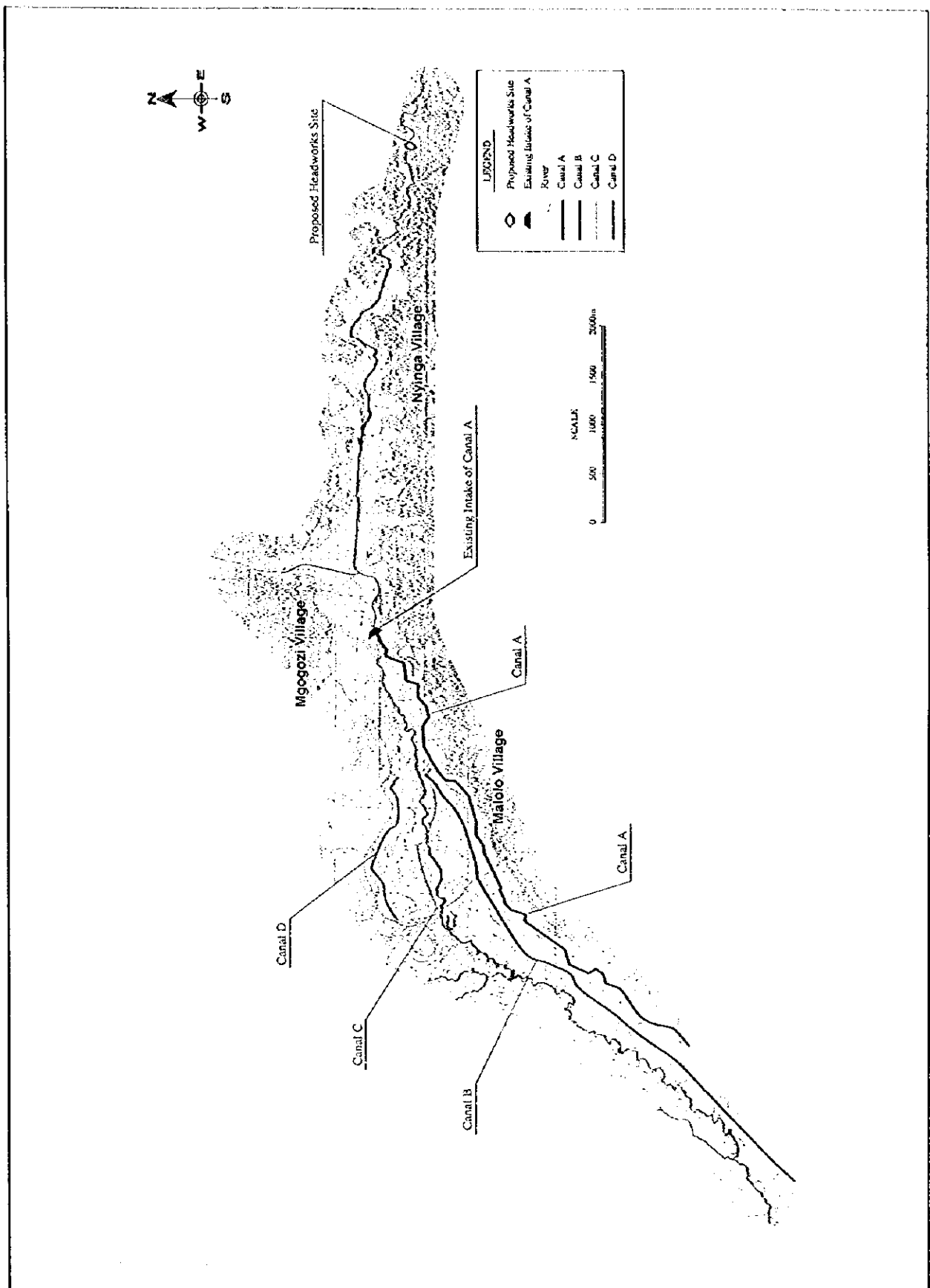


**TABLE**





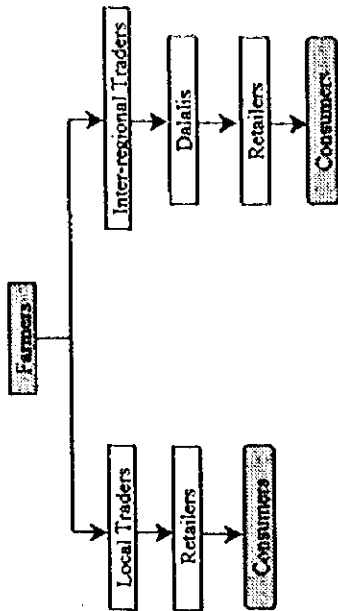
## ***FIGURES***



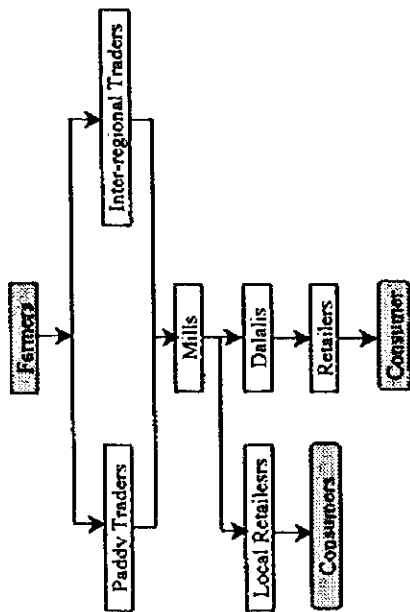
Basic Design Study on the Project for Mweza  
 Smallholder Irrigation Scheme in Morogoro Region in  
 The United Republic of Tanzania

Figure-2.2.1  
 Existing Irrigation System

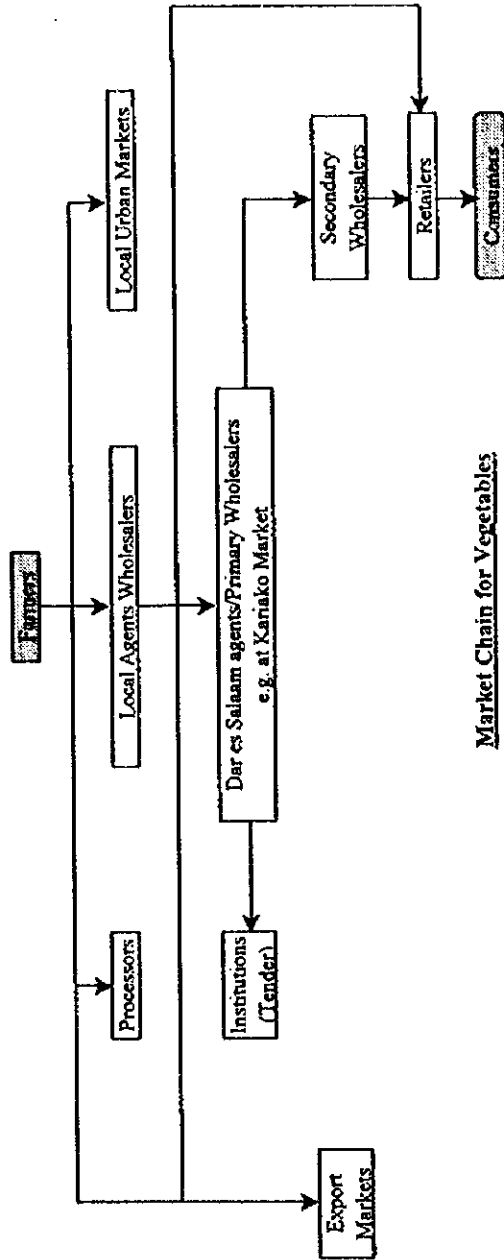
Japan International Cooperation Agency



Market Chain for Maize



Market Chain for Rice



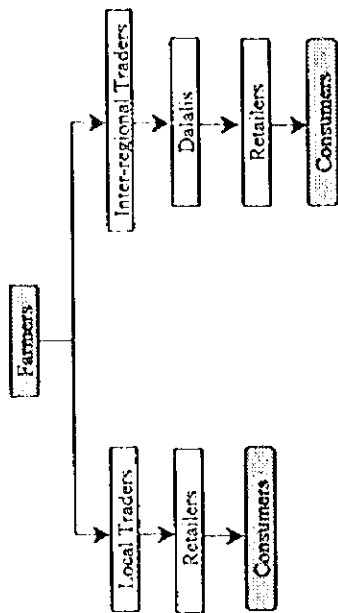
Market Chain for Vegetables

Basic Design Study on the Project for Mweza Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania

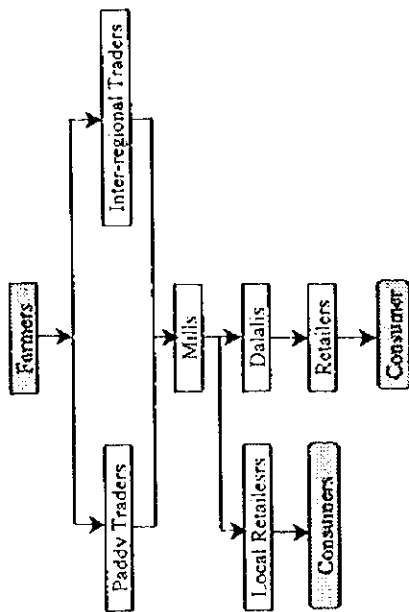
Japan International Cooperation Agency

Figure-2.2.2

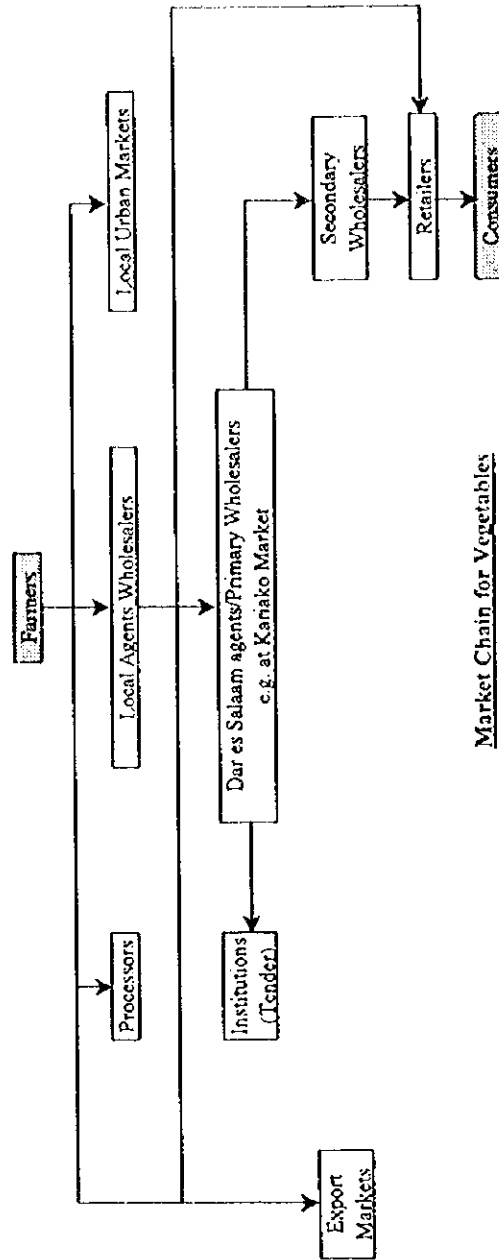
Market Chain for Rice, Maize and Vegetables



Market Chain for Maize



Market Chain for Rice



Market Chain for Vegetables

Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

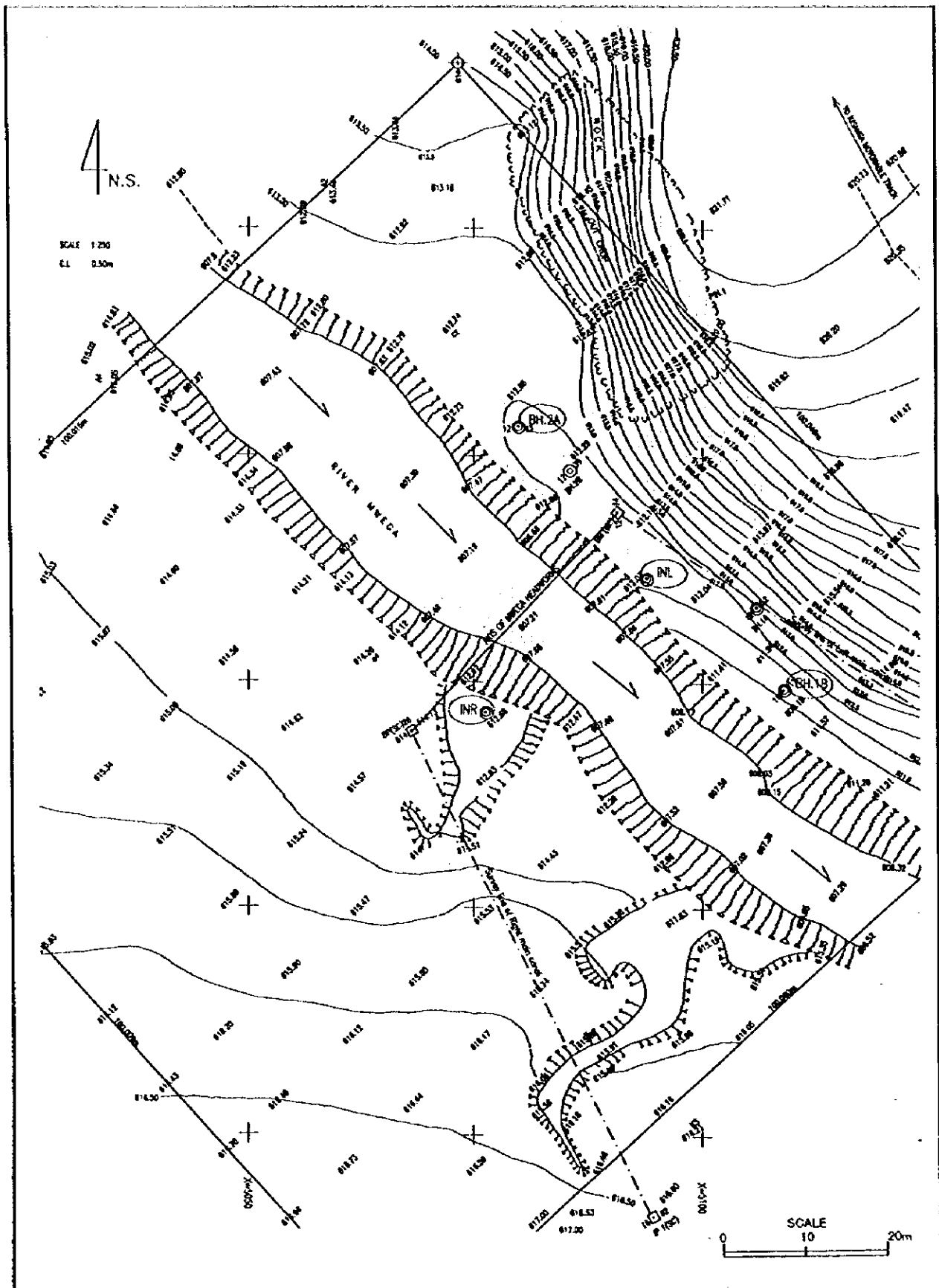
Figure-2.2.2

Market Chain for Rice, Maize and Vegetables









Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

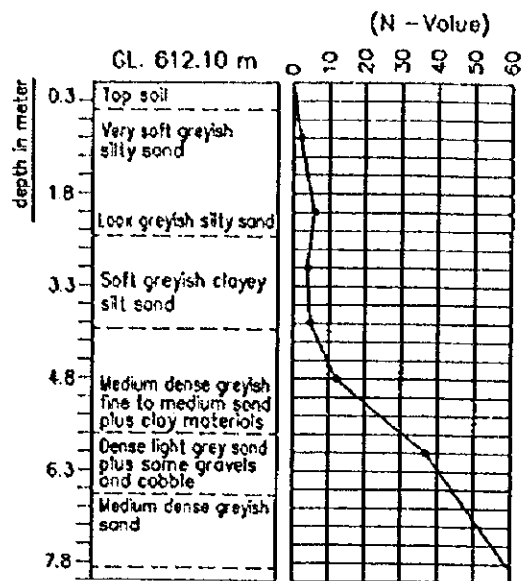
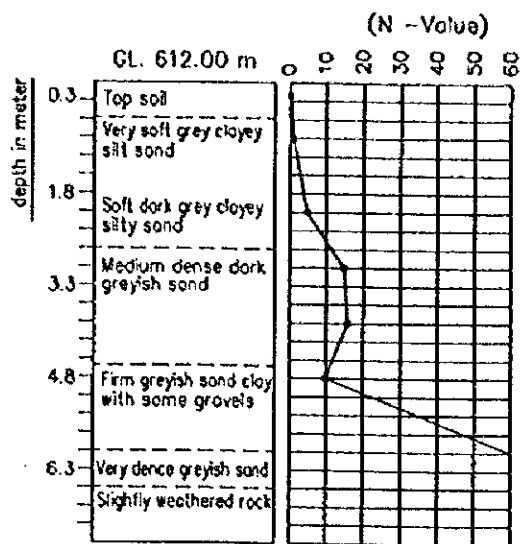
Japan International Cooperation Agency

Figure-2.3.1

Geological Investigation Results of Mwega  
Headworks Site (1/2)

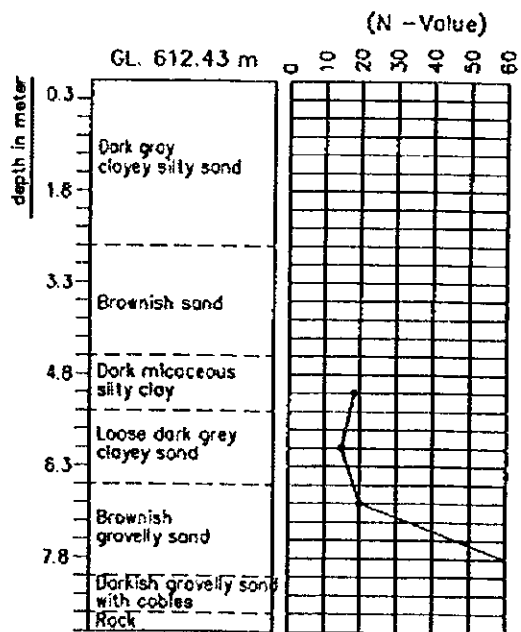
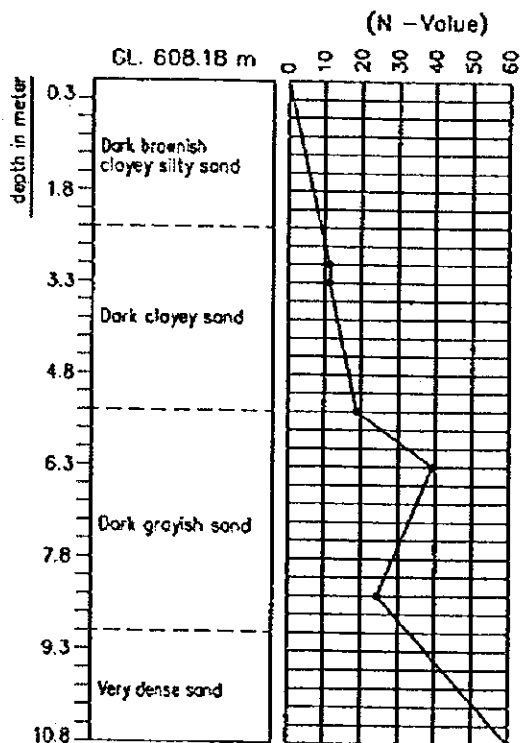
INL

INR



BH1B

BH2A



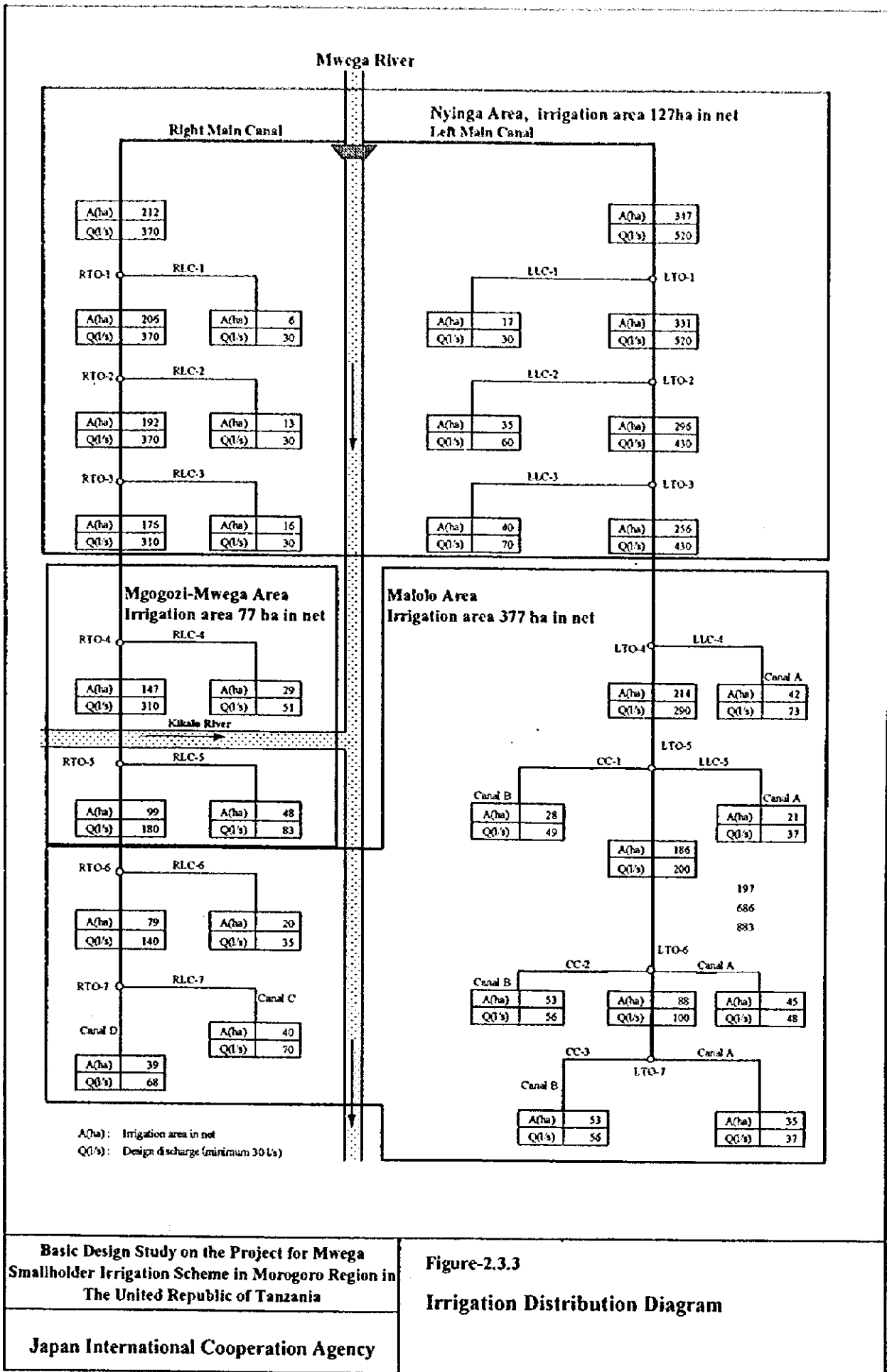
Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

Figure-2.3.1

Geological Investigation Results of Mwega  
Headworks Site(2/2)

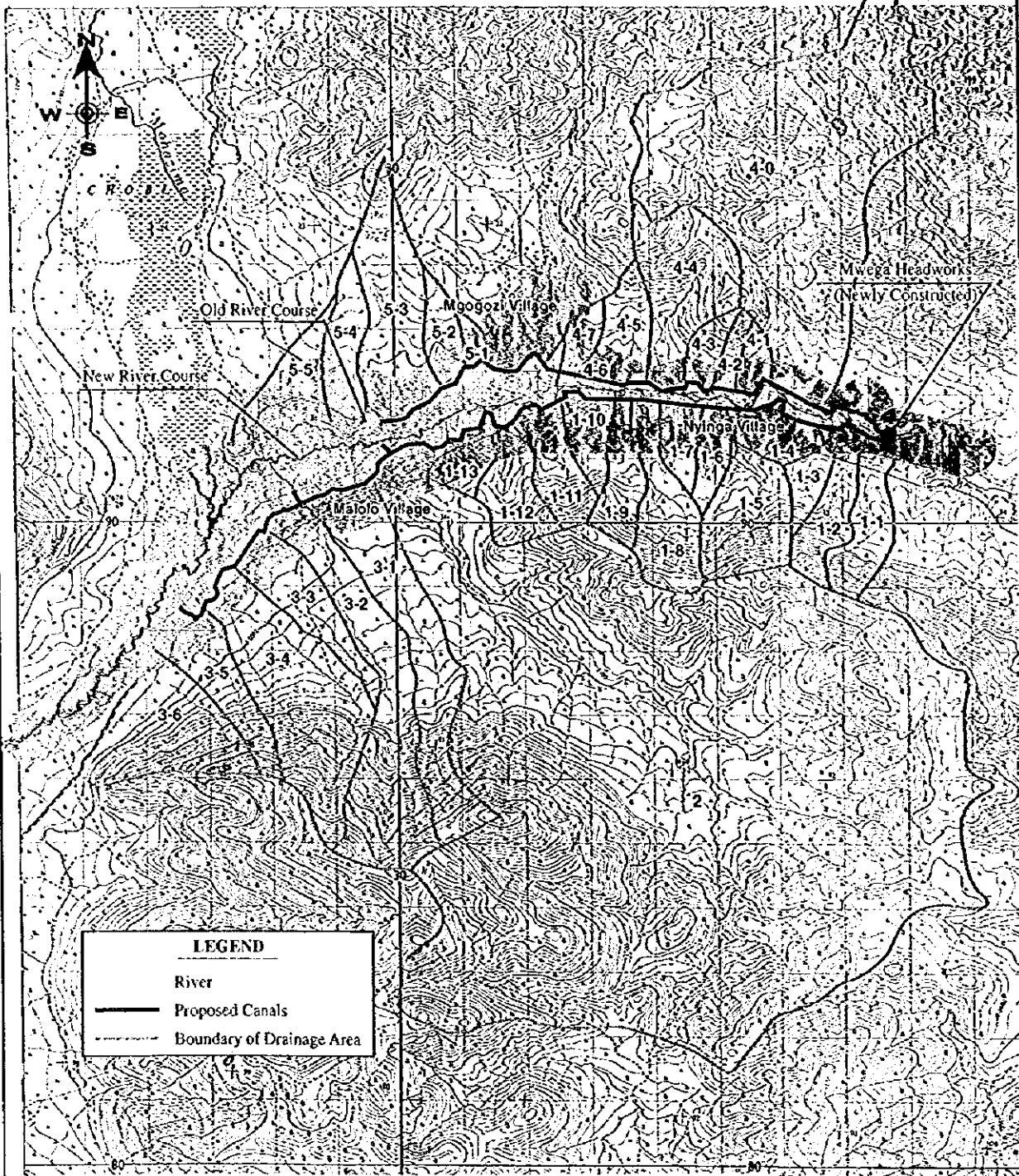




Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

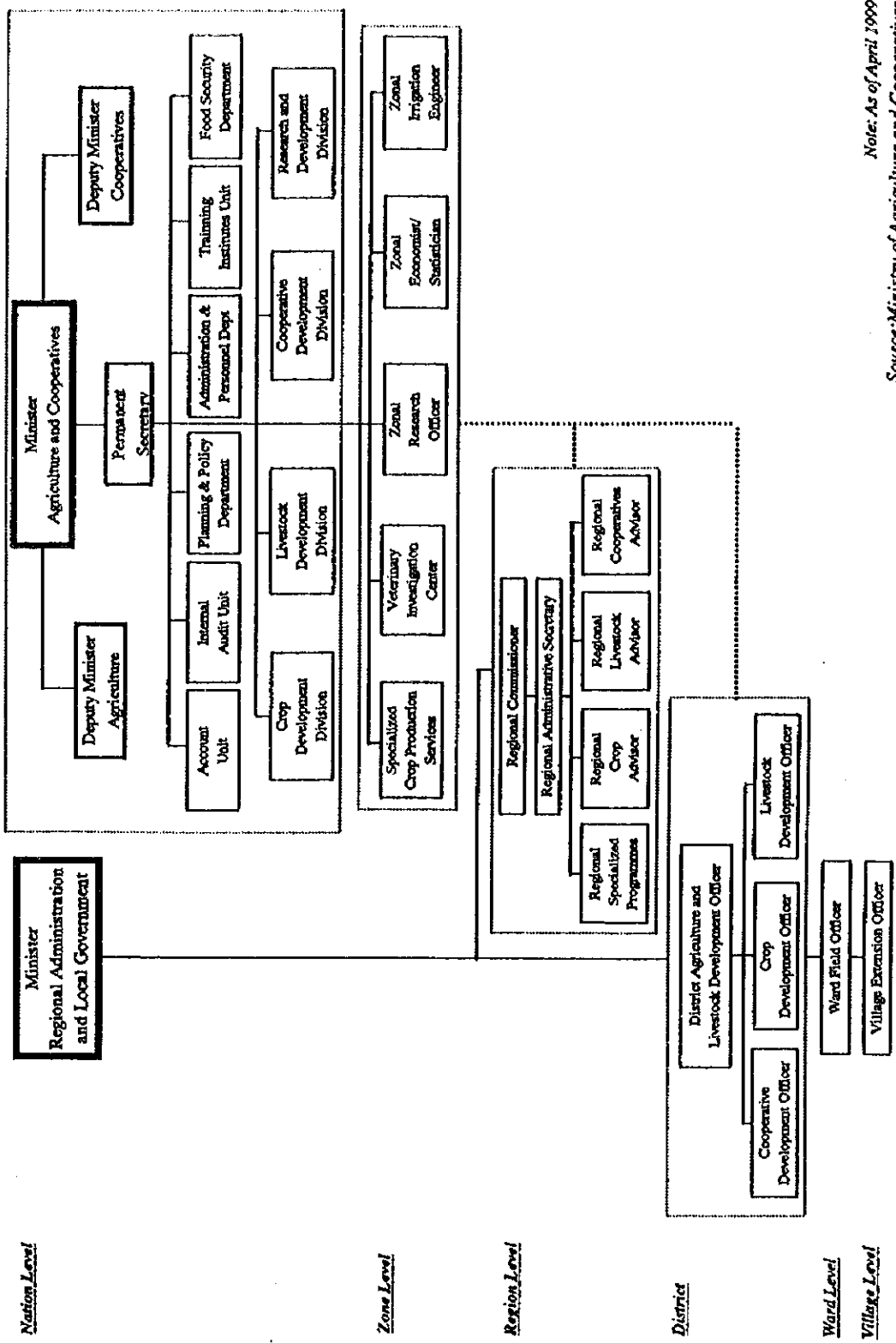
Figure-2.3.3  
Irrigation Distribution Diagram



Basic Design Study on the Project for Mwega  
 Smallholder Irrigation Scheme in Morogoro Region in  
 The United Republic of Tanzania

**Figure-2.3.4**  
**Drainage Area of Small Streams in Mwega Area**

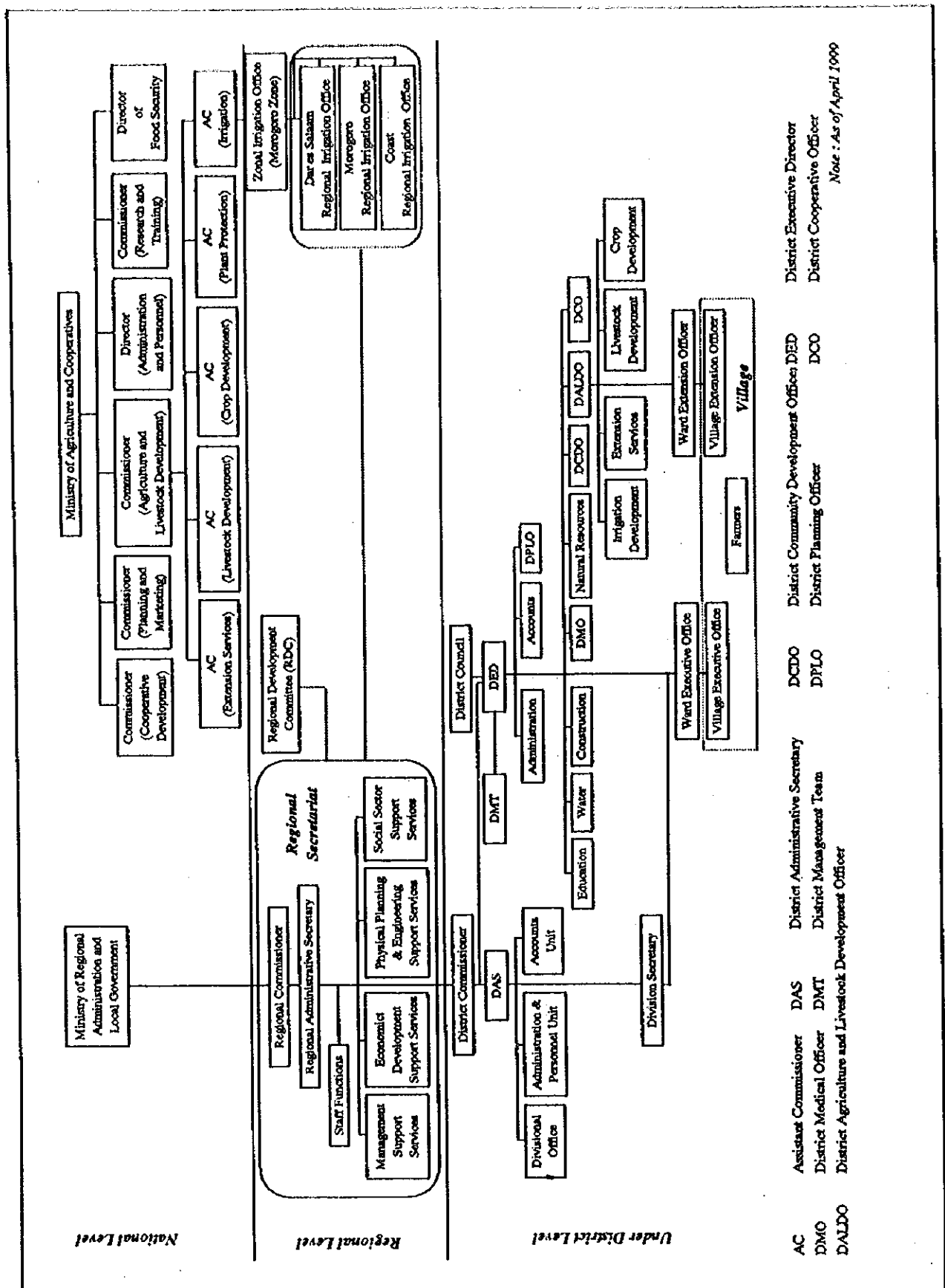
Japan International Cooperation Agency



Note: As of April 1999  
Source: Ministry of Agriculture and Cooperatives

Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania  
Japan International Cooperation Agency

Figure-2.4.1  
Relation of Ministry of Agriculture and Livestock and Other Government Agencies (Re-structuring Plan)

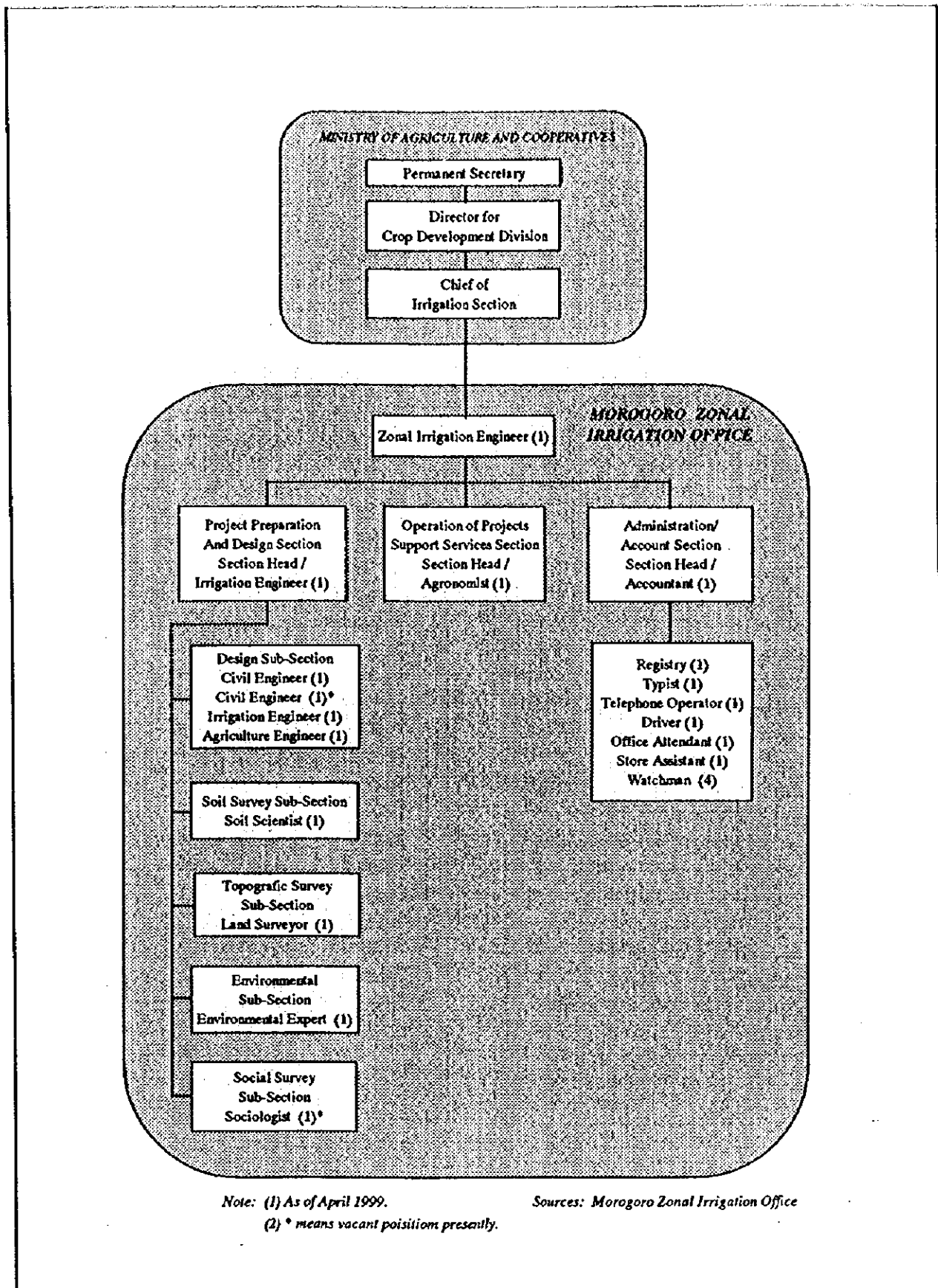


Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania

Japan International Cooperation Agency

Figure-2.4.2  
Old Organization Structures of Ministry of Agriculture and Livestock and Kilosa District Office



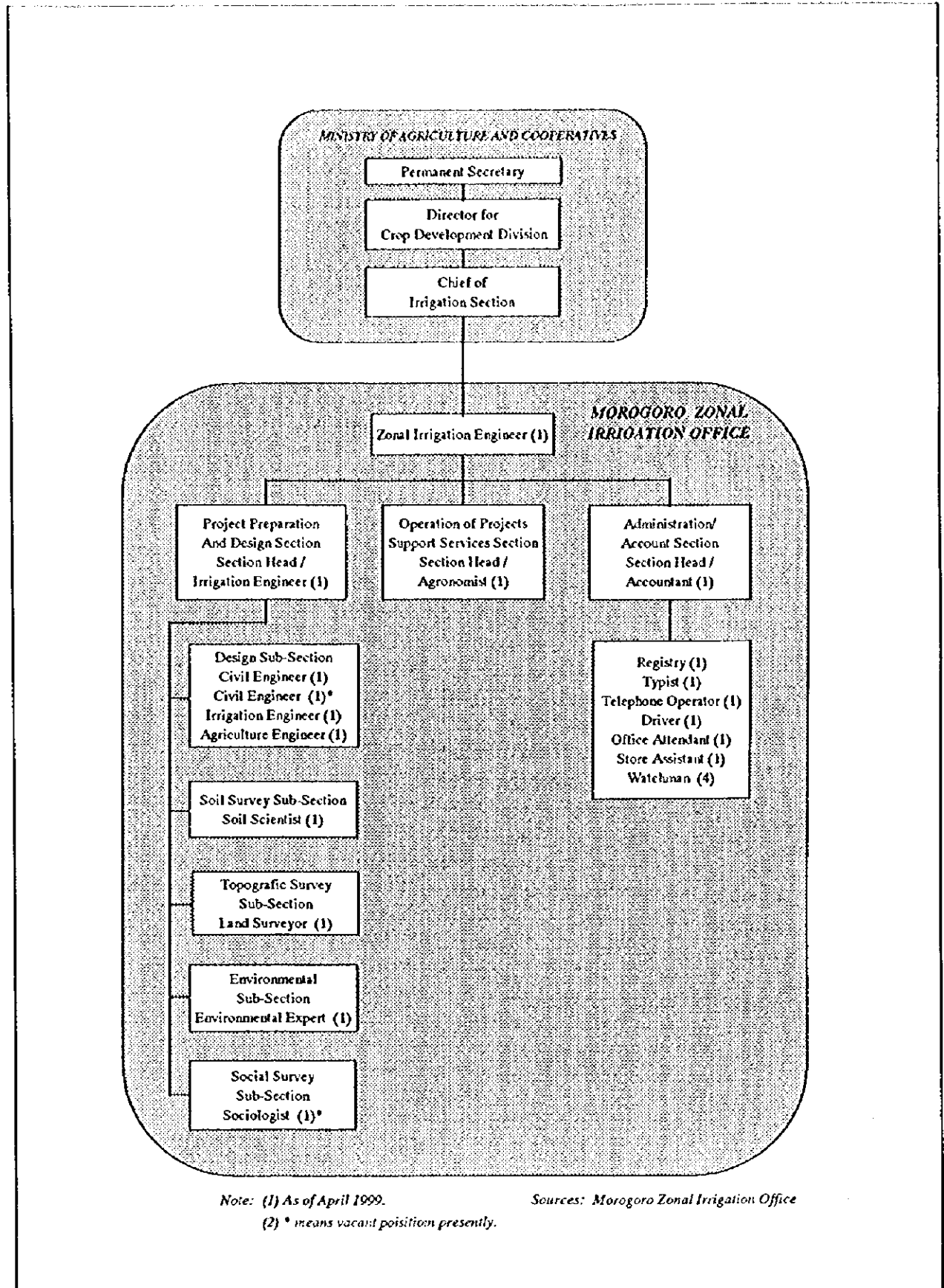


Basic Design Study on the Project for Mweza  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Figure-2.4.3

Organization of Zonal Irrigation Office in  
Morogoro Region

Japan International Cooperation Agency



Note: (1) As of April 1999.

Sources: Morogoro Zonal Irrigation Office

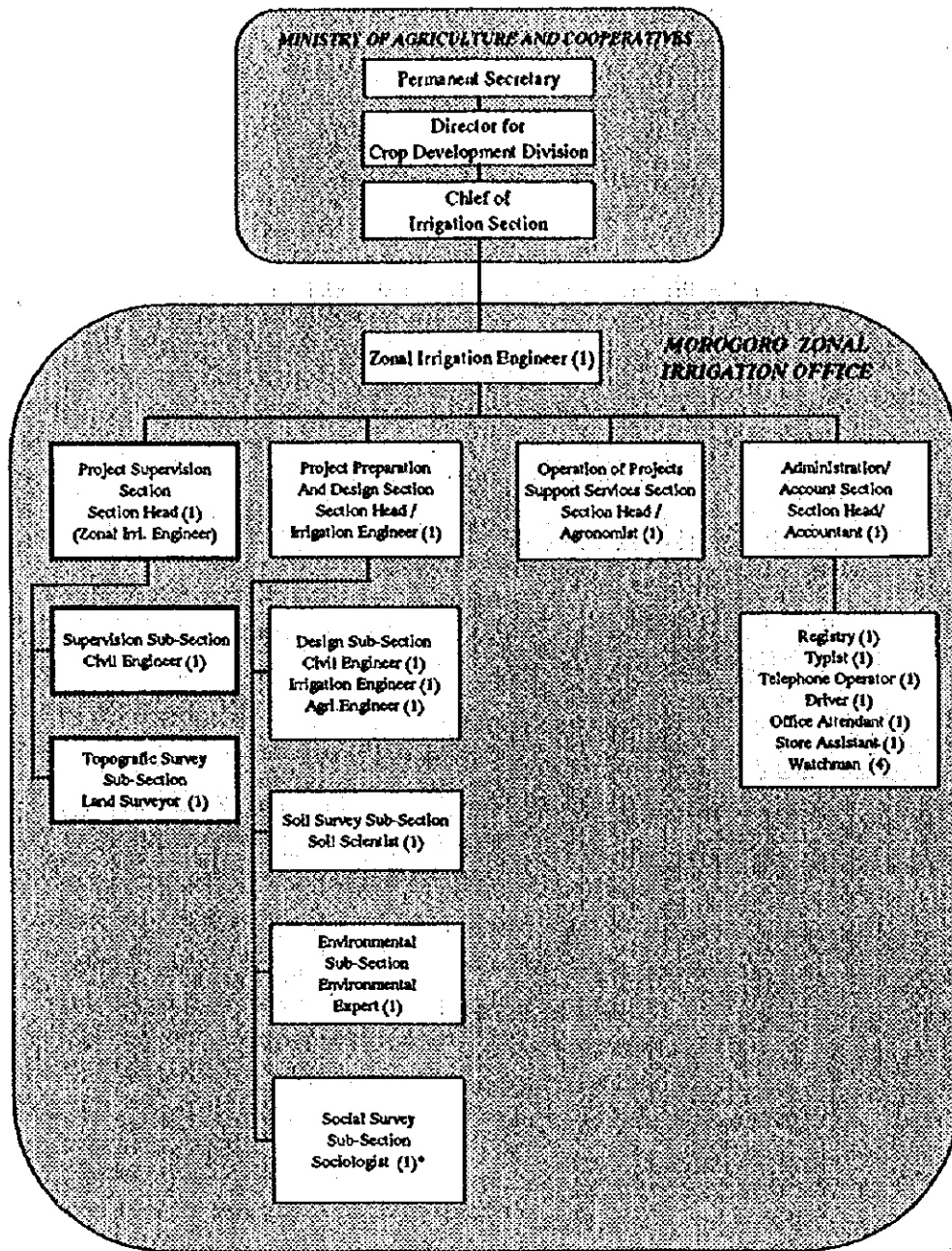
(2) \* means vacant position presently.

Basic Design Study on the Project for Mweza  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Figure-2.4.3

Organization of Zonal Irrigation Office in  
Morogoro Region

Japan International Cooperation Agency



Note: (1) As of April 1999.

(2) \* means vacant position presently.

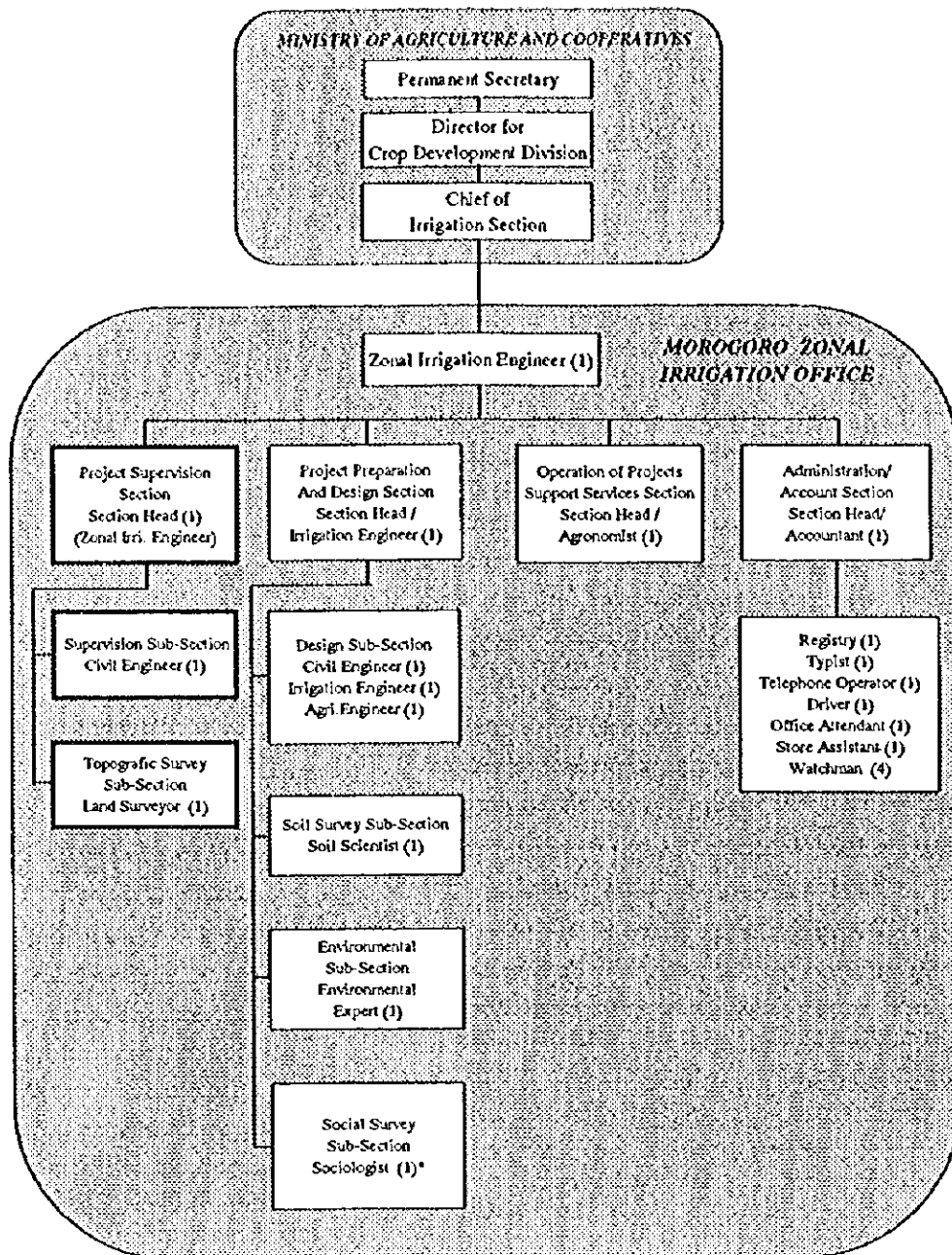
(3)  means the proposed section for implementation of the Project. The Zonal Irrigation Engineer is proposed to serve as a Section Head and other required staff shall be shifted from the Project Preparation and Design Sections.

Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

Figure-2.4.4

Proposed Organization of Zonal Irrigation Office  
in Morogoro Region (Implementation Time)



Note: (1) As of April 1999.

(2) \* means vacant position presently.

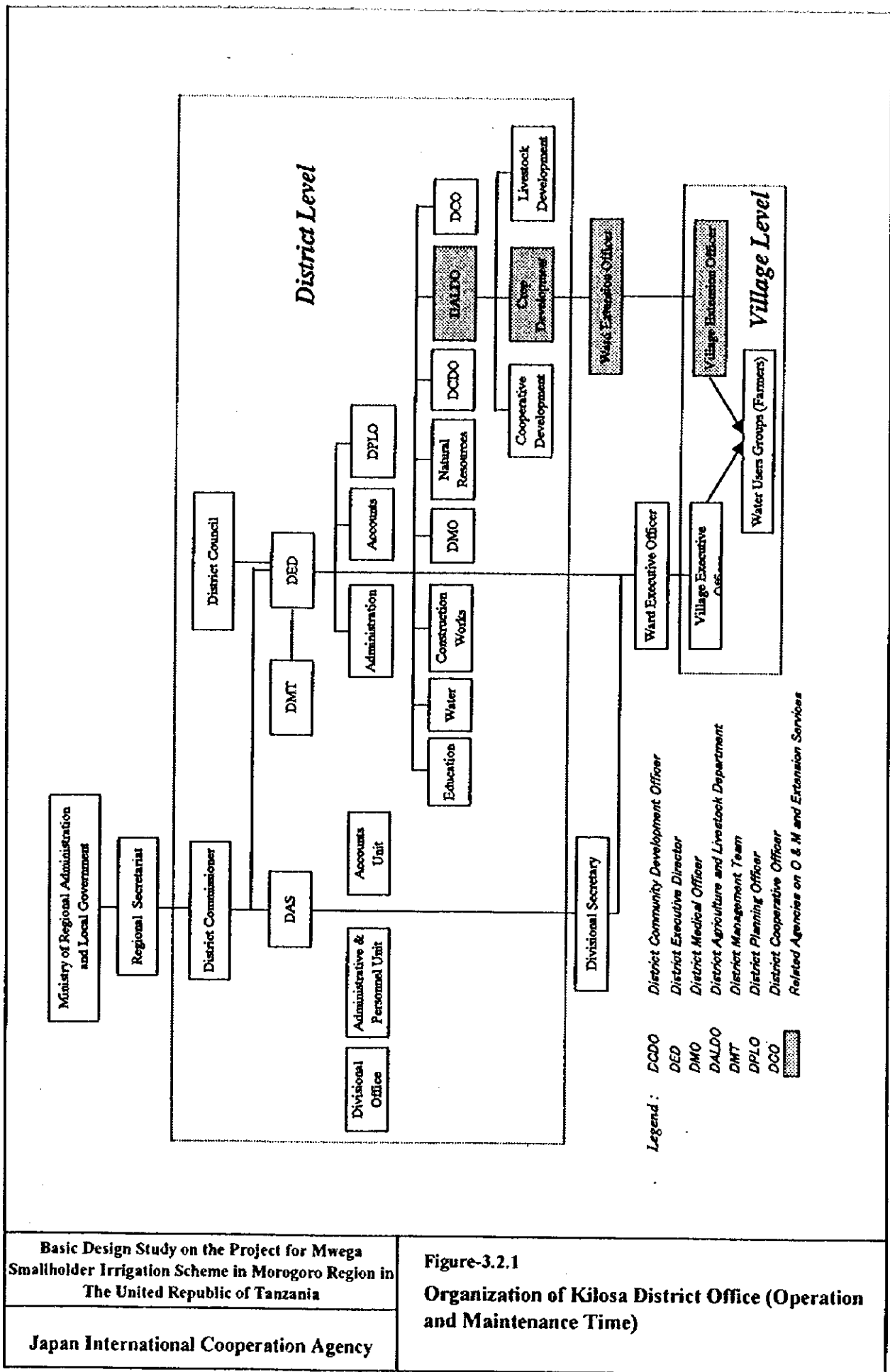
(3)  means the proposed section for implementation of the Project. The Zonal Irrigation Engineer is proposed to serve as a Section Head and other required staff shall be shifted from the Project Preparation and Design Sections.

Basic Design Study on the Project for Mweza  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

Figure-2.4.4

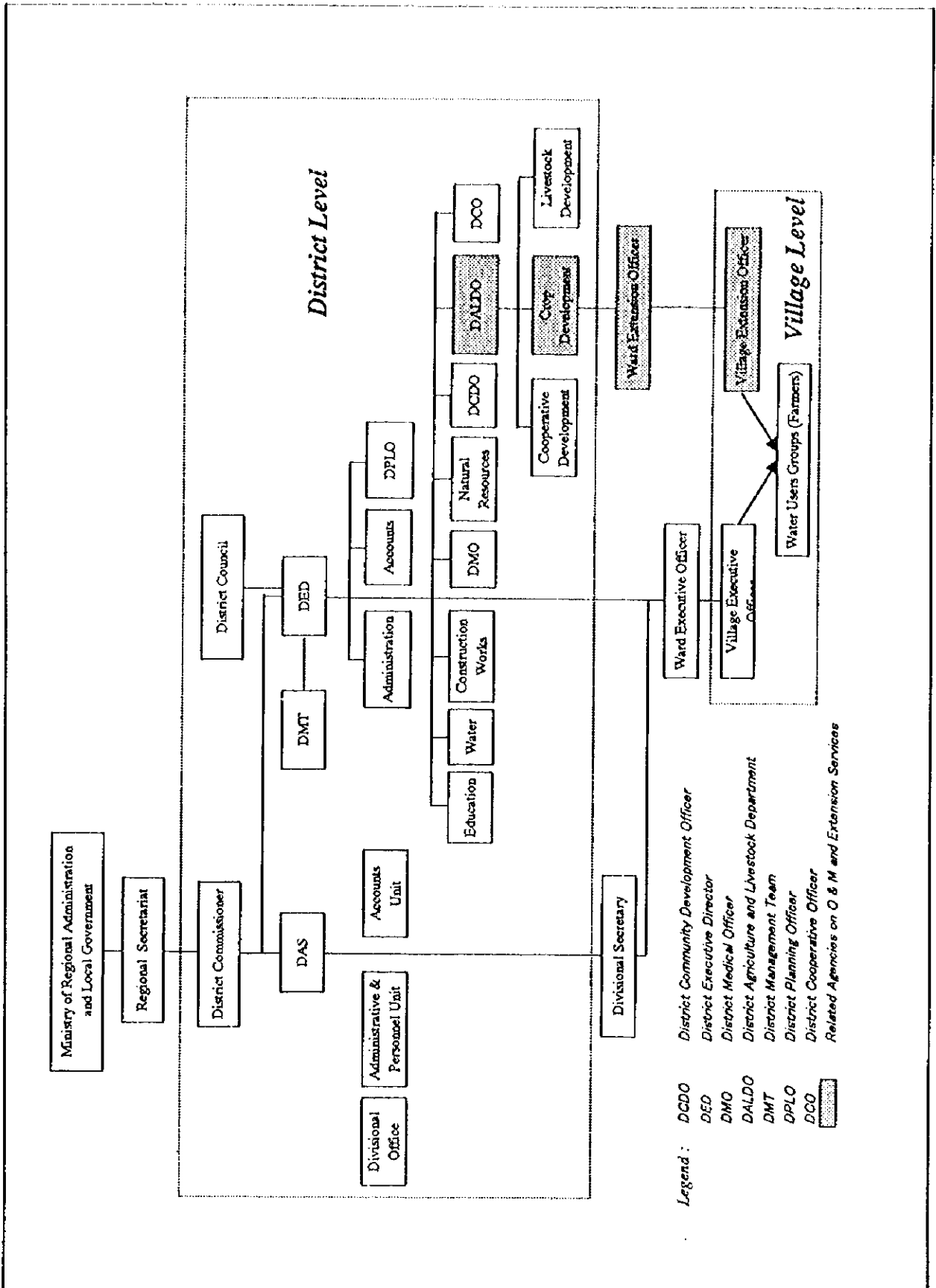
Proposed Organization of Zonal Irrigation Office  
in Morogoro Region (Implementation Time)



Basic Design Study on the Project for Mwea Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania

Japan International Cooperation Agency

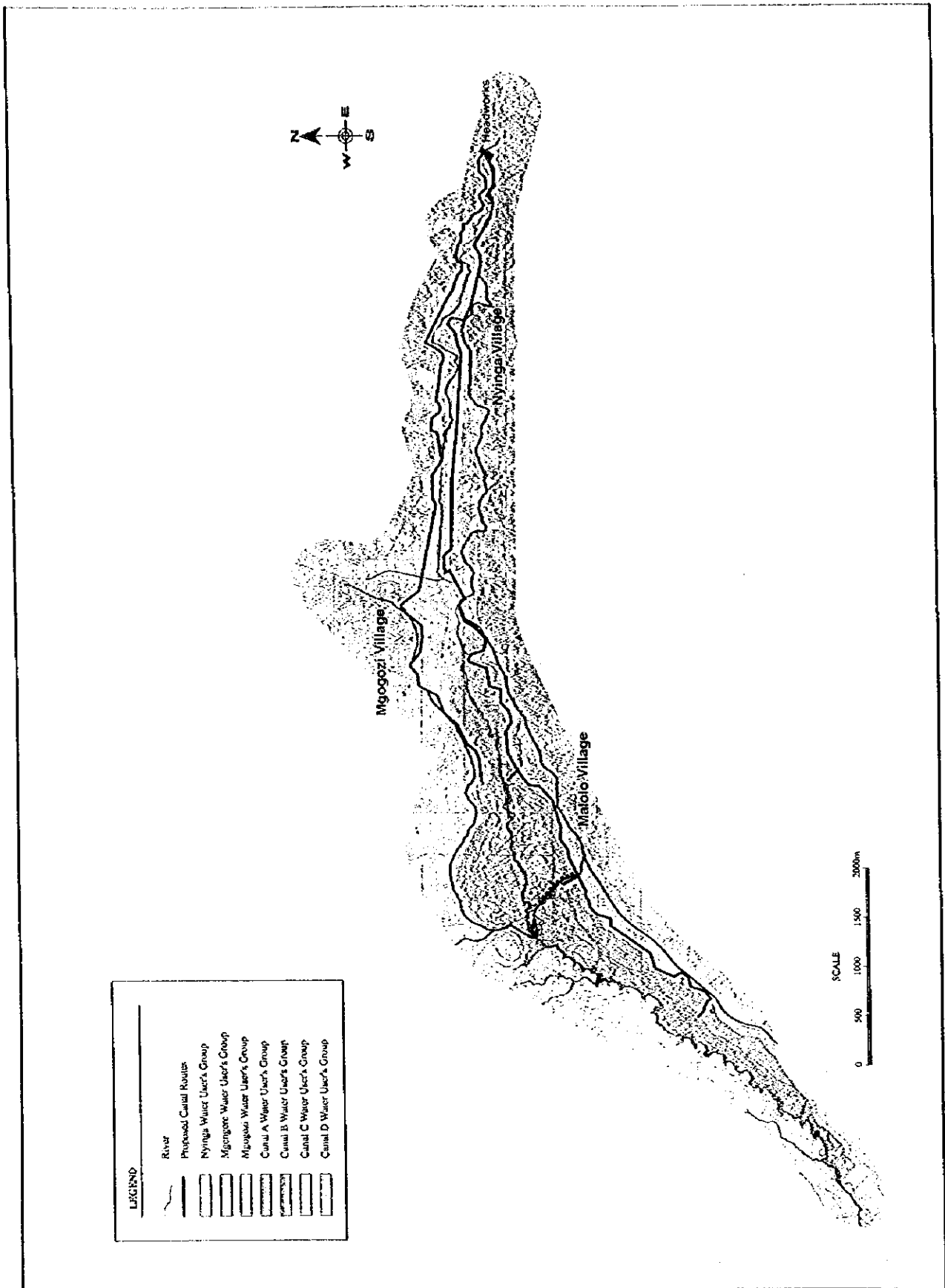
Figure-3.2.1 Organization of Kilosa District Office (Operation and Maintenance Time)



Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania

Japan International Cooperation Agency

Figure-3.2.1  
 Organization of Kilosa District Office (Operation and Maintenance Time)

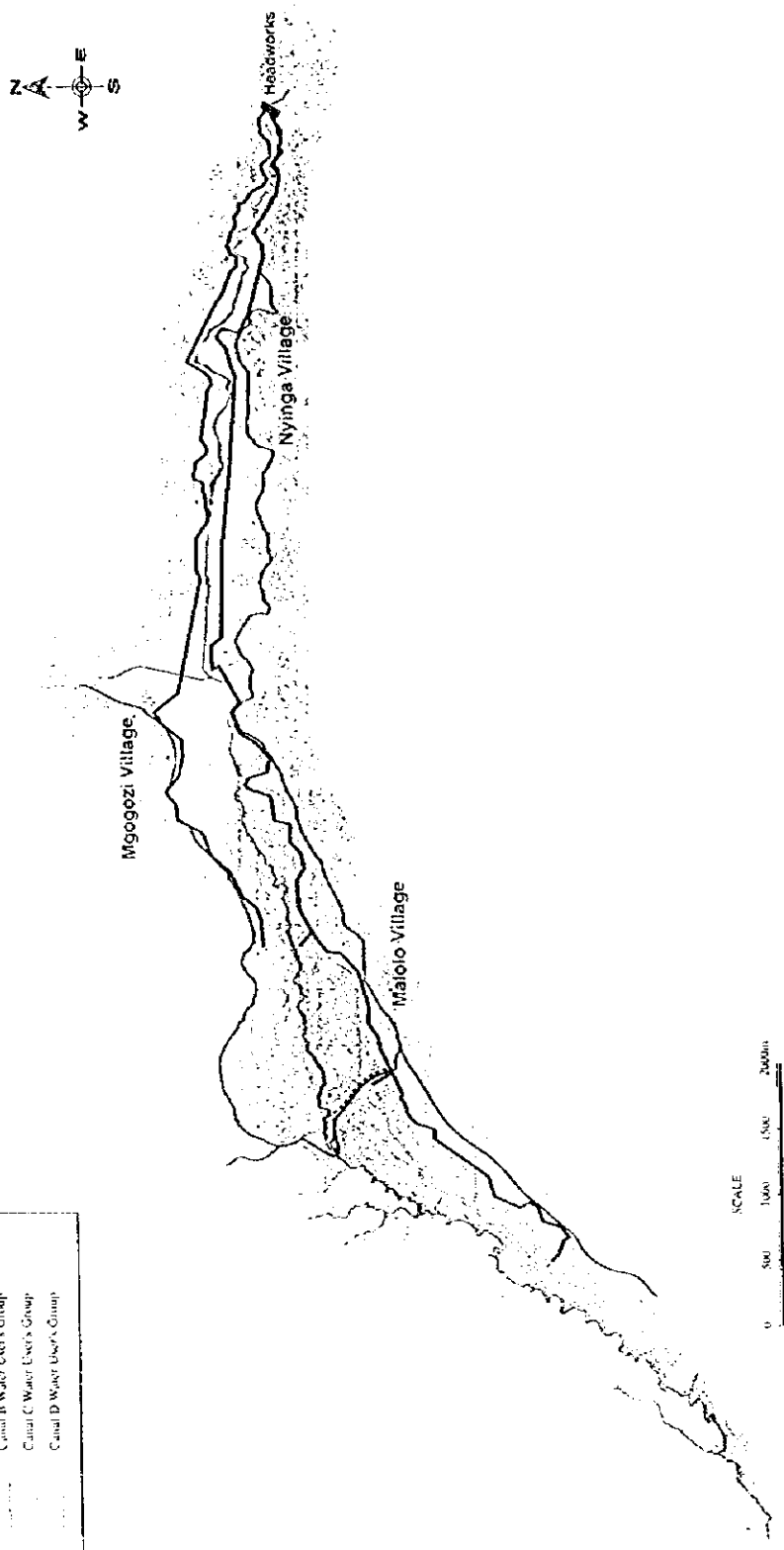
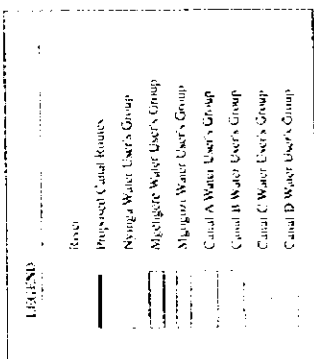


Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Figure-3.2.2

Boundary of Existing Water Users' Sub-Group

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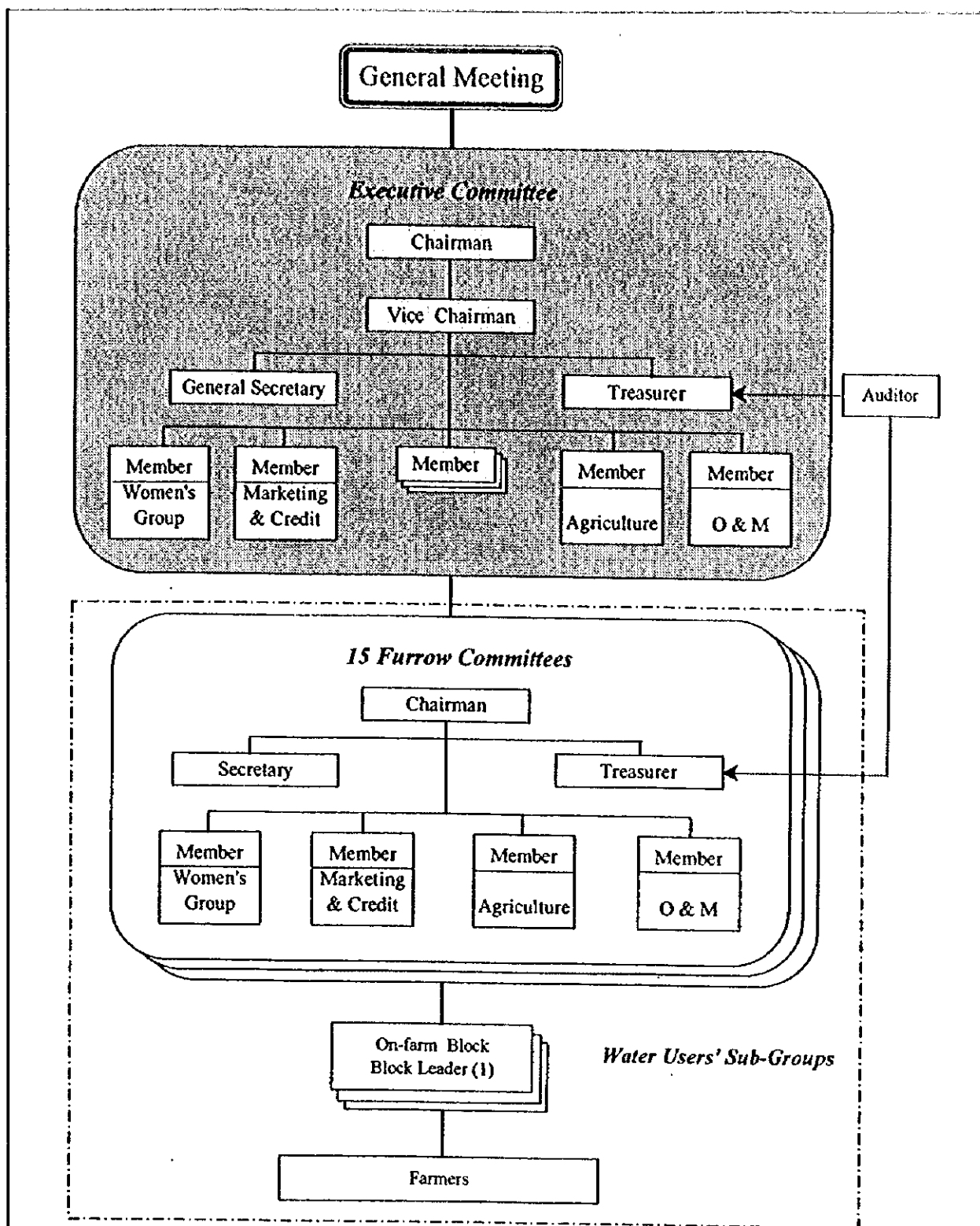


Basic Design Study on the Project for Mwega  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Figure-3.2.2  
Boundary of Existing Water Users' Sub-Group

Japan International Cooperation Agency





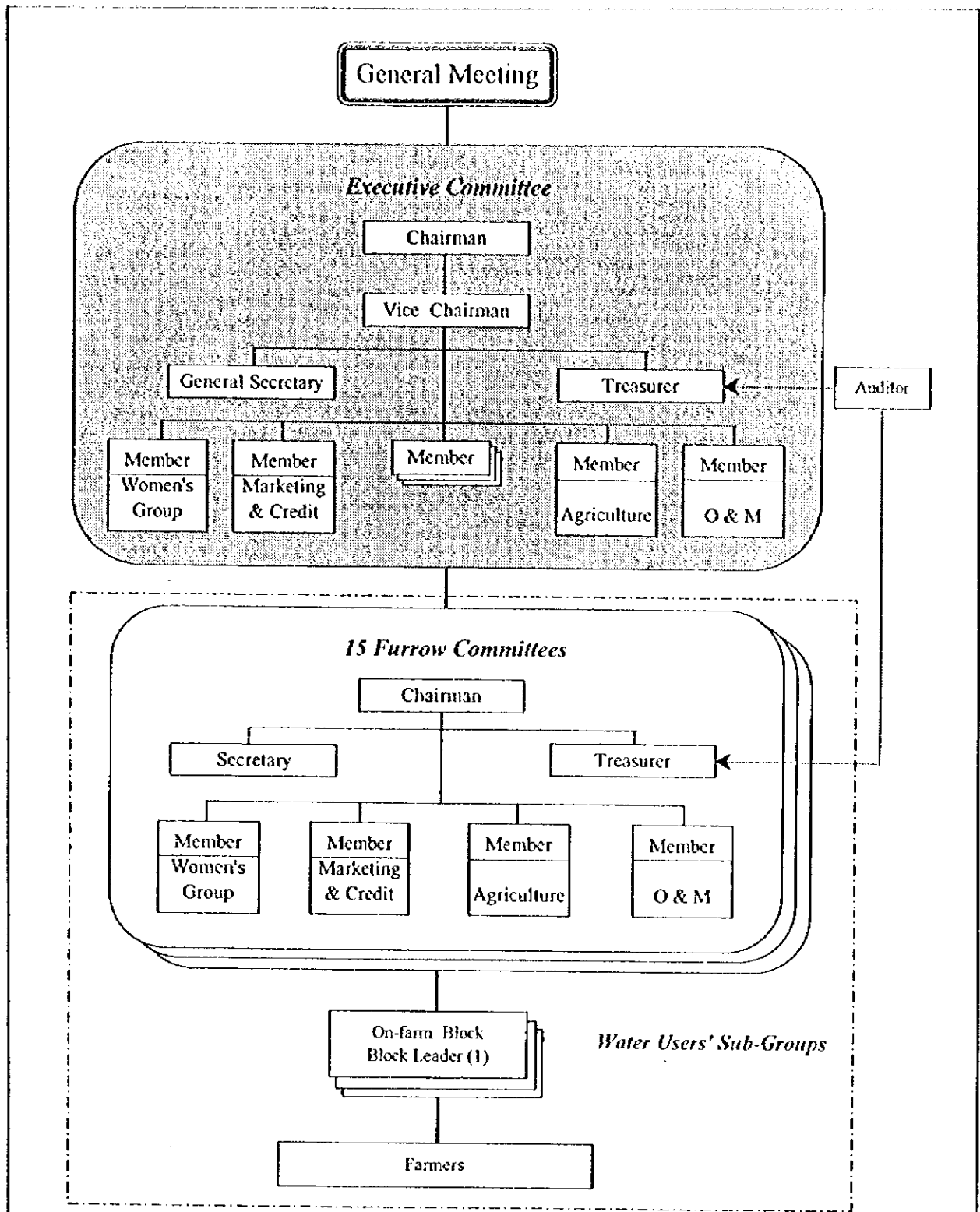
- Note: (1) Members of Executive and Furrow Committees shall be selected at the General Meeting.  
 (2) Furrow Committees will be mostly formulated following the existing water users groups.  
 (3) Water Users' Group will consist of 15 Water Users' Sub-Groups..  
 (4) Water charges shall be collected by respective members of Furrow Committees.*

Basic Design Study on the Project for Mwega Smallholder Irrigation Scheme in Morogoro Region in The United Republic of Tanzania

Figure-3.2.3

Proposed Organization of Mwega Water Users' Group

Japan International Cooperation Agency



- Note: (1) Members of Executive and Furrow Committees shall be selected at the General Meeting.  
 (2) Furrow Committees will be mostly formulated following the existing water users groups.  
 (3) Water Users' Group will consist of 15 Water Users' Sub-Groups.  
 (4) Water charges shall be collected by respective members of Furrow Committees.

Basic Design Study on the Project for Mwega  
 Smallholder Irrigation Scheme in Morogoro Region in  
 The United Republic of Tanzania

Figure-3.2.3

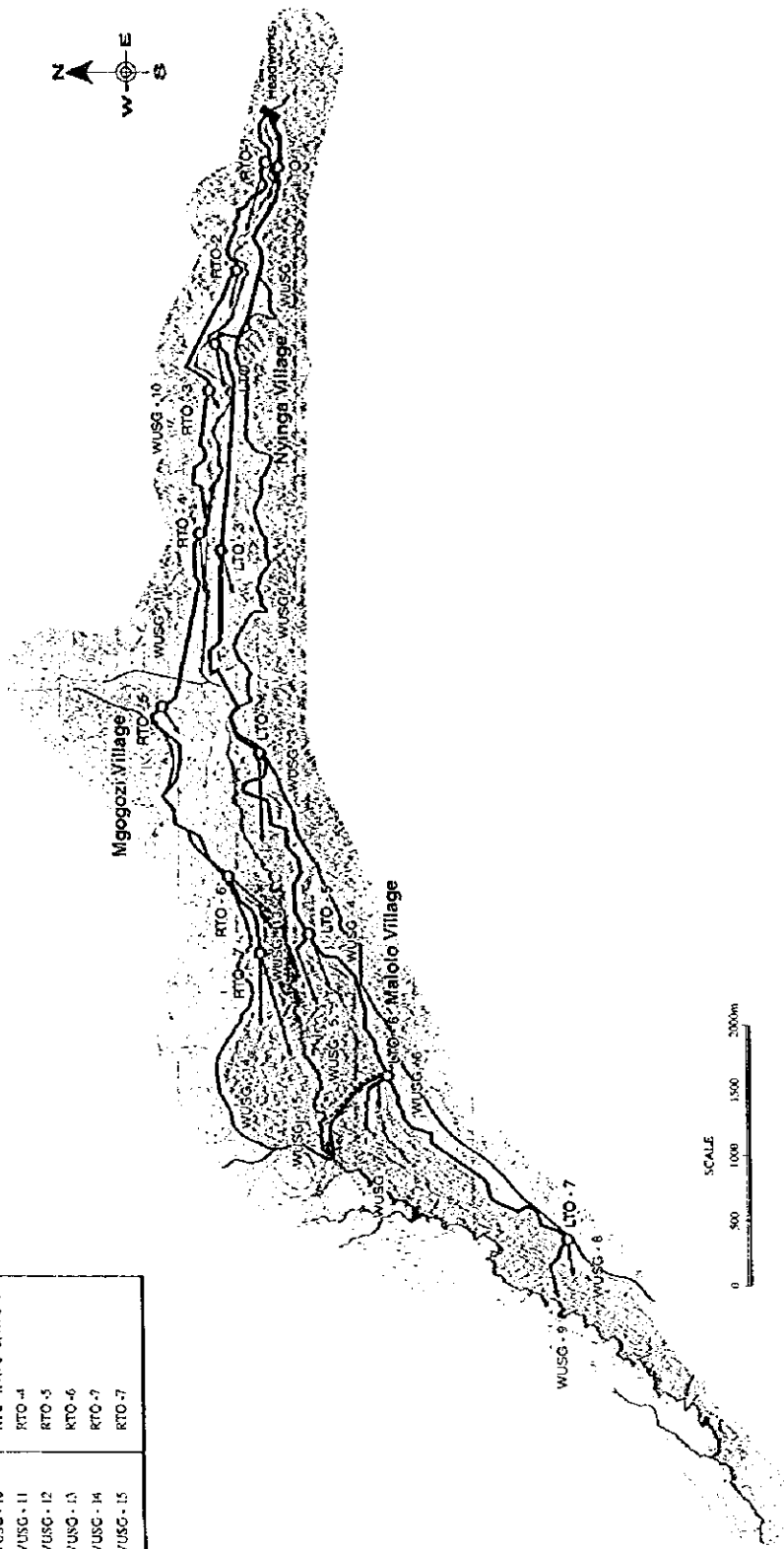
Proposed Organization of Mwega Water Users'  
 Group

Japan International Cooperation Agency

**LEGEND**

	River
	Proposed Canal
	Turnout

Water User's Sub-Group (WUSG's)	Relevant Turnout (s)
WUSG - 1	LTO - 1, LTO - 2
WUSG - 2	LTO - 3
WUSG - 3	LTO - 4
WUSG - 4	LTO - 5
WUSG - 5	LTO - 5
WUSG - 6	LTO - 6
WUSG - 7	LTO - 6
WUSG - 8	LTO - 7
WUSG - 9	LTO - 7
WUSG - 10	RTO - 1, RTO - 2, RTO - 3
WUSG - 11	RTO - 4
WUSG - 12	RTO - 5
WUSG - 13	RTO - 6
WUSG - 14	RTO - 7
WUSG - 15	RTO - 7



Basic Design Study on the Project for Mweza  
Smallholder Irrigation Scheme in Morogoro Region in  
The United Republic of Tanzania

Japan International Cooperation Agency

Figure-3.2.4

Proposed Water Users' Sub-Group

## ***ATTACHMENT-1***

**Minutes of Discussions on the Basic Design Study  
on the Project for Smallholder Irrigation Development Project  
in the Central Wami River Basin in the United Republic of Tanzania**



MINUTES OF DISCUSSIONS  
ON  
THE BASIC DESIGN STUDY  
ON  
THE PROJECT FOR SMALLHOLDER IRRIGATION DEVELOPMENT PROJECT  
IN  
THE CENTRAL WAMI RIVER BASIN  
IN  
THE UNITED REPUBLIC OF TANZANIA

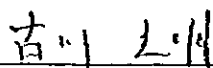
In response to a request from the Government of the United Republic of Tanzania, the Government of Japan decided to conduct a Basic Design Study on the Project for Smallholder Irrigation Development Project in the Central Wami River Basin (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Tanzania the Basic Design Study Team (hereinafter referred to as "the Team") which is headed by Mr. Mitsuaki Furukawa, Deputy Resident Representative, Tanzania Office, JICA, and is scheduled to stay in the country from March 16 to March 25, 1999.

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

In the course of the discussions 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.

Dar es Salaam, March 24, 1999



Mr. Mitsuaki Furukawa  
Leader  
Basic Design Study Team  
Japan International Cooperation Agency (JICA)



Mr. Peter Bombo Barie  
Permanent Secretary  
Ministry of Agriculture and Cooperatives (MAC)

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to increase the agricultural productivity of smallholder farmers in the rural areas, by means of construction and improvement of the existing traditional irrigation systems and access road facilities at the Mwega area in the Kilosa district of Morogoro region.

### 2. Project Site

The Project site, Mwega, where is 220 km from Morogoro town, as shown in ANNEX-1, is located in Morogoro region.

### 3. Responsible and Executing agency

The Ministry of Agriculture and Cooperatives (MAC) through the Agricultural and Livestock Development Division, the Department of Irrigation, shall be responsible for the administration and supervision of the Project.

Morogoro Zonal Irrigation Office shall be responsible for the implementation and technical supervision of the Project. The Kilosa district shall be responsible for the supervision and extension services for the proper operation and maintenance (O&M) by farmers' organization.

The organization chart of MAC is shown in ANNEX-2.

### 4. Items Requested by the Government of Tanzania

After discussions with the Team, the following items were finally requested by the Government of Tanzania (GOT).

#### (1) Construction of Irrigation Facilities

- |   |           |
|---|-----------|
| (a) Construction of headworks and headrace canal                | : 1 unit  |
| (b) Construction of main canal and its related structures       | : 13.4 km |
| (c) Construction of secondary canals and its related structures | : 6.2 km  |
| (d) Construction of connecting canals                           | : 0.8 km  |

(2) Construction of Drainage Facilities : 0.7 km

(3) River Improvement Works of the Mwega River : 1.9 km

#### (4) Access Road Improvement Works

- |                         |          |
|-------------------------|----------|
| (a) Malolo - Chabi road | : 1.1 km |
| (b) Related structures  | : 5 nos. |

However, the final components of the Grant Aid will be decided after further studies.

## 5. Japan's Grant Aid Scheme

(1) The GOT has understood the Japan's Grant Aid Scheme explained by the Team, as described in ANNEX-3.

(2) The GOT will take the necessary measures, as described in ANNEX-4 for smooth implementation of the Project, on condition that the Grant Aid by the Government of Japan is extended to the Project.

## 6. Schedule of the Study

(1) The consultants will proceed to further studies in Tanzania until May 2, 1999.

(2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in July, 1999.

(3) In case that the contents of the report is accepted in principle by the GOT, JICA will complete the final report and send it to the GOT by the end of November, 1999.

## 7. Other Relevant Issues

(1) The Team stressed to the GOT that it was crucially important to strengthen the present Water Users Groups (WUGs) to undertake the integrated operation and maintenance of the project facilities and proper water management including the collection of O&M fee. The GOT understood this proposition mentioned by the Team and confirmed to establish an appropriate farmers' organization such as Water Users Co-operative Society (WUCS). Furthermore, the Team requested the GOT that the district should provide financial support for O&M and future training for beneficiary farmers.

(2) Both sides confirmed that the GOT should provide technical backstopping through the Zonal Irrigation Office and ensure the necessary budget and staffing for this Project.

(3) Both sides confirmed that sustainable development in the Project area should depend on the will and skills of beneficiary farmers in Mwega area. Both sides, therefore, understood that the farmers' skills shall be improved through provision of proper technical support from the GOT.

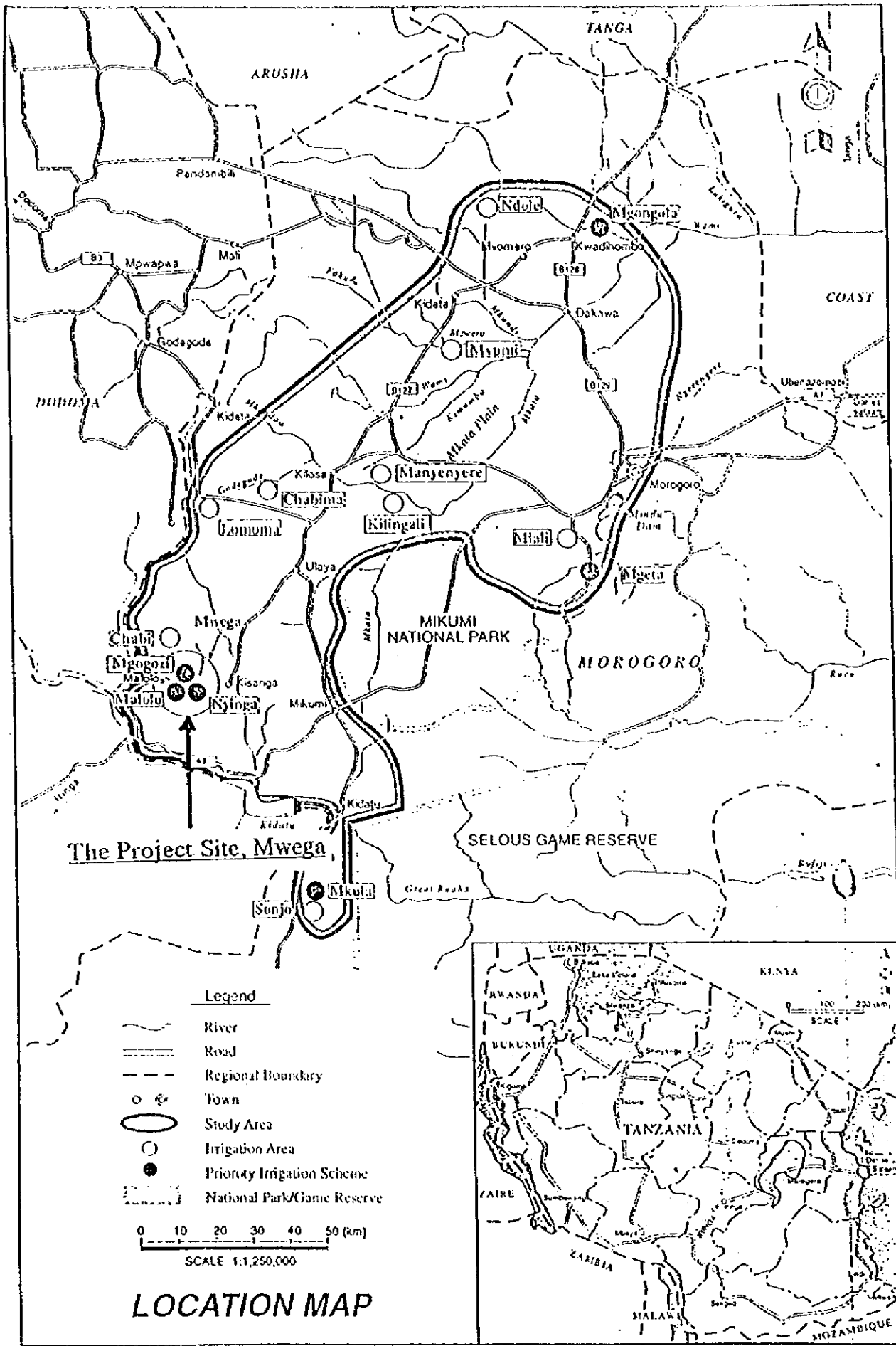
(4) The Japanese side understood that it was difficult for beneficiary farmers to execute compaction work for the tertiary canal by themselves. Both sides, therefore, confirmed that while compaction work for the tertiary canal would be done by the Japanese side, excavation work for the tertiary canal by the farmers themselves under technical supervision by the Zone. Sod-facing work and small drain construction would be also done by the farmers in order to maximize the farmers' participation in this Project.

(5) The Team confirmed that the beneficiary farmers have already obtained the water right of 300 liters/sec. for the canal -A in 1998. Both sides, therefore, confirmed that the GOT would take an initiative for the farmers in obtaining the water right of the required intake discharge estimated through the Basic Design Study, prior to the commencement of the construction work.

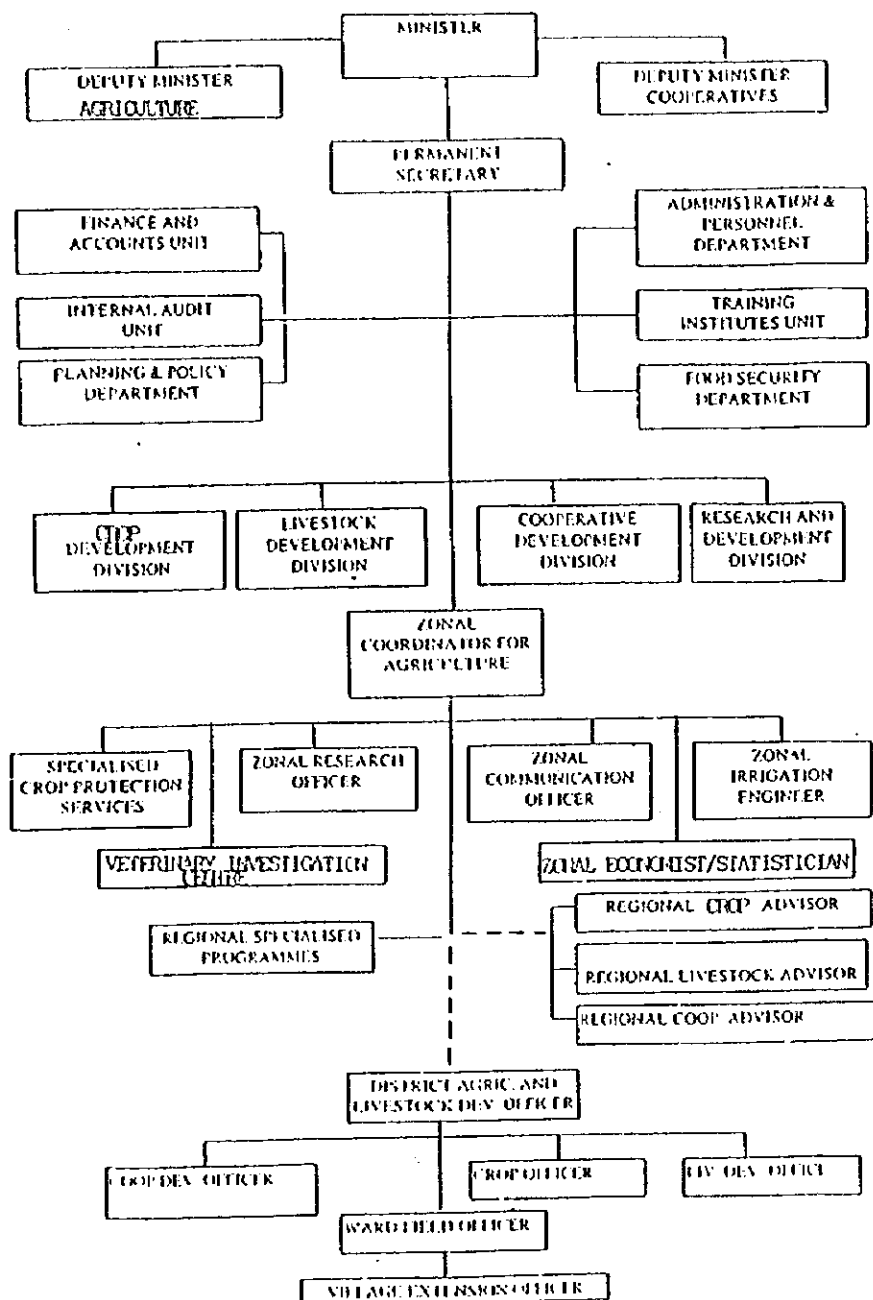
(6) The GOT confirmed that it shall take appropriate measures to secure the safety of the Team during the field study period.







MINISTRY OF AGRICULTURE AND COOPERATIVES HEADQUARTERS AND ZONES



*MB*

*(Signature)*

## Japan's Grant Aid Scheme

### 1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

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

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

### 2. Basic Design Study

#### 1) Contents of the Study

The aim of the Basic Design Study (hereafter referred to as "the Study"), conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study are as follows:

- a) Confirmation of the background, objectives, and benefits of the requested Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project
- e) Estimation of the costs of the Project

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid Project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations in the recipient country through the Minutes of Discussions.

## 2) Selection of Consultants

For the smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firms(s) based on proposals submitted by interested firms. The firm(s) selected carry (ies) out the Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consulting firm(s) used for the Study which is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

## 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 the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under the principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

### 2) Exchange of Notes (E/N)

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

3) "The period of the Grant Aid" means the one fiscal year in which the Cabinet approves the Project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed. However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

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

However the prime contractors, namely, consulting contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

### 5) Necessity of "Verification"

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

### 6) Undertakings required of the Government of recipient country

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

- a) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- b) To provide facilities of the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- c) To secure buildings prior to the procurement in case the installation of the 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 the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the expenses other than those covered 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 Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should 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 the Government of the recipient country or its designated authority under the Verified Contracts.
- 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.



### Necessary measures to be taken by the Government of Tanzania

The following necessary measures should be taken by the Government of the United Republic of Tanzania on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To provide data and information necessary for the Project;
2. To secure the land necessary for the execution of the Project, such as the Right of Way, Right of bridge, land for temporary offices, working areas, storage yards and others;
3. To clear the sites prior to the commencement of the construction;
4. To make passable all roads and bridges leading to the Project sites before the commencement of inland transportation of materials and equipment;
5. To bear commissions to the Japanese foreign exchange bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commissions;
6. To ensure prompt unloading and customs clearance at ports of disembarkation in the Government of the United Republic of Tanzania and prompt internal transportation therein of the materials and equipment for the Project purchases under the Grant Aid;
7. To exempt Japanese juridical and physical nationals engaged in the Project 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;
8. To accord Japanese nationals whose services may be required in connection with the supply of the products and 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;
9. To provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary;
10. To maintain and use properly and effectively the facilities constructed and equipment provided under the Project;
11. To coordinate and solve any issues related to the project which may be raised from third parties or inhabitants in the Project area during implementation of the Project;
12. To bear all the expenses, other than those covered by Japan's Grant Aid, necessary for the execution of the Project; and
13. To secure the safety of Japanese national engaged in the Project and to provide tight security against riot, insurrection, civil commotion, rebelling and usurped power.

## ***ATTACHMENT-2***

**Minutes of Discussions on the Basic Design Study  
on the Project for Smallholder Irrigation Development Project  
in the Central Wami River Basin in the United Republic of Tanzania  
(Explanation on Draft Report)**

MINUTES OF DISCUSSIONS  
ON  
BASIC DESIGN STUDY  
ON  
THE SMALLHOLDER IRRIGATION DEVELOPMENT PROJECT  
IN  
THE CENTRAL WAMI RIVER BASIN  
IN  
THE UNITED REPUBLIC OF TANZANIA  
(EXPLANATION ON DRAFT REPORT)


In March, 1999, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Smallholder Irrigation Development Project in the Central Wami River Basin (hereinafter referred to as "the Project") to The United Republic of Tanzania (hereinafter referred to as "Tanzania"), and through discussions, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the Basic Design Study (hereinafter referred to as "the Draft Report").

In order to explain and to consult Tanzania on the components of the Draft Report, JICA sent to Tanzania the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Yoshiyuki Goya, Deputy Director, International Cooperation Planning Division, Economic Affairs Bureau, Ministry of Agriculture, Forestry & Fisheries, from July 27 to August 3, 1999.

As the result of discussions, both parties confirmed the main items described on the attached sheets.

Dar es Salaam, August 3, 1999

  
\_\_\_\_\_  
Mr. Yoshiyuki Goya  
Leader  
Draft Report Explanation Team  
Japan International Cooperation Agency  
(Japan)

  
\_\_\_\_\_  
Mr. Peter Bombo Barie  
Permanent Secretary  
Ministry of Agriculture and  
Cooperatives (MAC)  
(Tanzania)





## ATTACHMENT

### 1. Components of the Draft Report

The Government of Tanzania (hereinafter referred to as "the GOT") agreed to and accepted in principle the components of the Draft Report explained by the Team.

### 2. Japan's Grant Aid Scheme

The GOT has understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the GOT, as explained by the Team and described in Annex-3 and Annex-4 of the Minutes of Discussion signed by both parties on March 24, 1999.

### 3. Schedule of the Study

The Final Report, the completed form of the Draft Report, will be prepared by JICA based on the confirmed items and sent to the GOT by the end of November, 1999.

### 4. Other relevant issues

4-1. Both sides reconfirmed that it was crucially important to strengthen the existing Water Users Groups (WUGs) to undertake the integrated operation and maintenance (O & M) of the project facilities and proper water management including the collection of O&M fee. In this connection, the GOT promised to support the establishment of an appropriate farmers' organization such as Water Users Co-operative Society (WUCS).

4-2. Both sides reconfirmed that the GOT should provide technical backstopping through the Zonal Irrigation Office and ensure the necessary budget and staffing for this Project.

4-3. Both sides reconfirmed that sustainable development in the Project area should depend on the will and skills of beneficiary farmers in Mwega area. Both sides, therefore, further reconfirmed the need to improve the farmers' skills through provision of proper technical support from the GOT.

4-4. The GOT requested that the Project title would be re-examined, because the Project is not located in the Central Wami River Basin. If the name is changed, it should be completed before the process of registering the WUCS and application for water right commences.

4-5. Both sides confirmed the importance of land acquisition for smooth implementation of the Project. In this connection, JICA has received from the Morogoro Regional Administrative Secretary, the Kilosa District Council, and Malolo and Mgogozi Village Governments, the official letters stating that the Project should not have any problems regarding the land acquisition for construction of the Project facilities, as shown in the annex.



4-6. Both sides confirmed that the executing agency for the Project implementation was altered from the Irrigation Department of the former Agricultural and Livestock Development Division, to the Irrigation Section of the new Crop Development Department, due to the re-structuring of MAC.

4-7. Both sides reconfirmed that MAC should take an initiative for the farmers in obtaining the water right to the required intake discharge estimated through the Basic Design Study, prior to the E/N for the Detailed Design.

4-8. The Team proposed that a part of the increased amount of "Trade Crops Levy" as the result of the successful project implementation would be used to cover some of the O & M costs, to enhance the Project sustainability. In this connection, MAC agreed to make coordination with the Village Governments concerned and the Kilosa District Council.



The Annex:

The letter from Regional Administrative Secretary

The letter from Kilosa District Council

The letter from Malolo Village Government

*(Signature)*

*(Signature)*

THE UNITED REPUBLIC OF TANZANIA

Office of Regional Commissioner,  
P.O. BOX 650,  
MOROGORO

Ref. No. A.20/27/Vol.II.

31st July, 1999

Mr. Yoshiyuki GOYA,  
Leader,  
Draft Report Explanation Team

**RE: IMPLEMENTATION OF MWEGA IRRIGATION SCHEME**

We would like to thank you for your explanations on Basic Design Study Draft Report during the meeting conducted in my office on 30/7/1999 which was also attended by Regional Agriculture Advisor, Regional Administrative Officer and Zonal Irrigation Engineer. Also refer to the meeting held in Malolo on 31 July, 1999 which was attended by the representative of beneficiaries of Mwega Scheme and Zonal Irrigation Staff.

During these meetings issues raised by Explanation Team include Land acquisition for the right of way, farmers participation during Project Implementation, Irrigation service charge and acquisition of water right for the scheme.

The Regional authorities would like to assure you that:

- \* There would be no legal problems in land acquisition for the right of way during construction of irrigation facilities.
- \* There will be maximum farmers participation in project works during project implementation (as it has been shown during the meeting held on 31/7/1999).
- \* Farmers are ready to pay irrigation service charge as proposed in the Basic Design Study Draft Report.
- \* Processing of the Water right for the scheme is in progress, we hope will be obtained before the exchange of note is under taken.

Meanwhile we would like to re-assure you of the highest level of support and cooperation in the implementation of the Mwega scheme in my region.

Yours sincerely,

*N.A. Sumari*  
N.A. SUMARI  
REGIONAL ADMINISTRATIVE SECRETARY  
MOROGORO

Copy:

The Permanent Secretary,  
Ministry of Agriculture & Cooperative,  
P.O. BOX 9192,  
DAR ES SALAAM (Att. A/C Irrigation Services)

Zonal Irrigation Engineer,  
P.O. BOX 515,  
MOROGORO

District Executive Director,  
P.O. BOX 65,  
KILOSA

KILOSA DISTRICT COUNCIL

District Executive Director  
P.O. Box 65  
Kilosa.

Ref. No. KI/IRR/78

31 July, 1999

Mr. Yoshiyuki GOYA  
Leader,  
Draft Report Explanation Team.

Dear sir,

**RE: IMPLEMENTATION OF MWEGA SCHEME**

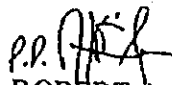
Refer to the above subject and to the meetings held on 30/7/1999 in Regional Administrative Secretary's office and on 31/7/1999 at Malolo village which were also attended by the Draft Report Explanation Team.

The District authorities would like to confirm to you that:

- (1) There would be no legal obstacles in land acquisition necessary for the execution of the project such as the right of way, right of bridge, land for temporary offices, working areas, storage yard etc.
- (2) Farmers will take part in project works during project implementation.
- (3) Farmers are ready to pay the irrigation service charge as proposed in the Basic Design Study Draft Report.
- (4) Processing of the Water right for the scheme is in progress, we hope will be obtained before Exchange of Notes is carried out.

Thank you for your continuous cooperation.

Yours sincerely,

  
ROBERT A. SHANGALI  
DISTRICT EXECUTIVE DIRECTOR  
KILOSA

c.c.  
Regional Administrative Secretary  
P.O. Box 650  
MOROGORO

Zonal Irrigation Engineer  
P.O. Box 515  
Morogoro

The Chairman  
Malolo Village Government,  
S.L.P. 135,  
Mikumi,  
Morogoro.

Ref: No. ....

30/7/99.

Mr. Yoshinori Goya,  
Leader,  
Draft Report Explanation Team.

RE. Land Aquisition for The Right of Way  
During Construction.

We would hereby like to ensure that there would be no legal obstacle in land aquisition necessary for the smooth implementation of the JICA's Smallholder Irrigation Projects.

We understand that we alone are fully responsible to any problem regarding the land aquisition.

We attach with this letter the names and signatures <sup>of</sup> irrigators' representative who signed this on behalf of the rest.

Best of luck

*M. M. M. M.*  
Village Chairman  
Malolo.



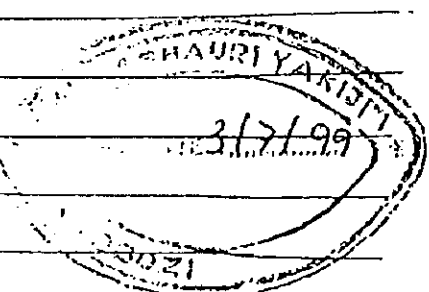
*M. M. M. M.*  
Village Chairman  
Mgogozi



*(B/E)*

*MB*

No.	JINA	WAZIFA / CHEU POSTIPIPO	SAHINI SIGNATURE
1.	MAHAMMO KESULE	M/KITI, D. O. MASA	<i>[Signature]</i>
2.	PETER KAWIRA	M/KITISI / K-Mbotia	<i>[Signature]</i>
3.	JOHN MAGADA	Katibu Canal A.	<i>[Signature]</i>
4.	RAMABHAI KANG'ETE	VEO MGOZI	<i>[Signature]</i>
5.	HASANI KIWANGA	(Mwaka Hazina - Bando Mgozi)	<i>[Signature]</i>
6.	Salumu <sup>Lyahi</sup> <del>Lyahi</del>	Mjumba wa Mferiji B.	<i>[Signature]</i>
7.	Jddi Makabu	M/Kiti kutogoji nyinga	<i>[Signature]</i>
8.	Saidi Kikoo	Mjumba wa Mfelaji	<i>[Signature]</i>
9.	Seleman <sup>Maderege</sup>	K. VEO MABLO	<i>[Signature]</i>
10.	F. CHAYEKA	R/COLLECTOR	<i>[Signature]</i>
11.	MWANAIISHI	KIWANGA S/	MWANAIISHI S. CHIKALI WA KIJILI
12.	ZIARA MUKIMBA	S/kijiji MGOZI	<i>[Signature]</i>
13.	Jddi Malenda	mjumba mfelaji A.	<i>[Signature]</i>
14.	Edward Chay	Katibu mferiji A.	<i>[Signature]</i>
15.	AMIRU NGWENGE	MW/ Mferiji Mgozi	<i>[Signature]</i>
16.	YASINI KHANDU	S/ Kijiji MGOZI	Yasini Khandu
17.	ALEX MINIGALE	S/KIJILI MABLO	<i>[Signature]</i>
18.	ISSA Chayeka	VEO MABLO	<i>[Signature]</i>
19.	Illy H. Mungu	Katibu - M/ (A)	<i>[Signature]</i>
20.			
21.			
22.		31/7/99	
23.			
24.		KEY.	
25.		m/Kiti = Chairman	
26.		Katibu = Secretary	
		Mjumba = Member	
		VEO = Village Extension officer	
		S/kijiji = Village government	
		Mferiji = Canal	



*[Handwritten signature]*



***ATTACHMENT-3***

**Strengthening Plan of Water Users' Group**

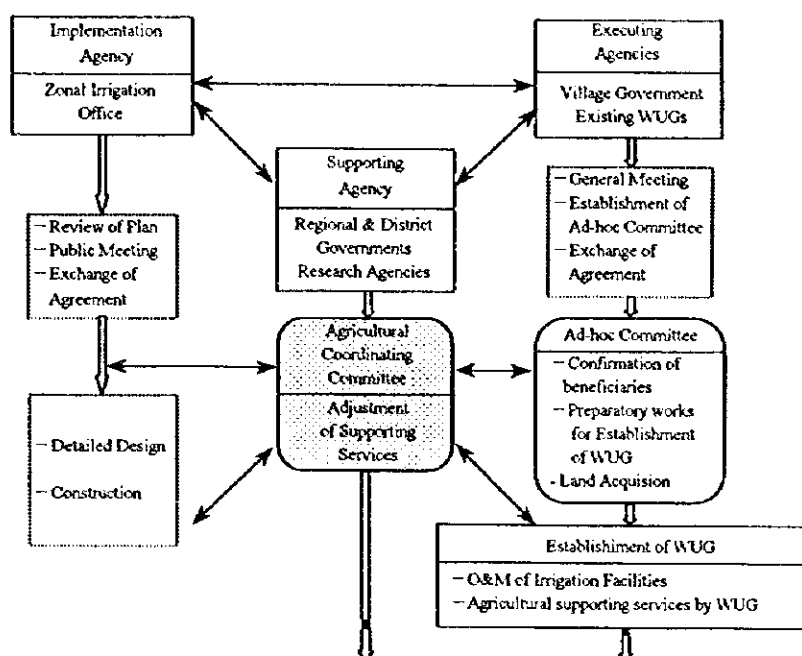
## Strengthening Plan of Mwega Water Users' Group

### 1. Need of Strengthening of Mwega Water Users' Group

Strengthening of the Mwega Water Users' Group (WUG) organized by beneficial farmers is essential for achievement of sustainable operation and maintenance of the Project facilities and also the successful irrigation farming.

### 2. Strengthening Procedure of Water Users' Group

In order to easily ensure the implementation of the Project on a farmers' participatory approach, it is proposed that the Mwega WUG shall be formulated by integration of the existing Water Users' Sub-Groups (WUSGs). The schematic flow of the organizational set-up and implementation schedule of the Mwega WUG are presented below:



- (1) Execution of strengthening plan of the Mwega WUG immediately after commencement of detailed design and in parallel with construction of the Project facilities.
- (2) At first, adequate explanation of the following items by the Zonal Irrigation Office (ZIO) to farmers through public meetings:
  - (a) Implementation plan
  - (b) Farmers' duties toward of the Project implementation
  - (c) Supply of local materials and land acquisition

- (d) Farmers' participatory
- (3) Open of a general meeting by village government and the existing WUGs for discussion and decision on farmers' participatory duties.
- (4) Exchange of agreement among ZIO, village government and existing WUGs.
- (5) Establishment of Ad-hoc Committee by village government.
- (6) Execution of the following duties by Ad-hoc Committee.
  - (a) Confirmation of beneficiaries
  - (b) Management of farmers' participation in construction works
  - (c) Preparatory works for establishment of the Mwega WUG (including preparation of draft by-laws and budget, reception of candidacy for leadership of the Mwega WUG, arrangement of 1st general meeting)
- (7) Establishment of the Mwega WUG by Ad-hoc Committee (3 months before completion of construction work)
- (8) Commencement of training of WUG by the Kilosa office of District Agriculture and Livestock Development Officer (KDALDO) including joint operation with the Mwega WUG for one year.
- (9) Provision of necessary supporting services for establishment and strengthening of the Mwega WUG by other government agencies:
  - (a) Kilosa District Commissioner/Malolo Ward Councilor
    - Support of land acquisition
  - (b) Kilosa Office of District Agriculture and Livestock Development Officer
    - Support of village government in holding the general meeting.
    - Support of the activities of Ad-hoc Committee.
    - Training on operation and maintenance of irrigation facilities and the Mwega WUG's management including marketing, credit, etc.
    - Provision of overall engineering services for operation and maintenance of irrigation facilities.
  - (c) Kilosa Office of District Cooperative Officer
    - Institutional improvement of the Mwega WUG

### **3. Implementation Schedule of Training Programme for Extension Staffs and Farmers**

The training programme for the extension staffs and farmers will be arranged by KDALDO. The implementation schedule is divided into 2 stages: during and after construction, and major activities to be undertaken are summarized below:

**(1) During Construction**

- (a) Preparation of materials for training programme**
- (b) Implementation of workshops for front-line extension staffs (VEOs)**
- (c) Special training in the Kilimanjaro Agriculture Training Center (KATC)**
- (d) Implementation of demonstration plots for training of VEOs and aggressive farmers**

**(2) After Construction**

- (a) Field training for VEOs and farmers concerned**
- (b) Implementation of workshops for front-line extension staffs**

The agriculture extension activities of KDALDO office will be implemented with the powerful support of the agencies concerned, which are TOSCA, MALTIs/LITOs, Research Centres including Dakawa Research Station, KATRIN, etc. and SUA.

**4. Establishment of Agriculture Coordinating Committee**

An Agricultural Coordinating Committee will be organized for securing the effectiveness and success of the training programme and the government's supporting services. The Committee will be composed of staffs of Regional and District Offices, ZIO, TOSCA, MATIs/LITIs, Research Centers, and farmers' representatives. The scope of works of the Agricultural Coordinating Committee is as follows:

- (a) Monitoring and evaluation of the progress of project implementation, activities of the Mwega WUG and farmers, and study of necessary supporting services for further development.**
- (b) Coordination of all of the agricultural supporting services.**
- (c) Monitoring and review of the agricultural supporting services, and provision of necessary advice to the agencies concerned.**
- (d) Monitoring and review of the progress of the agricultural training programme for VEOs and farmers.**
- (e) Holding of periodical meetings of the Committee.**

**5. Staff Required for Project Implementation**

The proposed additional staffs to be deployed for the Project implementation are as follows:

**(1) ZIO in Morogoro Region**

- (a) Agro-economist/Sociologist**

**(2) KDALDO**

- (a) Irrigation Engineer**

**(b) Marketing and Credit Officer**

These officers would have a basic knowledge with some experiences, however it is necessary to upgrade their knowledge for successful and effective implementation of the Project. The required experts for this purpose and their tasks are an O&M Expert, Institutional Expert and Agriculture Extension Expert.

## ***APPENDICES***

## ***1. Member List of Survey Team***

## 1. Member List of Survey Team

### Inception Report Explanation and Field Survey Team

(March 15, 1999 ~ May 4, 1999)

Assignment	Name	Position
1. Leader	:Mituaki FURUKAWA	Deputy Resident Representative, Tanzania Office, JICA
2. Technical Advisor (Irrigation Engineer)	:Sakio NISHIYAMA	Design Division, Construction Department, Agricultural Structure, Chugoku-Shikoku, Regional Agricultural Administration Office
3. Coordinator	:Yoshiteru TSUJI	First Project Study Division, Grant Aid Project Study Department, JICA
4. Chief Consultant / Irrigation Farming Planner	:Hitoshi SHIMAZAKI	Nippon Koei Co., LTD
5. Irrigation and Drainage Planner	:Hiroyoshi MATSUURA	Eliko Co.
6. Irrigation and Drainage Designer	:Kenji KYOIZUMI	Nippon Koei Co., LTD
7. Road Designer	:Yutaka NIKAWA	Nippon Koei Co., LTD.
8. Cost Estimator / Construction Planner	:Toshikazu KAMBARA	Nippon Koei Co., LTD.

### Draft Basic Design Report Explanation Team

(July 26, 1999 ~ August 5, 1999)

Assignment	Name	Position
1. Leader	:Yoshiyuki GOYA	Deputy Director, International Cooperation Planning Division, Economic Affairs Bureau, Ministry of Agriculture, Forestry & Fisheries
2. Project Coordinator	:Kenji INOUE	Second Training Division, Tokyo International Centre, JICA
3. Chief Consultant / Irrigation Farming Planner	:Hitoshi SHIMAZAKI	Nippon Koei Co., LTD
4. Irrigation and Drainage Planner	:Hiroyoshi MATSUURA	Eliko Co.



## ***2. Survey Itinerary***

## 2. Survey Itinerary

### Inception Report Explanation and Field Survey (March 15, 1999 ~ May 4, 1999)

No.	Date		Move	Site	Contents
1	15-Mar	Mon.	Leave Narita (Nisiyama, Tsuji, Shimazaki)	On the Board	
2	16-Mar	Tue.	Arrive at Dar es Salaam	Dar es Salaam	Courtesy Call to JICA Office, EOJ
3	17-Mar	Wed.		Dar es Salaam	Courtesy Call to MOFA, TPC, MAC & Explanation of ICR to MAC
4	18-Mar	Thu	Move to Mikumi	Mikumi	Courtesy to Call to Zonal Irrigation Office & Explanation of ICR
5	19-Mar	Fri		Mikumi	Site Survey
6	20-Mar	Sat		Mikumi	Site Survey
7	21-Mar	Sun	Move to Dar es Salaam	Dar es Salaam	Team Meeting
8	22-Mar	Mon		Dar es Salaam	Report of Results of Site Survey, Discussion of
9	23-Mar	Tue		Dar es Salaam	Discussion of M/M
10	24-Mar	Wed		Dar es Salaam	Finalization & Signing of M/M, Report to JICA Office, EOJ
11	25-Mar	Thu	Leave Dar es Salaam (Nishiyama, Tsuji)	Dar es Salaam	Survey
12	26-Mar	Fri		Dar es Salaam	Survey
13	27-Mar	Sat	Arrive at Dar es Salaam (Mr. Matsuura)	Dar es Salaam	Survey
14	28-Mar	Sun	Move to Morogoro	Morogoro	Move
15	29-Mar	Mon		Morogoro	Establish Office
16	30-Mar	Tue		Morogoro	Site Survey
17	31-Mar	Wed		Morogoro	Site Survey
18	1-Apr	Thu	Move to Kitonga	Kitonga	Site Survey
19	2-Apr	Fri	Move to Morogoro	Morogoro	Site Survey
20	3-Apr	Sat		Morogoro	Site Survey
21	4-Apr	Sun		Morogoro	Site Survey
22	5-Apr	Mon		Morogoro	Site Survey
23	6-Apr	Tue	Arrive at Dar es Salaam (Mr. Kyoizumi, Mr. Niikawa)	Morogoro	Site Survey
24	7-Apr	Wed		Morogoro	Site Survey
25	8-Apr	Thu		Morogoro/Kitonga	Site Survey
26	9-Apr	Fri		Morogoro/Kitonga	Site Survey
27	10-Apr	Sat		Morogoro/Kitonga	Site Survey
28	11-Apr	Sun		Morogoro/Kitonga	Site Survey
29	12-Apr	Mon		Morogoro/Kitonga	Site Survey
30	13-Apr	Tue		Morogoro/Kitonga	Site Survey
31	14-Apr	Wed		Morogoro/Kitonga	Site Survey
32	15-Apr	Thu		Morogoro/Kitonga	Site Survey
33	16-Apr	Fri	Arrive at Dar es Salaam (Mr. Kambara)	Morogoro/Kitonga	Site Survey
34	17-Apr	Sat		Morogoro/Kitonga	Site Survey
35	18-Apr	Sun		Morogoro/Kitonga	Site Survey
36	19-Apr	Mon		Morogoro/Kitonga	Site Survey
37	20-Apr	Tue		Morogoro/Kitonga	Site Survey
38	21-Apr	Wed		Morogoro/Kitonga	Site Survey
39	22-Apr	Thu		Morogoro/Kitonga	Site Survey
40	23-Apr	Fri		Morogoro/Kitonga	Site Survey/Report of Results of Site Survey (Mr. Shimazaki)
41	24-Apr	Sat		Morogoro/Kitonga	Site Survey
42	25-Apr	Sun		Morogoro/Kitonga	Site Survey
43	26-Apr	Mon	Leave Dar es Salaam (Shimazaki)	Morogoro/Dar es Salaam	Site Survey
44	27-Apr	Tue		Morogoro/Dar es Salaam	Work Shop/Survey
45	28-Apr	Wed		Morogoro/Dar es Salaam	Site Survey
46	29-Apr	Thu		Morogoro/Dar es Salaam	Site Survey
47	30-Apr	Fri		Morogoro/Dar es Salaam	Close Office/Report of Results of Site Survey (Mr. Matsuura) Survey
48	1-May	Sat	Move to Dar es Salaam	Dar es Salaam	Move
49	2-May	Sun	Leave Dar es Salaam (Matsuura, Kyoizumi, Niikawa, Kambara)	Zurich	Move
50	3-May	Mon		On the Board	Move
51	4-May	Tue	Arrive at Narita		Move

**Draft Basic Design Report Explanation  
(July 26, 1999 ~ August 5, 1999)**

No.	Date		Move	Site	Activity
1	26-Jul	Mon	Leave Narita (Goya, Inoue, Shimazaki, Matsuura)	On the Board	Move
2	27-Jul	Tue	Arrive at Dar es Salaam	Dar es Salaam	Courtesy Call to JICA Office, EOJ
3	28-Jul	Wed		Dar es Salaam	Courtesy Call, Explanation DBD Report and Discussion to MAC
4	29-Jul	Thu		Dar es Salaam	Courtesy Call to PS-MAC and Discussion at MAC
5	30-Jul	Fri	Move to Mikuni	Mikumi	Courtesy Call to Morogoro Zone, Regional Authority
6	31-Jul	Sat	Move to Site	Mikumi	Explanation DBD Report, Site Survey
7	1-Aug	Sun	Move to Dar es Salaam	Dar es Salaam	Internal Meeting
8	2-Aug	Mon		Dar es Salaam	Discussion of M/M
9	3-Aug	Tue	Leave Dar es Salaam	Dar es Salaam	Signing of M/M, Report to JICA Office, EOJ
10	4-Aug	Wed		On the Board	Move
11	5-Aug	Thu	Arrive at Narita		

### ***3. List of Party Concerned in Tanzania***



### **3. List of Party Concerned in Tanzania**

#### **Ministry of Foreign Affairs and International Cooperation**

Mr. H. E. Cyprian K. P. Majengo      Director of Asia & Australasia  
Ms. Shamim Nyanduga                  First Counsellor

#### **Ministry of Finance**

Mr. Prosper J. Mbena                      Commissioner for External Finance

#### **Ministry of Agriculture and Cooperatives (MAC)**

Mr. Peter Bombo Barie                  Permanent Secretary  
Dr. Jonas N. Melewas                  Acting Commissioner for Agriculture & Livestock  
Development  
Dr. Nicodemus P. Sicilima              Director, Crop Development Division  
Eng. G. M. Kalinga                      Ag. Assistant Commissioner for Irrigation, Irrigation  
Section  
Eng. Ally Simba                          Irrigation Engineer, Irrigation Section  
Eng. Mbogo Futakamba                  Irrigation Engineer, Irrigation Section  
Eng. Lukuta Jaivi                        Irrigation Engineer, Irrigation Section  
Mr. Hamisi Meda                        Operation Support Unit, Irrigation Section  
Mr. Hawa Kikeke                        Operation Support Unit, Irrigation Section  
Mr. Moses N. W. Mnzana                Irrigation Agronomist  
Mr. R. Kweica                          Irrigation Section  
Mr. Syuichi Matsushima                JICA Expert

#### **Zonal Irrigation Office in Morogoro Region**

Mr. Archard Ruhangisa                  Zonal Irrigation Engineer  
Dr. Uimarto, Bws                        Reg. Lives. Advisor (Reg. Adm. Section Office)  
Mr. Stephen Kamugisha                Irrigation Engineer / Environment Studies  
Mr. Mnguu Youze                        Irrigation Agronomist / Extension  
Mrs. Drothy                                Soil Scientist  
Mr. Charles Lunyilija                  Land Supervisor  
Mr. Marealle Emmanuel                Agricultural Engineer  
Mr. Seth P. Luswema                  Irrigation Engineer  
Mr. Eliamani Nnyiti                      Soil Scientist

**Local Government in Morogoro Region**

Mr. N. A. Sumari	Regional Administrative Secretary
Mr. J. A. Mwaliluma	Regional Administrative Officer
Mr. E. Shayo	Regional Agricultural Advisor
Mr. Hezekiah J. Undongolo	District Planning Officer, Kilosa District

**Key Persons in Mtwega Region**

Mr. Masubi Mkriti	Ward Counselor
Mr. Efrem Mwelase	Irrigation Technician (in Malolo)
Chairman & Secretary to Canal A, B, C and D in Malolo Area	
Chairman & Secretary to Nyniga in Nyniga area	

**Japanese Embassy in Tanzania**

Mr. Keitaro SATO	Envoy Extraordinary and Minister Plenipotentiary
Mr. Yuzou OOTA	Minister
Mr. Masashi KONO	First Secretary
Mr. Kenji YOSHIOKA	First Secretary
Mr. Asahiko TAMINATO	Second Secretary

**JICA Tanzania Office**

Mr. Shinya NAKAI	Resident Representative
Mr. Mituaki FURUKAWA	Deputy Resident Representative
Mr. Shinichiro FUTAMI	Ass. Resident Representative