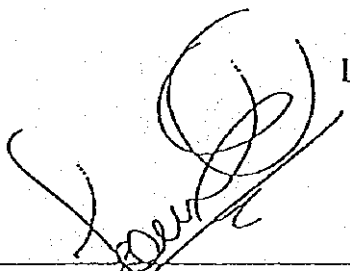


SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
AGRICULTURAL DEVELOPMENT  
OF  
ACHACACHI AREA, DEPARTMENT OF LA PAZ  
IN  
THE REPUBLIC OF BOLIVIA

AGREED UPON BETWEEN


SECRETARIA NACIONAL DE AGRICULTURA Y GANADERIA  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

La Paz, 24 July, 1996



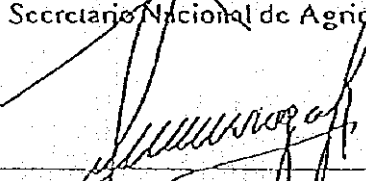
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Mr. Oscar Ponce  
Secretario Nacional de Agricultura y Ganaderia



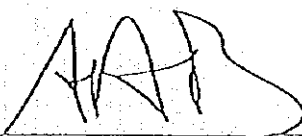
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Mr. Takeaki Sato  
Leader,  
Japanese Preparatory Study Team,  
Japan International Cooperation  
Agency



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Mr. German Quiroga  
Prefecto  
Departamento del La Paz



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Mr. Juan Carlos Aguilar  
Sub-Secretario Inversion Publica y Financiamiento Externo

## I. Introduction

In response to the request of the Government of the Republic of Bolivia (hereinafter referred to as "the Government of Bolivia"), the Government of Japan decided to conduct the Feasibility Study on Agricultural Development of Achacachi Area, Department of La Paz (hereinafter referred to as "the Study"), in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Bolivia signed on the 22nd of March 1978 (hereinafter referred to as "the Agreement"). Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Bolivia.

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

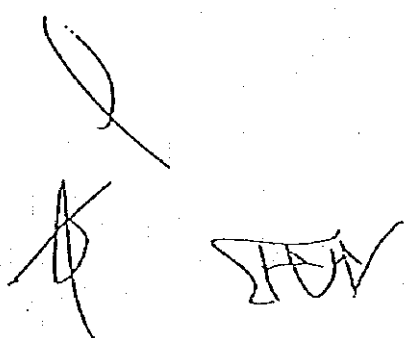
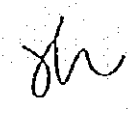
## II. Objectives of the Study

The objectives of the Study are:

1. to conduct the Feasibility Study on Agricultural Development of Achacachi Area, Department of La Paz in order to formulate agricultural development plan, and
2. to carry out technology transfer to the Bolivian counterpart personnel through on-the-job training in the course of the Study.

## III. Study area

The study area covers approximately 8,000ha in Achacachi area which is about 80 km northwest from La Paz. (See the location map attached as ANNEX 1)

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#### IV. Scope of the Study

In order to achieve the above objectives, the Study will consist of two(2) phases and following items.

##### 1. Phase I

1.1. Review of the existing development plans and projects in the study area.

1.2. Collection, review and analysis of relevant existing data and information and field survey:

##### (1) Natural condition

- a. topography
- b. vegetation
- c. meteorology
- d. hydrology
- e. geology
- f. soil
- g. water quality
- h. others

##### (2) Social and economic condition

- a. population
- b. household
- c. employment
- d. regional economy
- e. farmers' economy
- f. land tenure
- g. rural and social infrastructure
- h. agricultural credit
- i. others

##### (3) Agricultural condition

- a. land use and cropping pattern
- b. agricultural production
- c. irrigation and drainage system
- d. water management
- e. agricultural facility and infrastructure
- f. farmers' organizations
- g. agricultural supporting system
- h. postharvest and marketing system
- i. others

(4) Environmental conditions

- a. natural condition
- b. social condition
- c. others

(5) Other information related to the project

- a. Women in Development (WID)
- b. administrative organization
- c. others

1.3. Initial Environmental Examination (IEE) .

1.4. Preparation of topographic map(s) at scale of 1/5,000 for the study area.

1.5. Identification of basic concept on agricultural and rural development plan in the study area.

2. Phase II

2.1. Additional collection of data and information, and detailed field survey in the study area.

2.2. Formulation of agricultural development plan of the study area with the following components:

(1) Agricultural development plan

- a. land use
- b. agricultural production system in dry and wet season (cropping pattern, farmers' economy, etc.)
- c. irrigation and drainage system
- d. postharvest and marketing system
- e. farmers' organization
- f. agricultural supporting system (agricultural extension, agricultural credit, etc.)

(2) Plan of basic infrastructure for agricultural production

- a. community road
- b. community facilities

- (3) Operation and maintenance plan
- (4) Environmental conservation plan
- (5) Preliminary design of major structures
- (6) Project implementation schedule
- (7) Estimation of the project cost and benefits
- (8) Evaluation of the project

### 2.3. Recommendations.

## V. Study schedule

The Study will be carried out in accordance with the attached tentative work schedule. (ANNEX 2)

## VI. Reports

JICA will prepare and submit the following reports in Spanish and English to the Government of Bolivia.

### 1. Inception Report

Fifteen (15) copies in Spanish and Five (5) copies in English at the commencement of the Phase I Study.

### 2. Progress Report (1)

Fifteen (15) in Spanish and Five (5) copies in English at the end of the work in Bolivia of the Phase I Study.

### 3. Interim Report

Fifteen (15) copies in Spanish and Five (5) copies in English at the commencement of the Phase II Study.

### 4. Progress Report (2)

Fifteen (15) copies in Spanish and Five (5) copies in English at the end of the work in Bolivia of the Phase II Study.

5. Draft final Report

Twenty (20) copies in Spanish and Five (5) copies in English at the end of the Phase II Study. The Government of Bolivia will provide its comments on the Draft Final Report to JICA within one (1) month after receiving the Draft Final Report.

6. Final Report

Fifty (50) copies in Spanish and English (only Main Report) within two (2) months after the receipt of comments on the Draft Final Report. In case any doubt arises in interpretation, English text shall prevail.

VII. Undertakings of the Government of Bolivia

1. The Government of Bolivia shall accord privileges, exemptions and other benefits to the study team in accordance with the Agreement.
2. To facilitate smooth conduct of the study, the Government of Bolivia shall take necessary measures:

(1) to secure the safety of the Japanese study team,

(2) to permit the members of the Japanese study team to enter, leave and stay in the Republic of Bolivia for the duration of their assignment therein, and exempt them from foreign registration and consular fees,

(3) to exempt the members of the Japanese study team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into and out of the Republic of Bolivia for the conduct of the Study,

(4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Japanese study team for their services in connection with the implementation of the Study,

(5) to provide necessary facilities to the Japanese study team for the remittance as well as the utilization of the funds introduced into the Republic of Bolivia from Japan in connection with the implementation of the Study,

(6) to secure permission for the Japanese study team to enter private properties or restricted areas for the implementation of the Study,

(7) to secure permission for the study team to take all data and documents related to the Study, including maps and photographs, out of the Republic of Bolivia to Japan, and

(8) to provide the Japanese study team with medical services as needed.  
The expenses will be chargeable on the members of the Japanese study team.

3. The Government of Bolivia shall bear claims, if any arises, against the members of the Japanese 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 Japanese study team.

4. Direccion Nacional de Riego y Suelos de la Secretaria Nacional de Agricultura y Ganaderia shall act as a counterpart agency to the Team and also as coordinating body in relation with Government of La Paz Department and other relevant organizations concerned for the smooth implementation of the study.

5. Direccion Nacional de Riego y Suelos de la Secretaria Nacional de Agricultura y Ganaderia shall provide, at its own expense, the Japanese study team with the following, in cooperation with other organizations concerned:

(1) available data, maps and information related to the Study,

(2) counterpart personnel,

(3) suitable office spaces with necessary furniture in La Paz and Achacachi, and

(4) credentials or identification cards.

## VIII. Undertaking of JICA

For the implementation of the Study, JICA shall take the following measures:

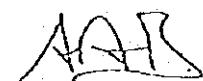
1. to dispatch, at its own expense, the study team to the Republic of Bolivia, and
2. to pursue technology transfer to the counterpart personnel of the Government of Bolivia in the course of the Study.

## IX. Consultation

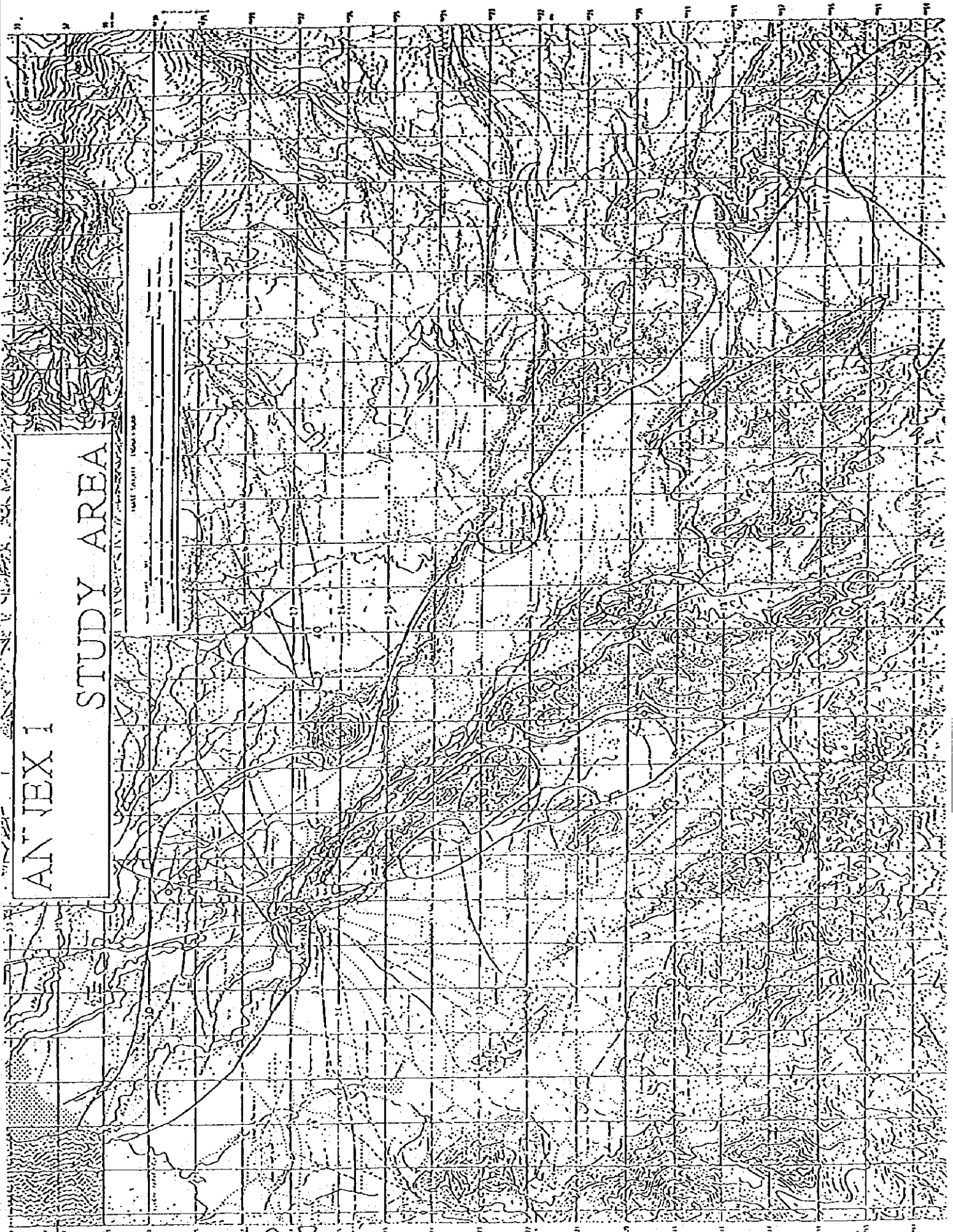
JICA and the Government of Bolivia shall consult with each other in respect of any matter that may arise from or in connection with the Study.

## X. Translation

The Scope of Work is prepared both English and Spanish. In case any discrepancy of translation arises between two languages, English version shall prevail.







AN JEX I  
STUDY AREA

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TENTATIVE WORK SCHEDULE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Work in Bolivia														
Home office work in Japan														
Mapping														
Submission of reports														
	△	△	△	△	△	△	△	△	△	△	△	△	△	△
	Ic/R		P/R(1)		I/R		P/R(2)		D/R		F/R			

(Remarks)

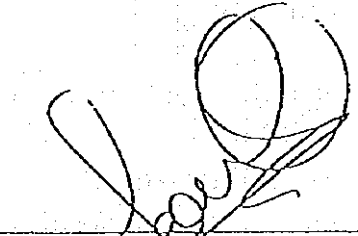
- Ic/R : Inception Report
- P/R(1) : Progress Report(1)
- I/R : Interim Report
- P/R(2) : Progress Report(2)
- D/R : Draft Final Report
- F/R : Final Report
- ◎ : Comments on DF/R by the Bolivia side

MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
AGRICULTURAL DEVELOPMENT  
OF  
ACHACACHI AREA, DEPARTMENT OF LA PAZ  
IN  
THE REPUBLIC OF BOLIVIA

AGREED UPON BETWEEN

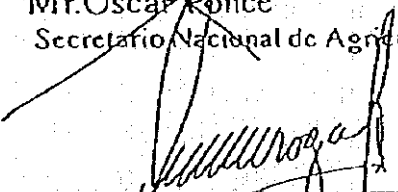
SECRETARIA NACIONAL DE AGRICULTURA Y GANADERIA  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

La Paz, 24 July, 1996



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Mr. Oscar Ronce  
Secretario Nacional de Agricultura y Ganaderia



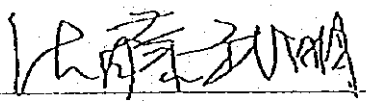
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Mr. German Quiroga  
Prefecto,  
Departamento del La Paz



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Mr. Juan Carlos Aguilar  
Sub-Secretario de Inversion Publica y Financiamiento Externo



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Mr. Takeaki Sato  
Leader,  
Japanese Preparatory Study Team,  
Japan International Cooperation  
Agency

The preparatory study team (hereinafter referred to as "the Team") organized by Japan International Cooperation Agency (hereinafter referred to as "JICA"), and headed by Mr. Takeaki SATO, visited the Republic of Bolivia from July 14th to August 1st, 1996 for the purpose of discussing and confirming the Scope of Work for the Feasibility Study on Agricultural development of Achacachi Area, Department of La Paz (hereinafter referred to as "the Study").

The Team had a series of discussions with the officials concerned at Secretaria Nacional de Agricultura y Ganaderia (hereinafter referred to as "SNAG") and other organizations on the Scope of Work for the Study. The list of participants in the meeting is attached in the ANNEX.

As a result of the discussions, the Team and SNAG agreed to the Scope of Work for the Study.

The following are the main issues discussed and agreed upon by both sides in relation to the Scope of Work for the Study.

1. SNAG requested that the area of about 8000ha be studied including the upper Keka river basin from the following view points:

(1) It is necessary to consider the use of water in the whole river basin to formulate appropriate agricultural development plan.

(2) It is necessary to consider the participation and coordination of twenty-eight(28) communities of lower and upper basins in view of water management and implementation of the project in the future.

As a result of the discussions the Team agreed to the request of SNAG.

2. The length of rural community road to be studied in the study area shall be approximately sixty(60)km.

3. JICA shall execute the Initial Environment Examination(IEE) in the phase I Study. Based on the result of IEE, JICA will consult with SNAG whether the Environmental Impact Assessment(EIA) should be executed.

JICA-12

4. SNAG requested that the following equipment necessary for the Study be facilitated by JICA. The Team promised to convey its request to the Government of Japan.

- copying machine
- facsimile
- vehicle(s)
- other necessary equipment

5. SNAG requested the counterpart training in Japan. The Team promised to convey its request to the Government of Japan.

6. SNAG shall provide the Japanese study team with one(1) liaison office in La Paz and one(1) office for about ten(10) persons in Achacachi.

7. SNAG shall facilitate two(2) vehicles for Bolivian counterpart personnel.

8. During the Study SNAG through Direccion Nacional de Riego y Suelos shall coordinate with the Government of La Paz Department considering gradual transfer of counterpart agency to La Paz Department within the framework of a specific agreement under the existing laws in force.

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*SP*

*AAB*

## ANNEX

### LIST OF PARTICIPANTS

#### 1. Bolivia side

Mr. Lucio Colque	Chief of Technical Team(SNAG/DNRS)
Mr. Victor Lara	Irrigation Engineer(SNAG/DNRS)
Mr. Victor Laguna	Organization Engineer(DNRS/PRAV)
Mr. Fernando Nava	Engineer(Government of La Paz Department)
Mr. Eddy Balderrama	Agricultural Economist(SNAG/DNRS)
Mr. Renato Montano	Hydraulic Works Engineer(DNRS/PRAV)
Mr. Samuel Tapia	Agronomy(Government of La Paz Department)

DNRS: Direccion Nacional de Riego y Suelos  
PRAV: Programa de Riego Altiplano/Valles

#### 2. JICA Preparatory Study Team

Mr. Takeaki Sato	Leader
Mr. Manabu Kashiwabara	Coordinator
Mr. Nobuaki Ichikawa	Agricultural and Rural Development
Mr. Kosaku Okubo	Agriculture
Mr. Isao Dojun	Environment
Mr. Yoshimi Sugano	Interpreter

#### 3. Embassy of Japan

Mr. Eisaku Nomura	Second secretary
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#### 4. JICA Bolivia Office

Mr. Akira Kumano	Assistant Resident Representative
Mr. Carlos Omoya	Senior Official

#### 5. JICA expert

Mr. Toshiaki Chiga	Irrigation and Drainage
Mr. Hiroshi Takasawa	Agriculture









JICA