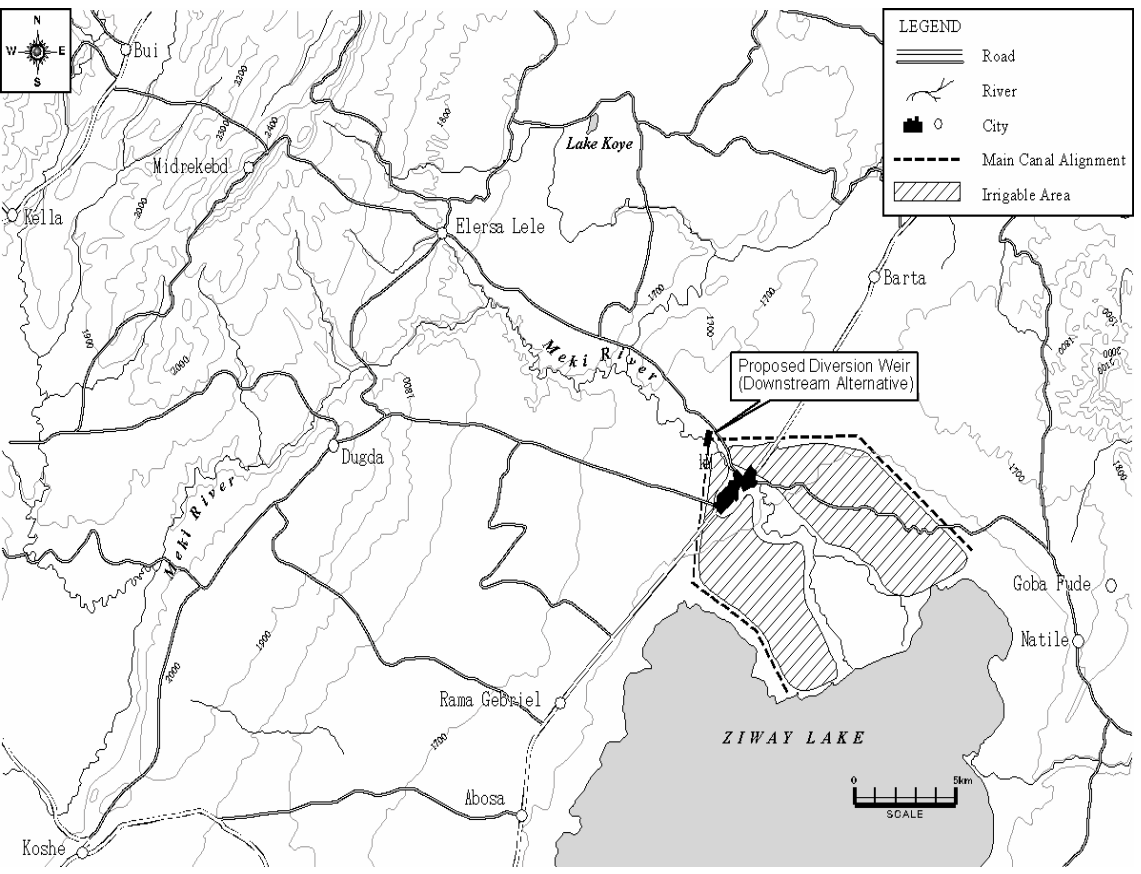


The Study for
 Meki Irrigation and Rural Development Project
 in Oromia Region, Ethiopia
 Japan International Cooperation Agency

Figure 5.5.1
 Location of Irrigation Area by Diversion Weir
 (Upstream Alternative)



The Study for
 Meki Irrigation and Rural Development Project
 in Oromia Region, Ethiopia
 Japan International Cooperation Agency

Figure 5.5.2
 Location of Irrigation Area by Diversion Weir
 (Downstream Alternative)

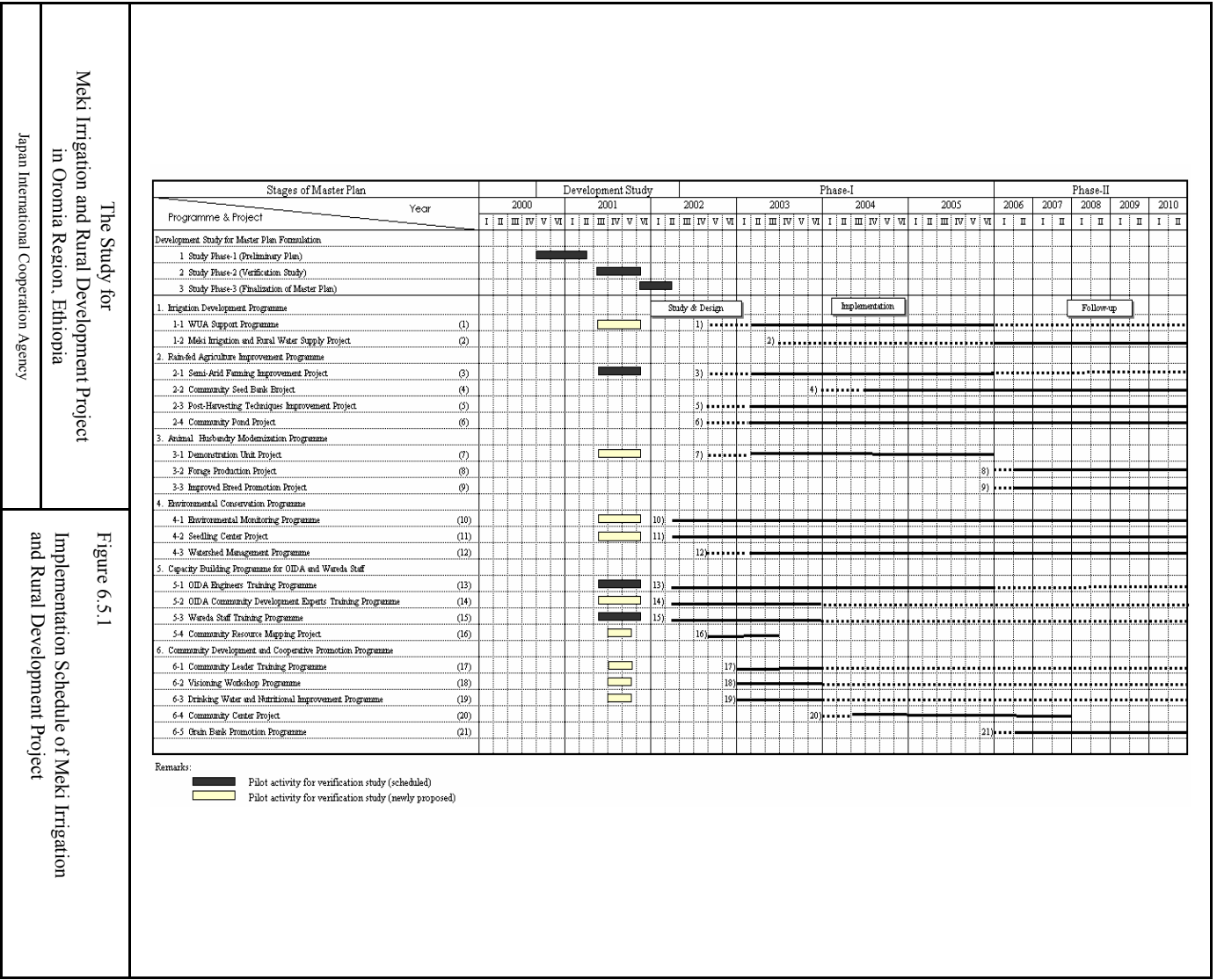
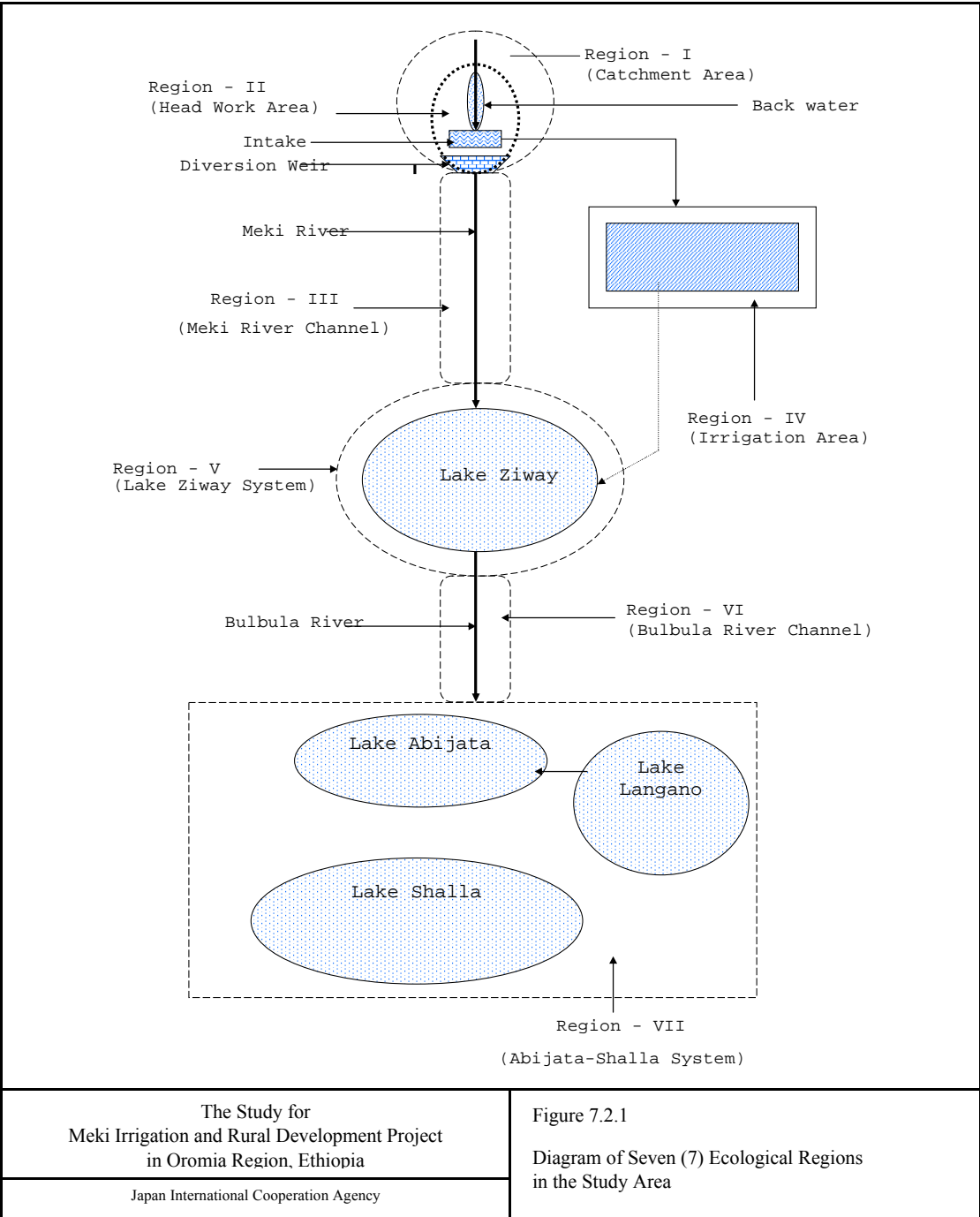


Figure 6.5.1

Implementation Schedule of Meki Irrigation and Rural Development Project



The Study for
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia

Japan International Cooperation Agency

Figure 7.2.1

Diagram of Seven (7) Ecological Regions
in the Study Area

Attachments

Attachments-1


Master Plan for Meki Irrigation and Rural Development Project


Minutes of Meetings

- 1-1 Scope of Work (S/W)
(28 March 2000)
- 1-2 Minutes of Meeting (M/M) on Scope of Work (S/W)
(28 March 2000)
- 1-3 Minutes of Meeting (M/M) on Inception Report
(7 September 2000)
- 1-4 Minutes of Meeting (M/M) on Progress Report (1)
(20 December 2000)
- 1-5 Minutes of Meeting (M/M) on Interim Report
(9 March 2001)
- 1-6 Note of Understanding on Preparatory Work for
Phase – II Study
(13 March 2001)
- 1-7 Minutes of Meeting (M/M) on Progress Report (2)
(20 November 2001)
- 1-8 Minutes of Meeting (M/M) on Draft Final Report
(31 January 2002)


Scope of Work
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

Addis Ababa, 28 March, 2000


Ryuzo NISHIMAKI
Leader
The Preparatory Study Team
Japan International Cooperation Agency
(JICA)


Amdisa Kelkela Angessa
General Manager
Amdisa Kelkela
General Manager
Oromia Irrigation Development Authority
(OIDA)
the Government of the Oromia Regional
State

Witnessed by


Hailenichael Kinfu
Head,
Bilateral Cooperation Department
Ministry of Economic Development
and Cooperation

I. INTRODUCTION

In response to the request of the Government of The Federal Republic of Ethiopia (hereinafter referred to as "GOE"), the Government of Japan decided to conduct the Study on Meki Irrigation and Rural Development Project in Oromia Region, (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as JICA), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of Ethiopia.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the study are as follows;

- (1) to formulate a Master plan for a rural development in Meki area through considering its irrigation potential, of which over-all goal is to be a model for other area in Oromia region,
- (2) to conduct a technology transfer to Ethiopian counterpart personnel, aiming to contribute to the institutional building of OIDA, in the course of the Study.

III. STUDY AREA

The Study area shall be indicated in the location map attached as Annex 1.

IV. SCOPE OF THE STUDY

In order to achieve the objectives above, the Study shall consist of the following items.

[Phase 1]

1. Data collection

1.1 Collect and review the existing information relevant to the Study

1.2 Carry out field surveys and interviews together with the supplementary data collection on following aspects;

- (1) Natural condition (Topography, Meteorology, Hydrology, Geology, Soil, etc.)
- (2) Social and economic condition (Social & economic indices, Land tenure, Health & water supply, Farmers' economy, etc.)
- (3) Present activity and potential of agricultural & livestock production
- (4) Present condition of post-harvest and marketing
- (5) Rural economy and rural credit
- (6) Extension service / system
- (7) Others relevant to the Study

2. Identification of constraints and potentials

2.1 Analyze the collected information, and identify major constraints, problems and potentials.

2.2 Conduct the Initial Environment Evaluation (IEE)

2.3 Prepare a draft master plan, taking into account following components.

- (1) Water resource development
- (2) Improvement of agricultural production
- (3) Improvement of people's livelihood
- (4) Public intervention (Extension service, Rural credit, etc.)
- (5) Institutional Building

(6) Others

2.4 Select pilot activity / activities for a verification study

[Phase 2]

3. Formulation of Master plan

3.1 Conduct the verification study through implementing selected activity / activities, proposed in the draft Master plan.

3.2 Verify rationality and effectiveness of the draft Master plan.

3.3 Finalize the Master plan.

4. Prepare Conclusion and Recommendation

V. STUDY SCHEDULE

The Study shall be carried out in accordance with the Tentative Work Schedule attached as Annex 2.

VI. REPORTS

JICA shall prepare and submit the following reports, written in English, to the GOE;

Inception Report	: Twenty (20) copies at the commencement of the Study
Progress (1) Report	: Twenty (20) copies at the end of Phase I
Interim Report	: Twenty (20) copies at the commencement of Phase II
Progress (2) Report	: Twenty (20) copies in Work in Ethiopia of Phase II
Progress (3) Report	: Twenty (20) copies at the end of Work in Ethiopia of Phase II
Draft Final Report	: Twenty (20) copies at the end of Phase II Ethiopian side shall submit written comments on the Draft Final Report to JICA in one (1) month after the receipt of the report.
Final Report	: Forty (40) copies in two (2) months after the receipt of comments on the Draft Final Report from Ethiopian side

VII. UNDERTAKING OF THE GOE

1. To facilitate the smooth conduct of the Study, GOE shall take necessary measures, as listed below;

- (1) Secure the safety of the Study Team,
- (2) Permit the members of the Study Team to enter, leave and sojourn in Ethiopia for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees,
- (3) Exempt the members of the Study Team from taxes, duties and other charges on equipment, machinery and other materials brought into Ethiopia for the conduct of the Study,
- (4) Exempt the members of the Study Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Study Team for their services in connection with the implementation of the Study,
- (5) Provide necessary facilities to the Study Team for remittance as well as utilization of the funds introduced into Ethiopia from Japan in connection with the implementation of the Study,
- (6) Secure permission for the Study Team(s) to enter wherever necessary for the implementation of the Study,
- (7) Secure permission for the Study Team to take all data and documents, including photographs and maps, relevant to the Study out of Ethiopia to Japan, and
- (8) Provide medical services as needed. Its expenses will be chargeable to members of the Study Team.

Handwritten signatures: *HP*, *Jm*, *A*

2. GOE shall bear claims, if any arises, against members of the Study Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Study Team.

3. Oromia Irrigation and Development Authority (hereinafter referred to as "OIDA") shall act as the counterpart agency to the Study Team and also as the coordinating body in relations with other governmental and non-governmental organizations for the smooth implementation of the Study.

4. OIDA shall, at its own expense and in cooperation with other organizations concerned, provide the Study Team with the following;

- (1) Available data and information related to the Study,
- (2) Counterpart personnel,
- (3) Suitable office space and necessary equipment in Addis Ababa and the Study area,
- (4) Credentials or identification cards, and,
- (5) Adequate number of drivers.

VIII. UNDERTAKING OF JICA

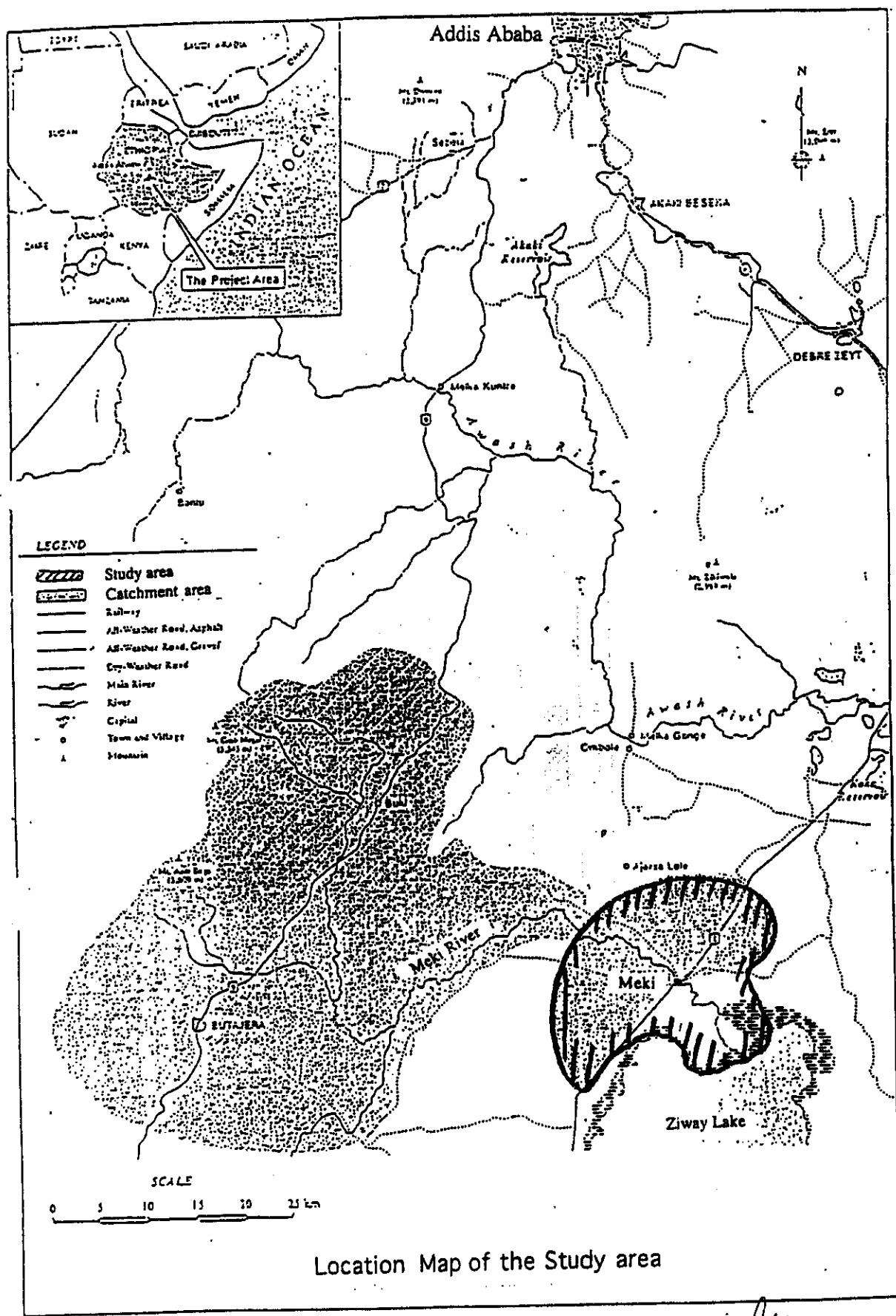
For the implementation of the study, JICA shall take the following measures;

- (1) Dispatch, at its own expense, study teams to Ethiopia, and,
- (2) Pursue technology transfer to the Ethiopian counterpart personnel in the course of the study.

IX. CONSULTATION

JICA and OIDA shall maintain constant communication and consult with each other in respect of any matters that may arise from or in connection with the Study.





Location Map of the Study area

Handwritten signatures and initials:
 HP
 gm
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TENTATIVE WORK SCHEDULE

\ MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
Work in Ethiopia																														
Work in Japan																														
Stages	← Phase 1 →							← Phase 2 →																						
Reports	△ IC/R				△ P/R(1)					△ P/R(2)		△ I/R								△ P/R(3)			△ DF/R		◎	△ F/R				

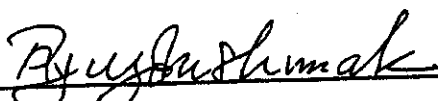
(Remarks)

- Ic / R : Inception Report
- P / R(1) : Progress Report(1)
- It / R(1) : Interim Report(1)
- P / R(2) : Progress Report(2)
- It / R(2) : Interim Report(2)
- P / R(3) : Progress Report(3)
- Df / R : Draft Final Report
- F / R : Final Report
- ◎ : Comments on Df / R by Ethiopian side

A1-6

**Minutes of Meetings
of
Scope of Work
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency**

Addis Ababa, 28 March, 2000



Ryuzo NISHIMAKI

Leader

The Preparatory Study Team

Japan International Cooperation Agency
(JICA)



Amdisa Kelkela Angessa
General Manager

Amdisa Kelkela

General Manager

Oromia Irrigation Development Authority
(OIDA)

The Government of the Oromia Regional
State

The preparatory study team (hereinafter "the Team"), organized by Japan International Cooperation Agency (hereinafter "JICA") and headed by Mr. Ryuzo NISHIMAKI, visited the Federal Republic of Ethiopia from May 18 to May 29, 2000. The Team discussed and exchanged views with regard to the Scope of Work for "the Study on Meki Irrigation and Rural Development Project in Oromia Region"(hereinafter "the Study") with the officials from Oromia Irrigation Development Authority (hereinafter "OIDA") as well as others concerned.

As a result of the discussions, the Ethiopian side and the Team mutually agreed on the Scope of Work for the Study.

The followings are the important issues discussed and agreed.

The list of participants in the series of discussions is attached as ANNEX.

1. Data collection

OIDA will collaborate and facilitate the data collection for the study team. JICA would pay for items; topographic maps for instance, when needed.

2. Verification study and activity to be studied

The verification study would be conducted in phase 2 of the Study, aiming for capacity building of OIDA as well as verifying the technological soundness of the Master plan.

Whereas, the institutional building would be studied and planned with regard to OIDA's activities; (1) Planning & designing, (2) Construction, (3) Extension & water shed management in crop production and (4) Community mobilization.

The details of this study would be discussed in phase 1 and confirmed at beginning of phase 2.

3. Technology transfer

The on-the-job training, seminar(s) and workshop(s); on agricultural practices in Japan for instance, would be carried out in the course of the Study.

OIDA requested counterpart training in Japan in order to supplement the activities above. The team promised to convey its request to the government of Japan.

4. Steering committee

For smooth and efficient implementation of the Study, the Steering Committee would be established. OIDA would chair and be responsible to convene the committee prior to the commencement of the Study.

The following institutions are currently assumed.

Ethiopian side: Oromia Irrigation Development Authority (OIDA)

Bureau of agriculture

Water, Mining, Energy Resource Development bureau



Cooperative promotion bureau
relevant institution of Woman Affairs Sector
Ministry of Economic Development and Cooperation (MEDaC)

Japanese side: Study team
Advisory study team
JICA Ethiopia office
Embassy of Japan

5. Specialist to be engaged

Basically, specialists in following fields are assumed to participate in the Study.

(1) Irrigation infrastructure and management, (2) Rural development, (3) Hydrology / Water management, (4) Topography / Geology, (5) Agronomy / Soil, (6) Agro-economy, (7) Extension / Community mobilization, (8) Design and estimate, (9) Project evaluation

6. Final report

The final report would be accessible to whoever interested.

7. Office space

OIDA promised to provide office space in Addis Ababa, furnished with desks, chairs, power outlet and an exclusive use of one international telephone line. OIDA also promised to arrange the office in the study area, equipped in the same manner with the one in Addis Ababa. However, OIDA requested that personal computer(s), a photocopier, a facsimile, a telephone bill and a rent (if necessary) would be provided and paid by JICA. The team promised to convey its request to the government of Japan.

8. Vehicle

OIDA requested the vehicle(s) including fuel for the study team would be prepared by JICA, while OIDA promised to arrange necessary number of drivers with basic salaries. The team promised to convey the request to the government of Japan.

OIDA explained it was favorable if the vehicle(s) would be donated to OIDA after completion of the Study, and also explained OIDA would take care of the tax and others relevant to the acquisition of the vehicle(s).

9. Allowance for field trip

Regarding field trips from Addis Ababa, OIDA will pay per diem in accordance with the laws, regulations or rules of Ethiopia to counterpart personnel(s) and driver(s). OIDA strongly requested that JICA would pay the excess over what OIDA would cover, when necessary. The team promised to convey its request to the government of Japan.



ANNEX

List of Participants

Ethiopian side:

Oromia Irrigation Development Authority (OIDA)

Mr. Amdisa Kelkela	General Manager
Mr. Teshome Atnafie Guyo	Head, Study and Design Department
Mr. Teshome Lemma	Leader, Study and Design team
Mr. Belay Melkamu	Leader, Construction Supervision team

Japanese side:

Preparatory study team

Mr. Ryuzo NISHIMAKI	Leader
Mr. Takuro ISHII	Agriculture
Mr. Yasukuni KIMURA	Agricultural and Rural Infrastrucutre
Mr. Makoto ASAI	Coordinator
Mr. Takahiro MIYOSHI	Rural / Society Development

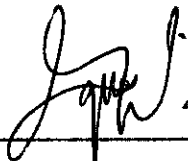
JICA Ethiopia office

Mr. Hiroshi SUMIYOSHI	Staff
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Minutes of Meeting
on
Inception Report
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

Addis Ababa, 7th September 2000



Mr. Amdisa Kelkela
General Manager
Oromia Irrigation Development
Authority (OIDA)
The Government of the Oromia
Regional State




Mr. Masayuki Koyama
Leader
The Study Team
Japan International Cooperation Agency
(JICA)

Witnessed by



Mr. Tassew Bekele
For Bilateral Cooperation Department
Ministry of Economic Development &
Cooperation (MEDaC)



Dr. Satoru Takahashi
Leader
Advisory Study Team
Japan International Cooperation Agency
(JICA)

In accordance with the Scope of Work (hereinafter referred as “S/W”) for the Study on Meki Irrigation and Rural Development Project in Oromia Region (hereinafter referred as “the Study”), the Government of Japan dispatched through Japan International Cooperation Agency (JICA) the Study Team headed by Mr. Masayuki Koyama for the implementation of the Study, to the Federal Democratic Republic of Ethiopia. At the commencement of the Study, the Study Team officially submitted twenty (20) copies of the Inception Report and explained the basic concepts, methodology and schedule of the Study to the Oromia Irrigation Development Authority (hereinafter referred as OIDA) on 5th September 2000. The participants of the meeting are listed as per ANNEX. The followings are important issues discussed and agreed upon in the meeting.

(1) The Ethiopian side confirmed that contents of the Inception Report were prepared in compliance with the conditions set forth in the S/W and agreed to proceed to the next stage of the Study in accordance with the methodology and schedule stipulated in the Inception Report.

(2) The Ethiopian side stated that Health Bureau and Planning and Economic Development Bureau of the Oromia Regional State would additionally take part in the steering committee. It was confirmed that the steering committee would consist of the following agencies in order to provide necessary advice from time to time and official approvals on the reports to be submitted by the Study Team.

Oromia Irrigation Development Authority (OIDA)
Bureau of Agriculture
Water, Mining, Energy Resource Development Bureau
Cooperative Promotion Bureau
Health Bureau
Planning and Economic Development Bureau
Relevant institution of Women Affair Sector
Ministry of Economic Development and Cooperation (MEDaC)

(3) In response to the request by the Japanese side, the Ethiopian side confirmed to nominate local counterparts for each member of the Study Team. It was agreed that the weekly meeting would be held between the Study Team and the counterpart team every Monday in order to keep the mutual understanding on the work progress and solve problems arising from the day to day operation of the Study. The counterparts would participate in the daily activities of the Study according to the work schedule agreed in the weekly meetings.



A1 - 12



List of Participants

Ethiopian side:

Oromia Irrigation Development Authority (OIDA)

Mr. Amadisa Kelkela	General Manager
Mr. Teshome Atnafie Guyo	Head, Study and Design Department
Mr. Neme Sori	Head, Planning & Programming Service
Mr. Jemal Kedir	Head, Extension & Irrigation Water Management Dept
Mr. Ermias Biru	Head, Research & Laboratory Service

Water, Mineral and Energy Resources Development Bureau

Mr. Dereje Walco	Team Leader
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Co-operative Promotion Bureau

Mr. Lelissa Chalchisa	Head, Planning and Programming Services
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Japanese side:

Advisory Study Team

Dr. Satoru Takahashi	Leader
Mr. Kyosuke Kawazumi	Coordinator

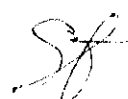
The Study Team

Mr. Masayuki Koyama	Leader
Mr. Takuya Igawa	Irrigation and Rural Infrastructure Engineer
Mr. Yoshikazu Ando	Coordinator

JICA Ethiopia Office

Mr. Hiroshi Sumiyoshi	Assistant Resident Representative
Mr. Yeshitila Amare	Staff


A1 - 13

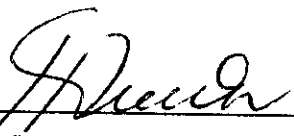




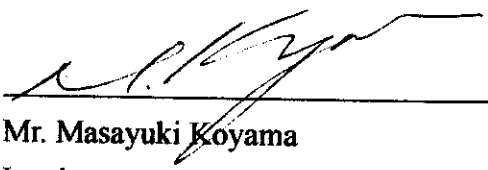


Minutes of Meeting
on
Progress Report (1)
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

Addis Ababa, 20th December 2000



Mr. Itafa Imama
General Manager
Oromia Irrigation Development
Authority (OIDA)
The Government of the Oromia
Regional State



Mr. Masayuki Koyama
Leader
The Study Team
Japan International Cooperation Agency
(JICA)

In accordance with the Scope of Work for the Study on Meki Irrigation and Rural Development Project in Oromia Region (hereinafter referred as "the Study"), the Government of Japan dispatched through Japan International Cooperation Agency (JICA) the Study Team for the implementation of the Study, to the Federal Democratic Republic of Ethiopia, the Study Team officially submitted twenty (20) copies of the Progress Report (1) to the Oromia Irrigation Development Authority (hereinafter referred as "OIDA") at the completion of the First Field Work of the Study. All the Steering Committee members accepted the Progress Report (1).

The Study Team explained the contents of the Progress Report (1) to the Steering Committee meeting on 20th December, 2000. The participants of the meeting are listed in the ANNEX. The Study Team made clarification for the comments raised by the Ethiopian side as follows.

The Ethiopian side commented that there is a need to include all the relevant institutions in the capacity building under the Master Plan. The Study Team replied that appropriate institutional set-up is not yet proposed. The capacity building programme will be carried out for OIDA and the wareda staff for smooth implementation of the Master Plan. Other institutions will be involved in the capacity building programme if its necessity is identified.

The Ethiopian side commented that there is a need to describe necessity of the environmental conservation as a concept of the Project in Chapter 6. The Study Team explained that its necessity is already mentioned in Section 6.1.2 on Integrated Development as one of three concepts of the plan formulation.

The Ethiopian side commented that data sources shall be provided for references in the report. The Study Team accepted it.

The Ethiopian side commented that it is necessary to attach more priority to the community development programme and reflect in the implementation schedule of the Mater Plan. The Study Team explained that the community development programme will be promoted under the initiative of the government. According to the principle of Training-of-Trainers (TOT), the capacity building programme will firstly be executed to the government staff, namely sociologists and social workers, who will be responsible for the community awareness creation and development in the following stage. Therefore, the capacity building programme for the government staff will be started earlier than those for community.

The Study Team requested the Ethiopian side to make more scrutiny on the Progress Report (1) to elaborate the initial study results. It was agreed that the Ethiopian side will officially forward their comments on the Progress Report (1) by 15th January 2001 to the Study Team.

List of Participants**Ethiopian side:****Oromia Irrigation Development Authority (OIDA)**

Mr. Teshome Atnafie Guyo Chief Engineer
 Mr. Hassen Nur Head, Irrigation Construction Department

Bureau of Agriculture

Mr. Kernesha Eficha Team Leader, Extension Division

Water, Mining, Energy Resource Development Bureau

Mr. Dereje Wako Team Leader, Water Resources Management Team

Co-operative Promotion Bureau

Mr. Lelissa Chaklissa Head, Planning & Research Service

Bureau of Planning and Economic Development

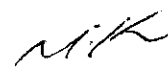
Mr. Dinku Gurmessa Team Leader, Water, Mines and Energy Development
 Planning Team

Japanese side:**The Study Team**

Mr. Masayuki Koyama Leader
 Mr. Takuya Igawa Deputy Leader, Irrigation and Rural
 Infrastructure
 Mr. Yuichi Fukasaka Rural Development
 Mr. Zetsugaku Kurita Agriculture and Soils
 Dr. Brijesh Kumar Mehta Hydrology and Water Use
 Mr. Masayoshi Shibata Agricultural Support System
 Dr. Alfred A. Latigo Environment and Watershed Management
 Mr. Yutaka Niikawa Design and Cost Estimate

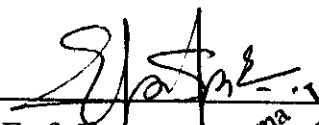
JICA Ethiopia Office

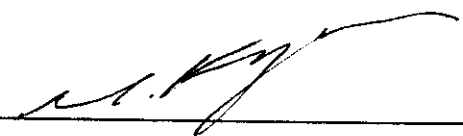
Mr. Hiroshi Sumiyoshi Assistant Resident Representative
 Mr. Yeshitila Amare Staff


Minutes of Meeting
on
Interim Report
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

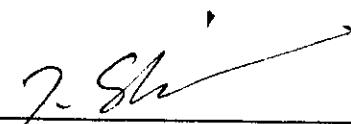
Addis Ababa, 9th March 2001


Mr. Etafa Emama
General Manager
Oromia Irrigation Development
Authority (OIDA)
The Government of the Oromia
Regional State


Mr. Masayuki Koyama
Leader
The Study Team
Japan International Cooperation Agency
(JICA)

Witnessed by


Mr. Dereje Tolu
Bureau Head
Oromia Agricultural
Development Bureau (OADB)
The Government of the Oromia
Regional State


Mr. Takao Shibusawa
Advisor
JICA Advisory Team
Japan International Cooperation Agency
(JICA)

In accordance with the Scope of Work for the Study on Meki Irrigation and Rural Development Project in Oromia Region (hereinafter referred as “the Study”), the Government of Japan dispatched through Japan International Cooperation Agency (JICA) the Study Team to the Federal Democratic Republic of Ethiopia at the completion of the First Home Office Work of the Study. The Study Team officially submitted twenty (20) copies of the Interim Report to the Oromia Irrigation Development Authority (hereinafter referred as “OIDA”), that presents all the results worked out through the Phase I Study.

Mr. Etafa Emama, General Manager of OIDA, officially opened the meeting. In response to his welcome address, Mr. Takao Shibusawa, Deputy Director – Agricultural Development Study Division of JICA, presented the opening remark to the meeting. In addition, Mr. Teshoma Lamma briefly reported the performance of his counterpart training in Japan held in February 2001.

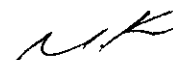
The Study Team explained the contents of the Interim Report to the Steering Committee meeting on 8th March 2001. The participants of the meeting are listed in the ANNEX. The Study Team made clarification for the comments raised by the Ethiopian side. The followings are major aspects discussed and confirmed by all the participants in the meeting.

The Ethiopian side agreed to execute the proposed six (6) programs of the Verification Study, which are stipulated in Chapter 8 of the Interim Report, for six (6) months in the Phase II Study. The Ethiopian side also agreed that both OIDA and Oromia Agricultural Development Bureau (OADB) would carry out the Verification Study according to the following demarcation of responsibilities.

Verification Study Program	Responsible Agency
Program 1 : Training of analytical methodology for water resources development	OIDA
Program 2 : Establishment of management information system and monitoring evaluation system of the OIDA irrigation schemes	OIDA
Program 3 : Environmental monitoring – irrigation water use in the Meki area	OIDA
Program 4 : Preparation of guideline for formation and operation of water users associations (WUA)	OIDA
Program 5 : Community resource mapping	OADB
Program 6 : Preparation of extension tools and research program for the Meki area	OADB

Mr. Etafa Emama stated that, for the period of the Verification Study, OADB would be in more advantageous position than OIDA in execution of Programs 5 and 6 by deploying the






existing human resources of OADB.

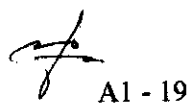
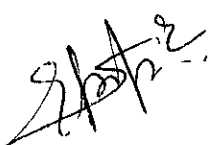
Oromia Co-operative Promotion Bureau (OCPB) requested their involvement in the Verification Study. OIDA replied that the responsibilities of community development are overlapped among three agencies, namely OIDA, OADB and OCPB. It was agreed that the Verification Study for Program 4 will be carried out by OIDA and if necessary OCPB would be involved. OIDA agreed to keep the close relationship with OCPB throughout the study period.

All the participants confirmed that the above-mentioned demarcation is only for the purposes of the Verification Study. The organizational set-up for implementation of the Master Plan will be discussed and optimized on the basis of the Verification Study results before finalization of the Study.

The participants sustained the basic concepts of the Oromia Rural Development Fund (ORDF) for encouraging small-scale irrigation development and others selected among the Master Plan by referring the past performance of ESRDF, which put more emphases on social sectors especially for education, health care and drinking water supply.

On the basis of the above-mentioned discussion, the Ethiopian side acknowledged the Interim Report.

In response to the requests by the Study Team, OIDA and OADB agreed to embark on in-depth study for the plan of operation of the Verification Study with the Study Team in the period from 12th to 16th March 2001.



A1 - 19



List of Participants**Ethiopian side:****Oromia Irrigation Development Authority (OIDA)**

Mr. Etafa Emama	General Manager
Mr. Teshome Atnafie Guyo	Chief Engineer, Counterpart Team Leader
Mr. Hassen Nur	Head, Irrigation Construction Department
Mr. Sileshi Getahun	Head, Irrigation Extension Department
Mr. Olani Wirtu	Head, Planning & Programming Service
Mr. Tadewos Adaba	Head, Community Participation Department
Mr. Teshome Lamma	Irrigation Engineer
Mr. Abera Chala	Construction Supervision Engineer
Mr. Abera Jhiferaw	Hydrologist
Miss Shitaye Lemma	Soil Expert

Oromia Agriculture Development Bureau

Mr. Emiru Mijana	Senior Agronomist
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Oromia Water, Mining, Energy Resource Development Bureau

Mr. Dereje Wako	Team Leader, Water Resources Management Team
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Oromia Co-operative Promotion Bureau

Mr. Lelissa Chalchissa	Head, Planning & Research Service
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Ministry of Economic Development and Cooperation (MEDaC)

Mr. Tamirat Kediro	Head, Asian, Australia & Middle East Countries
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Japanese side:**JICA Study Team**

Mr. Masayuki Koyama	Leader
Mr. Takuya Igawa	Deputy Leader, Irrigation and Rural Infrastructure
Mr. Yuichi Fukasaka	Rural Development

JICA Head Office

Mr. Takao Shibusawa	Deputy Director, Agricultural Development Study Division
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Note of Understanding
on
Preparatory Work
for
Verification Study in Phase-II Study
for
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia


Addis Ababa, 13th March 2001

Confirmation

The joint meeting was held among Oromia Irrigation Development Authority (OIDA), Oromia Agricultural Development Bureau (OADB) and JICA Study Team on 13th March 2001. It was agreed to complete the preparatory work by May 2001 for smooth commencement of the Verification Study according to the document attached hereto. The Ethiopian side strongly requested the Study Team to consider the financial assistance for transportation cost and travel allowance for the counterpart personnel and drivers within the budget of the Study. The Study Team promised to convey their request to the JICA headquarters.



Mr. Teshome Atnafie
Leader for Counterpart Team
Oromia Irrigation Development Authority (OIDA)



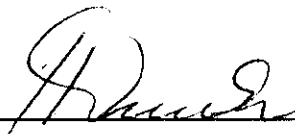
Mr. Beteccha Tuki
Leader for Counterpart Team
Oromia Agricultural Development Bureau (OADB)



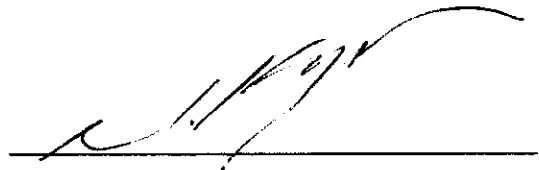
Mr. M. Koyama
Leader for the JICA Study Team

Minutes of Meeting
on
Progress Report (2)
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

Addis Ababa, 20th November 2001



Mr. Teshome Atnafie Guyo
General Manager
Oromia Irrigation Development
Authority (OIDA)
The Government of the Oromia
Regional State



Mr. Masayuki Koyama
Leader
The Study Team
Japan International Cooperation Agency
(JICA)

In accordance with the Scope of Work for the Study on Meki Irrigation and Rural Development Project in Oromia Region (hereinafter called the Study), the JICA Study Team officially submitted twenty (20) copies of the Progress Report (2) to OIDA at the completion of the Third Fieldwork of the Study. To discuss the Progress Report (2), the Steering Committee meeting was held at the OIDA headquarters on 20th November 2001. The participants of the meeting are listed in the ANNEX.

The JICA Study Team summarized the study results obtained through the Third Fieldwork, of which main objective is to execute the following six (6) programs of the Verification Study.

Verification Study Program	Responsible Agency
Program 1 : Training of analytical methodology for water resources development	OIDA
Program 2 : Establishment of management information system of the OIDA irrigation schemes	OIDA
Program 3 : Environmental monitoring – irrigation water use in the Meki area	OIDA
Program 4 : Preparation of guideline for formation and operation of water users associations (WUA)	OIDA
Program 5 : Community resource mapping	OADB
Program 6 : Preparation of extension tools and research program for the Meki area	OADB

In response to the presentation by the JICA Study Team, the following issues were discussed by all the participants of the meeting.

Environmental impact of irrigation development in the Meki river basin

OIDA requested the JICA Study Team to make more explanation on the results of environmental assessment on irrigation water use by prevailing small pumps in the Meki area. Referring to the hydrological analyses in the Phase-I study, the Study Team explained that current water consumption by the existing small pumps is presumed to be negligibly small although its exact volume is not known. The Study Team stated that it is crucial for OIDA as a government agency responsible for the irrigation sector of Oromia to continue the frequent monitoring of irrigation water use in the Meki and Ziway watersheds. The monitoring will enable OIDA to identify any environmental impacts of the proposed irrigation development at the earliest stage. Program 3 of the Verification Study, therefore, initiated the environmental monitoring focusing on irrigation water use in parallel to the promotion of the community-based irrigation development under Program 4.

River diversion

The Ethiopian side commented that the diversion of river water from the neighboring basins to the Meki area, where the irrigation water demands is higher. The JICA Study Team explained that a technical viability of the river diversion was not assessed under the Study. In this conjunction, the JICA Study Team recommended OIDA that it is also important for the OIDA engineers to study an introduction of water-saving irrigation methods, e.g. sprinkler and drip systems, to the Meki area, where water resources are limited although water demand is rapidly increasing.

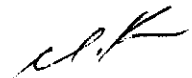
Involvement of Oromia Cooperative Promotion Bureau (OCPB)

OCPB requested OIDA to consider more involvement of OCPB at the initial stage of the WUA establishment by referring to advantages and benefits for registered cooperative members. According to the basic agreement between both agencies, OIDA replied that OIDA would not reject the involvement of OCPB and requested OCPB to undertake awareness creation among the WUA members in due course.

Extension materials concerning irrigation farming

OIDA requested the JICA Study Team to consider preparation of extension materials concerning irrigation farming techniques. The Study Team replied that aspects of extension materials were carefully selected through in-depth assessment with DAs and farmers in the Meki area. Since the extension materials for rain-fed farming are highly demanded in the Meki area, the priority was given to them under Program 6. In this regard, the Study Team suggested that the irrigation research in the Meki area is also important to optimize the irrigation techniques suitable for the local conditions of the Meki area prior to preparation of the extension materials concerned.

The Ethiopian side agreed that they would make more scrutiny on the Progress Report (2) and forward their comments through OIDA to the Study Team by 5th December 2001.



List of Participants**Ethiopian side:****Oromia Irrigation Development Authority (OIDA)**

Mr. Teshome Atnafie Guyo	General Manager
Mr. Gosa Wolde	Acting Chief Engineer
Mr. Hassen Nur	Head, Irrigation Construction Department
Mr. Tadewos Adiba	Head, Community Development Department
Mr. Olani Wirtu	Head, Planning & Programming Service
Mr. Biffa Bedade	Acting Head, Extension & Water Management Department
Mr. Birhanu Hirpo	Team Leader, Community Development Department
Mr. Amdisa Kelkela	Team Leader, Construction Administration Team
Mr. Ketema Legese	Public Relation Officer
Mr. Zarihun Hayile	Legal Advisor
Mr. Dagnachew Alemu	Irrigation Expert
Mr. Tesfaye Derisa	Irrigation Engineer
Mr. Negatu Bekele	Agronomist
Mr. Abebe Ayana	Environmentalist
Mr. Name Sori	Economist

Oromia Agricultural Development Bureau

Dr. Mohamed Hassan	Bureau Head
Mr. Mohammed Yekin	Acting Head, Extension Department (Program 6)
Mr. Benti Shimina	Community Development Expert (Program 5)

Co-operative Promotion Bureau

Mr. Ahmed Tuba	Head Office
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Bureau of Planning and Economic Development

Mr. Dinku Gurmessa	Team Leader, Water, Mines and Energy Development Planning Team
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Ministry of Finance and Economic Development

Mr. Gebremedihin Birega	Japan Desk Officer
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Japanese side:**The Study Team**

Mr. Masayuki Koyama	Team Leader
Mr. Takuya Igawa	Deputy Leader, Irrigation Engineer
Mr. Zetsugaku Kurita	Agronomist

JICA Ethiopia Office

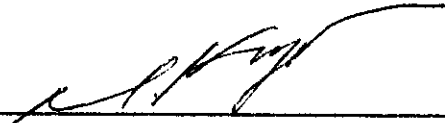
Mr. Yoshinori Ebata	Chief Representative
Mr. Hiroshi Sumiyoshi	Assistant Resident Representative

Minutes of Meeting
on
Draft Final Report
for
the Study on
Meki Irrigation and Rural Development Project
in Oromia Region, Ethiopia
agreed upon between
Oromia Irrigation Development Authority,
the Government of the Oromia Regional State
and
Japan International Cooperation Agency

Addis Ababa, 31st January 2002



Mr. Teshome Atnafie Guyo
General Manager
Oromia Irrigation Development
Authority (OIDA)
The Government of the Oromia
Regional State



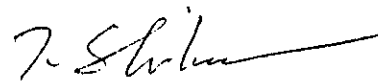
Mr. Masayuki Koyama
Leader
The Study Team
Japan International Cooperation Agency
(JICA)



Witnessed by



Mr. Hailemichael Kintu
Head of Bilateral Cooperation Department
Ministry of Finance and Economic
Development (MOFED)



Mr. Takao Shibusawa
Deputy Director
Agricultural Development Study Division
Japan International Cooperation Agency
(JICA)

In accordance with the Scope of Work for the Study on Meki Irrigation and Rural Development Project in Oromia Region (hereinafter called the Study), the JICA Study Team officially submitted twenty (20) copies of the Draft Final Report to OIDA at the commencement of Fourth Fieldwork of the Study. The steering committee meeting was held to discuss the Draft Final Report in Addis Ababa on 31st January 2002. The participants of the meeting are listed in the ANNEX.

The JICA Study Team made overall explanation on the Draft Final Report in the meeting. In response to the presentation by the JICA Study Team, all the participants discussed and agreed the following issues.

Project implementation

OIDA has officially submitted the aid proposal for the extension of the Study to the Government of Japan (GOJ). The proposal aims at extension of the capacity building program for the OIDA staff through the community-based irrigation development in the Meki area and the rehabilitation work of the model scheme to be selected among the existing schemes under the Central Branch Office of OIDA. The proposal is currently under the scrutiny by the GOJ.

Organizational arrangement

The appropriate organizational set-up would be a key issue for successful implementation of the Master Plan. OIDA will take a full responsibility for technical guidance and training to water users associations (WUA) at the initial stage of the community-based irrigation development project. In the following years, Oromia Cooperation Promotion Bureau (OCPB) will assist WUAs to access more government supports, e.g. credit and marketing. Further arrangement is required among the Oromia Government to set up appropriate coordination among the government organizations concerned.

Model project of participatory rural development

The Study enabled the Ethiopian counterpart personnel to accumulate valuable experiences of model plan formulation of the participatory rural development. Although the Study has region-specific natures, the development concepts and approaches taken by the Study are highly applicable not only to the entire Oromia but also to the other Regions of Ethiopia.

In this regard, the Ethiopian side requested the JICA Study Team to make a briefing of the Draft Final Report to the federal ministries including MOFED and Ministry of Agriculture (MOA) during his stay in Ethiopia. The JICA Study Team willingly accepted the request and suggested MOFED to contact the Japanese side when the relevant meeting will be arranged.

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Project monitoring

Three WUAs established through the verification study have already embarked on the irrigation farming. It is highly important to undertake a project monitoring under the responsibility of OIDA. The long-term monitoring will provide OIDA more information essential for sustainable development.

Capacity building

The wide range of the capacity building is required for successful implementation of the Master Plan. The capacity building program will cover not only individuals by technical in-service training and overseas training but also institutions as a whole linked with input of facilities and equipment. The JICA Study Team took note.

Comments on Draft Final Report

All the participants agreed that they would make more scrutiny on the Draft Final Report and forward their comments through OIDA to the JICA Study Team by 14th February 2002. Comments will be taken into consideration in preparation of Final Report to be submitted in March 2002.



List of Participants**Ethiopian side:****Oromia Irrigation Development Authority (OIDA)**

Mr. Teshome Atnafie Guyo	General Manager
Mr. Birhanu Bekele	Chief Engineer
Mr. Tadewos Adiba	Head, Community Development Department
Mr. Olani Wirtu	Head, Planning & Programming Service
Mr. Biffa Bedade	Head, Extension & Water Management Department
Mr. Birhanu Hirpo	Team Leader, Community Development Department
Mr. Amdisa Kelkela	Team Leader, Construction Department
Mr. Ermias Birru	Team Leader, Research
Mr. Abera Shiferaw	Hydrological Expert
Mr. Ketema Legese	Public Relation Officer
Mr. Negatu Bekele	Agronomist
Ms. Shittaye Lemma	Soil Expert

Oromia Agricultural Development Bureau

Mr. Mohammed Yekin	Acting Head, Extension Department
Mr. Benti Shimina	Community Development Expert

Oromia Bureau of Planning and Economic Development

Mr. Dinku Gurmessa	Senior Economist
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Oromia Water, Mining, Energy Resource Development Bureau

Mr. Fekadu Lebecha	Water, Mines and Energy Development Planning Expert
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Ministry of Finance and Economic Development

Mr. Gebremedihin Birega	Japan Desk Officer
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Japanese side:**The Study Team**

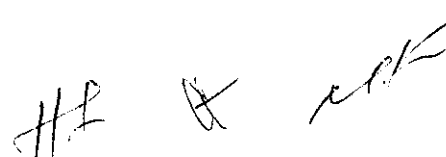
Mr. Masayuki Koyama	Team Leader
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JICA Ethiopia Office

Mr. Yoshinori Ebata	Resident Representative
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JICA Tokyo Headquarters

Mr. Takao Shibusawa	Deputy Director, Agricultural Development Study Division
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Attachments-2

Master Plan for Meki Irrigation and Rural Development Project

Verification Study Program

1. Training of analytical methodology for water resources development
2. Establishment of Management Information System and Monitoring and Evaluation System on OIDA Irrigation Schemes
3. Environmental monitoring – irrigation water use in the Meki area
4. Preparation of guideline for formation and operation of WUA
5. Community Resource Mapping
6. Preparation of extension tools and research program for the Meki area

Program 1	Training of analytical methodology for water resources development	
Target Group	OIDA Engineers in Head Office and Branch Offices (20 members)	
Background & Objectives:		
<p>OIDA irrigation engineers are requested to accumulate an experience of irrigation development project, such as planning, design, construction management, and operation and maintenance, so as to implement the project efficiently and smoothly. To achieve this target, it is necessary to carry out an intensive technology transfer program for OIDA engineers aiming at the capacity build-up of them. This verification program focuses on transfer of technology for data collection and analytical methodology for water resources development in line with the concept of [5-1] OIDA engineers training program among the selected projects in the master plan.</p>		
Activities:		
<p>The program includes a workshop followed by an intensive training course for hydrological analysis. The workshop will be carried out for some 20 engineers in both the head office and the branch offices in order to have a basic knowledge of data collection and compilation, and analysis of water resources development. The training course will provide the practical method of data collection and compilation to the selected 10 engineers.</p> <ul style="list-style-type: none"> • Data Collection • Data Compilation • Data Verification • Hydrological Analysis • Irrigation Water Demand • Hydrological Model • Management of Model • Water Quality Analysis • Operation and maintenance of hydrological equipment, method of data collection • Data compilation by use of personal computers, Primary data analysis (mean and variation) • Theory and methodology of river discharge measurement, preparation of rating curve • Hydrological analysis, estimation of dependable flow and flood discharge • Irrigation water requirement by FAO method (evapo-transpiration, percolation, effective rainfall, irrigation efficiency) • Hydrological basin model, and water balance simulation • Method of verification and management of hydrological basin model • Water quality standard, method of sampling, analysis and evaluation 		
<pre> graph TD A[• Data Collection] --> B[• Data Compilation] B --> C[• Data Verification] B --> D[• Irrigation Water Requirement] B --> E[• Water Quality Analysis] C --> F[• Hydrological Analysis] F --> G[• Hydrological Basin Model] D --> G E --> G G --> H[• Verification and Management of the Model] </pre>		
Input: JICA	<ul style="list-style-type: none"> 1) JICA Study Team (Irrigation, hydrology/water use) 2) Computers and printers 	Input: Ethiopian side
<ul style="list-style-type: none"> 1) Training room 2) Translator 		
Expected results and Information to be obtained		
<ul style="list-style-type: none"> 1) Awareness creation for improvement of OIDA engineers' capacity 2) Capacity build-up for data collection and analysis of meteorology and hydrology 3) Review of [5-1] OIDA engineers training program and preparation of training texts 		

Program 2	Establishment of Management Information System and Monitoring and Evaluation System on OIDA Irrigation Schemes	
Target Group	OIDA Engineers in Head Office and Branch Offices (20 members)	
Background & Objectives:		
<p>The objective of this program is to establish the information management system and method of data update, and monitoring and evaluation for 96 existing irrigation schemes managed by OIDA so as to manage the schemes intensively and comprehensively. The data and information to be collected are location (administration), funding source, natural condition, water resources, layout of the facilities, feature of the facilities, organization, progress of physical works, agriculture, problems and constraints, and so on.</p> <p>OIDA established in July 1999 have some institutional constraints for collection, compilation, and evaluation of information, especially for monitoring of progress of physical works, performance of scheme, technical issues, institutional status. In order to improve the OIDA engineers' capacity for the above fields, this verification program aims to formulate a management information system on the irrigation schemes, consisting of work flow of information management (Wareda•Branch Office• OIDA head office), preparation of data collection format, encoding of data, monitoring and evaluation, preparation of reports. The program will also carry out an institutional arrangement including responsibilities of staff and organization for smooth implementation of the management system.</p>		
Activities:		
<p>A workshop will be held to discuss objective of the management system with monitoring and evaluation, system need analysis, and implementation method for the system. The workshop for some 20 engineers will be followed by the transfer of technology for the management system, consisting of establishment of data base system, method of monitoring and evaluation, preparation of reports. The program consists of the following aspects:</p> <ol style="list-style-type: none"> 1)Data collection • Collection of data and information for existing 96 irrigation schemes, such as feasibility study reports, design reports, and other relevant reports and information required. 2)Data compilation • Compilation of salient features of schemes, drawings and maps, and data relevant to project management and institutional aspects. 3)Conceptualization • Study on purpose of system, target user, method of data transaction, and contents of reports. 4)Database design • Study on reporting system, such as management reports, post evaluation, regular reports, selection of application software, and preparation of data encoding format 5)Data encoding • Encoding by OIDA staff or external 6)PBME method • Establishment of a project monitoring and evaluation method by use of the system 7)Reporting • Study on report format by use of the system, and standardization of report preparation <p>Through the above procedures, capacity of OIDA engineers on management of database system and monitoring and evaluation will be strengthened. A operation and maintenance manual on the system will also be prepared.</p>		
Input: JICA	<ol style="list-style-type: none"> 1) JICA Study Team (Irrigation, hydrology/water use) 2) Computers and printers 3) Scanner and digital camera 	Input: Ethiopian side
Input: Ethiopian side <ol style="list-style-type: none"> 1) Training room 2) Translator 		
Expected results and Information to be obtained		
<ol style="list-style-type: none"> 1) Establishment of data base system and it's management in OIDA irrigation schemes 2) Establishment of periodical monitoring and evaluation 3) Standardization of procedure for planning, design, and construction supervision for irrigation development projects 4) Review of [5-1] OIDA engineers training program and preparation of training texts 		

Program 3	Environmental monitoring – irrigation water use in the Meki area												
Target Group	OIDA engineers of the Headquarters and Branch Offices (20 persons)												
<p>Background & Objectives :</p> <p>The monitoring of water use in the Meki area should be started as early as possible in order to optimize the water resources development in the Meki area. The water balance study verified that the water resources development of the Meki river would result in adverse environmental impact to Abijata lake although there is an alternative scheme to develop the gravity irrigation system with a diversion weir with less impact to the environment. However, due to lack of actual data and information on current and future water use conditions, the engineering study on the plan formulation can not completed. Moreover, the water analysis in the Abijata lake basin, which is the closed hydrological system, is more complex because the Abijata lake are fed by two major water sources, namely the Meki river and the Karar river. Therefore, comprehensive water use monitoring is prerequisite for future water resources development within the Abijata system. On the other hand, the World Food Program (WFP) embarked on the land and water conservation project for four (4) small watersheds within the Meki area. The project envisages preventing land and water degradation by applying afforestation within gullies and minor soil protection works. The progress and benefits of the WFP project should be monitored within the same framework of the environmental monitoring. All these ideas are formulated into one program of the M/P, namely [4-1] Environmental Monitoring Program.</p> <p>Program 3 aims at optimizing the environmental monitoring program. As a first step of Program 3, current water use by small-pump irrigation will be clarified and recorded at detail. Some 160 pumps have been introduced to the Meki area. Out of 160 units, 75 units are installed on the river bank of Meki and the lakeshore of Ziway in order to irrigate 75 ha and 300 ha, respectively. OIDA is in a position to control these activities. Program 3 will firstly prepare the database of these pump irrigation schemes apart from the database for the OIDA irrigation schemes.</p>													
<p>Activities :</p> <p>The database for the small pump irrigation development and water use will be prepared according to the following procedures.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">1) Data collection</td> <td>• Questionnaire survey for 160 pump owners</td> </tr> <tr> <td>2) Data compilation</td> <td>• Users, specification of pumps & related facilities, O&M, etc.</td> </tr> <tr> <td>3) Data input</td> <td>• Data input by the OIDA staff with technical assistance of the JICA Study Team</td> </tr> <tr> <td>4) Application</td> <td>• Data categorization by water resource, management system, marketing activities, problems and needs.</td> </tr> <tr> <td>5) RRA for farmers group</td> <td>• More detailed information of community-based pump irrigation schemes in terms of problems and needs</td> </tr> <tr> <td>6) Report preparation</td> <td>• Procedure of annual report preparation</td> </tr> </table>		1) Data collection	• Questionnaire survey for 160 pump owners	2) Data compilation	• Users, specification of pumps & related facilities, O&M, etc.	3) Data input	• Data input by the OIDA staff with technical assistance of the JICA Study Team	4) Application	• Data categorization by water resource, management system, marketing activities, problems and needs.	5) RRA for farmers group	• More detailed information of community-based pump irrigation schemes in terms of problems and needs	6) Report preparation	• Procedure of annual report preparation
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5) RRA for farmers group	• More detailed information of community-based pump irrigation schemes in terms of problems and needs												
6) Report preparation	• Procedure of annual report preparation												
<p>Input : JICA</p> <p>1) JICA Study Team 2) Computers and printers 3) Bicycles for DAs</p>	<p>Input : Ethiopian side</p> <p>1) Training rooms at OIDA and Wareda office 2) Translator</p>												
<p>Expected Results and Information to be Obtained:</p> <p>1) Current water use by small-pump irrigation 2) Capacity building of OIDA and Wareda staff in data collection and analysis 3) Awareness creation in OIDA for environmental conservation 4) Review of [4-1] Environmental Monitoring Program 5) Review of [1-2] Meki Irrigation and Water Supply Project</p>													

Program 4	Preparation of guideline for formation and operation of WUA	
Target Group	Community development experts and social workers of the Headquarters and Branch Offices (20 persons)	
<p>Background & Objectives :</p> <p>The community-based irrigation development in Dugda Bora Wareda extends to 400ha under the management of 15 WUAs organized by 500 household. These irrigation schemes contribute to the regional economy through production of both food crops and vegetables as well as creation of employment opportunities to local farmers. Successful performance also empowers local farmers, who are not involved in the irrigation projects, as a whole. This verification study program focus on standardization of community mobilization for establishment of WUAs for small-scale irrigation development (5 ha) in line with the concept of [1-1] Water Users Association Support Program. The Program will provide the training to the OIDA community development experts and social workers under Community Participation Department.</p> <p>According to the OIDA Wareda Office at Meki, some 20 groups have already requested OIDA to provide both technical and financial supports for the small-scale irrigation development. Among already recognized groups, three (3) groups will be selected and actually participate in the small-scale irrigation development. The OIDA staff will organize PRA, in which direct interview, questionnaire survey, focus group discussion and community resources mapping, etc. The PRA will lead the groups to formulate group fund under the registered bank accounts. A pumping facility will be supplied to a group after consensus and mutual agreement will be attained within a group.</p>		
<p>Activities :</p> <p>(1) Seminars and Workshops with Community development experts and social workers</p> <ol style="list-style-type: none"> 1) Government policies for agricultural and rural development as well as poverty alleviation at national and regional levels 2) Concepts and procedures of participatory development 3) Gender issues 4) Environmental conservation and watershed management 5) Basic knowledge on irrigation farming and O&M of irrigation facilities 6) Agricultural support systems including micro-credits 7) NGO files <p>(2) PRA and PBME</p> <ol style="list-style-type: none"> 1) PRA with candidate groups for WUAs at 3 locations 2) Community mobilization for group fund formation 3) Irrigation development with 3 groups 4) Project monitoring 		
<p>Input : JICA</p> <ol style="list-style-type: none"> 1) JICA Study Team 2) Small pumps with essential attachments and spare parts 3) Installation cost for small pumps 		<p>Input : Ethiopian side</p> <ol style="list-style-type: none"> 1) Translator
<p>Expected Results and Information to be Obtained:</p> <ol style="list-style-type: none"> 1) Accumulated experiences and information for process of WUAs establishment 2) Trained facilitators 3) NGO files 4) Awareness creation for poverty alleviation and environmental conservation within OIDA staff 5) Review of [1-1] Water Users Association Support Program 6) Review of [1-2] Meki Irrigation and Rural Water Supply Project 7) Review of Oromia Rural Development Fund 		

Program 5	Community Resource Mapping
Target Group	Wareda staff and Development Agents (DA)
<p>Background & Objectives :</p> <p>Peasant Associations (PAs) are the lowest administrative societies to exert community development in association with the government services. Dugda Bora Wareda consists of 54 PAs. Each PA comprises some 500 households on an average (804 at maximum and 154 at minimum). The PA representatives are appointed by the Wareda (District) Administrator with prior consent of relevant rural communities in PAs. In addition to PAs, there are several communities in rural areas of Ethiopia. These traditional communities play important roles in communication among inhabitants and decision making in rural activities. The JICA Study carried out the preliminary studies on traditional communities in cooperation with Development Agents. Family-based groups are called ‘Edir’ in rural areas of Oromia Region. Some 500 edirs are identified within 54 PAs of Dugda Bora Wareda. Each edir consists of 20 to 100 households (40 HH on average). The Study focuses on these existing communities as nucleus bodies for future rural development. In order to verify their geographical positions, community members, natural resources, social conditions, etc., this program aims at preparation of Community Resource Maps. In addition, their applicability will also be examined through actual community development, especially for formation of WUAs under the Verification Program 4.</p>	
<p>Activities :</p> <p>Program 5 will be carried out according to the following steps.</p> <ol style="list-style-type: none"> 1) Field survey with DAs for PAs, which are located along the Meki river and the Ziway lake. The WUA formation for community-based irrigation will be promoted in these PAs 2) Map preparation by incorporating various community data to be obtained through the field survey 3) Preparation of list of communities at the edir level and community leaders 4) Communication channels between communities 5) Preparation of thematic maps for road networks, drinking water facilities, schools, land use and vegetation cover, etc. 6) Indicating market information on the maps 7) Trial application of the maps for community awareness creation and mobilization for the WUA formation under Program 4 8) Trial application of the maps for extension services with DAs 9) Workshop for Community Resource Maps 	
<p>Input : JICA</p> <ol style="list-style-type: none"> 1) JICA Study Team 2) Vehicles 3) Computers and printers 4) Scanner 5) Bicycles for DAs 	<p>Input : Ethiopian side</p> <ol style="list-style-type: none"> 3) Staff Training Section, Bureau of Agriculture 4) Training rooms at OIDA and Wareda office 5) Translator
<p>Expected Results and Information to be Obtained:</p> <ol style="list-style-type: none"> 1) Community resources maps of Dugda Bora Wareda with detailed maps for selected PAs 2) Applicability of community resource maps for the WUA formation 3) Analytical results of applicability and further possibilities for community resource maps 4) Empowerment of Wareda staff and DAs 5) Review of [5-4] Community Resource Mapping Project 	

Program 6	Preparation of extension tools and research program for the Meki area	
Target Group	Wareda staff, Development Agents (DA) and Farmers	
<p>Background & Objectives :</p> <p>Improvement of rain-fed agriculture techniques is utmost important in the semi-arid Meki area. Program 6 aims at preparation of region-oriented extension tools and research program focusing on the specific natural conditions of the Meki area.</p> <p>The program will be executed in collaboration with the agricultural research institutes such as the Melkasa station and the zonal office of Bureau of Agriculture. There are several extension tools and materials in Ethiopia. They were prepared by MOA being assisted by donors and NGOs. However, they are not accessible for all the DAs and farmers. Taking into consideration high illiteracy rate in the rural area of Oromia Region, the existing extension materials should be reviewed for enhancement of their adaptability. Firstly all the existing extension materials will be collected and studied in order to develop more applicable ones suited to the Meki area. Secondly, the necessity of further agricultural research to select promising crop production techniques, which will be reflected for improvement of extension materials. To obtain actual data and information, further research program will be designed. The major aspects for this Program 6 will include:</p> <ol style="list-style-type: none"> 1) Crop selection, cropping patterns, mixed cropping, crop seasons, etc. 2) Preservation and puerile selection of traditional varieties, multiplication of improved varieties, etc. 3) Improvement of farming practices and implements 4) Mulching and soil conservation practices 5) Optimization of fertilization suitable for the local conditions of the Meki area 6) Precaution of pests and disease out-break 7) Optimum post-harvesting techniques for maximum use of crop residues as animal feed 8) Improvement of soil fertility by applying organic matters and effective micro-organisms (EM) 9) Improvement of soil fertility by introduction of more legumes in crop rotation 10) Soil diagnosis and assessment to prevent from salinity hazard and soil erosion 11) Establishment of supplemental irrigation and drainage method by optimizing water supply amount and interval 		
<p>Activities :</p> <p>Program 6 will be carried out according to the following steps.</p> <ol style="list-style-type: none"> 1) Technical discussion with agricultural researchers, extension officers and NGOs 2) Collection of existing research data and extension materials 3) Preparation of extension materials more suitable for the local conditions of Oromia Region 4) Preparation of Plan of Operation of agricultural research program 5) Workshop with OIDA and Bureau of Agriculture 		
<p>Input : JICA</p> <ol style="list-style-type: none"> 1) JICA Study Team 2) Computers and printers 3) Scanner 4) Illustrator 5) Text books for DAs, leaflets and posters for farmers 	<p>Input : Ethiopian side</p> <ol style="list-style-type: none"> 1) Training rooms at OIDA and Wareda office 2) Translator 	
<p>Expected Results and Information to be Obtained:</p> <ol style="list-style-type: none"> 1) Extension materials including text books for DAs, leaflets and posters for farmers 2) Accumulated experience of extension activities by applying materials to be prepared 3) Plan of Operation of agricultural research program 4) Review of [2-1] Semi-Arid Farming Improvement Project 		