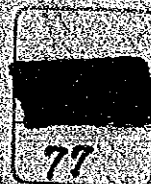


**Preliminary Design of  
Gastro-enterological Research Center  
in the Republic of Bolivia**

October 1977



**JAPAN INTERNATIONAL COOPERATION AGENCY**



702 C  
R 5 60 4

To

No. 6347

JICA LIBRARY



1054456[7]

国際協力事業団	
受入 月日 84.19.25	702
登録No. 09028	93
	SDS



## C O N T E N T S

<u>Title</u>	<u>Page</u>
Sumario del Diseño Preliminar (Spanish Summary) .....	i
Chapter 1: Dispatch of a Survey Team	
1-1 The Purpose of Dispatching a Survey Team .....	1
1-2 Members of the Survey Team	
1-2-1 Members of the Survey Team .....	1
1-2-2 Members of the Draft Reporting Team .....	2
1-3 Members of the Bolivian Authorities Concerned .....	3
1-4 Itinerary of the Survey Team	
1-4-1 Itinerary of the Survey Team .....	4
1-4-2 Itinerary of the Draft Reporting Team .....	9
Chapter 2: Survey Report - Part 1	
2-1 Investigation and Discussion of Basic Problems ....	13
2-2 Basic Plan for the Gastro-enterological Research Center	
2-2-1 Organization Status of the Research Institute .....	15
2-3 Future Outlook and Problems	
2-3-1 Problems Involved in Construction .....	17
2-3-2 Administrative Problems .....	17
2-3-3 Personnel Problems .....	18
Chapter 3: Survey Report - Part 2	
3-1 Survey on Design and Construction Environment	
3-1-1 Country and Natural Features of the City of La Paz .....	25
3-1-2 Situation of the Construction Industry .....	31
3-1-3 General Construction Methods in the City of La Paz .....	35
3-1-4 Survey on Actual Examples of Construction Projects .....	44
3-1-5 Utilities and Other Services in the City of La Paz .....	47
3-1-6 Situation of Construction Materials .....	53
3-1-7 Present Situation in Maintenance Management .....	55
3-1-8 Laws, Regulations and Engineering Standards .....	57

	<u>Title</u>	<u>Page</u>
3-2	Survey on Construction Costs	
3-2-1	Increasing Rate of Prices .....	59
3-2-2	Present Trend and Changes of Construction Materials .....	61
3-2-3	Survey on Labor Costs .....	62
3-2-4	Transporting of Building Materials .....	64
3-2-5	Construction Costs .....	68
3-3	Survey on Building Site	
3-3-1	Outline of Building Site .....	69
3-3-2	Soil Condition of Building Site .....	72
3-3-3	Present Condition of Utilities and Services at the Site .....	73
 Chapter 4: Preliminary Design		
4-1	Basic Design	
4-1-1	Design Conditions .....	77
4-1-2	Design Concept .....	78
4-1-3	Layout Plan .....	79
4-1-4	Architectural Design .....	81
4-1-5	Selection of Building Materials .....	84
4-1-6	Exterior Design .....	85
4-1-7	Structural Design .....	86
4-1-8	Electrical Service .....	90
4-1-9	Heating and Air-conditioning .....	103
4-1-10	Water Supply, Drainage and Sanitation .....	106
4-2	Architectural Drawings .....	111
4-3	Construction Cost Estimate .....	126
4-4	Time Schedule .....	128
4-5	Scope of Work .....	129
 Reference Material		
I	Technical Report of the Test Boring of the Site ...	131
II	Building Data Sheet (Hoja de Datos de Edificio) ...	138
III	Related Articles in Bolivian Newspapers .....	139

**Sumario**

**(Spanish Summary)**





## SUMARIO DEL DISEÑO PRELIMINAR

### Plan Básico

Este Centro de Estudio fue planeado en estrecha relación con el proyecto de Cooperación Técnica en Enfermedades Gastroenterológicas que se lleva adelante en la actualidad y que tiene por objeto la investigación y educación de alto nivel.

Este Centro de Estudio tiene el carácter de un órgano bajo el mando directo del Ministerio de Previsión Social y Salud Pública de la República de Bolivia, y su organización interna consiste en: Sección de Diagnóstico- cuyos ramos principales son: exámenes radiológicos, endoscópicos, e histopatológicos-, la Sección de Clínica y Consulta Externa.

El plan original de este Centro de Estudio ha sido elaborado en base al acuerdo suscrito como resultado del estudio y discusiones entre las autoridades competentes del Gobierno de Bolivia y la Misión Japonesa de Estudios del Diseño Básico, contándose para el efecto con las recomendaciones del Equipo de Colaboradores del Proyecto de Tecnología Terapéutica.

El sumario del diseño básico es como sigue.

### Ubicación

En un terreno de unos 3.000 m<sup>2</sup> dentro del recinto del Hospital de Clínicas en el Distrito de Miraflores, ciudad de La Paz.

### Proyecto de Disposición

Se tratará de concentrar en una porción reducida el área de ocupación, con el fin de no alterar el ambiente de contornos.

Se utilizarán eficazmente la vía de acceso principal proyectado para el recinto de este hospital; esta vía se ubicará en el lado oeste

y la vía de acceso de servicios en el lado este.

### Plan de Construcción

Las funciones del Centro de Estudio se dividirán en 4 secciones y un Auditorio, y se proyectará la siguiente composición de pisos según las funciones.

2º piso -- Hospital y Sala de operaciones.

1er piso - Salas de médicos y Laboratorios.

Planta baja

-- Clínica y Consulta Externa, Sección de Radiología y Auditorio.

Sótano -- Sala de máquinas, Sala de electricidad, Cocina y Lavandería.

El paso de subida y bajada se hará por medio de dos escaleras, y se instalará un ascensor para la camilla y un montaplatos para el abastecimiento de comida.

La superficie total proyectada, de todos los pisos de este Centro, será de 3.760 m<sup>2</sup>.

### Proyecto de Estructura

Será de hormigón armado con 6 m de espacio de módulo. El cómputo estructural se sujetará a las normas del Japón, EE. UU. y Alemania Occidental.

### Descripción de Infraestructuras

Electricidad: Se instalarán: Subestación eléctrica, equipo completo de electrogeneración de reserva para emergencia, instalación para la fuerza motriz y conexión con la red de distribución.  
Sistema de altavoces, sistema de llamada de enfermeras, sistema de teléfonos internos, sistema de alarma, etc.

Aire acondicionado: Calefacción y aire acondicionado para las salas de operaciones en el 2° piso.

Calefacción Central: Se instalará el sistema de calefacción central directa en cada cuarto, mediante el sistema de agua caliente desde la caldera de combustión de petróleo crudo.

Ventilación: En los cuartos donde se produce mal olor o humo, tales como cocina, lavandería, salas de inspección, etc. se instalará el sistema de ventilación de aire mecánicamente forzado.

Abastecimiento de Agua y Desagüe: Abastecimiento del agua fresca y del agua caliente. Desagüe en general e instalación especial de tratamiento de desagüe (sala de operaciones y laboratorios). Instalación de aparejos sanitarios. Matafuegos de gas de ácido carbónico. Instalación de tubería de distribución de gas propano, etc.

Otros: Instalación completa de cocina, equipos de lavandería, tubería de aspiración y de oxígeno; equipo de ablandamiento del agua, de esterilización de agua, cámara de tiro de aire, alumbrado sin sombras, autoclave, etc.

#### Alcance de Obras

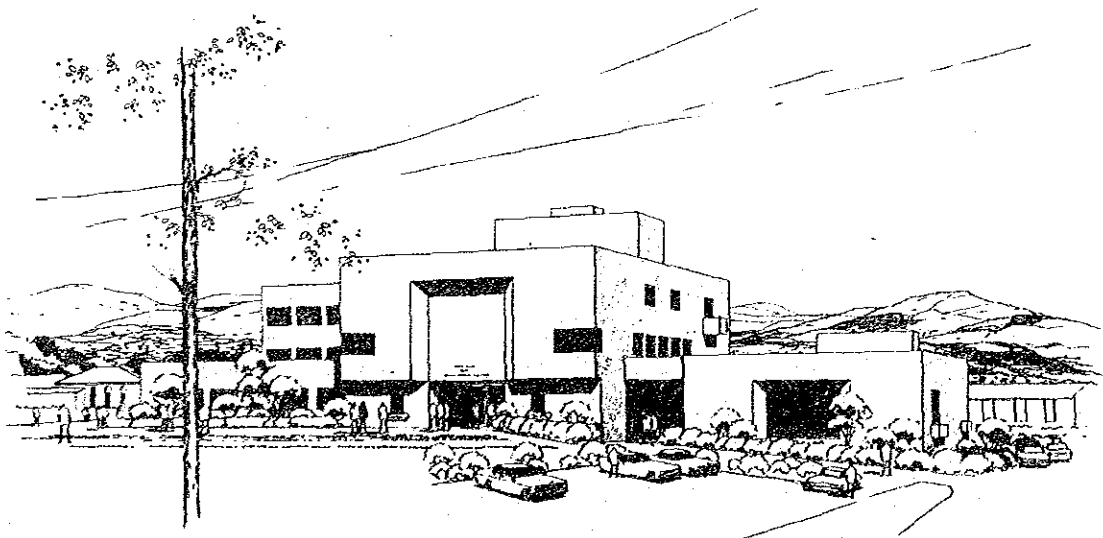
Al construir este Centro de Estudio, las obras mencionadas a continuación se prepararán o ejecuturán por parte boliviana.

- 1) Preparación del terreno.
- 2) Vías de acceso provisional, instalación provisional para la energía eléctrica, abastecimiento y mantenimiento provisionales

de agua y desagüe.

- 3) Instalación de tuberías para abastecimiento de agua y de desagüe.
- 4) Obra de conexión de línea de electricidad y de teléfono.
- 5) Obras de lindes.
- 6) Vía principal de acceso y parque de estacionamiento de vehículos y su mantenimiento respectivo.

Además, todos los trámites legales exigidos por las Leyes y los Reglamentos vigentes en la República de Bolivia se procederán bajo y por responsabilidad de la parte boliviana.



## **Chapter 1**

### **Dispatch of a Survey Team**



## 1-1 The Purpose of Dispatching a Survey Team

The mission of the Survey Team was to conduct a survey to develop a basic design for the construction of the Gastro-enterological Research Center in the Hospital de Clinicas affiliated to the Medical Department of San Andres University located in the center of La Paz. This is a part of the Japanese grant to Bolivia requested by the Bolivian Government.

## 1-2 Members of the Survey Team

### 1-2-1 Members of the Survey Team

Team Leader: General

Toshihiko Kamegai,  
Professor  
1st Dept. of Surgery  
TOHO UNIVERSITY SCHOOL OF MEDICINE

Team Members: Medical Research

Shintaro Kuramoto,  
Associate Professor  
1st Dept. of Surgery  
TOHO UNIVERSITY SCHOOL OF MEDICINE

Medical Facilities

Takayoshi Terai  
Architectural Specialist  
Architectural Div. Medical Bureau  
MINISTRY OF HEALTH & WELFARE

Isao Arikawa  
Assistant Chief  
Health Information Div. Public Health Bureau  
MINISTRY OF HEALTH & WELFARE

Yoichi Seki  
Councilor  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Hajime Murate

Senior Architect  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

Kohsaku Sera

Structural Engineer  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

Masayoshi Funatsu

Mechanical Engineer  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

Shohei Katsumata

Electrical Engineer  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

Masato Okano

Architect  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

Makoto Satake

Grant Cooperation  
Economic Cooperation Bureau,  
MINISTRY OF FOREIGN AFFAIRS

1-2-2 Members of the Draft Reporting Team

Team Leader: Tohru Abei  
Professor  
Dept. of Inner Medicine  
TOHO UNIVERSITY SCHOOL OF MEDICINE

Team Members: Hajime Murate  
Senior Architect  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.



Masayoshi Funatsu  
Mechanical Engineer  
NIHON ARCHITECTS, ENGINEERS & CONSULTANTS,  
INC.

1-3 Members of the Bolivian Authorities Concerned

Tcnl. Guido Vildoso

Ministro de Previsión Social y Salud  
Pública

Dr. Dorian Gorena

Subsecretario de Salud Pública

Dr. Fernando Patiño

Subsecretario de Previsión Social

Dr. Glicerio Rojas

Director General de Salud

Dr. Jwan Riveros

Director de R.R.E.E. Internacionales

Dr. Hugo Palazzi

Director Hospital de Clínicas

Dr. Fedelico Aliaga

Presidente del Comité Mixto  
Boliviano-Japonés

#### 1-4 Itinerary of the Survey Team

##### 1-4-1 Itinerary of the Survey Team

- June 7 (Tues)  
Depart Tokyo - Arrive San Francisco
- June 8 (Wed)  
Depart San Francisco - Arrive Lima
- June 9 (Thurs)  
Arrive La Paz
- June 10 (Fri)  
La Paz  
  
(Morning) Survey of the construction site at the La Paz National Hospital. Visit to the Japanese Embassy to explain the outline of the survey. Visit to the Ministry of Health and Welfare for arrangements.  
  
(Afternoon) Investigation of the building situation in Bolivia and tour of the construction fields.
- June 11 (Sat)  
(Morning, afternoon) Field tour of buildings under construction in La Paz.
- June 12 (Sun)  
(Morning, afternoon) Field study of buildings in La Paz and surrounding areas. Collection and filing of materials. Fact finding.
- June 13 (Mon)  
(Morning) Visit to the Ministry of Planning and the Ministry of Foreign Affairs for arrangements. Survey of facilities in the Hospital de Clinicas.

(Afternoon) Arrangements with Bolivian counterparts in the Ministry of Health and Welfare and the National Hospital (medical care, buildings).

° June 14 (Tue)

(Morning) Visit to San Andres University for arrangements.

(Afternoon) Consultation with Dr. Palazzi and Dr. Aliaga of the National Hospital concerning medical buildings in Bolivia. Collection of data.

° June 15 (Wed)

(Morning, afternoon) Arrangements with Bolivian counterparts in the Ministry of Health and Welfare and the National Hospital. Visit to the Instituto de Torax and Instituto de Oftalmologia.

° June 16 (Thurs)

(Morning) Exchange of technical information and collection of data about structure, electricity and equipment with Bolivian counterparts in the Ministry of Health and Welfare.

(Afternoon) General arrangements with persons in charge at the Ministry of Health and Welfare and the National Hospital. Preparation of a draft of the Acuerdo.

° June 17 (Fri)

(Morning) Arrangements with Bolivia counterparts. Explanation of the draft of the Acuerdo to the Special Assistant in the Japanese Embassy.

(Afternoon) Survey of buildings in La Paz. Collection of data.

- June 18 (Sat)
  - (Morning) Visit to the Hospital Viedma and the Elizabeth Seton (in Cochabamba).
  - (Afternoon) Exchange of opinions about the medical situation in Santa Cruz with Dr. Canechigo and Dr. Juayani. Visit to the Centro Oncologico and San Juan de Dios.
  
- June 19 (Sun)
  - (Morning, afternoon) Survey of medical facilities in the Okinawan settlement in San Juan.
  
- June 20 (Mon)
  - (Morning) Visit to the Santa Cruz Chapter of JICA and the Japanese Consulate in Santa Cruz for arrangements.
  - (Afternoon) Visit to the Hospital Santa Cruz. Preparation of a basic design.
  
- June 21 (Tues)
  - (Morning) Survey of buildings in Santa Cruz.
  - (Afternoon) Visit to Sucre National Hospital and Sucre National University. Study tour of the city.
  
- June 22 (Wed)
  - (Morning) Study tour in Sucre.
  - (Afternoon) Visit to Hospital Elizabeth Seton.
  
- June 23 (Thurs)
  - (Morning) Discussion of the Acuerdo with persons in charge in the Ministry of Health and Welfare and National Hospital.

(Afternoon) Attended the test boring at the construction site for the Center. Collection and filing of data.

° June 24 (Fri)

(Morning) Signing and exchange of the Acuerdo with the Bolivian Minister of Health and Welfare. Briefed on the outline of the Five-Year Social Development Project in Bolivia.

(Afternoon) Filing of data. Getting ready for departure. Farewell party hosted by the Survey Team.

° June 25 (Sat)

(Morning) Arrangements with Bartos Co. Survey of the hospital site, test boring site and installed facilities. Departure (Kamegai, Kuramoto, Terai, Arikawa, Seki)

(Afternoon) Collection and study of data.

° June 26 (Sun)

(Morning) Survey of construction fields in La Paz.

(Afternoon) Filing of data. Discussion of the survey schedule.

° June 27 (Mon)

(Morning) Consultation with Dr. Palazzi about the construction site.

(Afternoon) Inspection of the progress of test boring. Consultation with the Waterworks Bureau and the Sewerage Bureau. Return home (Kamegai, Kuramoto, Terai, Arikawa, Seki).

- June 28 (Tues)
  - (Morning) Discussion with the National Construction Committee concerning statistics, unit cost and labor. Arrangements for electric power, telephone service and fuel supply.
  - (Afternoon) Arrangements with the Waterworks Bureau and the Sewerage Bureau. Arrangements with the Japanese Embassy concerning the construction site.
- June 29 (Wed)
  - (Morning) Arrangements with SICO, Survey of the construction field. Collection of data.
  - (Afternoon) Arrangements with Bartos and Tecnoconsult.
- June 30 (Thurs)
  - (Morning) Collection of data at the Statistics Department. Arrangements with the Ministry of Health and Welfare concerning the construction site.
  - (Afternoon) Reexamination of the construction site. Confirmation of the drainage system.
- July 1 (Fri)
  - (Morning) Survey of landscape gardening in La Paz with the Landscaping Department of the Municipal Office.
  - (Afternoon) Arrangements with Tecnoconsult, etc. Collection of data. Survey of the construction site.
- July 2 (Sat)
  - (Morning) Arrangements with LIMS.
  - (Afternoon) Filing of data.

- July 3 (Sun)  
(Morning, afternoon) Filing of data.
- July 4 (Mon)  
(Morning, afternoon) Farewell visit to the National Hospital, Japanese Embassy and the Ministry of Health and Welfare. Departure (Murate, Sera, Funazu, Katsumata, Okano).
- July 5 (Tues)
- July 6 (Wed)  
Return home (Murate, Sera, Funazu, Katsumata, Okano)

1-4-2 Itinerary of the Draft Reporting Team

- Sept. 11 (Sun)  
Depart Tokyo 18:15 - Arrive New York 18:00
- Sept. 12 (Mon)  
Depart New York 21:15
- Sept. 13 (Tue)  
Arrive La Paz 10:35  
Visit to the Japanese Embassy to explain the outline of the preliminary design.
- Sept. 14 (Wed)  
Visit to the Ministry of Health to explain the outline of the preliminary design to the Minister, Dr. Gorena, Dr. Patiño, Dr. Palazzi, and others.  
Arrangements in the Japanese Embassy.

- Sept. 15 (Thu)

Visit to the Hospital de Clinicas to explain the preliminary design and to discuss the scope of works done by the Bolivian side.  
Visit to the Ministry of Health for arrangements.
- Sept. 16 (Fri)

Visit to the Clinica Modelo.  
Collection of data.
- Sept. 17 (Sat)

Discussion of the survey schedule.  
Investigation of the new housing area in Calacoto.
- Sept. 18 (Sun)

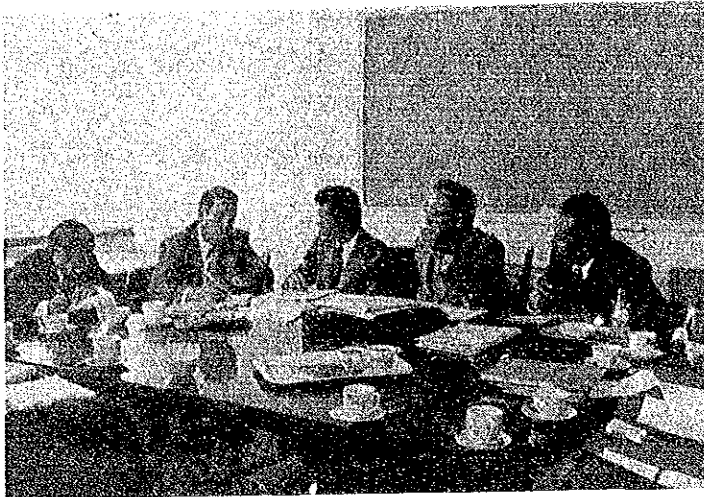
Mr. Jimbou of J.I.C.A. arrived La Paz.  
Arrangements with Mr. Jimbou for preparation of a memorandum of agreement.
- Sept. 19 (Mon)

Arrangements in the Japanese Embassy for the memorandum of agreement of the preliminary design.  
Explanation of the design to the municipal officials.
- Sept. 20 (Tue)

Arrangements for the survey schedule in the Japanese Embassy.  
Discussion of the electricity, water supply and sewage system in the Hospital de Clinicas.  
Collection of data.



- ° Sept. 21 (Wed)
  - Discussion of the memorandum of agreement of the preliminary design.
  - Discussion meeting with the Joint Committee in the Ministry of Health.
  - Arrangements for the memorandum of agreement in the Ministry of Health.
  
- ° Sept. 22 (Thu)
  - Signing of the memorandum of agreement of the preliminary design.
  - Reception hosted by the Minister of Health.
  
- ° Sept. 23 (Fri)
  - Farewell visit to the Ministry of Health and to the Japanese Embassy.
  - Depart La Paz 22:30.
  
- ° Sept. 24 (Sat)
  - Arrive New York 11:05
  - Depart New York 13:05
  
- ° Sept. 25 (Sun)
  - Arrive Tokyo 18:05



June 13, 1977  
General Conference  
at I.S.A.P.



June 23, 1977  
Discussion Meeting  
at the Ministry of  
Health



June 24, 1977  
"Acuerdo" was signed  
between the Minister  
of Health and the  
team leader.

## **Chapter 2**

### **Survey Report-Part 1**



## 2-1 Investigation and Discussion of Basic Problems

The Survey Team, upon arrival at La Paz on June 9, 1977, talked with Dr. Federico Aliaga, Chairman of the Joint Committee for the Gastro-enterological Research Technical Cooperation Project, which is closely related to this next grant scheme, and confirmed that the person in charge of the project on the Bolivian side was Dr. Dorian Gorena, Vice-Minister for Health and Welfare, the Ministry of Health and Welfare.

On June 10, the Survey Team visited the Hospital de Clinicas (National Hospital in La Paz), which was chosen as a construction site for the project, and surveyed it. Then the Team met with Dr. D. Gorena, Vice-Minister of Health and Welfare; and Dr. Hugo Palazzi, Director of the Hospital de Clinicas, and confirmed the principles of the grant project. At the same time, an office in I.S.A.P. (Institute de Superior Administracion Publica) was offered to the Team for use during the survey period.

On June 13, the Survey Team had a meeting with Dr. H. Palazzi and Dr. F. Aliaga in the office in I.S.A.P. to discuss survey items and a schedule, and asked for cooperation from the Bolivian side.

On June 14, an agreement was made to move the office to the Medical Department of the San Andres University which was closer to the construction site for the project. In the afternoon, the Team met at the Japanese Embassy with Dr. H. Palazzi, Dr. F. Aliaga, Dr. Gaston Mejia and Dr. Rolando Salajar, members of the Joint Committee for the Gastro-enterological Research Technical Cooperation Project, together with the Special Assistant of the Japanese Embassy, and exchange views on the basic framework and its concrete make-up on the basis of requests from the Bolivian side and a plan of the Team.

On June 15, the Team visited the Instituto de Torax (funded by grant from France), Instituto de Oftalmologia (constructed with domestic donations), etc., located within the site of the Hospital de Clinicas.

These visits provided useful information for the basic design of the project.

On June 16, the Team met again at the Japanese Embassy with Dr. H. Palazzi, Dr. F. Aliaga, Dr. G. Mejia, Dr. J. Ravelo and Special Assistant of the Japanese Embassy, and discussed matters in detail based on the findings so far gathered.

From June 17 to 22, the Team visited the Hospital Viedma (National Hospital in Cochabamba), the Hospital Elizabeth Seton, the Hospital San Juan de Dios (National Hospital in Santa Cruz), the Japanese settlement in San Juan, the Okinawa First and Second Clinics, the Hospital Santa Barbara (National Hospital in Sucre), etc., and was able to grasp the general situation of medical buildings and facilities in Bolivia.

On June 23, the Team made final arrangements with Dr. D. Gorena, Dr. H. Palazzi and others at the Japanese Embassy and came to a mutual agreement on the draft of the Minutes (Acuerdo). The only difference from the draft was that the Survey Team would take over the test borings during its stay in Bolivia in order to improve accuracy and speed of the tests, instead of the Bolivian side making the tests as had been previously arranged. Other arrangements were practically the same as the draft.

At 10:00 A.M. on June 24, the Minutes (Acuerdo) were signed by Tcnl. DEM. Guido Vildoso Calderón, Minister of Health and Welfare, and Toshihiko Kamegai, Leader of the Survey Team.

All through the survey period, the Bolivian side was extremely cooperative, which indicated their extraordinary enthusiasm toward this project.

## 2-2 Basic Plan for the Gastro-enterological Research Center

The Bolivian Government had requested the Japanese Government through the Japanese Embassy in Bolivia for technical cooperation concerning gastro-enterological research. In November 1976, R/D (Record of Discussion) was signed in La Paz and the project started in April 1977. At the same time, the Bolivian Government requested the Japanese Government to construct gastro-enterological research centers as grants in La Paz, Sucre and Cochabamba.

The Japanese Government recognized the importance of these institutes in connection with the on-going technical cooperation project, and decided to fund a research institute in the Hospital de Clinicas in La Paz from this year's budget.

The Survey Team had several conferences with the Bolivian side during its stay in Bolivia and mutually agreed to the following basic plan.

### 2-2-1 Organization Status of the Research Institute

- (1) The Research Center, upon completion, will be placed under the jurisdiction of the Bolivian Ministry of Health and Welfare, and will be operated under the responsibility of the same Ministry.

The future plan on the Bolivian side is to standardize the names of the Instituto de Torax, the Instituto de Oftalmologia, the Hospital de Nino, etc., located with the Hospital de Clinicas, to "Centro", and consolidate them into a systematic medical center based on the independent operation of each Centro. In accordance with this scheme, the projected Research Institute will hereafter be called "Centro de Gastro-enterologia".

- (2) The Center will be used for advanced research and education

(including pre-graduation education), and will combine medical facilities to implement them.

- (3) The on-going Gastro-enterological Research Technical Cooperation Project will be carried out in the Center.
- (4) The Bolivian Ministry of Health and Welfare will budget personnel expenses and operating cost of the Center on their own responsibility by the time of its completion.
- (5) Patients to be treated at the Center will be limited to those who are judged by the Hospital de Clinicas and other medical institutions as needing more advanced treatment at the Center. In the Center only screened patients will be treated.
- (6) As a rule, patients will be hospitalized in the Center only for a limited period, and when the hospitalization period extends for a long time, patients will be transferred to the Hospital de Clinicas or another medical facility.
- (7) Special examinations other than those related to gastro-enterology, such as autopsy, will be handled in other institutions in the Hospital de Clinicas.
- (8) The Center will be divided into two parts: A general examination and research department which will mainly conduct X-ray examination, endoscopy, and pathological examination; and a Medical Service Department. The nature of the Center being as it is, enough space will be provided for a research department (including education).
- (9) Since the introduction of an electronic microscope will be vital in the future, consideration should be given to this plan in the design of the Center.



- (10) There is no auditorium to accommodate a large number of people in any medical education facilities in Bolivia, and giving research presentations and lectures is quite difficult now. Therefore, the Center will include a multi-purpose auditorium. The Bolivian side expressed a strong desire for this auditorium, and the Survey Team, having concluded that the request was reasonable, agreed to it.

### 2-3 Future Outlook and Problems

Bolivia is now implementing the Five-Year Medical Care and Public Health Project, and is trying to improve the lagging public medical care system. This is mainly caused by economic difficulties, whereas the technical competence of the medical personnel is quite advanced. Therefore, a good system should be attainable with voluntary progress in this area and with outside assistance to provide what is lacking.

#### 2-3-1 Problems Involved in Construction

Considering the economic conditions in Bolivia, necessary consideration should be given to the supply of certain equipment as well as facilities at the time of construction of the Center in order to make the Center operate satisfactorily.

#### 2-3-2 Administrative Problems

Most of the funds for national medical institutions in Bolivia are appropriated for personnel expenses and food costs for patients, leaving only a small portion for depreciation and maintenance of equipment.

The Bolivian side also agreed on this point and requested that a design that will enhance the economic independence of the Center be fully considered.

### 2-3-3 Personnel Problems

As mentioned before, the competence and knowledge of medical personnel in Bolivia are high, but the number of these personnel is still insufficient. There is a need to invite more trainees to Japan in order to develop their potentiality along with the present grant scheme.

Despite these problems, we believe that the proper operation of the Gastro-enterological Research Center will contribute tremendously to medical care in Bolivia, since this projected grant scheme offers what is needed most in Bolivia, where endemic gastro-enteritis such as the Chagas disease is prevalent, and gastro-enteritis is a cause of a large proportion of infant deaths.



Cite Nº .....

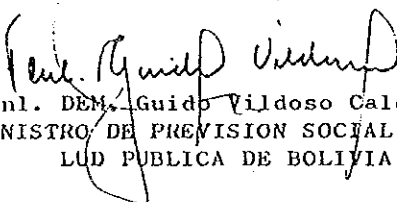
MINISTERIO DE PREVISION SOCIAL Y SALUD PUBLICA  
Bolivia


ACUERDO PARA LA CONSTRUCCION DEL CENTRO DE  
GASTROENTEROLOGIA EN EL HOSPITAL DE CLINICAS DE  
LA CIUDAD DE LA PAZ

El Gobierno del Japón, a través de la Agencia de Cooperación Internacional del Japón, envió la Misión presidida por el Dr. Toshihiko Kamegai, Catedrático de la Facultad de Medicina de la Universidad de Toho, a la República de Bolivia desde el 9 de junio de 1977 hasta el día 24 de junio de 1977, con el propósito de realizar estudios de diseño básico para la construcción del Centro de Gastroenterología de La Paz, como un aporte de cooperación económica no reembolsable de parte del Gobierno del Japón al Gobierno de Bolivia.

La Misión intercambió ideas y tuvo una serie de discusiones con las autoridades correspondientes del Gobierno de la República de Bolivia sobre los puntos básicos de dicho Proyecto durante su estadía en la República de Bolivia.

Como resultado del estudio y discusiones, el Gobierno de Bolivia representado por el señor Ministro de Previsión Social y Salud Pública, Tcnl. DEM Guido Vildoso Calderón, por una parte, y la Misión Japonesa de Estudios, presidida por el Dr. Toshihiko Kamegai, por otra parte, llegaron al acuerdo especificado en el documento adjunto.

  
Tcnl. DEM. Guido Vildoso Calderón  
MINISTRO DE PREVISION SOCIAL Y SALUD PUBLICA DE BOLIVIA

  
Dr. Toshihiko Kamegai  
JEFE DE LA MISION JAPONESA DE ESTUDIOS DEL DISEÑO BASICO PARA LA CONSTRUCCION DEL CENTRO DE GASTROENTEROLOGIA DE LA PAZ

## 1.- OBJETIVOS:

- a) El Centro de Gastroenterología tiene como objetivo básico de servir como una institución de investigación y docencia a través de la asistencia clínica en la especialidad.
- b) Las funciones que conduzcan al cumplimiento de la finalidad del Centro de Gastroenterología se realizarán a través de los labores docentes de la Facultad de Ciencias de la Salud de la Universidad Boliviana Mayor de "San Andrés" y de los Programas establecidos para el efecto por el Ministerio de Previsión Social y Salud Pública.

## 2.- CARACTERISTICAS SOBRE LAS CONSTRUCCION:

- a) Lugar de construcción: El Centro será construído en los terrenos cedidos por el Ministerio de Previsión Social y Salud Pública en el Hospital de Clínicas de la ciudad de La Paz, limitado por el Hospital del Niño y entre los Pabellones de Traumatología y Cirugía.
- b) Estructura.- Será construído de hormigón armado guardando la debida armonía arquitectónica del ambiente y del conjunto.
- c) Composición.- El Centro tendrá el adecuado espacio para disponer de las siguientes secciones e instalaciones:
  - 1.- Sección de Consulta Externa
  - 2.- Sección de Radiología
  - 3.- Sección de Endoscopia
  - 4.- Sección de Laboratorio
  - 5.- Sección Quirúrgica
  - 6.- Sección de Hospitalización
  - 7.- Sección de Administración
  - 8.6 Sección (Una sala de Conferencias )acorde a la naturaleza y necesidades del Centro.
  - 9.- Sala de Médicos
  - 10.- Sala para máquinas (calefacción, electricidad, etc.)
  - 11.- Instalación de cocina, lavandería y depósitos.

3.- EQUIPAMIENTO:

Los equipos a proveerse al Centro de Gastroenterología de La Paz por parte del Gobierno del Japón, a través de la Agencia de Cooperación Internacional, según el documento de discusiones firmado en 1976 respecto al Proyecto de Cooperación Técnica en el campo de gastroenterología, serán de uso exclusivo en dicho Centro.

4.- OBLIGACIONES DEL GOBIERNO DE BOLIVIA.- El Ministerio de Previsión Social y Salud Pública se compromete a lo siguiente:-

- a) Trámites Legales.- Asumir responsabilidad en los trámites legales que exija la construcción de la obra.
- b) Preparación del Terreno.- Trasladar o retirar todas las obras o instalaciones que se encuentren en la superficie o enterradas y que obstaculicen la construcción en el terreno fijado, antes de comenzada la obra.
- c) Facilidades de Instalación provisional de la Obra.- Proporcionar y asegurar el lugar adecuado para el almacenamiento de materiales de construcción, la caseta provisional, vías de acceso, luz y agua.
- d) Instalación de Tuberías para Agua y Desague.- Instalar las tuberías para agua y desague de y hasta el edificio.
- e) Instalación Eléctrica.- Realizar la conexión de alta tensión y otros trabajos afines hasta el edificio.

5.- DISEÑO FINAL DE LA CONSTRUCCION.- Una vez llegado a un acuerdo sobre el diseño final, la parte boliviana lo respetará en todo su contenido.

La Paz, 24 de Junio de 1977

ent. P.  
J. K.



Cite Nº.....

MINISTERIO DE PREVISION SOCIAL Y SALUD PUBLICA  
Bolivia

La Misión Japonesa encabezada por el Dr. en Medicina - Profesor Toru Abei, visitó la ciudad de La Paz del 13 al 23- de septiembre de 1977, hizo una explicación al Ministerio de Previsión Social y Salud Pública, sobre el diseño preliminar del proyecto de construcción del Centro de Investigación para las enfermedades Gastroenterológicas. Ambas partes intercambiaron opiniones sobre este aspecto.

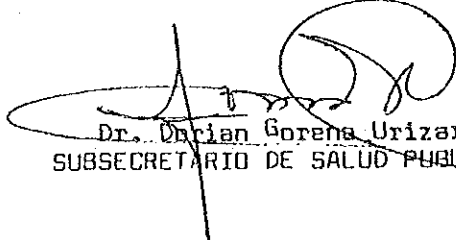
Como resultado de estas consultas se ha confirmado el - consentimiento por parte del Gobierno de Bolivia sobre el - contenido del informe del estudio del diseño preliminar de - fecha 14 de septiembre de 1977, presentado por la parte ja - ponesa. .

Se ha rectificado que la capacidad para el auditorium - sea de 200 personas como mínimo, modificando el proyecto ori - ginal.

Asimismo, se ha confirmado sobre la obra que debe reali - zar la parte boliviana.

La Paz, septiembre de 1977

Dr. Toru Abei  
JEFE DE LA MISION DE JICA

  
Dr. Dorian Gorená Urizar  
SUBSECRETARIO DE SALUD PUBLICA.

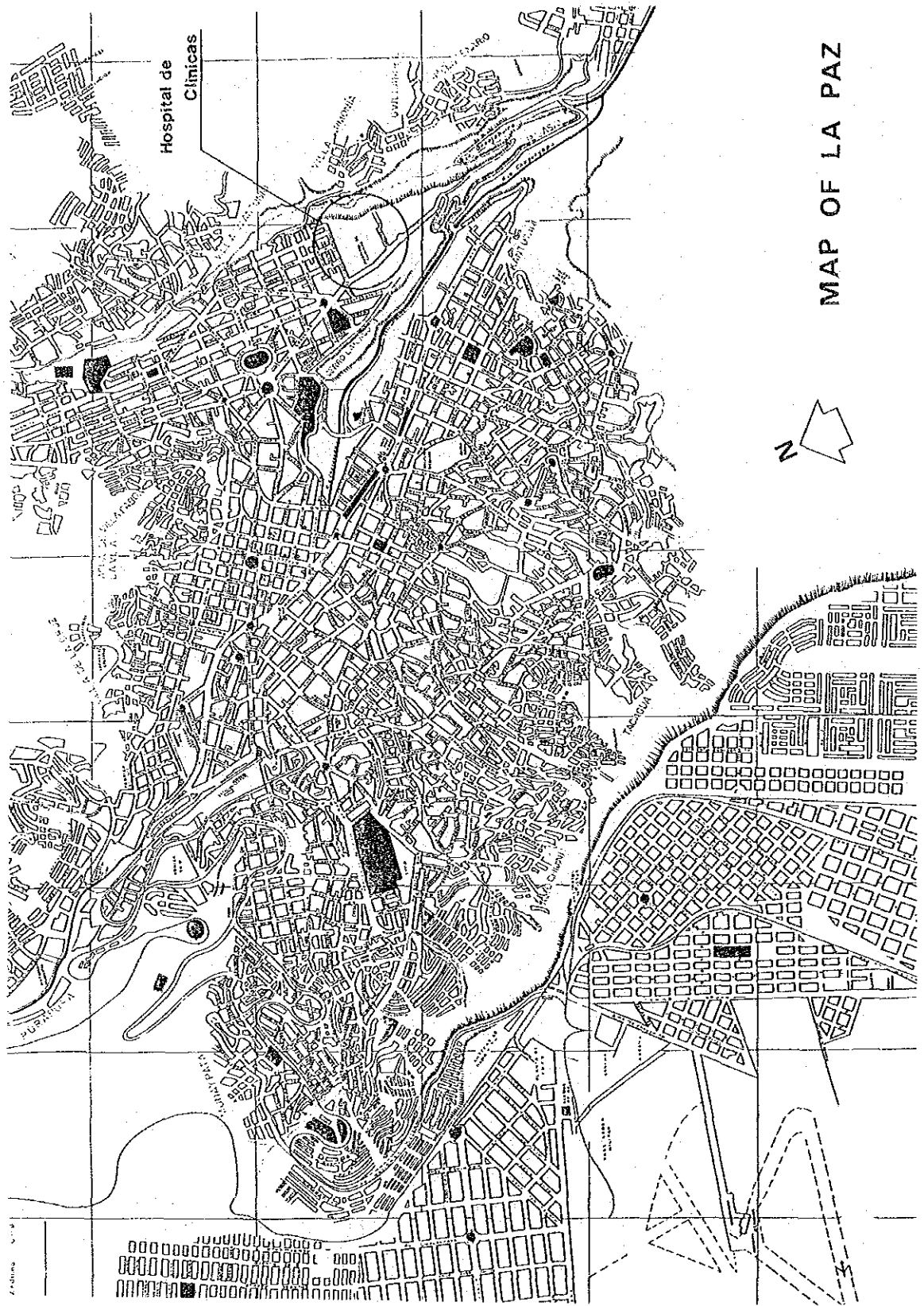
**Chapter 3**

**Survey Report-Part 2**









MAP OF LA PAZ