

CHAPTER 3

IMPLEMENTATION PLAN

CHAPTER 3

IMPLEMENTATION PLAN

3-1 Implementation Plan

3-1-1 Implementation Policy

After the signing of the Exchange of Notes (E/N) between the Government of Tanzania and the Government of Japan, the Government of Tanzania enters into an agreement with a Japanese consulting firm for the design and supervision of the facility construction works and the procurement of the equipment and materials. Based on the Agreement, the Detailed Design (D/D) Study of the project commenced. After the completion of the D/D, tendering was executed under the attendance of the officials of the Government of Tanzania, whereby a Japanese Contractor was awarded the contract. The project started after the Government of Japan has verified the validity of the contract.

The implementation policies of the project are as follows:

1. The project requires 23 months for completion because it includes the importation of equipment. In view of this and the budgetary system of the Japanese government, the project shall be implemented in two phases.
2. There shall be 2 project offices, one in the district of Karagwe and another one (sub-office) in the district of Ngara, because the villages involved in this project are located within these districts.
3. The Tanzanian side should be able to fulfill its undertakings, i.e., acquisition of sites for the construction work and storage area for the equipment and materials, prior to the commencement of the construction works.
4. The MOW shall take the necessary measures prior to the commencement of the project to clear the equipment and materials through customs smoothly.
5. The project offices and the storage areas should be prepared and constructed prior to the arrival of the materials and equipment to enable the immediate commencement of drilling activities right after the arrival of the materials and equipment.

(1) Supervision by the Consultant and Participation of Local Engineers

Because hydrogeological assessments are very crucial to deep well construction, the consultant should technically supervise the contractor in assessing and determining the drilling points, geophysical logging, screen length and position, pumping test results, hand pump installation, well yield, and the reserve drilling points.

The consultant shall also be in charge of the organisation of the water committee and the training program for the installation and repair of hand pumps. It is very important that the local engineers participate with the Japanese consultant in the conduct of the operation and maintenance training programs.

(2) Use of Local Contractor

The items to be constructed in this project consist of deep wells, gravity water supply systems, as well as other relevant facilities.

Foreign and local contractors have drilled numerous deep wells in the refugee camps. Several non-governmental organizations equipped with drilling rigs and capable engineers also drilled deep wells in refugee camps and villages. Because of their experiences, it is only practical to employ any of these entities as sub-contractor. There are also well experienced local construction companies that may be sub-contracted for the construction of other water supply facilities.

(3) Responsibilities of the Government of Tanzania

The Ministry of Water is the executing agency of the project. The project shall be executed under the direction of the MOW Commissioner.

In case grant aid is extended, the project should be implemented according to the budgetary system of the Government of Japan. Accordingly, the Government of Tanzania shall take the following measures to ensure the smooth and effective implementation of the project :

- 1) Enter into a contract with a Japanese consulting firm in accordance with the E/N;
- 2) Enter into a contract with a Japanese construction firm in accordance with the E/N;

- 3) Immediate issuance of Authorization to Pay (A/P) to a registered Japanese foreign exchange bank after the signing of the contract, in accordance with the contract;
- 4) Payment of charges imposed by the bank in accordance with the Banking Arrangement (B/A) immediately after the issuance of A/P;
- 5) Construction of project office, employment and disposition of personnel
- 6) Issuance of visa to Japanese consultant and contractor, as well as their personnel, (immediately upon request) for their entry into the Republic of Tanzania and their stay therein, for the performance of their work;
- 7) Acquisition of the project sites (immediately after the signing of the contract);
- 8) Construction of access roads for the mobilisation of equipment and materials;
- 9) Exemption of equipment and materials purchased under the grant aid from taxes;
- 10) Prompt unloading and the clearance from customs of products imported from Japan and third countries, and payment of duties, internal taxes and other fiscal levies imposed in the Republic of Tanzania;
- 11) Inspection of facilities and equipment upon the request of the Consultant;
- 12) Issuance of certificate of inspection and completion of works at every project phase;
- 13) Extension of guidance and support to the villagers in the operation and maintenance of the facilities after the hand-over.

3-1-2 Implementation Conditions

The project area is 1,500km away from Dar es Salaam. On a four wheel drive station wagon with a minimum load, the project area can be reached within 4 days. Compared to other areas in Tanzania, the project area has a cool and rainy climate, with the dry season starting from June to September and the rainy season from October to May. These conditions should be taken into account when formulating the construction plan. Attention should also be paid to the following points:

- 1) The equipment and materials shall be transported to quite a considerably long distance. Therefore, the transportation period should be established with due consideration of the road conditions and the climate. It is also important to consider the safety measures involved in inland transportation.
- 2) The project sites are located in two districts which are connected by very bad roads. Therefore, two project offices, one at each district, shall be constructed.
- 3) A security system should be established in view of the fact that the project area is located at the border of Rwanda and Burundi, where more than several refugee camps are established. A system that would enable communications with the MOW in Dar es Salaam and other international agencies in the project area should be established.
- 4) The project area is blessed with abundant rainfall, particularly in March and April. This should be taken into account when making the construction schedule.
- 5) The sites are located on the slopes and at the bottom of the valley, and require access roads. This should be considered to ensure the smooth conduct of the construction works.

3-1-3 Scope of Work

The scope of work is as shown in the following table.

Work Item	Responsibilities of the Japanese Counterpart	Responsibilities of the Tanzanian Counterpart
Land Acquisition		acquisition of construction sites
Deep well construction	construction of deep wells and installation of hand pumps	
Gravity water supply facilities construction	construction and rehabilitation of intake facilities, distribution pipelines, taps	
Other water supply facilities	rehabilitation of collection ditch, protection of springs, rehabilitation of existing wells	
Others		establishing the water committee at each village access road formation
Procurement of drilling rig and accessories	procurement of drilling rig, its accessories and supporting equipment	
Provision of equipment for maintenance	provision of pick-ups, motorcycles, wireless communications system	
Procurement of Medical instruments	Procurement and delivery of Medical instruments and	

3-1-4 Consultant Supervision

The construction works shall be supervised in the detailed design stage and the construction stage. In the detailed design stage, the consultant shall prepare the following which shall be in accordance with the basic design:

- 1) Detailed drawings

- 2) Specifications of the construction works, equipment and materials
- 3) Tender documents
- 4) Estimation of bid price
- 5) Execution of tender as MOW proxy

The following shall be carried out in the site during the detailed design stage:

- 1) Hydrogeological survey
- 2) Detailed topographical survey for the construction and rehabilitation of the gravity water supply facilities
- 3) Detailed survey of springs
- 4) Extension of guidance in the establishment of a water committee
- 5) Survey of items unconfirmed during the basic design stage

The following shall be conducted during the construction stage:

- 1) Inspection and approval of execution drawings and materials
- 2) Inspection and approval of drawings of machinery to be manufactured
- 3) Confirmation of shipping documents
- 4) Confirmation of the progress of the works assigned to the Tanzanian counterparts
- 5) Supervision of deep well construction works
- 6) Supervision of the water supply facilities construction works
- 7) Education and training of villagers in the operation and maintenance of the facilities
- 8) Reporting of the progress of the works
- 9) Attend the guidance training on drilling rig operations
- 10) Confirmation of the inspection and handing over of equipment and facilities
- 11) Extend assistance in the approval of payments and various procedures

In order to fulfil the above services, the consultant should secure the following:

A. Detailed Design Stage

Chief Engineer (1):	Management
Hydrogeologist (1):	Selection of drilling locations and designing the well
Geophysicist (1):	Detailed surveys at the site
Civil Engineer (4):	Water supply facility design, tender document formulation, conduct training on operation & maintenance, cost estimation

B. Construction Stage

Chief Engineer (1):	shall be required at the commencement and completion of the works
Hydrogeologist (1):	shall be required at the start of the deep well construction works, the interim, and the completion of the well
Civil Engineer (2):	shall be required from the commencement until the completion of the works

3-1-5 Procurement Plan

The drilling rigs presently owned by the MOW are made from various countries, such as the USA, Europe, and Japan. The purchase of the drilling rig shall be depend on the price in Japan and South Africa where the study team gathered relevant information. The cost and ease of maintenance shall be compared and the procurement shall be determined.

Hand pumps shall be procured locally or from neighboring countries. Since the PVC pipes required for the well casing are not available locally, comparisons shall be made between those that can be procured from Japan and South Africa.

3-1-6 Implementation Schedule

Table 3.1 shows the implementation schedule of the project by phase.

(1) Detailed Design

The detailed design is estimated to take about 4.5 months. It commences after the signing of the contract and its verification by the Government of Japan, followed by the detailed field survey and the preparation of the tender documents. The tender document is approved by the Tanzanian government after a discussion is held on the detailed design.

(2) Procurement of Equipment

The procurement of equipment commences after the construction contract is signed and verified by the Japanese government. It takes 5 months to order, manufacture, and deliver the equipment. The delivery, including shipping and inland transportation, of equipment procured from Japan takes 2 months.

(3) Construction of Facilities

The facilities to be constructed consist of deep wells, gravity water supply facilities, ponds and spring protection facilities. Only deep wells and facilities for the protection of springs shall be constructed in Ngara District. Accordingly, the 1st stage of the construction works starts in Karagwe District. The 2nd stage of the construction works shall involve the continuance of the works in Karagwe and at the same time the commencement of the works scheduled in the district of Ngara.

3-1-7 Obligations of Recipient Country

The Tanzanian side shall be responsible for the following matters.

(1) Land acquisition at the proposed villages

(2) Establishing the water committees in the proposed villages

(3) Cooperation for the access road construction

(4) Others

Table 3.1 Work schedule

Number of month		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Phase I	Detailed design	<div><div></div> (Work in Tanzania)</div> <div><div></div> (Work in Japan)</div> <div><div></div> (Work in Tanzania)</div> <div>(Total : 4.5 months)</div>														
	Construction and supply	<div><div></div> (Preparation)</div> <div><div></div> (Drilling and Wells construction)</div> <div><div></div> (Rehabilitation for intake facilities)</div> <div><div></div> (Construction for intake facility)</div> <div><div></div> (Rehabilitation for existing water sources)</div> <div><div></div> [Procurement of machinery and materials]</div> <div><div></div> (Transportation)</div> <div>(Total : 15 months)</div> <div><div></div> (Inland transportation)</div>														
Phase II	Detailed design	<div><div></div> (Work in Tanzania)</div> <div><div></div> (Work in Japan)</div> <div><div></div> (Work in Tanzania)</div> <div>(Total : 3 months)</div>														
	Construction and supply	<div><div></div> (Preparation)</div> <div><div></div> (Drilling and Wells construction)</div> <div><div></div> (Rehabilitation for existing water sources)</div> <div><div></div> [Procurement of materials]</div> <div><div></div> (Transportation)</div> <div>(Total : 8.5 months)</div>														

3-2 Project Cost Estimation

The rough estimate of the project cost to be borne by the Tanzanian side is as follows:

(1) Conditions

- Date of estimation : April 1996
- Exchange rate : US\$1 = ¥ 105
US\$1 = Tsh 565
- Construction term : 23 months

(2) Cost

Unit : 1,000 Tsh

a. Access road arrangement cost	16,575
b. _____	
Total	16,575 (approximately 29,300 US\$)

3-3 Operation and Maintenance Cost

(1) Operation and maintenance policy

The operation and maintenance program is based on the following policies:

The facilities and equipment to be procured under the Japanese grant aid program shall be handed over to the MOW after the completion of the works. MOW shall strengthen the operation and maintenance system by supervising and directing the water committees through the Regional Water Engineer's Office (RWE) in Kagera, and the District Water Engineer's Offices (DWE) in Ngara and Karagwe.

The DWE shall extend guidance, education and training services to the water committee and the villagers for the continuous maintenance of the facilities. It shall store hand pump spare parts and repair pumps upon the request of the water committee. The RWE shall give technical support.

A water committee shall be established in every village, and shall be in charge of the maintenance of the water supply system. The committee shall be in charge of collecting water fee from the users as well as the purchase of spare parts and the payment of repair fees. The committee shall be responsible for the regular inspection of the hand pumps, the replacement of spare parts, or the repair of the facilities. In

order to improve their maintenance capabilities, the water committee shall undergo the training program to be prepared by the DWE.

The drilling unit of the MOW shall be responsible for the management and maintenance of the well drilling rigs and their supporting equipment. These equipment, however, shall be stationed in the RWE in Kagera during the project. Equipment and tools for education and maintenance shall be stationed in the DWE in Ngara and Karagwe. They shall be operated and maintained in cooperation with the O&M Section of the MOW.

(2) Operation and Maintenance System

After the completion of the construction of the equipment and facilities provided under the Japanese Grant Aid program, the MOW shall establish an operation and maintenance system made up of the Drilling Unit, the RWE of Kagera, the DWE of Ngara and Karagwe, and the water committees of the villages. Each organization shall have the following roles and functions:

MOW Operation and Maintenance Section -	planning, notification and modification of operation and maintenance guidelines
MOW Drilling Unit	- arrangement, storage and repair of drilling rigs and other equipment
RWE (Kagera)	- technical guidance in the operation and maintenance of equipment and facilities, major repairs, storage of spare parts
DWE (Ngara & Karagwe)	- extend guidance to the water committee, regular inspections, conduct of educational and training programs, repair of pumps, storage of hand pump spare parts
Water Committee	- collection of water fee, periodical check-ups, minor repairs, purchase and storage of spare parts

(3) Personnel

Organization	Personnel	Number	Remarks
MOW Operation & Maintenance Section	engineers	10	existing
	technicians	19	
MOW Drilling Unit	drilling engineers	1	existing
	drilling technicians	112	
	mechanics	22	
RWE (Kagera) Operation & Maintenance Section	engineers	1	existing
	technicians	5	
	mechanics	4	
DWE Operation & Maintenance Section (Ngara & Karagwe)	engineers	1	existing
	technicians	4	
Water Committee	chairperson	1	
	accountant	1	
	caretaker	2	

(4) Operation and Maintenance Cost

The operation and maintenance of the water supply facilities are mainly performed by the water committee. The operation and maintenance expenses incurred by the MOW (Operation & Maintenance Section, Drilling Unit, and RWE in Kagera) and DWE are allocated from the general national budget.

The operation and maintenance expenses of the water committee in terms of personnel expenses, cost of spare parts and funds reserved for repairs are estimated as follows:

Classification	Item	Unit Cost (Tsh)	Quantity	Annual Cost (Tsh)
Personnel expenses	chair person	500/month	12	6,000
	accountant	300/month	12	3,600
	caretaker	500/month x 2	12	12,000
Material cost	spare parts	4200 /set	1	4,200
Fund for repair		3700/month	12	44,400
Total				70,200

Personnel expenses: remuneration of the committee staff

Material cost: spare parts required in a year

CHAPTER 4

PROJECT EVALUATION AND RECOMMENDATION

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATION

4-1 Project Effects

(1) Fulfillment of BHN

This project shall be carried out in the frontier of Tanzania where villages are without water supply facilities. Accordingly, this project intends to fulfil the BHN of 65,535 beneficiaries by providing a stable, safe and clean drinking water supply for the villagers, and improving the environmental conditions of the area through the construction of deep wells. The implementation of this project is also expected to reduce the time spent by women and children for water fetching activities, thereby allowing them to help in agricultural work and/or participate in various community activities.

(2) Impact of Refugee Inflow and Rectification of Area Disparity

The massive influx of refugees from Rwanda and Burundi have significantly affected the quality and quantity of the existing water resources of the project area. However, the construction of the water supply facilities, mainly deep wells, will provide the area with a safe, clean, and stable drinking water supply. Consequently, the adverse impacts on the project area will be markedly reduced and the disparity in the level of public services, between the refugee camps and the refugee affected areas, rectified.

(3) Execution of the Project in line with the Policy of the Government of Tanzania

This project shall be executed according to the "Water Policy" of the Government of Tanzania. The "Water Policy" refers to the establishment of a village water committee for the independent operation and maintenance of the water supply facilities.

The Regional and District Water Engineer's Offices shall supervise the organization and operation of the water committee of each village, extend technical support, store the spare parts, and conduct educational and training programs on facility operation and maintenance.

Accordingly, as a perfect model for the National Rural Water Supply Development Plan, the implementation of this project is expected to immensely influence the promotion of this National Development Plan in the future.

(4) Improvement of Sanitary Conditions

The villages in the project area have no water supply facilities. Because the villagers use contaminated water from springs, hand dug shallow wells, ponds and rivers, water borne diseases such as dysentery, helminthes, skin diseases, and eye diseases are prevalent in the area. Therefore, it is urgent to construct water facilities that would provide the villagers with a stable, safe and clean drinking water supply. In addition, the procurement of medical equipment and the improvement of medical centers through this project are also expected to remarkably improve the sanitary conditions in the project area and eventually reduce the prevalence of water borne diseases.

(5) Operation & Maintenance Education and Training Programs • Area Development

The operation and maintenance education and training programs of the executing agency will heighten the residents awareness of the importance of having to independently operate and maintain the water facilities, and will provide the residents with the technical skills necessary to conduct such activities. Consequently, these will stimulate the villagers to work as a community, activate village life, and eventually lead to the development of the region.

4-2 Recommendations

The water committee (chairman, accountant, caretaker) to be established through this project shall be made up by the residents of the village they represent. The water committee should establish a water fund for the operation and maintenance of the water facilities by collecting water fees from the villagers. To firmly establish the activities of the water committees, the Regional and District Water Engineer's Office should supervise the organisation and operation of the water committees, train, guide and instruct the committees on facility operation and maintenance, and strive to upgrade the operation and maintenance skills of the villagers.

At present, the villagers are hardly aware of the importance of water management, besides the fact that none of them are skilled in facility operation and maintenance techniques. Further, the villages are neither equipped with the necessary maintenance and repair tools and spare parts, nor are they capable of purchasing and storing such materials.

It is, therefore, necessary to acquire the consensus of the residents and fully explain the functions of the water committee to the residents in the planning stage. The supervision of the works of the villagers participating in the facility construction works, and the conduct of hand pump installation training programs during the construction stage are also very important approaches to heighten the awareness of the residents concerning the importance of independently conducting facility operation and maintenance, and to hone their operation and maintenance skills. Since the water supply facilities will be used immediately after construction, it is further necessary to educate and train the villagers in detail on ① the kind of repair needed for initial breakdowns, ② regular inspection methods, ③ purchase and storage of spare parts, and ④ the operation of a water committee. The establishment of an independently sustainable operation and maintenance system is also of considerable importance.

The conduct of the aforementioned matters and the improvement of the following may ensure the smooth and effective implementation of this project:

- (1) As a rule, the operation and maintenance of the water supply facilities shall be the sole responsibility of the beneficiaries. The executing agency should explain this thoroughly to the villagers and should assist the water committee in matters they are technically incompetent with. Both parties, the villagers and the water committee, must be fully cognizant of their respective roles and responsibilities in respect to the implementation of this project. It is also important for the Water Committee to formulate rules that are practicable.
- (2) The Consultant shall carry out technology transfer to the Regional Water Engineer's Office by supervising the works of this office in respect to the conduct of education and training activities for the residents on operation, management and maintenance techniques during the planning, construction works and maintenance and operation stages. It is also the responsibility of the Regional Water Engineer's Office to supervise the operations of the water committee in order to establish a sustainable operation and maintenance system.
- (3) After the construction of the facilities, the Regional and District Water Engineer's Offices should establish a regular education and training program for the villagers as a means of establishing a sustainable facility operation and maintenance system. These offices should also regularly conduct programs that would educate the residents on the importance of water supply facilities and a sanitary environment in safeguarding public

health. The pump mechanic and the person in charge of public health and cleansing services, as caretakers of the Water Committee, shall be responsible for heightening the awareness of villagers with regard to the importance of operation and maintenance activities by improving their operation and maintenance skills.

- (4) The spare parts essential to facility maintenance and repair shall be stored in the Regional and District Water Engineer's Offices. Spare parts for minor repair works shall be stored in the District Water Engineer's Office and may be purchased as requested by the Water Committee. Machine parts and spare parts necessary for heavy maintenance and repair shall be stored in the Regional Water Engineer's Office. The improvement of the technical skills and capabilities of the engineers and mechanics of the executing agency is indispensable to the smooth conduct of operation and maintenance assistance activities. Accordingly, MOW should conduct a well planned seminar and training program for its employees concerning operation and maintenance techniques.
- (5) The handling of medical equipment requires sufficient understanding and care. Accordingly, their transport will be handled with extreme care, and the handling and storage methods they shall require will be explained in detail to the responsible persons in the medical centers upon delivery.

Appendices

I. Member List of the Survey Team

NAME	TITLE	ORGANIZATION
Yuji MARUO	TEAM LEADER	JICA: INSTITUTE FOR INTERNATIONAL COOPERATION SENIOR DEVELOPMENT OFFICER
Akihito SANJO	COORDINATOR	JICA: GRANT AID STUDY & DESIGN DEPARTMENT, FIRST BASIC DESIGN STUDY DIVISION
Akira KAMATA	CHIEF ENGINEER OPERATION & MANAGEMENT PLANNING	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Shouichi OMORI	HYDROGEOLOGIST	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Masatoshi TANAKA	GEOPHYSICIST	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Kensuke ICHIKAWA	HYDROGEOLOGIST	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Kenichi ITAYA	GEOPHYSICIST	GEOSCIENCE CO., LTD
Masami TSUYUKI	WATER SUPPLY PLANNING	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Mutsumi KURIYA	ENGINEERING FACILITY DESIGN	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD
Yoshiyuki SHIGA	COST ESTIMATION & PROCUREMENT PLANNING	OVERSEAS OPERATION DEPARTMENT KOKUSAI KOGYO CO., LTD

2. Survey Schedule (1)

DATE		Movement & Activities	Organization	Accommodation
Jan.30	Tue	Narita → Zurich (Dep 12:30, Arr 20:15, JL411)	JICA/CONSUL	Zurich
Jan.31	Wed	Zurich → Dar-es-Salaam (Dep 20:40, Arr 8:30, SR292)	JICA/CONSUL	In a plane
Feb.1	Thu	Courtesy call: Embassy of Japan, JICA and Prime Minister's Office Inception report/Explanation of questionnaire 5 consultant staffs: Dar-es-Salaam → Ngara (by car)	JICA/CONSUL	Dar-es-Salaam
Feb.2	Fri	Inception report/ Explanation of questionnaire at Ministry of Water Meeting with UNHCR/UNICEF	JICA/CONSUL	Dar-es-Salaam
Feb.3	Sat	Dar-es-Salaam → Mwanza (by Air)	JICA/CONSUL	Mwanza
Feb.4	Sun	Mwanza → Ngara (by Air) Meeting with AAR Inspection at Rulenge/Mrurama	JICA/CONSUL	Ngara
Feb.5	Mon	Meeting with District Office/UNHCR Inspection at Keza/Mukubu 5 consultant staffs: Arrive at Ngara by car	JICA/CONSUL	Ngara
Feb.6	Tue	Ngara → Karagwe (by car) 4 consultant staffs: Site survey at Ngara	JICA/CONSUL	Karagwe/Ngara
Feb.7	Wed	Meeting with District Office/UNHCR Inspection at Kihanga/Katanda	JICA/CONSUL	Karagwe/Ngara
Feb.8	Thu	Karagwe → Dar-es-Salaam (by Air) 2 consultant staffs: Site survey at Karagwe	JICA/CONSUL	Dar/Karagwe /Ngara
Feb.9	Fri	Meeting with Prime Minister's office and Ministry of Water Signing of Minutes Report at Embassy of Japan/JICA	JICA/CONSUL	Dar/Karagwe /Ngara
Feb.10	Sat	Arrangement of data in Dar-es-Salaam Site survey at Ngara/Karagwe JICA Officials: Feb.11: Dar-es-Salaam → Amsterdam (Dep 0:35, Arr 8:05, KL569) Feb.12: Amsterdam → Narita (Dep 19:25, Arr 14:55/Feb.13 JL412)	CONSULTANT JICA JICA JICA	Dar/Karagwe /Ngara In a plane Amsterdam In a plane
Feb.11	Sun	Arrangement of data in Dar-es-Salaam Site survey at Ngara/Karagwe 1 consultant staff: Arrive at Dar-es-Salaam at 8:30(SR292)	CONSULTANT	Dar/Karagwe /Ngara
Feb.12	Mon	Data collection in Dar-es-Salaam Site survey at Ngara/Karagwe	CONSULTANT	Dar/Karagwe /Ngara
Feb.13	Tue	Data collection in Dar-es-Salaam at Bureau of Statistics/NCC/Bureau of Land Site survey at Ngara and Karagwe	CONSULTANT	Dar/Karagwe /Ngara

2. Survey Schedule (2)

DATE		Movement & Activities	Organization	Accommodation
Feb.14	Mon	2 consultant staffs: Dar-es-Salaam → Morogoro (by car) Inspection at Hand pump factory at Morogoro Morogoro → Dodoma (by car)	CONSULTANT	Dodoma
		Study in Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.15	Thu	2 consultant staffs: Meeting with Hydrogeological service/Drilling department Inspection of drilling equipment Dodoma → Morogoro (by car)	CONSULTANT	Morogoro
		Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.16	Fri	Site survey at Ngara and Karagwe 2 consultant staffs: Morogoro → Arusha → Mwanza → Ngara (by car)	CONSULTANT	Karagwe/Ngara
Feb.17	Sat	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.18	Sun	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.19	Mon	Site survey at Ngara and Karagwe 3 consultant staffs: Arrive in Ngara Chief engineer/Cost estimation: Mwanza → Ngara Water supply planning: Karagwe → Ngara	CONSULTANT	Karagwe/Ngara
Feb.20	Tue	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.21	Wed	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.22	Thu	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.23	Fri	Site survey at Ngara and Karagwe	CONSULTANT	Karagwe/Ngara
Feb.24	Sat	Site survey at Ngara and Karagwe 5 consultant staffs: Ngara → Karagwe (by car)	CONSULTANT	Karagwe/Ngara
Feb.25	Sun	Site survey at Karagwe	CONSULTANT	Karagwe
Feb.26	Mon	Site survey at Karagwe	CONSULTANT	Karagwe
Feb.27	Tue	Site survey at Karagwe	CONSULTANT	Karagwe
Feb.28	Wed	Site survey at Karagwe 3 consultant staffs: Karagwe → Dar-es-Salaam (by Air or car)	CONSULTANT	Karagwe
Feb.29	Thu	Study in Karagwe 3 consultant staffs: Arrive at Dar-es-Salaam	CONSULTANT	Karagwe
Mar.1	Fri	Study in Ngara and Karagwe	CONSULTANT	Dar/Karagwe
Mar.2	Sat	Study in Ngara and Karagwe	CONSULTANT	Dar/Karagwe
Mar.3	Sun	Study in Ngara and Karagwe 2 consultant staffs: Karagwe → Dar-es-Salaam (by car)	CONSULTANT	Dar/Karagwe
Mar.4	Mon	Study in Ngara and Karagwe	CONSULTANT	Dar/Karagwe

2. Survey Schedule (3)

DATE		Movement & Activities	Organization	Accommodation
Mar.5	Tue	Study in Ngara and Karagwe Mar.5 1 consultant staff: Dar-es-Salaam → Johannesburg (Dep 12:15. Arr 14:30. SA187) Procurement study of materials in Johannesburg	CONSULTANT	Dar/Karagwe
Mar.6	Wed	Site survey in Dar-es-Salaam/Karagwe/Johannesburg	CONSULTANT	Dar/Karagwe
Mar.7	Thu	Mar.7 2 consultant staffs: Dar-es-Salaam → Zurich Mar.8 Leave Zurich Mar.9 Arrive at Narita 2 consultant staffs: Dar-es-Salaam → Karagwe (by Air) Site survey in Karagwe /Johannesburg		Johannesburg
Mar.8	Fri	Site survey in Karagwe /Johannesburg	CONSULTANT	Karagwe/Johannes
Mar.9	Sat	Site survey in Karagwe /Johannesburg	CONSULTANT	Karagwe/Johannes
Mar.10	Sun	Site survey in Karagwe Mar.10 1 consultant staff (Cost estimation): Johannesburg → Singapore (Dep 14:15. Arr 8:00/Mar.11 SQ405) Mar.11 Singapore → Narita (Dep 9:45. Arr 17:45 SQ012)	CONSULTANT	Karagwe
Mar.11	Mon	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.12	Tue	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.13	Wed	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.14	Thu	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.15	Fri	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.16	Sat	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.17	Sun	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.18	Mon	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.19	Tue	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.20	Wed	Site survey in Karagwe	CONSULTANT	Karagwe
Mar.21	Thu	5 consultant staffs: Karagwe → Bukoba → Mwanza	CONSULTANT	In a ship
Mar.22	Fri	2 consultant staffs: Mwanza → Dar-es-Salaam (by Air) 3 consultant staffs: Mwanza → Dar-es-Salaam (by car)	CONSULTANT	Dar-es-Salaam
Mar.23	Sat	Study in Dar-es-Salaam	CONSULTANT	Dar-es-Salaam
Mar.24	Sun	Study in Dar-es-Salaam	CONSULTANT	Dar-es-Salaam
Mar.25	Mon	Report at Embassy of Japan/JICA 4 consultant staffs: Arrive in Dar-es-Salaam	CONSULTANT	Dar-es-Salaam
Mar.26	Tue	Report at Prime Minister's Office/Ministry of Water Preparation for leaving	CONSULTANT	In a plane
Mar.27	Wed	Mar.27 5 consultant staffs : Dar-es-Salaam → Amsterdam (Dep 0:35. Arr 8:05. KL569)	CONSULTANT	Amsterdam
Mar.28	Thu	Amsterdam → Narita (Dep 19:25. Arr 14:55. JL412)	CONSULTANT	In a plane
Mar.29	Fri			

2. Survey Schedule(4)

NO	DATE		MISSION MEMBER		ACCOMODATION
			①MARUO	②SANJO ③KAMATA ④TSUYUKI	
1	5/27	Mon	NARITA 11:50 → LONDON 16:25		LONDON, JL401
2	5/28	Tue	LONDON 22:25		IN A PLANE, BA069
3	5/29	Wed	→ DAR-ES-SALAAM 11:35, COURTESY CALL: EMBASSY OF JAPAN AND JICA BRANCH OFFICE		DAR-ES-SALAAM
4	5/30	Thu	EXPLANATION ABOUT D・B/D SUMMARY REPORT TO PRIME MINISTER'S OFFICE, MINISTRY OF WATER AND MINISTRY OF HEALTH MEETING WITH UNICEF		DAR-ES-SALAAM
5	5/31	Fri	DISCUSSION ABOUT D・B/D SUMMARY REPORT WITH PRIME MINISTER' OFFICE, MINISTRY OF WATER AND MINISTRY OF HEALTH		DAR-ES-SALAAM
6	6/1	Sat	DISCUSSION AMONG MISSION		DAR-ES-SALAAM
7	6/2	Sun	PREPARATION OF MINUTES		DAR-ES-SALAAM
8	6/3	Mon	DISCUSSION ON MINUTES		DAR-ES-SALAAM
9	6/4	Tue	SIGNING OF MINUTES, REPORT TO EMBASSY OF JAPAN AND JICA BRANCH OFFICE DAR-ES-SALAAM 23:45 →		①DAR-ES-SALAAM ②③④KL569
10	6/5	Wen	DAR-ES-SALAAM 07:50 → → ADDIS ABABA 12:00	→ AMSTERDAM 08:05	①ET830 ②③④AMSTERDAM
11	6/6	Thu		AMSTERDAM 19:30 →	②③④JL412
12	6/7	Fri		→ NARITA 14:00	

*AFTER THIS MISSION, MR.MARUO IS GOING TO JOIN ANOTHER PROJECT
[GROUNDWATER DEVELOPMENT/TRAINING OF WATER SUPPLY IN ETHIOPIA]

3 List of Party Concerned in the Recipient Country

1. Prime Minister's Office

Principal Programme Coordinator	: Dr. J.K. LWEHABURA
Programme Officer	: E. S. MWAISAKA
Programme Officer	: Erad. N. MUSHI

2. Ministry of Water

Principal Secretary	: Idris MTULIA
Commissioner for Water Affairs	: B. NJAU
Director, Design and Construction	: C. N. SAYI
Director, Water Resources	: Washington. N. MUTAYOBA
Senior Engineer	: M. A. MACHA
Drilling Department	: Mohammed AKBAR
Chief Drilling Engineer	: N. SHATA
Co-Chief Drilling Engineer	: R. RGAIKAM
Hydrogeologist	: L. R. E. KONGOLA

3. Ministry of Finance

Principal Secretary	: M. T. KIBWANA
Senior Finance Officer	: P. A. MWAFONEO

4. Ministry of Health

Chief Medical Officer	: Adeline I. KIMAMBO
-----------------------	----------------------

5. Ngara District Council

District Commissioner	: Agrei MEHEDY
District Administrative Officer	: M. BAKEBLIA
District Community Development Officer	: H. M. KASORO
District Administrative Officer	: T. A. NJOJOLI
District Water Engineer	: M. W. MUTAYOBA
Civil Engineer	: Emmanuel EARNEST

6. Karagwe District Council

Chief Administrative Department	: O. K. MWASHIA
District Planning Officer	: M. M. A. TIGASHEVOJWA
Programme Officer	: S. RWEZAULA
District Water Engineer	: W. Y. SHUMA

Senior Community Officer	: J. BARIHMKS
7. UNICEF	
Project Officer and Unit Head (Dar)	: Ken MASKALL
Senior Programme Officer (Dar)	: Jesper MORCH
8. UNHCR	
Deputy Representative (Dar)	: Lloyd DAKIN
Senior Programme Officer (Ngara)	: Karl STEINACKER
Programme Officer (Karagwe)	: FATIMA
9. AAR	
Representative	: Atsutoshi HIRABAYASHI
Deputy Representative	: Shigeru TAKENAKA
Civil Engineer	: Hiroyuki IKUTA
Civil Engineer	: Takashi KUSAURA
Civil Engineer	: Shinichi NAKAYA
10. Embassy of Japan	
Minister	: Shigeyuki SUZUKI
First Secretary	: Keigo ISHIOKA
First Secretary	: Yasushi SHIGEMASA
Second Secretary	: Kazuhiko KITAGAWA
11. JICA Tanzania Branch Office	
Representative	: Hiromasa KAWAZOE
	: Hiroyuki MORONAGA
	: Manami TADA

MINUTES OF DISCUSSIONS
ON
BASIC DESIGN STUDY ON THE PROJECT
FOR
WATER SUPPLY SECTOR IN REFUGEES AFFECTED AREAS OF NGARA
AND KARAGWE DISTRICTS IN KAGERA REGION
IN
UNITED REPUBLIC OF TANZANIA
(CONSULTATION ON DRAFT REPORT)

In February 1996, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study Team on the Project for Water Supply Sector in Refugees Affected Areas of Ngara and Karagwe Districts in Kagera Region (hereinafter referred to as "the Project") to TANZANIA, and through discussion, field survey, and technical examination of the results in Japan, JICA has prepared a Draft Report of the Study.

In order to explain and to consult TANZANIA on the components of the Draft Report, JICA sent to TANZANIA a Draft Report Explanation Team, headed by, Dr. Yuji MARUO, Development Specialist, Japan International Cooperation Agency, from 29th of May to 4th of June, 1996.

As a result of discussions, both parties confirmed the main items described in the attached sheet.

Dar es Salaam, June 4, 1996

丸尾祐治

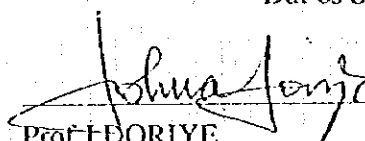
Dr. Yuji MARUO

Leader

The Explanation Team

for the Draft Basic Design,

Japan International Cooperation Agency



Prof. J. DORIYE

Deputy Principal Secretary,

Prime Minister's Office


Mr. B. E. Njau

Commissioner for Water Affairs,

Ministry of Water


Mr. R. M. Kukula

Principal Health Officer,

Ministry of Health


Mr. E. M. Masanja

Commissioner External Finance

and Debt Management,

Ministry of Finance

ATTACHMENT

1.Components of Draft Report

The Government of TANZANIA has agreed and accepted in principle the components of the Draft Report explained by the Team that are summarized in ANNEX-I.

2.Japan's Grant Aid System

- (1) The Government of TANZANIA has understood the system of Japan's Grant Aid Scheme described in ANNEX-II explained by the Team.
- (2) The Government of TANZANIA will take necessary measures, described in ANNEX-III, for the smooth implementation of the Project when and if Japan's Grant Aid is extended to the Project.

3.Further Schedule

The Study Team will make the Final Report in accordance with the confirmed items summarized in ANNEX-I, and send it to the Government of TANZANIA by the end of July, 1996.

4.Other Relevant Issues

- (1) Tanzanian side agreed 'the project of health sector in refugees affected areas of Ngara and Karagwe districts in Kagera region' is included in the Project. Regarding the project of health sector, Tanzanian side requested to add 'refrigerator'. The Team answered as follows.
 - Provision of 'refrigerator' will be reconsidered in Japan. Kerosine refrigerator is widely used in rural areas in Tanzania.
- (2) Drilling rig and accessories, which will be procured for drilling the planned wells and O.J.T. of Tanzanian personnel through the Project, will be managed by Regional Water Engineer's Office (RWE) during the implementation. After the Project, the equipment will be handed over to the Ministry of Water.

- (3) In Kagera region, RWE will execute the Project on behalf of the Ministry of Water. For supervising District Water Engineer's Offices (Ngara, Karagwe) and monitoring the water supply facilities, Tanzanian side requested computer (1 set), wireless communication system (1 set) and light motor vehicle (1 nos.) for RWE.
- (4) The Ministry of Water will assign drilling technicians as counterpart. Tanzanian side will cover the salaries of the counterpart personnel.
- (5) During the Project, communication between Dar es Salaam and Bukoba is vital for smooth implementation of the Project, so it is worth considering provision of certain means of communication.
- (6) During the implementation, the Project will undertake mobilization and participation of community to ensure sustainability. Tanzanian side will assign community participation personnel to the Project.
- (7) Both sides recommended that 'Indian Mark III' is most suitable handpump for deep well and 'NIRA' for shallow well in this area.
- (8) Japanese side will transport medical equipment to each dispensaries. However Tanzanian side is responsible to store equipment at each District Hospital pending delivery to the dispensaries.

ANNEX - I

Items confirmed by the both parties:

1. Water Supply Facility

- Deep Well	Ngara	40wells
	Karagwe	90wells
	Total	130wells
- Collecting Ditch	Karagwe	1villages 1ditch
- Spring Protection		25villages 36springs
- Existing Well		2villages 2wells
- Gravity Water Supply	Kihanga	1system
- Gravity Water Supply	Katanga	1system

2. Equipment

- Drilling Rig and Accessories	Top head drive rotally rig	1nos.
	Standard accessories	1set
	Compressor	1nos.
(Supporting Vehicles)	Medium size truck with crane	2nos.
	Water tank lorry	1nos.
	Fuel tank truck	1nos.
	Pick up truck (Single Cabin)	2nos.
	Geophysical logging	1nos.
	Submersible motor pump	2nos.
	Welder	1nos.
	Generator	1nos.
	Bentonite	1set
	CMC etc.	1set
	Hand pump	145nos.
	PVC casing	1712nos.
	Screen	466nos.
- Maintenance and Education	Pick-up truck (Single Cabin)	2nos.
	Motor cycle	4nos.
	Wireless communication system	2sets
	Water analysis kit	2sets
	Standard tools	35sets
- Spare Parts		1set
- Medical Equipment	Ngara	20kits
	Karagwe	18kits

mm
DR

jd
RMK
NO

ANNEX-II

ON JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

- (1) The Japan's Grant Aid Program is executed by the following procedures.
- Application
(request made by a recipient country)
 - Study
(Preliminary Study / Basic Design Study conducted by JICA)
 - Appraisal & Approval
(Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
 - Determination of Implementation
(Exchange of Notes between the both Governments)
 - Implementation
(Implementation of the Project)

- (2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,

c) to confirm items agreed on by the both parties concerning a basic concept of the project,

d) to prepare a basic design of the project,

e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

- 4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) to secure buildings prior to the installation work in case the Project is providing equipment,
- d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

nm
Ebr

nm
R214
107

ANNEX-III

Necessary measures to be taken by the Government of TANZANIA when and if Japan's Grant Aid is executed;

1. To secure the site for the Project.
2. To clear, level and reclaim the site prior to the commencement of the Project.
3. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the site.
4. To bear commissions of Authorization to Pay (A/P) and payment commission to a Japanese foreign exchange bank for the banking services based on the Banking Arrangement (B/A).
5. To facilitate prompt unloading and customs clearance at port of disembarkation in Tanzania and internal transportation therein of the products purchased under the Grant Aid.
6. To exempt the Project items as well as Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Tanzania with respect to the supply of the products and services under the verified contracts.
7. To accord Japanese nationals, whose services may be required in connection with the supply of products and the services under the verified contracts, such facilities as may be necessary for their entry into Tanzania and stay therein for the performance of their work.
8. To use and maintain properly and effectively all the equipment purchased under the Grant Aid.
9. To bear all the expenses other than those to be borne by the Grant Aid.
10. To facilitate visas and work permits etc. enabling entry and reentry of Japanese nationals involved in the Project.

MINUTES OF DISCUSSIONS
ON
BASIC DESIGN STUDY ON THE PROJECT OF WATER SUPPLY SECTOR
IN REFUGEES AFFECTED AREAS OF NGARA AND KARAGWE DISTRICTS
IN KAGERA REGION
OF
THE UNITED REPUBLIC OF TANZANIA

Based on the results of the Preliminary Study, the Japan International Cooperation Agency (JICA) decided to conduct a Basic Design Study on the Project of Water Supply Sector in Refugee Affected Areas of Ngara and Karagwe Districts in Kagera (herein after called "the Project").

JICA has sent to Tanzania the study team, which is headed by DR. YUJI MARUO, Expert for Institute for International Cooperation, JICA and is scheduled to stay in the country from February 1 to March 27, 1996.

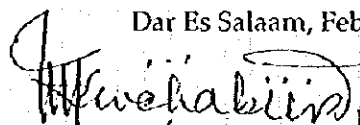
The team held discussions with the officials of the government of Tanzania concerned and conducted a field survey at the study area.

In the course of discussion and field survey, both parties have confirmed the main items described on the attached sheets. The team will proceed to further works and prepare the Basic Design Study report.

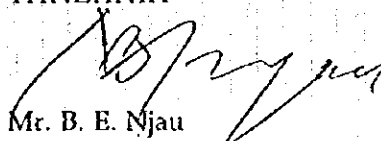
丸尾祐治

Dr. Yuji MARUO
Leader
Basic Design Study Team
JICA

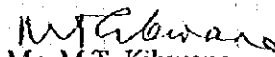
Dar Es Salaam, February 9, 1996



Dr. J.M.K. LWEHABURA
For Principal Secretary
Prime Minister's Office
TANZANIA



Mr. B. E. Njau
For Principal Secretary
Ministry of Water
TANZANIA



Mr. M.T. Kibwana
For Principal Secretary
Ministry of Finance
TANZANIA

ATTACHMENT

1. Objectives:

The objective of the Project is to improve living condition through construction and rehabilitation of infrastructure and procurement of equipment for water supply sector in refugee affected area of Ngara and Karagwe Districts in Kagera Region.

2. Project sites:

The project sites are located in refugee affected areas of Ngara and Karagwe Districts in Kagera Region (Refer to Annex I)

3. Responsible and executing organization:

- (1) Responsible organization is Prime Minister 's Office
- (2) Executing organization is Ministry of Water .

4. Necessary items for the realization of the Project requested by the Government of Tanzania:

After discussion with the Basic Design Study Team, the following items were judged necessary for the realization of the Project.

- (1) Construction of facilities
 - (a) Deep well with hand pump 10 villages in Ngara district
15 villages in Karagwe district
 - (b) Shallow well with hand pump 6 villages in Karagwe district
 - (c) Small reservoir 7 villages in Karagwe district
 - (d) Gravity water supply system Katanga village
 - (e) Rehabilitation of gravity water water supply system Kihanga village
- (2) Equipment and materials
 - (a) Drilling rig with accessories and supporting equipment 1 set
 - (b) Equipment for maintenance and education 1 set

However, the final components of the Project may differ from the above items, if it is judged necessary after further studies.

5. Japan's Grant Aid system

- (1) The Government of Tanzania has understood the system of Japanese Grant Aid explained by the team.
- (2) The Government of Tanzania will take the necessary measures, described in Annex II for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

6. Schedule of the study

- (1) The consultants will proceed for further studies in Tanzania until May, 1996.
- (2) JICA will prepare the draft final report in English and dispatch a mission in order to explain its contents around middle of May, 1996.
- (3) In case that the contents of the report is accepted in principle by the Government of Tanzania, JICA will complete the final report and send it to the Government of Tanzania by July, 1996

7. Other relevant issues

- (1) Government of Tanzania promised to allocate necessary personnel and local component of the budget for the Project, if the Japan Grand Aid will be executed.
- (2) The candidate villages should establish their water committee prior to construction of water supply facilities. Necessary training for beneficiaries should be carried out for the purpose of operation and maintenance of the facilities during implementation.
- (3) The candidate sites for water supply facilities such as bore-hole, small dam, shallow well, piped schemes are listed in Annex I - 1. After further study the final target villages will be prioritised according to the criteria described in the Annex I - 2.
- (4) Smooth supply of spareparts for sustainability, cost-performance maintenance service experience, timing of delivery, familiarity to local staff, terrain conditions, hydrogeological and geological conditions should be regarded as primary criteria for selecting types of equipment to be procured for the project (drilling rigs, hand-pumps, etc).

ym

(5) Recipient of drilling rig with accessories will be the Ministry of Water. In order to transfer technology on the operation and maintenance of the drilling equipment, the Ministry of Water will participate in some portion of borehole construction in the Project under the direction of the Japanese contractor.

(6) The Tanzanian side requested the inclusion of Keza village in Ngara District in the Project considering the water supply problems resulting from recent influx of refugee in the village.

rpm

107

ma

ANNEX 1-1 THE LIST OF TARGET VILLAGES

District	No	Village Name	Population	Proposed Source
Ngara	1	Kihinga	3,477	Deep well
	2	Kumbungu	1,215	-do-
	3	Magamba	1,978	-do-
	4	Muganza	2,527	-do-
	5	Mukalinzi	2,331	-do-
	6	Mukubu	2,394	-do-
	7	Marulama	3,188	-do-
	8	Murubanga	1,514	-do-
	9	Ntanga	1,531	-do-
	10	Nyabihanga	1,532	-do-
Sub		Total	21,687	
Karagwe	1	Bugara	2,758	Deep well
	2	Businde	4,200	-do-
	3	Chanya	1,800	-do-
	4	Itera	2,900	-do-
	5	Kamuli	1,918	-do-
	6	Kayuga	2,079	-do-
	7	Kibare	5,400	-do-
	8	Kibona	4,100	-do-
	9	kibondo	1,990	-do-
	10	kitwe	1,640	-do-
	11	Masheshe	2,760	-do-
	12	Nyabwegira	3,200	-do-
	13	Nyakabanga	3,000	-do-
	14	Nyakatuntu	4,200	-do-
	15	Nyamiaga	4,140	-do-
	Sub	Total	46,085	
	16	Kagenyi	3,300	Shallow well
	17	Kitwechenkura	3,900	-do-
	18	Murongo	1,880	-do-
	19	Nkwenda	5,300	-do-
	20	Nyakasimbi	2,205	-do-
	21	Songambebe	2,400	-do-
Sub		Total	18,985	

Grand	22	Bukangara	3,320	Small Dam
	23	Kahundwe	2,216	-do-
	24	Kashanda	960	-do-
	25	Katera	1,020	-do-
	26	Nyakahite	2,100	-do-
	27	Rugera	3,090	-do-
	28	Ruhita	1,400	-do-
	Sub	Total	14,106	
	29	Kihanga	6,020	Piped Scheme
	30	Katanda	-	-do-
	Sub	Total	6,020	
	Total		106,883	

mu

107

107

Annex 1-2 Evaluation Criteria for Project Sites

- I) Access to Sites for
 - (a) Accessible through the year
 - (b) Accessible in dry season
 - (c) Impossible
- II) Cost-benefit
Cost benefit ration
- III) Existing Water Source
 - A: No water source in the village
 - B: Dry up in dry season (surface water)
 - B': Dry up in dry season (ground water)
 - C: Available through the year (surface water)
 - C': Available through the year (ground water)
- IV) Ground-water Potential
 - A: Exploitable by hand-pump. Suitable for drinking use
 - B: Exploitable by hand-pump. Not suitable for drinking use.
 - C: Not exploitable
- V) Duplication between other donor's project and Japan's
- VI) Water Committee
 - A: Committee and Fund have been both established
 - B: Committee has been established, however Fund has not been established
 - C: Committee has not been established
- VII) Security of Site
 - A: Safe
 - B: Not safe
- VIII) Emergency
 - A: Degree of Impact from Refugees Influx
 - B: High incidence of water-related diseases
 - C: Low incidence of water-related diseases
- IX) Priority in Tanzanian Side
 - A: High
 - B: Medium
 - C: Low
- X) Case-benefit

**Annex II Measures to be taken by the government of
Tanzania in case that Japan's Grant aid is extended to
the Project**

1. To provide data and information necessary for the Project
2. To secure land for the sites of the Project
3. To ensure prompt unloading, customs clearance of the products purchased under the Grant at port of disembarkation in Tanzania.
4. To exempt Japanese Nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Tanzania with respect to the supply of the products and services under the Verified Contracts.
5. To accord Japanese Nationals, whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the Republic of Tanzania and stay therein for the performance of their work.
6. To bear commissions to the Japanese foreign exchange bank to execute the banking services based upon the Banking Arrangement.
7. To use and maintain properly and effectively the products purchased under the Grant.
8. To bear all the expenses, other than those to be borne by the Grant, necessary for execution of the project.

mm

107

JK

ANNEX III

ON JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- **Application** (request made by a recipient country)
- **Study** (Preliminary Study / Basic Design Study conducted by JICA)
- **Appraisal & Approval** (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- **Determination of Implementation** (Exchange of Notes between both Governments)
- **Implementation** (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by both parties concerning a basic concept of the project,
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant, etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- a) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- c) to secure buildings prior to the installation work in case the Project is providing equipment,
- d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to pay issued by the Government of the recipient country or its designated authority.

MINUTES OF DISCUSSIONS
ON
PRELIMINARY STUDY ON THE PROJECT OF WATER SUPPLY AND HEALTH SECTORS
IN REFUGEES AFFECTED AREAS OF NGARA AND KARAGWE DISTRICTS
IN KAGERA REGION
OF
THE UNITED REPUBLIC OF TANZANIA

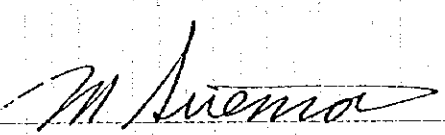
In response to the request from the Government of the United Republic of Tanzania, the Government of Japan decided to conduct a Preliminary Study on the Project of Water Supply and Health Sectors in Refugees Affected Areas of Ngara and Karagwe Districts in Kagera Region (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

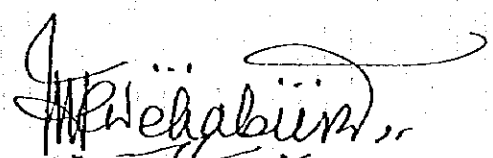
JICA has sent to Tanzania the Preliminary Study Team headed by Mr. Mitsuru SUEMORI, Director, First Basic Design Study Division, Grant Aid Study and Design Department, JICA, from 9th of October to 4th of November, 1995.

The team had a series of discussions with the officials concerned of Tanzania and conducted a field survey at the study area.

As a result of discussions and field survey, both sides have confirmed the main items described in the attached sheets.

Dar es Salaam, October 20, 1995


Mr. Mitsuru SUEMORI
Leader
Preliminary Study Team
JICA


Dr. J.M.K. LWEHABURA
For Principal Secretary
Prime Minister and First Vice President's Office
Tanzania

ATTACHMENT

1. Objective

The objective of the Project is to improve living condition through construction and rehabilitation of infrastructure for water supply and procurement of equipment for water supply and health sectors in refugees affected area of Ngara and Karagwe Districts in Kagera Region.

2. Project sites

The Project sites are located in refugees affected areas of Ngara and Karagwe Districts in Kagera Region (Refer to Annex I-A, B).

3. Responsible and Executing agencies

- (1) Responsible agency is Prime Minister's Office.
- (2) Executing Agencies are Ministry of Water, Energy and Mineral for water supply sector and Ministry of Health for health sector.

4. Items requested by the Government of Tanzania

After discussions with the Preliminary Study team, the following items were finally requested by the Government of Tanzania.

- (1) Water Supply Sector (Refer to Annex II-A)
 - 1) Construction of wells with handpump
 - 2) Construction of reservoirs
 - 3) Rehabilitation and construction of gravity water supply facilities
 - 4) Procurement of equipment
- (2) Health Sector (Refer to Annex II-B)
 - 1) Procurement of Equipment

The scope and details of the above will be examined and confirmed by further studies.

5. Japan's Grant Aid System

- (1) The Government of Tanzania understood the system of Japan's Grant Aid as explained by the team (Refer to Annex III).
- (2) The Government of Tanzania will take necessary measures, as described in Annex IV, for the smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

6. Schedule of Study

If the Project is found viable as a result of the Preliminary Study, Basic Design Study for the Project will be carried out from January in 1996.

7. Basic Design Study

(1) The scope of works of the Basic Design Study will include:

- 1) Technical survey
- 2) Management and financial survey
- 3) Preparation of basic design of facilities and equipment
- 4) Preparation of the implementation plan
- 5) Evaluation of the Project

(2) For the smooth execution of Basic Design Study, Tanzanian side agreed to take the following measures:

- 1) Allocation of budget
- 2) Arrangement of office
- 3) Assignment of counterpart personnel
- 4) Provision of additional data and information
- 5) Others

8. Other relevant issues

(1) General

- 1) Tanzanian side promised to coordinate and manage the relevant projects for water supply and health sectors to be executed by donors (including NGOs in the Project area) in order to avoid duplication.
- 2) For the smooth implementation of the Project, Tanzanian side will take necessary action for strengthening of institutional and capacity building.
- 3) Tanzanian side requested to Japanese government to cover the internal transportation of equipment under the Japan's Grant Aid.
- 4) Tanzania side promised to reply to the questionnaire by the end of October in 1995.
- 5) For the sustainability of facilities and equipment, Tanzanian side will take adequate action.

(2) Water Supply Sector

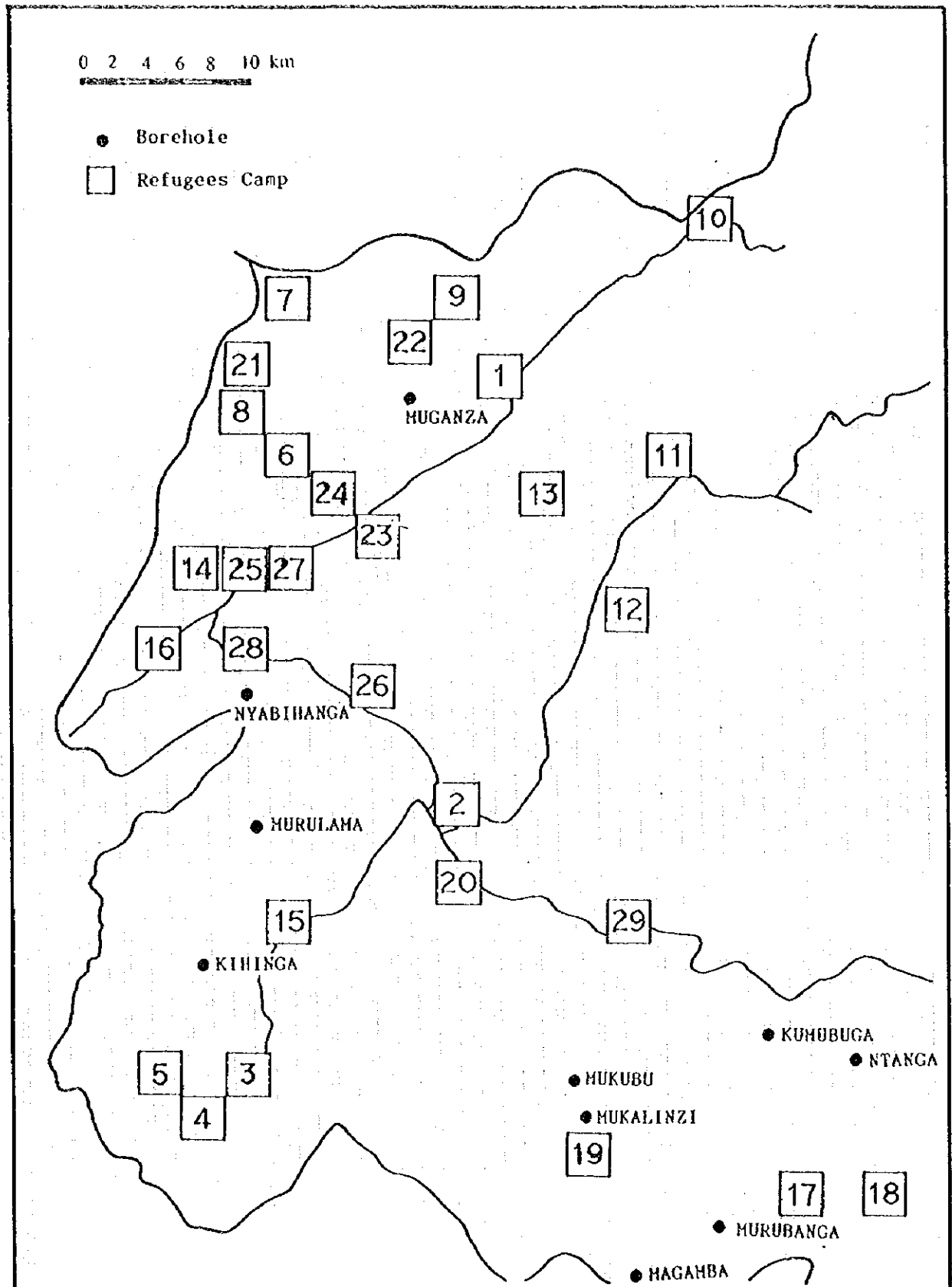
- 1) Tanzanian side will clarify the role and function of each level (Ministry, Region, District, Ward, Village levels) for the establishment of operation and maintenance system.
- 2) Tanzanian side promised to promote to establish Village Water Committee before implementation of the Project.
- 3) It is confirmed by both sides that land shall be acquired by Tanzanian side before implementation of the Project.
- 4) Tanzanian side requested to the Team that transfer of technology in the field of various survey and works should be included in the Project, during implementation of the Project.

(3) Health Sector

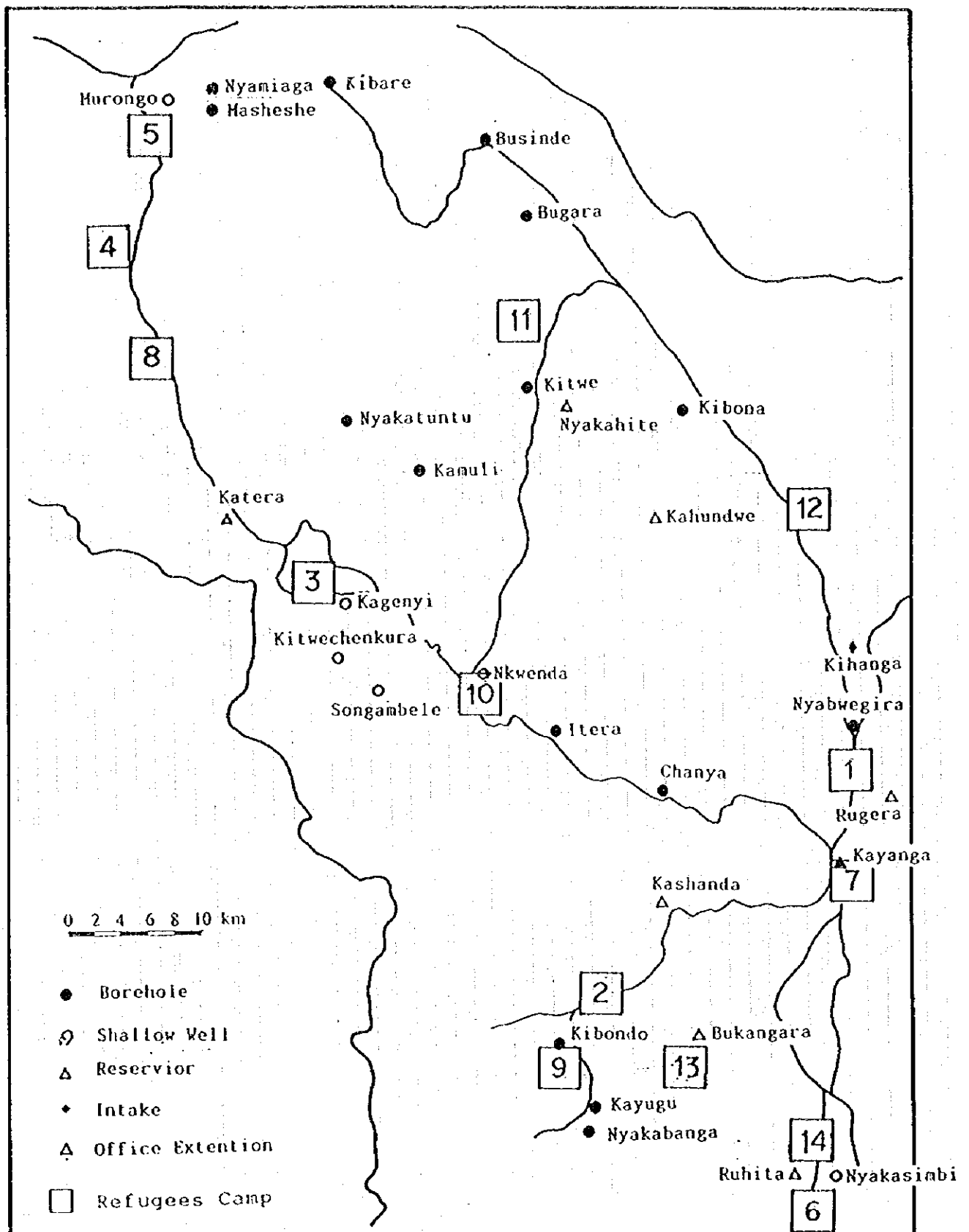
- 1) Rehabilitation of health facilities will be considered under other form of the Japan's Grant Aid. Tanzanian side will proceed to submit a request letter with details to Japanese Embassy by the end of November in 1995.
- 2) Rehabilitation works for health facilities will be completed before delivery and arrangement of equipment to be procured under the Japan's Grant Aid.



ANNEX-I(A)



Location Map of the Project Sites (Ngara)



Location Map of the Project Sites (Karagwe)

ANNEX 1-B

CANDIDATE SITE LIST
FOR HEALTH SECTORNGARA DISTRICT
NO. NAME OF FACILITY

1	BUKIRIRO	Health Center
2	RUSUMO	Dispensary
3	KIRUSHYA	Dispensary
4	KANAZI	Dispensary
5	DJULULIGWA	Dispensary
6	MBUBA	Dispensary
7	KANYINYA	Dispensary
8	NYARULAMA	Dispensary
9	BUGARAMA	Dispensary
10	MURUSAGMBA	Dispensary
11	RWINBOGO	Dispensary
12	KASOLO	Dispensary
13	MUGANZA	Dispensary
14	MURUBANGA	Dispensary
15	MUKAREHE	Dispensary
16	RUGANZO	Dispensary
17	NYAKISASA	Dispensary
18	NYAMAHWA	Dispensary
19	MUYENZI	Dispensary
20	MUNJEBWE	Dispensary
21	KUMUGANBA	Dispensary
22	CHIVU	Dispensary

KARAGWE DISTRICT
NO. NAME OF FACILITY

1	MURONGO	Health Center
2	KAYANGA	Dispensary
3	RWENKENDE	Dispensary
4	NYAISHOZI	Dispensary
5	KIBINGO	Dispensary
6	KATSHO	Dispensary
7	KYERWA	Dispensary
8	NYAKATUNTU	Dispensary
9	MABIRA	Dispensary
10	KIKUKURU	Dispensary
11	KIMULI	Dispensary
12	KAMAGAMBO	Dispensary
13	CHAMCHUZI	Dispensary
14	KISHOJU	Dispensary
15	KITENGULE	Dispensary
16	CHANIKA	Dispensary
17	KIRURUMA	Dispensary
18	KAKURAIJO	Dispensary

ANNEX-II (A)

Final Village Lists of Ngara District (Water Supply)

No.	Village Name	Population	Person/P Well No.	Target Well	Existing Well No.	Propose Well	Priority
1	NYABIHANGA	1,532	306	5	3	2	B
2	MURULAMA	3,188	319	10	5	5	B
3	KIHINGA	3,477	316	11	7	4	B
4	MUGANZA	2,527	316	8	0	8	A
5	MUKUBU	2,394	299	8	0	8	A
6	MUKALINZI	2,331	291	8	0	8	A
7	MAGAMBA	1,978	330	6	0	6	A
8	NTANGA	1,531	306	5	0	5	A
9	KUMUBUGA	1,215	304	4	0	4	A
10	MURUBANGA	1,514	303	5	0	5	A
Priority-A		13,490	307	54	0	44	
Priority-B		8,188	314	26	15	11	
Total		21,678	309	80	15	55	

Final Village Lists of Karagwe District(Water Supply)

No. 1

No.	Village Name	Population	P/P/W	Target Well No.	Existing Well No.	Propose Well No.	Priority
1	Kibona	4,100	342	12	0	4	A
2	Kayugu	2,079	347	6	0	4	A
3	Nyakabanga	3,000	333	9	0	4	A
4	Kibondo	1,990	332	6	0	4	A
5	Nyabwegira	3,200	356	9	0	4	A
6	Masheshe	2,760	345	8	0	2	A
7	Kibare	5,400	338	16	0	2	A
8	Nyaniaga	4,140	345	12	0	2	A
9	Businde	4,200	350	12	0	2	A
10	Bugara	2,758	345	8	0	4	A
11	Itera	2,900	363	8	0	4	A
12	Chanya	1,800	360	5	0	2	A
13	Kanuli	1,918	384	5	0	2	A
14	Kitwe	1,640	328	5	0	2	A
15	Nyakatuntu	4,200	350	12	4	2	A
Sub Total		46,085	348	134	4	44	A

NO.2

No.	Village Name	Population	P/P/W	Target Well No.	Existing Well No.	Propose Well No.	Priority
16	Nyakasimbi	2,205	368	6	0	3	A
17	Nkvenda	5,300	353	15	0	3	A
18	Songanbele	2,400	343	7	0	2	A
19	Kitwechenkura	3,900	355	11	0	4	A
20	Kagenyi	3,300	330	10	0	3	A
21	Murongo	1,880	313	6	0	3	A
Sub Total		18,985	343	55	0	18	A




No.3

No.	Village Name	Population	P/P/F	Target No.	Existing No.	Propose No.	Priority
22	Rugera	3,090	3,090	1	0	1	B
23	Kahundwe	2,216	2,216	1	0	1	B
24	Bukangara	3,320	3,320	1	0	1	B
25	Kashanda	960	960	1	0	1	B
26	Nyakahite	2,100	2,100	1	0	1	B
27	Ruhita	1,400	1,400	1	0	1	B
28	Katera	1,020	1,020	1	0	1	B
29	Kihanga	6,020	6,020	2	1	2	A
30	Kayanga	-----	-----	1	1	1	C
Sub Total		20,126	20,126	7	2	7	

Summary of the Request

No.4

Construction Items	Village No.	Target No.	Propose No.	Priority	Remarks
1 Borehole	15	134	44	A	No.1 - 15
2 Shallow Well	6	55	18	A	No.16 - 21
3 Reservoir	7	7	7	B	No.22 - 28
4 Intake(Rehabili.)	1	1	1	A	No.29
5 Intake(New Construct.)	1	1	1	A	No.29
6 Office Extension	1	1	1	C	No.30

Procurement of Equipment and Materials

No.5

No.	Items	Quantity	Remarks
1	Top Drive Rig(DTH)	1 unit	
2	Standard accessories and Tools	1 set	
3	High Air Compressoer	1 unit	
4	Engine Welder	1 unit	
5	Large Cargo Truck	1 unit	
6	Medium Size truck	1 unit	
7	Water Tank Truck	1 unit	
8	Fuel Tank Truck	1 unit	
9	Pick up Truck	3 units	
10	Station Wagon	2 units	
11	Motor Bicycle	6 units	
12	Wheel Loader	1 unit	
13	Well Servicing Car	2 units	
14	Electric Logging Equipment	2 units	
15	S/motor Pump for Pumping Test	2 units	
16	Engine Generator	2 units	
17	Radio Telephone	2 units	
18	Concrete Mixer	3 units	
19	Water Analysis kit	2 sets	
20	Casing Pipe(PVC)	3,125 pcs	
21	Screen Pipe(PVC)	1,563 pcs	
22	Water Pipe(SCP)	2,000 m	
23	Black Pipe	4,000 m	
24	Hand Pump	250 pcs	
25	Others(Bentonite,CMC)	1 set	

ANNEX II-B

CANDIDATE EQUIPMENT LIST
FOR HEALTH SECTOR

- | | |
|----------------------------|-------------------------|
| 1 Stethoscope | 26 Bed Pan for Female |
| 2 Clinical Instrument Set | 27 Binocular Microscope |
| 3 Clinical Thermometer | 28 Staining Set |
| 4 Examination Table | 29 Slide Glass |
| 5 Sphygmomanometer | 30 Specimen Box |
| 6 Basin Stand | 31 Water Strainer |
| 7 Instrument Cabinet | 32 Washing Bottle |
| 8 Weighing Scale | 33 Hemacytometers-Thoma |
| 9 Height Measuring Scale | 34 Pipette Washer |
| 10 Kerosine Stove | 35 Blood Sedimentator |
| 11 Boiling Sterilizer | 36 Graduated Cylinder |
| 12 Syringe | 37 Beaker |
| 13 Trolley | 38 Test Tube |
| 14 Kidney Tray | 39 Test Tube Stand |
| 15 Forceps Stand | 40 Autoclave |
| 16 Delivery Instrument Set | 41 Lab. Inst. Cabinet |
| 17 Tampon Jar | 42 Suction Pump |
| 18 Kerosine Lamp | 43 Vacuum Extractor |
| 19 Ambu-Bag | 44 Bicycle |
| 20 Patient Bed | |
| 21 Delivery Bed | |
| 22 Operating Knife | |
| 23 Fetoscope | |
| 24 Delivery Basket | |
| 25 Refrigerator | |

ANNEX III

Necessary measures to be taken by the Government of the United Republic of Tanzania on condition that Japan's Grant Aid is extended;

1. To secure the sites for the Project
2. To clear, level and reclaim the sites prior to the commencement of the construction
3. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the sites
4. To exempt taxes and to take the necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation
5. To exempt Japanese Nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Tanzania with respect to the supply of the products and services under the verified contracts
6. To accord Japanese Nationals, whose services may be required in connection with the supply of products and the services under the verified contracts, such facilities as may be duration of their work
7. To use and maintain properly and effectively all the facilities constructed and equipment purchased under the Grant
8. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment



ANNEX IV

ON JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- Application (request made by a recipient country)
- Study (Preliminary Study / Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation (Exchange of Notes between the both Governments)
- Implementation (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by the both parties concerning a basic concept of the project,
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

2) Selecting (a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.



Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval) .

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- ① to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- ② to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- ③ to secure buildings prior to the installation work in case the Project is providing equipment,
- ④ to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- ⑤ to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- ⑥ to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

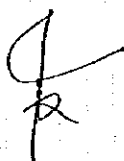
The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

- (a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.
- (b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.



5. Cost Estimation Borne by the Recipient Country

(Tsh)

Items	Unit	Quantity	Unit Price	Sub Total
Access road construction				
Graving and clearing work	m2	18,000	11	198,000
Grading work	m2	12,000	800	9,600,000
Base course work	m3	3,000	1,972	5,916,000
Earth drain work	m3	750	1,148	861,000
Total				16,575,000

6. Results of Hydrogeological survey (1)

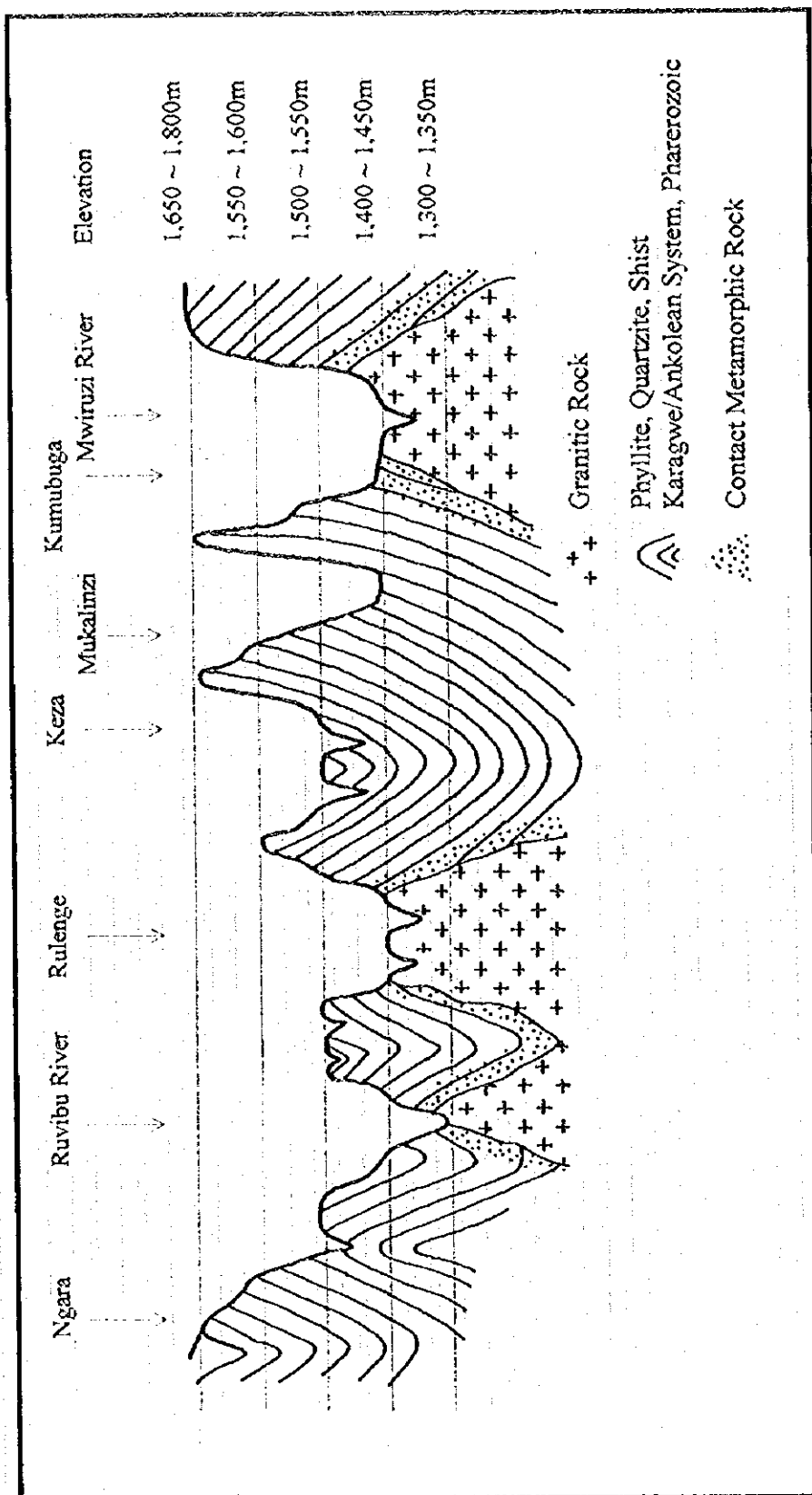
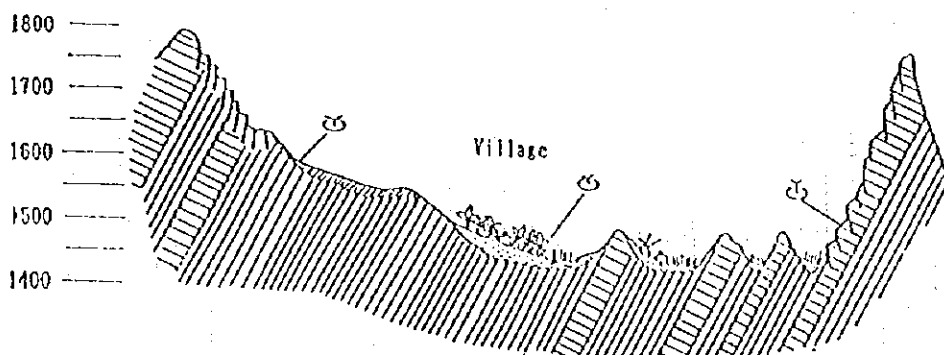


Figure 2-1 Schematic Profile in the south of Ngara District (NW-SE direction)

6. Results of Hydrogeological survey (2)

E. L. m

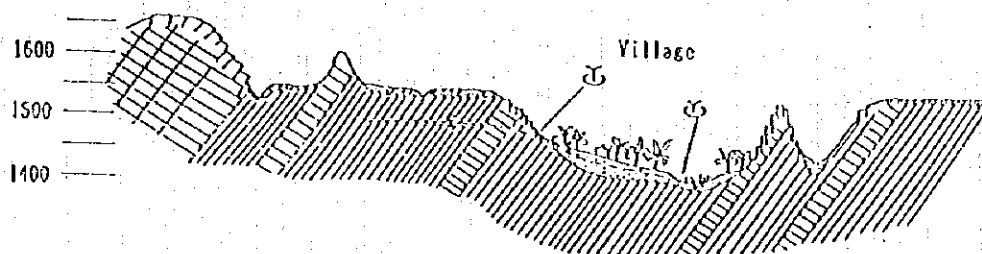


A

5. Mukalinsi
8. Murubanga

Topography : - the basin surrounded by edge of mountains
- scanty flatland
- restbergs in the basin
Geology : - phyllite and quartzite
Structure : - sharply dipped formation

Hydrogeology : - considerable water recharge & water from the surrounding area
Others : - existence of rivers and swamps in the basin, but access to water is difficult

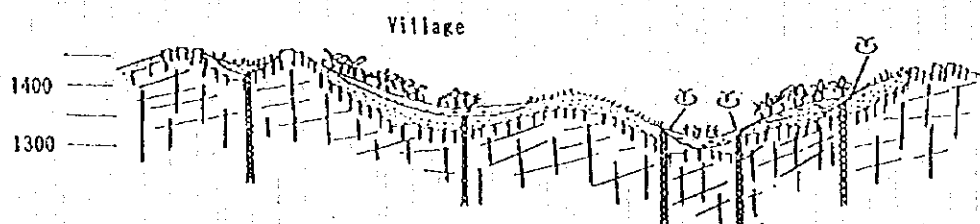


B

4. Muganza
6. Mukubu
7. Mururama

Topography : - plateaus with wide and flat top
- steep V-shaped valley
Geology : - phyllite, alternation of phyllite and quartzite
- distribution of thick talus deposit

Hydrogeology : - occurrence of spring at the bottom of valleys
& water
Others : - swampy deposit at the valley bottom
- difficult access to the valley bottom
- narrow catchment area



C

1. Kihinga
2. Kunubuga
3. Maganba
9. Ntanga
10. Nyabihanga

Topography : - gentle slope
- widened valley
Geology : - granite, granite covered by soil
Structure : - contains much fissure and crack
- surface is weathered to sand

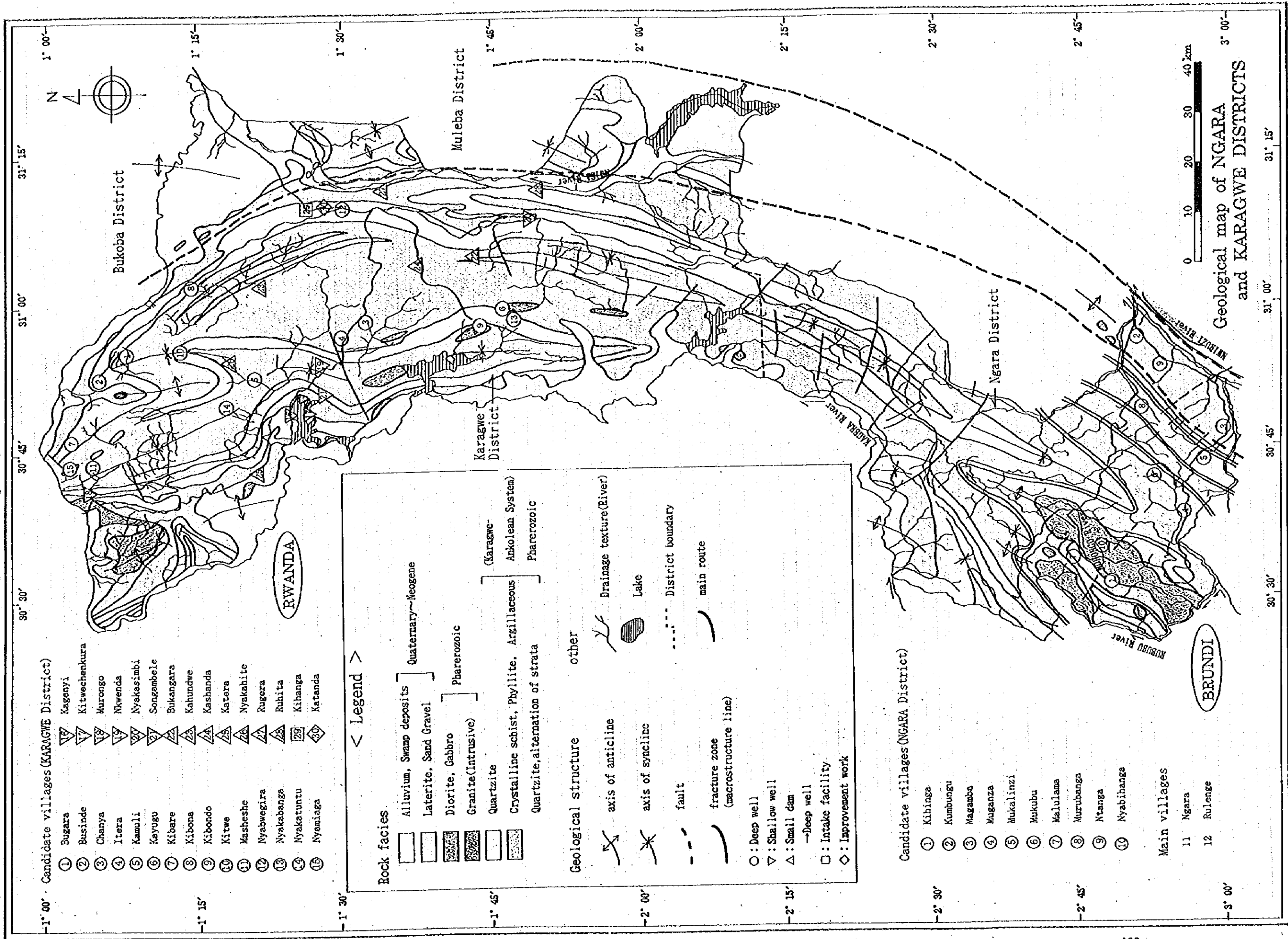
Hydrogeology : - high capacity of water retention & water
- many occurrence of spring
- usage of valley bottom spring
Others : - village center is not clear
- scattered village

Classification of hydrogeological pattern
in Ngara district

Explanatory note

- Swamp deposit
- Laterite
- Talus
- Granite
- Phyllite
- Quartzite
- Spring

6. Results of Hydrogeological Survey (3)



6. Results of Hydrogeological survey (4)

Relation Between Resistivity and Lithology in Ngara and Karagwe Districts

Hydrogeologic Structure	Terrain	Resistivity Range		Lithology
		Condition	Resistivity(Ω -m)	
Type A Metamorphic Rock-Syncline	Valley	Weathered Fresh	10 ~ 1650 350 ~ 6900	Alluvium Muddy metamorphic rock · Quartzite
	Slope	Weathered Fresh	30 ~ 2100 320 ~ 5500	Muddy metamorphic rock Muddy metamorphic rock
	Ridge	Weathered Fresh	55 ~ 4300 350 ~ 6300	Quartzite Quartzite
Type B1 Metamorphic Anticline-Monocline	Valley	Weathered Fresh	15 ~ 1500 350 ~ 3000	Talus Muddy metamorphic rock
	Slope	Weathered Fresh	10 ~ 1100 1500 ~ 3500	Muddy metamorphic rock Muddy metamorphic rock
	Ridge	Weathered Fresh	100 ~ 2000 1000 ~ 9500	Laterite · Muddy metamorphic rock · Quartzite Muddy metamorphic rock · Quartzite
Type B2 Metamorphic Anticline-Monocline	Valley	Weathered Fresh	50 ~ 900 900 ~ 3000	Talus Muddy metamorphic rock
	Slope	Weathered Fresh	50 ~ 1500 1500 ~ 3500	Talus · Laterite Muddy metamorphic rock
	Ridge	Weathered Fresh	180 ~ 800 800 ~ 1500	Laterite Muddy metamorphic rock
Type C1 Plutonic Rock	Valley	Weathered Fresh	70 ~ 250 500 ~ 600	Sandy Alluvium · Weathered granite Granite
	Slope	Weathered Fresh	80 ~ 2000 2000 ~ 20000	Weathered granite Granite
	Ridge	Weathered Fresh	190 ~ 1500 310 ~ 4500	Weathered granite Granite
Type C2 Plutonic Rock	Valley	Weathered Fresh	10 ~ 200 200 ~ 400	Alluvium · Diorite Diorite
	Slope	Weathered Fresh	10 ~ 400 400 ~ 3000	Diorite Diorite
	Ridge	Weathered Fresh	15 ~ 450 500 ~ 3000	Quartzite · Diorite Quartzite · Diorite

7. References(1)

	TITLE	AUTHOR	YEAR
1	A SHORT BRIEF ON THE REFUGEE PROBLEM AND SECURITY ALONG THE TANZANIA-RWANDA-BURUNDI BORDER	PRIME MINISTER'S AND FIRST VICE PRESIDENTS' OFFICE	1985
2	Assessment Report On the Impact of Refugees On the Local Communities in Kagera and Kizoma Regions	PRIME MINISTER'S AND FIRST VICE PRESIDENTS' OFFICE	1994
3	ASSISTANCE PROVIDED TO RWANDESE REFUGEES IN 1994	United Nations	1994
4	BUSHUBI WATER SUPPLY AND SANITATION PROJECT RULENGE DIVISION, NGARA DISTRICT, KAGERA REGION	PFO	1995
5	ECONOMIC BULLEIN, FOR THE QUARTER ENDED 30 JUNE, 1995 VOL XXIV NO.2	BANK OF TANZANIA	1995
6	ENVIRONMENT STATISTICS IN TANZANIA MAINLAND	BUREAU OF STATISTICS, PRESIDENT'S OFFICE, PLANNING COMMISSION	1994
7	EXPLANATION OF THE GEOLOGY, DEGREE SHEET NO.1	GEOLOGICAL DIVISION, TANZANIA	1988
8	FINAL REPORT DRILLING OPERATION NGARA, TANZANIA	UNICEF	1994
9	FINAL REPORT ON HYDROGEOLOGICAL AND GEOPHYSICAL INVESTIGATIONS FOR BOREHOLE SITTING IN SEVEN VILLAGES IN KABANGA, MABAWA AND MUGOMA WARDS, NGARA DISTRICT	L.R.E.KONGOLA-HYDROGEOLOGIST	1995
10	FINAL REPORT ON THE GROUNDWATER POTENTIAL AND SITTING OF NEW BOREHOLES AROUND THE NGARA REFUGEE CAMPS, TANZ	OXFAM	1994
11	GROUNDWATER FOR UNHCR REFUGEE CAMPS KARAGWE DISTRICT NORTH-WEST TANZANIA	UNHCR	1995
12	HAND OVER OF BOREHOLE 1C30	ARP/DISTRICT WATER ENGINEER	1995
13	HEALTH STATISTICS: 1990	BUREAU OF STATISTICS, PRESIDENT'S OFFICE, PLANNING COMMISSION	1992
14	HESAWA PROGRAMME	MINISTRY OF COMMUNITY DEVELOPMENT, WOMEN AFFAIRS AND CHILDREN	1991
15	HESAWA PROMOTION STRATEGY	MINISTRY OF COMMUNITY DEVELOPMENT, WOMEN AFFAIRS AND CHILDREN	1995
16	NGARA DISTRICT GENDER STUDY FINAL REPORT	NGARA DISTRICT COUNCIL	1995
17	NGARA RURAL DEVELOPMENT PROGRAMME 1994/1995	DISTRICT EXECUTIVE DIRECTOR, NGARA	1995
18	1988 POPULATION CENSUS:PRELIMINARY REPORT	BUREAU OF STATISTICS, MINISTRY OF FINANCE, ECONOMIC AFFAIRS AND PLANNING	1989
19	Refugee Inflow into Ngara and Karagwe Districts, Kagera Region, Tanzania Environment Impact Assessment	CARE International	1994
20	REPORT ON THE PRELIMINARY HYDROGEOLOGICAL INVESTIGATIONS -WELLS CONSTRUCTION PROGRAMME IN BUSHUBI DIVISION	UNICEF	1990
21	REPORT ON WATER AND SANITATION IN NGARA	DISTRICT WATER ENGINEER, NGARA	1995
22	REVISED APPEAL FOR ASSISTANCE TO BURUNDI AND RWANDESE REFUGEES AND RETURNEES	UNHCR	1995
23	ROLLING PLAN AND FOREWARD BUDGET FOR TANZANIA 1993/94-1995/96	THE PRESIDENT'S OFFICE & MINISTRY OF FINANCE	1993
24	SOLAR-GENERATED-WATER PUMPING, STORAGE AND DISTRIBUTION PLANT	GEF	
25	STATUS REPORT ON REFUGEE AFFECTED AREAS	PRIME MINISTER'S AND FIRST VICE PRESIDENTS' OFFICE	1995
26	SELECTED STATISTICS SERIES: 1951-1992	BUREAU OF STATISTICS, PRESIDENT'S OFFICE, PLANNING COMMISSION	1995
27	STATISTICAL ABSTRACT: 1993	BUREAU OF STATISTICS, PRESIDENT'S OFFICE, PLANNING COMMISSION	1995

7. References(2)

28	SUMMARY OF THE GEOLOGY OF TANZANIA	MINERAL RESOURCES DIVISION, TANZANIA	1970
29	TECHNICAL REVIEW OF WATER SECTOR ACTIVITIES AT REFUGEE CAMPS	UNHCR	1985
30	UNICEF EMERGENCY DRILLING OPERATION IN TANZANIA FOR THE RWANDESE REFUGEE CAMPS	UNICEF	1994
31	WATER AND ENVIRONMENTAL SANITATION PROJECT	UNICEF	1994
32	WATER MASTER PLAN VOLUME 1	MINISTRY OF WATER	1978
33	WATER MASTER PLAN VOLUME 13A	MINISTRY OF WATER	
34	WATER MASTER PLAN VOLUME 6A	MINISTRY OF WATER	1977
35	WATER MASTER PLAN VOLUME 7	MINISTRY OF WATER	1977
36	WATER MASTER PLAN VOLUME 8	MINISTRY OF WATER	1978
37	WATER MASTER PLAN VOLUME 13A	MINISTRY OF WATER	1978
38	WELL CONSTRUCTION SUMMARY REPORT	AAR	1995
39	WATER POLICY	MINISTRY OF WATER	1991
40	WATER SUPPLY DESIGN MANUAL CHAPTER 5. DESIGN OF PIPED WATER SUPPLY SYSTEM	MINISTRY OF WATER	1988

JICA