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PROJECT PAPER

REVISION NO. 1

MANPOWER TRAINING PROGRAM FOR MATERNAL  
AND CHILD HEALTH AIDES

Project No. 621-0121

DDLKD

USAID TANZANIA  
November  
1976

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AGENCY FOR INTERNATIONAL DEVELOPMENT  <b>PROJECT PAPER FACESHEET</b>		1. TRANSACTION CODE <div style="border: 1px solid black; display: inline-block; padding: 2px;">C</div> A ADD C CHANGE D DELETE		PP  2. DOCUMENT CODE 3
3. COUNTRY/ENTITY TANZANIA		4. DOCUMENT REVISION NUMBER <div style="border: 1px solid black; display: inline-block; padding: 2px;">1</div>		
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7. PROJECT TITLE (Maximum 40 characters) <div style="border: 1px solid black; display: inline-block; padding: 2px;">MANPOWER TRAINING MCH AIDES</div>		8. ESTIMATED FY OF PROJECT COMPLETION <div style="border: 1px solid black; display: inline-block; padding: 2px;">82</div>		
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10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) -						
A. FUNDING SOURCE	FIRST FY 73			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	3,064	-	3,064	10,853	-	10,853
(GRANT)	( 3,064 )	( - )	( 3,064 )	( 10,853 )	( - )	( 10,853 )
(LOAN)	( - )	( - )	( - )	( - )	( - )	( - )
OTHER U.S.	1.	-	-	-	-	-
	2.	-	-	-	-	-
HOST COUNTRY		5,000	5,000		79,529	79,529
OTHER DONOR(S)		-	-		-	-
<b>TOTALS</b>	<b>3,064</b>	<b>5,000</b>	<b>8,064</b>	<b>10,853</b>	<b>79,529</b>	<b>90,382</b>

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY		H. 2ND FY		K. 3RD FY	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) PH	440	440	-	3,064	-	1,165	-	511	-
(2)									
(3)									
(4)									
<b>TOTALS</b>				<b>3,064</b>	<b>-</b>	<b>1,165</b>	<b>-</b>	<b>511</b>	<b>-</b>

A. APPROPRIATION	N. 4TH FY 76		Q. 5TH FY 77 1/		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1)	958	-	1,695	-	10,853	-	<div style="border: 1px solid black; display: inline-block; padding: 5px;">                             MM YY <sup>2/</sup>                              10 7 19                         </div>
(2)							
(3)							
(4)							
<b>TOTALS</b>	<b>958</b>	<b>-</b>	<b>1,695</b>	<b>-</b>	<b>10,853</b>	<b>-</b>	

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

NA <sup>3/</sup>  
 1 = NO  
 2 = YES

14. ORIGINATING OFFICE CLEARANCE		15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION  MM DD YY 
SIGNATURE		
Richard Podol		
TITLE		DATE SIGNED
Acting Director, USAID/Tanzania		MM DD YY 

AID 1330-4 (3-78) 1/ Includes \$240,000 in Transition Quarter.  
 2/ In-depth evaluation conducted July 1976.  
 3/ Project designed prior to PID requirement.

B. Recommendations

1. Grant - \$10,853.
2. Life of project time-frame: FY 1973 - FY 1982.
3. Substitute staff housing for outstations.
4. Increased participant training.
5. Addition of population commodities to project and establishment of a transport delivery system to get them to the recipients.
6. Additional support for MCH Zonal Centers and the nurse upgrading school.

C. Description of the Project

The purpose of this project is to assist the TanGov achieve an institutional capability to provide comprehensive MCH and child spacing services to the rural population as an integrated part of the MOH Rural Health Program. To this end, AID has provided:

1. Direct hire and Contract personnel as technical advisors.
2. Participant training for selected MOH personnel.
3. Commodities.
4. Capital construction costs.
5. Operational costs.

As a result of these inputs, the following results have been (or will be) achieved by the end of the first five years of the project (June 73 to May 78):

1. 18 training centers have been completed with each site consisting of a classroom, a demonstration clinic, a student dormitory and three staff quarters. (See Annex A)
2. A training staff of MOH personnel has been identified and placed in the training sites, and a training curriculum has been prepared.
3. 590 MCHAs have been graduated and over 500 additional MCHAs will be assigned to, RHCs and RDs in November 1978 for a total of over 1000.
4. 21 professionals have received long term participant training in the U.S. and have been placed in teaching supervisory and planning positions in the MOH, medical faculty and Ministry of Finance and Planning.

5. Comprehensive MCH services are being delivered by the MCHAs both as students and as graduates.

In June, 1976 a joint TanGov/USAID evaluation team and, separately, the Area Auditor General's Office, performed in-depth assessments of this project. The teams' findings indicated that, although the effort was approximately one year behind schedule, the overall project was meeting its goal and purpose. On the basis of these evaluations and the TanGov's desire for AID's involvement, USAID/Tanzania proposes to revise and continue its commitment to this project for an additional two years, although the final year of obligation remains FY 1980. In the original PROP, physical completion was also scheduled for FY 1980, but in this revised paper physical completion will occur in FY 1982. The two year extension is required to cover USAID's commitment for recurrent costs, zonal offices, contraceptive procurement/distribution, supply system, and the nurse upgrading program.

During the remainder of the project, USAID/Tanzania will provide the following:

1. Technical assistance in the form of direct hire and contract personnel to the MCH and the MCHA training program.
2. Short term consultant assistance in various technical areas related to MCH, child spacing, health education, data collection and supply distribution.
3. Participant training for MCH supervisory personnel.
4. Commodities related to the provision of MCH and child spacing services.
5. Other costs including a declining proportion of operational costs for the 18 MCHA Training Centers.

The implementation of this project will remain with the Division of Preventive Services of the TanGov Ministry of Health. Supervision of the project within USAID/Tanzania will be through the Mission's Population Officer. It is also anticipated that an existing contract for technical and professional support services with an American institution of higher learning will also be continued. Additional technical resources in the form of PASA, contract or local short term consultants will be needed.

Several factors combine to give reasonable assurance that this project can be successfully accomplished. Primary among these are the accomplishments of the project to date. The project has been studied objectively by a team of outside consultants and by the Area Auditor General. These reports

(Annexes B and C ) describe the significant outputs that have already been derived. As a result of the initial project efforts, an institutional infrastructure for training MCHAs has been created and is beginning to graduate personnel who are being absorbed into the TanGov's health delivery system. Further, the TanGov is firmly committed to this project as evidenced by its assurances that future graduates of the program will be assigned to positions in the government's health system.

The TanGov actively wishes USAID/Tanzania to continue its involvement in this project as part of a larger, comprehensive and well planned expansion and improvement of the TanGov's health system. In this effort, USAID/Tanzania is one of several bilateral and multilateral donors who are coordinating these activities in the systematic upgrading of Tanzania's health sector.

It is important to note that another significant factor that will contribute to the successful implementation of this project is the positive working relationship between USAID direct hire and contract personnel and the professional staff of the MCH.

At the end of this project, it is anticipated that the following conditions will have been achieved:

1. An MCH training infrastructure for initial and continuing education in MCH and child spacing will have been created. (See Annex A)
2. Over 2,000 MCHAs will have been trained and placed in the GOT rural health delivery program.
3. Comprehensive MCH and child spacing services will be available to 90% of the country's rural population.
4. An MCH and child spacing supply distribution network will be operational throughout the country.
5. The TanGov's MOH will have completed studies which will provide a firmer data base for further development and improvement of the MCH and child spacing programs.

#### D. Summary Findings

1. It is the opinion of USAID/Tanzania that this project, as revised in this Project Paper, should continue to receive AID support. This judgement is based on several factors. By the end of the fifth year of operations this project will have accomplished the greater part of its initial purpose, thus demonstrating the soundness of the initial planning. The revision and continuation of the project for two years would permit this effort to be expanded

significantly. In addition, the project's continuation has been requested by the TanGov. As such, this effort represents USAID/Tanzania's most important input into the TanGov's health sector and is a vital part of the Mission's overall support program in the country. Furthermore, it is a vital part of a much larger multidonor effort aimed at a comprehensive improvement in the TanGov's health delivery system. Finally, the extension of this project for an additional two years would ensure the smooth assimilation of this program into the TanGov's Ministry of Health, and the provision of increased MCH and child spacing services to a large percentage of the rural population.

2. The project meets all applicable statutory criteria.

#### E. Project Issues

Several issues have been raised in prior reviews of this project and in the recent evaluations. These issues are listed below, followed by the page numbers in this PP where the issues are addressed.

1. 90.5% of the TanGov's development budget for health is derived from external sources. ( 38)
2. Recurring costs for this program are substantial. (39 )
3. Child spacing is a concept which the TanGov does not openly endorse. (34 )
4. The delivery of child spacing services in rural areas will be dependent primarily upon the commitment of individual MCHAs. ( 34)
5. Supervision and continuing education of MCHA's are vital to the success of this project. ( 34)
6. The TanGov must be committed to absorbing the more than 2,000 trained MCHAs into the health system. ( 33)
7. The provision of improved MCH services will ultimately place even greater demands for health services on the TanGov's health sector. ( 39)
8. Transportation and the cost of gasoline and petroleum products are a services constraint on the delivery of health care in rural areas. ( 22)
9. The distribution of MCH and child spacing supplies is an essential element to the provision of comprehensive MCH services. ( 34)

10. The absence of vital statistics should not hamper USAID's ability to evaluate the success or failure of this project. (49)
11. This project is the major health activity in USAID/Tanzania's program of support to the TanGov. (8)
12. The commitment of the TanGov to this program will be demonstrated by its willingness to appoint qualified counterparts to U.S. direct hire and contract technicians. (50)

## PART II - Project Background and Detailed Description

### A. Background

The PROP for the Manpower Training Program for Maternal and Child Health Aides (Project No. 621-11-580-121) dated June 20, 1973, and the most recent DAP clearly describe the health and population problems which this project addresses.

Briefly, Tanzania is a large country with an area of 361,800 square miles. Its economy is largely agricultural and its population lives primarily in rural areas.

The government of Tanzania is founded upon a single party (Tanganyika Africa National Union or TANU) state with a strong central executive branch. Under President Nyerere's leadership, Tanzania has adopted a socialist philosophy in managing the economy of the country. His purpose is to seek to achieve political and economic development within an egalitarian framework appropriate to the rural character and African traditions of the people. The goals of this approach are spelled out in the TANU constitution and are reaffirmed in the party document of February, 1967 known as the Arusha Declaration. The basic principals include:

1. Social equality, involving spreading the benefits of development as widely as possible throughout the society.
2. Ujamaa, or the development of forms of economic activity, involving collective efforts, particularly in rural areas.
3. Self-reliance involving the maximum possible development of domestic resources through mobilization of the people.
4. Economic and social transformation in order to expand productive capacity.
5. African Economic integration through the extension of economic cooperation with other African States.

Since Tanzania is essentially a rural nation, one of the government's most important applications of the doctrine of socialism and self reliance has been in the rural sector. The TanGov has created Ujamaa villages, or rural communities which seek to improve production and general conditions through the communal efforts of the villagers. The government provides certain basic assistance to these villages such as education and health, marketing and credit, as well as extension services. Since 1971, the number of Ujamaa villages has increased from 2,500 to over 5,500, and the number of inhabitants is now estimated at over 2 million persons.

The population itself, according to the TanGov's 1975/76 estimates is 14,995,000.\* The National Demographic Survey of 1973 indicated that the crude birth rate was 45.6, the crude death rate was 17.7, and the natural rate of increase was 27.9. The infant mortality rate is estimated to be 152/1000 and the life expectancy at birth is 40-41 years. It has been calculated that 55% of Tanzania's population is below 15 years of age.

While there are no morbidity/mortality figures on a national basis, some data is available from hospital admissions. These indicate that 18.3% of all hospital admissions are due to complications of pregnancy, childbirth and the puerperium, 13% are due to pneumonia and gastroenteritis, 5% are due to anemias and protein malnutrition, and 40% to measles. A recent study of deaths on the pediatric wards at Muhimbili Hospital revealed that 41% were due to tetanus, 16.3% to neonatal sepsis, 7.1% to anemia, 6.6% to tuberculosis, and 4.8% to measles.

This pattern of diseases demonstrates the need for preventive disease control for better pregnancy management, for improved health education, and for more effective control of unwanted fertility.

In its Second and Third Five-Year Development Plans (1969/74; 1975/80), the TanGov has identified health, water and education as its three priorities. As described by the Health Planning Commission for the Third Five-Year Development Plan, the implementation process will start at the village. Except for the construction of two district hospitals, all resources and efforts will be directed towards the development of the basic health infrastructure. This is a system of rural health centers and dispensaries which will be the focal point of the preventive health care programs.

It is against this background that USAID/Tanzania developed the project for a Manpower Training Program for Maternal and Child Health Aides in 1973. Its goal was to assist the TanGov "to improve and expand a countrywide health delivery system as a component of rural development so as to increase the health, well being, and the quality of life of the rural population."

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\*Planning and Analysis Section, MOH, TanGov, June 26, 1976

The project itself was initiated in FY 73. Through FY 76, obligations under this project totalled \$5.9 million, including \$3.5 million for construction and equipment of 18 MCHA training schools. This represents \$1 million more than originally planned. In addition, \$0.9 million was obligated for the operating costs of the MCHA training schools, \$0.3 million for technical assistance, \$0.2 million for participant training and \$0.3 million for equipment provided to rural health facilities.

The Area Auditor General Africa performed an audit of the Manpower Training Program for the Maternal and Child Health Aides Project as of February 29, 1976. The audit report (3-621-76-48 dated June 22, 1976, Annex C ) made three recommendations:

1. That SER/CM review the finding that a project contract technician arrived in country four months prior to the contract amendment which established the position.
2. That the project coordinator, Loma Linda University, provide USAID/Tanzania with required progress and financial reports.
3. That the PROP be revised after completion of a formal project evaluation to take into account construction problems which caused 9 to 15 month delays in project implementation.

As a result of this report, USAID/Tanzania has taken the necessary action to carry out the Auditor General's recommendations.

In June, 1976 an evaluation of this project (No. 621-11-580-121) was conducted. A copy of the report is appended (Annex B ). The team making the evaluation was composed of two outside U.S. consultants (an Associate Professor of Ob/Gyn and a nurse), an AID/W Population Officer, and two Tanzanian health professionals chosen by the TanGov Ministry of Health.

The major findings of the Evaluation Team as related to the project goal ("to assist the TanGov to improve and expand a country-wide health delivery system as a component of rural development so as to increase the health, well being and the quality of life of the rural population"), are as follows:

"The Maternal and Child Health Aide (MCHA) Training program is well designed and clearly focussed on effectively extending improved health care to the rural population of Tanzania. It is a major, new, but integral part of the three principal TanGov development priorities since independence in 1961 to eradicate poverty, ignorance and disease. It is also an integral part of a serious attempt by the TanGov to emphasize decentralized, preventive health service, even, where necessary, at the expense of expanding curative services.

A.I.D.'s assistance to this project is an excellent example of implementation of the U.S. Congressional Mandate to AID to focus on projects that assist the rural population, enhance the quality

of life of the people, respond to host government priorities, integrate women into the development process, and emphasize low-cost preventive health measures over curative services."

The major findings of the Evaluation Team as related to the project purpose, ("to assist the TanGov in achieving an institutional capability to provide comprehensive MCH services to the rural population as an integrated part of the MCH rural health program"), as follows:

"The project, although a year behind the original ambitious schedule, as shown in the PROP, has already resulted in a substantial expansion of the MOH capability to extend MCH services to Tanzania's rural population. Fourteen of the eighteen training centers planned have been opened and are presently training MCHAs. Six schools have just graduated a total of 161 MCHAs who are now being posted to rural health facilities where they will provide comprehensive MCH services.

In light of present budget plans of the MCH, the trainee targets are realistic and will make trained MCH personnel and services accessible to 90% of the rural population by the early 1980s.

The training curriculum is geared to a transition already underway from separate clinic sessions for the various MCH functions into daily integrated clinics. The integration of the clinics implies enrollment in the full spectrum of preventive services for all mothers and under five children, using the demand for curative services as an entry point into the comprehensive MCH package.

Acceptance of preventive services such as immunizations and child spacing is accordingly accelerated, with allowance for provision of the popular curative services at the rural level and referral of problem cases to higher levels.

A new simple and effective reporting system for clinic service statistics has been designed and partially implemented, and its application has been incorporated into the MCHA training curriculum."

Based on these findings, the Evaluation Team made a number of major recommendations. These are summarized below:

1. With regard to the TanGov's commitment to the project, the team recommended "that the financial resources to be available to the MCH over the next several years be carefully assessed so that the annual output of MCHAs does not exceed the ability of the MCH budget to absorb them."

2. With regard to the TanGov's Ministry of Health (MOH), the team recommended that:
  - a. "A reassessment be undertaken of transport requirements of a comprehensive MCH delivery system with a view to reconciling the need for effective transport links for both patients and commodities among levels of care, taking into consideration current realities of Tanzania transport capability."
  - b. "The MOH should continue to seek funds for the purchase of UNICEF MCH clinic kits and for delivery of kits to all MCH units throughout the country."
  - c. "Plans should continue to be made for contraceptives to be added to the drug schedules for Rural Health Centers and Rural Dispensaries, which would eventually be initiated and resupplied by the MCHAs with proper safeguards against misuse. This is in keeping with world-wide trends. The family planning content of the curriculum adequately prepares the MCHA for this function."
3. With regard to the role in the project of the four Zonal Offices located at the four main Tanzanian consultant hospitals, the team recommended that "the functions of the Zonal Offices need to be clarified."
4. With regard to the support for the MCHA training program from within the health professions, the team recommended that "an MCH Public Health Upgrading Course for nurses be started as soon as possible."
5. With regard to the MCHA training program, the team recommended that:
  - a. Curriculum be strengthened in its objectives, course content and learning activities.
  - b. The cultural aspects of health, including a KAP study, use of community resources, community development, health education including preparation of audio-visual materials, patient flow concepts, and pharmacology for all drugs to be used by MCHAs be given more emphasis or be added to the curriculum.
  - c. Specific MCHA training manuals should be developed in Kiswahili with priority given to child spacing.

6. With regard to student selection, the team recommended the MOH  
"continue to recruit MCHA students from existing MCH personnel, but to replace these personnel with persons from outside the health system. If budget considerations will not allow for an increase in MOH staff, the number of MCHAs to be trained should be limited to budget capabilities."
7. With regard to school staff, the team recommended that:
  - a. "MCHA tutorial staff be recruited from upgraded public health nurses or Grade A nurses with MCH and Public Health training and experience."
  - b. "The MCHA tutor preparation course be heavily weighted towards teaching methodology and use of the curriculum."
  - c. "In-service seminars and supervision should now be the primary means of improving principal and tutor capabilities."
8. With regard to field practice for the MCHAs the team recommended:
  - a. "That a guideline of field work objectives and activities should be developed and distributed to MCHA students and all persons involved in MCHA field work. These objectives and activities should be specific enough that field work performance can be evaluated against them."
  - b. "That direct supervision of MCHAs during field training should be conducted by the regional and district MCH coordinators, other district staff, MCH zonal officers, and a rotating staff member from the MCHA training center."
  - c. "Assuming that adequate plans for field practice are made, that hostels be built as soon as possible in suitable locations taking into consideration accessibility by supervisory staff and organizational functioning of the centers. Where possible, existing accommodations should be used rather than the construction of a new hostel. Local self-help may be considered for labor, with materials provided by the project."
9. With regard to physical facilities, the team recommended:  
"That the guideline requiring the use of the MCHA school demonstration clinic only for demonstration and teaching purposes and not as facilities for a public operational MCH clinic,

be relaxed. That a case by case assessment of the situation at each school be made in conjunction with the school staff and local medical authorities, taking into consideration available medical facilities, MCH clinic and school staff, the location and proximity of relevant buildings, daily load of the public clinic, etc. The most productive use of the demonstration clinic could then be determined in the context of an understanding that an integrated use of the building for both training and service functions must be permitted only if it does not detract from the training function."

10. With regard to participant training, the team recommended:
  - a. "That the MCH be invited to nominate a senior nurse to make an evaluation visit to Loma Linda University."
  - b. "That in addition to participant training already planned, at least one OB/GYN from each consulting hospital and several from Dar es Salaam should be sent to the A.I.D. sponsored program for International Education in Gynecology and Obstetrics."
  - c. "That a nurse participant should undertake health education studies with the aim of strengthening the health education component of the MCH program."

On the basis of these thorough and objective assessments of the project by the Area Auditor General and the Evaluation Team, USAID/Tanzania wishes to continue its support of the Manpower Training Program for Maternal and Child Health Aides (Project No. 621-11-580-121) for an additional two years. This decision is based upon the following factors:

1. The project is a vital part of the TanGov's total health care program to reach the rural population of Tanzania.
2. The TanGov has demonstrated its commitment to this project by its ability to carry through with the construction requirements and its desire to absorb all of the MCHAs into the health care system.
3. The project will train the key personnel who will provide badly needed maternal, child health and child spacing services to over 90% of Tanzania's rural population.
4. This project is an integral part of a comprehensive upgrading of the TanGov's health system which is being supported by several bilateral and multilateral development agencies.

5. The accomplishments to date underscore the soundness of the original project plan.
6. Termination of AID support at this time would leave the TanGov unable to continue the project alone due to the high level of recurring costs which the MOH cannot yet fully assume.
7. The TanGov has asked that USAID/Tanzania continue this project.
8. This project is the major U.S. commitment in the health sector and is an important part of the overall AID program in Tanzania.

In order to continue its support of this project, USAID/Tanzania is prepared to make certain revisions in the scope and direction of the project. These changes focus principally on increasing MCH and child spacing services. They are described in detail in the next section.

#### B. Detailed Description

This detailed project description represents a revision of the original project that was approved in June, 1973, and an extension of the project duration for an additional two years to FY 1982. (See Logical Framework, Annex E.)

##### 1. Program Goal

###### a. Statement of Program Goal

This program will assist the TanGov to expand and improve a country-wide health care delivery system as one of the components of rural development to increase the health, well being and the quality of life of the rural population.

###### b. Measures of Goal Achievement

- (1) Successful implementation of TanGov rural health program as outlined in the TanGov's Second and Third Five-Year Development Plans (1969/74; 1975/80).
- (2) Use of various statistical parameters such as crude birth rate, crude death rate, and infant mortality rate as determined by sample surveys.

###### c. Means of Verification

- (1) Expansion and improvement of the Rural Health Centers and Rural Dispensaries.
- (2) Decrease in crude birth rate from 45.5 to 41.1, crude death rate from 17.7 to 16.1 and the infant mortality rate from 152/1000 to 137/1000 as determined by sample surveys.

d. Assumptions for Achieving Goal Targets

- (1) Continued TanGov commitment to improvement in the health care delivery system.
- (2) Continued donor support to the TanGov health care program.
- (3) Improvement in other social economic and health parameters such as education, nutrition and transportation.
- (4) Ability and desire of the TanGov to perform measurements of various health parameters.

2. Project Purpose

a. Statement of Project Purpose

This project will assist the TanGov to achieve an institutional capability to provide comprehensive MCH and child spacing services to the rural population as integrated parts of the MCH rural health program.

b. End of Project Status

- (1) Approximately 90% of the rural population will live within reach of MCH and child spacing services.
- (2) MCH facilities will be adequately supplied with drugs, contraceptives and other supplies.
- (3) 60-70% of women of childbearing age will utilize MCH facilities and personnel.

c. Means of Verification

- (1) RHCs and RDs are built or improved in areas where there is an unmet need for services.
- (2) Adequate transportation and fuel are available.
- (3) The quality of the services provided is acceptable to women and outreach activities are maximized.

3. Outputs

a. Outputs achieved

- (1) MCHA Training Centers built and MCHAs being trained.
- (2) Effective logistics/supply system in place.
- (3) Four MCH Zonal Centers established and regional and district MCH positions established.
- (4) Returned participants working in project.
- (5) Effective Training Program for MCHAs developed for Training Centers and field training programs.

b. Magnitude of Outputs

- (1) 2250 MCHAs and village midwives will be trained and will begin providing services.
- (2) The level of MCH and child spacing services will be increased by 10% each year between FY 79 and FY 81.
- (3) No RHC or RD will be without supplies for any period longer than two weeks.
- (4) An MCHA supervisor will be assigned to each Zonal Office, region and district.

c. Means of Verification

- (1) Records will be examined from the MCHA training sites and the RHCs and RDs to determine the number of MCHAs trained and placed.
- (2) Service records of the RHC and RD will be assessed to determine the level of service provided.
- (3) Supply records from the RHCs and RDs will be examined to determine the efficiency and effectiveness of the supply distribution system.
- (4) The MCH's staffing pattern will be examined to identify the supervisory positions created and staffed in each region and district.

- (5) The MCH's organizational chart will be reviewed to identify the establishment of a facilities and vehicle maintenance unit within each region and district.

d. Assumptions Regarding Outputs

- (1) The MOH will have the ability to absorb the trained MCHAs into the health system.
- (2) The MOH will develop and maintain a management information system.
- (3) The MOH will develop a supply distribution and data recording system.
- (4) The MOH will be committed to improving the supervision and continuing education of the MCHAs.
- (5) The MOH will be committed to a program of continuous maintenance for its MOH buildings and vehicles.



b. Implementation Target

- (1) 163 person months of service rendered.
- (2) 600 person months of participant training received.
- (3) Commodities (supplies, vehicles, equipment) delivered.
- (4) 18 MCHA training facilities constructed.
- (5) 4 training and research projects performed.
- (6) 1 distribution system established.

c. Means of Verification

- (1) Payroll records.
- (2) Invoices from training institutions.
- (3) Bills of lading.
- (4) Site inspections and contractors' invoices.
- (5) Project reports.
- (6) Quarterly and annual project reports.

d. Assumptions for Providing Inputs

- (1) Continued USG priority for health and population support activities.
- (2) Continued TanGov priority for rural health programs.
- (3) Ability of TanGov to provide matching funds for USG input.

PART III - Project Analyses

A. Technical Analysis Including Environmental Assessment.

1. Rationale for Project Revision and Extension

USAID/Tanzania proposes to revise its original PRCP for this project as well as to extend it for two years through FY 1982. The decision to do so is based on several factors:

- a. The success achieved so far in meeting project goals within a reasonable time frame. Objective evidence of this can be found in the reports of the Evaluation Team and the Area Auditor General Africa.
- b. The importance of the MCHAs in the MOH's overall health care effort aimed at improving the delivering of MCH and child spacing services to rural areas.
- c. USAID/Tanzania's DAP strategy that identifies the health sector as a priority area.
- d. The TanGov's obvious satisfaction with USAID involvement in the health sector through this project.
- e. The emphasis that this program places on the delivery of health and child spacing services to women and children who live in rural areas.
- f. The role that this project plays in a much broader health development effort that is supported by several bilateral and multilateral donors.
- g. The important implications that the development of MCHA workers will have for other African LDCs faced with similar skilled health manpower shortages.

## 2. Revised Project Description

The basic elements of the revised Manpower Training Program for Maternal and Child Health Aides are as follows (the dates and funding refer to obligations only and not expenditures):

- a. Continuation of a cost reimburseable contract with a U.S. institution of higher learning to provide technical assistance in MCH and child spacing training to the MCH. These professional services will involve continuing services of a Public Health Physician through June 1981 and services of the nurse educators through August 1981. It would also include consultant assistance of a health educator through June 1980. These persons will work in the MCH's Preventive Services Division which has the primary responsibility in the TanGov for the MCHA program. The U.S. technicians will be involved in providing expert assistance in MCH/child spacing planning, teaching, and service delivery. They will work within the MCH with TanGov counterparts. In addition,

they will assist the MCH in the supervision of the training program at the MCHA Training Centers. They will recommend changes and improvements in any aspect of the program including student selection, curriculum development, clinical training and field experience. The work of the contract staff will be supervised by the Mission's Population Officer.

- b. Provision of short term consultant assistance in various MCH and child spacing areas including the delivery of clinical services, data systems, medical records and management information systems. These consultants will be primarily U.S. professionals who will be chosen after consultation with the MCH and the contract team.
- c. Participant training will be increased to reflect the need for trained MCH personnel who will be assigned to supervisory and teaching positions at the national, regional or district level. Emphasis will be on the training of nurses and health administrative personnel. The training will be primarily in the U.S. and will stress practical concepts that can be applied to Tanzania.
- d. Commodities will be provided for use in the service delivery aspects of the project, with a lesser amount going for classroom equipment and teaching aids. The specific breakout includes:
  - (1) Classroom equipment including various visual aids for teaching.
  - (2) Replacement of three vehicles for use by the contract personnel.
  - (3) Contraceptives during the fiscal years 1977-1980. These will include:

	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>
Orals (cycles)	1,200,000	1,111,000	1,390,000	2,800,000
Condoms (gross)	12,350	14,760	17,350	17,350

In calculating the supply of contraceptives that will be required, the standard approach used by PHA/POP has been utilized. This takes into account the importance of ensuring a two-year supply initially and the one-year period required between the ordering of supplies and their delivery.

(4) Equipment and supplies for all RHCs and RDs not presently supplied. This equipment will be used in the rural service delivery sites and will consist of MCH/child spacing kits. One kit will be made available to each RHC and RD. The kits consist of child and adult scales, kerosene refrigerator, sterilization equipment, etc.

e. Other Costs: Operational (recurrent) costs for the 13 MCHA Training Centers. These costs include such items as teachers' salaries, board and lodging for the students, utilities, transportation for students and teachers, and duplication costs. During the life of the project, the U.S. will be funding a decreasing percentage of the recurrent costs of the MCHA training centers. The U.S. contribution is based upon the following formula:

<u>Year of MCHA Operation</u>	<u>U.S. Contribution</u>	<u>TanGov Contribution</u>
1st	100%	0
2nd	80%	20%
3rd	40%	60%
4th	20%	80%
5th	0	100%

Since the MCHA training centers have been completed at different times, the beginning of operations varies from site to site. Thus, 14 centers are complete and functioning as of October 1976, but the remaining four will not be operational until May 1977.

Following the first year of operation it is estimated that these costs will be \$2,200 per center per month. The first year of operations will be higher because of changes, alterations and additions which were not included in the original plans. In order to provide training centers acceptable to the MOH, during the first year of operations the recurrent costs are estimated at \$3000 per center per month.

f. Supply distribution system. It has repeatedly been demonstrated in Tanzania and elsewhere that the availability of supplies in the MCH does not automatically result in their utilization. USAID/Tanzania has been concerned with the lack of adequate logistics and supply management for the rural health program. This problem is compounded by the lack of transportation and the high cost of fuel. These are factors which were also of concern to the Evaluation Team.

To deal with these problems and to ensure that adequate supplies are available to each RHC and RD, the Mission proposes to assist the MOH to develop a supply distribution capability for the rural MCH/child spacing program. This will first involve a study of the logistics and supply problem by a consultant who is knowledgeable in distribution systems in developing countries. On the basis of this study, USAID/Tanzania is prepared to support the creation of a separate supply distribution system for the MCH/child spacing program. This will involve obtaining warehouse space, vehicles, local personnel, a record keeping system, and equipment.

USAID/Tanzania anticipates that the initial use of this distribution system will be to ensure a free flow of MCH/contraceptive supplies to the RHCs and RDs. Subsequently, the system could be used to process other supplies and equipment for the rural health program.

It would be premature at this time to try to describe the exact structure of this distribution system. The Mission will rely heavily on the advice of an outside consultant who will be requested to make an in-depth analysis of the logistics requirements of the rural MCH and child spacing program. One model which might be appropriate, however, resembles the pharmaceutical detail man in the U.S. who periodically visits hospitals, pharmacies, physicians' offices and clinics. This person often serves several functions, including drug promotion and education as well as stock taking, order taking and supply delivery.

USAID/Tanzania envisions that the supply distribution system might be composed of a cadre of field workers whose duty would be to visit each RHC and RD periodically. At these visits, educational materials, posters and handouts could be distributed to the staff of the facility. In addition, the supply of contraceptives and other MCH medications could be checked. The field worker would be able to resupply immediately any non-prescription commodities from his/her stock. This approach would circumvent the lengthy process whereby periodic requisitions for supplies are forwarded to a central facility for review and approval. This approach would also cut down the required record keeping which in many developing countries becomes a bottleneck to smooth clinic operations.

The general outline for a contraceptives and MCH supply distribution system has been discussed with MOH officials and they concur that a mechanism such as described here would be appropriate.

- g. Upgrading of nursing education. Nurses play a vital supervisory and service delivery role in the MCH/child spacing program. It is therefore necessary that they have proper indoctrination in the newest developments concerning MCH and child spacing. USAID/Tanzania will provide funds for the MOH to hold seminars and workshops on these topics for those nurses working in rural RHCs and RDs. The USAID contribution will be on a declining basis during the three-year period, with the MOH increasing its contribution each year. The program will be funded solely by the TanGov by FY 80.
- h. Zonal seminars. There are four Zonal Centers at the four referral hospitals in Tanzania. The precise role of these Centers as MCH/child spacing focal points is not yet fully delineated. It is clear, however, that the professional personnel at these Zonal Centers need to be fully informed about MCH and child spacing. USAID is prepared to fund seminars, workshops and other educational activities for these groups.
- i. Local research studies. Due to the size of the current MCH Manpower Training Project and the investment of USAID and the TanGov in the project, it is felt that statistical evaluation must become a part of the project for proper analysis of the degree of its success. Since child spacing is a major part of the project, it seems appropriate to begin with a study of population factors related to family planning.

It has already been found that attitudes toward the use of contraceptives vary greatly from area to area and that many of the husbands will object to the use of contraceptives which their wives might want for child spacing purposes. Therefore, it is felt that attitudes as well as statistical facts need to be measured in evaluating child spacing activities within the MCH project.

The recommendations of the officials of the Demography Unit at the University of Dar es Salaam are to do a Knowledge, Attitude, Practice (KAP) study. It is proposed to do such a

study on child spacing at each of the MCH Training Centers now in operation. This study will measure not only the use of contraceptives but the attitudes and practices of the people about child spacing. Such a study will be very valuable in making future plans for the expansion of child spacing services. Such measurements will also give insight into those areas that have a strong preference for the IUD over the use of pills and other areas in which the reverse is true. Perhaps it might even indicate the source of these attitudes and lead to effective means of behaviour modification in this respect.

Because of the known differences in attitude between men and women in Tanzania, it is proposed that this KAP study be done by surveying 100 men and 100 women in the cluster surrounding the Training Center which is located near a district hospital. Such a cluster will measure the impact of child spacing activities of the school and the medical facility with which it is connected. It is proposed to match this cluster with a similar cluster in the same district at a location where thus far there has not been a well functioning MCH clinic with child spacing education and services. In view of the wide spread geographic location of the MCH schools, this study would be quite representative of the country as a whole. By doing the study at the MCHA Training Center, this activity can also be used as a training device for the students enrolled at the time of the study.

It is proposed that trained interviewers be obtained from the Dar es Salaam area from among a pool of high school graduates who are awaiting employment.

Other studies would need to be performed also. For example, it would be valuable to determine what impact the project had on birth and death rates, as well as infant and maternal mortality. Since Tanzania does not have a national vital statistics registration system, such data is not available. USAID/Tanzania therefore wishes to contract with local sources such as the Demographic Unit of the University of Dar es Salaam to perform various types of sample surveys. A total of four such local studies are planned during the period FY 77-80.

- j. Vehicle maintenance and fuel. These funds will be used for the three vehicles assigned to the contract staff.

k. Project evaluation. This evaluation will be similar to the in-depth study that was performed in June 1976. It will involve outside consultants and Tanzanians and will require about one month to complete.

3. Summary of Changes from the Original PRQP

The charts on the following pages summarize the obligations originally proposed for this project and the obligations planned for the revised and extended project period.

COMPARISON OF PLANNED, ACTUAL AND REVISED OBLIGATIONS (\$000)

ITEM	FY 73		FY 74		FY 75		FY 76		FY 77		FY 78		FY 79		FY 80		Planned FY73-79	TOTAL FY73-76 ACT FY77-80 REV
	PL	ACT	PL	ACT	PL	ACT	PL	ACT	PL	REV	PL	REV	PL	REV	PL	REV		
TOTAL	3124	3064	297	1165	481	511	594	1198	329	1455	232	1500	92	1100	50	860	5199	10853
1.0. Personnel	180	120	228	-	308	80	307	175	78	255	78	255	-	70	-	15	1179	970
Contract/Direct Hire Consultants	180	120	218	-	298	80	297	175	78	230	78	230	-	50	-	-	1149	885
	-	-	10	-	10	-	10	-	-	25	-	25	-	20	-	15	30	85
2.0. Participants	-	-	55	-	60	117	55	89	30	137	-	112	-	112	-	57	200	625
3.0. Commodities	1515	557	14	100	7	26	-	95	-	325	-	335	-	375	-	620	1536	2433
a. Furniture for 13 Trng. Cntrs.	129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129	-
b. Classroom Eq.	116	117	-	80	-	26	-	95	-	30	-	30	-	25	-	20	116	423
c. Vehicles for Trng. Cntrs Contr. & Pop. Officer	140	140	14	20	7	-	-	-	-	10	-	20	-	-	-	-	161	190
d. Construction Materials	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	830	-
e. Equip/Supplies RHC/iD	300	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
f. Contraceptives	-	-	-	-	-	-	-	-	-	285	-	285	-	350	-	600	-	1520

ITEM	FY 73	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	Planned FY73-79	TOTAL
	PL ACT	PL ACT	PL ACT	PL ACT	PL REV	PL REV	PL REV	PL REV		FY73-76 ACT FY77-80 REV.
4.0. Other Costs	1429 2387	- 1065	106 288	232 839	221 737	154 798	92 543	50 168	2284	6825
a. Capital Const. Inc. Fur/Const Materials	1429 2387	- 1065	- -	- -	- -	- -	- -	- -	1429	3452
b. Operational costs for Trng Centers/ Hostels	- -	- -	106 246	232 661	221 230	154 266	92 128	50 -	855	1531
c. Supply distri- bution	- -	- -	- -	- -	- 280	- 200	- 100	- 100	-	680
d. Local research studies	- -	- -	- -	- -	- 25	- 45	- 25	- 25	-	120
e. Upgrading of nursing education	- -	- -	- -	- 10	- 50	- 34	- 17	- -	-	111
f. Zonal seminars	- -	- -	- 32	- 24	- 32	- 32	- 32	- 32	-	184
g. Vehicle maintenance and fuel	- -	- -	- -	- -	- 10	- 11	- 11	- 11	-	43
h. Project evaluation	- -	- -	- -	- 8	- -	- -	- 20	- -	-	28
i. Field Assistant	- -	- -	- 10	- -	- 10	- 10	- 10	- -	-	40
j. Equip/Supplies RHC/RD	- -	- -	- -	- 136	- 100	- 200	- 200	- -	-	636

4. Justification for Changes from Original PROP

The original PROP, approved on June 20, 1973, required, as a condition of approval, submission of a PROP revision containing details of the technical assistance component of the project including participant training and personnel requirements. In compliance with these conditions of approval, these details plus an evaluation plan were submitted by the Mission in Airgram TOAID A-12 dated February 27, 1975.

This revised Project Paper increases the total AID cost of the project by \$56<sup>5</sup>/<sub>4</sub> million (from \$5.199 to \$10.853 million) and extends life of project obligations two years (through FY 1982).

The basic justification for this project and the scope of work submitted in the Action Memorandum for the Administrator initially requesting project approval still attains. This discussion will summarize the justification for the requested increase in total costs and the extension of life of project for two years.

Regarding the individual changes in project cost, the following justification is submitted:

- a. Personnel Costs: Decreased from \$1,179,000 to \$970,000. This decrease is due to direct hire personnel being charged to administrative rather than project funds. The increased cost of the contract team is due in part to the increased scope of work which includes teacher training, field supervision, development of teaching aids, and assisting the MOH in developing workshops and special training programs designed to introduce new and improved techniques. The original PROP called for a total staff of one physician and three public health nurses. It has been determined that one physician and two nurses will be adequate for the purpose. However, because of the time it takes to institute required changes, the duration of the contract must be extended for approximately two years. Greatly increased use of short term consultants in MCH/child spacing specialties is planned within the obligation for personnel.
- b. Participant Costs: Increased from \$200,000 to \$625,000. The Ministry of Health requested long-term training for participants rather than the short-term training which was originally proposed. The training will be in a variety of MCH and child

spacing disciplines. It will be for high and middle level MCH personnel who will have supervisory positions in the rural MCH/child spacing program. The emphasis of the training will be on practical training that will be transferable to Tanzania.

As the problem of supervision concerned the Evaluation Team, USAID/Tanzania believes that the increase in long-term participant training for key supervisory personnel is justified. In addition, participant standard costs have increased substantially since the original PROP was written.

- c. Commodities: Increased from \$1,536,000 to \$2,433,000. The major changes in this category are an increase of \$1,520,000 for contraceptives and an increase of \$307,000 for classroom equipment. The former (contraceptives) will be used for a major expansion of child spacing services through the end of calendar year 1981. The classroom equipment is for visual aids and other teaching supplies and health education supplies for the 18 Training Centers. Part of this increase (\$129,000) represents funds originally listed as "Furniture" in the original PROP, but which, in subsequent PROAGS, were added to the category "Classroom Equipment".
- d. Other Costs: Increased from \$2,284,000 to \$6,825,000. This increase represents:
  - (1) An increase of \$2,023,000 in the line item for Capital Construction. This reflects, in part, a bookkeeping transaction that took \$830,000 from the category of "Equipment/Supplies" (see above) and placed them into "Capital Construction". Part of the increase, however, also reflects inflation.

The original estimates of construction costs included in the PROP were prepared in late 1972, in light of economic conditions prevailing at that time. As early as January 1974, wage increases and spiralling costs of goods and services in Tanzania, plus the underestimate of original costs, had escalated the cost of construction, including equipment and materials for the 18 Maternal and Child Health Aides (MCHA) Training Centers and outstations by more than 45%. After considerable discussion in AID/7, additional funds, in the amount of \$1,165,000 were provided in FY 1974 to the project to meet these increased construction costs.

Construction has progressed to the extent that the first 14 MCHA Training Centers are completed, equipped, and operating as of October 1976. These are being utilized for training and the first class of 161 MCHAs has already graduated.

- (2) An increase in Operational Costs from \$855,000 to \$1,531,000. As with Construction Costs, this increase primarily reflects inflation. Because of continuing inflationary economic conditions, the original estimates for recurrent training costs were updated to provide realistic cost estimates. With the assistance of the Planning Unit of the Ministry of Health, revised tables, included in this revised PP, have been prepared. The considerable increases are readily explained when wages and prices, in effect as recently as two years ago, are compared with present prices. Most categories have doubled and electricity and water have almost quadrupled. (See Annex G)

It should be noted that the burden of the inflationary increase for this portion of the project will be jointly borne by the Government of Tanzania (TanGov) and AID. This cost sharing of the total increased cost of training continues the original concept of a progressively declining percentage of AID support for recurrent cost of the MCHA training, with the TanGov increasing its share of contribution to full support at the end of the project.

- (3) The remaining increases in Other Costs reflect program changes that were not in the original PP. These are:

Supply Distribution Program	\$680,000
Local research studies	120,000
Upgrading of nursing education	111,000
Zonal seminars	184,000
Vehicle maintenance	43,000
Project evaluation	20,000
Field assistant	40,000
Equipment/supplies for RHC/RD	636,000

Each of these items have been added as a result of the recommendations of the MOH, the Evaluation Team, the Contractor, and the need for assistance in monitoring the project.

- (4) The 18 MCHA training centers are located in regional or district headquarters where adequate housing for training staff is not available. The original plans called for a very small principal's quarters. The MOH has assigned three professional staff to each center. Plans originally called for the construction of 64 outstations designed to provide housing for less than one half of the MCHAs while they were receiving field training. With the rising costs of construction the number of 64 was reduced to 49. After the centers opened in October 1975 the difficulty of finding adequate housing has created a major problem to the centers. With 14 centers now open the problem is far more acute.

The MOH has requested a revision of the original plans to enable the building of additional housing units at each center with the funds allocated for outstations. The building of the outstations has presented a major obstacle to both the MOH and the Ministry of Works which would be responsible for construction. The remote areas selected for the outstations, the difficulty of obtaining building materials for the small structures and the limited number of skilled builders in the outlying areas has prompted the MOH to revise its request. The additional quarters will be built along much the same plan as the existing quarters. The funds available will be adequate. The MOH has discussed this change with regional and district officers and suitable housing along the lines originally planned for those MCHAs not able to be assigned to areas where outstations are located were planned. It is expected that the additional quarters can be completed by the end of CY 77.

- (5) Regarding the extension of life of project: The face sheet of the original PROP shows life of project ending in FY 79. Internally, the approved PROP tabulates AID funding support of the project through FY 1980. The error on the face sheet of the PROP went unnoticed through the approval process. Due to delays in construction start-up and delivery of construction materials as well as building supplies from U.S. sources, none of the training centers were ready as originally envisioned. In spite of the shortages mentioned and the wide dispersion of the sites, fourteen centers started regular 18-month training programs in June 1976. Six of these centers had completed a short, upgrading program for village midwives in May 1975. The remaining four centers will be operational in June 1977.

5. Project Outputs: MCHAs/Child Spacing Services

The end result of all the individual project inputs listed in the previous section will be:

- a. The training and placement of 2250 MCHAs.
- b. A significant increase in the provision of MCH and child spacing services in the rural areas.

The MCHAs will be trained to render comprehensive MCH services in a rural setting. They will be assigned to RHCs and RDs where they will:

- c. Provide health education, including child spacing.
- d. Organize and deliver maternal/child health and child spacing services.
- e. Provide instruction in nutrition.

The training and development of this cadre of health worker for assignment in rural areas is the key element of this project. It is the MCHA who will be the health person most responsible for bringing health care services to the rural population. As such, the MCHA is also the vital link in the TanGov's health manpower development program.

While the training program for MCHAs is now becoming operational, the TanGov with the assistance of other donors is constructing and improving its RHC and RD facilities. By the end of 1975, it was reported that 160 RHCs and 1800 RDs were functioning. Because of economic setbacks at the national level, the program to increase the number of RHCs and RDs has been slowed somewhat. A recent (October 1976) visit by SIDA and NORAD representatives apparently helped resolve some of the funding requirements for this construction program. It is thus anticipated that the TanGov will be able to reach its target of one RD for each 7000 and one RHC for each 50,000 people.

At present, it is felt that the MCHA Training Program will be able to graduate enough MCHAs to staff the new RHCs and RDs as they are completed. The MOH has given USAID/Tanzania assurances that positions will be created within the TanGov's health program for these new workers.

Once having been placed, the MCHA is expected to significantly expand the provision of services. This is the second major focus of this revised PP. The Evaluation Team noted in its report (p28) that in clinics where MCHAs had been posted "invariably clinic

patient flow and quality of individual patient care was felt to be enhanced by the change to daily comprehensive clinics". In one clinic where data was available (KOROGWE), the number of new and revisits for child spacing increased significantly after the MCHA and MCH services became integrated.

It should be noted that the TanGov and the national party, TANU, have no reservations about child spacing. This is in line with African custom, and modern methods of child spacing are fully accepted by the national leadership. It is the concept of establishing a national policy on population growth which is not acceptable to the national leadership. However, the provision of free child spacing services in all medical facilities, urban and rural, is national policy. MCHAs, under the supervision of the District Medical Officer, will be able to provide those child spacing services which they are fully trained to perform.

An important factor regarding the efficiency and effectiveness of the MCHA to deliver services is related to their supervision and continuing education. The key supervisory personnel involved will be the Rural Medical Aides (RMA) and the nurses. To ensure that both of these groups are adequately prepared to perform their supervisory and continuing education responsibilities, USAID/Tanzania has added funding to provide seminars and workshops for nurses and Zonal Center staff.

Another factor related to the MCHA's ability to provide services is equipment. USAID/Tanzania has found that a MCH/child spacing kit that contains among other items scales, kerosene refrigerator, and sterilization equipment is a most useful addition to an MCH clinic. It is therefore adding funds to the project to enable each RHC and RD to receive one kit.

A third factor that will influence the MCHA's service delivery capability is the full availability of contraceptives and other MCH supplies. At present, UMATI, the voluntary family planning organization in Tanzania, has the responsibility for distributing supplies to the TanGov's rural health facilities. Because of transportation limitations, the high cost of fuel and other reasons, the arrangement with UMATI does not appear to be adequate for the anticipated increase in service volume. USAID/Tanzania is therefore proposing that a separate supply distribution system be created along the lines to be developed by an expert consultant in logistics and supply.

6. TanGov's Approach to the Delivery of MCH/Child Spacing Services

A detailed description of the approach being taken by the TanGov to the provision of MCH and child spacing services is appended to this PP. (Annex D ).

7. Multilateral and Bilateral Aid to the TanGov's Health Care System

In his annual budget submission for the financial year 1976/77, the Minister of Health Ndugu Leader Stirling reported the following multilateral and bilateral donor inputs:

a. <u>1975-76 budget year</u>	<u>Shillings (in millions)</u> <u>(8 shillings equal about \$1.00)</u>
(1) UN specialized agencies (WHO, UNDP) Salaries (faculty of medicine) Physician scholarships, seminars, workshops	3.5
(2) UNICEF: Vehicle, equipment, drugs, vaccine, seminars	2.7
Young Child Protection Program	1.5
Malaria Program, drugs, equipment (tentative)	5.3
(3) SWEDEN (SIDA) 25 new RHCs	14.6
Student Hostels (Mwanza, Tanga)	1.2
Health building consultation	0.6
KCMC Ophthalmic Unit	1.5
Tanzania Food & Nutrition Center	3.3
Salaries (8 MCH Doctors, Health Economist)	Unspecified
(4) DENMARK (DANIDA): 5 Health Schools	3.9
3 Med. Asst. Schools	2.1
Hospital equipment maintenance unit	0.7
2 district hospitals	1.2
(5) NORWAY (NORAD): 106 new rural dispensaries	5.6
(6) FINLAND: RMA School Program	1.8
(7) NETHERLANDS: X-ray equipment, training	2.4

In addition to the above list, capital assistance in unspecified amounts and technical assistance was acknowledged from the following countries: People's Republic of China, Federal Republic of Germany, Switzerland, Japan, USSR, GDR, Cuba, U.K., Canada, Australia and the United Arab Republic.

b. <u>1976-77 budget year</u>	Shillings (in millions) <u>(8 shillings equal about \$1.00)</u>
(1) UN specialized agencies (WHO, UNDP, UNFPA)	
MCH, Faculty of Medicine salaries )	
Physician scholarships, 23 MCH vehicles )	5.4
MCH Zonal unit support, Health )	
Education suggest. )	
(2) UNICEF:	
Vehicle, equipment, MCH drugs and vaccines, malaria control, seminars	4.67
(3) SWEDEN (SIDA):	
Rural Health Center	15.3
32 Land Rovers for RHCs	2.56
Medical Auxiliary Hostel	3.6
Food and Nutrition Center	6.4
Review of Health Building Plans	0.18
(4) DENMARK (DANIDA)	
2 Med. Asst. Schools	4.2
Health Auxiliary schools	4.2
Bilharzia control	0.84
Onchocerciasis control	0.4
Hospital equipment maintenance unit	0.96
Expansion Dar es Salaam Health Service	3.2
Doctors, other Health expert tech. assistance	Unspecified
(5) NORWAY (NORAD):	
84 new Rural Dispensaries and completion of on-going dispensaries	15.2
Architect/engineer, vehicle and running costs	Unspecified
(6) FINLAND:	
Rural Med. Aide Training	7.0
(7) NETHERLANDS:	
X-ray equipment	4.8
Mwanza Public Health Programme	0.27

In addition, contributions in unspecified amounts are acknowledged from the People's Republic of China, Federal Republic of Germany, Switzerland, Japan, USSR, GDR, Cuba and various voluntary agencies.

- c. It is important to point out that the contribution of the multilateral and bilateral agencies amounted to 90.5% of the 1976-77 development budget for health. In the previous year, the outside donors contributed 70%. The implications of this will be discussed in more detail in Part III B, Financial Analysis, and Part IV D, Economic Analysis, of this PP. This heavy external input into the overall health sector is of concern to USAID/Tanzania in terms of its effect on the technical capability of the MOH to absorb such large contributions.
  - d. The shortage of skilled health manpower is a major limiting factor in the effective training and supervision of the MCHA project. Adequate training for supervisors and trainers, except in very specialized areas such as sterilization and IUD insertion, requires carefully planned programs which provide the skills, incentives and status required. Because of the national scope of the MCHA program and the dispersion of the trained MCHAs throughout Tanzania, greatly increased numbers of highly skilled trainers, supervisors and administrators will be required. The evaluation team pointed out this need and both the MOH and USAID believe that training is available and highly effective if provided in the U.S. In January 1977, three MOH officials who are directly involved in health manpower development will visit the U.S. to advise training institutions on the special needs of Tanzania and evaluate proposed programs. This document reflects the anticipated increased use of U.S. training facilities. Returned participants are now working effectively as counterparts for U.S. contract technicians, supervisors, trainers, and planners.
8. TanGov Project Input

In this project, AID has supplied all of the construction costs. It is also underwriting the operating costs of the 18 MCHA Training Centers on a sliding scale. By 1980, the TanGov will have full financial responsibility for the operation of the Training Centers. The breakdown of the USAID and TanGov contribution to recurrent costs are shown in Annex G .

In addition, the TanGov will have to assume the recurring costs for the MCHAs after they have been placed in the field. MOH officials have indicated that the TanGov will be able to meet these financial obligations. The question must be asked, however, as to whether the TanGov will have the resources to do so given its present economic difficulties.

From the technical viewpoint, the inability of the TanGov to assume the operation of this program will severely constrain the delivery of services in rural areas. Further, it may lead to an alienation of the rural population because the promise of health care delivery will not be fulfilled. This is an important dilemma which will have to be resolved by economic and political means, rather than by technical methods.

9. Environmental Assessment

As noted in the original PROP, no adverse environmental effects are anticipated as a result of this project.

10. Summary of Technical Analysis

On the basis of the project's accomplishments to date, as well as the reports of the Evaluation Team and the Auditor General Africa, USAID/Tanzania believes that the revision and extension of this project is justified, appropriate, and technically sound. Also, the estimated costs of the various services and commodities are well within reasonable ranges.

Finally, USAID/Tanzania believes that this project has the potential of replicability in other developing countries in Africa. As such, it potentially can have a positive input on a much greater number of people than the mothers and children of rural Tanzania.

B. Financial Analysis and Plan

1. Capital Development Expenditure

The capital development expenditure for FY 77 on the health sector is estimated at \$11.77 million, an increase of 20 percent over FY 76 levels of \$9.84 million. Fully 90.5 percent of the current budget is foreign grants and loans, compared to about 70 percent a year earlier. With the very high interest and support for the program, capital development funds do not appear to be the major constraint on health sector programs. It appears that manpower limitations and recurrent budget support would be more likely to constrain program expansion and these are discussed in detail in other sections of this PP.

2. Recurrent Budget Analysis of Implementing Agency

The recurrent budget for the health sector is estimated at \$48.9 million for FY 1977. More than \$30.9 million is allocated to the regions which operate the MCH and other rural health services. The recurrent cost of health services has risen steadily since 1971-72 when the cost was about \$26 million. The MOH has estimated that about \$55 million would be required to cover recurrent costs by 1980. Voted allocations have been rising by 10 to 17 percent per year and should easily reach this level by 1980 or sooner. It has been agreed that almost all the increases will be programmed into the rural areas in order to narrow the gap between services provided.

The recurrent budget for FY 77 includes \$28,000 to cover 20 percent of recurrent cost of the MCH project this year as agreed in the Project Agreement.

Of the total recurrent expenditure last FY, the health sector received about 7 percent. Calculation of the exact amounts provided is complicated because they are placed under several budget headings in each of the twenty regions.

The total cost of operating the rural health program will exceed \$20 million by 1980. This would mean that approximately one third of total expenditure would be on the rural program which seems reasonable given present trends. If government revenue increases at a rate similar to recent experience, the health sector recurrent budget could rise to \$60-70 million by 1980-82 and still require less than 10 percent of current revenue.

It is not easy to predict whether government revenue will continue to rise as fast as it has in the recent past. On balance, given the poor performance of the parastatal companies, it seems doubtful that past rates of increase will continue.

As is pointed out below, the TanGov will find it very difficult to meet the recurrent cost if all targets for the provision of social services are met. Which services would suffer should current revenue fail to keep pace with expenditure is a matter of speculation. Due to the popularity and early commitment to the rural health program, we believe these services would get priority. As a practical matter, TanGov can be expected to delay or cut back on some programs in health and particularly in education and water when it is realized that recurrent costs are rising too rapidly.

It is also worth noting that the MCH and rural health program in general has a head start on other social service programs and therefore can claim funds by emphasizing the impact on existing services. On the whole, while USAID/Tanzania sees that the TanGov has problems in supporting the entire social service sector, as discussed in more detail below, it is believed that this project will receive a reasonable share of recurrent budget support .

SUMMARY COST ESTIMATE AND FINANCIAL PLAN

(US \$000)

PROJECT PAPER

Source	AID*		Host Country		TOTAL
	FX	IC	FX	IC	
1.0. Personnel	970	-	-	21311	22281
2.0. Participants	625	-	-	165	790
3.0. Commodities	2433	-	-	19000	21433
4.0. Other Costs	6825	-	-	39053	45878
Inflation Factor	-	-	-	-	-
Contingency	-	-	-	-	-
TOTAL	10853	-	-	79529	90382

\*Indicates actual obligations for FY 73-76 and planned obligations for FY 77-80.

COSTING OF PROJECT OUTPUTS/INPUTS

(in \$000 or equivalent)

PROJECT PAPER

     New  
  X   Rev

Project 621-11-580-121 Title: MANPOWER TRAINING-MCH AIDES

Project Inputs	Project Outputs					TOTAL
	1	2	3	4	5	
AID Appropriated	6232	3053	686	834	48	10853
Other U.S.	-	-	-	-	-	-
Host Country	2364	77000	-	165	-	79529
TOTAL	8596	80053	686	999	48	90382

C. Economic Analysis

1. General review

It is nearly impossible to quantify the economic benefits of this type of project and no attempt will be made to do so here. It is obvious, however, that the benefit should be substantial. In Tanzania, more than 60 percent of the population are women and children. In African traditional society much of the food crop production is accomplished by this group. Improvement in the overall well being of women and children can be expected to have a very positive effect on productivity. This project should also have the added effect, over time, of increasing the effective working life of this group. There are high benefits from this in the form of added working years and increased payoff from capital investments in education. In general and in Tanzania in particular, it is taken as given that minimal health services should be provided and that these services will have a positive economic impact. In addition, the project has direct economic benefits to the health professionals to be trained. These persons will, after undergoing training, be hired at the existing minimum wage of about \$550 per year. Many of these new health workers would not expect to find such productive employment or would become subsistence farmers earning near the national average GDP of \$120-130 per capita.

2. Cost Effectiveness

Since this PP is being prepared for an ongoing project, the cost effectiveness analysis is limited to those factors which can be influenced during the remaining implementation period.

Tanzania is attempting to develop a low cost program to provide essential health services to the rural population. The present level of services is being provided at a cost between \$3-4 per capita per year. The investments to be made in the total rural health program are about \$44 million between 1975-1990 and this is expected to provide up-graded services to 90 percent of the rural population. It is stressed that services to be provided in RHCs and RDs are very basic and can be administered by staff with training of the type being financed. Tanzania is stressing this training precisely because the provision of doctors is deemed to be too costly in even the medium term. MOH estimates that training one rural health worker under this project is 1/27 the cost of training one doctor.

The MCH training facilities are extremely specialized and the question has been raised as to what use can be made of these Training Centers once the training programs is completed.

This is a valid question which did not receive enough attention during project development. The MCH plans to conduct continuing education, seminars, workshops and refresher courses on a regular basis. This would be accomplished either by operating a few of the facilities full time or most on a part time basis. The Training Centers can be used for other training programs in rural activities. It is agreed that the USAID Project Manager will develop a plan with MCH and the concerned regions to ensure that the physical facilities built under this project will be utilized after project phase out. The demonstration clinics themselves will of course continue to be used.

The question must be raised about the cost effectiveness of having 18 training sites as opposed to 3-5 or even fewer. At the time of project development it was decided for political, organizational and financial reasons to locate a complete MCH training facility in each region. In Tanzania's decentralized regional system, political support for projects at this level is critical. This support has been gained by this approach. Under the decentralized system, projects are implemented by the regions with varying degrees of supervision by national institutions. The regions also control the allocation of funds and have supervisory capacity over much of the staff. For these reasons, multi-regional entities have had only limited effectiveness in Tanzania. It has been determined that given the other considerations described above, that the present structure is the least cost-effective solution.

3. TanGov Priorities 1/

The budget implications to the project and to the Ministry of Health have been discussed above. It is important, however, to get beyond this and examine the implications of the proposed programs in other areas commonly agreed to as social services. The Government has set targets in the areas of health, education and rural water supply which are extremely ambitious. They include:

- Health:
- a. One rural health center per 50,000 people.
  - b. One dispensary per 10,000 people.
  - c. One hospital per administrative district and one bed per 1,000 people.
  - d. One medical doctor per 22,500 people.

Primary Education: Universal primary education by 1989. 2/

Water Supply: Easy access to adequate and safe (tap) water for all population by 1990.

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1/ Tanzania: Fiscal Aspects of Decentralization, IBRD March 1975

2/ This target date has since been changed to 1977, but since this would appear unrealistic, the original date is used.

The present population of Tanzania is estimated at about 15 million. Assuming it keeps growing at 2.7% per annum, the population to be served by the above mentioned services in 1990 would be around 21 million.

The achievement of the national targets would then require that by 1990 there should be 420 rural health centers, 2,100 dispensaries, 73 district hospitals (with 21,000 beds), and about 1,000 medical doctors.

#### 4. Fiscal Implications of Meeting National Targets

To get an idea of whether or not these national targets can be financed with the available fiscal resources, ignoring the physical problems in construction and engineering, projections of likely revenues of the Government by 1990 must first be made. Assuming that the Government revenues grow at the same rate as GDP during 1960-1971, i.e., about 5% per annum, the present tax revenues of \$361 million would reach a level of \$800 million (at constant 1974 prices). This means that the Government would have about \$3252 million additionally (at constant prices) over the next 15 years to spend. Using standardized construction estimates it is calculated that the capital costs of health component would be \$43.4 million, education \$180 million and rural water \$270 million. Completion of these projects would require about 15% of the total accumulated revenue over a 15-year period, not counting the cost of furnishing and running these facilities. The effects of the capital investments made on the recurrent budget can now be estimated. It is estimated that the (annual) recurrent cost of rural water schemes in Tanzania is about 0.20 of the original capital expenditure while the corresponding figures for rural health and education are 0.40 and 0.50, respectively.

This means that if the TanGov makes the average capital investment of \$33 million each year and the recurrent cost estimates given above are applied, the new recurrent cost would be \$10 million plus every year for 15 years. This would require the present level of recurrent expenditure of \$440 million to increase to \$1740 million in 1990. This would only be the increase in recurrent expenditure for these programs alone.

Assuming that a very large share of the capital costs are given in the form of grants from foreign sources, the very high recurrent expenditure generated by these investments must certainly constrain the ability of TanGov to finance other activities outside these sectors. This does not imply that TanGov should necessarily change these targets, but it does indicate the need to find lower cost alternatives where possible. This is already being done in the case of schools where the self-help component of construction can be

increased and more use of volunteer teachers can be made. No matter what efforts are undertaken along this line, it does appear that contrary to present thinking, it will be necessary to assess user charges for some or all of these services.

PART IV - Implementation Arrangements

A. Analysis of the Recipient's and AID's Administrative Arrangements.

1. Recipient

a. Administrative organization

The Ministry of Economic Affairs and Development Planning, together with the Office of the Prime Minister, are responsible for developing the broad policies regarding health priorities and national strategies.

Under the Second Five-Year Development Plan (1969/74), the Ministry of Health was reorganized. A copy of the organizational chart showing the Ministry's position among the other ministries within the TanGov, as well as an organizational chart of the MOH are shown on the following pages.

In the reorganization, a Directorate of Preventive Services was established to deal with the development of disease prevention programs. It is in this division that responsibility for the MCH program lies.

There are two other line divisions in the MOH - Manpower Development and Hospital Services. In addition, the MOH has two staff units, one for planning and one for administration and accounting.

Most sections of the MOH have been directly involved in the planning and implementation of the Manpower Training Program for Maternal and Child Health Aides. The Planning Unit has participated in the development of project plans and in the evaluation of project performance. The Division of Preventive Services has been responsible for identifying the nature, scope and degree of MCH services that will be provided by the MCHAs.

The Division of Manpower has been involved in the development of the training program for the MCHAs. In addition, the Division of Hospital Services has

participated in both the planning for the training program and in the delivery of the MCH services in the RHCs and RDs.

Thus, this project has had the full input and cooperation of almost every major section of the MOH.

b. Management Capability of the Recipient

As in most developing countries, the MOH has a shortage of health care administrators. This is most evident in the logistics/supply areas and in the management operations of the project. Supervision and facilities maintenance are two additional functions which are not entirely adequate at present. To deal with these problems, USAID/Tanzania has awarded a technical assistance contract to Loma Linda University to assist the MOH with some of the technical and administrative matters related to the project (see below). In addition, participant training is aimed at producing qualified Tanzanians to fill the higher level supervisory and managerial posts in the MCH program.

2. A.I.D.

As was noted above, AID awarded a contract to Loma Linda University to assist the TanGov's MOH in the technical and administrative aspects of this project. Under this contract, Loma Linda University was to provide a public health physician and three public health nurses. To date, only the physician and two of the nurses have been assigned to the program. They have been working at the MOH level, at the Training Centers, and in the MCH dispensaries. Plans are under consideration to recruit a third nurse and a short term health educator. The former will deal with administrative matters and the latter with the development of audio-visual support techniques for the MCHAs.

Monitoring of the project is provided by USAID/Tanzania's full-time Population Officer. His work, however, has gone far beyond that of project monitoring alone, for he has been active in all planning, operational and evaluation aspects of this project. At this time, USAID/Tanzania does not plan to add any additional direct hire personnel to assist the Population Officer in his monitoring of the project.

B. Implementation Plan

1. Planned Performance Tracking Network Chart

A revised Implementation Plan and Planned Performance Tracking Network Chart are shown on the following pages. (See Annex F)

2. Implementation Problems That May Require Negotiation

Several problems related to the implementation of this project have already been discussed. These include:

- a. The ability of the TanGov to assume an increasing share of the Training Center operating costs.
- b. The ability of the MCH to place the MCHA graduates in RHCs and RDs.
- c. The capability of the MOH to provide adequate maintenance of the buildings and vehicles assigned to the MCH program.
- d. The cooperation and participation of the MOH in designing and managing an MCH/Child spacing commodities distribution system.

3. Project Monitoring

USAID/Tanzania does not plan to change its present approach to project monitoring through the Population Officer.

4. Contract Activity Related to the Project

USAID/Tanzania anticipates that the Loma Linda University contract will be renegotiated to cover the period planned for contract technicians in Tanzania. In addition, it plans to negotiate a contract for the development and implementation of the supply distribution system.

C. Evaluation Arrangements for the Project

USAID/Tanzania plans to underwrite a major evaluation of the project in FY 79. This evaluation will be similar to that performed in June 1976 by a team of Tanzanians, independent US consultants, and AID/W staff.

Emphasis in the evaluation will be on operational objectives such as:

1. The number of MCHAs trained.
2. The assignment of MCHAs to field positions.
3. The attrition rate among MCHA students and graduates.
4. An analysis of the kind of work the MCHAs are performing.
5. An assessment of the amount of MCH and child spacing services rendered by the MCHAs.

6. The efficiency and effectiveness of the supply distribution system.
7. The availability of contraceptives and other MCH supplies in RHCs and RDs.
8. The integration of MCH and MCHAs into the TanGov's health delivery system.
9. The demographic characteristics of the patients coming to the MCH program.

In addition to the above parameters, the four special studies to be performed locally will also provide useful data on the impact of the program in such areas as:

1. Crude birth rates.
2. Crude death rates.
3. Infant mortality.
4. Maternal mortality.
5. Morbidity data on the patients coming to the MCH Clinics.

These studies will be done as sample surveys rather than national data collection efforts.

In both of the above areas of evaluation, the participation of the TanGov will be sought. Discussions have already taken place with the Demographic Unit of Dar es Salaam to assist in conducting the four special research studies.

In addition to the above methods, the contractor's quarterly and annual reports will contain information on various operational aspects of the project.

USAID/Tanzania would like to stress that it does not expect to be able to make any significant comparisons between before and after project vital statistics. This is because no national system for births and deaths exists in Tanzania.

D. Conditions, Covenants and Negotiating Status

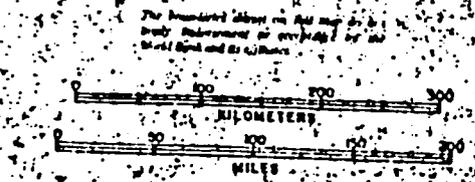
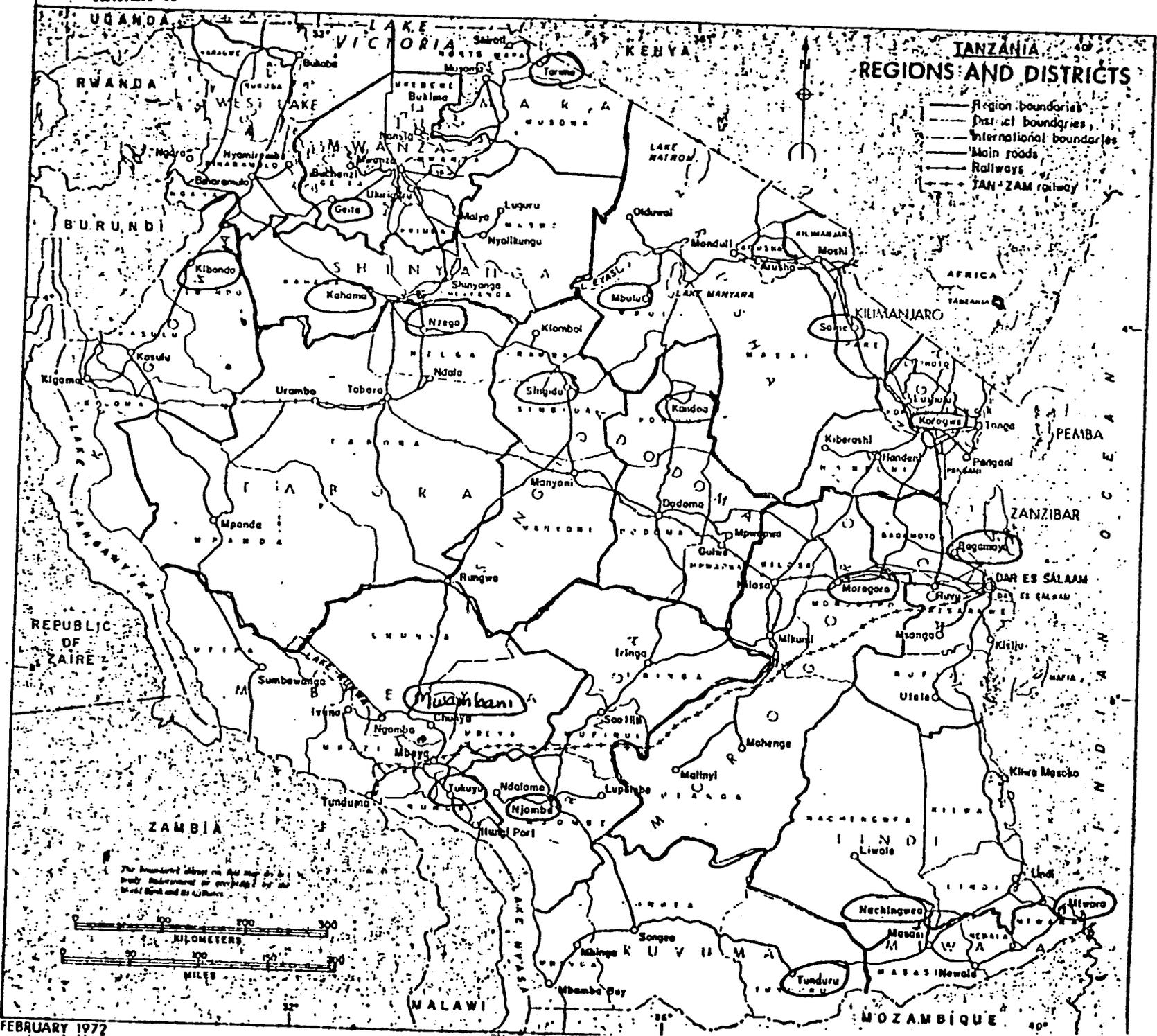
The major areas of concern regarding the TanGov's commitment to this project are:

1. Recurrent costs.
2. Absorption of the MCHA graduates into the MCH.
3. Maintenance of buildings and vehicles.

At present, USAID/Tanzania wishes to retain as much flexibility as possible on each of the above issues. Therefore, it does not want at present to place any time limits on TanGov performance or commitment. Instead, it wishes to take into account the TanGov's overall contribution to the project, and deal with each of the above issues if and when it arises.

# TANZANIA REGIONS AND DISTRICTS

- Region boundaries
- - - District boundaries
- International boundaries
- Main roads
- Railways
- - - TAN-ZAM railway



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