4-4 Execution Plan

4-4-1 Present Condition of Construction Industry and Execution Policy

Only general construction methods will be used in the construction of the KIDC Phase I Project; no special methods need to be used. However, the following points should be noted in the construction.

(1) In this Project, buildings will be newly constructed or expanded in the existing centres. The existing buildings need to be remodelled or modified. It is also necessary to relocate a part of the existing equipment. For this reason, sufficient care should be paid so as not to interfere with OJT that is being conducted in the centre during the above-mentioned construction work.

(2) There are two proposed sites for construction included in this Project that are about 100 km apart.

(3) According to meteorological data obtained and surveys of the local contractors, heavy rains fall from April to June, and therefore it is difficult to carry out excavation work during that period.

(4) At least two and a half months are required for transporting the equipment and materials procured in Japan to the sites.

(5) Different kinds of work should be simultaneously executed, because the construction period is limited to about one year.

The present condition of the local construction industry is as follows.

Some 890 large and small contractors are registered with governmental authorities in Tanzania.

Class	Classification of contractors by single contract amount in project	Number of registered contractors
1	120,000,000 TSh or more	36
2	up to 120,000,000 TSh	21
3	up to 75,000,000 TSh	57
4	up to 40,000,000 TSh	92
5	up to 25,000,000 TSh	130
6	up to 10,000,000 TSh	147
7	5,000,000 TSh or less	406
	Total	889

Among local contractors two Class 1 firms are having their head offices in Moshi. There is one well drilling firm doing business in and around Moshi.

Class 1 contractors doing business in Kilimanjaro Region have the capability to execute some parts of the Project. However, in terms of the execution plan and work progress management, supervision by a prime contractor is required. In other words, the local contractors are capable of executing the range of work controlled by foremen. However, work progress beyond that level should be controlled by a prime contractor. Local contractors in Tanzania are not going to strictly observe the appointed date of completion by all means, unlike in Japan, because they place an emphasis on the European style of contract.

The local contractors do not have much construction equipment, and such equipment frequently breaks down.

The materials that can be procured locally are sand, gravel, crushed stones, cement, concrete blocks, bricks, roof tiles, timbers and fuel oil.

As for sand, river sand can also be procured locally. Cement is produced locally and is in ample supply. However widely varying quality of cement is found.

Considering the present condition of the local construction industry as mentioned above, the execution policy is as follows:

1) The work is executed by a Japanese contractor.

2) Excavation work is performed manually, because small-scale excavation such as pit excavation for the pad foundation of buildings is expected. Excavation work during the heavy rain season should be avoided.

3) Concrete is mixed at the site. Because of the small volume of concrete to be placed, manual concrete-placing is adopted.

4) Structural steel is fabricated in Japan and field cutting and welding are not being considered. Field cutting and welding are only done at places where the existing buildings are to be modified. The structural steel is firstly assembled on the field and then erected using a truck crane.

5) Plastering, finishing and painting work are executed in parallel with utilities work and equipment installation work, because the construction period is short.

6) In Moshi Phase II, a new building is first to be built onto the existing building. Improvement works such as foundation extension within the existing building and on the foundation for a high frequency induction furnace are done so as not to hinder OJT activities in the foundry section. When the equipment and machinery are installed or the circumstances require, consideration will be given to a short-term stoppage of the OJT activities.

4-4-2 Construction Supervision Plan

For the purpose of properly and safely executing the construction work of this Project within the specified period, appropriate supervision of the overall construction work is required.

Construction supervision will be carried out with emphasis chiefly on the following items:

(1) Management of work progress

The work progress will be managed using the CPM.

With regard to main indices such as concrete volume to be placed and total weight of structural steel erected, the work progress will be regularly monitored and managed by constantly comparing the detailed work schedule and work completed.

(2) Quality control

Concrete will be mixed in the field and mortar test and concrete compression test will be frequently conducted in consideration of a widely varying quality of cement produced in Tanzania. Materials such as structural steel and reinforcing bars procured in Japan will be controlled by checking mill sheets.

(3) Safety control

A consulting firm will give instruction to local consultants so that all workers have consciousness of safety and foremen have enough ability to foresee the possible danger.

4-4-3 Procurement of Equipment and Materials

(1) Equipment and materials

1) Locally procured materials

Sand, course aggregate, crushed stones, cement, concrete blocks, timbers and roof tiles will be procured in and around Moshi. Materials for Same Phase II will be delivered from Moshi because a sufficent volume of materials are not locally available.

2) Equipment and materials to be delivered from Japan

Reinforcing bars, structural steel, rib-profiled steel sheets, steel and aluminum joinery, wooden joinery, finishing materials, ironmongery, plumbing and HVAC and electrical facilities are to be procured from Japan considering the short construction period and quality of those materials.
Equipment and machinery will be procured from Japan in consideration of compatibility with existing equipment and machinery.

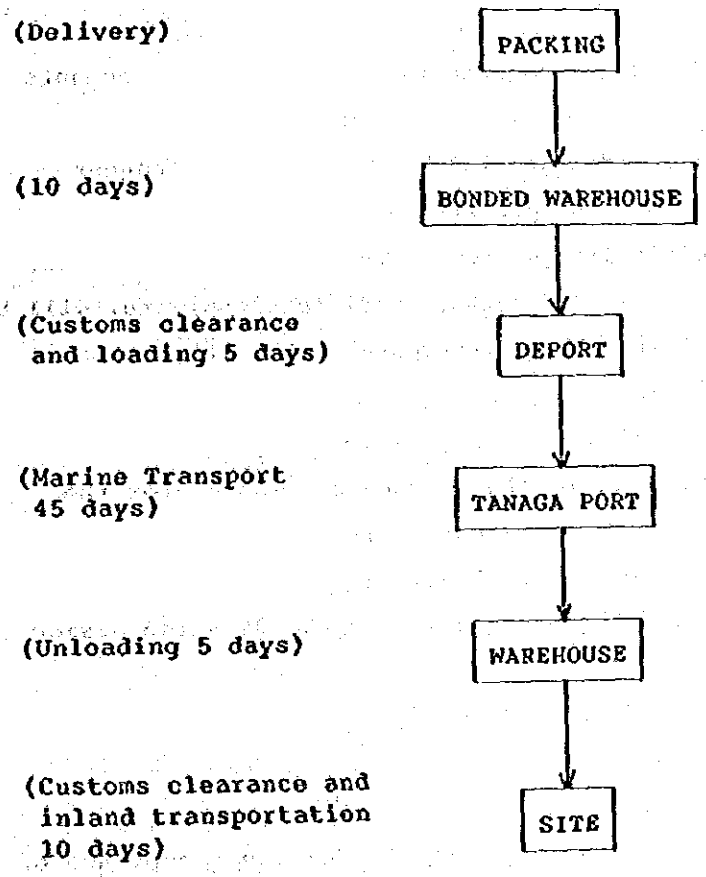
(2) Construction machinery

All construction machinery will be procured from Japan.

(3) Transportation

Tanga and Dar es Salaam are candidate ports for unloading materials procured from Japan. Tanga port is selected in terms of shorter inland transportation. As the means of inland transportation, the railway and trucks are available. Considering the unreliable time schedule and poor security, railway transportation will be avoided and truck transportation will be planned.

75 days are required for transporting materials from packing factories in Japan to the site and the transporting procedures are as follows:



4-5 Implementation Schedule

(1) Detailed design and construction supervision

1) Detailed design and tendering

a) Detailed design and preparation of tender documents

The detailed design will be conducted and tender documents will be prepared on the basis of the results of the basic design study. The contents of the detailed design, tender documents, specifications, etc. will be discussed with the governmental authorities concerned in Kilimanjaro.

Upon conclusion of the Exchanges of Notes for the Project, the Japanese consulting firm will forthwith conclude a Consultant Contract with the Government of Tanzania and thereupon commence the detailed design work.

b) Tendering and conclusion of contract for implementation of the Project

After the invitation to the tender and acceptance of the requests for participation in the tender, the holding of the tender briefing and issuance of tender documents, the tenderers shall submit tender documents no later than a designated date. The tenders submitted shall be promptly evaluated and the Construction Contract between the Government of Tanzania and the successful Japanese construction firm shall be concluded.

2) Construction supervision

Upon conclusion of the contract between the Kilimanjaro Regional Government and the Japanese contractor, this Project is to enter the stage of construction supervision. After the conclusion of the contract, the consulting firm will immediately perform the approval procedure on behalf the Kilimanjaro Regional Government in order to execute the Project at the earliest date.

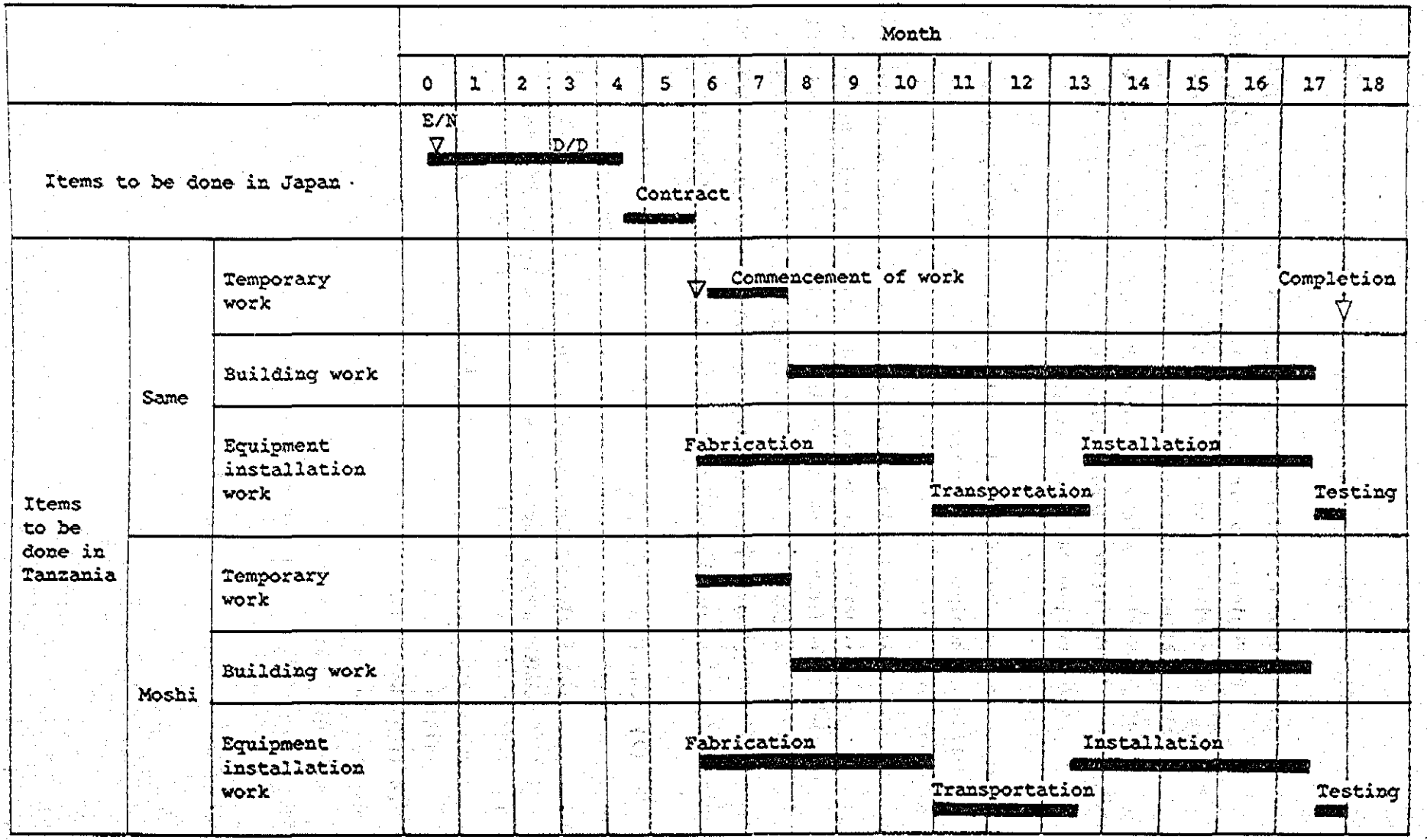
The consulting firm will also manage the procurement of equipment and materials in Japan.

The consulting firm shall guide and supervise the contractor regarding transport of materials and equipment to the site, construction, installation, trial operation, completion test and so on, and also carry out the management of work progress, and quality control in order to complete the work within the period stipulated in the Exchange of Notes.

(2) Construction period

The implementation schedule is shown in Table 4-1. The overall construction period is scheduled to be 17.5 months.

Table 4-1 Implementation Schedule



4-6 Preliminary Estimation of Project Cost to be Borne by the Tanzanian Government

Approximate project costs are estimated as follows:

(1) Conditions for estimate

- Date of estimation	:	May, 1988
- Construction method	:	under the direct control of the Kilimanjaro Regional Government
- Depreciation of construction machinery	:	as per local unit price
- Labour cost	:	as per local unit price
- Locally procured equipment and materials	:	as per local unit price
- Land acquisition cost	:	Nil
- Water charges used for construction	:	as per local unit price
- Electric charges used for construction	:	as per local unit price

(2) Approximate project cost

- Same Phase II	:	11kV electrical supply line up to transformer
- Moshi Phase II	:	11kV electrical supply line up to transformer
Total		50,000 TSh (70,000 Yen)

CHAPTER 5

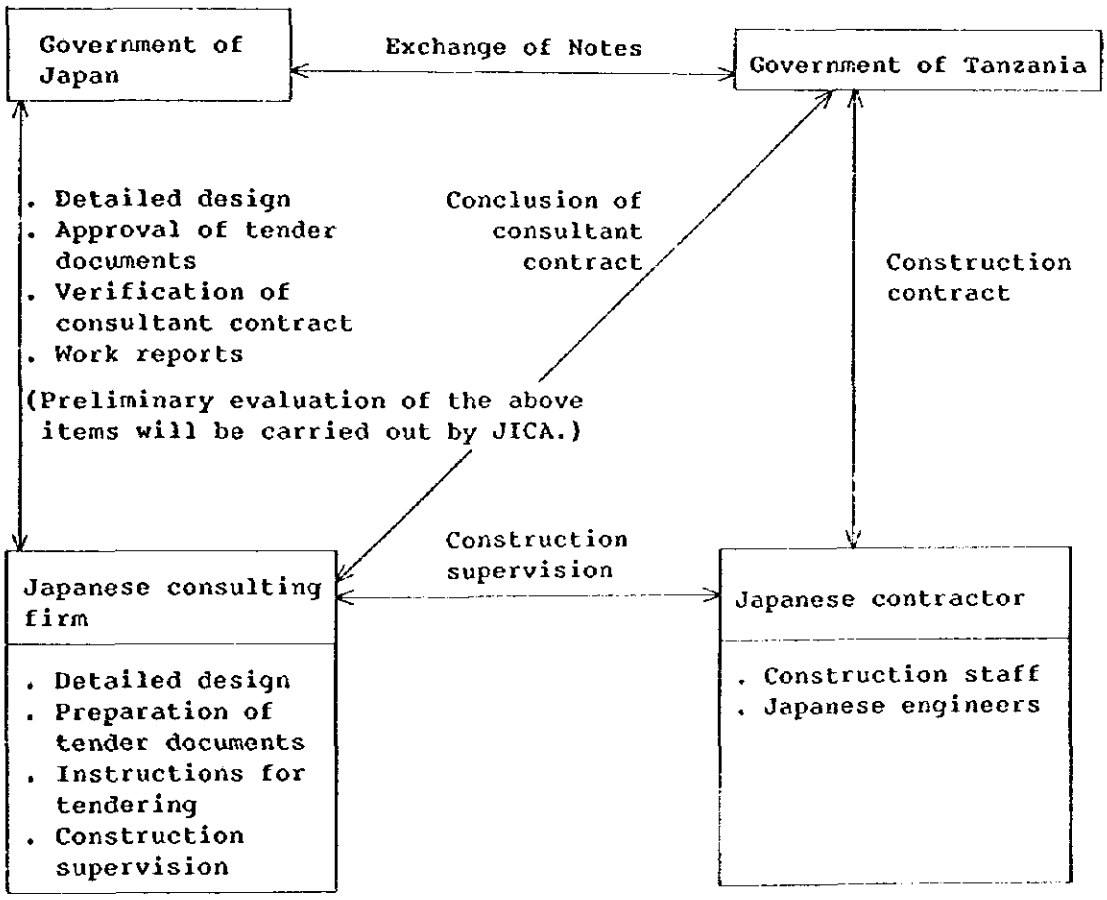
PROJECT IMPLEMENTATION

CHAPTER 5 PROJECT IMPLEMENTATION

5-1 Organization for Implementation

(1) Set-up for implementation of the Project

This Project is implemented under Japan's Grant Aid Program. In agreement with the Program, the set-up for implementation of the Project is illustrated below:



(2) Executing agency

The executing agency of the Project in Kilimanjaro Region is the Kilimanjaro Regional Development Director's Office. The Kilimanjaro Regional Government shall appoint a representative responsible for the Project to ensure close communication and coordination through discussions with a Japanese consulting firm and the Japanese contractor and smoothly execute all work on the Project.

The Japanese consulting firm shall be responsible for the detailed design and the supervision of construction. A Japanese contractor shall be the contracting party of the construction work and shall execute same. It is important to select the optimum style of contract for the Project, considering the following two points:

- The Project involves much work such as civil work, and machinery and equipment installation work which are quite complicated (e.g., new construction and modification of facilities, relocation of existing machines and equipment, installation of new machines and equipment on the existing equipment),

- Construction period is short.

5-2 Scope of Works

5-2-1 Scope of Work to be Undertaken by the Tanzanian Government

(1) 11 kV electrical power supply

11 kV electrical power supply line up to transformer

(2) Installation of a WH meter (only for Same Centre)

(3) To ensure speedy unloading, tax exemption, and customs clearance at ports of disembarkation in Tanga of the products purchased under the Grant.

5-2-2 Scope of Work to be Undertaken by the Government of Japan

(1) Same Phase II

a) Equipment

Tableware	:	Reinforcing the existing clay section
Insulator	:	Clay section will be commonly used for tableware and insulator production line. Supplying equipment for forming, drying, firing and glazing sections.
Investigation and Transportation of Raw Materials	:	Supplying two automobiles

b) Facilities

Building for Insulator	:	New building (10 m x 40 m)
Arrangement of On-site Facilities	:	Construction of on-site road
Electrical System	:	Reinforcing existing electrical supply and distribution facilities

(2) Moshi Phase II

a) Equipment

Metalworking Section	:	Supplying high frequency induction furnace and its associated equipment
Machining Section	:	Supplying vertical lathe, universal milling machine, cylinder boring machine, etc.
Investigation of Raw Materials	:	Supplying three automobiles
Design and Engineering Section	:	Supplying drafting machines, etc.

b) Facilities

Building for Foundry	:	Extension from existing building (15 m x 35 m) with 2-ton overhead travelling crane

Water Supply System	:	Boring well in the project site area
Electrical System	:	Reinforcing existing electrical supply and distribution facilities Supplying emergency electrical supply system
Design and Engineering Section	:	Modification of existing tool storage room to design room

5-3 Operation and Maintenance Plan

The organization chart to be newly established in Phase II is shown in Fig. 3-1. Under the new organization, the Tanzanians will be primarily responsible for the operation and maintenance of facilities and equipment.

(1) Operation management by Tanzanian engineers

In operation management of facilities and equipment, a suitable management system should be established because such facilities and equipment are of great importance for production and technology transfer. Facilities and equipment should be properly operated in accordance with operations manuals, and should not be operated beyond their rated capacity, and if there is any standby equipment, it should be operated alternately in order that it may function for an extended period. The Tanzanian engineers should thoroughly understand the required knowledge for operation management, so that the complex systems including the automatic control device will be operated properly. It is important to record all necessary data in the operating logbook.

(2) Maintenance management by Tanzanian engineers

For the facilities and equipment to be efficiently and safely operated and managed, it is necessary that each facility and equipment be checked, maintained or repaired so that it is always kept in the best condition to fulfill its functions.

Facilities and equipment should be systematically and periodically checked, maintained, or repaired in accordance with their maintenance manuals for efficient maintenance management. For this purpose, it is important to prepare a manual that shows how to perform maintenance work and also to prepare a checklist which may be used to compare the inspection results with the

predetermined standards and goals to judge whether the results are proper or not. As spare parts will be necessary to maintain the equipment or system, adequate consideration shall be given to their procurement or keeping a constant supply in stock.

(3) Responsibilities for operation and maintenance

In KIDC Phase II, the director will be responsible for operation and maintenance. The Tanzanian counterpart personnel will be responsible for operation and management in each section.

In five-year technical cooperation starting from March, 1988, about 160 persons are to participate in the OJT, and equipment and facilities will be operated and maintained as a part of OJT activities mainly by the Tanzanian counterpart personnel. Operation and maintenance budget to be allocated by the Tanzanian Government will be increased in proportion to the following reasons:.

1) Electric charges will be increased, because the high frequency induction furnace is installed and the size of the Same Centre is doubled.

2) Labour costs will be increased, because of the increase of personnel such as Tanzanian counterpart personnel, engineers, workers, etc.

CHAPTER 6

PROJECT EVALUATION

CHAPTER 6 PROJECT EVALUATION

KIDC Technical Cooperation was initiated in June 1981, and terminated in March 1988. During that period, basic technologies were transferred. If KIDC Phase II Technical Cooperation is implemented to develop technology transfer, significant technical cooperation will be implemented. Under these circumstances, the Project is evaluated regarding its effects and suitability.

(1) Technology Transfer

1) Same Centre

Technologies related to low voltage insulators will be transferred using low voltage insulator-manufacturing equipment. This centre will be furnished with equipment for manufacturing tableware and low voltage insulators which are much in demand in Tanzania. This technology transfer will provide the means for making its own supply of insulators and for conserving foreign currencies in Tanzania.

2) Moshi Centre

The high frequency induction furnace and its associated equipment will be provided in the foundry section. In addition to the technologies related to cast iron in Phase I, technologies related to ductile cast iron, cast steel and alloy steel will be transferred in Phase II.

Machine tools will be provided to the existing machining section to strengthen the existing equipment so that basic machining work can be done in KDIC Phase II. Technologies related to the full line of production ranging from raw materials to metalworking will be transferred using equipment strengthened as mentioned above and by providing the assembly room. In addition to this, the scope of design and production of machines to be developed by the centre and spare parts will be expanded to improve technologies related to disassembly, assembly and trial operation. These technologies, as mentioned above, will be transferred to the related organizations and training centres in Kilimanjaro Region.

(2) Effects on local industries

1) Same Centre

Currently there is no local ceramics industry other than Same Centre in Kilimanjaro Region.

However, the Tanzanian engineers who acquire technological know-how at this Centre are expected to take a leadership role in promoting the local ceramics industry in future.

2) Moshi Centre

Equipment, technologies, and production development capabilities will be improved, so that Moshi Centre will take a leadership role in providing advice, consulting services and training courses for product development and production technologies in local industries in Kilimanjaro Region.

(3) Operation management

KIDC Centre has the potential to create demand in Kilimanjaro Region if the amount and items for equipment and facilities production in the centre are increased. Capabilities in operation and management will be strengthened through KIDC Phase II Technical Cooperation. The concept of marketing research will be introduced, the amount of OJT activities increased, the working efficiency improved, and revenues and expenditures balanced. Operation and management by Tanzanian engineers themselves are expected to be achieved after KIDC Phase II Technical Cooperation is implemented.

(4) Conserving of foreign currencies

1) Same Centre

Tanzania can supply its own raw materials such as feldspar, siliceous stone, clay and kaolin for tableware and low voltage insulators. The low voltage insulators promoted through technology transfer in Phase II will gradually replace imported insulators, and the foreign currencies will be greatly conserved. According to a survey in TANESCO, the annual import of low voltage insulators is approximately 100,000 (one such insulator costs 0.95 U.K. pound) as of March 1988.

2) Moshi Centre

Cast iron, ductile cast iron, cast steel, and alloy steel scraps will be recycled using the high frequency induction furnace. As a result, a recycling system for raw materials will be established to conserve foreign currencies.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

CHAPTER 7 CONCLSION AND RECOMMENDATIONS

7-1 Conclusion

Based on the basic technologies transferred in Phase I, this Project aims at improving and strengthening such technologies by transferring applied and production management technologies, so that the Tanzanian engineers themselves can operate and manage KIDC. (Refer to 4-1 hereof for the details of applied and production management technologies.)

When this Project is implemented, in addition to transferring applied production management technologies, the following ripple effects can be expected.

(1) Scrap materials will be recycled and import substitution products (low voltage insulators) will be produced to conserve foreign currencies.

(2) Design capabilities will be added, and related local industries centering around KIDC will be promoted.

The above effects will bring a growth in manufacturing employment in Kilimanjaro Region. These effects will be identical to the intention of the Tanzanian Government and the Kilimanjaro Regional Government.

Therefore, it is quite meaningful and appropriate that this Project be implemented under Japan's Grant Aid Program.

7-2 Recommendations

Equipment and facilities provided to transfer the applied technologies for this Project will match the present situation and needs of local industries in Kilimanjaro Region. Tanzanian engineers in KIDC and the Kilimanjaro Regional Government should make full use of the equipment and facilities which will be supplied in this Project, operate and manage KIDC efficiently to achieve industrial development in Kilimanjaro Region and Tanzania.

It is suggested that Tanzanian engineers in KIDC and the Kilimanjaro Regional Government should observe the following points to maintain the functions of KIDC:

(1) Improvement of Tanzanian engineers' qualifications

If Tanzanian engineers' technological capabilities are qualified and authorized, their motivation will be raised.

(2) Improvement of organization

In the present organization, a director is stationed at Moshi Centre and counterpart personnel in each section (including Same Centre) are subordinated to engage in OJT activities. However, after the establishment of the new low voltage insulator section at the Same Centre, the number of personnel will be increased. It is desirable that a well-organized organization mainly consisting of key personnel be established.

(3) Clarifying the position of KIDC in local industries in Kilimanjaro Region

KIDC should clarify its position of leadership in the related local industries. For this purpose, the Kilimanjaro Regional Government should understand the present condition of the related local industries in Kilimanjaro Region and provide strong ties between KIDC and the local industries, so that KIDC will smoothly provide appropriate instruction, advice, and coordination.

(4) Management of KIDC

Tanzanian staff should manage KIDC and achieve a balance of the revenues and expenditures in KIDC. KIDC's development and balancing of the operational budget and sales amount must be achieved through independent operation by the Tanzanians themselves, independently of technical cooperation from Japan. Therefore it is necessary to expand their activities to closely exchange information (e.g., technologies and production items) with the related organizations and local industries.

(5) Counterpart personnel

In Phase I, technologies were transferred by Japanese experts. Tanzanian staff should expand and intensify their OJT activities by recognition of the fact that KIDC is their own facility and should be developed for the future.

APPENDIX

APPENDIX

APPENDIX I. MINUTES OF DISCUSSIONS

MINUTES OF DISCUSSIONS
ON
THE PROJECT OF CONSTRUCTING
KILIMANJARO INDUSTRIAL DEVELOPMENT CENTRE (PHASE II)
IN
THE UNITED REPUBLIC OF TANZANIA

In response to the request made by the Government of the United Republic of Tanzania (hereinafter referred to as "the Tanzanian Government"),the Government of Japan decided to conduct a basic design study on the Project of Constructing the Kilimanjaro Industrial Development Centre(Phase II) (hereinafter referred to as "the Project")and entrusted the study to the Japan International Cooperation Agency(hereinafter referred to as "JICA"). JICA sent to the United Republic of Tanzania(hereinafter referred to as "Tanzania")the Basic Design Study Team (hereinafter referred to as"the Team")headed by Dr.Minori Sano,Special Assistant to the Director of Grant Aid Management Department,JICA,from March 25th to April 17th,1988.

The Team had a series of discussions on the Project with the officials concerned of the Tanzanian Government and conducted a field survey.

As a result of the study,both parties agreed to recommend to their respective Governments that the major points of understanding reached between them,attached herewith,should be examined towards the realization of the Project.

April 9th,1988

Dr.Minori Sano

Leader,Basic Design Study Team,Japan International Cooperation Agency

Godwin N.Mgendi

Regional Development Director
Kilimanjaro Region
The United Republic of Tanzania

Endorsed by M.T.Kibwana

Commissioner for External Finance
Ministry of Finance,Economic Affairs and Planning
The United Republic of Tanzania

ATTACHMENT

1. The objective of the Project is to strengthen the activities of Kilimanjaro Industrial Development Centre(KIDC Phase II),where the Japanese technical cooperation will be provided,in order to contribute to further advancement of small-scale industrial development in the Kilimanjaro Region through the construction of new buildings and supply of pertinent equipment.
2. The project consists of providing facilities and equipment for ceramic in Same (hereinafter referred to as "Same Phase II") and for machining and metalworking in Moshi (hereinafter referred to as "Moshi Phase II").
3. Major facilities and equipment requested by the Tanzanian authorities concerned are listed in Annex I.
4. The sites are located at Moshi and Same areas as shown in Annex II.
5. The Regional Development Director of Kilimanjaro Region(RDD) is responsible for the administration and execution of the Project.
6. The Tanzanian authorities concerned have agreed to Japan's grant aid system for implementation of the Project as explained by the Basic Design Study Team,which includes the principles of use of Japanese consultancy firm(s) and Japanese general contractor(s).
7. The Tanzanian authorities concerned will take necessary measures listed in Annex III, on condition that the grant aid by the Government of Japan is extended to the Project.

Annex I. Major Facilities and Equipment Requested by the Tanzanian Authorities concerned

1. Same Phase II
   a. Factory building(s) for tableware, insulator and gypsum processing
   b. Equipment and machineries in the field of tableware and insulator
   c. Equipment and machineries in the field of gypsum processing

2. Moshi Phase II
   a. Factory building(s) for machining and metalworking
   b. Equipment and machineries in the field of machining
   c. Equipment and machineries in the field of metalworking

3. List of Facilities and Equipment

3-1 Same Phase II

a.Facilities for tableware, insulator and gypsum processing

a-1 Factory building(s) for tableware and gypsum processing

a-2 Water supply system within the site

a-3 Vehicles for field study and transportation of materials

b.Equipment and machineries in the field of tableware and insulator

b-1 Equipment and machineries for clay shop

b-2 Equipment and machineries for tableware forming

b-3 Equipment and machineries for low voltage insulator forming

b-4 Final firing kiln for tableware and insulator

c.Equipment and machineries for gypsum processing

3-2 MOSHI Phase II

a.Facilities for machining and metalworking

a-1 Factory building(s) for machining and metalworking

a-2 Overhead crane and jib cranes

a-3 Watersupply system within the site

a-4 Vehicles for field study and transportation of materials

b.Equipment and machineries in the field of machining

b-1 Equipment and machineries for preliminary machining

b-2 Equipment and machineries for finish machining

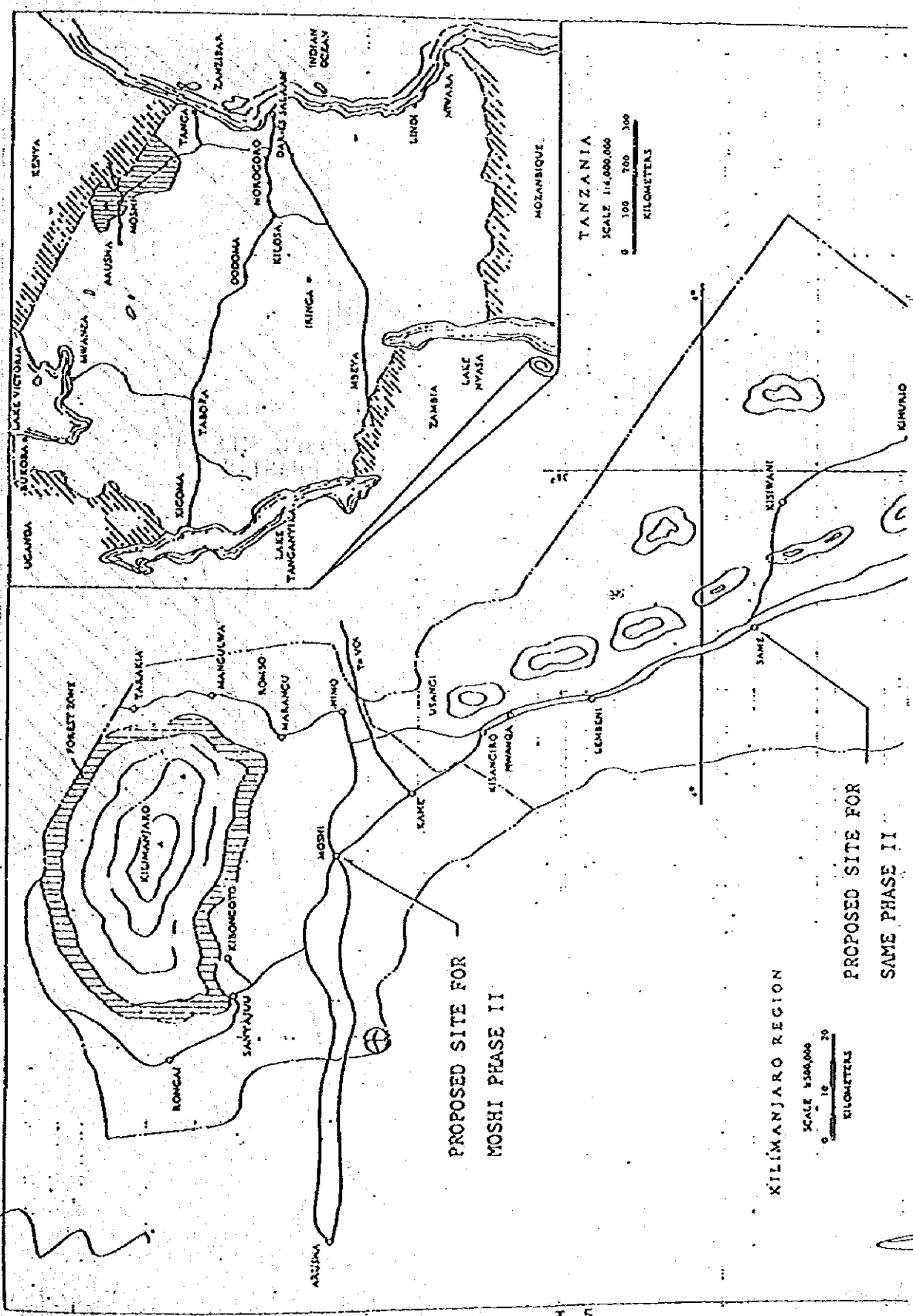
c.Equipment and machineries in the field of metalworking

c-1 Electric melting furnace for foundry with accessory

c-2 Electric furnace for heat treatment

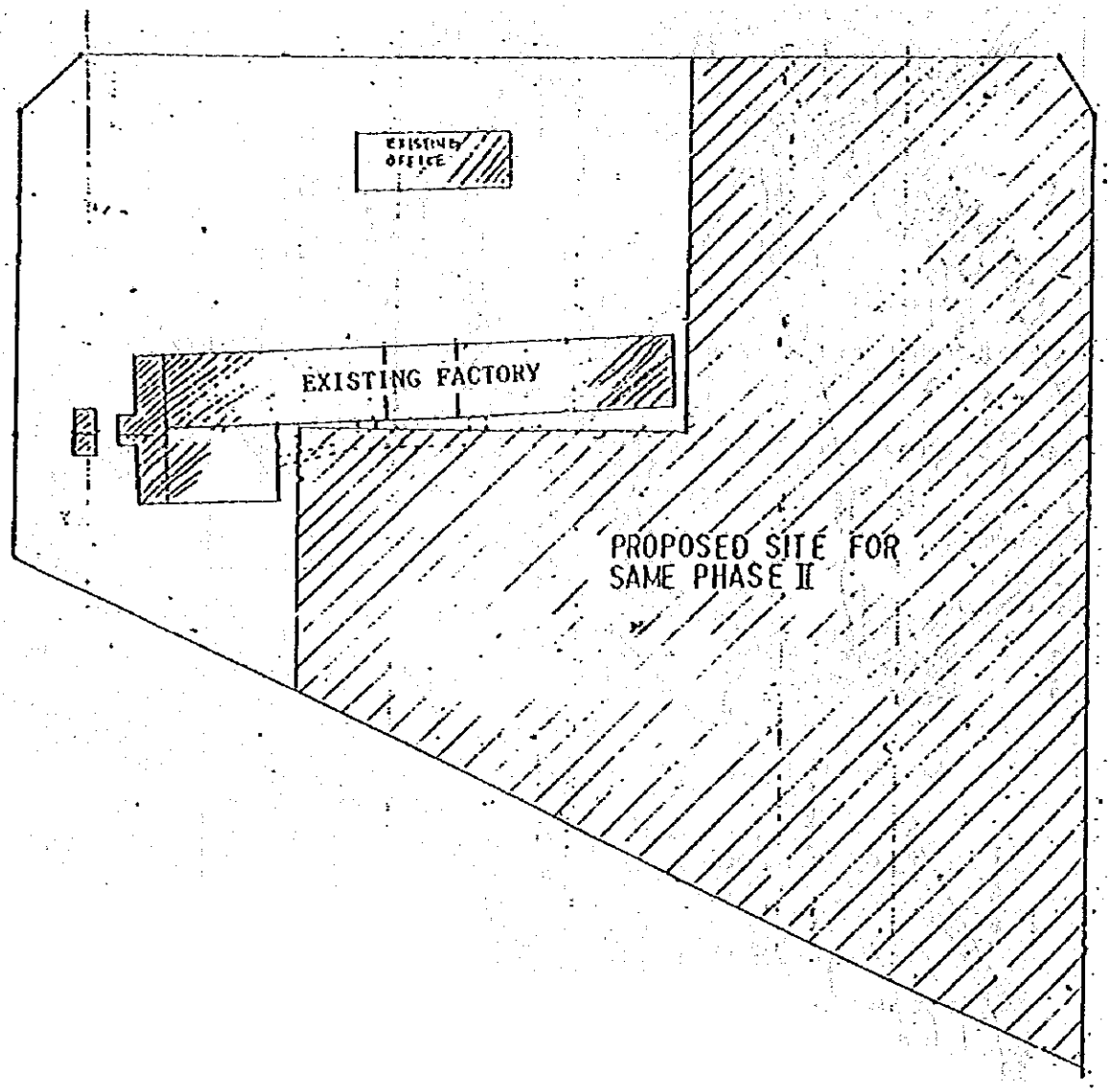
Annex II-1

Location Map of Project Sites



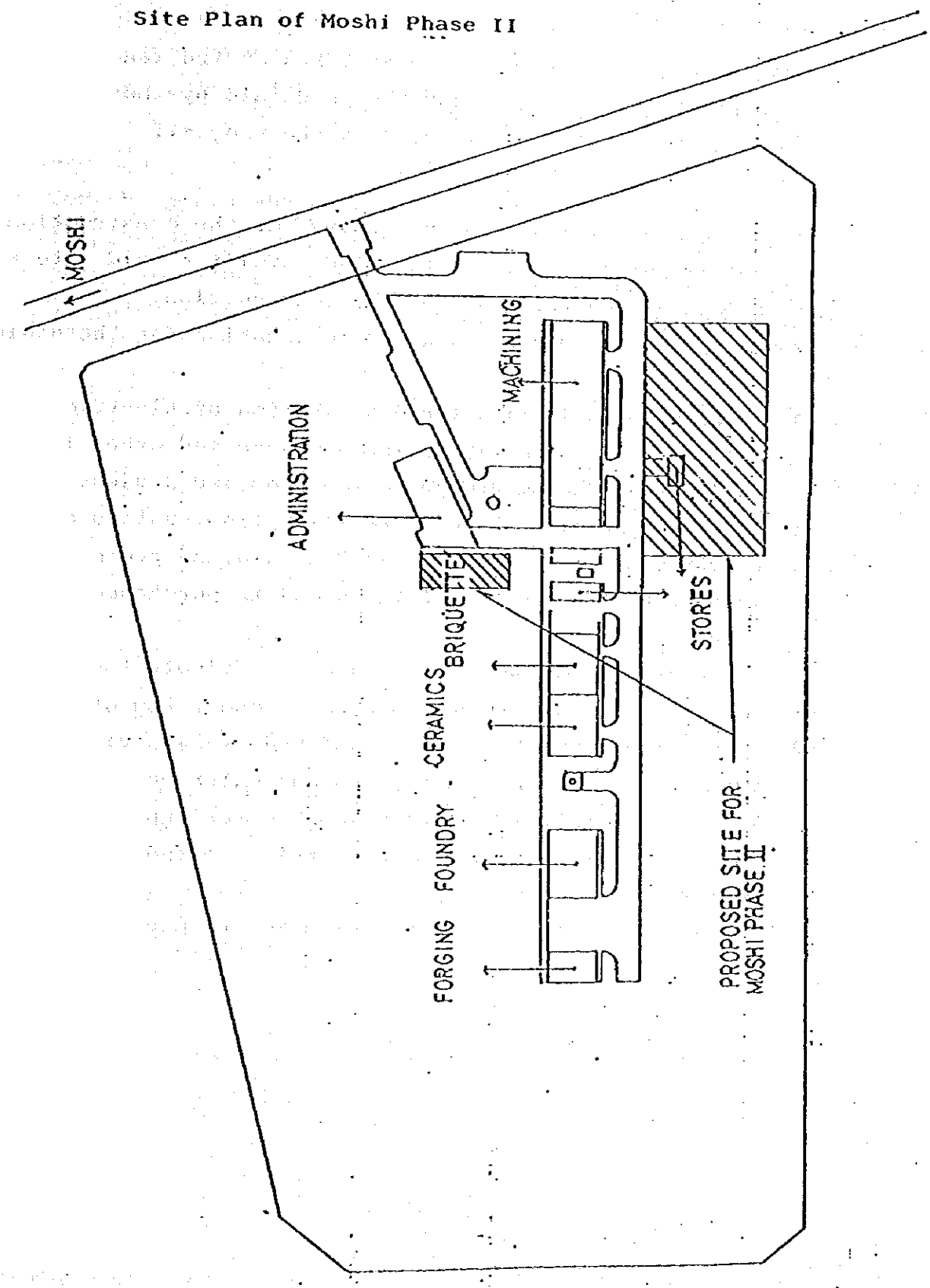
Annex II-2

Site Plan of Same Phase II



Annex II-3

Site Plan of Moshi Phase II



Annex III. Necessary Arrangements to be Taken by the Tanzanian Government

Following arrangements are to be taken by the Tanzanian Government on condition that the grant aid by the Government of Japan is extended to the Project.

1. To secure a lot of land necessary for the construction of facilities and to clear, fill and level the said site as needed before the start of the construction.
2. To provide necessary data and information for the Basic Design Study.
3. To provide facilities for distribution of electricity, telephone, water supply, drainage, sewage and other incidental facilities leading and up to the proposed project sites.
4. To ensure prompt unloading, tax exemption, customs clearance at ports of disembarkation in Tanzania, and prompt internal transportation therein of the products purchased under the grant.
5. To maintain and use properly and effectively the facilities constructed and equipment purchased under the grant.
6. To provide general furniture and undertake civil works such as gardening, fencing, gates and exterior lighting.
7. To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the banking arrangement.
   -Advising commission of authorization to pay
   -Payment commission

8. To exempt Japanese nationals engaged in the Project from customs duties, internal tax and other fiscal levies which may be imposed in Tanzania with respect to the supply of the products and the services under the verified contracts.
9. To accord Japanese nationals whose services may be required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into Tanzania and stay therein for the performance of their work.
10. To bear all the expenses other than those to be borne by grant, necessary for construction of the facilities as well as for the storage and transportation of the equipment.

MINUTES OF DISCUSSIONS
ON
BASIC DESIGN STUDY REPORT
FOR
THE PROJECT FOR CONSTRUCTING
KILIMANJARO INDUSTRIAL DEVELOPMENT CENTRE (PHASE II)
IN
THE UNITED REPUBLIC OF TANZANIA

In response to the request made by the Government of the United Republic of Tanzania (hereinafter referred to as "Tanzania"), the Government of Japan decided to conduct a basic design study on the Project for Constructing the Kilimanjaro Industrial Development Centre (Phase II) (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Tanzania the Basic Design Study Team headed by Dr. Minori Sano, Special Assistant to the Director of Grant Aid Management Department, JICA, from March 25th to April 17th, 1988.

The Team had a series of discussions on the Project with the officials concerned of the Tanzanian Government and conducted a field survey.

As a result of the study, JICA prepared a draft final report and dispatched a team headed by Mr. Toshio OKAZAKI, Deputy Head, Technical Cooperation Division, JICA, to explain and discuss it from June 24 to July 5, 1988.

Both parties had a series of discussions on the draft report and agreed to recommend to their respective Governments that major points of understanding reached between them, attached herewith, should be examined towards the realization of the Project.

June 29th, 1988

岡崎俊夫

Toshio Okazaki
Leader, Basic Design Study Team, Japan International Cooperation Agency

Godwin N. Mgendi
Regional Development Director
Kilimanjaro Region
The United Republic of Tanzania

M.T. Kibwana

Endorsed by M.T. Kibwana
Commissioner for External Finance
Ministry of Finance, Economic Affairs and Planning
The United Republic of Tanzania

ATTACHMENT

1. The Tanzanian side agreed in principle on the basic design proposed in the Draft Final Report.

2. The Tanzanian side ensured the provision of the necessary budget for the works such as maintenance and operation expenses for the Project.

3. The Final Report (10 copies in English) will be submitted to the Tanzanian Side up to the end of August 1988.

APPENDIX II. MEMBER LIST OF THE BASIC DESIGN STUDY TEAM

APPENDIX II. MEMBER LIST OF THE BASIC DESIGN STUDY TEAM

MEMBERS OF THE TEAM

(BASIC DESIGN)

Name	Assignment	Position
Dr. Minori Sano	Team Leader	Special Assistance to the Director of the Grant Aid Management Dept., Japan International Cooperation Agency
Mr. Koji Morishita	Project Coordinator	Technical Cooperation Div., Mining & Industrial Development Cooperation Dept., Japan International Cooperation Agency
Mr. Hisashi Kurokouchi	Small Industries Development Planner	Yachiyo Engineering Co., Ltd.
Mr. Osamu Anekawa	Facility Planning Expert	Yachiyo Engineering Co., Ltd.
Mr. Hajime Inoue	Machining Expert	Yachiyo Engineering Co., Ltd.
Mr. Yasukuni Shimizu	Metalworking Expert	Yachiyo Engineering Co., Ltd.
Mr. Kazuhiko Yamaguchi	Ceramics (Tableware and Insulator) Expert	Y.K. Limited
Mr. Seiichi Oyamada	Gypsum Expert	Yachiyo Engineering Co., Ltd.

MEMBERS OF THE TEAM

(FOR EXPLANATION OF DRAFT FINAL REPORT)

Name	Assignment	Position
Mr. Toshio Okazaki	Team Leader	Deputy Manager, Technical Cooperation Div., Mining & Industrial Development Cooperation Dept., Japan International Cooperation Agency
Mr. Hisashi Kurokouchi	Small Industries Development Planner	Yachiyo Engineering Co., Ltd.
Mr. Osamu Anekawa	Facility Planning Expert	Yachiyo Engineering Co., Ltd.
Mr. Hajime Inoue	Machining Expert	Yachiyo Engineering Co., Ltd.
Mr. Seiichi Oyamada	Gypsum Expert	Yachiyo Engineering Co., Ltd.

APPENDIX III. SURVEY SCHEDULE

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This study team carried out a field survey from March 25 to April 17, 1988 and from June 24 to July 5, 1988 in accordance with the field survey schedule as listed below:

Date	Place of Stay	Schedule	Detail of Study Items
Mar. 25 Fri.	In airplane	Left Narita 21:30 LH-703	Kurokouchi, Anekawa, Inoue, Shimizu, Yamaguchi and Oyamada left Tokyo
26 Sat.	Frankfurt		Travelling
27 Sun.	In aircraft	Left Frankfurt 21:25 LH-588	Travelling
28 Mon.	Dar es Salaam	Arrived in Dar es Salaam 9:20 LH-588	Visited Japanese Embassy Visited JICA Tanzania Office
29 Tue.	Dar es Salaam		Visited Ministry of Finance Visited Prime Minister's Office Survey of private factory in Dar es Salaam
30 Wed.	Moshi	Left Dar es Salaam 10:25 TC-732	Travelling
31 Thur.	Moshi		Visited RDD Kilimanjaro Region Survey of local industries
Apr. 1 Fri.	Same		Survey of clay and gypsum mine (Mwanga)
2 Sat.	Same		Survey of Same Phase I Visited Same Regional Office Survey of water supply station Survey of water source Survey of raw material for ceramics
3 Sun.	Moshi		Survey of 8 lodges for Japanese Experts
4 Mon.	Moshi		Study of collected data
5 Tue.	Moshi		Survey of local industries and market

Date	Place of Stay	Schedule	Detail of Study Items
6 Wed.	Moshi	Arrived in Kilimanjaro SN-463	Mr. Sano and Mr. Morishita arrived in Kilimanjaro visited RC, RDD and RPO
7 Thu.	Moshi		Additional survey of Same Phase I
8 Fri.	Moshi		Preparation of the Minutes of Discussions
9 Sat.	Moshi		Signing of the Minutes of Discussions (JICA-RDD)
10 Sun.	Dar es Salaam	Travelling by car	Mr. Sano, Mr. Morishita and Kurokouchi left for Dar es Salaam
	Moshi		Survey of local industries and market
11 Mon.	Dar es Salaam		Endorsing the Minutes of Discussions by Ministry of Finance
	Moshi		Survey of local industries, market and local contractors Visited TANESCO Moshi and Ministry of Natural Resources and Tourism
12 Tue.	Zurich	Left Dar es Salaam 9:10 SR-293	Mr. Sano and Mr. Morishita left Dar es Salaam
	Dar es Salaam	Left Kilimanjaro 11:30 TC-529	Anekawa, Inoue, Shimizu, Yamaguchi and Oyamada left Moshi
13 Wed.	Dar es Salaam		Messrs. Sano, Kurokouchi and Yamaguchi visited Head Office of TANESCO
14 Thur.	Dar es Salaam		Arrangement of results of survey
15 Fri.	Left Dar es Salaam 8:25 SR-293		Kurokouchi, Anekawa, Inoue, Shimizu, Yamaguchi and Oyamada left Dar es Salaam (for Japan)
16 Sat.	In airplane	Left Zurich 17:15 SR-293 ↓ Left London 19:30 JL-402	
17 Sun.	Tokyo		Kurokouchi, Anekawa, Inoue, Shimizu, Yamaguchi and Oyamada arrived in Tokyo

This study team carried out the field survey to explain the draft final report from June 24 to July 5, 1988 in accordance with the field survey schedule as outlined below:

Date	Place of Stay	Schedule	Detail of Study Items
June 24 Fri.	Amsterdam	Left Narita 11:50 KL-862	All team members left Tokyo
25 Sat.	In airplane	Left Amsterdam 23:00 KL-567	Travelling
26 Sun.	Moshi	Arrived in Kilimanjaro 11:20 KL-567	Visited KIDC Office
27 Mon.	Moshi		Visited RDD and RPO
28 Tue.	Moshi		Visited Same Centre
29 Wed.	Moshi		Signing of the Minutes of Discussions between JICA and RDD
30 Thur.	Dar es Salaam	Left Kilimanjaro 11:30 TL-549	Travelling
Jul. 1 Fri.	Dar es Salaam		Endorsing the Minutes of Discussions by Ministry Finance
2 Sat.	In airplane	Left Dar es Salaam 22:10 LH-581	Travelling
3 Sun.	Frankfurt	Arrived in Frankfurt 7:50 LH-581	Travelling
4 Mon.	In airplane	Left Frankfurt 12:50 LH-702	Travelling
5 Tue.	Tokyo		Arrived in Tokyo

APPENDIX IV. LIST OF INTERVIEWEES

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The interviewees concerned with this study team are as follows:

Occupation and Name	Position
MINISTRY OF FINANCE, ECONOMIC AFFAIRS AND PLANNING	
Mr. M. T. Kibwana	Commissioner for External Finance
Mr. P. J. Mbena	Manager for Japan
PRIME MINISTER'S OFFICE	
Mr. Ben G. Moses	Deputy Principal Secretary
Mr. Kinasha	Principal Planning and Control Officer
Mr. Severine. B. Kahelwa	Planning and Control Officer
Mrs. Veronica T. Kessy	
Mr. P. A. M. Chikira	Senior Planning and Control Officer
REGIONAL COMMISSIONER'S OFFICE, KILIMANJARO	
Mr. P. Kimiti	Regional Commissioner (RC)
Mr. G. N. Mgendi	Regional Development Director (RDD)
Mr. J. J. Mpiza	Regional Planning Officer (RPO)
MINISTRY OF NATURAL RESOURCES AND TOURISM (Moshi)	
Mr. E. T. Damball	Civil Engineer
KIDC	
Mr. S. N. Materu	KIDC Vice Director
Mr. G. Makilulu	
Mr. P. Mushi	
Mr. A. Mtango	
Mr. A. S. Mushi	
Mr. S. Kassanda	

Occupation and Name	Position
TANESCO (DAR ES SALAAM)	
Mr. M. M. Fazal	Chief Transmission & Distribution Engineer
TANESCO (MOSHI)	
Mr. Hilal Sultan	Regional Manager
Mr. G. H. Mshana	Assistant Regional Manager
TRACTOR HIRE SERVICE (MOSHI)	
SMALL INDUSTRIES DEVELOPMENT ORGANIZATION (SIDO) (MOSHI)	
Mr. Edward Mazula	Regional Manager
CENTER FOR AGRICULTURAL MECHANIZATION AND RURAL TECHNOLOGY (CAMARTEC) (ARUSHA)	
Mr. A. N. Kaaya	Director-Testing & Production
Mr. S. C. Nari	Head of Training Department
TANZANIA ENGINEERING AND MANUFACTURING DESIGN ORGANIZATION (TEMDO) (ARUSHA)	
Mr. G. Msolla	Director General
AUTO MECH LTD. (DAR ES SALAAM)	
Mr. D. Ved	
PENFOLD AND COMPANY LIMITED (MOSHI)	
Mr. M. S. Bhamra	
SHERIFF DEWJI & SONS LTD. (ARUSHA)	
MUSA ENGINEERING LTD. (MOSHI)	

Occupation and Name	Position
SIMON GROUP OF COMPANIES (MOSHI)	
Mr. R. Moshi	Managing Director
BENWELL ENGINEERS LTD.(MOSHI)	
Mr. R. Prescott	Plant Manager
UNITED BUILDERS LTD. (DAR ES SALAAM)	
SUPER TERRAZO ART LTD.(MOSHI)	
Mr. Harish	
RAVJI CONSTRUCTION CO. LTD. (MOSHI)	
Mr. R. G. Patel	
SABURI CARRIERS (MOSHI)	
Mr. A. S. Ahmed	Managing Director
THE JAPANESE EMBASSY	
Mr. Shoichi Nakamura	Ambassador Extraordinary and Plenipotentiary
Mr. Saburo Tanaka	Chargé d'Affaires ad interim
Mr. Shogo Takeuchi	First Secretary
Mr. Kazumasa Shibuta	Staff
JICA TANZANIA OFFICE	
Mr. Nobuo Toida	Resident Representative
Mr. Hiroshi Murakami	Staff

Occupation and Name	Position
KIDC	
Mr. Tadao Shiga	Japanese Expert Leader
Mr. Masayasu Iimori	Expert in Machine Design and Factory Management
Mr. Yoshihisa Miyazaki	Metalworking Expert
Mr. Takeo Usami	Foundry Expert
Mr. Katsunori Fujinaka	Ceramics Expert
Mr. Akihiko Noguchi	Liaison Officer