party have now become matters for open debate. The circle of people involved in the Party's various, high level reviews has been widened; implementors are at last having their voices heard. Most basic of all, the contribution of the private sector in Tanzania—peasant smallholders as well as immigrant entrepreneurs—has finally achieved official recognition.

7.3 At a policy level, then—which we review in the first section of this final chapter—the change in direction is impressive. What cannot yet be said with equal certainty is whether the Party has at last found effective <u>means</u> for achieving its desirable targets. Is implementation going to produce the <u>economic</u> turnaround Tanzania so urgently needs? Since investigation of implementation issues was foremost within our terms of reference, a "productivity crisis" view has predominated within our analysis. Abundant evidence reviewed in earlier chapters suggests grounds for caution. We therefore conclude this review by outlining its main implications for the Tanzanian Government and for donors alike.

The Tanzania Government's Response

7.4 Significant Tanzanian responses to the deteriorating economic situation date from mid-1981, by which time there were obvious signs of organizational malfunctioning in the general economy and both the World Bank and the IMF had become involved behind the scenes in trying to stimulate an effective Tanzanian policy response. The key external documents were the IMF's (1979) Tanzania, Recent Economic Development and the World Bank's (1981) Economic Memorandum on Tanzania. The official Tanzanian response was to commission an advisory group (all but one of whom were external economists with longtime Tanzanian experience) whose report (1982) An Interim Report on a Structural Adjustment Programme was followed by the Government's (1982) Structural Adjustment Programme for Tanzania (or SAP). Meanwhile the World Bank issued a major further document (1982), Tanzania Agricultural Sector Report which contained numerous statistical analyses and specific short and medium term remedies. It was also accompanied by no less than 14 background working papers. It is indicative of the general problem that of all these key documents, the Government's SAP report was the only one made available to the public. Yet the various statistics and analyses covered many critical aspects of Tanzanian development, and presented a wealth of detailed information which ought to have been available for open discussion.

7.5 Before we analyse in detail the content of the Government's SAP, the Agricultural Policy, and the 1984 Budget measures, let us note the actions preceding these steps. Already by early 1981 the Ministry for Economic Affairs and Planning had formulated in broad outline a 15 point program, announced to the public on 2 March in the Daily News under the front-page headline, "Time to Bolster Economy". In his statement, the Minister in effect introduced the idea of structural adjustment. "There is no point in planning to build ten bridges when cement production can only meet the requirements of five," he was quoted as saying.

7.6 The Party's involvement stemmed from the highly publicized managerial irregularities which surfaced in late 1980 and early 1981, notably the Air Tanzania Corporation's losses, an irregular sale of the ship the mv Jitegemea, and public complaints about the parastatal Elimu Supplies (which handles stationery and school equipment). On 10 January 1981 the President called into session a special meeting of the Party's National Executive in order:[1]

- To consider the failures in the implementation of ... the fair distribution of goods throughout the country, together with the associated problems of magendo and black market prices;
- To consider the manner in which certain operations of Government and Parastatal institutions have been carried on, with particular reference to some actions which have led to great losses of public money or of foreign exchange.

From the 14 of January to the 1 of March the Party's Central Committee continued its investigations, which rapidly spread to involve other scandals.[2] Meanwhile in his address on the fourth anniversary of the Party's (CCM's) founding, President Nyerere was reported as dealing at length with Tanzania's emerging economic problems.[3] This topic was repeated by Vice President Jumbe (headlined "Economic Revival Main Task") in early February and again by Nyerere in his Workers' Day speech May 1.[4]

7.7 Space precludes listing month by month the various campaigns, slogans, working parties, study groups, exercises and so forth which have continued ever since early 1981 on this theme. For example, in early and mid-1984 it was the "Cost Reduction Exercise" (Daily News 3 February) followed by a "Tightening-up Campaign" (Daily News 13 July). Over time the scope of initiatives being discussed has been widened to include proposals which would have been automatically ruled out only a few years ago. Outsiders need to recognize that people inside Tanzania have experienced four years during which the theme of improving productivity and reducing costs has held center stage.. The motivation for change is not at issue; the question is rather how to

[1] Quoted in Daily News, 24 January 1981. See also DN, 2 March 1981.

[2] Daily News, 2 March 1981.

[3] Daily News, 6 February 1981.

[4] Daily News for 2 February and 1 May, 1981.

bring about the desired improvements in productivity.

a. Structural Adjustment Program

7.8 The "structural adjustment" concept comes out of IMF/World Bank parlance, where it refers to the hard currency support a country requires when restructuring its financial and export systems following adverse "economic shocks". Tanzania's SAP represented a formalization and packaging of measures already under consideration within the 1981 National Economic Survival Programme (or NESP). As described by the Minister of Planning, NESP objectives included: i) "an aggressive export drive" to mobilize additional foreign exchange (FE); ii) more judicious use of FE by redirecting it towards FE generating activities; iii) small-scale irrigation and drought resistant crops to increase food security; iv) "strict control of public spending in both Government and parastatals"; v) consolidation rather than new projects; and, vi) increased self-reliance and incentives within the workplace (SAP 1982:3). Perhaps the Party leaders hoped to tap the crisis atmosphere which had served them so well in earlier "campaigns" and "operations". In the actual event, the people were tired; wrong-doing by public officials overshadowed the "economic saboteurs" the Party sought to blame; and NESP simply had no teeth.

7.9 In late 1981 drawing upon World Bank funds the Tanzania Government brought in an independent Advisory Group. As earlier indicated, the team were mostly senior economists. An outcome of their effort was a hard-hitting, confidential report. Its targets (but not all the substantive suggestions about how to implement reform) were the basis of a published SAP document released by the Ministry of Planning in mid-1982. The structural adjustment label was no doubt aimed at securing hard currency support from donors. Conceptually, SAP broke new ground by admitting that Tanzania suffered from three types of structural imbalance, whose combined and interactive influences would have to be countered:

- a lack of budgetary restraint vis-a-vis revenue, with a consequent increase in domestic inflation.
- an external imbalance, derived from low exports and deteriorating terms of trade.
- a programmatic imbalance, with too much investment on non-productive economic activities leading to the emergence of an unofficial parallel market.

7.10 How did SAP intend to restore balance in the overall economic system such that these three destabilizing forces could be successfully counteracted? Most broadly, SAP aimed (like NESP before it) to reduce inflation by cutting government spending; to achieve a balance of payments such that foreign exchange scarcity would not cripple domestic capacity utilization; to boost the productivity of parastatal and government institutions; and to maintain equity in income distribution. The main measures listed for realizing these goals were (1982:4):

1) provide incentives and support to exporters
2) articulate priorities for cutback in expenditure
3) reduce the rate of monetary expansion
4) improve decision making process in respect to FE management
5) improve efficiency in the parastatal sector
6) rationalize agricultural producer and (ultimately) consumer pricing
7) increase transport efficiency, marketing and distribution
8) economize on imported fuel, develop alternate energy sources
9) make effective use of external assistance.

7.11 If we compare these perscriptions with those articulated a year earlier (Table 7.1) and also the sorts of suggestions an independent consultant might have made (Table 7.2), it is apparent there was already in mid-1982 a fairly clear idea about what the necessary goals for achieving an economic turnaround were. Almost everybody involved with Tanzania's productivity crisis would agree on the goals and targets identified in the SAP document. Where doubts arise is in relation to whether having the correct objectives is <u>sufficient</u> to bring about major changes in the functioning of an economic system. The core assumptions underlying SAP reflect a stactic, "top down" image of how an economy works. For

TABLE 7.1

THE 1981 ECONOMIC RECOVERY PROGRAM[a]

As reported by the Minister of Planning, Kighoma Malima, Tanzania's economic survival program in early 1981 had the following components:

1. 15-25% of goods from key industries to be set aside for export.

2. Deliberate assistance to small-scale mineral prospectors.

3. Fishing to be encouraged and increased, if necessary with foreign investment partnership.

4. Preferences in allocation of foreign exchange to go for purchases of raw materials and spares for existing industries rather than new ventures or expansion.

5. Priority to industries able to generate more foreign exchange.

6. Tight control and restriction on overseas travel by Tanzanians.

7. Foreign funding agencies asked to help provide inputs for existing concerns in preference to undertaking new ones.

8. Government will continue to offer essential public services.

9. More efficiency and vigilance in revenue collection.

10. Spending by Government departments and parastatals will be tightened and supervised.

11. State planning mechanisms will be strengthened at all levels while development projects' implementation and planning will be synchronized with foreign exchange and materials availability.

12. On the agricultural sector, targets will be set for villages, districts and regions.

13. 15% of foreign exchange earnings from each crop will be set aside for the development of the crop. This will pay for imported insecticides, fertilizers, spares, packaging materials and the like.

14. Increased productivity per ha, including more irrigation, better and timely distribution of inputs, extension services, loans and fair prices.

15. New crop prices will be announced before each season and whenever necessary.

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[a]Source: "Time to Bolster Economy," Daily News, 2 March 1981, p. 1.

TABLE 7.2

STEPS TO ACHIEVE ECONOMIC RECOVERY[a]

1. Dramatically increase labor productivity
2. Give peasants incentives to produce within the system
3. Bring the parallel economy into the open where it can be dealt with
4. Make the major parastatals cost-effective
5. Increase the flow of resources to the foreign exchange earners
6. Make much better use of the surviving private sector
7. Drastically prune unproductive institutions
8. Impose a total freeze on major new projects
9. Get effective output from critical training/research institutions
10. Reward administrative efficiency in the salaried sector
11. Give the technical ministries a clearly defined role
12. Find ways to make village-level institutions effective
13. Restrict sharply political interference in development matters
14. Get productive impact from RIDEPs and regional administration
15. Use technical assistance and external financing more imaginately.

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[a] Source: J. Moris (1982) "Overall Institutional Performance, 1961-1981," Background Paper No. 6, Tanzania Agriculture Sector Strategy Report. Washington, D.C.: EAPSA, The World Bank.

example, the device selected for operationalizing these concerns was a printed, government document titled Implementation Schedule for the Structural Adjustment Programme (1982). It ran to twenty pages, and consists exclusively of a tabular presentation which breaks down the SAP by areas of responsibility, leading ministries (and other organisations) responsible for each area, the pages on which instructions are given within SAP, liaison linkages, and the reporting back date. It is also highly significant that the one place where SAP talks about decision-making processes is in relation to the management of foreign exchange. On the possibility that Tanzania's present crisis is the result of routine processes of decision-making at all levels and throughout the economy, the SAP is silent.

7.12 This is a serious criticism to make of a document two years in preparation, so let us look directly at what SAP has to say about our main topic in this report, the agricultural productivity crisis. On export crops, SAP explains the declining production as follows (1982:16):

> Climate and international price movements adversely affected production and exports but the major influences included lack of inputs and incentive goods, processing, maketing and transport problems consequence of foreign exchange shortages as well as institutional inadequacies.

No mention of villagization, the disbanding of co-operatives, low official prices, or the explosion in cash crop authority costs. Its solution is to recommend the Ministry prepare "export crop packages" for each major crop (1982:17). It endorses KILIMO's ambitious ideas for mechanisation and for establishing its own network of farm input centers (1982:18). It calls for prompt payment to farmers. And, insofar as the Ministry of Agriculture is concerned, SAP calls for "strengthening of Planning Unit, Extension Services, etc." For crop authorities, it says (1982:20):

> Crop Authorities--are amongst the most important institutions in the Tanzanian economy. Priority will be given to ensuring they are staffed with the most competent and accomplished managers. The development of specialist skills by and continuity of staff in senior positions is critical.... Crop Authority activities will be rehabilitated and strengthened under the Export Crop Package Programme.

7.13 By even late 1982, it was clear these provisions were inadequate. Major further initiatives would be required in agricultural policy, and in the actual operation of parastatal and government organisations.

b. New Agricultural Policy

7.14 The 1983 Agricultural Policy of Tanzania (which should be read alongside a companion document on livestock policy) begins with an extended quotation from President Nyerere which bears repeating:

> Because of the importance of agriculture in our development, one would expect that Agriculture and the needs of the Agricultural producers would be the beginning, and the central reference point, of all our economic planning. 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 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 now give it the central place in all our development planning. For agriculture is indeed the foundation of all our progress.

To achieve the policy objectives which are desirable for the agricultural sector, five basic targets are identified: i) to increase food output in pace with population, ii) to establish a National Strategic Grain Reserve, iii) improved efficiency particularly for marketing and processing, iv) increased investment, and, v) better coordination with programs in other sectors.

7.15 For perhaps the first time in a major Party policy statement, the issue of modes of production (and land rights) is faced squarely. The policy starts by recognizing that smallholder production has been and will continue to be "the dominant mode of production". Three categories of farms are recognized:

- The household's farm plot ("shamb "), normally near the house and at least a half hectare in size (1.25 acre). If village plans cannot at present meet this minimum, their lay-out will be re-drawn.
- Block farms should also be encouraged. In these, each family will receive contiguous plots to facilitate joint operations. However, individuals will do the work and retain the produce.
- Communal farms will provide village revenue, and contain common enterprizes established by the village as a whole. Villages are urged to develop a "core team of managers and skilled workers".

While no "hard and fast line" should be drawn between these categories, the transition to communal production "cannot be forced, and should not be rushed" (p. 4). Furthermore, in regard to land tenure (pp. 10-11) the Policy states unequivocably that users must "feel confidant" about their land rights. Villages will receive 999 year leases, and can sub-lease parcels for between 33-99 years:

> In particular, each Household will normally be given its own long-term sub-lease so as to provide reasonably permanent occupancy ... 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.

So also with regard to holdings in the Block Farm.

7.16 Three categories of large farm are also identified: i) state (or parastatal) farms, ii) private commercial farms, and, iii) joint public-private ventures. While private farms will not receive long term investment from public sources, they will be on a par with the state or parastatal farms in receiving foreign exchange allocations. Individual commercial farms--available to citizens and non-citizens alike, and to institutions as well--will be given leases of at least 33 years (again, up to a 99 year maximum):

> The user will be entitled to a document setting out his boundaries, and the conditions of his Lease. When surveying and mapping .. has been completed, the Leaseholder will be given his registered Lease Documents, but in the meantime an interim document will be registered and give 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.

If dispossed, commercial farmers can appeal, and if the appeal is not upheld will receive full compensations for improvements (p. 11).

7.17 The Policy also stresses that all parastatal units involved in farming should "immediately" prepare plans for operating on a commercial basis, or face being closed down (p. 8). They should be financially autonomous, retain profits for their own investment, and improve their accountability to the holding organization.

7.18 In regard to agricultural services, the Policy incorporates a number of long overdue changes (pp. 16-18). The return of extension functions from crop authorities to the Ministry of Agriculture is endorsed. Detailed instructions are given concerning how field extension staff, based in the villages, will operate and it is stated that they must have transport. Accordingly the previous system of providing loans for bicycles and motor cycles will be reintroduced, as will also mileage allowances. Training facilities such as FTCs will revert to Ministry control. DADOs and RADOs are urged to visit villages "as frequently as possible" (p. 18). For the first time also, there is reference to the concept of a Central Service Village, which can support smaller units placed nearer to farming areas (p. 11).

7.19 Several measures are identified to facilitate liberalized marketing, by primary co-operatives as well as by individual large farmers (pp. 22-24). Larger units will be allowed to arrange direct sales, including for export markets (p. 23). Similarly, parastatal producers will be allowed to service large consumers directly without going through crop authorities or NMC. Primary societies can trade with adjacent units outside of their own Unions, though generally the Co-operative Unions will constitute the main buyers from the village level. A free market will exist for perishable crops like fruit or vegetables. The main thrust of these changes would appear to be directed towards removing the monopoly powers which purchasing organizations in Tanzania have often enjoyed (in theory if not in practice) ever since the mid-1960s. The policy also spells out in detail how agricultural prices will be determined and administered (pp. 24-25).

7.20 Finally, the Policy mentions a range of institutional supports --more encouragement of irrigation; establishment of an input distribution system under the Ministry of Agriculture; a three-tier credit structure with the TRDB continuing as the main lender to producers, villages, and Co-operatives; strengthening of market information through MDB (for export crops) and the Early Warning System (for food crops); establishment of crop protection through the Ministry; and several general sections on resources and parastatal management.

c. The 1984 Budget Speech

7.21 The June 14, 1984 Minister of Finance's budget speech is regarded in Tanzania as a key document which reflects the Government's current thinking about the economic crisis. It incorporates recommendations of a Commission on Productivity of Government, which had reported earlier to Nyerere. It recognizes that the adverse economic situation will require at least five years to reverse, and itemizes in specific detail a broad range of measures aimed at achieving this outcome. Among the changes it ennumerates are:

- endoresment of a cost reduction program aimed at parastatals.
- strengthening of the export rebate scheme, and removal of operational bottlenecks.
- opening of external accounts to be allowed to key producers.
- offsetting exports/imports with key industries (KILTEX, etc.).
- additional measures to recapture foreign exchange from expatriates, tourists, etc. with opening of "two tier" shops for those with hard currency.
- liberalisation of import provisions for those with legitimate FE needs.
- resheduling and where possible conversion of loans to grants.
- possible agreement with IMF and World Bank to enable continued hard currency assistance in key areas.
- co-operation with Kenya, opening of the border.
- implementation of Productivity Commission proposals, including:
  1) reduction in number of Ministries from 22 to 15.
  2) new revenues, personal tax.
  3) freeze on employment (except teachers, medical and agricultural staff).
  4) no issuance of local purchase orders without having funds in hand.
  5) tighter controls over parastatal and government vehicle use.
  6) reorganization of the Government's own supply organizations.
- move towards day secondary schools, parents to absorb more of boarding school expenses; fees by parents for secondary education.
- Local Government to finance its own local services to act as incentive to control costs.
- review of parastatal organizational structures to minimize head office costs.
- winding up and/or amalgamation of some parastatals.

- "huge savings" to be realized by re-introduction of cooperatives (p.20).
- NMC's unsatisfactory financial situation to be tackled, by removal of some functions, freeing prices for sembe (maize flour), and liberalization of interregional transport and grain purchasing.
- removal of fertilizer subsidy, with raise in producer prices to offset increased production costs.
- No crop authorities to receive government subsidies or subventions.
- greater attention to needs of rural sector for credit, through NBC, TIB, and TCRDB, with more stress on repayment of loans.
- salary increases, with greatest increase to lower brackets.
- increased reliance on user fees, licenses, etc. for government revenue.

7.22 The 1984 Budget Speech closed with a quotation from President Nyerere:

> Basically, it is we ourselves who have to stop our economic decline, and climb out of the hole in which we have fallen or been pushed into. However unpleasant the process, we have to do this on the basis of Self-Reliance--Using our own resources and our own sweat, and doing without many things which we can not producer for ourselves. There is no other choice.

7.23 As with any detailed government program, there are invididual points one might question, e.g. the claim that reintroduction of cooperatives will generate "huge savings" or the notion that all crop authorities can operate without subvention while still subject to external price controls. Nonetheless, on the whole the Budget Speech respresents a significant shift away from the policies which led to Tanzania's current crisis. Outsiders may not be aware how firmly and long the Party's leadership has resisted changes of the kind embodied in the agricultural policy and the 1984 budget. The granting of secure land rights to villagers, acceptance of large farms, the insistence that public corporations and authorities must pay their own way, a freeze on employment and new projects, and the charging of user fees for social services (like secondary education) are all highly symbolic changes in a Tanzanian context. Once implemented, they make it impossible to exclude from consideration other, similar changes which are long overdue within the Tanzanian system. Furthermore, since 1981 for the first time the Party leadership has begun involving senior Tanzanians from all walks of life in the policy formulation process--e.g. the many Presidential working parties who have framed the new policies. This represents a significant improvement, which external donors should welcome.

d. Policy Effectiveness

7.24 The root issue underlying this entire report is the extent to which the causes of Tanzania's low productivity are responsive to normal economic policy instruments of the type contained in the 1984 budget. The usual "IMF package" aimed at demand compressions is now partly in place within Tanzania (though many would argue for a still more drastic devaluation). Insofar as national policies can redress economic malfunctioning, Tanzania's leadership has begun implementing many of the steps outsiders have been recommending ever since late 1979. The SIP team would probably agree that donors no longer have a strong case for withholding assistance if they are genuinely interested in Tanzania's economic survival. It should be noted that Tanzania and the USA have shared in recent years persistent balance-of-payment deficits, overvalued currencies, and certain strong spending commitments which the national leadership has refused to abandon despite much economic advice. Had it been desirable, this report could have documented the non-performing nature of the loans upon which Tanzania has defaulted. It was also shown in chapter three that these loan-financed projects were often in high risk sectors where Tanzanian organizational capacity was very weak and where grants would have been more appropriate than loans. Considering that the non-performaing projects were designed and implemented by donor agencies, the attempt to apply a collection agency's arguments is demeaning to all concerned. The SIP team would have had no difficulty agreeing that from a political standpoint, the time has come to move beyond mutual recrimination to more positive measures. Insofar as national policy-making can serve as a litmus test of political will, Tanzania's leadership have made as many changes as one could expect of any regime in a single year.

7.25 However, this conclusion leaves unanswered the more basic question whether the new policies are likely to prove operationally effective. Here the senior author exercises editorial licence to question whether economic policy analysis is really all Tanzania has needed. It has been shown in earlier chapters that Tanzania's citizens are receiving meager

benefits from the impressive level of investment which the leadership has maintained. This was shown to have been the case in regard to adult education, railway operations, school agriculture, road transport, secondary education, tourist hotels, and preventative medicine. In none of these seven areas has the "socialist" content of implementation been the major cause of low performance. Instead, it was suggested that the institutional failure grows out of interactive responses to a widespread situation of top-down planning, a split between policy-makers and implementers, overcommitment of scarce resources, and an unwillingness to build up organizational capacity incrementally. These failures could have occured under a capitalist regime. The "we must run while others walk" syndrome (so characteristic of Nyerere's regime) is not inherently socialist (unless one is willing to concede that only socialist regimes are over-ambitious). What may be true, however, is that when over-ambitious programs are combined with a "top-down" socialist regime, the faults inherent in either approach re-inforce each other to create consequences at the systemic level which nobody anticipated.

7.26 To the senior author of this report, it seems that the tragedy of independent Tanzania is that an extremely management-intensive system has been created in a setting where poor communication and the dispersal of resources leave little room for inefficiency. Now that the forms of administrative malfunctioning have become interconnected--what we might term a condition of "systemic interlock"--the larger system can render impotent almost all the usual policy and managerial interventions. It is easy to specify what the desirable outcomes should be (Table 7.2). Our analysis suggests top policy makers must stop forming new parastatals; senior managers must learn how to keep overhead costs under control; the middle managers must become cost-conscious; workers must become responsible and subject to summary dismissal if negligent; record-keeping needs to be re-oriented towards managerial monitoring rather than audit; those in a position to produce must have the freedom and incentives to do so. The Tanzanian Government's own proposals are largely of this nature, specifying imperatives with which few would disagree. The danger is that these deal with symptoms rather than causes.

7.27 Cost-cutting, for example, gives only a brief respite unless at the same time the systems which generate high costs are modified. Analytically, a donor like the IMF which insists on a severely deflationary budget is making the same mistake the Party makes when it assumes a "cost cutting campaign" constitutes a remedy for Tanzania's ills. Factors which fuel higher costs in Tanzania at the moment are multiple, and deeply-rooted within the system:

- declining capacity utilization, leading to higher unit costs.
- increasing loan repayment obligations.
- zonation to service producers in dispersed regions.
- specialized middle-management functions not found earlier.
- duplication internally of deficient public services (buses, clinics, shops, etc.).
- use of uncosted fringe benefits to attract good staff.
- deteriorating roads and higher transport costs.
- overmanning of low level positions.
- deteriorating quality control.
- lack of systems for transfer-cost pricing.
- shortage of accountants and financial controllers.
- poorly designed records make assessment of situation difficult.
- desire by political leaders to externalize costs of priority tasks.

Ironically, standard remedies which are part of the rhetoric of modernization, such as "professionalism" and "decentralization", are themselves major causes of cost inflation. A moment's reflection on the interconnected, mutually re-inforcing nature of the causal network outlined above will show why the external imposition of a cost-ceiling cannot be regarded as any kind of a long run solution. To regain cost-effective operation, Tanzanian institutions will be forced to make painfull changes in long-established conventions. Changes might include making financial performance public, to put greater pressure on senior management; devising new systems for transfer-cost pricing to pinpoint where costs originate; reduction in over-manning (always a sensitive matter in any system); and even a re-introduction of competition in supply of essential services.

7.28 The example given above—the loss of cost-control within Tanzanian parastatals—illustrates the need for locally conducted studies of administrative process. Detailed analysis is required to pinpoint how and why administrative functioning is going wrong at present. We note that while Tanzania has many management training institutions, most provide a very conventional—almost Victorian—approach. Nor has the Government drawn upon a managerial-process viewpoint when framing its reform proposals, which instead embody a static and idealized concept of administration. To the contrary, the history of Tanzania's many organizational changes since Independence suggests that stock remedies like cost-containment or decentralization yield diminishing returns now that the existing structures are highly differentiated and interconnected. The senior author of this report stresses that those working on the reform of Tanzanian productivity will have to break new ground. In western (and in socialist) administrative science, relatively little is known about how to correct process deficiencies of the type so widely evidenced within Tanzanian administration. There are some sources which might provide the analytical tools Tanzanian management consultants will require, but none to date which give a step-by-step guide.[1]

Implications for the Tanzania Government

7.29 The SIP team observed a number of initiatives underway which signalled the Tanzanian Government's willingness to reactivate private sector participation in national development. Since the private sector has been generating whatever modest surpluses the Government has drawn upon for its ambitious investment programs, we welcome official recognition of its central role. However, these initiatives have been accompanied by mixed signals (as of 1983/84) concerning the Party's ultimate intent. We have stressed (pp. 149-155) that Tanzania's immi-

[1] Key sources from the bibliography which should be drawn upon include Young et al. (1981), Radian (1980), Hyden (1983), Quick (1977), von Freyhold (1980), Lamb and Muller (1982), Mwapachu (1983), Packard (1972) and works by David Korten, Samuel Paul, David Leonard and others not cited in this report. For a review of this literature, see Jon Moris (1982) "Institutional Choice for Rural Development," Development Discussion Paper No. 179, Harvard Institute for International Development.

grant communities remember the outcome of earlier encouragement to invest in development projects, and thus have reason to be very cautious in responding. To the Party leadership, we point out that for the Government's promises to be effective, they must be believed. To external donors interested in assisting Tanzania's private sector, we warn that immigrant communities who have experienced sharp losses in the past have an extreme incentive to transfer funds out of Tanzania. Many investment devices which otherwise might be attractive can be subject to misuse when the desire to repatriate funds is as high as it is among some segments of Tanzania's private sector.

7.30 Nevertheless, the entrepreneurial skills possessed by Tanzania's immigrant communities do represent an underutilized resource. We propose that more thought be given to identifying where these resources can be legitimately employed. For a start, the past role of immigrants in supporting the agricultural sector through agricultural machinery services is still absolutely vital to maintaining Tanzanian exports. We do not see parastatal organizations as having been very effective in meeting such needs; a return to a mixed economy in this area is long overdue. Another possibility would be to extend liberal incentives to any large farmer or estate which develops new crops for export, provided the producers bear the risk. With a huge Gulf states market nearly next-door, Tanzania has ample cause to diversify its agricultural exports towards a part of the world where it enjoys a transport cost advantage. To date, Tanzania's parastatals have proved inept at penetrating the lucrative Gulf state market; it is time to give the private sector a chance. A third possibility discussed in chapter three (pp. 131-132) would be to encourage private sector initiatives in small-scale tourist facilities. Here, too, Tanzania's parastatal hotels and tour organizations do not merit the protection they have received by virtue of their near-monopoly position. Increased competition is definitely needed within Tanzania's tourist industry (and might be accompanied by a shared-profits scheme for workers in the parastatal hotels).

7.31 There were indications in mid-1983 that the foreign exchange constraint was jeopardizing the entire transport sector. Since then,

there is evidence this danger is being dealt with at a policy level. The Party's willingness to encourage small-scale, private transporters should be supported, but the danger of liberalization which had already emerged in 1983 was that private transporters were switching to the more lucrative Dar es Salaam trade leaving home communities stranded. We noted the vital importance of Tanzania's transport efficiency for neighbouring countries (pp. 156-157), and the high foreign exchange content of Tanzania's road haulage (p. 161). None of this is news to Tanzania's leadership, but it does mean that an integrated approach to transport planning is essential and that if Tanzania's railways are inefficient it rapidly becomes an international matter. The hidden costs of travelling only one way loaded were cited as a major argument against giving parastatals like the crop authorities a major role in truck haulage. We also warned that Tanzania has been unable to protect its light specification highways from overweight loads--a failure which has drastic foreign exchange implications, since it can more than halve the life of the roadway. The whole question of light specification constructions under external loan financing needs to be reviewed in the light of Tanzania's recent experience. Finally, for the public sector the undercapitalization and low efficiency of Tanzania's Transport and Works Ministry (Mawasiliano) has constituted a severe bottleneck, as has also the pooling of vehicles for use by those not held responsible for maintenance and upkeep. Despite its high foreign exchange costs, much unnecessary road travel occurs in Tanzania because individuals cannot rely upon telephone and radio connections. The whole question of the foreign exchange implications of present public sector transport policies needs review. Perhaps the most cost effective answer would be to seek donor assistance to improve the telecommunications services.

7.32 There is an analytic dimension to Tanzania's continuing transport crisis. Policy-makers seem insufficiently sensitive to the fact that by opting for a dispersed network of small institutions--NCE's, ARI's, MATI's, etc.--they maximize the impact of deterioration in communications. Similarly for the location of processing industries and other,

transport-linked investments. We have argued that the intrinsic situation of having the country's major centers of production dispersed around its periphery leaves little margin for transport inefficiency. For many export crops, transport costs will always constitute a prime consideration affecting farm profitability. It is this hidden load which Tanzanian parastatals have ignored in their gradiose expansion schemes. The decision to open zonal offices, for example, seems a necessary and natural solution--and yet this very action often presages economic disaster for the parent organization.

7.33 The continuing weakness of the Ministry of Agriculture and Livestock Development merits urgent attention (see pp. 200-216). Both SAP and the New Agricultural Policy give KILIMO the central responsibility for supporting a revival of export crop production. We found that while the Ministry's top leaders have an impressive knowledge of details within their agency, major issues have been left unresolved for over two years after the "new" policies were announced. The coordination between KILIMO and MIFUGO staff is very weak, without the Ministry having consolidated staff lists or even having decided which incumbents will be in substantive charge of each technical function (there being usually two training officers, two research co-ordinators, etc.). The handing over of export crop extension was done in such a way that field staff lack the means to travel and work--hardly an auspicious beginning for the central element in the revival of Tanzania's exports! At a time when it should be concentrating on its central tasks, KILIMO is busy designing input distribution centers--a function which officially belongs to co-operatives and not KILIMO--and encouraging tractor mechanization (when fuel and spare parts cannot be obtained and the Ministry has twice failed when trying similar programs in the past). Everybody agrees the research system is ineffective and overly complex; nobody knows what to do about it. Technical packages still do not exist, and there is talk of reverting to standard recommendations--another disastrous move with an especially bad history in Tanzania. In short, an effective agricultural support system was not yet in evidence by December of 1984, and unless this is quickly remedied the hoped for benefits from agricultural

reorganization will not materialize. In saying this, we do not mean to criticize the individuals within the Ministry, who seem to be doing the best that they can, but rather to reiterate that KILIMO must receive firm support from above if it is to carry out its mandate.

7.34 There seems to be a lingering insensitivity to the aggregate demands which having such a large parastatal sector imposes on the national economy. While ministries give lip service to the announced goal of restricting further formation of parastatals, almost every week some new institution is announced. We suggest that the forces leading to parastatal proliferation are still very strong—being encouraged by donors as well as potential office holders—whereas the national planning controls have been generally ineffective. Perhaps one reason for this situation is that SCOPO is swamped. It is a mistake to have the same organization deal with individual requests for transfers, benefit adjustment, etc.—a huge task, running into thousands of requests—and also matters of parastatal policy. SCOPO would greatly benefit from separating its functions between several internal units, and perhaps employment of microcomputers to monitor the manpower situation in the entire parastatal sector. As of mid-1983, neither SCOPO, the Manpower Ministry, nor anyone else knew with certainty how many parastatals Tanzania has. There is no up-to-date central registry, and not even a complete file of the Acts which are usually passed when each parastatal is formed. In effect, this means Tanzania has the appearance of control over its parastatal sector, but not the reality.

7.35 Inside the parastatals, there was still in 1983 an evident lack of cost-consciousness at middle-management levels (if not at the top as well). We assume the Government's cost-containment campaign has made some impact, which we are not in a position to evaluate in 1985. However, as argued earlier in this chapter (p. 350), there are still many pressures nudging costs upwards and some of them managers feel they cannot constrain. In the work of the MDB and the PPMB in KILIMO, the Government has access to excellent information on the financial situation of the cash crop authorities—probably as good in quality as any to be found in Africa. Here we have argued that

having a punitive approach would be an error, since it gives managers maximum incentive to disguise the true situation. What Tanzania needs instead are better methods of transfer cost pricing, rapid publication of financial reports, a stress on monitoring performance rather than on audit, solar powered hand calculators to minimize arithmetic errors, micro-computers to facilitate routine data processing, and a review of cost-control performance when hiring or promoting managers. These are not impossible reforms, but they do imply widespread changes in how the system presently operates. As a minimum first step, the Government should insist that every ministry and every major parastatal sets up monitoring units like PPMB. Reports from these units should be widely and directly circulated without requiring management approval. A more drastic step would be to freeze disbursement of second quarter funds in all public and parastatal organizations until a draft reconciliation of the previous year's accounts have been submitted.

7.36 At present, individuals within Tanzanian organizations often have strong incentives to take actions which, while they may resolve immediate problems, nevertheless reduce institutional effectiveness. Similarly, those in charge of parastatals take actions which benefit their own organizations but which are damaging to the national interest. The failure to identify where these pressures originate is perhaps the primary reason we cannot yet assert that the many reforms now in progess will achieve a lasting improvement in productivity. We strongly recommend that an in-depth review of the existing incentives, formal and informal, be carried out. This review should be done by Tanzanians themselves, and should be of a comparative nature across ministries and across sectors. When large parastatal organizations are being dealt with, external pressures of the kind now being applied can have only a temporary effect. To achieve permanent improvement will require that the organization itself is rewarding those activities which promote the desired kinds of performance.

7.37 A puzzling feature of the Tanzanian situation is why the various parastatal boards have been so ineffective. Virtually all crop authorities and public corporations have managerial boards, whose chairmen

and members have often drawn quite handsome allowances at a time when the organization was accumulating huge losses. While Mwapachu (1983: 92-118), El-Namiki (1979) and Packard (1972) criticize the functioning of Tanzania's Boards of Directors, it would be helpful to have detailed analysis of actual cases. Perhaps this is a task which ESAMI, IDM, or NIP could undertake. The point is that a board of directors remains the most logical mechanism for guiding parastatal operations; if in a Tanzanian context boards are not serving their intended function, it is important to learn why not (here see p. 288).

7.38 We have stated at many points throughout this report doubts that the re-introduction of co-operatives and local government will yield major economies in marketing and the provision of rural services. In regard to marketing, policy makers must note that when volumes handled are declining and loan obligations rising (for underutilized processing capacity in the cases of tobacco, tea and cashews), unit handling costs are bound to rise. Furthermore, the "losses" some authorities were showing followed directly from nationally-set prices, and transport costs have risen sharply. For all four reasons, and because it is usually more expensive to run two organizational networks in place of one, Tanzania will be lucky to stay within the margins experienced in the recent past. This is not welcome news, and we hope our prognosis is proven wrong.

7.39 Past experience in Tanzania indicates that where organizational linkages and responsibilities are unclear, effective implementation stops. The analysis of the interactional matrix presented in chapter six (pp. 324-326) suggests that as of mid-1983 there were yet a large number of unclear linkages between even critical components. The likely consequence will be long delays, much bureaucratic "in fighting", and a general "freezing up" of implementation until negotiated solutions are achieved. (This seems to be, in fact, what stalled KILIMO's implementation of the "new policies".) We believe the national Party leadership has failed to recognize how much more complicated the overall Tanzanian institutional system has become. Directives which could be easily put into effect in 1967 would today involve a tangled network of existing institutions, all of whose interests are vitally affected.

7.40 Amidst all the criticism of Tanzanian parastatals by donors, little attention has been paid to the burgeoning salariat in the regional administration and in the Party. Both types of employment are directly linked to the number of districts, since the Government and Party have standardized staffing expectations for each District. We point out that at regional and district levels, Tanzania often employs five officials to do what in other countries two would accomplish, e.g. the Party Chairman, Party Secretary, Regional Commissioner, Regional Executive Officer (or former RDD), and the Regional Planning Officer. The overlap between State House, the Party, and PMO, and the doubling of positions at regional and district levels means that any addition of new districts is enormously expensive in terms of the ultimate commitment on the budget. Surely an elected party official, a presidentially-appointed co-ordinator, and a professional planner (whatever these roles are called) would suffice. Since we did not observe the new Local Government structure in action, we hesitate to suggest where cuts should occur. Nevertheless, there is conspicuous overmanning within the Tanzanian administrative and Party system in its present form.

7.41 An even more radical suggestion (from the Tanzanian perspective) is that the fundamental separation between "policy" and "implementation" positions has hindered Tanzanian development. Mwapachu notes that in Russia the same issue has arisen (1983:179). If implementers are loyal Party members, is it really helpful to vest all policy formulation functions in a separate organization? Over the past four years, the Tanzanian leadership's reaction has been to deepen the Party's role as implementation "watchdog". However, a strong case could be made from the evidence reviewed in this report that the split between policy-makers (the Party leaders) and implementers (parastatal and ministry staff) has caused some of Tanzania's more conspicuous mistakes. The use Nyerere has made of working parties drawn from implementers is a welcome development in recent years. However, the long delay in the implementation of the policies considered in this report indicates the Party still has not learned how to adequately involve implementers

after policy changes are agreed. Instead of having so much Party interference at the design phase, a more effective strategy might be to screen potential managers carefully for their loyalty before appointment (or promotion), but then make it clear to them they will be judged by the results their organizations achieve. The attempt to retain Party control over implementation by issuing external directives has the side effect of excusing managers from accepting the responsibility for their own mistakes. In all fairness to President Nyerere, we note that the chairmen of the Makweta and Mbilinyi Commissions were both moved into positions of responsibility over implementation. Thus it is puzzling why there should have been so many subsequent problems in the Ministries concerned. Without having an answer of our own, we must warn that weak and inconclusive implementation continues to be a prominent trait of the Tanzanian administrative system. Tanzania's leadership needs to recognize that reservations about the country's implementation capacity are partly responsible for donors' reservations about rendering continued assistance.

7.42 The Government's whole approach to training and manpower is badly in need of overhaul. It is not clear why the bottleneck in science-trained secondary school output was allowed to persist for so long. Surely a conversion of the smaller MATIs and NCEs or a restructuring of Forms V and VI making A level work part of all post-Form IV training would quickly relieve the pressure without major new expenditures. Again, despite having an expensive Institute of Education, Tanzania's secondary schooling is woefully weak if we remember that it accepts only the top 5% or so of each year's primary leavers (pp. 249-253). We have warned about the dangers of building so much social infrastructure under loan financing which the Tanzanian Government is unlikely to recover from beneficiaries (pp. 254-256). There is also urgent need to assist Tanzania's Manpower Planning to keep track of post-secondary occupational training (pp. 275-276c) instead of merely compiling localization statistics. Tanzania has by almost any standard an impressive array of training institutions; what it has not obtained yet is an output commensurate with the nation's investment. (One hopes the Makweta Commission will have resolved many of these issues.)

7.43 Lest the preceding recommendations seem too harsh, we quickly add that the Tanzanian Government's achievements in the social services' sector have been impressive. Tanzania's policies in adult education (pp. 335-337) and in public health (pp. 219-232) are internationally acclaimed, as is Nyerere's forthright Education for Self Reliance statement. The paradox with which we have struggled throughout this report is to explain why admirable policies have generally been carried out in such hesitant, incomplete, and contradictory ways. Call it what you will—the "productivity crisis" has been our preferred term—this situation nullifies the impact of apparently sensible policies. Certainly, the Party did not expect such an outcome. It is in large part the reason benefits are often disappointing at the "grass roots" level where villagers experience government policy. All of chapter two (pp. 12-55) deals with this aspect of the recent Tanzanian experience. However, we call particular attention to a brief case analysis of Barbaig resettlement (pp. 50-52), which illustrates the danger to Nyerere's regime of proceeding as if merely by having good policies rural development will result. Indeed, the senior author suggests one reason for the incomplete field implementation so often encountered within Tanzania is that over-ambitious targets are again and again imposed by the Party upon weakly organized implementing agencies. The first time this happens, perhaps by diverting resources from other sectors and a herculean effort, targets are met. When, however, demanding the impossible becomes frequent either implementers begin to fabricate "paper" results, or overall systemic functioning becomes unreliable. The time has come in Tanzania to focus on already established institutions, to insure they are operational and effective. This means avoiding the "we must run while others walk" syndrome in favor of modest improvements which permanently increase systemic capacity. It also means heeding Nyerere's admonition that the key to development is man, not physical infrastructure. Institutional capacity should in future precede, not follow, creation of physical plant.

7.44 Our review of Tanzania's natural resources (chapter three) finds that the country still has substantial underexploited opportunities. In the long run, prospects for increased tourism earnings, for developing alternative energy supplies, and for a dramatic expansion of hydro-electric generation are excellent. Tanzania's diverse ecology makes it feasible to grow nearly any crop: tropical, sub-tropical, or temperate. There are several regions with alluvial soils near to major rivers, the major precondition for successful irrigation development in Africa. And, of course, the tantalizing possibility of building the Steigler's Gorge dam remains (p. 138), though we point out that a sequence of smaller dams on the Ruaha are also feasible. What these initiatives all share is the requirement that implementation is carefully planned and highly efficient. Thus a failure to insist upon these same qualities at present--achieved we suggest by attention to detail and an incremental rather than "crash program" approach--will doom Tanzania to continued poverty and dependency. On these grounds, we offer no apology for our stress on institutional productivity throughout this study.

7.45 Finally, the SIP team welcomes the Government's increased concern for the needs of smallholders and peasant households. We show in chapter three that much of the "present crisis" can be attributed to only two basic causes, the neglect of coffee growers' needs at a critical point in the mid-1970s (pp. 96-98), and an ill-advised entry of the state into food grain marketing through the NMC (pp. 122-128). In both instances, the Party's other policies amplified the costs of its inattention to coffee exports and its dogged insistence on subsidizing urban maize consumers. The refreshing feature of the Government's post-1982 statements has been the recognition accorded to smallholders and villagers as the ones whose surpluses have partly financed the Party's ambitious programs. Similarly, recent events have brought home to all concerned the technical difficulty of managing grain distribution centrally in an economy as diverse and scattered geographically as Tanzania's. The central attention given to NMC in the 1984 Budget Speech suggests that the Party is finally becoming more realistic in its approach to NMC, the one parastatal responsible for the larger share of authority losses.

Implications for donors and USAID/Tanzania

7.46 In a situation characterized by stringent foreign exchange limitation, the Tanzanian economy needs import support far more than it does new projects. Since 1981 this has been recognized by most donors, and also by the Tanzanian Government (explicitly noted in SAP). The World Bank, IMF, EEC and Scandinavians have taken the lead in formulating various structural adjustment and rehabilitation measures, though for several years disagreement over the Tanzanian response forestalled further support by the IMF and World Bank. However, unrestricted import support is more appropriate for countries which are Tanzania's major trading partners or which agree closely with its policies. For USAID/Tanzania, the congressional restriction on extending further support to countries in default on US loans rules out anything except emergency food imports (or so we were informed in late 1984). In principle, the SIP team was in agreement that donors should put priority on import support to assist existing programs rather than on starting new projects.

7.47 Approval of import-support measures does not have to be of an unrestricted nature, however. There are certain minor but very strategic needs which would be attractive to any small donor motivated by humanitarian considerations, such as maintaining subscriptions to international journals for the libraries in training institutions, providing hard currency for ordering textbooks in agricultural and scientific fields, or even such simple actions as getting spare parts for MIFUGO's American Jeeps. We have pointed out that probably the larger share of Tanzania's scientific manpower received their advanced training in the USA and are sympathetic to US concerns. As of 1984, U.S. policies towards Tanzania were undercutting those members of the Tanzanian elite most friendly to America.

7.48 Whatever the US Government's official position, it was clear to the SIP team that 1983/84 would have been an ideal time for charting new directions in donor assistance. Proposals put to us covered a number of sensible options: direct assistance to Tanzania's faltering private sector, support to the newly established Sokoine University,

expansion of the TRD approach (see p. 276c) to other ministries, help to KILIMO in reorganizing its field extension cadres, training for local government staff, help in revitalizing agricultural research, or simply an emergency program to eradicate the Scania beetle. Minor inputs which might make Tanzania's present system more effective would include financing of field surveys by MDB so that price reviews reflect actual farm costs, providing a microcomputer and training to SCOPO so that it can keep better track of parastatals, and doing much the same thing in Manpower Planning to monitor Ministry training programs. Advisory and supervisory support to ELIMU, KILIMO, and AFYA aimed at consolidating and assisting their field institutes is much needed (as was partly supplied by USAID's recent Farmer Training project). We would add transport planning as a priority, though it appears this need is being addressed by CIDA, SIDA, and the World Bank. Among these possibilities, probably support to Tanzania's private sector or assistance to Sokoine University come the closest to AID's current priorities within Africa.

7.49 In regard to the private sector, an obvious strategy would be to concentrate upon enterprizes with the greatest potential for expanding Tanzania's foreign exchange earnings. Export feasibility studies might constitute one such activity, particularly in regard to the huge Gulf states' market. Given the weak price prospects for several of Tanzania's present export crops, a strong case exists to diversify into new crops. However, any such effort must be implemented outside of Tanzania's present institutional network which is already hampered by being spread over too many focii (hence our earlier recommendation to the Tanzania Government that this task be given to the private estate sector) We also warn that BET's record to date is not encouraging when it comes to agricultural exports. Thus there may be a case for applying external assistance instead to the processing, agricultural service, or even industrial export sectors. With Tanzania's underutilized industrial capacity, assistance in arranging exports would be highly desirable. Stimulation of local machinery repair services in the private sector would also yield significant multiplier benefits.

7.50 An alternative strategy for the private sector would be to focus on PVOs and farmers' associations (such as TFA) where these offer an effective means for breaking farmers' production bottlenecks. Here the first step should be to look for inputs which have a large multiplier impact in the private sector. Production of feed concentrates to serve private poultry raisers was cited to us as one example. The Tanganyika Farmers' Association has continued in operation without much government support. We regard it as a highly suitable institution for providing agricultural assistance. The SIP team was unable to interview TFA management during our brief stay in Tanzania, but it would seem on the surface an ideal organisational base for expanded project assistance (rather than duplicating TFA's functions within KILIMO's proposed input supply centers). Another option would be to extend small-amounts of non-project funding which Peace Corps volunteers or other PVOs (such as Heifers International) might draw upon. USAID/Tanzania has in the past supported several small private American PVOs at the regional level within Tanzania; it would make good political sense to continue such support.

7.51 The possibility of expanded US (or alternative donor) assistance to Sokoine University of Agriculture arose after the SIP team had disbanded. The Sokoine University's program has been described in some detail (pp. 261-265), and is fully covered in a recent USAID/Tanzania Government report (1984). Senior Tanzanians have pointed out that Sokoine University originated in 1963/64 as a USAID project (with West Virginia University as the contractor); many of its senior staff hold US degrees; and there is a strong complementarity between the Tanzanian Government's hopes for its new University and AID/Washington's current focus on bringing the "green revolution" to Africa. USAID has in recent years had a much larger project to assist Egerton College in Kenya, while at the same time terminating its small assistance to Morogoro's Center for Continuing Education. At present, the foreign exchange constraint strongly affects the University's library and research programs. Given the willingness expressed in Tanzania for a re-organization of research services, it would seem donors are missing a major opportunity for institutional innovation.

7.52 For USAID/Tanzania, several warnings were given based on USAID's earlier project experience in the late 1970s (pp. 143-147). Should the time come when USAID does expand its assistance in Tanzania again, five lessons should be absorbed:

- implementation will take much longer than outsiders expect.
- projects requiring cooperation between ministries are less likely to become institutionalized.
- USAID should avoid designs which have a large survey or data gathering component unless this is the project's primary aim.
- small projects are much preferable to large ones.
- USAID should avoid having large elements of physical construction in its projects.

We are not optimistic that AID/Washington will accept such advice, but at least AID's present willingness to fund longer term projects elsewhere in Africa is an encouraging sign. The interesting point about USAID's earlier project portfolio is that it dealt with most of the same areas which should be a priority today: village development, seed supply, KILIMO's manpower development, agricultural extension, livestock marketing, range conservation, and training for rural development. This suggests that donors have a better record in identifying the priority areas than in actually giving effective assistance (though of course many of the reasons for project failure arise from the local environment). A priority task in our view would be for donors to look closely at their own previous projects in an effort to highlight why project performance in Tanzania has been so ephemeral. Here probably it would be advisable to combine forces, so that outsiders not from the donor concerned could independently analyze its particular faults. In Tanzania, the major role of World Bank/IDA and of SIDA financing certainly merits more scrutiny than it has received to date. We emphasise this point, because donors' unwillingness to accept any joint responsibility for the low performance of their projects is perceived by Tanzanians as a valid reason for suspecting donors' motivations now and in the future.

7.53 As it happens, the senior author has been involved over the years in many of USAID/Tanzania's projects (either as a contractor or as an observer resident in a project's area of field operation). What

neither the Tanzania Government nor USAID officials adequately recognize is that because the start-up phase is so long, most of USAID's major projects had only two or three seasons when they were being fully implemented with all necessary project resources in place. This is simply too short a time for effective institutionalization to occur. In turn, because of weak institutionalization, loan repayment cannot be expected from the activities a project has financed. These days when Tanzania repays donors' loans, it usually does so by diverting funds from other sources rather than from the recapture of revenues from the projects financed. Knowledge that this is so explains why many senior Tanzanians view donors' attempts at obtaining loan repayment as being vindicative in nature, motivated by the donors' internal politics and not by realistic assessment of Tanzania's repayment capacity. With this view, this report emphatically concurs.

7.54 Why, then, is there so little sympathy for Tanzania's repayment dilemma within AID/Washington? Here Tanzania's policy-makers should realize that a significant proportion of Africa Bureau's senior staff have at one time or another served in Tanzania (a natural consequence when tours of duty are short and the rate of transfers high). There are many AID officials in Washington who remember vividly the frustration of "assisting" Tanzanian administration in the form described in this report. This experience has left a legacy of scepticism much like what one finds at middle levels within Tanzanian agencies. Indeed, one of several ironies highlighted in this report is that AID's customary structure for project implementation in Africa is closely analogous to Tanzania's (and produces a similar alienation on the implementers' part). In the AID system, the direct hire "project managers" resident in Dar es Salaam think of themselves as the supervisors and controllers of field activities, yet in reality the work is done by contract staff who are subject to unrealistic timetables, constantly changing overseers, and a stream of directives from above. Another similarity is that there is nobody positioned to have an overview of all the various components of a project over

the totality of the project cycle. AID/Washington worries about Congressional oversight, USAID/Dar es Salaam about Washington, the contractor about its home office and budget, the TanGov agency about the Regional Administration and/or the Ministry, and the Regional Administration about the Party's and State House's oversight. These divergences are amplified by a rapid turnover in the staffing at each level. Project teams find they are constantly explaining basic facts to new supervisors. One feels constrained on every side by different political agendas and contradictory performance expectations. Structurally, the situation of a USAID contract team is subject to many of the same misapprehensions about performance which one sees in the Tanzanian system itself at the lower levels (see p. 197). It is, in short, a quite management-intensive system which yields relatively small output from a large input (good cause for avoiding loan financed projects!).

7.55 Ultimately the issue AID/Washington faces is whether to channel assistance according to short-term political criteria, or long-term need and development potential. Chapter three of this report makes the case that Tanzania still has substantial underexploited natural resources: major potential for irrigation and hydropower, its as yet undeveloped Southern Highlands zone (as large as all of Kenya's highlands), enormous tourism potential, and significant inland waters shared with neighbouring states (Lakes Victoria, Tanganyika, and Malawi). Chapter four argues that the efficiency of Tanzania's transport systems is of considerable regional importance, especially to Zambia, northern Malawi, and Burundi, but also to Uganda, Ruanda, and Zaire. Chapter five points out Tanzania's generally progressive social policies, its several major training institutions (two of them cast in the US "land grant" mold), and the substantial connections between US voluntary agencies and Tanzanian health and education services. Chapter six describes the Government's intention to restore local representation in its system by means of co-operatives and local government. The SIP team was unanimous in feeling that these potential advantages should outweigh short-run concerns about debt-repayment. There is still a reservoir of good feeling within Tanzania towards the USA, which should not be cast aside lightly.

Postscript

Throughout this report, reference has been made to the "SIP team" having reached certain conclusions and opinions. The SIP group as a whole did review a summarized statement amounting to over ten single spaced pages, presented to USAID/Tanzania before we disbanded. However, it proved impossible to arrive at a narrative draft of all seven chapters within the short period of less than a month which we had together. In addition, loss of all the documents relating to chapters two and four greatly delayed completion of the report. The senior consultant takes the final responsibility for the inevitable mistakes and errors which remain. SIP team members individually provided much of the documentation for each chapter, and contributed vigorously to the debates we had about Tanzania's current policies. The stress on the productivity interpretation was added by the senior author and should not necessarily be linked to other individuals in the team.

ANNEX I. BIBLIOGRAPHY

The first part of this bibliography contains references incorporated into the text; the second part contains selected topical references on: 1) political economy, 2) agricultural extension, 3) the economic situation, 4) food policy, 5) irrigation, 6) labor, 7) parastatals, and, 8) ujamaa settlement.

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