

PD-AAL-524
13597

RESOURCES FOR VILLAGE PRODUCTION
AND INCOME

(621-0155)

PROJECT PAPER

VOLUME II (Second Part)

Submitted: June 10, 1980

ENGINEERING ANALYSIS

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(Retained USAID/T Files)

ENGINEERING ANALYSIS

I. Housing

One four-bedroom guest house and three three-bedroom staff houses are required for short- and long-term Project technical assistance team. The houses will be located on plots in the Oyster Bay, Mbezi Beach, Regent Estate or M'asani Bay residential areas of Dar es Salaam. All plots have been surveyed, subdivided and approved for building by the City Council. Plots are clear, safe from flooding, on sandy or coral-based soil and have access to water and electricity. The Tanzania Rural Development Bank (TRDB) has applied to the City Council for allotments of the four required plots.

Plans for the houses are based on the Government of Tanzania Grade "A" type "H" Quarters, floor plans No. 8117/30 for three bedrooms and No. 8117/43 for four bedrooms. The standard plans will be modified by a local Architectural and Engineering firm, at the direction of USAID, to make the plans more appropriate for U.S. technicians (e.g., storage areas will be increased and bathrooms will be redesigned). The A&E firm will prepare final plans and tender documents, and will review bids, recommend contract award, and supervise construction. Construction materials and procedures will be normal for buildings in Tanzania; foundation and floor slabs will be reinforced concrete, walls will be plastered concrete blocks, rafters will be treated wood or steel and roofing will be corrugated metal.

The A&E firm and local construction contractors will be contracted by the TRDB with USAID Project financing. USAID approval of sites, site plans, final plans, tender documents and contract award will be required. Fixed Amount Reimbursement (FAR) procedures will be used to reimburse the TRDB for the construction. A Memorandum of Understanding between USAID and the Government of Tanzania will outline the FAR procedures. Final reimbursement will require an inspection and approval of the houses by a USAID engineer.

The timing of implementation activities is based on the Pro Ag signing date anticipated by USAID and on contracting, design and construction periods estimated by a consulting engineer in Dar es Salaam.

Implementation Schedule

Pro Ag Signed	8/80
IFB for A&E Services	9/80
Completion of Final Plans and Tender Documents	11/80
Construction Tender	12/80
Contract Award	2/81
Construction Begins	3/81
Construction Completed	3/82

Housing construction costs were estimated in March 1980 by a private consulting engineer in Dar es Salaam to be:

3 bedroom	376,500 TSh each
4 bedroom	459,375 TSh each
Site Works	67,000 TSh each

Foreign exchange costs (imported materials) are estimated at 30% of the total costs. Inflation is estimated at 20% per year. Ten percent of the costs is duty on imported materials that the Project will be exempted from paying. The cost estimates are valid for construction beginning in mid-1980. At 8.25 TSh to the dollar, total costs with inflation and contingency are estimated to be:

	Unit Costs (w/site works)	No.	Total Cost
3 bedroom	48,400	3	145,200
4 bedroom	57,400	1	<u>57,400</u>
Sub-Total			202,600
Inflation (9 months @ 20% per year)			<u>30,400</u>
Sub-Total			233,000
Contingency @ 15%			<u>35,000</u>
TOTAL			\$268,000

The cost of A&E services is estimated at 12% of the construction costs, or \$32,000.

II. Multi-Purpose Village Service Centers

The Project will provide foreign exchange to the TRDB to finance the imported materials costs of items loaned to villages for construction of Multi-Purpose (MP) Village Service Centers (VSC). The core unit of the VSC will be used to store crops, agricultural inputs, tools and some retail goods. Option add-ons to the core unit will provide space for adult education classes, village meetings or social events, a cooperative village store and office for the village management technician, chairman and secretary. The TRDB will provide a loan to finance the FX cost items and some costs for local materials while villages will contribute unskilled labor and the remainder of locally available materials.

Loan criteria used by the TRDB and Regional Government personnel will require:

1. Allocation of a site that:
 - (a) is located near other village services (e.g., the maize mill, school or dispensary);
 - (b) has access to road open most of the year;
 - (c) is well drained and free from flooding;
 - (d) requires minimal land clearing before construction;
 - (e) is not currently utilized for other important uses (e.g., is not settled or cultivated);
 - (f) has no unusual soil conditions (such as rock formations);
 - (g) is centrally located in the village to minimize walking distance;
2. Construction according to the building plan developed by a USAID Project-financed A&E firm;
3. Construction according to an implementation plan approved by the TRDB and Regional Government personnel (the plan to include designation of proposed construction supervisors and provision of self-help labor and locally available materials); and
4. Submission of an acceptable plan for administration and maintenance of the VSC

A Project-financed A&E firm, contracted by the TRDB, will develop standard plans for the VSC building core unit and add-ons, based on the existing core unit plan being used by the TRDB. The core unit will have a large storeroom approximately 150 m² in area, and a small office, a weighing room and an input storeroom of about 12 m² each.

Optional add-ons will be a meeting room of about 40m² area, an additional office about 15m² in area as a village store about 25m² in area. The standard plans will be as simple as possible to keep costs down, to facilitate self-help construction and maximum use of local materials. The plans will be adaptable to locally available materials. In general, foundations will be reinforced concrete; floor slabs will be concrete; load bearing columns will be concrete blocks or brick; walls will be brick, stone or concrete block; roof trusses will be wood or steel; and roofing will be corrugated metal.

Skilled labor for construction of the VSC buildings will be provided by Regional Public Works Departments (when available) or by locally hired carpenters and masons. TRDB project officers will monitor the village programs at a regional level, with construction monitoring provided by Regional or District engineers. USAID engineers and Project officers will also monitor the program periodically.

Total cost of a multi-purpose VSC unit is estimated to be TSh 150,000 at 1980 prices. Of this amount TSh 78,000 will be loan funded by TRDB. The loan amount covers the cost of imported materials, other FX costs and items not available in villages. Village contributions will be in the form of labor (unskilled and skilled, when available) and local building materials. The availability of suitable local materials such as burnt bricks and wire meshes determines the total loan amount since these materials can substitute for major imported items such as cement and reinforcing rods.

TRDB records were used to estimate the cost of loan-funded items of a typical VSC core unit. These estimates were augmented by estimates of the FX costs of items for add-on units since they will be loan-funded as well, e.g., additional cement and corrugated iron sheets. Cost estimates are generally representative of conditions in Tanzania where construction is planned; they are as follows:

COST ESTIMATES OF A TYPICAL VSC UNIT (INCL. FX COSTS OF ADD-ON)
 (TSh. 1980 Prices)

A.	<u>Essential Items Partially Imported by AID</u>		<u>35,100</u>
	1. Cement (420 Bags at TSh 40/80 per bag	17,150	
	2. Iron Sheets (140 Sheets at TSh 60/30 per Sheet	8,450	
	3. Nails (Lead Heads Only)	2,350	
	4. Iron Rods and Wire Meshes	7,150	
B.	<u>Imported Items Available Locally</u>		<u>10,000</u>
	1. Safe	5,000	
	2. Scales	5,000	
C.	<u>Other Loan-Funded Items</u>		<u>15,200</u>
	1. Skilled Labor	7,200	
	2. Transport of Materials	8,000	
D.	<u>Other Costs</u>		<u>17,700</u>
	1. Furnishings, Nails, Timber	10,000	
	2. Iron Sheets, Rods and other Materials for Add-On	7,700	
E.	TOTAL Cost of All Loan-Funded Items		78,000 = = = =

AID will only and partially import the items listed under A above, since some are now available locally. Local supplies of most of these items are expected to increase over the 1980/81 - 1985/86 development period of the proposed Project due to increased local manufacture. This will reduce AID financing of these imported items. The proportion of items imported by AID is projected to decline as follows:

<u>Year</u>	<u>Cement</u>	<u>Iron Sheets (%)</u>	<u>Nails</u>	<u>Rods</u>
1980/81	80	50	60	100
1981/82	50	50	60	100
1982/83	40	50	60	100
1983/84	30	50	60	100
1984/85	15	20	60	50
1985/86	15	20	60	50

TRDB plans to finance 1,063 VSC units over the Project period. The number of units constructed each year is shown below together with: the total cost of loan-funded items per VSC unit (inflation is 10% per year); the proportion of loaned items financed by AID imports of cement, iron sheets, lead-headed nails, rods and wire meshes; and, the total FX provided by AID each year so that the number of VSC units can be constructed as planned.

Deviation of FX to be Provided Each Year By AID to Support Construction and Financing of VSC Units as Planned by TRDB

<u>Year</u>	<u>Number of VSC Units (#)</u>	<u>Per Unit Cost of Loan Funded Items (\$)</u>	<u>Proportion of Loan Funded Items to Be Financed by AID Imports (%)</u>	<u>Total FX Provided by AID for Raw Material Imports (\$000's)</u>
1980/81	132	9,515	34	440.0
81/82	174	10,490	28	510.0
82/83	179	11,585	26	540.0
83/84	190	12,805	24	590.0
84/85	191	14,025	12	320.0
85/86	<u>192</u>	15,490	12	<u>370.0</u>
TOTAL	1,063			2,770.0

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D R A F T

MEMORANDUM OF UNDERSTANDING BETWEEN USAID
AND GOVERNMENT OF TANZANIA
FOR CONSTRUCTION OF FOUR STAFF HOUSES

Project No. 621-0155, Project Agreement No _____, dated _____,
entitled "Resources for Village Production."

AID agrees to provide an amount not in excess of the Tanzanian Shilling equivalent of U.S. \$202,600* to assist the Government of Tanzania (the Government") to finance the cost of construction services and materials to be used in the construction of three staff houses and one guest house in Dar es Salaam. It is agreed that the Tanzania Rural Development Bank (TRDB) will commence construction of the houses upon signing of the Project Agreement by representatives of the Governments of the United States and the United Republic of Tanzania. It is also agreed that the TRDB will provide temporary housing for one advisor during the interim period until such time as housing construction is completed.

The construction of these houses has been fully described in Annex "A" of this memorandum. The Government will carry out all construction activities using its own construction crews. All construction will be carried out in compliance with the standard Government building specifications in current use in Tanzania.

AID will contribute toward the cost of construction services and materials, the Tanzanian Shilling equivalent of \$48,400 for each of the three-bedroom houses and \$57,400 for the four-bedroom house, based on the highest lawful exchange rate for the United States dollar existing in Tanzania at the date of each advance/reimbursement, and subject to the procedures described in Paragraph 3 and 4 below. The advance/reimbursement is subject to the following specific terms and conditions.

* 3 houses @ \$48,400 each = \$145,200
 1 house @ \$57,400 = 57,400

TOTAL \$202,600

Cost to be adjusted for inflation at the time of signing FAR.

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1. No advance or reimbursement will be made for the cost of construction services and materials for any staff houses unless AID has, prior to the commencement of work on the staff houses for which the advance/reimbursement is requested, reviewed and approved all plans, specifications and other construction related documents as AID may deem necessary for the construction of each staff house to be AID financed. AID, at its discretion, may stipulate in writing that approval of plans and other documents for an individual staff house will constitute AID's approval of the plans, specifications and other documents for all, or any part of the units to be so financed.
2. The Government agrees that AID representatives, at all times, may inspect and otherwise monitor the construction of these staff houses.
3. With regard to the construction of the four staff houses, AID agrees, upon the request of the Government, submitted prior to the commencement of construction and upon the satisfaction of all requirements specified in number Paragraphs 1 and 2 of the Letter Agreement that an amount not to exceed the Tanzanian Shillings equivalent of an amount not to exceed 40% of the total cost of construction, or U.S. \$19,360 per three-bedroom unit and \$22,960 for the four-bedroom unit, or a total of \$81,040 for the four units will be advanced to the Government to begin construction of the four staff houses.

The advance will be administered in the following manner:

- (a) No three-bedroom house construction shall receive more than the Tanzanian Shilling equivalent of U.S. \$19,360 or \$22,960 for the four-bedroom unit to be applied towards the construction of each staff house unit;
- (b) Funds advanced shall be kept in a separate account; any interest generated by the advanced funds will be returned by the Government to AID at the earliest possible time after generation of such interest;
- (c) The Government may request final payment for construction costs as each staff house unit is satisfactorily completed;
- (d) The request for each final reimbursement will be accomplished by submission of duly completed Form SF-1034

(facsimile attached) by the Ministry of Finance, with the Tanzania Rural Development Bank's certification that: the construction for which the reimbursement claim is made has been satisfactorily completed and approved by the Ministry of Finance, and that this represents the final payment for the work which is subject of this claim;

(e) Prior to the approval of a claim, an AID representative will inspect the work to determine if construction has been in compliance with the AID-approved plans and specifications. Upon the submission of the AID representative's report of satisfactory completion and certification that all the conditions of this agreement have been met, the payment will be made by AID to the Government for each staff house so approved.

4. The Government agrees and understands that AID will not finance an amount in excess of the Tanzanian Shilling equivalent to United States \$202,600 less the amount of any advance made pursuant to Paragraph 3 above for each staff house and the cost of construction in excess of that amount shall be borne by the Government.
5. No reimbursement will be made for any staff houses after the expiry date of the Project Agreement, i.e., until and unless it is extended by mutual agreement by AID and the Government.
6. The Government agrees to provide or cause to be provided for the construction of the four staff houses in addition to the amount contributed by AID, all lands, utility services to the proposed construction, all additional funds and other resources required to carry out the work in a timely manner so that the houses are ready for occupancy for Project personnel.
7. The TRDB agrees to keep all records related to this construction activity and provide access to AID for a period not to exceed three years.
8. For the purpose of this Agreement, the following definitions apply:

USAID : The United States Agency for International
Development Mission to Tanzania

Government : The Government of the United Republic of
Tanzania

AID : Agency for International Development,
Washington, D.C.

TRDB : Tanzania Rural Development Bank, Dar es Salaam,
Tanzania

Chairman, Tanzania Rural
Development Bank

Director, USAID/Tanzania

Date: _____

Date: _____

Principal Secretary,
Ministry of Finance

Date: _____

Mission Clearances: PRM:WHFaulkner (draft)
ADO:MFuchs-Carsch (draft)
CON:WAMiller (draft)
REDSO/ENGR:SBaker (draft)

DESIGN PARTNERSHIP LTD
Consulting Engineers

ANNEX II-H
Exhibit 3
Page 1 of 3

Chartered and Registered Engineers

P O Box 564 Tel 27858
Telegraphic Address "CONSULTANTS"
Dar es Salaam Tanzania

Ing M H PIRBHAI BSc (Eng) (Lond) CEng MICE MASCE
Ing B J CHAVDA BSc (Eng) (Lond) ACGI MICE MASCE

Our Ref: P5/MHP/YL

For the attention of Mr. Koch

TANZANIA RURAL DEVELOPMENT BANK
P. O. Box 268
DAR ES SALAAM

19th March, 1980

Dear Sir,

COST ESTIMATES

EXTERNAL WORKS

With further reference to your enquiry, we suggest that following allowances should be made for external works.

1. EXTERNAL WORKS

- | | | |
|-------------------|---|-----------------------------------|
| a) Septic system | - | included in our previous estimate |
| b) Fencing & gate | - | Say approximately Shs. 22000/- |
| c) Driveway | - | Shs. 20,000.00 |
| d) Landscaping | - | Shs. 25,000.00 |

2. INFLATION

Based on the experience of past years, an allowance of 15% be kept to cover the inflationary increases every year.

We trust the above information conforms with your requirements.

Yours faithfully,


DESIGN PARTNERSHIP LTD

DESIGN PARTNERSHIP LTD

Consulting Engineers

Chartered and Registered Engineers

PO Box 684 Tel 27858

Telegraphic Address "CONSULTANTS"

Dar es Salaam Tanzania

Ing M H PIRBHAI BSc (Eng) (Lond) CEng MICE MASCE

Ing S J CHAVDA BSc (Eng) (Lond) ACGI MICE MASCE

ANNEX II-H

Exhibit 3

Page 2 of 3

Our Ref: P5/MHP/YL

For the attention of Mr. Koch

TANZANIA RURAL DEVELOPMENT BANK
P. O. Box 268
DAR ES SALAAM

7th March, 1980

Dear Sir,

COST ESTIMATES

We refer to your letter dated 6th March, 1980 and as requested, hereby given you the cost estimates of the two types of Houses as follows:-

- A. TYPE GOVERNMENT HOUSING GRADE 'A' TYPE 'H' QUARTER
(Drawing No. 8117/30) Shs. 376,500.00
- B. GRADE 'A' QUARTER 'TYPE 'H' (with additional Bedroom & Bathroom)
(Drawing No. 8117/43) Shs. 459,375.00

In preparing our estimates, we have assumed the following:-

1. PARTICULAR SPECIFICATION

(a) Floor Finish

- (i) P.V.C. tiles : All areas excepting bathrooms
kitchen & toilet.
- (ii) terrazzo : Kitchen bathroom & toilet
- (b) White glazed tiles : 2.0 m high in bathrooms
1.5 m in toilet & kitchen
- (c) pelmets : on all window openings
- (d) Mosquito proofing : to all windows

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- (e) Water & electrical services : included
- (f) Drainage : included
- (g) External works fencing and roadworks : not included

2. The estimate is based on the current cost of construction in the country.
3. It is assumed that the houses are to be built within the boundary of city of Dar es Salaam.

The two drawings are returned herewith.

Yours faithfully,


DESIGN PARTNERSHIP LTD

17th March, 1980

STAFF HOUSING CONSTRUCTION/550

The City Director,
Dar es Salaam City Council,
P.O. Box 9084,
DAR ES SALAAM. (Attention - D. Kasege - City Director)

Dear Sir,

RE: APPLICATION FOR 4 PLOTS

The Tanzania Rural Development Bank is applying for 4 plots in order to build residential houses for expatriates who will be coming to Tanzania in 1981 (July) for the 2nd Phase of USAID Agricultural Credit. The cost of constructing these houses shall be externally financed and that when eventually these expatriates leave, the houses will be handed over to the Tanzania Government.

We would like to apply for these plots in the following areas:-
Mbasani Peninsular, Mbezi Beach, Oysterbay and Regent Estate.

We shall appreciate your early response on the matter so that we may inform the financiers of this project for their prompt action. The houses shall each have 3-4 bedrooms and therefore a big area per plot will be required.

We enclose herewith an application for plots duly completed.

Yours faithfully,
TANZANIA RURAL DEVELOPMENT BANK

4
A. K. S. Kapanga
for GENERAL MANAGER.

N.O.O.

c.c. Mr. R. Gollehon,
Tanzania Rural Development Bank,
P.O. Box 268,
DAR ES SALAAM.

AKSK/jcm.

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MACHINERY SERVICES

P.O. Box 2573

DAR ES SALAAM

MAELEZO NA MAELEKEZO YA MASHINE YA KUSAGA UNGA AINA YA NN 50, NM 75 NA HULLER ZENYE KUTUMIA INJINI YA LISTER NAMBARI: ST-2, HR-2 NA HRW-2

1. Kwanza jenga nyumba yenye vipimo vilivyoagizwa ili kupata nafasi ya kuingiza upepo wa kutosha.

Urefu — futi 12'-0".

Upana — futi 10'-0".

Urefu wa Ukuta futi 18'-0".

Maelezo ya madirisha na vipimo vyake imeonyeshwa kwenye karatasi tofauti yenye michoro.

2. Nyumba iwe na sakafu, na mashine ielekee mlangoni na kuwekwa kati kati ya nyumba. Sehemu inayowekwa mashine budi pawe na zege ya kutosha (foundation) ya vipimo vinavyotakiwa, ambavyo imeonyeshwa katika mchoro.

3. Baada ya zege (foundation) kujengwa na mashine hiyo kujengwa katika zege hiyo, itaachwa hivyo hivyo mpaka wiki mmoja ipite na kumwagia maji mara mbili kutwa.

4. Kwa ajili ya usalama wa mashine ni lazima kila mara na kila siku kucheki oil ya injini na dizeli katika tanki. Kisha hakikisha bolti za zege ambazo zimefungwa kushikizia mashine zimekaza. Baada ya hapo unaweza kuwasha mashine.

Endeleza kukaza bolti za mashine kama ifuatavyo.

- (a) Baada ya siku ya kwanza mashine kuwashwa utaendelea kukaza bolti kila baada ya siku mbili.
- (b) Baadae utakaza bolti kila baada ya wiki moja.
- (c) Baadae utakaza bolti kila baada ya mwezi mmoja

5. Safisha mashine na nyumba yote kila mara baada ya kazi kumalizika. Baada ya hapo cheki oil ya injini kama imepungua tumia kipimo maalum (dip stick) iliyoko karibu na bomba ya moshi (exhaust pipe).

(a) **Jinsi ya kupima oil ya injini:**

Chomoa dip stick na utaona alama mbili kutosha mwisho, alama ya kwanza inaonyesha oil imepungua katika injini, na ya pili inaonyesha oil iko sawa katika injini. Pia haitakiwi oil ya injini kujazwa zaidi ya alama ya pili ya dip stick, sababu oil itakuwa nyingi na italeti madhara katika injini.

(b) **Mafuta ya Dizeli:**

Mafuta ya dizeli kila mara jaza baada ya mashine kumaliza kazi hii ni kwa sababu moja maalum:

Kama hauhitaji dizeli ile dizeli ndogo iliyobakia sababu ina joto italeti mvuke na baadae kuleta maji na hatimae maji yatapita kwenda kwenda pampu na moja kwa moja hadi kwenye injector pampu na baada ya muda injini haina mwendo au nguvu

Pia tangi la dizeli lazima usafishe kila baada ya miezi 3. Na pia kuna kitabu maalum kinaocheleza utumiaji na utunzaji wa mashine za kusagia unga, na lazima utaratibu huo ufuatwe, hasa masaa yaliyotumika wakati wa injini ilipokuwa ikienda ambayo kwa kutumia kitabu utaona mwongozo unaonyesha muda wa masaa kuthibitisha kubadili oil ya injini.

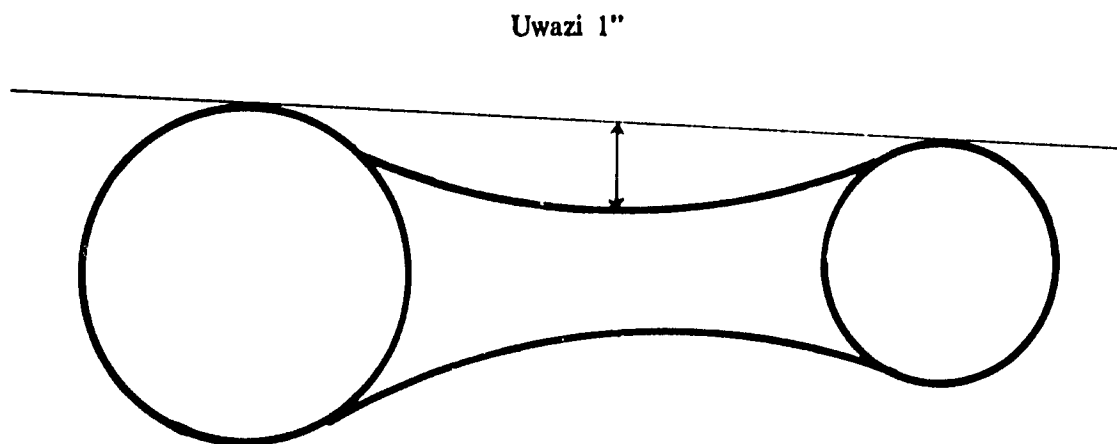
6. Zaidi ya hayo injini oil ya injini ya dizeli sio sawa na injini ya petroli iko tofauti sababu injini ya dizeli ina joto sana kwani ni nzito kidogo kuliko ile ya injini ya petroli, hivyo angalia sana jambo hili. Na endapo unatumia mafuta kutoka kampuni ya Shell basi tumia mafuta ya kampuni hiyo, na iwapo Shell hawana na umepata mafuta katika kampuni nyingine kwa mfano, Caltex, basi kwanza toa mafuta yote ya Shell kwenye injini ndipo uweke mafuta ya Caltex. Tafadhali kumbuka jambo hili.

7. Ni lazima sana kutunza rekodi juu ya matumizi ya kila siku ya mashine za dizeli, kufuata utaratibu wake. Rekodi ya kufuatwa zaidi ni masaa yaliyotumika wakati injini inaenda, na masaa hayo, yatakufahamisha :

(a) Muda wa masaa unayotakiwa kubadili injini oil.

(b) Muda wa masaa unayotakiwa kufanya cheki au repea za injini na kadhalika.

8. Kila wiki lazima ucheki uimara wa mkanda (tension) katikati baina ya mashine ya unga na injini kuwe na uwazi wa inchi 1" kama ilivyoonyeshwa hapa.



Jinsi ya kupima weka ubao uliyoooka na uwe mrefu kutosha kufika kuanzia gurudumu la injini na gurudumu la mashine. Kisha bonyeza kwa kidole katikati ya mkanda na uwazi unaotakiwa ni inchi 1" na endapo ni zaidi ya inchi moja utakuwa umelekea hivyo unatakiwa kurekebisha.

MICHORO YA NYUMBA

1. Michoro ya nyumba na madirisha kama ilivyoonyeshwa katika karatasi :-

Kwanza sura ya mbele ya nyumba.

Pili sura ya nyuma ya nyumba.

Tatu sura ya ubavu ya nyumba.

Sura ya ubavu wa nyumba ndio inayoonyesha madirisha sababu, huo ndio upande wa injini inakochukua upepo.

Na upande wa FLYWHEEL ziko pangaboi ambazo zinavuta upepo kupitisha katika cylinder block kupoza injini, na kila mwezi hizo pangaboi zinatakiwa kusafishwa vumbi au mafuta iwe safi, na madirisha ya upande.

2. Na injini ya maji pia inataka madirisha ya kiasi kwa ajili ya upepo.

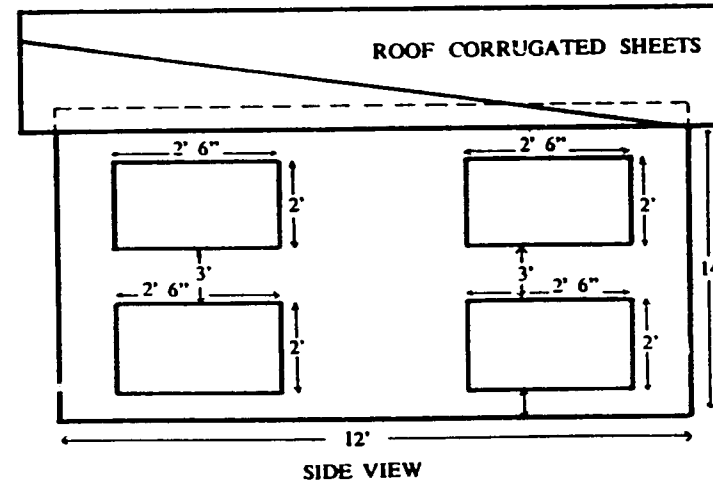
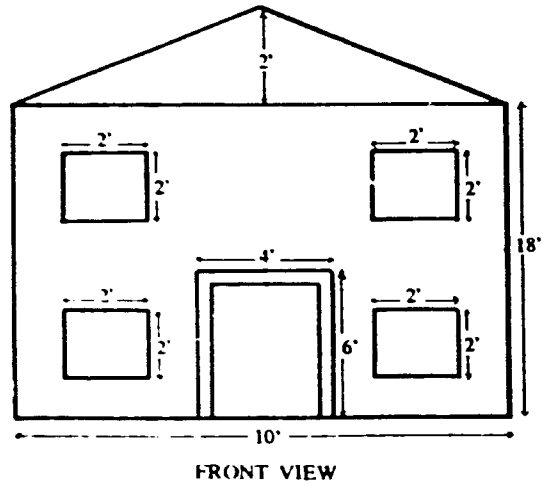
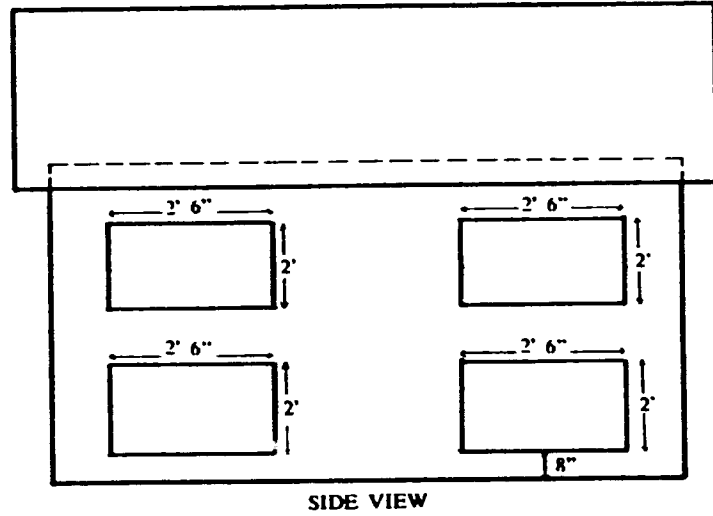
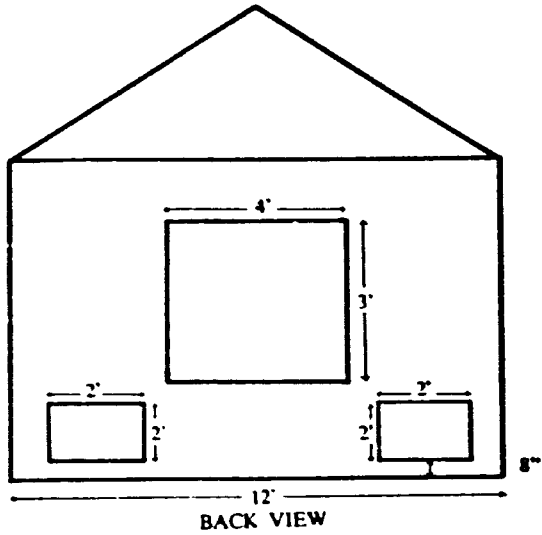
3. Injini aina ya HRW-2 saizi ya tangi ya maji inayofaa kwa kila saa moja galoni 15 (lita 75) kwa mfano injini HRW-2 HR.25 inahitaji tangi inayochukuwa galoni 375. Tangi kubwa zaidi ni nzuri lakini tangi ya maji ifungwe nje ya nyumba. Na tangi liwekwe juu ya jukwa la ukuta la kiasi ya futi 4'-0".

4. Na tangi moja inatakiwa bomba 2 moja inaenda kwenye injini na nyingine inatoka kwenye injini na kurudisha maji katika tangi. Maji yanayotoka katika injini huwa joto na yanarudi kwenye tanki kupozwa na joto la maji lisizidi F, na ikizidi hapo italetu uharibifu katika injini.

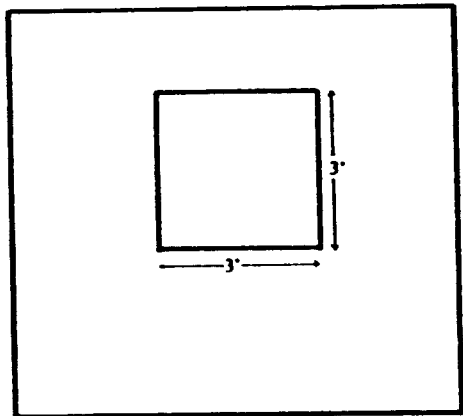
5. Inafaa kuweka cock, na hii inatumika kwa kazi mbili; kwa kupunguza na kuongeza kufuatana na kiasi cha joto la maji lilivyo. Kila mwezi weka maji mapya, na safi na yasiwe na chumvi chumvi; hii itasababisha kuziba njia ya maji katika injini block.

Kama kanuni na utaratibu wa kutunza injini zitafuatwa, mashine itafanya kazi bila hitilafu na itaishi muda mrefu.

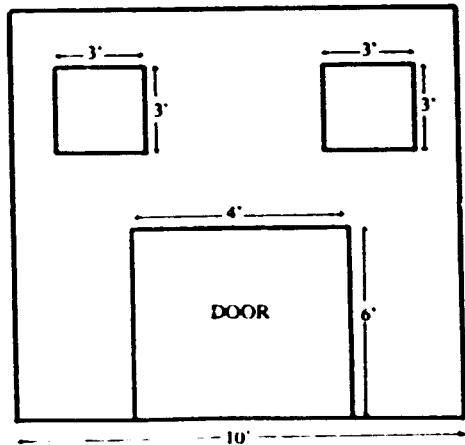
ROUGH SKETCH OF BUILDING FOR ST-HR-HRC



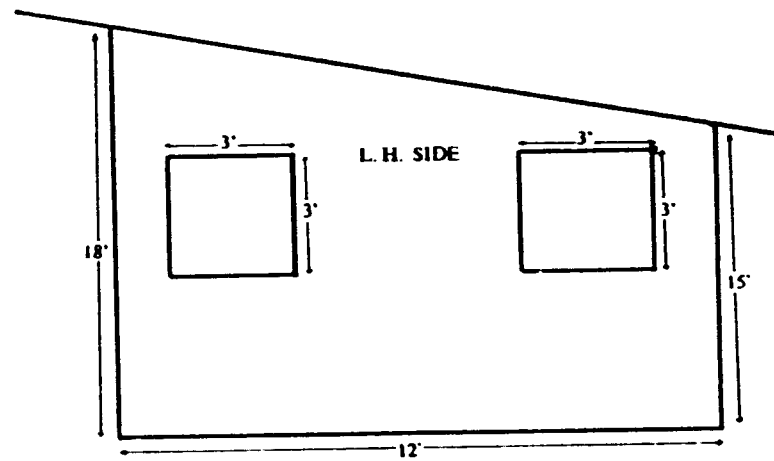
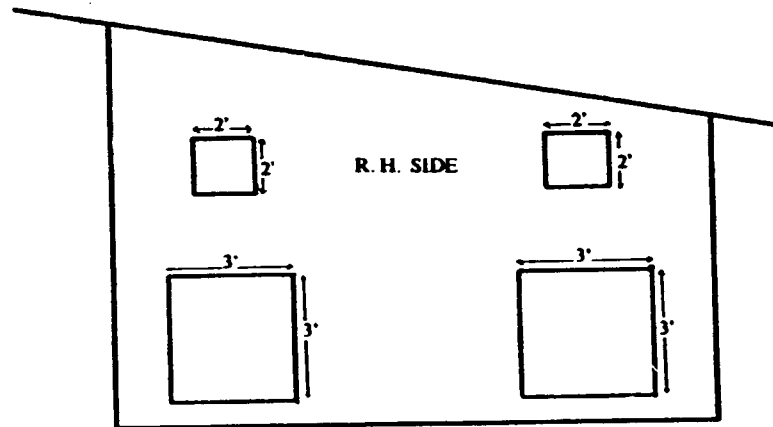
18'



BACK VIEW



FRONT VIEW



19.

DETAILED COST ESTIMATES

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Table 1: Detailed Expenditures - Technical Assistance	1
Table 2: Detailed Expenditures - Training	2
Table 3: Detailed Expenditures - Commodities	3
Footnotes	4-10

2

TABLE 1 : DETAILED EXPENDITURES SCHEDULES - INSTITUTIONAL SUPPORT (\$000's)

	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86		TOTAL		
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
I. THEORETICAL ASSISTANCE*																	
A. Long-Term Advisors^{b/}																	
Decentralization/Training			31.3	5.0 (4)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	66.7	10.0 (8)	502.0	75.0 (60)	
Finance Management			66.7	10.0 (8)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	66.7	10.0 (8)	531.4	80.0 (64)	
Rural Planning			33.3	5.0 (4)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	100.0	15.0 (12)	66.7	10.0 (8)	500.0	75.0 (60)	
Procurement**			75.0	11.3 (9)	100.0	15.0 (12)	25.0	3.7 (3)							200.0	30.0 (24)	
Sub-Total			206.3	31.3 (25)	400.0	60.0 (48)	325.0	48.7 (39)	300.0	45.0 (36)	300.0	45.0 (36)	200.1	30.0 (24)	1,733.4	260.0 (208)	
B. Short-term Advisors^{b/ c/}																	
Training			12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		75.0 (6)		
- 2 Expatriate	37.5(3)***		50.0 (4)		75.0 (4)		150.0(12)		75.0 (6)		37.5 (3)		37.5 (3)		462.5 (37)		
- 2 Tanzanian				31.0 (6)		66.0 (12)		66.0 (12)		66.0 (12)		66.0 (12)		66.0 (12)		363.0 (66)	
Decentralization			12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		12.5 (1)		75.0 (6)		
Village Training: Expatriate					25.0(2)		25.0(2)		25.0 (2)		25.0 (2)		25.0 (2)		100.0 (8)		
- 2 Tanzanian						33.0 (6)		33.0 (6)		33.0 (6)		33.0 (6)		33.0 (6)		165.0 (30)	
Input Distribution					150.0(12)		37.5(3)		37.5 (3)		37.5 (3)		37.5 (3)		300.0 (24)		
Institutional Coordination							12.5(1)		25.0 (2)		25.0 (2)		12.5 (1)		75.0 (6)		
Procurement**									25.0 (2)		25.0 (2)				50.0 (4)		
Sub-Total	37.5(3)		75.0 (6)	31.0 (6)	275.0(22)	99.0 (18)	250.0(20)	99.0 (18)	212.5 (17)	99.0 (18)	162.5 (13)	99.0 (18)	125.0 (10)	99.0 (18)	1,137.5 (91)	528.0 (96)	
C. Other																	
Administrative Assistant				5.0 (12)		5.0 (12)		5.0 (12)		5.0 (12)		5.0 (12)		5.0 (12)		30.0 (72)	
Evaluation							75.0***					100.0***			175.0		
Sub-Total				5.0		5.0	75.0		5.0		5.0		100.0		175.0		
SUB-TOTAL TA	37.5	-	281.3	69.3	675.0	164.0	650.0	152.7	512.5	149.0	462.5	149.0	425.1	134.0	3,045.9	818.0	

83,863,900
83.9 million

* All visits person months
** Separate contract
*** Direct AID

1, 167

TABLE 2 CONTINUED

DETAILED EXPENDITURE SCHEDULES - INSTITUTIONAL SUPPORT
(\$000's)

	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86		FY 87		TOTAL	
	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)*	FX (AID)	LC (TANGOV)
II. Training**																		
A. Long-term																		
32 Two Year Program			53.2	10.5(28)	186.2	36.7(98)	275.5	54.4(145)	260.3	51.4(137)	267.9	52.9(141)	256.5	50.6(135)	102.6	20.3(54)	1,402.2	276.8(738)
Sub-Total			53.2	10.5	186.2	36.7	275.5	54.4	260.3	51.4	267.9	52.9	256.5	50.6	102.6	20.3	1,402.2	276.8
B. Short-term (3 mos each) ^{g/l/}																		
U.S. (3 persons each year)					36.0	4.2(3)	36.0	4.2(3)	36.0	4.2(3)	36.0	4.2(3)	36.0	4.2(3)	36.0	4.2(3)	216.0	25.2(18)
Third Country (3 persons each year)					22.5	4.2(3)	22.5	4.2(3)	22.5	4.2(3)	22.5	4.2(3)	22.5	4.2(3)	22.5	4.2(3)	135.0	25.2(18)
Sub-Total					58.5	8.4(6)	58.5	8.4(6)	58.5	8.4(6)	58.5	8.4(6)	58.5	8.4(6)	58.5	8.4(6)	351.0	50.4(36)
C. Short-term-In-Country ^{g/}																		
Management Trng. Seminars)			165.0(6)***	15.4(3)	82.5(3)	95.4(3)	165.0(6)	159.0(5)	82.5(3)	95.4(3)	55.0(2)	95.4(3)	27.5(1)	95.4(3)	-	95.4(3)	577.5(21)	731.4(23)
Institutional Coordinator)					27.5(1)	15.9(.5)	-	-	27.5(1)	15.9(.5)	27.5(1)	15.9(.5)	27.5(1)	15.9(.5)	-	-	110.0(4)	63.6(2)
Input Distribution (1pm/yr)					27.5(1)	15.9(.5)	-	-	27.5(1)	15.9(.5)	27.5(1)	15.9(.5)	27.5(1)	15.9(.5)	-	-	82.5(3)	47.7(15)
Ag. Research (1pm/yr)					137.5(5)	127.2(4)	165.0(6)	159.0(5)	137.5(5)	127.2(4)	110.0(4)	127.2(4)	55.0(2)	11.3(3.5)	-	95.4(3)	770.0(28)	842.7(26.5)
Sub-Total			165.0(6)	95.4(3)	137.5(5)	127.2(4)	165.0(6)	159.0(5)	137.5(5)	127.2(4)	110.0(4)	127.2(4)	55.0(2)	11.3(3.5)	-	95.4(3)	770.0(28)	842.7(26.5)
D. Study Tours (2pm Year) ^{h/}					8.0	.8	8.0	.8	8.0	.8	8.0	.8	8.0	.8	-	-	40.0	4.0
Sub-Total					8.0	.8	8.0	.8	8.0	.8	8.0	.8	8.0	.8	-	-	40.0	4.0
SUB-TOTAL TRAINING:	218.2		105.9		390.2	173.1	507.0	222.6	464.3	187.8	444.4	189.3	378.0	171.1	161.1	124.1	2,563.2	1,173.9

* All LC Costs met by TRDS
 ** Each unit represents one month
 *** Direct Aid

Total \$2,563,200
 Rounded \$2.6 million

Table 3.

TABLE CONTINUED: DETAILED EXPENDITURE SCHEDULES - INSTITUTIONAL SUPPORT

	FY 80		FY 81		FY 82		FY 83		FY 84		FY 85		FY 86		TOTAL		
	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	FX	LC	
III. COMMODITIES																	
A. Off-Shore Procurement																	
Household Appliances 1/			46.0														46.0
Vehicles: Saloon Cars @\$10,000/ea 1/			20.0(2)					10.0(1)									30.0(3)
Landrovers @\$16,500/ea			165.0(10)					330.0(20)									495.0(3*)
Motorcycles @\$1,700/ea			85.0(50)					170.0(100)									255.0(1.0)
Housing (2% of total) 3 @\$65,000			39.0														39.0
1 @\$75,000			15.0														15.0
Travel-Contractor Selection			10.0														10.0
Sub-total			380.0					510.0									890.0
B. Local Procurement																	
RFP Preparation		1.0															1.0
A&E Plans		10.0*															10.0
Housing (80% of total) 3 @\$65,000				39.0		117.0											156.0
1 @\$75,000				15.0		45.0											60.0
Operating Expenses/Vehicles: 1/																	
Saloon Car @\$2,000 p.a.				2.0(6 mos)		4.0		4.0		6.0		6.0		6.0			28.0
Landrover @\$ 3,300 p.a.				16.5(6 mos)		33.0		33.0		99.0		99.0		99.0			379.0
Motorcycles @\$ 400 p.a.				10.0(6 mos)		20.0		20.0		60.0		60.0		60.0			230.0
Research Enumerators				15.0		15.0		15.0		15.0		15.0		15.0			90.0
Sub-total		11.0		97.5		234.0		72.0		180.0		180.0		180.0			954.5
C. Contractor Procurement																	
Calculators (20@\$50/ea; 3@\$350/ea)			2.0														2.0
Attache Cases (200 @\$60/ea)			6.0					6.0									12.0
Notebooks, paper, supplies			2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		13.0
Printing			2.0	2.0	2.0	2.0	2.0	7.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		17.0
Office Equipment			150.0	5.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		160.0
Shipping/Freight/Insurance			150.0	-	5.0	-	5.0	-	10.0	-	5.0	-	5.0	-	5.0		180.0
Misc./Contingency	5.0*	5.0*	5.0	5.0	10.0	5.0	20.0	10.0	20.0	10.0	20.0	10.0	20.0	10.0	20.0		100.0
Sub-total	5.0	5.0	317.0	14.0	21.0	11.0	31.0	22.0	42.0	16.0	31.0	16.0	31.0	16.0	31.0		478.0
O/H 85%	-	-	269.0	-	18.0	-	26.0	-	36.0	-	26.0	-	26.0	-	26.0		401.0
Sub-total	5.0	5.0	586.0	14.0	39.0	11.0	57.0	22.0	78.0	16.0	57.0	16.0	57.0	16.0	57.0		879.0
TOTALS	5.0	16.0	966.0	111.5	39.0	245.0	57.0	94.0	588.0	196.0	57.0	196.0	57.0	196.0	1,769.0	1,054.5	
															2,823.5		
															Rounded \$2.8 million		
*Direct AID																	

a/ Long-term U.S. Technician Costs are based on the following:

(Two year Contract for one technician with spouse and two children
one high school age and one grade school. Duty Station - Dar es Salaam).

1.	Salary	\$	55,000
2.	Post Differential (20%)		11,000
3.	Fringe Benefits (20%)		11,000
4.	Defense Base Insurance (8.5%)		4,695
5.	Travel to Post (3.5 x 2,600)		9,100
6.	Air Freight ((2(\$3,50/lb.x700 lbs))		4,900
7.	Sea Freight (2(\$1,50/lb.x2,500 lbs))		7,500
8.	Temporary lodging (30 days @ \$100/day		3,000
9.	Education Allowance/travel (2(\$1,800 + \$10,700		25,000
10.	Guard Service (24 @ \$100/mo.)		2,400*
11.	R&R Travel (3.5 x \$1,250)		4,375
12.	In-Country Travel (est. \$200/mo.)		5,000*
13.	Furnishings (TanGov)		
14.	Appliances (Direct Aid)		
15.	Storage (\$250 quarter x 8)		2,000
16.	Utilities (2 x \$3,000 p.a.)		6,000*
17.	Overhead (85% of salary)		46,750
		Sub-Total	\$ 197,720
	Contingency, Inflation, Misc. (15%)		29,658
			<u>227,378</u>
	Average Technician Cost Per Annum	\$	113,698
	Rounded:	\$	<u>115,000</u>
	Foreign Exchange	\$	100,000
	Local Costs	\$	15,000

b/ Short-Term Technical Assistance - Expatriate (Per Month)

1.	Salary (26 days @ \$150/day)	\$	3,900
2.	Overhead (100% of salary)		3,900
3.	Defense Base Insurance (8.5%)		398
4.	Travel: US to Tanzania		1,400
	In-country		250
	Petrol		600
	Excess Baggage 14% of Inter.		200
5.	Per Diem (30 days @ \$56/day)		1,680
		Total	\$ 15,328
		Rounded	\$ 12,500

c/ Short-Term Technical Assistance - Tanzanian (Per Month)

1.	Salary (26 days @ \$50/day)	\$	1,300
2.	Overhead (100% of salary)		1,300
3.	Insurance (10%)		130
4.	Travel: In-country		300
	Petrol		600
5.	Per Diem (30 days @ \$56/day)		1,680
		Total	\$ 5,310
		Rounded	\$ 5,500

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d/ Direct Training Long-term Academic U.S.*

AID	: 2 years training @ 16,000/yr (includes advance and maintenance costs)	\$32,000
	3 Mos, Summer Course (3 Mos @ \$3,000/mo)	9,000
	Travel	2,000
	Total	\$43,000*

* Average length 23 Mo @ \$1,900/mo
43,700 (23 mo)
45,600 (24 mo)

TANGOV:	Salary (23 mos @ 2,000/mo)	46,000
	Allowance (23 mos, @900/mo)	20,700
	Clothing	3,000
	Transport	1,000
		<u>70,700</u> TShs.= \$8,569 or \$375/mo.

e/ Short-term Training Course - U.S.*

AID	: Training Fees (3 mos @ \$500/mo.)	\$ 1,500
	Maintenance Allowances	2,500
	Travel - International	2,000
	US	500
	Sub Total	<u>6,500</u>
	O/H 85%	5,525
	Total	<u>12,025</u>
	Rounded	12,000

TANGOV:	Salary (3 mos @ 2,000/= /mo.)	6,000
	Allowance (3 mos @ 500/= /mo.)	1,500
	Clothing	3,000
		<u>\$11,500</u> TShs = \$1,393
		Rounded.... \$1,400

f/ Short-term Training Courses - Third Country

AID	: Training Fees (3 mos @ \$2,000/mo.)	6,000
	(includes advance and maintenance allowances)	
	Travel	1,500
		<u>\$ 7,500</u>
TANGOV:	(Same as above)	\$ 1,400

26'

g/ In-Country Seminars (Per Month)*

AID	:	Consultants (2 @ \$12,500/mo.)	25,000	
		Materials	2,000	
		Logistician/Local hire (\$300/mo)	500	
			<u>27,500</u>	
TANGO	:	Site Rental (30 days @ 550/= day)	16,500	
		Participants (30 @ 125/= x 23 participants) ^{a/}	86,250	
		Room (30 @ 180/= day x 25 participants) ^{a/}	124,200	
		Transport (30 @ 1,000/= each)	30,000	
		Secretary (2 @ 1,200/= mo.)	2,400	
		Misc. (1,500/= mo.)	1,500	
			<u>260,850</u>	TShs. = \$31,810
			Rounded	\$31,800

h/ Study Tours - Third Country (1 month)

AID	:	Travel	1,000	
		Per Diem	1,200	
		Fees	200	
			<u>2,400</u>	
		Sub-total	2,400	
		O/H 85%	2,040	
			<u>4,440</u>	
		Total....	4,440	
		Rounded to	\$ 4,000	
TANGO	:	Salary	2,000	TShs.
		Allowance	500	
		Transport	1,000	
			<u>3,500</u>	TShs. = \$ 424.
			Rounded....	\$ 425.

* Estimates for Direct Aid Training. Contractor training does not exceed costs of AID direct training.

1/ Household Appliance (all appliance 22-/240 volt)

Unit Costs are Calculated to Follows:

1.	Refrigerator (GE Model TBF 140)	\$	550.00
	Spares: Compressor (#WR87 x 21)		176.00
	Relay (#WR 07 x 106)		12.00
	Overload (#WR 8 x 30)		6.00
	Thermostat (#WR 9 x 296)		27.00
	Rubber gasket for doors		22.00
	Bulbs		2.00
	Packing and Shipping		300.00
			<hr/>
	Total	\$	1,095.00
	Rounded	\$	1,100.00
			=====
2.	Freezer (GE Model CA 16D)	\$	450.00
	Spares: Compressor (# WR 87 x 26)		175.00
	Relay (#WR 7 x 107)		11.00
	Overload (#WR 8 x 43)		10.00
	Thermostat (#WR 9 x 5122)		27.00
	Rubber gasket		17.00
	Packing and shipping		300.00
			<hr/>
	\$Total	\$	990.00
	Rounded	\$	1,000.00
			=====
3.	Stove (Hardwick Model CN 9616W70R)	\$	275.00
	Spares: Control for oven (OC-010-113-99)		60.00
	Pressure Regulator (OR-003-007-16)		14.00
	Burner (46-205-065-19)		6.00
	Valve oven lighter (OY-034-011-16)		35.00
	Packing and Shipping		275.00
			<hr/>
	Total	\$	665.00
	Rounded	\$	700.00
			=====
4.	Air Conditioner (GE Model AD 817 WA)	\$	550.00
	Spares: Compressor (#WJ 98 x 238)		215.00
	Overload (#WJ 23 x 180)		10.00
	Capacitor (#WJ 20 x 125)		35.00
	Filter (#WJ 85 x 82) 10 each		10.00
	Fan Motor (#WJ 94 x 513)		60.00
	Packing and Shipping		225.00
			<hr/>
	Total	\$	1,105.00
	Rounded	\$	1,200.00
			=====

			2.
4.	Washer (Maytag Model N2LP)	\$	400.00
	Spares: Motor		66.00
	On/Off Switch		12.00
	Packing and Shipping		275.00
			<hr/>
	Total	\$	753.00
	Rounded	\$	750.00
			<hr/> <hr/>
5.	Dryer (Kenmore Model 26G69 15IN)	\$	200.00
	Spares: Motor		70.00
	Drum Belt		7.00
	Time Switch (50 cycle)		23.00
	Pulley (50 cycle)		2.00
	Transformer		50.00
	Packing and Shipping		275.00
			<hr/>
	Total	\$	627.00
	Rounded	\$	650.00
			<hr/> <hr/>
6.	Beds (Set for one house)		
	1 Double		250
	2 Sets Single		250
	Frames for above		250
	Packing and Shipping		250
			<hr/>
			1,000

Total Requirements

4	Refridgerators	@ \$1,000 lea	\$	4,000
4	Freezers	@ 1,000 lea		4,000
4	Stoves	@ 700 lea		2,800
21	Air-Conditioners	@ 1,200 lea		25,200
4	Washers	@ 750 lea		3,000
4	Dryers	@ 650 lea		2,600
4	Sets Beds	@ 1,000 lea		4,000
				<hr/>
			\$	46,000

29'

1/ Vehicle Cost, Spares, Operations & Maintenance

<u>Landrovers</u>	<u>AID</u>	<u>TANGOV</u>
LR Station Wagon/hard top	15,000	
Spares	1,500	
Clearing, handling, inspection		1,500
Insurance		150
	\$ 16,500	\$ 1,650

<u>Recurrent Costs</u> (30% - 70% AID + TanGov)		
Fuel and Oil (\$200/week @ 52 weeks)	3,120	7,280
Repair (\$50/month @ 12 months)	180	420
	3,300	7,700

Motorcycles

Motor cycle	1,500.	
Spares	200.	
Clearing, handling, inspection		200
Insurance		20
	1,700	\$ 220

Recurrent Costs (30%-70% AID + TanGov)

Fuel and Oil (\$20 week @ 52 weeks)	312	728
Repair (\$25/month @ 12 months)	90	210
	402	938
Rounded	400	950

Saloons Cars

Car	9,000	
Spares	1,000	
Clearing, handling, inspection		1,000
Insurance		100
	10,000	1,100

Recurrent Costs (30% - 70% AID + TanGov)

Fuel and Oil (\$400 mo. @ 12 mo.)	1,440	3,360
Repair (\$100 mo. @ 12 mo.)	360	840
	1,800	4,200
Total	1,800	4,200
Rounded	2,000	\$ 4,000

20'

DETAILED IMPLEMENTATION PLAN

- I. Pre-Authorization (May - June 1980)
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DETAILED IMPLEMENTATION PLAN

I. Pre-Authorization (May - June 1980)

<u>Date</u>	<u>Action</u>	<u>Responsible Entity</u>
May	PP submitted to AID/W	USAID/TRDB
June	PC meetings	AFR/DR
June	ECPR schedules	AFR/DR
	Mission drafting ProAg	USAID
July	ECPR meeting	AFR/DR
July	Congressional notification forwarded and authorization documents signed	AID/W
July	Field advised of Project authorization	AID/W
August	Allotment of funds	AID/W

II. Obligation and Pre-Implementation (August - December 1980)

This period is for "pre-implementation" activities. For purposes of planning for the major cycles of the project, Phase I is not considered to actually commence until January 1, 1981. Much of the effort of this period will be devoted to the process of contractor selection, although, optimistically, it is not reasonable to assume at this point that it will be possible to actually sign a contract until well into the following period. It is believed, however, that the independent individual procurement advisor can be signed by December 31. With respect to the main contract, an RFP will be issued within two months after signing the grant agreement (by October 1) after which it should require between five and seven months to arrive at a signed contract. The IDA contract, however, is calculated to be signed prior to the end of the period, probably in November or December, because of IDA's somewhat less rigorous requirements and the earlier start obtained from the March 1980 agreement.

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Also during the period, the following is expected to occur:

- Housing construction for the advisors (3) and a guest house for consultants should commence.
- Conditions precedent for the initial tranche of the grant for imports will be satisfied by the first of October (criteria, policies and procedures). Much of the work on these can be carried out prior to Project authorization.
- The first order of commodities will be placed for the lending component within a month after meeting the above conditions and FY 81 obligation of funds. Thirty days for the opening of the necessary letters of commitment through U.S. banks is required. Technical assistance will not be required for this, as these will be standard NAFCREP items that the TRDB has been ordering all along. (Lister engines, farm implements, construction materials for godowns and mill housings, etc.) (See Figure 3.)
- Vehicles and household effects for the U.S. contractors and the vans for the mobile units for village training (IDA financed) will be ordered no later than the end of November.
- The IDA computer study will have been completed and hardware ordered by the first of October. (In this case, IDA will allow procurement of the computer in a manner to be decided in consultation with IDA, after the recommendations of the consultants are known.

A tentative schedule of these pre-implementation activities follows:

<u>Date</u>	<u>Action</u>	<u>Responsible Entity</u>
<u>1st Fiscal Year - FY 80</u>		
8/80	Project Agreement signed	USAID
	First conditions precedent met	TRDB
	RFP drafted	TRDB/REDSO
	Advertising for Procurement Advisor	TRDB/REDSO
	PIO/T submitted for funding extension of Finance Advisor (contract to be amended in conjunction with PP submission)	USAID

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9/80	RFP issued IFB for Landrovers Household effects ordered Bids for A&E plans	TRDB TRDB USAID TRDB
<u>2nd Fiscal Year - FY 81</u>		
10/80	Obligation of first year of capital grant. FY 81 ProAg signed. A&E plans received Certification of A&E plans Bio-datas for Procurement Advisor received and reviewed First two participants placed in U.S. Schools ^{1/}	USAID TRDB REDSO TRDB USAID
11/80	Contract negotiated for Procurement Advisor Review of contract Allotment of FY 81 funds Bids for construction let Procurement Advisor identified	TRDB REDSO AID/W TRDB TRDB/AID
12/80	Procurement Advisor contract reviewed Invitations for commodity bids and ordering from sole sources TA contractor proposals received and reviewed Construction bids received and reviewed Vehicles ordered	REDSO TRDB TRDB TRDB TRDB

1/ No training plan required

III. January - June 1981

The first project-financed activity to actually commence in Phase I will be the Capital Component, which will begin as soon as the commodities ordered the preceding December arrive. (Lister engines and materials for grain mills could arrive as early as the end of January.) Also, IDA advisors should arrive in January or February and begin reorganizing the Training Division and its program, although the new series of courses resulting from this activity is not expected to commence until the following summer. Other events expected to take place during the period are as follows:

- The procurement advisor (on board by end of 1980) will immediately concentrate on facilitating and expediting the process of U.S. contractor selection and negotiation. Proposals should be rank ordered for negotiation by the end of January. Once this is accomplished, the advisor will start working on some of the more difficult procurement operations for the lending component such as the steel and implements for Ubongo and awarding of a contract for housing construction.
- By January all proposals from potential contractors will have been received (See Figure 1). The Bank will review, rank order these and if necessary visit the U.S. headquarters of the potential contractors. The contract should be drafted and reviewed by REDSO in February and March. Contract execution should take place in April and not later than May.
- New formalized courses of instruction for project officers and credit supervisors should commence by the middle of the period (IDA financed).
- An interim training plan will be prepared by TRDB including designation of the first five participants to be sent in August of FY 81 (See Figure 2). Continue the management and training studies provided in the previous year. Direct AID funding may be requested. If desired, TRDB will propose such in this interim plan.
- The IDA organization and methods and information system consultants should arrive toward the end of the period. Groundwork for computer installation will be laid in consultation with the present AID advisor for finance.
- The computer and associated hardware should arrive by the end of June. By this time much of the software for the basic accounting system will also be ready.
- FAO advisors will have arrived by the end of the period.

IV. July - December 1981

AID-financed institutionally related activity will really begin here for the first time. Also by this point IDA resident advisors should be oriented and have the new, strengthened training division organized. Events are expected as follows:

- AID advisors (all four) will arrive by the end of July 1981 and prepare their first annual work plan by August. After a period of orientation they will commence work on various activity plans called for by the project. The first plan will be the Participant Training plan for the five long term participants scheduled to depart in August.
- Houses may be ready for the advisors by August but probably December. (Construction should have commenced the previous January.)
- The first group of five participant trainees will depart in August.
- Vans for village training (mobile units) should arrive by September and the program can be restructured at this point. The FAO advisor and IDA Chief Training Officer will have been working on this since the beginning of the period.
- Research and study plans will have been developed and submitted to AID for approval of project-financed support by the end of the year.
- The IDA input distribution study will be completed in mid-period (Sept. - Oct.). Follow-up work by AID will not commence until the new year, although findings of the IDA will have conditioned the planning process.

V. Calendar Year 1982

This will mark the first period (outside of the Lending Component) of true implementation and impact at both headquarters and field levels. During the year the following events and activities are expected to occur.

- The "on-the-job" training program will commence early in the year with the initiation of a flow of follow-up material to the IDA developed and financed courses of instruction for project officers and credit supervisors. Subsequently, a series of problem identification missions will be made to all regional offices in order to develop field training interventions tailored to individual cases.
- Management training seminars, arranged by the contractor, will also commence early in the period, focused on the specific constraints encountered in different regions.

- Inter-Institutional seminars will probably begin around mid-year.
- The village training program will begin in earnest in the first quarter utilizing the IDA-supplied mobile units and FAO methodological inputs.
- In the Research component, a major increase in activity will commence early in the period, building on what has been going on up to this point. During this year, baseline data information will be collected or fleshed out. (It may be that data collected prior to this time by the division will serve to a certain extent.) Also during this year, the farm management surveys and village studies carried out by the DANIDA-financed researchers will be completed and fed into the analytical and planning processes initiated under the R&D activity. (The Danes are expected to leave early in the year unless a means can be found to maintain them on board through additional financing.)
- The "studies" sub-activity is expected to begin early in the year in the following areas.
 - Follow-up feasibility work to the IDA-financed input distribution study.
 - Inter Institutional coordination in the areas of marketing, extension and financial infrastructure (i.e., TRDB/NBC).
 - Diversified lending in terms of the feasibility of various types of agricultural investment and rural enterprise.
 - Geographic expansion (exploration of possibilities in the Central and other zones).
- The new Organization and Methods Division will prepare a number of new guidelines and procedural materials during the year. (The effect of such measures in terms of collections and other indicators probably won't be felt until well into the following year.)
- Consultants under the Decentralization Component will arrive and commence analyzing ways to improve efficiency in field operations in addition to preparing a new performance evaluation system.
- By mid-year the computer center should be operating well and performing a variety of programs of both an accounting and research nature. The trainees in computer science and accounting will return in June and be provided with on-the-job training on the computer for the remainder of the year by IDA consultants and long term AID advisor.

- At year end the major planning exercise for Phase II lending will commence. This will include an in-depth evaluation which will run for approximately six weeks. TRDB and the advisor will prepare a plan for Phase II lending in terms of the volume of activity and new lending activities which are proposed.
- The annual training plan will be reviewed and approved by the end of the year.

VI. Calendar Year 1983

This is the last year planned to any degree at this point. It will be marked by three major events as follows:

- The retreat for the three-year planning exercise for Phase II will be held early in the CY. It should run about two weeks.

In addition, the following activities are expected to occur prior to initiation of the planning exercise:

- Management training seminars will have produced a series of recommendations related to improvement of field operations.
- Feasibility work will have been completed on the new IDA-recommended input distribution structure.
- Technical, economic, social, financial and other analyses will have been performed on new lending opportunities for the TRDB in Phase II, including various village level options related to the integration of supply, marketing and extension functions.
- A series of pilot schemes will have been planned and proposed for the testing of the above options.
- Pre-feasibility studies will have been carried out in relation to the possibility of a major new push for the bank in the Central Zone or perhaps some other zone.
- From the inter-institutional seminars as well as studies, a number of concrete measures will have been proposed and assessed relative to meaningful collaboration between the TRDB, NBC, various parastatals, the PMO, etc., in order to improve the coordination of services, maximize efficiency, eliminate as much duplication as possible, and provide for greater sharing of resources both nationally and within various regions.

- The three-year plan for Phase II will be submitted to AID no later than early February so that funding and obligations can be prepared for the initiation of activity in January 1984.
- Phase II planning, analyses and authorization documents will be prepared in February, March.
- Submission of Phase II planning documents should be submitted not later than April or May. This will include any additional waivers.
- Review of plans for Phase II grant funds is planned for May and June.

Also during this year initial fundings and observations should start becoming available from the Farming Systems Project, which will have commenced at some point in late 1981. In the case of the Arusha Project, much more conclusive data, experience and information will be available for analysis and incorporation within the heavy planning activity scheduled for the middle of the third year.

VII. Calendar Years 1984 - 1986

It is not possible at this point to precisely foresee what will be happening during this period beyond the traditional lending activity that will have been occurring all along. Obligation of Phase II funds should take place in October or November of FY 84. What is hoped, however, is that Phase II will see innovations in a wide variety of areas. New activities, for example, will be carried out in such areas as off-farm employment and enterprise, integrated service centers, village marketing, new agro-industry and processing, consumer and services venture, etc. These will have been analyzed in depth during Phase I under the R&D component.

With respect to any geographic focus of AID, a variety of interventions will be carried out in an attempt to develop some significant answers and lending alternatives relative to the harsh ecology and extreme poverty of the area. This will be complemented and accompanied by such proposed AID initiatives for the Zone as technology and systems development, specialized training, special production projects and land improvement efforts.

Also during Phase II the institutional outputs relative to the development of staff, management systems, decentralization, etc., will be realized. Early in the period, for example, zonal managers will probably have moved to the field along with a corresponding shift in loan approval authority and a number of other functions reducing delays, overhead in the Bank, and improving efficiency and impact in general.

As in the case of Phase I, planning seminars and studies will continue, but now focused much more rigorously on the various pilot initiatives planned for the period. As before, data information, research, etc., will feed into the more ambitious planning scenario scheduled for the last year of the project. The second major evaluation will be carried out in early summer of year six in order to pave the way for consideration of any follow-up project for AID and other donors. The planning "retreat," after a series of preparatory seminars, will be held in the early fall of the year.

The final project evaluation is scheduled for the Spring of 1986 to occur before the departure of the advisors scheduled for June 1986.

All participants will complete training by July of 1987, and therefore all services will be provided by that date (See Figure 1, 2 and 3). The PACD is therefore scheduled for July 1987.

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Figure 1 : PROJECT PHASING AND TECHNICAL ASSISTANCE SCHEDULE

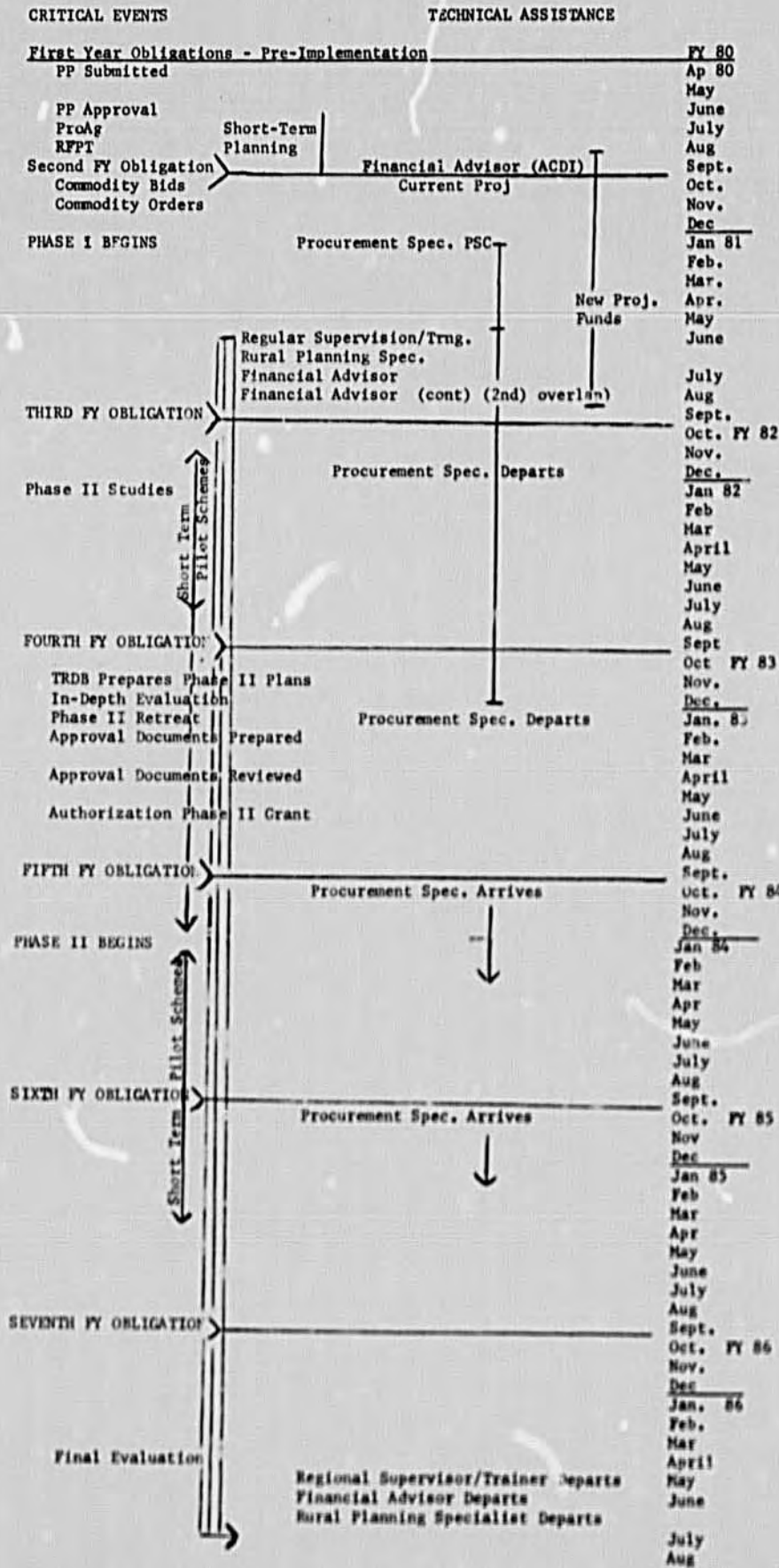
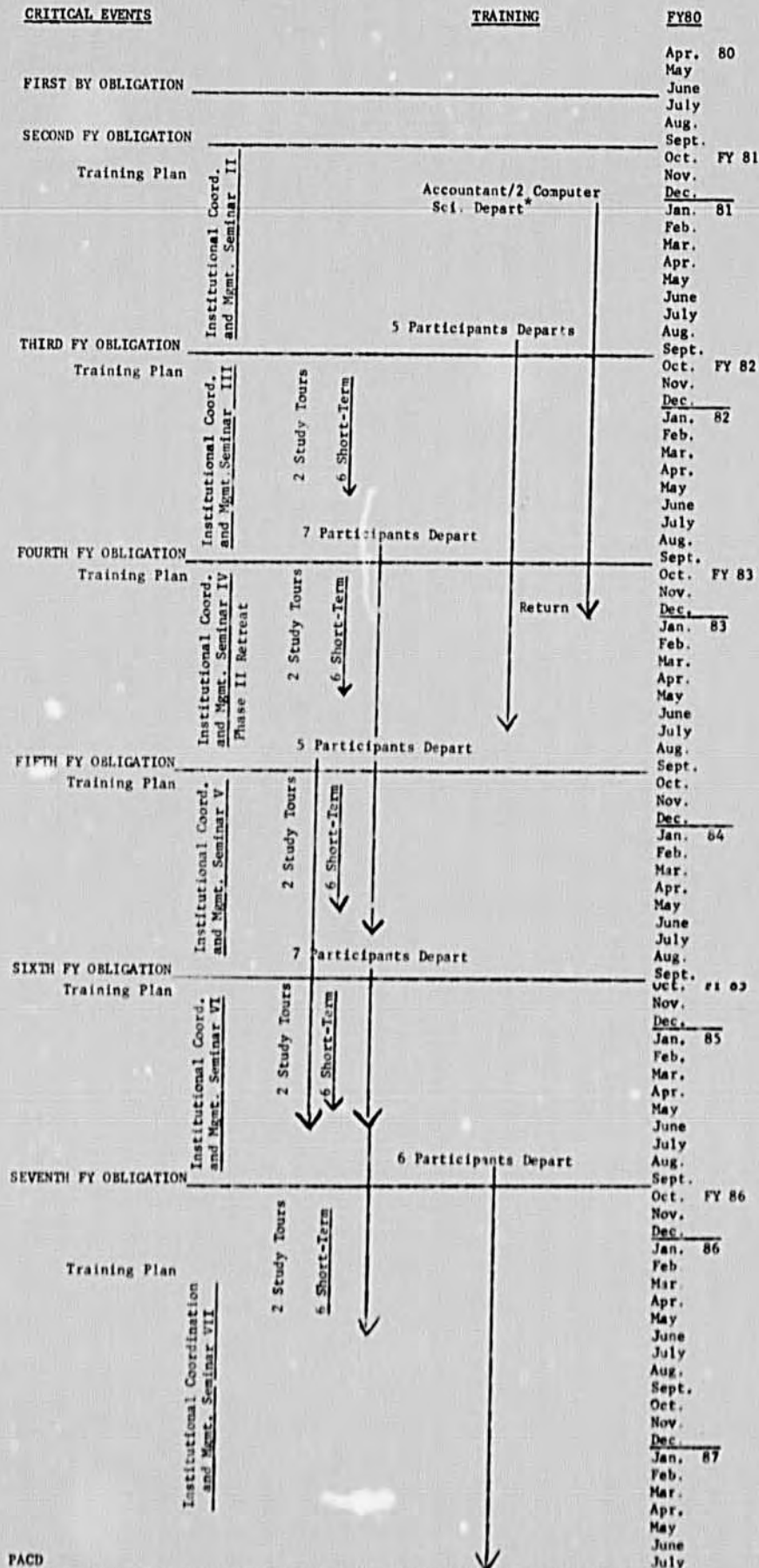


FIGURE 2: TRAINING AND SEMINARS



FACD

*All training will be provided through the contractor except these activities.

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FIGURE 3: COMMODITY PROCUREMENT

	STORAGE	MAIZE MILLS	MACHINERY/ TRANSPORT	IMPLEMENTS (RAW MATERIALS, TOOLS)	
FIRST FY OBLIGATION					FY 80
Order appliances, Landrovers, Motorcycles					Apr 80
A & E Plans, Construction bids				First yr. Ordering	May
					June
					July
SECOND FY OBLIGATION - PHASE I BEGINS					Aug
					Sept
					Oct FY 81
					Nov
					<u>Dec</u>
			1st yr. shipping and payment		Jan 81
			1st yr. delivery		Feb
					March
					Apr
					May
			2nd yr. ordering		June
					July
THIRD FY OBLIGATION					Aug
					Sept
					Oct FY 82
					Nov
					<u>Dec</u>
			2nd yr. shipping and payment		Jan 82
			2nd yr. delivery		Feb
					Mar
					Apr
					May
			3rd yr. ordering		June
					July
FOURTH FY OBLIGATION					Aug
					Sept
					Oct FY 83
					Nov
					<u>Dec</u>
TRDB Phase II Plan			3rd yr. shipping and payment		Jan 83
In-Depth Evaluation			3rd yr. delivery		Feb
Phase II Retreat			Approval Documents prepared		March
Approval Documents Reviewed			Approval Documents Reviewed		April
Authorization Phase II Grant			4th yr. ordering		May
					June
					July
FIFTH FY OBLIGATION					Aug
					Sept
					Oct FY 84
					Nov
					<u>Dec</u>
PHASE II BEGINS			4th yr. shipping and payment		Jan 84
			4th yr. delivery		Feb
					Mar
					Apr
					May
			5th yr. Ordering		June
					July
SIXTH YEAR OBLIGATION					Aug
					Sept
					Oct FY 85
					Nov
					<u>Dec</u>
			5th yr. shipping and payment		Jan 85
			5th yr. Delivery		Feb
					March
					April
					May
			6th yr. ordering		June
					July
SEVENTH YEAR OBLIGATION					Aug
					Sept
					Oct
					Nov
					<u>Dec</u>
			6th yr. shipping and payment		Jan 86
			6th yr. delivery		Feb
Final Evaluation					Mar
					April

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PROJECT SPECIFIC REGIONS ANALYSIS

Exhibit 1: Background Paper Prepared for USAID/T by REDSO
Contractor, Carolyn Barnes, January, 1980

Exhibit 2: "Dodoma Integrated Development Plan - Rural Credit."

PROJECT SPECIFIC REGIONS ANALYSIS

This Annex contains documents which specifically look at credit activities in Iringa, a high productivity area and the region with the largest TRDB portfolio, and Dodoma, in the semi-arid area, with a small TRDB lending program.

These documents supplement the Social Soundness Analysis by identifying some of the possible reasons for non-repayment of loans, describing the ethnic setting in these two regions, and identifying the agricultural potential and possible demands for lending by citing currently available information.

An activity during Phase I will be to undertake further planning activities to help determine possible areas of expanded lending by moving into new geographic areas where TRDB's lending activities have been low. A portion of the \$.5 million earmarked for Phase I planning activities will be used to develop lending programs by providing technical assistance and related commodities to test the viabilities of activities suggested in these papers. A comparison of the results of these planning activities with Bank operations in Iringa will help indicate possible areas where a major programming adjustment in the NAFCREP lending portfolios may be justified for Phase II. (See the PP, Part II. C, Project Phasing.)

CONTENTS

Exhibit 1: Background Paper Prepared for USAID/T by REDSO
Contractor, Carolyn Barnes, January, 1980

Exhibit 2: "Dodoma Integrated Development Plan - Rural Credit."

PROJECT -SPECIFIC REGIONS: IRINGA AND DODOMA

I. Comparison of Demographic Factors

As of 1978 the population of Iringa Region totaled 922,906 and Dodoma Region contained 971,845 people, of which eight percent and 17 percent respectively were urban dwellers. In Dodoma Region the rural population is relatively evenly distributed between its three districts. In comparison, in Iringa Region, Njombe District has the largest rural population (326,189) and Rudewa the smallest (75,610). The population density per square mile is estimated to be 25 in Dodoma Region and 19 in Iringa Region in 1980. The average rural household size is 4.8 in Dodoma Region and 6.7 in Iringa Region.

A. Iringa Region

Iringa Region is inhabited mainly by the Hehe and to a lesser extent the Bena people. Also, people from several other ethnic groups live in the area; Swahili is the common language between them. The Hehe were organized under a single feudal leader or "King" before the colonial period. In comparison the Bena were never under a centralized political structure before the advent of colonialization; their political organization involved a number of different named statuses connected with villages and larger territorial units. During the colonial period members of other ethnic groups migrated to the region to seek jobs on estates and to settle.

The economic activities are influenced by the environment. The region covers four main agro-ecological zones which usually cross administrative units. The soils tend to be of low fertility but in some areas there is usually adequate annual rainfall of other 30 inches. It is alleged that less than five percent of the total land area is cultivated but that about 30 percent of the land mass has high development potential.^{1/} Table 1 summarizes key characteristic per zone. Pyrethrum, tea and tobacco are the main cash crops, which contribute substantially to the nation's agricultural output. Small-scale tea holdings have more than doubled from 1970/71 to 1978/79; the current total is about 2,000 hectares, most of which is grown in Njombe District by about 3,800 households.

^{1/} Overseas Development Group, Iringa Region, Tanzania: Integrated Rural Development. Proposal for the Third Five-Year Plan 1976-81, UNDP/FAO.

TABLE 1: AGRO-ECOLOGICAL ZONES IN THE IRINGA REGION

Zone	Area '000 Sq. km.	Population '000 (1975)	Approximate number Development Villages	Major Cash and Food Crops (Present and Potential)
The High Rain Lands	17.1	235.6	134	Pyrethrum, tea, wheat, castor, maize, temperate fruit (coffee)
The Upper Plateaus	12.2	249.8	1089	Pyrethrum, tea, wheat, wattle, sunflower, maize, groundnuts
The Medium Dry Intermediate Zone	11.8	309.1	152	Tobacco, sunflower, paddy, maize, millet, groundnuts, beans, cassava (cattle important)
The Dry Northern Fringa	17.2	36.3	23	Paddy, castor, maize, sorghum, (cattle important)
The Lake Nyasa Shore	.4	7.8	9	Paddy, cassava (fishing major activity)

Source: Overseas Development Group, Iringa Region, Tanzania: Integrated Rural Development Proposal for the Third Five-Year Plan 1976-81, UNDP/FAO, 1976.

Table 2 shows that cattle are kept by only about one third of the farm households in the region. In contrast to Dodoma Region, agriculture plays a more significant role in the local economy.

The agro-ecological area influences household activities. The following is a description of households in an intermediate zone between the Njombe Highlands and the Usanga plains. The area is called Northern Njombe. The study which the information below is based on covers 186 sample households. The area is inhabited by Bena. The traditional settlement pattern of the Bena was scattered homesteads, which was influenced by extensive cultivation, long fallow periods and scarcity of water during the dry season. This pattern was changed during the national campaign to move people into villages, which was implemented in Iringa Region in 1974. In Northern Njombe relatively few new villages were created in 1977. Instead, a number of already existing small nuclear settlements were chosen as village sites and thus enlarged. Since 1974 neighboring villages have grown together while others have been sub-divided. According to the 1978 population census the average number of households per village was 299. There is an average of 4.2 persons per household. The population density was approximately 33 persons per km² in 1978. The area is characterized by extensive subsistence farming. The main food crops are maize, beans, pulses and tubers. Oilseeds, mainly sunflower, and tobacco are produced for sale. A high proportion of the households own livestock, mainly traditional Zebu cattle, goats, sheep and some poultry.^{1/}

Ox cultivation is an important aspect of agricultural production. The use of cattle manure is important since villagization has reduced the long fallow periods. In the case of cash crops, especially tobacco, farmers usually use chemical fertilizers. The size of agriculture land holding tends to be larger than the average for the region.

While cattle are important in the social system of the Bena, ownership is uneven. In two wards of Northern Njombe division it was found that only about 25 percent of all households own livestock. The average is 14 cattle per household, although there are great variations.

B. Dodoma Region

The region contains numerous ethnic groups, of which three-fourths are Bantu speakers. The main group in this category are the Gogo, who occupy an estimated 95 percent of Dodoma District, more than 75 percent of Mpwapwa District, and a small part of southern Kondoa District. Other groups belong to the Nilotic, Southern Cushite and Khoisan language groups. The main Khoisan-speaking tribe is the Sandawe, who

^{1/} M.S. Stahl, N. Sachak, G. Mkuba, "A Socio-Economic Study of Problems in Northern Njombe," BRALUP Research Paper No. 54, University of Dar es Salaam, 1978.

TABLE 2: DISTRIBUTION OF CATTLE AMONG CATTLE KEEPERS, SELECTED AREAS OF IRINGA REGION, 1970

District	Total Farmers in Sample	% Farmers Keeping Cattle	Ave. Number Cattle	Herd Size Classes (Cattle Nos.)					
				1	2	3-5	6-10	10-20	21-50
Iringa Area	227	29	9.9	5	9	25	17	6	4
Mufindi Area	210	33	5.9	1	15	28	18	7	-
Njombe Areas	217	33	4.8	10	18	23	18	2	-
Total	654	31	6.8	16	42	76	53	15	4

Source: CB Jespersonel, "Southern Highland Socio-Economic Survey: Final Report," Uyoie 1971

TABLE 3: COMPARISON OF HOLDING SIZE, NORTHERN NJOME DISTRICT AND IRINGA REGION

Percentage of Respondents' Cultivation)

	Less than 0.5 ha	0.5-1ha	1-2ha	2-3ha	3-4ha	4-5ha	5-10ha	Over 10 ha
District Total	8	19	47	13	7	--	6	--
Region Total	28	28	26	10	3	2	3	--

Source: M.S. Stahl, N. Sachak, G. Mkusa, "A Socio-Economic Study of Water-Related Problems in Northern Njombe," BRALUP Research Paper No. 54, University of Dar es Salaam, 1978.

occupy part of Kondo District. All groups are livestock keepers and most combine it with agricultural production.

The inhabitants of Dodoma Region live in a fragile, precarious environment.^{1/} Their traditional hazard-coping strategies included mobility of property and the nature of residential and social organization. The Region falls within the most famine-prone zone of Tanzania with the Gogo enduring the greatest hardship. The tendency has been for a major famine to strike Gogoland once every ten years, and often there are food shortages. Evidence indicates that famines have been only slightly less frequent among the Sandawe. The causes of food shortages and famines are many and varied, but the greatest scourge is drought. Sometimes rain fails generally across the Region, whereas at other times it fails in a discontinuous pattern. Army worms and locust often devastate crops; Abyssinian weaver birds and qulea qulea birds destroy mature, headed small grains, especially millet. During the 1978/79 season an estimated 27,000 tons of millet in the Region valued at 26.56 million TSh were destroyed by qulea qulea birds.

^{1/} The following is based mainly on James L. Newman, "Hazards, Adjustments and Innovations in Central Tanzania," Rural Africana No. 19, Winter 1973.

Adjustment related to two kinds of food shortage situations; those in which shortages are widespread and those in which shortages are localized.

Some cultural aspects are attempts to cope with potential hazards. One of the traditional mechanisms was dispersed settlements. Among the Gogo and Sandawe, single or extended family units were usually widely dispersed from one another. Also these groups had a high degree of mobility. Households were moved in search of better land and more reliable water supplies. The movement of households into villages under the Ujamaa policy has tended to limit these traditional patterns.

At the individual family level, an attempt to spread risk is detected in the custom of growing a variety of crops in several individual fields. In the past the Gogo and Sandawe practiced long fallow periods and shifting cultivation, although this is currently limited by villagization. Livestock are usually allowed to graze fields after the harvest.

Sorghum and bulrush millet are the traditional crops in the region. Nowadays maize is the staple crop in some areas. In Dodoma District groundnuts are grown for sale and in some parts of the region sunflower is a cash crop. Raising of cattle, sheep and goats has proven to be low-yielding but a more reliable economic activity than crop production. Herds can follow the rain. During the dry season it is common for cattle to be moved several miles to better watering and grazing points. Livestock are also exchanged for goods, particularly grain. Also an individual may loan out part of his herd to various relatives or friends living in other areas, which spreads the owners' risks. Cattle provide milk which is a main dietary staple. Although meat is part of the diet, cattle are not slaughtered strictly for consumption except for special rituals and ceremonies. In a study of the Gogo it has been noted that most do not have large enough cattle herds to sell many cattle on a regular cash basis even if they desired. Their goal is to have as many cattle as possible to survive hard times and to have milk most of the year. Small scale livestock are more often sold than are cattle.

Among the Gogo, animal husbandry is extremely important in both the social and economic spheres. Animals are the prerogative of men, and crops are primarily in the care of women. Among the Sandawe, livestock are not particularly numerous or as important. Instead hunting and gathering are supplementary activities. Until 75 or 100 years ago, the Sandawe were primary hunters and gatherers. Yet, as with the Gogo,

most slaughtering of cattle relates to rituals and ceremonies. While livestock are a fact of wealth for the Sandawe, they are not the primary indicators of a man's prestige in society.

II. The TRDB Credit Program and Views on Credit

Since 1971/72 Iringa Region has received a significant proportion of TRDB's loans. In contrast the lending rate in Dodoma Region has been low. The differences in the two regions is at least partially contributable to the economic differences and structure of the areas. Table 4 sets out a comparison.

TABLE 4: AMOUNT AND PERCENTAGE DISTRIBUTION OF TRDB'S LOANS BY REGIONS
(TSh in Millions)

	1973/74		1974/75		1975/76		1976/77		1977/78	
	Sh	%	Sh	%	Sh	%	Sh	%	Sh	%
Iringa Region	27	17	29	14	12	12	14	19	76	31
Dodoma Region	--	--	5	2	--	--	1	2	9	3

Source: E.A. Lagusha, "The Role of Smallholder Agricultural Credit in Tanzania," M.A. thesis, University of Dar es Salaam, December 1979.

Prior to 1976/77 cooperative unions and societies received between 19-32 percent annually of the TRDB loans. Since 1976/77 villages have been recipients for village communal activities and to on-lend to individuals. In 1977/78, 42 percent of TRDB's loans were to villages (Table 5). In the past few years most of the loans have been for cash crops and the livestock sector (Table 6). The latter consists of investments in the establishment of national ranches, raising of high quality beef and dairy calves, livestock research and improvement of marketing facilities.

TABLE 5: DISTRIBUTION OF TRDB LOANS BY BORROWERS, 1971/72 - 1977/78 (TSh Millions)

Borrowers	1971/72		1972/73		1973/74		1974/75		1975/76		1976/77		1977/78	
	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%
Cooperative Unions	12.2	34.1	32.8	30.0	25.5	15.9	10.7	5.2	1.0	1.0	--	--	--	--
Cooperative Societies	11.3	31.6	30.3	28.1	34.5	21.5	37.8	18.6	21.3	21.2	13.1	16.9	--	--
Ujamaa Coop. Societies	4.9	13.7	20.4	19.0	32.2	20.0	79.8	39.3	20.0	19.9	--	--	--	--
Villages	--	--	--	--	--	--	--	--	--	--	33.3	43.1	102.3	41.6
District Development Corporations	1.6	4.5	4.5	4.2	27.0	16.8	12.8	6.3	8.7	8.6	4.1	5.3	0.6	0.2
Parastatals/Companies	2.3	6.5	7.2	6.7	22.5	14.0	41.2	20.3	42.3	42.0	19.5	25.2	70.4	28.5
Associations	0.8	2.2	12.9	12.0	18.8	11.7	20.9	10.3	7.3	7.3	7.3	9.5	71.0	29.1
Partners	0.3	0.8	--	---	--	--	--	--	--	--	--	--	0.8	0.1
Individuals	2.4	6.7	*	*	0.2	0.1	--	--	--	--	--	--	1.0	0.5
TOTAL	35.8	100	107.6	100	160.7	100	203.2	100	100.6	100	77.3	100	246.9	100
No. of Loans	91		103		219		76		158		238		799	

Source: TRDB, Annual Reports, 1977/78, pp. 1, 11; 1976/77, p. 9.

NOTE: *Negligible

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TABLE 6: TRDB LOANS BY PROJECTS, 1971/72 - 1977/78 (TSh. Millions)

Projects	1971/72		1972/73		1973/74		1974/75		1975/76		1976/77		1977/78	
	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%	Shs.	%
Tobacco	18.3	51.2	45.6	42.4	73.6	46.0	127.5	62.0	12.5	12.5	33.7	43.8	152.2	61.6
Coffee	0.5	1.4	7.5	7.0	--	--	--	--	--	--	--	--	--	--
Cotton	0.9	2.6	0.7	0.6	4.0	2.5	--	--	19.2	19.2	14.9	19.3	--	--
Wheat/Maize	1.2	3.5	8.2	7.6	8.3	5.2	--	--	6.1	6.1	4.3	5.6	6.1	2.5
Tea Development	0.9	2.6	24.5	22.7	--	--	--	--	--	--	--	--	--	--
Farm Machinery	1.0	2.8	2.0	1.9	1.3	0.8	4.1	2.0	1.0	1.0	0.3	0.4	1.5	0.6
Rural Transport	6.6	18.3	8.0	8.0	30.4	18.9	15.7	7.8	1.1	1.1	5.2	6.8	4.6	1.9
Off Farm Proc.	--	--	0.2	0.0	--	--	--	--	--	--	--	--	--	--
Livestock	0.5	1.4	7.8	7.2	25.8	16.0	37.6	18.5	57.6	57.6	14.7	19.0	58.1	23.5
Fisheries	--	--	0.9	0.8	1.3	0.8	1.1	0.0	0.03	0.0	0.6	0.7	10.3	4.2
Storage	5.3	14.9	1.9	1.8	0.5	0.3	0.2	0.0	1.4	1.4	0.7	0.8	0.2	0.0
Grain Mills	--	--	--	--	--	--	--	--	0.8	0.8	0.05	0.0	--	--
Salt Works	--	--	--	--	--	--	--	--	--	--	0.7	0.9	--	--
Sisal Development	--	--	--	--	--	--	--	--	--	--	0.5	0.7	--	--
Saw Mill	--	--	--	--	--	--	--	--	--	--	1.7	2.2	--	--
Crop Development	--	--	--	--	12.8	8.0	0.1	0.0	--	--	--	--	--	--
Seasonal Inputs	--	--	--	--	--	--	14.3	7.0	--	--	--	--	18.4	5.0
Small Scale Industries	0.5	1.3	0.04	0.0	2.7	1.7	2.7	1.3	0.9	0.9	2.4	3.1	1.7	0.7
TOTAL VALUE	35.8	100	107.6	100	160.7	100	203.2	100	100.5	100	77.3	100	247.0	100

Source: TRDB, Annual Reports 1973/74, 1974/75, 1977/78.

Regrettably no systematic collection of data has been made in Dodoma Region of peoples' views on the TRDB credit program. The only existing available indication was reported in the Tanzania newspaper referring to Dodoma District, where about 184 villages have obtained agricultural inputs through TRDB loans, but because of poor and unplanned project, most villages failed to repay TRDB loans.

A 1974 study in Iringa Region investigated the attitude of users of credit. The sample was divided into two categories: those villages with tobacco communal fields and those with communal food plots. (Since the user experience with credit is a vital factor in the project, the results for the study are given almost verbatim from the report.)^{1/}

Tobacco villages

In the tobacco villages the communal field workers and their leaders had similar views on the village's use of and experience with credit. Leaders in 16 of the 28 tobacco villages studied indicated that they understood the method of allocation and repayment and wanted to continue using credit. In two villages, however, leaders had no idea how funds were allocated and how many, if any, loans had not been repaid by the village. Leaders in two other villages agreed that the credit program was useful but that it was difficult to get members to willingly participate in communal farming in order to utilize the inputs effectively.

Other evaluations by leaders (with number of villages in brackets) were that:

- Inputs were often late in arriving (3)
- More loans should be made for the purchase of tractors and farm machinery (3)
- Cash loans would be preferable to loans in kinds (2)
- TRDB took too much money from sales in bad years leaving little cash for the village members (1)
- The loans would not improve their present conditions but would only get them further in debt (1)
- Members are irregular in working and not very cooperative (2)
- Farmers want to know the duration of the loans (1)

^{1/} Jean Die and Wayne Miller, "Agricultural Credit in Tanzania, Part II," Series E. Agricultural Economics, University of Illinois, July 1977.

In response to these criticisms, TRDB officials agreed that the inputs (especially fertilizer) are often late in arriving but they have no control over arrival; TRDB orders in sufficient time from the domestic plant at Tanga to make delivery but shipments are often late due to breakdowns at the plant, rail and road transport and so forth. When the plant cannot meet orders, government officials will place orders on the international market, but this often further delays delivery. Greater coordination of shipments would assist. TRDB takes 75 percent of cash sales in good and bad years to repay the cost of inputs but sometimes the leaders and members do not understand this arrangement so TRDB is currently trying to take more time to make this clear to all borrowers. TRDB had tried having some of the loans made in cash for payment of labor during the cropping season; officials say this has not assisted in better land preparation or crop husbandry so TRDB discontinued the practice. TRDB is not making more loans for tractors and farm machinery until villagers realize that these loans have to be repaid (which was not the case of former government lending agencies); TRDB is insisting that there be a capacity to repay the farm machinery loans before issuing them. It was interesting to note that those ujamaa villages which had borrowed for machinery and had experienced difficulties in keeping it operable were requesting loans for oxen and plows whereas those who had not had machinery were still looking to machinery to solve their problems.

Another problem mentioned -- that of administration of the ujamaa villages -- may be significant in evaluating low yields and low net returns. It appears that TRDB officials do an adequate job in explaining to village officials the amounts, duration, and other conditions of the loans, but it is uncertain how well this is communicated to the members. Thus the recommendation is made that TRDB officials take the time to call together all the members of the ujamaa village and explain all the terms and conditions to them so that all may be well informed. Repayment rates and amounts borrowed would probably be quite different, if communication were improved.

Another study in Iringa on credit users for tea production found that growers were satisfied with the credit input provisions and that all understood that loans have to be repaid. However, there were complaints about the repayment. The tea authorities, it seems, continue to deduct payments from an individual borrower, EVEN AFTER that person has fully repaid his loan. This allegation of farmers was substantiated by a Tanzania Tea Authority Production Manager in the region who claimed this occurred because the initial loan from the World Bank had to be repaid and that since tea production involved a time delay from

provision of cuttings to first harvest, the credit extend to begin tea fields and to be covered by other borrowers. It is questionable whether this is explained when a person begins obtaining credit since most farmers would perceive of this method as against their best interests.^{1/}

Whether because members did not want to disagree with their leaders because of the way the interviewer asked the questions, or because members and leaders had similar views toward the credit program, the attitudes of members and leaders were almost identical. Members from 14 of the 28 villages expressed satisfaction with the present program while members from the other 14 had some dissatisfaction. The most often mentioned dissatisfaction was that there was little feedback from TRDB officials regarding the current status of their loans. Other mentioned TRDB should loan directly to the villages and on the basis of farmers' needs, or on the basis of how much they could repay without worsening their condition. Members from two of the villages stated that their villages had poor leadership; the resulting dissatisfactions were identical with those of the leaders.

The most often cited or most general complaint was the lack of communication or feedback from TRDB. Leaders and members indicated they were not told the cost of inputs given, the length of the loans, or the value of loan and repayments due. Although part of the communication problem is probably between leaders and members, TRDB is perceived by members as not making them fully aware of all their obligations when borrowing.

In response to this criticism TRDB officials point out that Tobacco Authority of Tanzania officials estimate the amount of inputs needed in consultation with the village leaders and sometimes villagers do not realize this is a loan rather than a grant. The problem was exacerbated by the fact that the maize inputs to the tobacco villages are estimated and used to be delivered by KILIMO. And, their former policy regarding loans through the cooperatives and cooperative unions one year and grants the next were terribly confusing to the village members. Now there are no such cooperative societies and unions. The government officials need to take more time to explain policy to village members clearly before delivery of inputs or other items. All TRDB loans are signed by three village officials but it is not known how well the applications are explained to members. Now that TRDB has more and better trained staff, it is trying to visit villages more frequently to improve communication regarding the current status of the loans.

^{1/} Lugusha Emmanuel, "The Role of the Smallholder Credit in Tanzania: A Case Study of Isoliwaya Village," M.A. Thesis, Department of Economics, University of Dar es Salaam, December 1979.

Village leaders and members were asked also to make recommendations for change in the TRDB credit program. Again leaders and members' views were very similar. The recommendations (with number of villages in brackets) are listed below in descending order of frequency:

- TRDB should make additional loans for tractors and machinery (11)
- Committees should be formed to inquire about the status of the loans (3)
- Inputs should be delivered earlier so available when needed (2)
- Educate borrowers so they understand how the loaning system works so they won't feel cheated (1)
- Loans and interest rates should be made known to the village secretaries before they are given (1)
- Farmers need a repayment plan that spaces payments over longer period (1)
- TRDB should take less of sales income when crop is poor (2)
- Interest rates should be lowered (1)
- Loans should be made in cash instead of in kind (2)
- Farmers should not be denied loans for tractors because they have their own oxen and plows which cannot work the soil well (1)

The most frequently recommended change was that TRDB make additional loans for tractors and farm machinery; however, the findings of the study indicate that high levels of inputs did not increase net returns. The findings suggest that less, not more, machinery and equipment should be used by the villagers at this stage in their development.

Food Villages

As with the tobacco ujamaa villages, the attitudes toward the agricultural credit program found leaders' and members' attitudes somewhat similar although members seemed less enthusiastic about benefits of credit. Leaders of 12 of the 21 villages indicated the program was satisfactory with little or no comments explaining their

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attitudes. However, leaders of 8 indicated either that the credit program in general was not good or gave some specific complaint. The most mentioned complaint was that communications between TRDB officials and the village leaders were very poor. Often the village leaders were not informed as to the amount of the loan, interest rate charged, or the duration. (This is not a fault of TRDB; formerly the inputs were delivered by KILIMO and loan made by TRDB to the cooperative union; thus it was the fault of the cooperative union and KILIMO officials that the amounts and terms were not correctly specified. Then it fell to TRDB to collect the loans and their personnel fell heir to the cooperative personnel oversights.) Other specific complaints were that:

- The interest rate was too high
- The government administration of the credit was weak
- The crop payment to villages was being delayed -- this would be payment by the National Milling Company. (One assumes it was being delayed as the amounts loaned were being deducted first.)

A complaint indicated by two villages was the inability to produce enough harvest to repay the loans due. Two leaders indicated poor management to be the problem as opposed to the credit problem. In the case the member were accused of not working, which resulted in many weeds and a poor crop. Members' attitudes were even more skeptical of the benefits of the credit program than those of the leaders. Members from seven villages thought the credit program was not good. Again the most often mentioned complaint was poor communications -- the members' not being informed of the amount or terms of the loans. Members from five villages complained that loans reduced incomes as harvests were too poor to repay loans. Some members mentioned the need for oxen and plows instead of tractors and farm machinery. Another problem mentioned by two members was that leaders took money from the village for their own interest, thus reducing the repayment ability of the villages.

Recommendations for improvement of the credit program by leaders and members were specific and dealt with the problems previously mentioned. Recommendations mentioned in order of frequency were:

- The cooperative should replace its tractors with oxen and plows and the government should make loans for the purchase of oxen and draft equipment (which is not being done yet in the region).
- More information on the status and conditions of the loans

- Reduced interest rates
- Train leaders and secretaries
- Obtain loans direct from TRDB
- Increase length of repayment period
- Have TRDB consider weather as a factor and reduce the loans in years of bad harvests
- Expand communal plots

The responses the village leaders and members gave regarding the credit program seemed to indicate an awareness of the financial and administrative state of the villages. The most frequent recommendation was that the villages should replace their tractors and machinery with oxen and plows. This coincided with the findings from these data that most cooperatives were unable to pay their production loans as well as loans for tractors and machinery.

Recommendations for reducing the interest rate and increasing the length of the repayment period would decrease the funds of TRDB for lending and reduce the revenue received by TRDB. Thus the effectiveness and viability of the credit program would be affected.

The above cites views of the current TRDB credit program. In an earlier study (1970) in Iringa Region the interviewees were asked, "How would you use a loan for TSh 25,000?" The data reveal that the felt needs varied between male and female; the difference being numerically significant. The results are as follows:

TABLE 7: RESPONSE TO, "HOW WOULD YOU USE A TSH 25,000 LOAN?"
 (Percentage Response of Sample of Farmers in Iringa)

	<u>Males</u>	<u>Females</u>
Expand farming	43	26
Buy farm implements	23	10
Purchase fertilizer and chemicals	1	1
Buy cattle	7	8
Start a business	4	2
Spend on personal use	4	7
Build/improve house	15	10
Refuse money	1	4
(not given)	<u>2</u>	<u>31</u>
TOTAL	100	100

Source: H. Jarvinen, E. Bakke, C.B. Jespersen and A.A. Moody, "Southern Highlands Socio-Economic Study," Nordic Tanzania Agricultural Project, January 1971.

DODOMA INTEGRATED DEVELOPMENT PLAN

RURAL CREDIT ^{1/}

Credit is an important tool for increasing agricultural production and bringing about the economic development of the rural masses. In recognition of the importance of credit and the role that the institutions purveying credit can play in accelerating rural development, the Government have set up different institutions. Four principal credit institutions have been established. They are:

- (i) The Tanzania Rural Development Bank (TRDB) formed in May, 1971 on the liquidation of the National Development Credit Agency with the objective of extending credit support to rural development activities;
- (ii) The National Bank of Commerce (NBC) established in 1967 consequent upon the nationalization of foreign commercial banks;
- (iii) The Tanzania Investment Bank (TIB) established in November 1970 to provide medium and long-term finance for industrial development and for the development of large scale corporate agriculture, ranching, forestry and fishing; and
- (iv) The Tanzania Housing Bank (THB) established in 1973 with the objective of financing mainly the residential housing development.

The Bank of Tanzania which is the Central Bank of the country was established in 1966 and was assigned the conventional role, that is of managing the currency and handling the country's foreign exchange reserves. The Bank of Tanzania Act was amended in July 1978 to enable the Bank to play a more comprehensive role in relation to rural credit development.

^{1/} Prepared by PAO Consultant for TRDB.

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Recent Developments

2. One of the major concerns of the Government has all along been how to effectively use the resources of the credit institutions established in the country to increase the pace of rural development.
3. The task of reaching the small farmers particularly in a vast country like Tanzania is not simple. It calls for tremendous organizational and administrative effort in order that the facilities that are organized are within easy reach of the rural producers.
4. It is, therefore, not only necessary to organize an office within the reach of the farmer but also it calls for considerable amount of promotional effort to identify potential borrowers and to educate them on the advantages of, and on the proper use of, credit. The TRDB, which had been assigned the responsibility to bring about rural development had been making use of the regional co-operative unions and other co-operative societies for reaching the small peasant farmers.
5. The decision of the Government of Tanzania to wind up all the regional co-operative unions and primary co-operative societies in May 1976, created for the TRDB a new situation inasmuch as the intermediary through which it was handling the financing of small farmers ceased to exist. The need, therefore, arose for the TRDB to establish direct links with the villages. A "Task Force" consisting of representatives from the Bank of Tanzania, the Ministry of Finance and Planning, the TRDB and the NBC was appointed by the Government of Tanzania to make a diagnostic study of the rural credit system in Tanzania and to make detailed proposals for the organization and restructuring of the credit system. The Task Force submitted its report in April 1977.

6. Under the proposals made by the Task Force, the TRDB will be assigned the entire responsibility to provide short, medium and long-term credit in rural areas. The task of mobilizing savings will continue to be left solely to the NBC which will be expected to pursue further its programme of branch expansion more vigorously, with Government financial assistance, in the initial years, in respect of uneconomic branches.

7. The TRDB will strengthen its machinery for supervision over the borrowing institutions. It was suggested that the NBC and TRDB should mutually agree on accommodating TRDB at selected branches of the NBC according to a phased programme. At such "composite" branches all the banking transactions such as receiving and paying money, collection of cheques, issue of drafts, maintenance of loan accounts of borrowers will be undertaken by the NBC offices.


8. A Rural Finance Board which would be a compact body but with such representatives from the Ministries concerned as well as other organizations essential to its working will be set up by the Governor, Bank of Tanzania, as its chairman. This Board will work out the overall strategy for rural credit. The Bank of Tanzania will assume responsibility for its implementation. To be able to discharge this function, the Bank would set up a Rural Finance Department whose functions will be determined by the Rural Finance Board. Among others, it would extend refinance facilities to credit institutions and undertake periodical inspections of the institutions so as to ensure that their lending policies and procedures are sound and are adequately attuned to meet the needs of rural development.

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9. The Government are reported to be in general agreement with the recommendation made by the Task Force in their Report. In fact the Bank of Tanzania has already set up a Rural Finance Department. The Bank of Tanzania Act has been amended enabling the Bank, among others, to provide refinance facilities to the TRDB in respect of the latter's short-term loans for agricultural purposes. A Rural Finance Fund has also been established which will enable the Bank to provide medium-term loans to the TRDB to finance agricultural and rural development activities and also assist in building up the capital base of rural credit institutions.

Seminar on Credit for Rural Development

10. The recommendations of the Task Force referred to above ought to be regarded as the pace setter and guiding force for the future development and functioning of credit institutions in the rural sector. The Bank of Tanzania convened a seminar on "Credit for Rural Development" at Arusha in May 1979, which was attended by regional development directors, representatives of credit institutions, general managers of parastatals engaged in agricultural production or marketing and representatives of development and research organizations in Tanzania. Policy for Agricultural and Rural Development, Infrastructure for Extension, Input Supply, and Marketing of Agricultural Produce, Credit Structure for financing Agricultural and Rural Development and Recovery of Seasonal Inputs Loans were important issues which were discussed at the seminar. Follow-up action on the recommendations of the seminar is being pursued by the Bank of Tanzania.



Tanzania Rural Development Bank

11. The TRDB's lending activities in the Dodoma Region has not been appreciable in the past. In view of the implementation of the National Maize Programme since 1973-74 under which the distribution of heavily subsidized seasonal inputs to the villages became the responsibility of the Regional Development Director, the bank had not extended any credit for seasonal inputs. With the decision of the Government to discontinue distribution of subsidized inputs under the Programme from the year 1977-78, the responsibility to provide seasonal inputs credit was entrusted to the TRDB which was called upon to undertake the distribution of fertilizers to maize growers on the basis of their ability to produce adequate crop to meet their subsistence needs while at the same time leaving adequate surpluses to enable them repay their loans. The financing of seasonal inputs which was initially intended for maize growers has been extended to those growing sorghum as well under what has come to be known as the National Food Credit Programme (NAFCREP). The bank's advances for installation of maize mills have been on the increase. The two tables given below give details of loans approved by purpose and by type of borrower since the year 1972-73.

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Table 1 : Loans approved by the Tanzania Rural Development Bank
in the Dodoma Region - By Purpose

	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u> *
1. Seasonal Inputs							411,132	2,809,312
2. Farm Implements							495,000	41,800
3. Maize Mills			47,170	42,550		354,030	962,714	546,200
4. Storage							1,755,000	
5. Transport			1,185,825	602,347		1,230,750		
6. Livestock	84,843		990,600	1,321,300	1,415,821		115,500	
7. Tractors	719,110	193,515				120,450		
8. Vine Yard		500,000					192,400	562,565
9. Crop Establishment				46,010				
10. Fishery							51,875	
	803,953	693,515	2,223,595	2,092,207	1,415,821	1,705,230	3,983,621	3,959,877

* Up to 31 December 1979

Table 2 : Loans approved by the Tanzania Rural Development Bank
in the Dodoma Region - By Type of Borrower

	<u>1972-73</u>	<u>1973-74</u>	<u>1974-75</u>	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>
1. Ujama Co-operatives/ Registered Villages			47,170	1,363,850	1,415,821	474,480	3,675,721	3,397,312
2. D D C s	84,843	500,000	990,600	46,010				
3. Co-operative Unions	719,110	1,351,515	1,185,825	150,000				
4. Transport Companies/ Societies				532,347		1,230,750		
5. Individuals							307,900	562,565
	803,953	693,515	2,223,595	2,092,207	1,415,821	1,705,230	3,983,621	3,959,877

* Up to 31 December 1979

12. The TRDB has been making efforts during the past three years to strengthen its staff both in terms of number and quality by recruiting project officers and credit supervisors and by conducting suitable courses of training. The staff at the bank's regional office at Dodoma consists of a regional manager, a project officer, 2 credit supervisors, a book-keeper (recently assigned), a typist, a messenger and a driver. Not enough attention has been given to supervising the use of credit after it has been disbursed owing primarily to lack of transport. The Regional office has been provided with only one Landrover but considering the long distances to be covered within the region and the poor condition of the roads it is seldom available for normal supervision work.

National Bank of Commerce

13. The National Bank of Commerce is well organized within the Region in terms of the number of offices. It has established three full-fledged branches at Dodoma, Kondoa and Mpwapwa. Seventeen agency offices also operate within the region, sixteen of these function on two days a week, while one in a very remote area operate only once a week. The bank's zonal office at Dodoma which has jurisdiction over Dodoma and Singida regions oversees and guides the activities of the bank's branches in the two regions.

14. The total deposits raised by the bank's branches as at the end of November 1979 amounted to about shs.276 million. As against this, the bank's lendings to Ujamaa and registered villages have not been appreciable, less than Shs.0.5 million on the aggregate. The main lendings of the NBC in the agricultural sector have been to the different crop authorities to enable them to purchase crops from

growers through the registered villages. Six villages in Dodoma district, five in Mpwapwa district have been financed for running shop business under the scheme of "Operation Maduka". Operation on some of the accounts have not been satisfactory. Low level of managerial efficiency, poor accounting, control and reporting methods, unplanned purchase and stocking policies, misapplication and embezzlement of funds are some of the main factors that account for this situation. Sustained efforts are called for, in close association with the Ujamaa and Co-operative development officers and possibly regional trading companies, to improve the organization and functioning of village shops. Training of shop managers will have to receive special attention so that they are equipped to handle the business efficiently and for the positive benefit of the members.

Tanzania Investment Bank

15. The lending activities of the TIB have been rather limited. It has so far approved only three term loans in the region:

- (i) Shs.26 million to the Machinery Pool and Maintenance Organization (a subsidiary of the Capital Development Authority) for acquiring construction machinery for roads and buildings;
- (ii) Shs.7.9 million for setting up the Dodoma Industrial Estate and
- (iii) Shs.11.4 million for expansion of the Dodoma Hotel.

Proposals under the RIDEP Interim Plan

Strengthening of TRDB's Organization and Staff:

16. From the brief account of the activities of credit institutions in the Region given above, it would be observed that the Tanzania Rural Development Bank and the National Bank of Commerce have been

the two main credit institutions financing the rural sector. The needs of the ujamaa and other registered villages can be expected to grow significantly in the years to come. Under the RIDEP the ability of the villages to formulate and implement viable economic activities is expected to be developed with the support, technical and other, that would be provided by the Regional and District authorities. The TRDB which maintains an office at Dodoma would find it extremely difficult to deal with the growing number of clients unless it is able to maintain close contact with and able to reach them without having to travel long distances. The bank should establish an office in each of the other two districts, Mpwapa and Kondoa, as early as possible. The existing office at Dodoma would serve the Dodoma Rural and Dodoma Urban districts. Each of the two new offices will have to be staffed by a team consisting of a Project Officer and two credit supervisors besides the needed supporting personnel. As recruitment and training of the personnel required would take time, it is suggested that one office be opened at Mpwapa during the current year (1979-80) and the second may be opened during the next year, 1980-81. Until suitable project officers are made available, the credit supervisors presently serving at the Dodoma Regional Office might be posted to these district offices. It may, however, be pointed out that the development of registered villages will be a formidable task. Village managers have been appointed only in 90 villages against 421 villages that have been registered. Only 130 villages have trained book-keepers. As the expected level of business in the initial years may not be sizeable enough as to generate adequate income to meet the cost of additional staff and other expendi-

tures connected with the maintenance of the new offices, it is suggested that the cost of the two project officers and four credit supervisors may be subsidized for a period of three years. It may be expected that by the end of this period, the bank will have built up its loan portfolio sufficiently and earn adequate incomes. It is estimated that the cost of the additional staff including their travel costs over a period of three years will amount to shs.450,000.

17. As indicated earlier a serious deficiency in the functioning of the TRDB is the absence of effective supervision over the end-use of credit due mainly to lack of transport. The two Project Officers and four credit supervisors to be appointed as recommended above should be provided with motor cycles to keep them mobile. It may also be necessary to provide a suitable pick-up or a four wheel drive vehicle so that villages which are located at long distances from the bank's offices could be visited by the staff. It is suggested that financial assistance by way of outright grant be provided to the TRDB to meet the cost of these vehicles together with their operation and maintenance costs over a period of three years. This is estimated at Shs.304,000 made up of Shs.70,000 towards cost of one pick-up or four wheel drive vehicle, Shs.54,000 representing cost of 6 motor cycles and Shs.180,000 for meeting the operation and maintenance costs.

Technical Assistance

18. One potential field which needs to be explored for bringing about accelerated development of agricultural production in the region is "irrigation". It has been pointed out that there are not only possibilities of utilizing surface water but also for the exploita-

tion of underground water resources. The TRDB has very little experience in promoting and financing irrigation schemes. It is suggested that in order to enable the bank to evince the needed interest and develop the expertise in identifying and financing minor irrigation schemes, the services of a small-scale irrigation expert with specialization in underground water exploitation may be provided for a period of two years. This specialist will assist the bank in formulating suitable schemes for utilization of available surface or underground water resources that could qualify for bank finance. He will provide technical advice and assistance in the design, implementation and operation of improved micro-irrigation schemes at the village level. He will no doubt work in close coordination with the technical officers of the Government in undertaking these tasks. During the two year period the bank would assign a counterpart officer to work with the specialist so that he could receive the needed in-service training. Provision may also be made to depute the counter-part official as well as an official drawn from the relevant department of the Regional Administration to visit one or two other developing countries which have proven experience in financing minor irrigation schemes undertaken by farmers or farmers' groups. The estimated cost for providing this technical assistance to the TRDB can be placed at Shs.1,22 million, inclusive of shs.300,000 for overseas training or study tours. An outright grant may be made to the TRDB for meeting this cost.

Strengthening of Financial Resources

19. A significant expansion in the volume and variety of credit extended by the TRDB during the ensuing three or four years (about shs.25 to 30 million not counting the increase anticipated on account of vineyard development) is foreseen. Reference may be made to the Appendix which outlines the possible areas. Under the NAFCREP alone the bank's lendings are expected to register a substantial increase. With a view to assisting the bank in the development of this programme the bank has received USAID grant of \$ 3 million. As this amount together with possible further assistance of US \$ 12 million which currently is being appraised by a USAID mission, is intended for the country as a whole, it may be realistic to assume that not more than shs.5 to 6 million would be available for financing the food production programmes in the region. A part of the internal resources consisting of the bank's share capital and general reserves may also be utilized for the purpose. The bank can also have recourse to refinance facilities from the Bank of Tanzania for approved purposes, but the quantum of such funds in the initial years would be limited.

20. It is difficult to make precise projections in regard to the volume of credit that the TRDB would be called upon to make within the next three or four years. Some broad indications in regard to Rural Credit Programme during the RIDEP interim plan period are given in the Appendix. On the assumption that the series of measures that are outlined in the RIDEP are actively pursued by the regional and district administration so as to extend the needed support to the registered villages in formulating and implementing their production

and development programmes and the TRDB's ability to effectively administer and supervise credit is assiduously built up, there will be need to strengthen the financial resources of the TRDB to meet the credit requirements. It is suggested that a line of credit of Shs.15 million be established to enable the TRDB to be responsive to the requirements of the RIDEP. It is suggested that this credit be provided on a long term basis, say for 20 years and on concessional terms.

21. It may be expected that the credit requirements of the villages for their "shop" business will rise appreciably. Even if half the number of registered villages in the region undertake this business within the next two to three years and 50 per cent of such villages alone seek credit facilities, the NBC would be required to provide credit of the order of shs.4 to 5 million during the next three years. Extension of credit of this order should be considered to be well within the means of the NBC which has deposits exceeding shs.260 million. In fact there is a case for studying how best the NBC's resources can be applied increasingly in financing the rural sector in the region.

G. V. Ramamurthy
30 January, 1980

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APPENDIX

Rural Credit Programmes in the Dodoma Region

The various agricultural production and development programmes, as well as those in the Natural Resources sector, that could be undertaken in the Region have been set out in different sections of the Development Plan. The successful implementation of these activities will depend, among others, upon the availability of timely and adequate institutional credit. At the same time it has to be realized that mere provision of credit is not enough. It has to be backed up by efficient extension advice and marketing, transport, storage arrangements. In recognition of this, emphasis has been placed in improving the quality of agricultural extension service, in building the needed infrastructure and in taking other measures as would develop the skills of the farmers to increase production and productivity. The development of managerial skills and of proper accounting and record keeping system in the registered villages, which would constitute the main clients of TRDB, has to be pursued on a sustained basis. The strengthening of the ujamaa and co-operative development staff in the region should receive the immediate attention of planners and administrators in order that inspection, supervision and audit of the registered villages are undertaken on a regular and systematic basis.

The more important areas where rural credit programmes offer scope for development are outlined below.

Cereal Production

The Plan lays special emphasis on the production of cereals in an effort to achieve the goal of self-sufficiency in food. In spite of the semi-arid conditions, the region is considered to have good potential for stepping up maize production in areas where the rainfall is good and reliable and for production in other areas of sorghum and bullrush millet which are drought-resistant. Majority of farmers undertake maize cultivation in Mpwapwa district, maize/sorghum in Kondoa district and sorghum in Dodoma districts. The Plan envisages that the area under production of maize and sorghum will be stepped up to 175,000 hectares by 1983-84, 75,000 hectares under maize and 100,000 hectares under sorghum.

Dodoma is one of the ten regions which is covered by the National Food Credit Programme (NAFCREP) of the TRDB. The programme has been developed since 1977-78 to extend credit for food crop production, processing, storage, transport, machinery and farm equipments. Seasonal inputs loans under the NAFCREP which were initially to cover the requirements of maize production came to be extended to production of sorghum. 55 villages were provided seasonal inputs loans aggregating shs.0.41 million during the year 1978-79. During the current year loans under the programme have been approved for 184 villages to the extent of shs.2.81 million.

Improved seeds that are distributed for maize cultivation are Ilonga composite and Tuxpeno while in the case of sorghum the varieties are Serena and Lulu. Insecticides and pesticides that are provided under the programme are Endo-Sulphan/DDT, Kynakil. The cost of seasonal inputs distributed at current prices is shs.150 per ha in the case of maize and shs.125 per ha for sorghum cultivation. Many farmers do not, however, use the seasonal inputs to the recommended level. Fertilizer application is very low in the region. Only four

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villages in Mpwapa and Kondoa districts had applied to the TRDB for chemical fertilizers during 1978-79 for maize production. During the current year only 3 out of the 184 villages covered by the programme have applied for chemical fertilizers.

Under the Development Plan, it is assumed that credit facilities for seasonal inputs would be provided to about 200 villages out of the total 421 villages registered in the region. Also from the point of the ability of the TRDB to deal with villages this number would seem to be reasonable.

During the year 1979-80, the TRDB had approved seasonal inputs loans to the extent of shs.2.81 million and at the average of shs.150 per hectare, the total acreage financed would be of the order of 18,733 ha or roughly 19,000 ha. The actual area under cultivation should be much higher as many villages had not applied for chemicals to the extent recommended by the KILIMO. It may be reasonable to expect that the acreage covered by TRDB finance could be built up over the four year period to 50,000 ha as follows giving an average of 250 ha per village to be reached by 1983-84.

(Area in acres)			
<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
20,000	30,000	40,000	50,000

On the assumption that the present scale of finance viz shs.150 per ha would continue to be applied, short-term credit for seasonal inputs loans from the TRDB could be expected to be developed as follows:

<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
3.00	4.50	6.00	7.50

It must, however, be pointed out that efficient administration of this credit would depend upon adoption of technically feasible and

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economically viable crop production packages. Also it is necessary to ensure that the agency responsible for buying the crops produced by the village, which in this case is NMC, should recover out of the value of the crops sold to it the outstanding loans to the TRDB. It is reported that the NMC has hitherto been reluctant to assume this responsibility.

Medium-term credit for Farm Implements

As a step in the direction of modernizing agriculture and with a view to enabling the villages and the farmers to adopt appropriate intermediate level of technology in their farming operations by making use of oxen and ox-drawn implements, the TRDB has been providing medium-term loans to villages. Also provision of ox-carts helps the farmers to transport farm yard manure, the harvested produce, water, construction materials etc. Preliminary feasibility/viability studies undertaken by the TRDB in Kondoa district have revealed that a package of an ox-plough, a pair of oxen, an ox-cart costing around shs.5,000 provided to a farmer enables him to improve and expand the area under cultivation from 6 to 12 acres and reap higher returns from the farm. On the basis that about 25 farmers per village are covered, the number of villages and the quantum of medium-term loans may be expected to be developed as follows:

	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
Number of villages	5	10	20	40
Amount of loans (Millions of shs.)	0.63	1.25	2.5	5.0

Farmers in some areas in the region particularly in the Dodoma districts are reported to be unwilling to use oxen for farming operations. It may be expected that this inhibition will be got over when the farmers are educated about the economic gains accruing to them from the use of oxen and ox-drawn implements for farming operations. The extension

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staff and the ox-training centres have an important role to play in this regard.

Storage

TRDB has been providing medium-term loans to registered villages for enabling them to have storage facilities for seasonal inputs and the harvested produce. During the year 1978-79 term loans at the rate of shs.65,000 were approved for 27 villages for construction of godowns. It may be reasonable to assume that about 40 villages can be covered under the programme each year during the next four years. At the present rate of shs.65,000 per godown, the amount of credit per year will be of the order of shs.2.6 million.

Maize Mills

Provision of medium-term loans to enable villages to instal maize mills has been an important activity pursued by the TRDB particularly during the past three years. In Dodoma region, the TRDB had approved loans aggregating shs.1.86 million during the past three years for the purpose. It may be reasonable to assume that about 30 villages would be covered in each of the next four years. At the rate of shs.50,000 per mill, shs.1.5 million could be expected to be provided every year for the purpose.

Rice Production

The RIDEP has proposed the stepping up of the area under rice cultivation as follows:

(Area in hectares)

<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
648	1,775	3,150	4,000	4,800

Rice cultivation hitherto has been carried on under traditional methods under which the ... re operations, such as land preparation, seeding and harvesting are carried out by hand with simple tools like

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hand hoes. It has been proposed to modernize agricultural production and expand the area under rice cultivation by mechanizing land preparation for which purpose the region is acquiring a D-4 caterpillar. Farmers will be advised to take up to now high yielding varieties of seeds from Kyela and application of fertilizers and insecticides. It is expected that this changeover will enable the farmers to step up the yield from 5 bags at present to some 12 bags per acre.

Farmers will be required to pay shs.150 per hectare to have their lands cleared and levelled. As the benefit of this investment would accrue to the farmers for a number of years, the credit needed for the purpose could be provided in the form of medium-term loans repayable over a period of three years. The seasonal inputs requirements have been placed at shs.250 per ha consisting of (shs.115 of seeds, shs.100 of chemical fertilizers and shs.35 of insecticides).

The programme contemplated under the Plan seems to be rather ambitious considering that only 222.5 acres were alone reported to have been brought under cultivation of rice during 1978-79. However, for the purpose of assessing the credit requirements from TRDB for rice cultivation, it may be reasonable to proceed on the basis that the acreage under the crop could be steadily built up as follows:

	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
Area (ha)	600	1200	1800	2500
Medium-term loans (Shs.million)	0.09	0.09	0.09	0.11
Short-term loans (Shs.million)	0.15	0.30	0.45	0.63

Over the four year period, the medium-term loans would aggregate Shs.0.38 million and short-term seasonal inputs loans would rise to shs.0.63 million by 1983-84. The TRDB should undertake technical feasibility and economic viability studies of rice cultivation in the

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project area before it commences the financing of this crop. Effective link with the marketing agency (in this case, the NMC) will have to be established to ensure recovery of the loans extended out of the value of crops sold.

Seed Multiplication

The Development Plan has proposed the implementation of a seed multiplication programme in order to ensure availability of adequate improved seeds and to develop the regional capability in the production of improved seeds. 24 villages besides other institutions have been identified for the purpose. The programme envisages that progressive farmers selected for the purpose would enter into contract with the TANSEED who will undertake to purchase the seed after harvesting at the price which is announced in advance.

The farmers and the others selected under the programme can look to the TRDB for the inputs requirements for the cultivation of the crop. Effective recovery mechanism should be established with the TANSEED. As the requirements of seed within the region can be determined only after the suggested study is undertaken, the credit requirements from the TRDB have not been estimated.

Establishment of Grape-Vine

TRDB has been assisting enterprising farmers by providing term loans for the establishment of grape vineyards to cover the cost of manure, insecticides and fencing. Loans granted so far amount to shs.0.75 million. In 1973-74 a loan of shs.0.5 million was advanced to the DODIDECO for establishment of vineyards. The "Vine Development Project" that has been prepared recently by the Ministry of Agriculture provides for the planting of new vines over the period 1980 to 1983 so that by 1985 some 1450 hectares in about 90 villages would yield grapes and feed a new winery that is proposed to be established. The total medium-term

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credit for the establishment of vine yards and short-term credit for their maintenance have been projected during the first four years as under:

	(Shs.millions)			
	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Short-term loans	1.06	1.31	1.56	2.02
Medium-term loans	6.37	7.44	7.47	0.30
	<u>7.43</u>	<u>8.75</u>	<u>9.03</u>	<u>2.32</u>
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The financing and other arrangements in regard to the proposed winery are being currently negotiated with possible donors. The implementation of the project would offer wide scope for the TRDB to step up its lendings for the establishment and maintenance of vine-yards. It will be necessary to strengthen the bank's financial resources by securing a special line of credit from a responsive donor agency if the TRDB were to assume the responsibility to extend the needed credit support for the project.

Minor Irrigation Development

According to hydrogeologists there is a substantial potential for small-scale irrigation from ground water sources. This potential has not been examined in detail and it is proposed to carry out two surveys in 1980 and 1981 to:

- (a) investigate the potential in villages in connection with the siting of wells for the rural water supply programme (1980),
- (b) assess the potential for irrigation from ground water alluvials associated with the Kinvasungwa and Dabu Rivers.

In addition, a study is to be carried out in 1981 and 1982 of the feasibility of extending irrigation in the 18 villages where traditional irrigation has been practiced.

A substantial potential is also reported to exist for surface water development for irrigation. Studies of this potential are proposed in the Interim Plan and cover:

- (a) low lift irrigation from Lake Serya on the upper Bubu river,
- (b) irrigation downstream from Mupende on the Bubu river on an area of perhaps 10,000 hectares lying north-east of Bahi. The water would be provided from a storage reservoir at Farkwa and a head dam at Mupende,
- (c) irrigation from the Hombolo, Ikowa and Daholo reservoirs on the Kinyasungwe river.

In addition there is a potential for small surface water catchment dams to store water for irrigation and stock water. A UNDP/FAO project (URT/78/021) is providing US \$ 0.5 million assistance to help the Region construct 8 to 10 earthen dams in various locations. In the next 3 to 4 years a number of small-scale irrigation projects will offer good opportunities to the villagers to harness the available water for irrigating the lands brought under rice, vegetables and fruits cultivation. This would involve laying down field channels, control points, drainage outlets. The financial outlay for undertaking these may be met out of medium or long term credit from the TRDB provided the projects are considered technically feasible and financially viable. There would appear to be scope for irrigating the grape vineyards to be raised over 1450 hectares by drilling boreholes in areas where irrigation potential is known to exist. No estimate of the possible credit requirements can be made at this stage. The TRDB does not have any experience in this regard. The technical capability to prepare, appraise and finance irrigation projects will have to be developed within the TRDB in close coordination with the irrigation division before the TRDB can be called upon to finance irrigation projects undertaken by villagers or farmers.

Small-Scale Industries

Much emphasis has been placed under the Third Five-Year Plan to promote small-scale industries "which are flexible and require simple technology". Small scale industries are expected to strengthen and become integral parts of regional district and rural economic activities. Very little progress has been made in promoting and developing handicrafts and small industries in the villages for a variety of reasons. It has therefore, been suggested that a UNIDO consultant be employed for the development of a practical programme to promote handicrafts and small industries in Kondoa, Mpwapa and Dodoma Rural Districts. A survey should be undertaken to identify the needs, and possibilities of development of such industries in the villages, trading centres and towns. Once the units that are set up and their technical and financial viability is ensured, the TRDB should be able to extend credit facilities to the established units. At present 263 units (including 121 grain mills) are reported to have been established. Most of these units are, however, located within Dodoma township. Only grain mills have been installed in rural areas. Six projects have received hire purchase facilities from SIDO out of its hire purchase fund to the extent of shs.0.59 million. It is suggested that the SIDO and TRDB may undertake jointly a study to identify how many of the existing units qualify for bank credit for their development.

Livestock Development

The TRDB has been extending credit for livestock development in the Region under the IDA financed Second Livestock Development Project. The present situation in TRDB financed ranches is as follows:

- (i) Mwalanjo has not got off the ground because of lack of water;
- (ii) Mnkowa/Mng'osani - the herd strength has come down from 600 to 200. The reasons have yet to be ascertained;

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(iii) Segala/Izava ranch has shown satisfactory progress thanks to very efficient management despite severe production constraints imposed by water distribution.

The ranches at (i) and (ii) above and many of the ranches in the other regions financed by the TRDB are not commercially viable. Encroachment of the grazing land, pasture burning, mismanagement and misappropriation of funds are some of the reasons that account for this position. What would appear necessary from the point of the TRDB is to consolidate what has already been done in the Livestock sector. Once this process is completed satisfactorily, the TRDB may consider the question of financing the two proposed ranches if they are found to be technically and financially viable and the problems faced by the existing units are foreseen and remedial measures are effectively taken from the beginning.

The three dairy units that have already been set up cannot be considered to be eligible for TRDB credit at present. Their milk production and cash incomes are low. Efforts should be made to make the units more productive and viable so that they could serve as centres for extension and demonstration purposes. Once these efforts meet with success, it should be possible for the TRDB to extend credit for their development. It should be observed that investment in dairying will prove profitable only when improved cattle are used and the management of the village is energetic and capable and the financial position of the village sound. TRDB should undertake feasibility studies in villages which have been selected for the proposed four units with reference to the amount of investment, which should be kept low, improved pastures, market for sale of milk and other relevant considerations.

Among the various proposals that have been made under the Development Plan is the one relating to Hatchery. If the feasibility study that has been suggested confirms commercial viability, the financing of the project whose estimated cost is shs.24.69 million could be considered by the Tanzania Investment Bank. Also the question of availability of poultry feeds on regular basis and at reasonable prices is crucial for the development of poultry projects in villages. While no doubt poultry units can yield a comparatively quick cash return and assist in strengthening the village economies, they cannot be made commercially viable in the absence of availability of day old chicks and regular and assured supply of poultry feeds at reasonable prices. The proposal that the NMC should put up an animal (and poultry) feed plant (or plants) in Dodoma should be actively pursued.

Dodoma Region should be considered ideally suited for development of goat production schemes because of its dry climate provided investment can be kept low and good market is assured. TRDB should undertake feasibility studies in potential areas and if found commercially viable, prepare a project in each of the districts for financing by TRDB. In determining the size of the scheme, factors such as the availability of technical and managerial skills needed, processing facilities available and above all market demand should be taken into account.

G. V. Ramamurthy
30 January, 1980

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ANNEX II-L

PROJECT EVALUATION SUMMARY

March 11, 1980

1. PROJECT TITLE

AGRICULTURAL CREDIT

62-0007
EVALUATION NUMBER
Project No. _____
Final No. _____

USAID/Tanzania

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Page 1 of 10
Final

REGULAR EVALUATION SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES

A. First PRO-AG or Equivalent FY <u>74</u>	B. Final Obligation Expected FY <u>80</u>	C. Final Input Delivery FY <u>80</u>
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6. ESTIMATED PROJECT FUNDING

A. Total. \$ _____
B. U.S. \$ 3,750,000

7. PERIOD COVERED BY EVALUATION

From (month/yr.) February 1979
To (month/yr.) February 1980

Date of Evaluation Review

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)

B. NAME OF OFFICER RESPONSIBLE FOR ACTION

C. DATE ACTION TO BE COMPLETED

1. That in their planning for a Small Farmer Credit Project, USAID/T, TRDB, and the TanGov provide continuity and funding resources for:

A. Maintenance of the NAFCREP program at least at the same level as at present with additional support in the event of a mutually agreed expansion.

B. Maintenance of appropriate levels of participant training with an emphasis toward accounting, credit, computer science and financial management. All ATD training should be closely coordinated with that of other donors.

C. Provision to the fullest extent possible, for close continuity in the work of the existing U.S. Contract advisory team now domiciled within TRDB. Of particular importance is that sector of Bank operations involved with financial management and computer operations.

D. Provision of transport and other commodities appropriate to the project.

2. That consideration be given to establishing a centralized research and data gathering facility - possibly housed in TRDB, - to provide a means of pulling together such research and definitive data as may now exist in Tanzania in the field of rural development, and to mount

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change
B. Change Project Design and/or Change Implementation Plan
C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Gleen Brown - Contractor
Joseph Hanson - Contractor
John Anania - Project Officer *[Signature]*
Robert Gilson - Evaluation Officer *[Signature]*

12. Mission/AID/W Office Director Approval

Signature *[Signature]*
Howard L. Stevenson, Dir
Date

March 11, 1980

B.A. Continued

specific research and data gathering activities in support of development and credit programs for the benefit of the rural areas of the country. The output of such a facility to be used largely in planning and implementing rural improvement programs by banking institutions and other parastatal organizations having a legitimate interest in rural development.

3. That TRDE of its own volition undertake appropriate action to:

A. Resolve the problems of coordination and cooperation as between the Bank and other parastatal institutions.

B. Pursue acquisition of fund resources authorized under law or under the auspices of the Bank of Tanzania in order to reduce dependence upon external donors.

C. Upgrade headquarter and field office facilities to provide better security for books and records and for protection of cash loan repayment funds. Also, work to increase the use of checks in loan repayments.

D. Continue and expand both "in-house" staff training as well as programs to educate loan clients in the proper use of credit particularly at the village level.

E. Complete ongoing decentralization programs with all due speed.

FINAL EVALUATION

AGRICULTURAL CREDIT PROJECT 621-0117

Summary

This Project originated in 1974, had as a general goal assistance to the Government of Tanzania in achieving self-sufficiency in food crops and livestock. A primary purpose of the project was to strengthen and improve the Tanzanian Rural Development Bank as a rural credit institution (a) an increase in agricultural lending, particularly for food crops production, and (b) improvements in TRDB operations including an increase in qualified staff, training in project development and analysis, improved financial analyses and increased decentralization of operations.

Previous evaluations have dealt with project progress over the years and with the many problems which have surfaced. A great many of those problems have been solved but a number remain to be worked on. A new Phase II project is in the planning stage and it is expected that it will provide continuity in the rural development now going on as well as to provide for movement in some new directions to underpin AID desires in the area of enhancing basic human welfare within the developing world.

The intent of this evaluation therefore is to provide an overall view of the success of the project in meeting overall the goal and purposes for which it was originally conceived, and, based on lessons learned to offer suggestions for a follow-on project.

Conclusions

On balance, this project has achieved the major purposes it set out to handle. Tanzania is now considered to be largely self-sufficient in production of food crops and TRDB is a vigorous, expanding and increasingly effective instrument for distribution of credit into the rural areas. Indeed from the standpoint of field operations it may be one of the better qualified institutions amongst countries at similar or even higher levels of development. TRDB appears to be under no great political or governmental pressure to make loans it deems unsound. This is a rarity in most developing nations. TRDB programs for extension of small farmer credit for seasonal production is targeted to the village level rather than to the individual farmer-member of the village. This can ultimately be developed into a basically viable delivery system and presently is being supported by credit programs aimed at providing village grain mills and village warehouse storage facilities. This program remains an integral part of USAID/T project operations and ostensibly will continue to have some support in the Phase II project.

Management and staff development within TRDB is generally on track and is expected to improve significantly. The evaluation team is impressed with the high overall quality of bank staff both at headquarters and in the field. This statement applies particularly to those staff members who are professionally involved in extension and collection of loans and in the provision of technical support to that major area of bank activity. The statement cannot be made as forcefully for that sector of TRDB involved in financial management which includes among other activities such

things as accounting, record keeping, audit, financial analysis, cash flow data and management information. Indeed, given the general lack of adequate and useable accounting equipment and the relative low level of professional training amongst accounting personnel, the increasing ability of TRDB in the field of lending may soon outstrip the capability of the accounting and record sections to provide a satisfactory level of support. Without the present almost single handed efforts of the ACDI contract team Financial Advisor the evaluation team believes the bank would even now be experiencing serious dislocations. This problem will be addressed in subsequent sections of the evaluation report.

The participant training element of this project has made an important contribution toward attainment of overall project objectives. The team has been favorably impressed with the competence and quality of work now being performed by returned participants.

The Bank has been diligent in placing returned participants in positions where beneficial use can be made of their broadened knowledge and skills. Additionally they have had opportunities to create a "multiplier" effect through participation in various training programs mounted by TRDB. These people constitute an invaluable human resource base for the further development of the Bank. The developing Phase II project should contain significant provision for continuation of participant training in the United States, and, if in harmony with pertinent AID policy, perhaps in carefully selected countries which may be further along in solving problems similar to those being encountered in Tanzania.

An important element in support of this project and especially in the development of TRDB as a viable institution has been the provision from time to time of short-term consultants to assist TRDB with problems or planning activities in areas where the Bank did not have sufficient in-house expertise. In the judgment of the evaluation team provision should be made in Phase II for fielding of such consultants in support of important project priorities.

As an example, the subject of an appropriate interest rate structure for TRDB involves a variety of factors to the economic and political. Rationale for existing rates is hard to obtain and there is strong reason to feel that the posted rate may not be the true rate of return to the Bank nor the true cost to the borrower. A skilled consultant could be very useful in developing a fuller understanding of this singular problem.

A vital ingredient in the progress of TRDB has been the funding of a team of Advisors from Agricultural Cooperative Development International (ACDI). A two person team has been domiciled in the Bank almost since inception of the project with the contract scheduled for termination in mid-1980. Funding for the team leader who advises in the broad areas of operations and management will be exhausted by July 31, 1980 and for the advisor on Financial Management funds will run out one month later. This team has performed admirably in working with the Bank in putting together methodology for handling most all of the Bank functions in the broad fields of management at the national and field levels, credit extension, collections, human resource development, operations including preparation of necessary forms for loan applications and analysis, and evaluation of bank credit.

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and training and direct assistance in vital areas of financial management. It is assumed that a new Phase II agreement will provide funding for a team at this juncture, in view of the apparent gap between the termination of the existing contract and completion of new contract negotiations under AID regulations and procedures. We strongly feel that if a procedure exists which would either provide for some extension of the present contract or significant shortening in the time frame affirmative action should be taken without delay. Otherwise, we believe that forward momentum in overall operations and in ongoing decentralization activities will be seriously curtailed. In the case of financial management a chaotic condition conceivably could develop. The Finance Management Advisor has developed and implemented (using rented time on a TanGov computer) a computerized loan accounting system for TRDB. This system was desperately needed to accommodate the growth of the loan portfolio and to substitute for absolute and mis-functioning accounting equipment on which the Bank previously had relied. As mentioned earlier there exists a need to upgrade the accounting force, and this need is no more critical than in computer operations. Given a prolonged absence of the high skills required in this area Bank operations and therefore this project can suffer material harm. Further, TRDB expects to acquire its own computer within a reasonable period of time as part of a yet-to-be approved IBRD/IDA project. The skills and experience of the present Financial Advisor could provide TRDB important help in the programming, start up and efficient use of this planned modernization activity.

TRDB continues in a careful and conservative way to move toward decentralization of many basic credit programs and consequent broadening of authority to field personnel. This presently is being handled on a differential basis - that is, increased competency will be rewarded with more authority in both credit and management aspects. The posture of the Bank is not to broaden the decentralization process until careful ground work has been laid and senior management is satisfied that the effort can be sustained. The evaluation team applauds this position. In July 1979, the TRDB Board of Directors approved a reorganization of the Bank, which, among other things, authorized establishment of a new department to be styled as the Directorate for Regional Supervision and Coordination. Basic responsibility will be to coordinate all activities between the head office and the field. In the near future it is contemplated that five senior members of TRDB staff will be appointed as Zonal Managers to implement this new activity.

Although procurement of commodities under this project got off to a slow start, the situation is now greatly improved. It is anticipated that by the termination of this project all funds allocated will have been used. There will be some continuing need for commodity input in the Phase II project the exact dimensions of which cannot be determined at this time.

As stated earlier, the evaluation team has formed an opinion that the project has largely attained the goals originally conceived for it. In some respects expected development has been exceeded by TRDB especially in the area of credit capability. TRDB is a worthy institution with improving capability and merits continued technical support and financial assistance.

Problems

There are a number of problems which impinge upon the ability of TRDB to improve current operations and prepare for expanded activities in the future. Among these are:

1. Loan Collections:

Reliable and consistent data on the precise dimensions of loan delinquency as a percent of loan volume are difficult and perhaps not presently possible to obtain. This is due in part to the past and present record keeping methods of TRDB, but also because of terms upon which some type loans are granted. It is clear however, that loans upon which repayment of both interest and principal is in arrears constitutes a real and growing threat to the Banks liquidity. TRDB is improving its collection techniques in many ways as it is well aware of this problem. Improvement can be discerned in areas of USAID interest such as the NAFCREP where collection ratios now are in excess of 70%. A not bad record in a country with no long tradition in the appropriate use and repayment of small scale loans. This ratio might very well see improvement as village leaders are educated in and become more conversant with the use of checks in handling financial matters. The true dimension of the problem can only be realized by considering the conditions and extent of delinquency of some parastatal institutions who should be the best and most reliable of the Banks clients. In that regard, it is believed that in many loan programs the Bank will continue to improve its performance. Until such time, however, that TRDB obtains closer coordination and cooperation from parastatal authorities it will be plagued with this problem. There are no easy solutions.

Possible relief as to the parastatals may be forthcoming later in 1980. Presently, a full-fledged conference of high TanGov officials and the General Managers of various parastatals including crop authorities and financing institutions is scheduled to convene at Arusha in February of this year. There they will seek to identify problem areas and establish policies and procedures for supervision and collection of loans, relations between institutions and programs calling for degrees of closer coordination. Results should be closely monitored.

2. Fund Resources

Fund resources for TRDB are almost exclusively obtained from external donors such as IBRD and AID. Should these sources begin to dry up TRDB might soon face a liquidity crunch. There are avenues under existing law which enables TRDB to accept deposits and obtain substantial short term credits via the discount window of the Bank of Tanzania. In an effort to become increasingly less dependent on external donors, TRDB should actively address itself to acquisition of more funds generated internally in Tanzania.

A persistent part of the overall problem of resources is the difficulty continually experienced by TRDB in obtaining timely release of donor grant money from TanGov Treasury. Time lags of several months in processing TRDB releases are common. Any grant of funds which might be incorporated into a Phase II project might well contain a condition precedent designed to alleviate the problem.

3. Maintenance of Accounting Capability

As discussed in preceding sections, this area of Bank operations may be its weakest link. It is imperative that both staff and equipment be upgraded if the TRDB is to sustain merely its present level of operation.

4. Physical Facilities

Office space and the generally poor condition of physical facilities in TRDB headquarters is not conducive to efficiency of operation or effectiveness of personnel. It is fortunate that the Bank plans to move to new and larger quarters by year end 1980. Otherwise extraordinary measures would be required to deal with a presently unsatisfactory condition. Likewise there are Regional and District offices badly in need of enlargement and rehabilitation. Needed also are more adequate field facilities for storage of inputs required for ongoing loan programs.

5. Security - Regional and District

Two problems are involved here those being the lack of fire resistant facilities for storage of records and the risk involved in collecting, transporting and temporary storage of cash loan repayments. In the first instance, a fire could wipe out the entire records of any given office and in the second TRDB field staff face undue risk of loss in carrying out regular collection procedures. TRDB should deal with these matters as a high priority measure. Internally there should be capability to correct the problem but some assistance might also be sought from outside sources. In any event, loan repayment by check on the part of TRDB clients would sharply reduce the danger of handling cash.

6. Manpower - Transport

TRDB continues to have a need for more suitably qualified professional staff than it can locate and employ. Likewise an overall lack of operational transport in the field has had a limiting effect upon operational effectiveness. The transport problem is moderating

somewhat and is expected to further improve. However, TimGov constraints governing the use of scarce fuel resources likely will inhibit maximum effective use of vehicles particularly landrovers.

7. Expansion of Training

TRDB is moving ahead with "in-house" training of staff and in some areas takes a leading role in education and training of clients at the village level. Much additional effort will have to be expanded in both these areas and in particular at the level of the small farmer who must be brought to an understanding and acceptance of sound credit principals.

8. Research and Data Gathering

It is apparent that TRDB and perhaps others are somewhat lacking in the basic function of data gathering and specific research as a primary aid to management. Data which is reliable, consistent and used properly would add measurably to effectiveness of TRDB operations. In that regard, it might be well for TRDB to familiarize itself with an organization in the Philippines - The Technical Board for Agricultural Credit - which is doing outstanding work in research and data gathering for Philippine Banks working in rural credit.

Evaluation Methodology

Information and data for the evaluation were obtained from USAID/T project material and from meetings and discussions with TRDB staff both at headquarters and in the field. Observations dealing with extension of credit and collections derive largely from visits to recipient villages and discussions with village Chairmen, village managers and others. Discussions were also held with the ACDI contract team which works within the headquarters of TRDB.

Improved Qualification of Staff

Formal training courses sponsored by this USAID project have materially improved the capability of 30 direct participants in scheduled courses and seminars, most of which were conducted in the U.S. In addition, the joint funding of an "Executive Management Seminar" to be held at Arusha this year will involve about 40 TRDB employees. These formal training activities are being followed up and supplemented in seminars held by the ACDI contract employees as well as TRDB staff throughout the regions.

During the time of this project 5 long term and 15 short term trainees have completed their assignments and 3 long term and 3 short term students will complete their courses in June 1980. The subject matter in all the courses taken is pertinent to TRDB activities ranging from two M.S. Degrees in Agriculture economics, two M.S. Degrees in Agricultural economics and Business, one B.A. Degree in accounting and three M.S. Degrees to be completed in June 1980. The short term training periods range from 5 to 15 weeks with the exception of one participant who had 2 weeks of Rural Development training and one who had 4 weeks in a USDA Graduate School Course entitled "Small Farmers Credit Distribution and Administration."

"Other training" for 4 participants included two in 1 week workshops in Ghana and two in 5 and 6 weeks training in "Management techniques and policy determination for agricultural banking institutions." In addition an "Executive Management Seminar" (EMS) jointly sponsored by USAID, TRDB and ACDI will be held at Arusha during February and May, 1980. The attendees will include about 40 TRDB staff together with high officials from other banks, Ministries, parastatals whose activities have impact on TRDB operations such as National Milling Corporation and tobacco, tea and cotton authorities. An important objective will be to achieve better coordination with all agencies. This course will be conducted by the "Practical Concepts Incorporated"(PCI). The seminars will be conducted in two 6 weeks sessions with about 20 TRDB personnel and 10 other personnel in each class.

Of equal importance to the formal training, during the period of this evaluation, has been the seminars conducted by ACDI contract employees. About 20 seminars have been held on subjects such as; headquarters office, accounting, on-the-job training in supervision, loan collection techniques, village management training, field accounting and teaching participants in these seminars included employees who have completed formal training courses. This activity enhances the multiplier effect of the training they have received.

The team interviewed several of the trainees who have completed formal courses. All were very happy to have had the opportunity to attend and are doing well in their respective jobs with TRDB. As an example, Mr. B.A. Mwambapa, project officer at the Iringa regional office, was delighted to have had 3 months training in the U.S. The team was impressed by his credit knowledge and understanding of the important factors in credit administration. Another example is Mr. B.A. Luwemba, Regional Manager at Iringa who had 6 weeks practical on-the-job training in making, supervising and collecting agricultural loans in St. Louis Production Credit Associations. This was scheduled to follow a World Bank E.D.I. Rural Credit Projects Course. This team was extremely well impre-

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ssed with his broad knowledge and understanding of the overall activities of TRDB as well as of his regions field problems and needs. Another example is Mr. A.T. Mohale, Director of Regional Supervision and Coordination. He completed 8 weeks in A.M.A. courses together with works in the Farm Credit System involving personnel management and administrative subjects from bank policies to loan making and collection techniques. Mr. Mohele also attended a course entitled "Training of Trainers in Management" sponsored by USAID during March and April 1978 in Malawi. These training aids have unquestionably prepared this high level official for his newly created position in which he is now doing virtually all the jobs encompassed in his training.

Although much has been accomplished in the training field it is important that TRDB place increased emphasis on the formal training of employees in accounting and finance at the headquarters office. This is especially necessary in view of the planned computerization of TRDB's bookkeeping functions, data processing, management information and analysis. Timeliness and accuracy of reports needs major improvement if banks management is to provide competent guidance to its field offices as well as improve its service and coordination throughout the banks systems. Continuation and expansion of on-the-job training at the regional, district and village levels is essential. Training of village managers, chairmen and individual borrowers should be expanded. Village leaders must become an integral extension of TRDB's staff if successful loans are to be made, recorded and collected at that level. TRDB's coordination with extension, government crop authorities, other lenders and appropriate parastatals needs to be improved and continued as additional villages or new leaders become involved in the use of credit.

ANNEX II-M

TRIP REPORT

January 16-23, 1980

UNITED STATES GOVERNMENT

Memorandum

ANNEX II-M
Page 1 of 11

TO : Mr. Jerome T. French, A/Director

DATE: February 13, 1980

FROM : ^{lmd}
Rose Marie Depp, CDPO

SUBJECT: Safari Report: Iringa and Mbeya Regions January 16-23, 1980

The purpose of the safari was to become familiar with the Tanzania Rural Development Bank's field operations of the regional and district administrative offices in order to prepare a project evaluation of the Agricultural Credit Project (621-0117) and a project paper for the Small Farmer Credit Project (621-0155).

Participants: Mr. U.S. Mwanganda, Operations Division, TRDB; Ms. Rose Marie Depp, USAID Project Coordinator; Mr. Glenn Browne, USAID Consultant; Mr. Joseph Hanson, USAID Consultant, Mr. Abdallah, Driver.

Wednesday, January 16, 1980, Morning and Afternoon Safari:

The team left Dar es Salaam Wednesday, January 16 at 10:00 a.m. in a TRDB Landrover, one purchased by USAID under Project 621-0117. We arrived at 6:00 p.m. in Iringa and met Mr. B.A. Lwemba, the Regional Manager of the TRDB Iringa office. Accommodations were arranged for the Iringa Railroad Hotel.

Thursday, January 17, 1980, 8:00 a.m. Morning Meeting TRDB

Participants: Mr. B. A. Lwemba, Regional Manager
Mr. B. Mwambapa, Project Officer

Mr. Lwemba presented a brief overview of the Bank's organization and purpose. TRDB was created in May 1, 1971 as a parastatal under the Ministry of Finance and Planning. The Board of Directors are selected by the parent ministry. Bank operations are under the supervision of a General Manager. The position of Chairman is appointed by the President. Mr. Philip Magani is presently Chairman of the Board and acting General Manager.

The Iringa Regional Office is staffed by 12 persons, 6 technical and 6 support staff. Technical officers include the Regional Manager, 1 Project officer, 3 Credit supervisors, and 1 book keeper. The office is also staffed with 1 typist, 1 clerk, 1 messenger, 1 driver (2 unaccounted).

The office was owned by TRDB, however, has been condemned. TRDB plans to construct new offices in 1980/81.

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The Regional Office has 1 Landrover which is old and was currently in the shop for repair.

The TRDB Iringa Regional office is supported by one district office in Njombe which is staffed by 1 Project Officer, 1 Credit supervisor, 1 Typist and 1 Driver. The office has recently been allocated, 1 new Landrover (purchased under 621 0117) which has been assigned to the Njombe district office because of the heavy volume of loans it services. The office also has 1 pikipiki.

The USAID project team was particularly interested in the NAFCREP (National Food Crop Credit Program) in Iringa. Mr. Luvumba stated he believed this was an appropriate Bank program which supported efforts to achieve the national priority goal of food self-sufficiency. It was preceded by the National Maize Project in Iringa. NAFCREP had been in operation for two seasons: 1978/79 and the current season, 1979/80. Under NAFCREP the Bank can provide seasonal in kind loans to villages at 8 1/2% for food crop inputs but it particularly emphasizes maize. The Bank orders fertilizer, seed and pesticides (Endosulfan) and delivers them to the villages. TRDB offers an advantage over TRA in both lower prices and delivery to the village. Medium term loans (3 years) are offered at 7 1/2% for maize mills, water systems and village storage godowns.

Loan processing begins in February and March and continues through October. Loan processing begins with the preparation of estimates by Credit Supervisors. The CS's are responsible for visits to the client villages and review of village requests for inputs. The regional loan committee consists of the RDD, RADO, Regional Livestock Officer and representatives of the regional NBC and CCM. The Regional loan committee meets quarterly to approve input loans of up to 200,000/= per village and recommend higher value input loans and any other lending to TRDB headquarters. Headquarters usually reviews the TRDB Regional Manager's recommendations in April and May and approves the regional recommendations in June. Tendering of inputs begins in June and delivery is arranged upon receipt of orders. Inputs are not received together and are delivered as soon as possible to the villages in Iringa since storage facilities must be rented. TRDB arranges for hire of privately owned lorries to make delivery to the villages.

There are two methods of loan collection. The simplest and the one which TRDB has had the best repayment are those made from the source of crop purchase, i.e. from the marketing board's. (This arrangement has been contradicted by headquarter's staff.) There is also a method of loan collection by deduction of a fixed amount from each unit of crop purchased by the marketing boards. These crops include all export and domestic crops which require processing (e.g. coffee, tea, tobacco, cotton). The marketing boards then repay TRDB. There have been some problems in the past, particularly with tobacco. Deposits made by the boards in their NBC accounts are absorbed by overdrafts and no payment is then made to TRDB (see Mtei's Budget Address on this problem).

The second method is by village repayment to TRDB. This method is used for village food crop input loans, maize mills, godowns. Problems arise in NMC purchasing of food crops. If the official NMC market used individuals sell their production, surplus to their subsistence needs to the village. The village is responsible for storage, sale, payment to villagers, loan collection from villagers and loan repayment to TRDB. Frequently, however, the unofficial market is used for food crops and thus the village never has control over the income from surplus food production.

Adequacy of Staff - The Regional Manager was asked for his views on the adequacy of staff in terms of training and numbers. With respect to training, he felt there were three general areas of training:

- (1) training of the Bank staff at all levels on agricultural credit administration;
- (2) coordinated training with other agencies and institutions which are also responsible for agricultural production; and
- (3) village level training for both village leadership (i.e. the Chairman, Secretary and the Village Managers) and education of village members in uses, application and repayment of credit.

He mentioned the responsibility of the Prime Minister's Office of Ujamaa and Cooperatives for organizing village level training. The type of training recommended for TRDB was technical in nature (essentially with respect to loan appraisal). The Regional Manager felt that studies with problem solving examples was a helpful method of learning. Third country training was suggested as particularly beneficial because it helped TRDB employees put in perspective the problems they face. The question of whether there was a regional training facility in Africa was raised.

With respect to adequacy of staff the Regional Manager expressed his desire to open a new district office in Mafinga District to better cover the area between the Iringa Regional office and the Mtoha District office. (See also meeting on following day.)

Other points:

The Regional Manager believed eight second degrees had been provided under 621-0117.

--The RM believed Mr. Collehon visited the regional office 2-3 times a year.

The USAID and TRDB team broke for lunch at the Kati Hotel.

Thursday, January 17, 1980, Afternoon Safari

At 1:00 p.m. all participants of the morning meeting left for safari in the Dabaga area (location of foundation seed multiplication farm financed under 621-0092).

Mawambala - A village where a certified seed grower ^{is} cultivating maize. TRDB is financing an individual loan for equipment, seed, and fertilizer. Problems were observed because lack of machinery spare parts and fuel had caused late planting. There was a duka stocked by the grower for the laborers. The duka was one of the best stocked the drafter had seen in rural Tanzania and had available items such as cloth and soap which have recently been scarce in Dar es Salaam.

Ukumbi - This NAFCREP village had nearly completed construction of a village store under a village loan financed by TRDB. The store was holding about 30 bags of seed including Kenyan grown certified maize purchased by TRDB from TanSeed. The Chairman and Secretary were not available. We were told they had gone to Iringa.

Kitowo - The team met the Village Manager and Secretary. The VM interrupted an adult education class to join us. The VM was a former MATI student of Mr. Mwanganda. He was a former Bwana Shamba and had been in Kitowo for about a year. There were also a Bwana Shamba living in this village and serving several other nearby villages, a livestock officer, a cattle dip attendant, two teachers for the two primary schools, and a dispensary serving the 400 families. The VM was able to locate records and explain the bookkeeping system used by the village. He said he liked his work and thought the number one problem in the development of rural areas was politicization of peasants regarding problems of development and their ability to bring about change. He explained he meant knowing of current conditions, of the possibilities for change and how to do what was necessary.

Friday, January 18, 1980: 9:00 a.m. Morning Meeting TRDB

The same participants of the previous morning met for three hours. The team discussed the targets and progress of the NAFCREP program of the 596 registered villages in Iringa. The Regional Manager believed a reasonable 5 year target would be 300 NAFCREP villages. The program began in 1978/79. Of these 21% should be provided maize mills by 1983. Of the 200 villages expected to be reached, 17% have given grain mill loans in year one (1978/79), but to date only eight are completed. 1979/80 296 applications had been received and 90 villages were approved. The maize mill loans are medium term loans repaid in 3 years by 75% villages and 25% by individuals in 3 years. A 25% equity contribution is required from the borrower. The mill is now costing 56,800/= and is expected to rise to 70,000/= by year five. A maize mill to serve a five mile radius area is considered to be the social service target of the program. (Sample appraisal received - Brown passed to Heard.)

With respect to storage to-date 9 million shillings have been provided by AID and other donors for village storage construction in Tanzania. The 5 year target in Iringa is 137 units.

The Regional Manager reviewed the rural development subsector activities for which TRDB can provide financing. These include: seasonal inputs, livestock, fisheries, farm machinery and irrigation, transportation (buses and lorries), storage, crop development and small industries for agricultural processing. He said the biggest problem and slowest payoff were livestock loans. Appraisal were particularly difficult for these loans.

The adequacy of TRDB facilities in the region was discussed. New offices are planned for Iringa in 1980/81. A regional storage unit, staff houses and safes were needed. If TRDB is to become a bank of deposit facilities for savings were also needed.

With respect to transport the Regional Manager felt this was the most critical requirement for good loan repayment. Until this year the office had one Landrover to service some 120 NAFCREP loans, 40 tea loans and 60 tobacco loans. He believed he needed 3 good Landrovers. Thus two new ones (one for Mafinga and one to replace the Iringa vehicle) were needed. Four motor cycles were needed (the one now located in Njombe, one for Mafinga and two for Iringa). The three needed motor-cycles are scheduled to be delivered (under 621-0117).

The Regional Manager was asked what staff requirements he projected as needed for the next 3-4 years.

	<u>Office/Title</u>	<u>Current</u>	<u>Projected Need</u>	
Iringa	Regional Manager	1	1	
	Project Officer	1	1	
	Credit Supervisor	3	4	
	Book Keeper	1	1	
	Typist	1	2	
	Clerk/Messenger	1	1	
	Guards		1	
	Drivers	1	1	
	Njombe	Project Officer	1	1
		Credit Supervisor	1	1
Typist		1	2	
Clerk/Messenger			1	
Guard			1	
Mafinga	Drivers	1	1	
	Credit Supervisor		1	
	Typist	-	1	
	Messenger/Clerk		1	

Needed office equipment included hand calculators, batteries, file cabinets, flip charts, typewriters, reproduction equipment and possibly cameras.

Friday, January 18, 1980, Afternoon Safari

The TRDB Regional Manager and USAID team visited a tobacco farm leased to an expatriate Greek farmer. TRDB has provided an individual loan for barns and fuels. Casual laborers in addition to staff were employed at a daily wage of 7/= a day. Most fields had been planted with seedlings and the earliest crop would be ready for harvesting in several weeks. Shortages of firewood for curing and deforestation were mentioned as problems.

At 3:30 p.m. the USAID team were accompanied by Mr. Mwanganda to the regional TanSeed office where we were introduced to a former student of Mr. Mwanganda, Mr. Gabriel Machota. Mr. Machota is the Region 1 Manager for TanSeed. The office was leased exhibition building at the Saba Saba fair grounds. The office had recently been opened and is one of four TanSeed offices (others are in Arusha, Morogoro, etc.).

Saturday, January 19, 1980, Morning Safari

The team left Iringa at 8:00 a.m. for Njombe travelling through Mafinga district. A reforestation program was now producing the first generation of pulp trees in the Mufindi area. A processing plant is near completion. Mr. Mwanganda explained subsequent generations of trees had not been planted so that a lag in production could be expected once the current generation is harvested.

Tan Wattle Company had extensive acreage under certified maize seed cultivation outside in Njombe town. The road from Makambako to Njombe was an all weather road in fairly good repair. The team arrived in Njombe about 1:00 p.m. visited with the District Project Officer, Mr. Chikaka and the Credit Supervisor, Mr. Kaulilika. Offices were rented from the District Building and Lands office.

At 3:00 p.m. the team accompanied by Mr. Chikaka visited a NAFCHREP village, Uwemba. The village Chairman accompanied the team to one of the village communal tea plots. The team also met the TIA representative stationed in Uwemba serving the surrounding area. The Chairman believed his was a well off village because of the electricity provided by a Catholic Mission hydro electric scheme and proximity of the hospital.

Sunday, January 20, 1980, Morning Safari

At 9:00 a.m. the team departed for Mbeya. A Sunday driving permit was obtained by Mr. Chikaka and Mwanganda / already obtained a Cholera permit / in Iringa. The team arrived in Mbeya and was met by the Credit Supervisor who secured accommodations at the Moravian Youth Hostel.

Monday, January 21, 1980, 9:00 a.m. Morning Meeting TICDB

The team visited the Mbeya Regional office from Tanzania Housing Bank. Mr. Henry S. Kamukara, Regional Manager met with the team. Mr. Kamukara is a graduate of the FAF and had 3 years work experience before becoming the TRDB Regional Manager. To serve the 500 registered villages in Mbeya there are district offices in Chungu and Mbozi each staffed by one person. He noted the high agricultural potential of Mbeya region and said that almost anything could be grown. TRDB therefore, has a variety of lending programs in Mbeya. The total volume of lending varieties because of NAFCREP lending which is now in its third year. The main financing is for tobacco. TRDB is currently providing about 4 million shillings annually to 4,000 families in 9 villages for tobacco inputs. Other lending includes:

<u>Crop</u>	<u>Amount</u>	<u>Comments</u>
Tea	3.5 million	110 villages
NAFCREP	2.0 million	•64 maine villages
Farm Machinery	.6 million	
Grain mills	.9 million	30 (target 15 p.a.)
Godowns	-	40 applications shelved because political problems with Regional authorities regarding free financing of godown from other sources.
Industries:		
- roof board	2.0 million	
- fruit canning	2.0 million	
cotton seed oil	-	Application received
Livestock:		
- 2 DAFCO farms		Repayment problems
- 1 village dairy scheme		No problems
- 2 Ranches		
Poultry:		
		1 hatchery for individual to be financed.
Piggery:		
		6 applications received from individual farmers average 10-25 'saws per scheme.
Transport:		
		Limited activity, but high demand for buses for villages and lorries for hauling.

Specific problems of NAFCREP were reviewed. Because Mbeya (unlike Iringa) is in the third year of NAFCREP village repayment records were considered in approving this year's applications. The resulting approval history is as follows:

<u>Year</u>	<u>No. of Villages</u>
1977/78	47
1978/79	64 (47 + 17 new)
1979/80	21 (17 added in year 2 plus 4 from 1 year)

Another problem is linked to the history of NAFCREP. Other national programs and the predecessor project, the TRRD National Maize Program, provided free inputs. There is therefore, no credit experience of repayment.

The Regional Manager felt the villages also had agronomic problems. For example, fertilizer recommendations were blanket ones and area specific recommendations were not available. Village agronomic education is needed.

There is a need for villages to develop the capacity to determine input needs, who needs them, and who are credit worthy customers. Development of criteria for democratic sharing of the inputs on the basis of how good farmers are is needed.

Problems with the Regional government and commissioner have arisen (see godowns above). Alternatives to TRDB lending are offering competing services to villages. In cases cash contributions have been collected for purchasing inputs particularly in conjunction with national production campaigns. Competitions are organized (by GCM) and prizes are offered.

Training in the villages has in the past been provided to village leaders. TRDB considers the Chairman, VMT and Secretary to be important participants particularly needing record keeping skills. Stationery, offices and safes are equipment necessary to performance of their jobs. Training for all villagers is needed to explain what credit is, why use it and when to use it. The regional manager was aware of the mobile training units to be financed by IDA but did not know what training content would be offered. He felt TRDB needed an officer trained in adult education techniques.

The Regional Manager felt the Institute of Finance Management training for Credit Supervisors and Project Officers was inadequate. (Two one month courses are offered for each position. The first course is specifically geared to the duties was needed for all field staff including support officers (clerks, typists, etc.), however, his main concern was for Regional Managers, Project Officers and Credit Supervisors. For Credit Supervisors, he explained peak work seasons were February-March

(input ordering) and June to the end of the year (input delivery through harvest). May and June were months when these individuals could be released. Project Officers needed training in appraisals preparation for different kinds of loan applications. He believed training should be general with specific case studies which were sub-sector specific. He was prepared to release his staff for 1 to 1½ months for this training. Timing was not a problem. For Regional Managers, he believed management training and particularly financial management was needed. He suggested overseas third country training as beneficial.

With respect to facilities, building of new offices is scheduled for next year. A storage facility for spares and inputs is needed but not planned. Equipment including calculators, batteries, typewriters, files and cupboards.

The Mbeya office staffing is as follows:

<u>Office/Title</u>	<u>Current</u>	<u>Projected/Need</u>
Mbeya Regional Manager	1	
Project Officer	2	
Credit Supervisors	1	
Book keeper	1	
Stock clerk	1	
Typist	1	
Clerk	1	
Guard	1	
Driver	2 (for 2 landrovers)	2
Project Officer		
Chunya Credit Supervisor	1*	
Project Officer		
Mbozi Credit Supervisor	1*	
Project Officer		
Tukuyu Credit Supervisor		

* 1 pikipiki assigned

Other comments by Regional Manager:

- One Credit Supervisor can handle 20 villages.
- Inputs should be used first for communal production and the remainder for cash sale.
- TFA fertilizer price is 117.50 a bag. TRDB is 108.50 including interest.
- NBC is lending for NMC ward level godowns.

The women staff were also interviewed. They believed hand preparation of maize flour (sembe) required per debe (about 15 Kg.) 2 hours for hulling and 1½ hours for pounding. Mr. Mwanzanda said he believed FAO estimates a family of 5 needed 20 bags (2000 Kg.) of maize p. annum. Thus; at 15 Kg. per debe 2,000 Kg. equals 134 debas. 134 debas p.a. times 3.5 hours labor equals 4,690 hours/p.a.

Monday, January 21, 1980, Afternoon Safari:

The team departed Mbeya at 1.30 p.m. accompanied by the Mbeya Project Officer to visit the Katumba Tea Factory in Tukuyu town, in Rungwe District. The Manager, Mr. J. L. Mussula met with us and arranged a tour of the factory. The factory is part of TTA. The plant has a 600,000 Kg. green leaf capacity p.a. and receives all its leaves from smallholders. (Smallholders are estimated to contribute about 25% to National production). T.Sha. 1.50 is paid for green leaf; transportation and other costs, presumably TTA's overheads are already deducted. Forty cents per kilo is deducted for input loans and farmers receive 1.10 per kilo. The factory facilities were being expanded in order to increase to 800,000 Kg./green leaf capacity. Another nearby factory is planned to help handle surplus production. Several privately owned factories are now processing the excess which Katumba cannot handle. Smallholder production is growing according to the Manager, because it is a high priced crop. Loan collection is no problem for TRDB.

Tuesday, January 22, 1980, Morning Safari

The team departed for Iwala a NAPCREP Maize Village at 9:00 a.m. The village Chairman, Mr. Paulo Mwandaka Mwanjeta met with us and described village production and cooperative activities. The village had about 1,600 acres for 387 families. Each family farmed 4 acres for itself, one of them is coffee. Ujamaa maize crop had been destroyed by army worms but had been sprayed and replanted. The Chairman expected a crop. The village had a cooperative duka, built from their own funds, a village savings account at NBC of 30,000/- and a maize mill. A village woman was interviewed at the mill. She estimated that hand hulling per debe took 1½ hours and pounding ¾ of an hour. She thought 1 debe would last for a family of 5 for one week if ugali was served every night. Thus 2 hours a week for 52 weeks is 104 hours of labor p.a. (This estimate varies from the earlier one. We need estimates of maize requirements for consumption to check these two figures).

The team then visited Iwambi Dairy Farm at 12:00 p.m. Iwambi is a DAFCO farm under the regional management of C. Gauidson, an expatriate who has worked in Tanzania for 12 years. The farm manager met with the team for about one hour. The farm was originally a coffee farm. The dairy project began in 1966. The farm has 200 freisian and Jerseys from New Zealand and 3 herd bulls for improved breeding. The farm now has about 610 animals and is milking about 235 animals. Milking is done by machine. The farm prepares its own feed from maize bran, cotton seed cake and rice porridge. Animal production per head is about 2,700 - 3,000 litres. Production by Zebu is about 250 - 280 Kg./p.a.

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Milk processing of butter, cream milk and other is done by Tanzania Dairies Ltd. in Mbeya town. Their plant experiences frequent breakdowns. New equipment has arrived from Finland but is not yet operational gets 1.80/Kg. of milk.

The farm has 39 full time laborers and supplements this with casual laborers during hay making. The farm manager felt they were overstaffed, but because termination of employees is expensive he had not reduced the staff.

TRDB is financing a long term loan (15 years) for equipment, water supply, buildings, fences and workshop. Payment has been made on interest only by DAFCO. The farm expects to begin its own repayment on the interest this year.

The team returned to Mbeya and made preparations for the return trip to Dar.

Wednesday, January 23, 1980, Safari

The team left Mbeya at 6:30 a.m., arrived in Iringa at 11:30 a.m., spent one hour refueling, eating and shopping, and arrived in Dar at 7:30 p.m.

Other Comments and Observations

--- 3,000/= was spent on fuel for the eight days.

--- NAFCREP is sometimes referred to as NAFCRATY I

-- TRDB personnel were qualified and very helpful. We had an excellent team leader from TRDB accompany us - Mr. Mwanganda. Everyone was extremely helpful and did much to insure a comfortable pleasant trip. The TRDB driver, Abdullah was a careful steady driver.

cc: PRM:WFaulkner
TRDB:USMwanganda
ADO:MFuchs-Carsch/Anania
OSU: Team

CDPO:RMDepp:eb:2/27/80