3. 面談者リスト

3. 面談者リスト

○ フィリピン側関係者

- 農業省(Department of Agriculture : DA)

Carlos G. Dominguez	Secretary
Romeo L. Ledesma	Assistant Secretary
Brenda M. Katon	Assistant Chief Foreign Assisted Project Office, Project Packaging Division

- 農業省土壌水管理局
(Bureau of Soils and Water Management : BSWM)

Godofredo N. Alcasid, Jr.	Director Executive Director, PMO
Reynaldo P. Bajar	Deputy Executive Director, PMO and Head of Cartographic Operations Division
Casimiro R. Mora	Director, Administrative Operations, PMO, Consultant, BSWM and Project Coordinator, Rain Stimulation Coordi- nating and Monitoring Operations
Rogelio N. Concepcion	Director, Technical Operations PMO and Head of Agricultural Land and Management Evaluation Division

Eduardo A. Brion	General Services Officer, PMO and Supply Officer III
Elsie A. Balagtas	Finance Officer, PMO and Management and Audit Analyst
Nestor M. Ticzon	Technical Services Officer, PMO and Supv. Soil Technologist
Lucio B. Casera	Architectural & Engineering Services Officer, PMO and Supv. Soil Technologist
Constancia R. Gantioqui	Laboratory Services Officer, PMO and Sr. Soil Technologist
Alejandro B. Micosa	Land Use and Remote Sensing Specialist, PMO and Supv. Soil Technologist
Nora B. Inciong	Soil and Water Resources Research and Training Specialist, PMO and Supv. Soil Technologist
Cesar Magadia	Soil and Water Conservation and Landscape Specialist, PMO and Supv. Soil Technologist
Crisencio Solano	Architect and Interior Design Specialist, PMO and Supv. Architect
Ferdnando Tuazon	Electrical Engineering Specialist, PMO and Electrical Engineer

Reynaldo Camacho	Telecommunication Specialist, PMO and Head of Maintenance Unit
Magdalena Q. Favis	Development Communication Specialist, PMO and Supv. Soil Technologist
Wilfredo E. Cabezon	Management Information Specialist, PMO, Consultant to BSWM and Director of U.P. Los Banos Computer Center

- プロジェクト対策室コンサルタントグループのメンバー
  (Members of the Porject Consultants Group Project Management Offices, BSWM)

Gerry Gabuya	Managing Consultant
Angelito J.S. De Dios	Principal Consultant
Froilan L. Hong	Principal Consultant
Joel C. Valdes	Principal Consultant
Fred Feliciano	Consultant
Evangeline N. Lisbo	Consultant
Gabriel H. Abad	Consultant
Melchor C. Guererro	Consultant
Alfonso R.M. Sangil	Consultant
Josmar S. Lao	Consultant

- 土壌水管理局、州/県事務所及び分析所
  (Regional/ Provincial Office & Laboratory, DA)

Renato N. Bulay	Regional Director, San Fernando Pampanga

Rufina V. Tayag	Supervising Soil Technologist Regional Laboratory San Fernando Pampanga
Lourdes Espinosa	Senior Soil Technologist Bulacan Station, BSWM

- フィリピン大学ロスバニオス校
  (University of the Philippines - Los Baños : UPLB)

Nicanor C. Fernandez	Chairman, Department of Soil Science Faculty of Agriculture
Santiago N. Tilo	Researcher
浜崎 忠雄	Researcher
Pacifico C. Payawal	Research Program Coodinator for Solar Research and Development Project
Wilfredo E. Cabezon	Director of Computer Center, UPLB

- 国際稲研究所(International Rice Research Institute)

渡辺　巌	土壌微生物研究部長

○　日本側関係者

- 在フィリピン日本国大使館

林田 直樹	一等書記官

- JICAフィリピン事務所

宮本 守也	所長
大島 勝彦	次長
丹波 憲昭	所員

4. 協議議事録

4-1. 協議議事録 (基本設計調査時)
(1988年4月18日 署名)

4-2. 協議議事録 (ドラフトレポート説明時)
(1988年7月29日 署名)

MINUTES OF DISCUSSIONS
ON THE
BASIC DESIGN STUDY FOR THE
SOILS RESEARCH AND DEVELOPMENT CENTER PROJECT
IN THE
REPUBLIC OF THE PHILIPPINES

18 April 1988
Manila

Bureau of Soils
and Water Management
Department of Agriculture

Japan International
Cooperation Agency

MINUTES OF DISCUSSIONS
ON THE
BASIC DESIGN STUDY FOR THE
SOILS RESEARCH AND DEVELOPMENT CENTER PROJECT
IN THE
REPUBLIC OF THE PHILIPPINES

In response to the request of the Government of the Republic of the Philippines (GROP), the Government of Japan (GOJ) decided to conduct a basic design study of the Soils Research and Development Center Project (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent the Basic Design Study Team (hereinafter referred to as "the Team") headed by DR. SATORU MOTOMURA, former Deputy Director-General of the National Agricultural Research Center, the Ministry of Agriculture, Forestry, and Fisheries to the Philippines from the 7th to the 27th of April 1988.

The Team had a series of discussions on the Project with concerned officials and various offices of the GROP headed by Mr. GODOFREDO N. ALCASID, JR., Director of the Bureau of Soils and Water Management and Executive Director, Soils Research and Development Center, Department of Agriculture; observed the main office and laboratory facilities of the Bureau of Soils and Water Management; conducted field surveys at the site of the Project at Diliman, Quezon City and at various outreach stations of the Bureau; and reached mutual agreement with the Bureau of Soils and Water Management on the contents of the GROP request and on the utilization and function of the facilities and equipment of the Center.

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

April 18, 1988
Manila

GODOFREDO N. ALCASID, JR.
Director, Bureau of Soils
and Water Management (BSWM)/
Executive Director, Soils
Research and Development
Center (SRDC)
Department of Agriculture

DR. SATORU MOTOMURA
Leader, Basic Design
Study Team
Japan International
Cooperation Agency
(JICA)

ATTACHMENT

1.0 OBJECTIVE OF THE PROJECT

The Team confirmed the need of the GROP to establish the Soils Research and Development Center (hereinafter referred to as "the Center") as a national central organization on the development of soils technology in the Philippines. The Center shall provide and ensure the utilization of its technology and facilities by means of research, survey, training, technical services, experimentation, and extension. The effective and adaptive physical-based action programmes of the Center will strengthen and promote the agricultural development of the country and ensure the attainment of national goals and priorities.

The objective of the Project is to provide necessary buildings, facilities and equipment for the establishment of the Center in order to contribute to the improvement of agricultural productivity and profitability in the Philippines.

2.0 LOCATION OF THE PROJECT SITE

The Project site is located in Diliman, Quezon City and has been assigned by the Department of Agriculture to the Bureau of Soils and Water Management for the construction of the Center (Annex 1).

3.0 SCHEME OF PROJECT EXECUTION

3.1 The Bureau of Soils and Water Management is the overall executive and implementing agency for the Project. During the project implementation, a Project Management Office under the direction of a Project Steering Committee in the Office of the Secretary, Department of Agriculture shall supervise the construction of the Center.

3.2 Upon completion of the Project, the Center will be an attached facility of the Department of Agriculture and its organization will be under the Office of the Secretary. The GROP will assign all the necessary staff as listed in Annex 2-A.

3.3 The GROP has arranged for the budget of the Center for its maintenance and operating costs as well as for the salaries of all its personnel and the implementation of its programs and activities (Annex 2-B).

4.0 CONTENT OF THE PROPOSED FACILITIES AND EQUIPMENT

The request of the GROP made on the Project for a Japanese Grant Aid Project Cooperation is as follows:

4.1 The construction of the Soils Research and Development Center including its laboratories, greenhouses, and training facilities as listed in Annex 3-A; and,

4.2 The supply, delivery, and installation of equipment, machinery, vehicles, a remote sensing device, including equipment, regional laboratories as listed in Annex 3-B.

The GROP has requested for a Rainfall Stimulation Equipment instead of a couple of computers for the Administration Department and the Team has expressed it will carefully examine the request based on technical feasibility and budgetary appropriation.

5.0 TRAINING PROGRAMMES UNDER THE CENTER

To ensure the optimum utilization of the facilities of the Center and to provide technical services to as broad a sector possible, the Center will implement training programmes as shown in Annex 4.

6.0 PHASING OF THE IMPLEMENTATION OF THE PROJECT

The implementation of the Project is based on the understanding of the design of the Center and of the Grant Aid budget appropriated in a fiscal year. The GROP has understood the phasing scheme of project implementation for the Center. The scope of implementation will cover two (2) phases and separate Exchanges of Notes between GROP and GOJ will govern each of the phases, as follows:

6.1 Phase One - Construction of the Main Building for soils research and development including laboratory facilities and the Supply, Delivery and Installation of its equipment and apparatus;

6.2 Phase Two - Construction of the Training and Information Building including other facilities and the Supply, Delivery, and Installation of its equipment and apparatus.

Each phase of the project implementation will be completed within one (1) fiscal year under the Grant Aid Project Cooperation system.

The GROP has informed the Team that it will exert effort to commence the preparation works at the Project site before the Exchange of Notes between GROP and GOJ for Phase One.

7.0 PROVISION AND MEASURES FOR EQUIPMENT OF THE REGIONAL LABORATORIES

The necessary equipment for the regional laboratories of the Center will be provided under the Grant Aid Project Cooperation.

7.1 The Center will be responsible for the administration and maintenance of the equipment to be installed in the regional laboratories.

7.2 The Center will provide proper training for the regional laboratory staff for the effective use of the equipment.

8.0 GRANT AID SYSTEM

The GROP has understood the Japanese Grant Aid system including the principle of engaging a Japanese consulting firm and Japanese contractor(s) for the implementation of the Project.

9.0 NECESSARY MEASURES TO BE TAKEN BY THE GROP

The GROP shall take the necessary measures as listed in Annex 5 and shall accomplish those measures on the condition that Grant Aid for the execution of the Project is extended by the GOJ.

10.0 TECHNICAL COOPERATION

The request of GROP is for an integrated Project-Type Japanese Technical Cooperation. The Team has agreed to convey the actual request for Technical Cooperation to the GOJ.

11.0 NECESSITY OF VEHICLES

The GROP has strongly requested for an increase in the number of field survey vehicles in order to strengthen the soil research and survey functions of the Center and its regional soils laboratories. The Team understood the nature of the request and has agreed to convey the request to the GOJ.

A-16

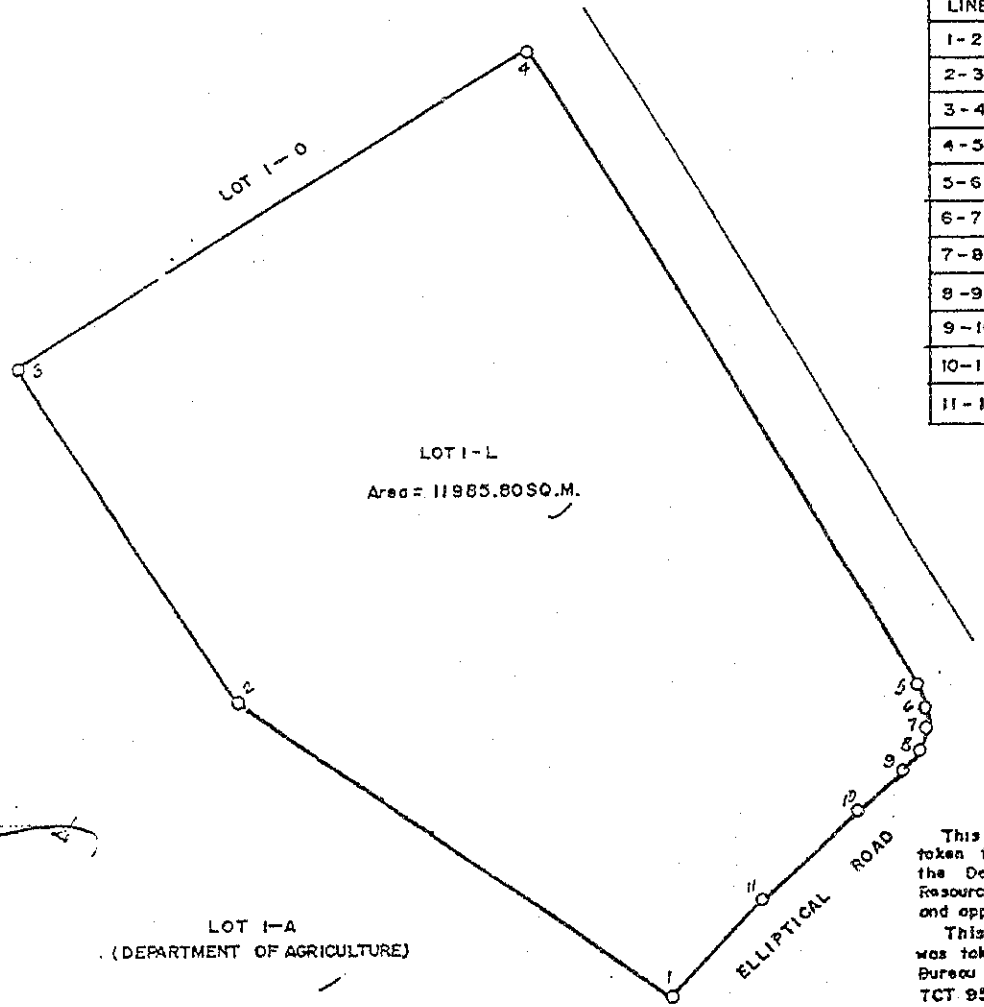
PLAN

OF LOT 1-L, CF LOT-1 : Bsd 20544
AS PREPARED FOR
REPUBLIC OF THE PHILIPPINES
SITUATED IN THE

BARANGAY NO. _____ ZONE NO ____
(BARRIO/ DIST. OF) DILIMAN
MUN./CITY OF : QUEZON CITY
PROVINCE OF :
ISLAND OF : LUZON

CONTAINING AN AREA OF 11985.80SQ.M.

BEARING :
SCALE 1: 600M.



TECHNICAL DESCRIPTION

LINE	BEARING	DISTANCE
1-2	N55-00W	85.00M.
2-3	N32-29W	65.36M.
3-4	N57-02E	95.11M.
4-5	S32-23E	124.00M.
5-6	S21-52E	3.65M.
6-7	S0-50E	3.65M.
7-8	S20-10W	3.65M.
8-9	S41-12W	3.65M
9-10	S51-43W	10.36M.
10-11	S46-57W	22.10M
11-1	S42-11W	22.10M.

CERTIFICATION

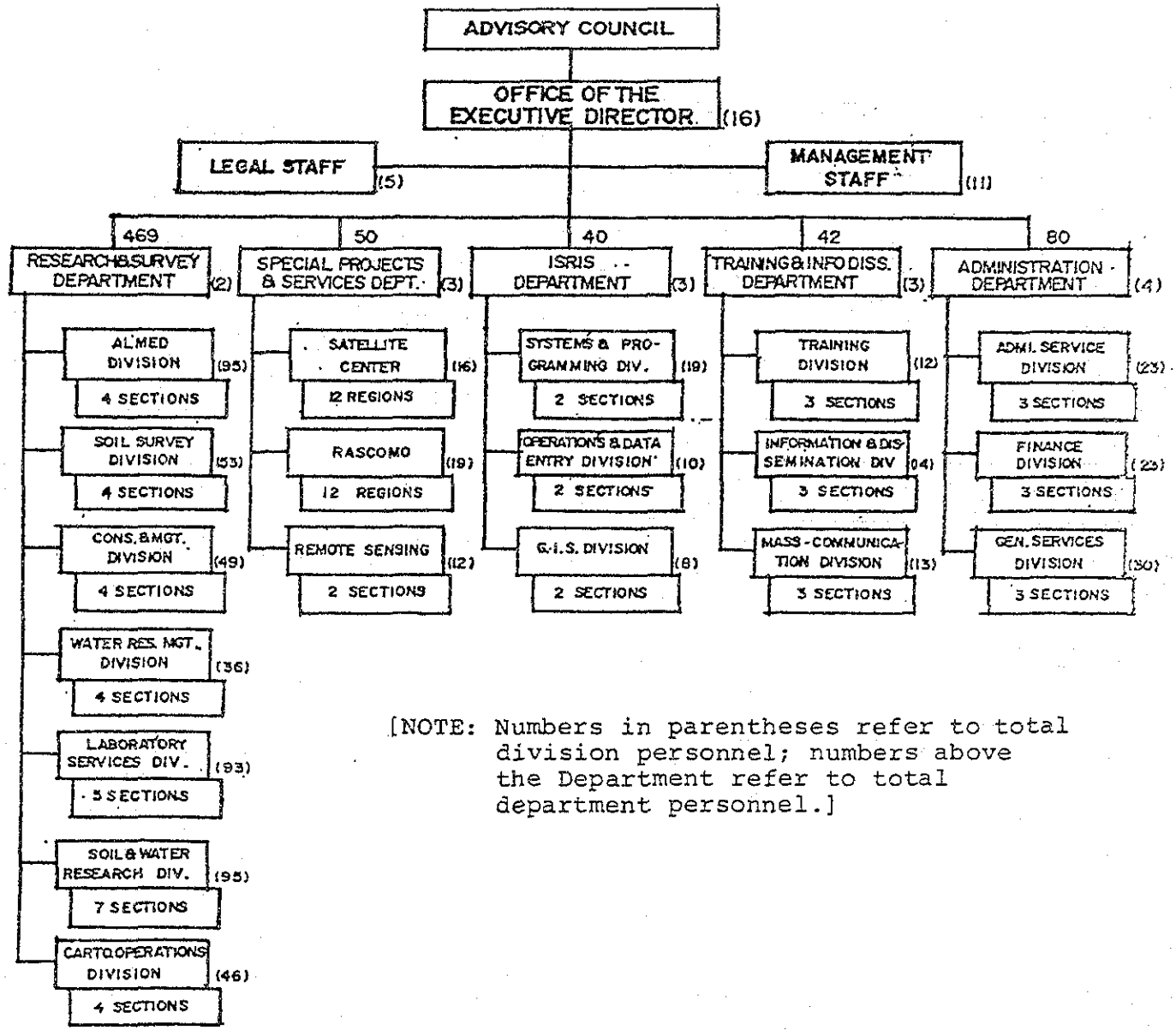
This is to certify that this lot plan was taken from Subdivision plan prepared for the Department of Agriculture and Natural Resources by the Bureau of Public Works and approved by Sec. Fernando Lopez.

This is to certify further that this plan was taken from the approved plan by the Bureau of Lands on May 16, 1988 from TCT 95381 dated August 5, 1965.

REYNALDO P. BAJAR
Chief, Cartographic Operations Division
Bureau of Soils and Water Management
Geodetic Engineer Reg.No.2005

(Sgd) ROSENDO C. ARCENA
GEODETIC ENGINEER

Annex 1



[NOTE: Numbers in parentheses refer to total division personnel; numbers above the Department refer to total department personnel.]

ORGANIZATIONAL CHART OF THE CENTER

Operational Requirement of the
Soil Research and Development Center (SOILSEARCH)
Budgetary Program (1990-1994)

(In Thousand Pesos)

		1990	1991	1992	1993	1994
	No. of Personnel					
	Permanent Positions	474	474	474	474	474
	Additional Positions (SOILSEARCH)	239	239	239	239	239
	Total Personnel	713	713	713	713	713
1.0	Salaries					
	1.1 Permanent Positions	9,348	10,283	11,311	12,442	13,687
	1.2 Other Personal Services	8,635	8,635	8,635	8,635	8,635
	Sectional Total	17,983	18,918	19,946	21,077	22,322
2.0	Operations					
	2.1 Electricity	2,400	3,000	3,500	4,000	4,500
	2.2 Water	853	1,000	1,200	1,400	1,600
	2.3 Telephone & Postage	746	800	900	1,000	1,200
	2.4 Gas & Fuel (Lab Gas)	35	50	80	100	120
	2.5 Travelling Expenses	13,000	15,000	19,000	20,000	21,000
	2.6 Transportation Services	600	700	800	900	1,000
	2.7 Representation and Emergency Expenses	20	20	20	20	20
	2.8 Other Services	19,215	22,539	23,688	24,866	26,316
	Sectional Total	36,869	43,109	49,188	52,286	55,756

BSWM

(Cont'n)

3.0 Supplies					
3.1 Consumables	31,000	50,000	65,000	70,000	85,000
3.2 Gasoline & Oil (including Servicing of Vehicles)	7,000	10,000	12,000	13,500	15,000
Sectional Total	38,000	60,000	77,000	83,500	100,000
4.0 Capital Outlay					
4.1 Land and land improvements outlay	4,450	10,000	10,000	10,000	10,000
4.2 Equipment Outlay	20,000	13,000	13,000	13,000	13,000
Sectional Total	24,450	23,000	23,000	23,000	23,000
TOTAL	117,302	145,027	169,134	179,863	201,078

LIST OF FACILITIES FOR THE CENTER

The Center consists of two structures namely the Main Building and the Training and Information Building. The facilities of each building are as follows:

1.0 MAIN BUILDING

1.1 Spaces for the technical divisions

a. Soil Survey
b. Soil Conservation and Management
c. Agricultural Land Management and Evaluation
d. Cartographic Operations
e. Water Resources and Management

1.2 Spaces for Research and Laboratory Divisions

a. Soil and Water Research
b. Laboratory services

1.3 Spaces for electronic data processing

1.4 Spaces for Management and Operations

a. Technical coordination and management offices
b. Conference room
c. Library

1.5 Other necessary spaces and functional rooms

2.0 TRAINING AND INFORMATION BUILDING

2.1 Spaces for training

a. Lecture rooms
b. Dormitories
c. Printing and reproduction

2.2 Spaces for Information

a. Soil museum
b. Audio visual production room
c. Convention room

2.3 Other necessary spaces and functional rooms

LIST OF EQUIPMENT FOR THE CENTER

The equipment for the Center are intended for the operations of the facilities as a national center of the Department of Agriculture for soils research and development and overall agricultural development of the Philippines, as follows:

1.0 Research and Survey Department

- 1.1 Equipment for Agricultural Land Management and Evaluation
- 1.2 Equipment for Soil Survey
- 1.3 Equipment for Soil Conservation and Management
- 1.4 Equipment for Water Resources and Management
- 1.5 Equipment for Soil Laboratory Services
- 1.6 Equipment for Soil and Water Research
- 1.7 Equipment for Cartographic Operations

2.0 Special Projects and Services Department

- 2.1 Equipment for Regional Soil Laboratories
- 2.2 Equipment for Remote Sensing

3.0 Integrated Soil Resources Information System (ISRIS) Department

- 3.1 Equipment for Geographic Information System (GIS)
- 3.2 Equipment for System Operation and Maintenance
- 3.3 Equipment for System Design and Analysis

4.0 Training and Information Department

- 4.1 Equipment for Training
- 4.2 Equipment for Information
- 4.3 Equipment for Mass Communication and Production

5.0 Administration Department

- 5.1 Equipment for Administration

LIST OF TRAINING PROGRAMMES UNDER THE CENTER

1.0 TRAINING FOR LEVEL I

- 1.1 Soil survey methods
- 1.2 Analytical methods for soil, plant tissue, irrigation water, and fertilizer
- 1.3 Methods for instrumentational operation
- 1.4 Soil cartography
- 1.5 Soil interpretation and land evaluation
- 1.6 Technology for soil management
- 1.7 Technology for water utilization and management
- 1.8 Technology for fertilization
- 1.9 Utilization of agro-biological resources
- 1.10 Technology for soil conservation
- 1.11 Environmental sciences
- 1.12 Integrated soil resources information system

2.0 TRAINING FOR LEVEL II

- 2.1 Practical soil tests
- 2.2 Soil diagnosis
- 2.3 Plant nutrition and diagnosis
- 2.4 Cropping system
- 2.5 Field experimentation management

3.0 TRAINING FOR LEVEL III

- 3.1 Interpretation and utilization of soil maps
- 3.2 Water management practices for increased crop production
- 3.3 Utilization of inorganic and organic matter for increased soil fertility
- 3.4 Utilization of soil micro-organisms

NOTE:

Level I - Training for personnel of the Center

Level II - Training for regional research corrdinators and extension officers of the Department of Agriculture

Level III - Training for farmer leaders, agri-businessmen, researchers and students

Annex 5

LIST OF MEASURES TO BE TAKEN BY THE GROP

The following are the necessary measures to be taken by the GROP in connection with the successful execution and operation of the Project:

1.0 To provide the necessary data and information for the basic design study;

2.0 To secure the lot of the land necessary for the Project and the construction of the Center;

3.0 To clear, level, and fill as needed, the site of the Center before the mobilization of the construction of the Project;

4.0 To provide the following facilities/utilities and appurtenant works in connection with the construction of the Center:

4.1 Power distribution to the site;

4.2 Water supply to the site;

4.3 Main drainage to the site;

4.4 Telephone trunkline to the main distribution frame/ panel (MDF) of the building;

4.5 Perimeter fencing and installation of gates in and around the site;

4.6 Access roads to the site;

4.7 Interior design and general furniture;

4.8 Other incidental utilities, facilities, and services in connection with the above and the overall management and supervision activities in the construction and operation of the Center.

5.0 To assume commissions to the Japanese foreign exchange bank for banking services based on the banking arrangement as follows:

5.1 Advising Commission of Authorization to Pay;

5.2 Payment Commission.

6.0 To ensure prompt unloading, tax exemptions, customs clearances at ports of disembarkation in the Philippines and prompt internal transportation therein of the products and commodities purchased under the Grant Aid.

7.0 To accord Japanese nationals whose services may be required in connection with the supply of products and services under the verified contracts, such facilities as may be necessary for their entry into and stay in the Philippines for the performance of their work;

8.0 To exempt Japanese nationals from customs duties, internal taxes, and other fiscal levies which may be imposed in the Philippines with respect to the supply of products and services under the verified contracts.

[NOTE: It was confirmed that the treatment of the Value Added Tax (VAT) for locally purchased products and services for the Project should be discussed at an early stage by both Philippine and Japanese Governments.]

9.0 To maintain and use properly and effectively the facilities to be constructed and the equipment to be provided under the verified contracts and purchased under the Grant Aid.

10.0 To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the construction of the facilities as well as for the transportation and installation of equipment.

11.0 To assign all the necessary staff for the proposed activities of the Center upon the execution and completion of the Project.

(1988年7月29日 署名)

MINUTES OF DISCUSSIONS ON THE DRAFT REPORT OF THE BASIC DESIGN STUDY FOR THE SOILS RESEARCH AND DEVELOPMENT CENTER PROJECT IN THE REPUBLIC OF THE PHILIPPINES

In response to the request of the Government of the Republic of the Philippines (GROP), the Government of Japan (GOJ) decided to conduct a basic design study of the Soils Research and Development Center Project (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA). JICA sent the Basic Design Study Team (hereinafter referred to as "the Team") headed by DR. SATORU MOTOMURA, former Deputy Director-General of the National Agricultural Research Center, the Ministry of Agriculture, Forestry, and Fisheries to the Philippines from the 7th to the 27th of April 1988.

As a result of the survey and discussions, JICA prepared a Draft Final Report on the Study and dispatched a Mission to explain and discuss the Report from July 24 to 30, 1988.

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

July 29, 1988
Manila

GODOFREDO N. ALCASID, JR.
Director, Bureau of Soils and Water Management (BSWM)
Executive Director, Soils Research and Development Center (SRDC)
Department of Agriculture

DR. SATORU MOTOMURA
Leader, Basic Design Study Team
Japan International Cooperation Agency (JICA)

MAJOR POINTS OF UNDERSTANDING

1.0 The Philippine Side has principally agreed with the basic design proposed in the Draft Final Report (with minor but appropriate modifications in lay-out, facilities , and equipment mutually agreed upon to be incorporated in the Final Report).

2.0 The Final Report on the Project will be submitted to the Philippine Side in ten (10) copies in English by the end of September 1988.

3.0 The Philippine Side understood the system of Japan's Grant Aid Program and confirmed to the arrangements to be taken by the Government of the Philippines for the realization of the Project.

4.0 The Philippine Side understood the Japanese side's explanation that the remote sensing equipment would be furnished in case the following two conditions are both satisfied:

1) the technical cooperation for this field is implemented by the Japanese Government;

2) the Philippine Side ensures provision of the budget necessary to operate and maintain the equipment.

5.0 The Philippine Side assures the Japanese Side to secure the full exemption of the Project from the Value Added Tax (VAT) law under Executive Order No. 273.

6.0 The Philippine Side expressed that the Philippine Government will release the necessary budget at the proper time in connection with the construction and operations of the Soils Research and Development Center.

5. 建設予定地状況

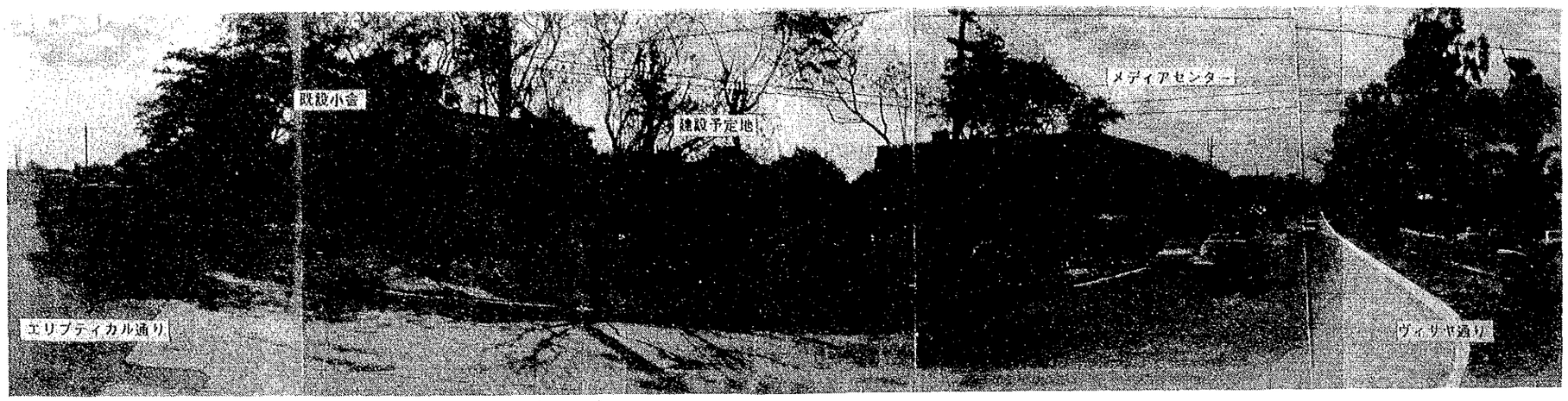
5-1. 建設予定地周辺状況

5-2. 敷地譲渡に関する資料

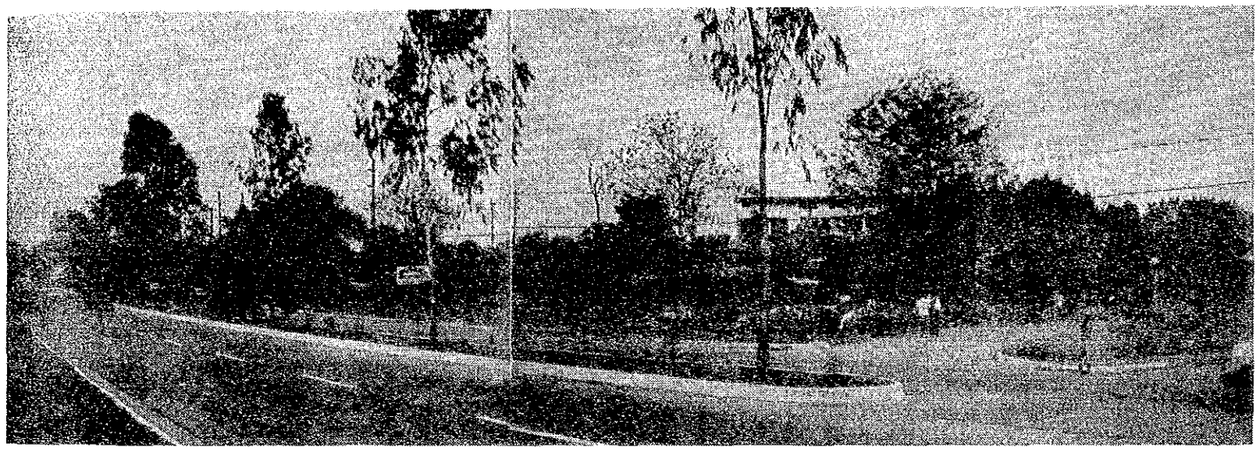
5-3. 敷地測量図

5-4. ボーリングデーター

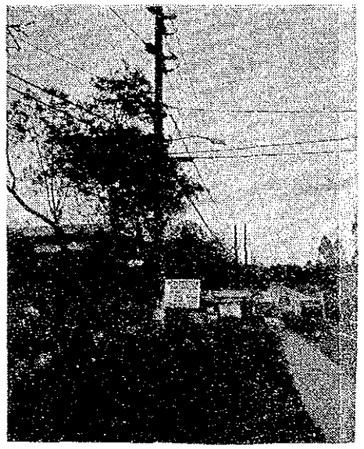
5-5. 工事用仮設用地資料



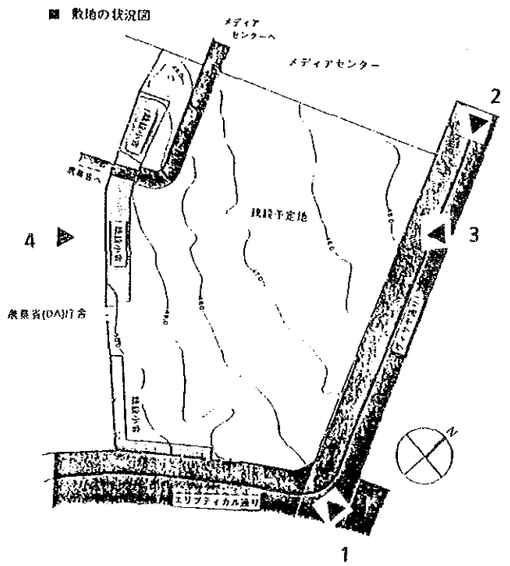
1. 建設敷地周辺 (エリプティカル通り・ヴィサヤ通りコーナーより)

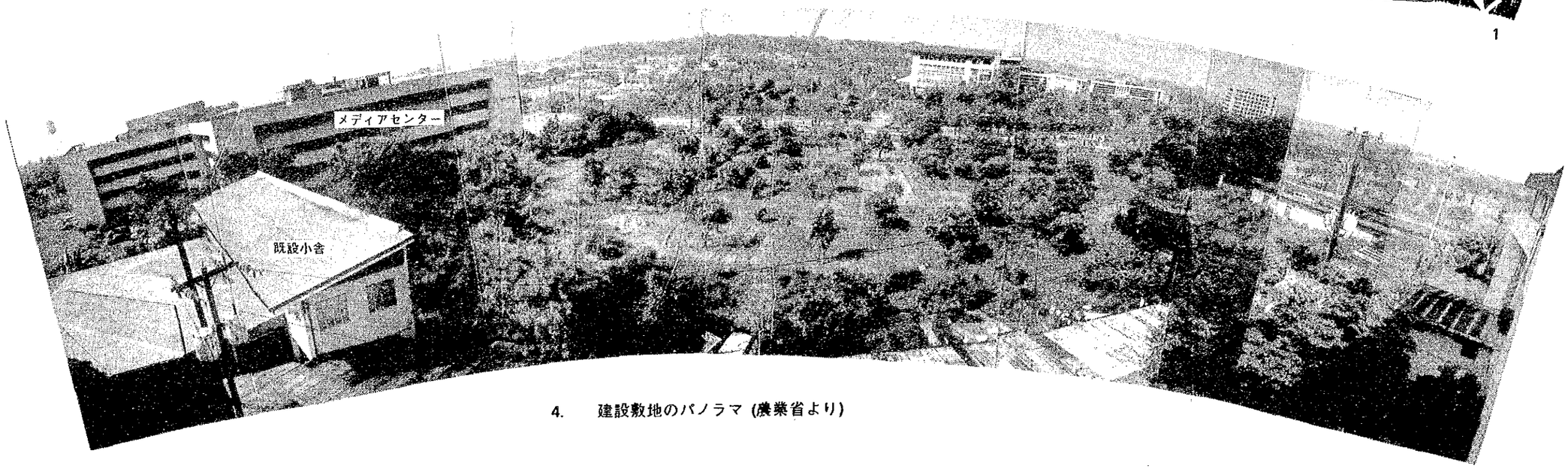


2. 建設敷地東側 (ヴィサヤ通りより)



3. MERALCO送電線





4. 建設敷地のパノラマ (農業省より)

Republic of the Philippines
DEPARTMENT OF AGRICULTURE
Diliman, Quezon City

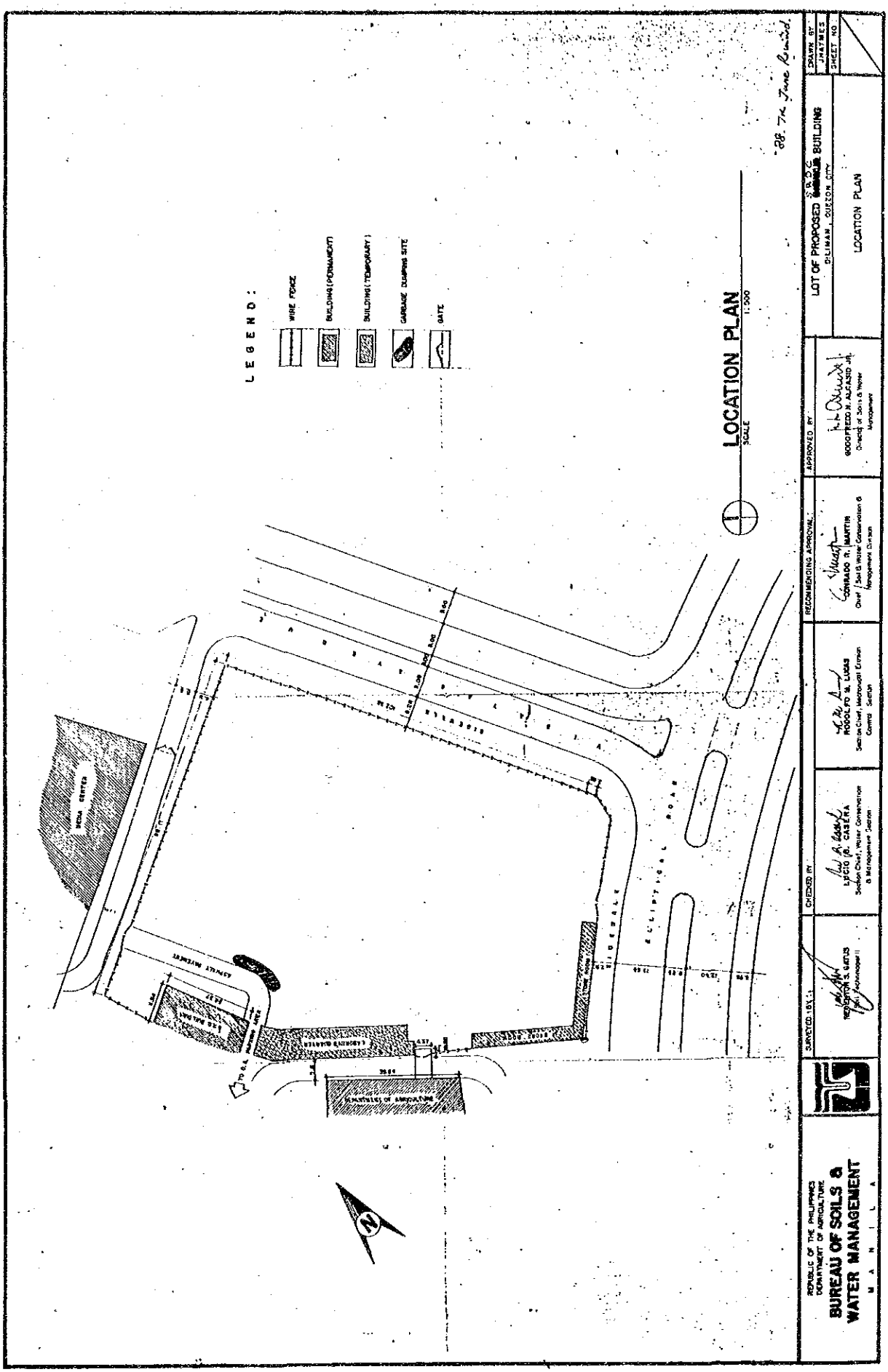
DEED OF ASSIGNMENT

A parcel of land, LOT 1-L of LOT 1, Bsd-20544 located in Diliman, Quezon City, bounded in the North by LOT 1-0, in the East by LOT 3, Bsd. 20544 now Visayas Avenue, in the South by LOT B-4 and B-9 now Elliptical Road and on the West by LOT 1-A presently occupied by the Department of Agriculture, starting at Corner 1, N 55 deg. 00 min W 85.00 meters to corner 2; thence N 32 deg. 39 min N, 65.58 m to corner 3; thence N 57 deg. 10 min E, 95.11 m.; thence S 0 deg. 50 min E, 3.65 m to corner 7; thence S 20 deg. 10 min W, 3.65 m to corner 8; thence S 41 deg. 12 min W 3.56 m to corner 9; thence S 51 deg. 43 min W, 10.16 m to corner 10; thence S 46 deg. 57 min W, 22.10 m to corner 11; thence S 42 deg. 11 min W 22.10 m to the point of beginning, containing an area of ELEVEN THOUSAND NINE HUNDRED EIGHTY FIVE AND EIGHT TENTH (11,985.80) more or less, is hereby designated as the official site of the Philippines' SOIL RESEARCH and DEVELOPMENT CENTER of the DEPARTMENT OF AGRICULTURE.

This special deed of assignment, THEREFORE, is hereby entrusted to the BUREAU OF SOILS AND WATER MANAGEMENT to administer and cause effective use of the LOT as the official site of the SOILSEARCH for the maximum benifit of the Republic of the Philippines.

Signed this 3rd day of July in the year of our Lord Nineteen Hundred and Eighty Seven at Diliman, Quezon City.

CARLOS G. DOMINGUEZ
Secretary of Agriculture


LEGEND:
WIRE FENCE
BUILDING (PERMANENT)
BUILDING (TEMPORARY)
GARBAGE DUMPING SITE
GATE
LOCATION PLAN
SCALE
1:500
LOCATION PLAN
LOT OF PROPOSED
DILIMAN, QUEZON CITY
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
BUREAU OF SOILS & WATER MANAGEMENT
M A N I L A
SURVEYED BY
CHECKED BY
RECOMMENDING APPROVAL
APPROVED BY
DRAWN BY
SHEET NO

PROJECT CONSULTANTS GROUP (PCG)

PHILIPPINE OFFICIAL BOREHOLE LOG and SUMMARY OF TEST RESULTS for the SOILS RESEARCH AND DEVELOPMENT CENTER

Conducted by:

DEAR DEVELOPMENT & BUILDERS CORP.
PROJECT CONSULTANTS GROUP

for the

BUREAU OF SOILS AND WATER MANAGEMENT
DEPARTMENT OF AGRICULTURE

Republic of the Philippines

P. B. Dionisio Bldg. Suite 317, 27 Don Alejandro Roces Ave., Quezon City, Philippines Tel. No. 98-51-06 to 08 loc. 23

BORING PLAN
Soilsearch Center Project
N
Visayas Avenue
Elliptical Road
BH-3
BH-2
BH-1
Main Building
Training Center

Dear development & builders corporation

BOREHOLE LOG & SUMMARY OF TEST RESULTS

PROJECT BUREAU OF SOILS & RESEARCH CENTER BUILDING — JOB NO. SI-27-01 — BOREHOLE NO. BH-1 (Page 1 of 2)
LOCATION Visayas Ave. cor. Elliptical Road, Q. C. — DATE STARTED Sept. 15'87 — WATER TABLE 1.83 M
GROUND SURFACE ELEVATION 42.37 M. — DATE COMPLETED Sept. 18'87 — TOTAL DEPTH 15.24 M

Sample Number	% Sample Recovery	Depth M.	DESCRIPTION	Symbol	Classification	N Value	NMC %	LL	PI	SIEVE ANALYSIS 4	10	40	100	200	Unit Weight gm/cc	Specific Gravity	REMARKS
SS-1	78		Dark brown silty clay			14 26											Cf-1.05 M
CS-1	96	1.50			ML	28	41	40	38	100	98	91	88	86	-	2	
CS-2	59	3.00	Dark brown adobe (Guadalupe Tuff)			C											Cs-3.00 M
CS-3	61	4.50				O R											Cs-4.50 M
CS-4	61	6.00	Yel-brown siltstone with some interbeds of sandstone			I											Start coring at 1.05 M depth down to end of borehole using a core barrel.
CS-5	67	7.50	Dark brown adobe with some interbeds of sandstone and lenses of siltstone			N											
CS-6	51	9.00				G											Cs-9.00 M

NOTE: Shallow water table caused by existing pockets of water in the area.

LEGEND: CI - Change of Formation, ST - Sampler type, SS - Sample size
Cs-Change of Strata

Dear development & builders corporation

BOREHOLE LOG & SUMMARY OF TEST RESULTS

PROJECT BUREAU OF SOILS & RESEARCH CENTER BUILDING JOB NO. SI-87-01 BOREHOLE NO. BH-1 (Page 2 of 2)
LOCATION Visayas Ave. cor. Elliptical Road, Q. C. DATE STARTED ________ WATER TABLE ________
GROUND SURFACE ELEVATION ________ DATE COMPLETED ________ TOTAL DEPTH ________

Sample Number	% Sample Recovery	Depth M	DESCRIPTION	Symbol	Classification	N Value	NMC %	LL	PI	Sieve Analysis 4	10	40	100	200	Unit Weight gm/cc	Specific Gravity	REMARKS
						C											
CS-7	58	10.50				O											
CS-8	51	12.00	Interbeds of sandstone and brown adobe			R											Cs-12.00 M
CS-9	50	13.50	Interbeds of brown adobe, siltstone & sandstone			I N											Casing Used-1.05 M.
CS-10	52	15.00	Brown siltstone			G											
		15.24	END OF BOREHOLE														

LEGEND: CI – Change of Formation, ST – Sample type, S – Sample no. Cs – Change of Strata

UNCONFINED COMPRESSION TEST REPORT

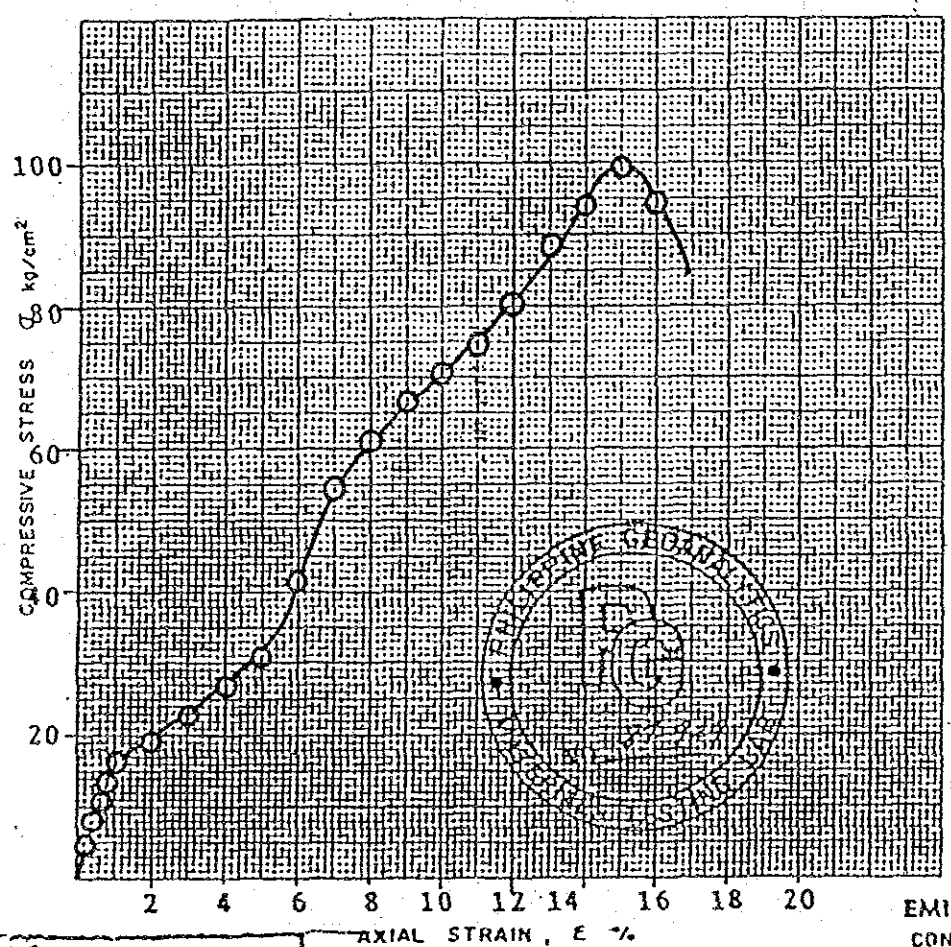
PROJECT: Proposed Bureau of Soil Bldg. DATE: 9-30-87

BOREHOLE No. 1 DEPTH. 7'-8' TESTED BY OT

SPECIMEN No.	SPECIMEN CONDITION	DIMENSION OF SPECIMEN		MOISTURE CONTENT w (%)	WET DENSITY γ_t (g/cm³)	UNCONFINED COMPRESSIVE STRENGTH q_u(kg/cm²)	FAILURE STRAIN ε(%)	SENSITIVITY RATIO S_t	
		HEIGHT H(cm)	DIAMETER Ø(cm)						
1	CS	7.60	3.80	16.54	1.8252	99.47	15.0	-	

REMARKS:

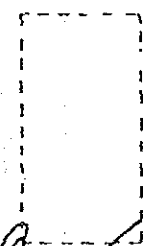
Core Description: Siltstone; light gray



SPECIMEN AT ULTIMATE FAILURE

No. 1

No ____



EMILIO M. MORALES MSCE
CONSULTING CIVIL ENGINEER
REG. NO. 11236

COMPUTER PRINT-OUT ☐

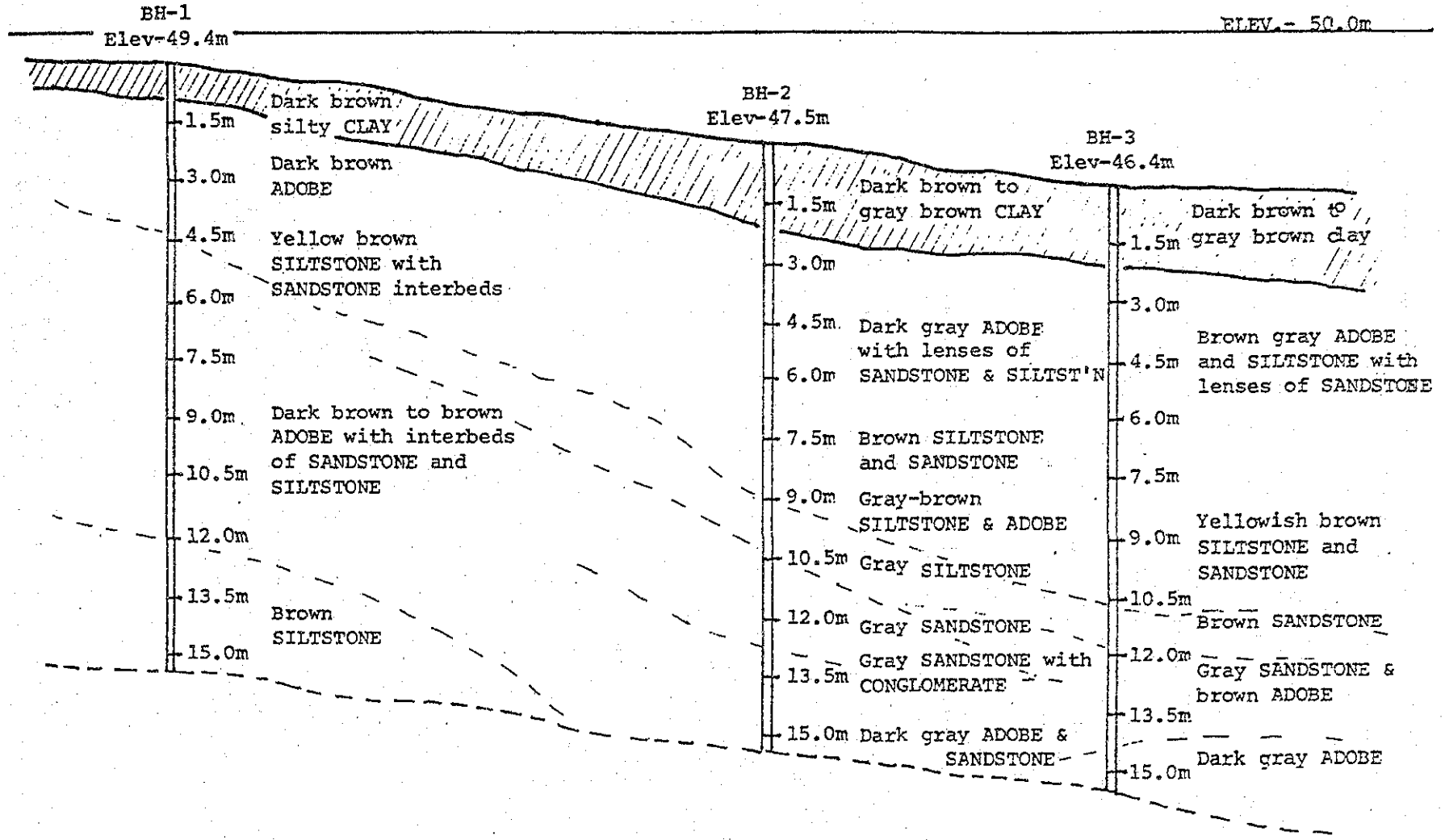
MANUAL COMPUTATION ☒

BY.

QUALITY ASSURANCE

DATE 10-1-87

PHILIPPINE GEOANALYTICS



SOIL PROFILE along BH-1, BH-2 and BH-3

DEPARTMENT OF AGRICULTURE
bureau of soils and water management

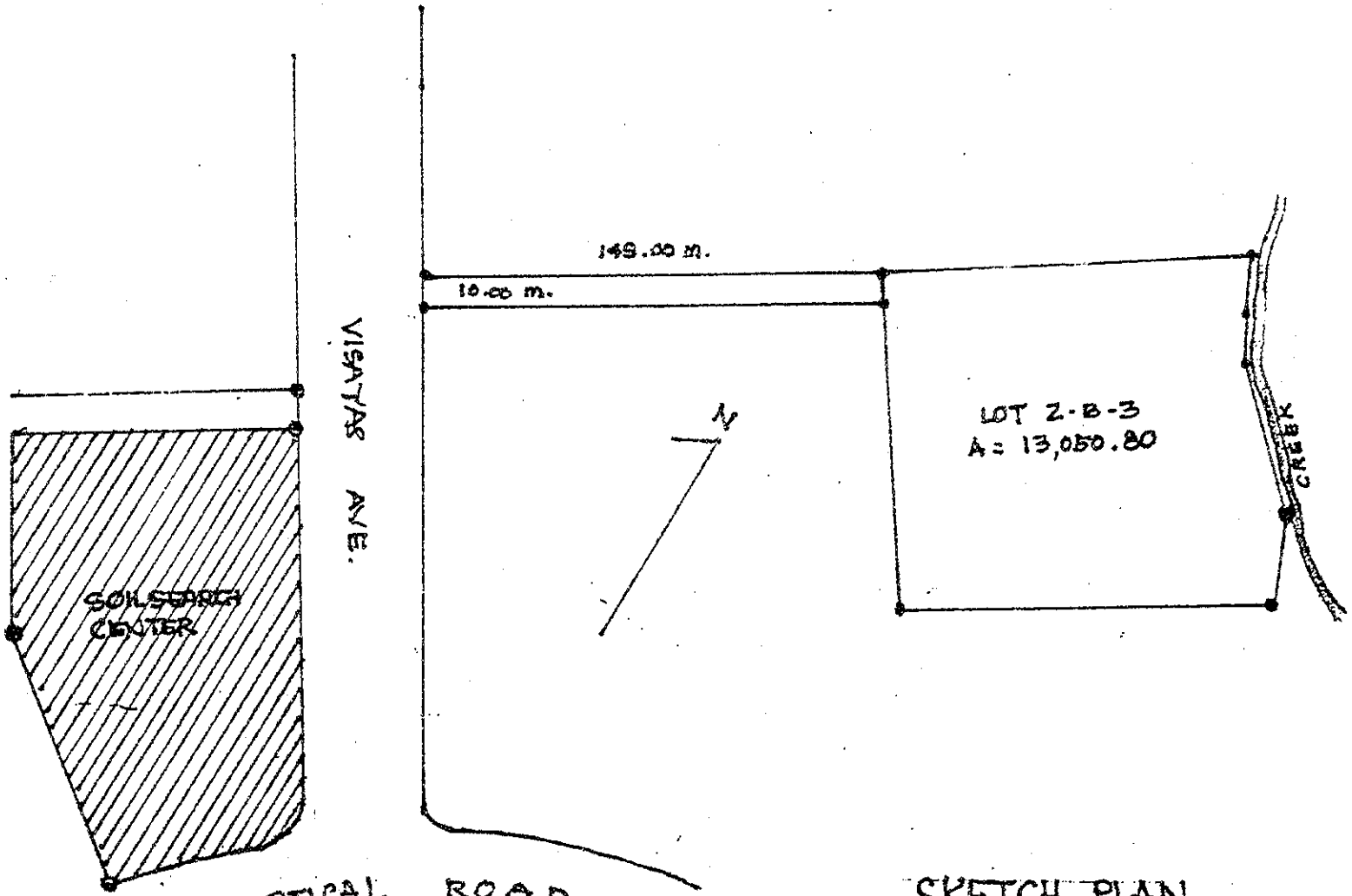
28 July 1988

ATTACHMENT

Lot 2-B-3, a portion of Lot 2-B, Bsd-11829 as surveyed for the Department of Agriculture and Natural Resources approved 16 May 1968 containing an area of THIRTEEN THOUSAND AND FIFTY SQ.M. (13,050.80) more or less bounded by lot 2-B-1 assigned to Bureau of Animal Industry in the NW from corner 1-2; by a creek in the NE from corner 2-6; by lot 2-B-4 assigand to Agricultural Productivity Commission in the SE from corner 6-7; lot 2-B-2 assigned to the Bureau of Plant Industry from corner 7-8 and Road lot 2-B-9 from corner 8-1 in the SE is hereby temporarily assigned to the Bureau of Soils and Water Management on 26 July 1988 and to be used as stockyard for the construction of the SOILS RESEARCH AND DEVELOPMENT CENTER.

Lot 2-B-3 shall be vacated and cleared, all temporarily structure to be torn down as soon as construction of the SOILS RESEARCH AND DEVELOPMENT CENTER is completed.

GODOFREDO N. ALCASID, JR.
Director of Soils
and
Water Management



SKETCH PLAN
PROPOSED SOILSEARCH CENTER and STOCK YARD SCALE 1:2000

ATTACHMENT

BSWM

6. その他資料

6-1. BSWM保有機材リスト

6-2. 通信機材要請資料

6-3. 類似施設の現況

FACILITY/ EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Soil Research	1. Distilling apparatus	5	Soils Research Division	two serviceable	
	2. Analytical balance	6	- do -	three serviceable	
	3. Sauter Balance	4	- do -	three serviceable	
	4. pH meter	4	- do -	three serviceable	
	5. Radiometer	1	- do -	unserviceable	
	6. Spectrophotometer	3	- do -	one serviceable	
	7. Oven	1	- do -	serviceable	
	8. Flamephotometer	1	- do -	serviceable	
	9. Electrical Conductivity meter	1	- do -	unserviceable	
	10. Muffle Furnace	2	- do -	one serviceable	
	11. Fumehood	3	- do -	serviceable	
	12. Centrifuge	2	- do -	serviceable	
	13. Shaker	1	- do -	serviceable	
	14. Specific Ionmeter	1	- do -	serviceable	
	15. X-ray Diffraction Unit	1	- do -	serviceable	
	16. Vacuum Pump	2	- do -	serviceable	
	17. Oven	6	- do -	five serviceable	
	18. Water Deionizer	1	- do -	unserviceable	

FACILITY/EQUIPMENT INVENTORY CHART- BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
	19. Water Bath	1	Soils Research Division	serviceable	
	20. Laboratory Micromill	1	- do -	serviceable	
	21. Sunshine Gauge	1	- do -	unserviceable	
	22. Photometer	1	- do -	serviceable	
	23. Balance: platform, sartorius & pulp	6	- do -	serviceable	
	24. Mechanical Stirrer	1	- do -	unserviceable	
	25. Water Dimineralizer	1	- do -	serviceable	
	26. Sieve Shaker	1	- do -	serviceable	
	27. Stirring Hot Plate	1	- do -	serviceable	
	28. Liquid Scintillation	1	- do -	serviceable	
	29. Grinder (Plant tissue	1	- do -	serviceable	
	30. Grinder-Thomas	1	- do -	serviceable	
	31. Monitor-Berthold	1	- do -	serviceable	
	32. Atomic Absorption Spectrophotometer	2	- do -	one serviceable	
	33. Hot Plate	1	- do -	serviceable	
	34. Digestion System	1	- do -	serviceable	
	35. Refrigerator	3	- do -	serviceable (old)	
	36. Dissecting Microscope	1	- do -	serviceable	
	37. Autoclave	2	- do -	unserviceable	

FACILITY/ EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
	38. Rotary Shaker	1	Soils Research Division	serviceable (old)	
	39. Stove	1	- do -	serviceable (old)	
	40. Microscope Binocular	1	- do -	serviceable	
	41. Microscope	1	- do -	serviceable	

FACILITY/EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY	LOCATION	STATUS DESCRIPTION	ACTION PLAN
	Atomic Absorption Spectrophotometer	1	Laboratory Services Division	Serviceable (old)	
	Flamephotometer	2	- do -	Serviceable (old)	
	Spectrophotometer	2	- do -	Serviceable (old)	
	Muffle Furnace	1	- do -	Serviceable (old)	
	Hot Plate	2	- do -	Unserviceable (old)	
	Fumehood	2	- do -	Unserviceable (old)	
	Moisture Retention or PF meter	1	- do -	Serviceable (old)	
	Magnetic Stirrer	3	- do -	Serviceable (old)	
	Soil Grinder	1	- do -	Serviceable (old)	
	Distilling Apparatus (Water Still)	1	- do -	Serviceable (old)	
	Water Bath	2	- do -	Serviceable (old)	
	Vacuum Pump	3	- do -	Serviceable (old)	
	Electrical Conductivity	2	- do -	One Unserviceable	
	Analytical Balance	2	- do -	Serviceable (old)	
	Top-loading Balance	3	- do -	Serviceable (old)	
	PH meter	2	- do-	Serviceable (old)	

FACILITY/EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY	LOCATION	STATUS DESCRIPTION	ACTION PLAN
	Oven	4	Laboratory Services Division	Two Unserviceable	
	Centrifuge	3	- do -	Serviceable (old)	
	Mechanical Stirrer	2	- do -	Serviceable	
	Kjeldahl Digester Micro	5	- do -	Unserviceable	
	Kjeldahl Distillation	6	- do -	Serviceable	
	Kjeldahl Digester Macro	1	- do -	Unserviceable	
	Autoclave	1	- do -	Serviceable (old)	
	Plastic sealer	1	- do -	Serviceable	
	Rotary Shaker	1	- do -	None	
	Shaking Machine	2	- do -	Serviceable	
	Refrigirator	5	- do -	Two Unserviceable	
	Colony Counter	1	- do -	Serviceable	
	Grinder (Plant tissue)	1	- do -	Serviceable	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Water resources management; establishment of agromet station, and rain-making activities.	Rain Gauge, standard Hook Gauge	6 12	Soil Conservation -do-	Serviceable -do-	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Soil survey mapping and conservation	Hand Level, Abney	7	ALMED	Serviceable	
		4	Survey Div.	-do-	
	Hand Level, Tamaya	5	ALMED	-do-	
	Hand Level	2	ALMED	-do-	
	Soil Auger, Dutch Type	10	ALMED	-do-	
		15	Survey Div.	-do-	
	Soil Auger, Screw Type	8	Survey Div.	-do-	
	Core sampler	2	ALMED	Unserviceable	
	C ore cylinders, brass	582	ALMED	Unserviceable - 450	
	Steel tapes, 3-meters	8	ALMED	-do-	
	Steel tapes, 2-meters	3	ALMED	-do-	
	Planimeter, Polar	1	ALMED	Serviceable	
		3	Survey	-do-	
		5	Cartography	-do-	
	Compass, Liquid	1	Soil Conservation	-do-	
		1	ALMED	-do-	
		1	Soil Conservation		
	Compass, Brunton	2	ALMED	Serviceable	
		4	Survey	-do-	
	Altimeter	5	Soil Conservation	-do-	
		2	ALMED	-do-	
		1	Survey	-do-	
	Stereoscope, Mirror	4	ALMED	-do-	
		1	Survey	-do-	
		1	Soil Conservation	-do-	
	Stereoscope, Pocket	2	Soil Survey	-do-	
	Thermometer, Soil	2	ALMED	-do-	
	Soil Sieve, 0.002 mesh	10	ALMED	-do-	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Soil survey, mapping and conservation	Soil Color Chart	5	Soil survey	2 pcs. unserviceable	
	Geologist Hammer	2	-do-	serviceable	
	pH Kit	2	-do-	-do-	
		4	ALMED	Unserviceable	
	Projector,Slide	1	ALMED	Serviceable	
	Projector,Opaque	1	ALMED	-do	
	Microscope, Polarizing	1	ALMED	-do-	
	Water Sampler	1	ALMED	Unserviceable	
	Permeability Kit	1	ALMED	-do-	
	Infiltrometer	1	ALMED	Serviceable	
	Core cylinders, brass	582	ALMED	Unserviceable - 450	
	Alidade, Telescopic	9	Soil Conserva - tion	Serviceable	
	Alidade, Self reducing	7	-do-	-do-	
	Level,Engineers	10	-do-	-do-	
	Level,Builders	1	-do-	-do-	
	Rod, Leveling	18	-do-	-do-	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Cartography, photogrammetry and printing.	Book Binder Machine	1	Cartographic Div.	Serviceable	
	Process, Camera	1	-do-	Unserviceable	
	Beam Compass	1	-do-	-do-	
	Copying machine	4	-do-	Unserviceable - 2	
	Drafting Pen Set	10	-do-	Serviceable	
	Drawing Instrument	5	-do-	-do-	
	Duplicating Machine	3	-do-	-do-	
	Drafting Machine	1	-do-	Unserviceable	
	Curve, Flexible	10	-do-	Serviceable	
	Graver, Stabilene	2	-do	-do-	
	Lettering Set	20	-do-	Unserviceable - 10	
	Lettering Set	1	Soil Survey	Partially Serviceable	
	Lettering Set	14	Soil Conservation	Serviceable	
	Magnifying Lens	10	Cartographic Div.	Unserviceable - 5	
	Pantograph	3	-do-	Unserviceable - 2	
		6	Soil Conservation	Serviceable	
	Printing Machine	3	-do-	Unserviceable - 1	
	Photo Copying Apparatus	2	-do-	Unserviceable	
	Plan Variograph	2	-do-	Serviceable	
	Photo Typesetter	2	-do-	Unserviceable - 1	
	Printing Cabinet	1	-do-	Serviceable	
	Offset Printer	1	-do-	Unserviceable	
	Paper Guillotine	1	-do	Serviceable	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Cartographic photogrammetric and printing	Paper Trimmer	1	Cartographic Div.	Serviceable	
	Rectifier/Enlarger	1	-do-	-do-	
	Stencil Scanner	1	-do-	-do-	
	Stencil Cutter	1	-do-	Unserviceable	
	Plate Maker	1	-do-	Serviceable	
	Variograph	1	Soil Conservation	-do-	
	Stereoplotter	1	-do-	-do-	

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Audio-visual and photo-graphic equipment	1. Camera, 135 mm	2	Soil Conservation	Unserviceable - 1	
	2. Cabinet, Film Drying	2	Cartography	Unserviceable - 1	
	3. Drier, "Japo"	1	-do-	Serviceable	
	4. Enlarger, "Durst"	1	-do-	-do-	
	5. Light Meter	1	-do-	-do-	
	6. Temperature Control Sink	1	-do-	-do-	
	7. Timer, Universal	1	-do-	-do-	
	8. Waxing Machine	1	-do-	-do-	
	9. microphone, wireless	2	Maintenance Sec.	Good Condition	
	10. Housing for microphone	10	-do-	-do-	
	11. Voice coil for microphone	10	-do-	-do-	
	12. Solar magnet tabular type for microphone	10	-do-	-do-	
	13. Sliding switch for microphone high and low empedance	10	-do-	-do-	
	14. Diagram for microphone	10	-do-		
	15. Microphone stand, table type with flexible neck	10	-do-		

FACILITY / EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Audio-visual and photo-graphic equipment (cont'd)	16. National Intercom, model VL204 A/205A wallmount type super selective system	24	Maintenance Sec.	Good Condition	
	17. Radio telephone SSB 200w	2	-do-	-do-	
	18. Transformer variable 200/115V, 500M 50/60 cycles w/ volt meter	1	-do-	-do-	
	19. Microphone w/ floor stand and cord	1	-do-		

FACILITY/EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY.	LOCATION	STATUS DESCRIPTION
Training	1. Screen, portable	1	Soil Research Division	serviceable
	2. Slide Projector	2	Property/Maintenance	unserviceable
		1	Laboratory Services	serviceable
	3. Overhead Projector	1	Laboratory Services	for repair

FACILITY/EQUIPMENT INVENTORY CHART - BSWM

CATEGORY	DESCRIPTION	QTY	LOCATION	STATUS DESCRIPTION	ACTION PLAN
Building Maintenance	1. Electric Drill; sizes: 1/2 and 1/4	1	BSWM Maintenance Section	Service able	
	2. Electric Grinder with condenser; 220 V GA; 50/60 cycles	1	-do-	-do-	
	3. Vise, Mechanical, Medium	1	-do-	-do-	
	4. Welding Kit; Oxygen and acetylene with complete accessories	1	-do-	-do-	

INVENTORY AND STATUS OF REGIONAL LABORATORY EQUIPMENT

REGIONS (1 TO 12)

ITEM	STATUS/CLASSIFICATION AND QUANTITY	
	SERVICEABLE	FOR REPLACEMENT
1. Atomic Absorption Spectrophotometer	0	12
2. Flamephotometer	0	12
3. Spectrophotometer	5	6
4. Hot Plate	0	12
5. Fumehood	0	12
6. Analytical Balance	4	8
7. Top-Loading Balance	6	6
8. Muffle Furnace	1	9
9. Moisture Retention (pF Meter)	2	0
10. Distilling Apparatus	4	6
11. Water Bath	2	3
12. Vacuum Pump	0	2
13. Electrical Conductivity Meter	1	3
14. pH Meter	10	2
15. Oven	7	4
16. Centrifuge	3	6
17. Mechanical Stirrer	3	4
18. Kjeldahl Digester (micro)	0	3
19. Kjeldahl Digester (macro)	0	12
20. Kjeldahl Distillation	8	3
21. Autoclave/Pressure Cooker	0	10
22. Plastic Sealer	7	1
23. Shaking Machine	1	11
24. Refrigerator	9	3

REGIONAL/PROVINCIAL LABORATORIES PREFERABLE TO EQUIP WITH TELECOMMUNICATION

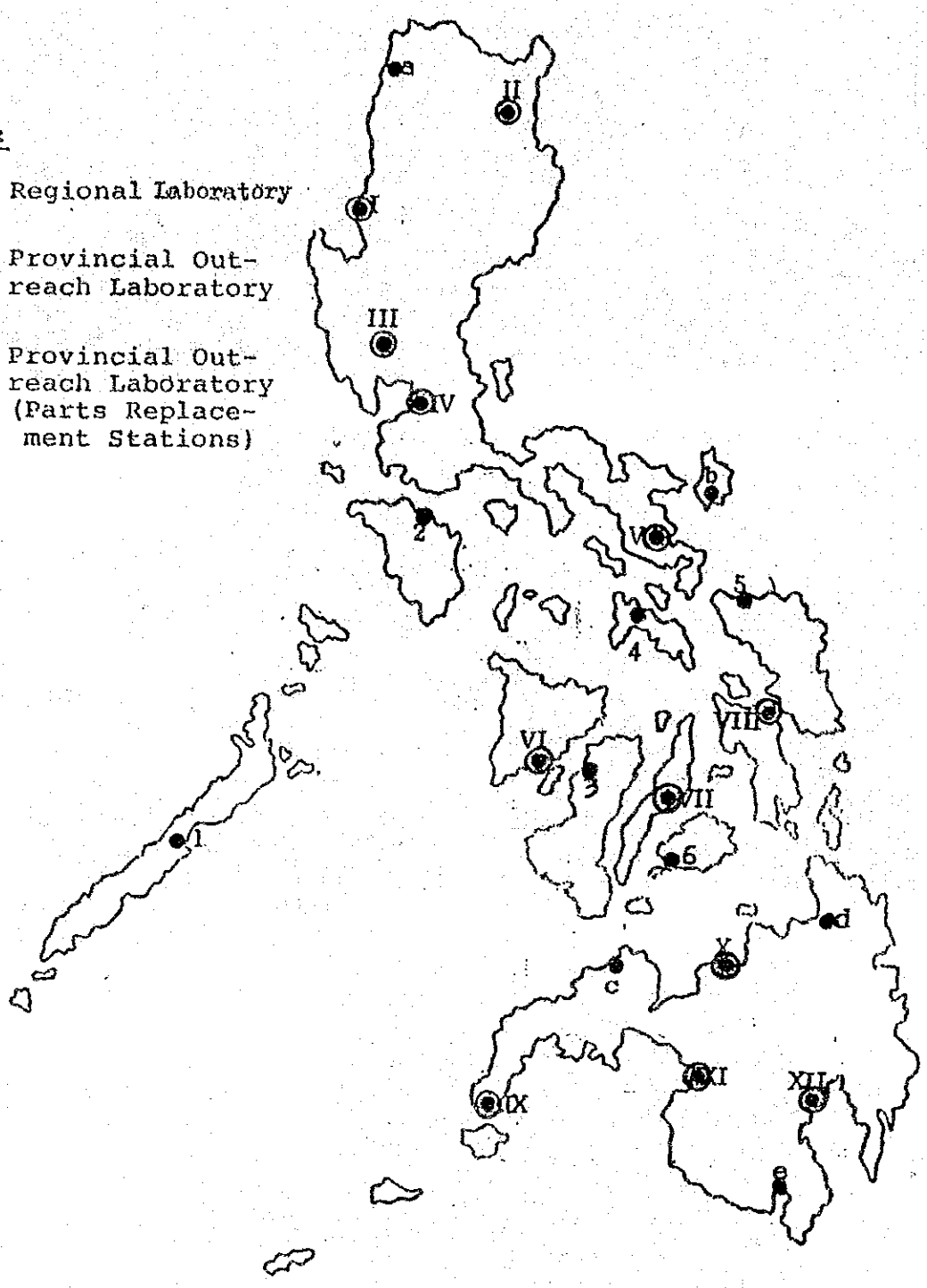
CITY/PROVINCES	REGION	APPROX. DISTANCE (KMS) from Soilsearch Center
FIRST PRIORITY:		
1. San Fernando, La Union	I	235
2. Tuguegarao, Cagayan	II	335
3. San Fernando, Pampanga	III	55
4. Quezon City, NCR	IV	-
5. Legaspi, Albay	V	330
6. Iloilo City, Iloilo	VI	450
7. Cebu City, Cebu	VII	454
8. Tacloban, Leyte	VIII	550
9. Zamboanga, Zamboanga del Sur	IX	815
10. Cagayan de Oro, Misamis Oriental	X	755
11. Davao City, Davao	XI	930
12. Cotabato City, Maguindanao	XII	850
13. SOILSEARCH CENTER	NCR	-
SECOND PRIORITY:		
1. Puerto Princesa, Palawan	IV	600
2. Calapan, Oriental Mindoro	IV	136
3. Masbate, Masbate	V	303
4. Catarman, Samar	VIII	460
5. Bacolod, Negros Occidental	VI	488
6. Tagbilaran, Bohol	VII	640
THIRD PRIORITY: Parts Replacement/Refurbishments		
1. Batac, Ilocos Norte	I	404
2. Virac, Catanduanes	V	370
3. Dipolog, Zamboanga del Norte	IX	720
4. Butuan, Agusan del Norte	X	803
5. Gen. Santos, South Cotabato	XI	1,052

Legend:

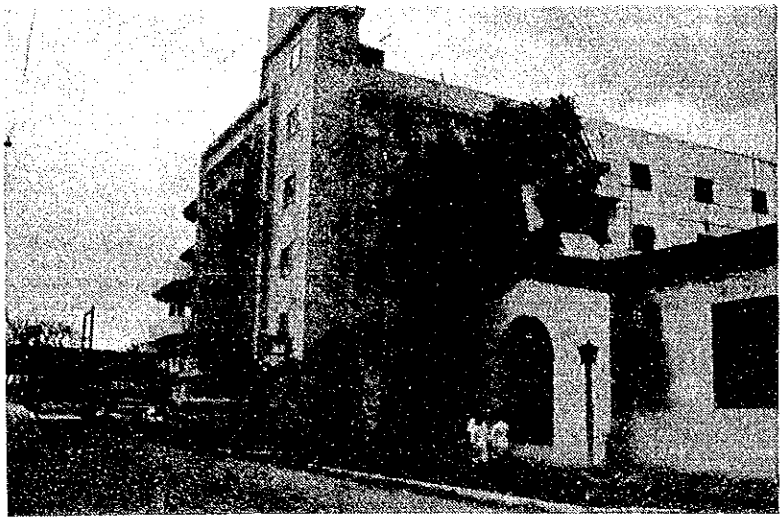
I to XII - Regional Laboratory

1 to 6 - Provincial Outreach Laboratory

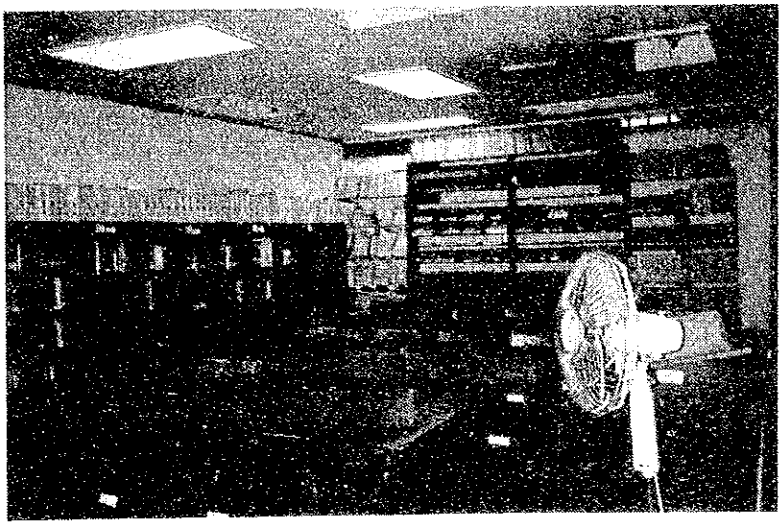
a to e - Provincial Outreach Laboratory (Parts Replacement Stations)



■ マニラ、タフト通りにある土壌･水管理局



建物外観



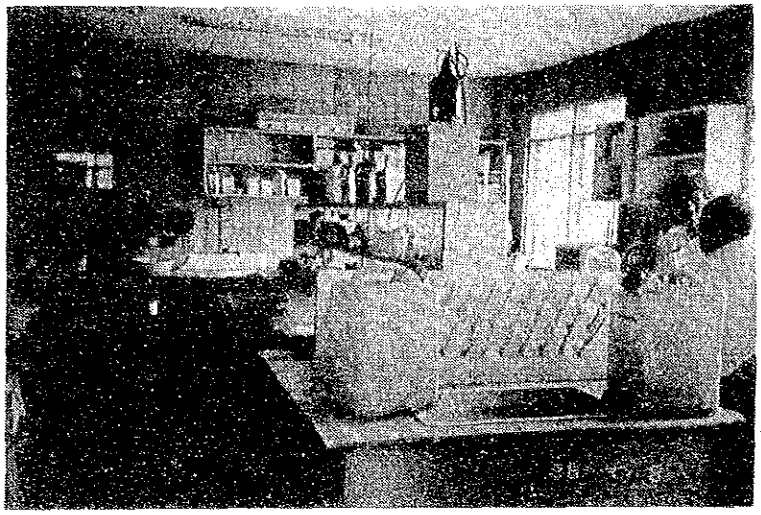
本局4階にある図書室

書籍点数は現在800点程度で今後の研究に対しては、これから整備して行く計画である。

土壌標本(モノリス)や資料の展示は本局廊下に数多く並べられている。

■ マニラ、マリア・オロサ通りにある分析・実験棟施設

本来、実験棟として建てられたものではないため、施設機能整備に無理が多く見られる。

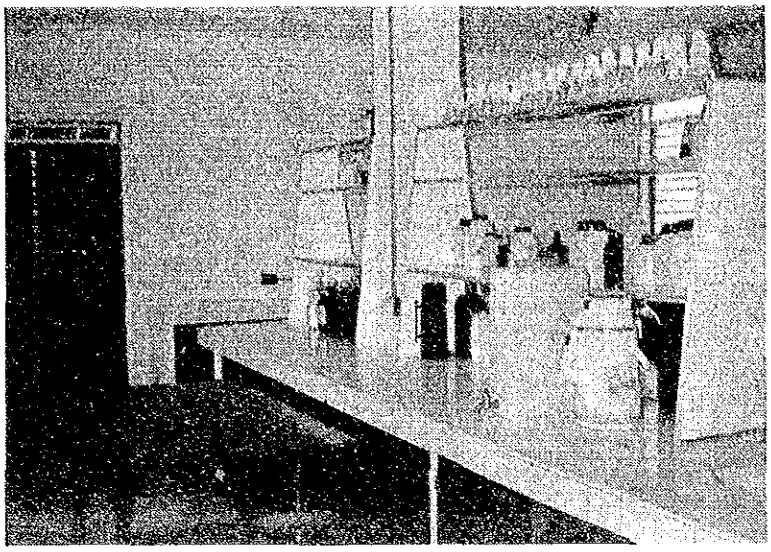


化学実験室内部

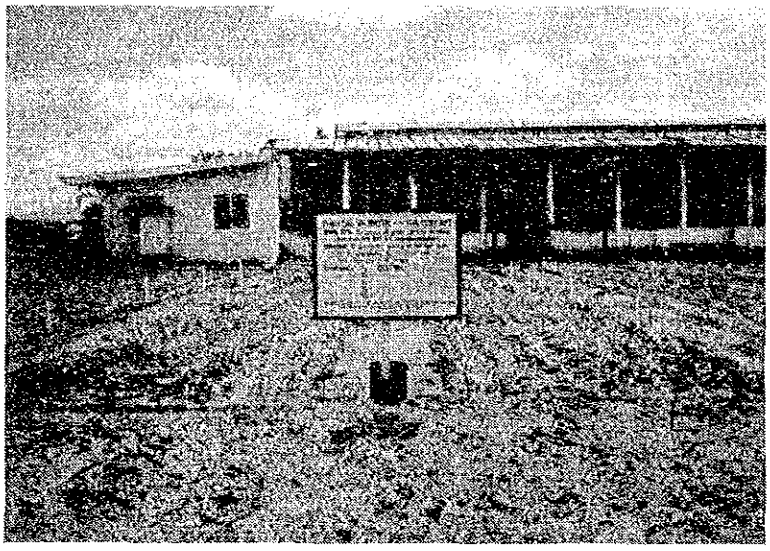
分析サービス室内部

ドラフトチャンバーも老朽化しており、排気等の性能に支障をきたしている。

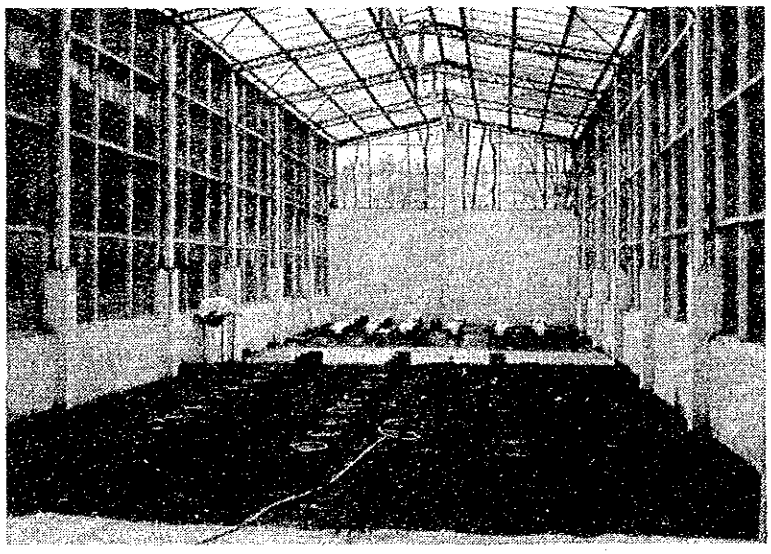
■ ブラカン県、サン・イルデフォンソにある土壌・水管理局試験圃場、分析所



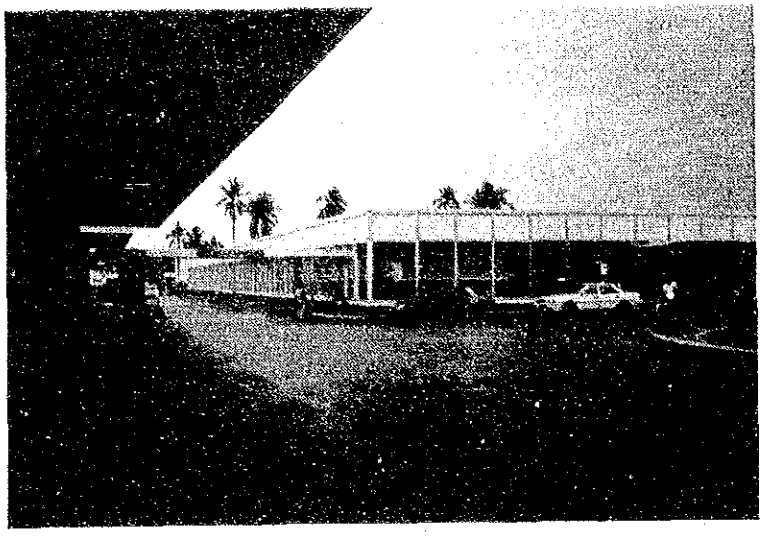
分析室内部



圃場及びスクリーンハウス



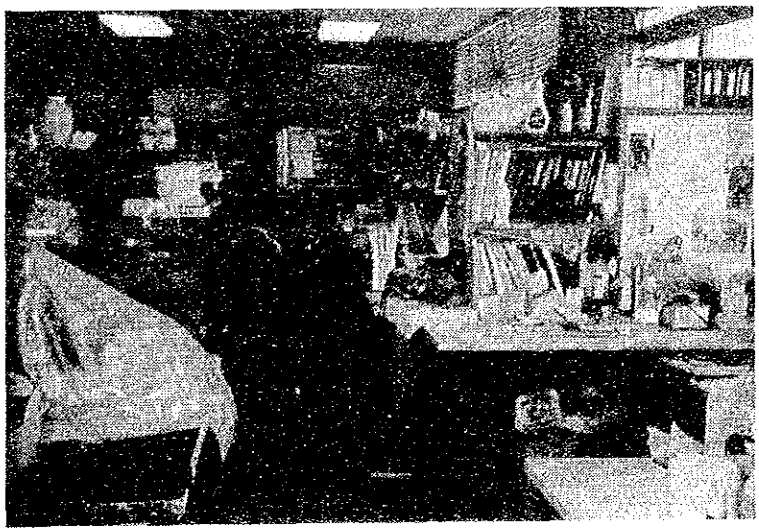
スクリーンハウス内部



■ 国際稲研究所(IRRI)
設立：1960年
所在地：ロス･バニオス

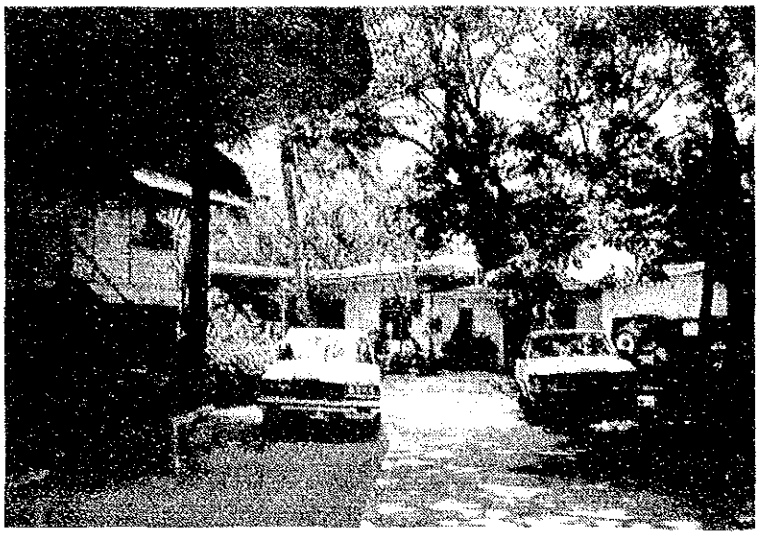
土壌に関しては主として開発途上国の稲作に関連した研究を行っている。
土壌･水管理局とはアゾラ、問題土壌(亜鉛欠乏、酸性土壌等)についてたえず情報の交換を行っている。

土壌研究室



土壌研究室

各国からの研究員の机が、分析･実験室に付置している。



■ パンパンガ県、サン・フェルナンドにある州(Region III)の土壌分析所

Region IIIの6県(ザンバーレス、バターン、パンパンガ、タルラック、ブラカン、ヌエバ・エシーハ)に対し分析サービスを行っている。

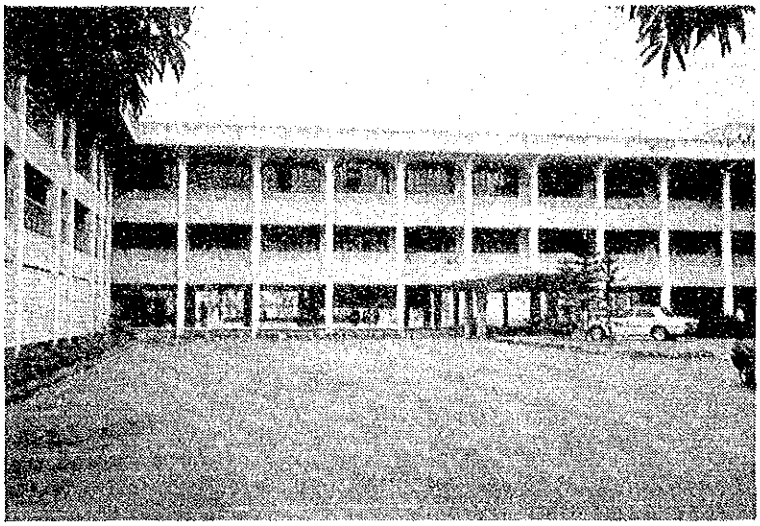
分析室

比色計、天秤、PHメーター
ドラフトチャンバーが設置されている。
NPKの分析を行っているが、微量要素の測地は本局に依頼している。

■ タルラック県タルラック市にある県レベルの土壌分析所

NPの分析を行っているが、Kについては州レベルの分析所に依頼している。
ここでは農家に対するキノコ栽培の普及指導も行っている。

■ フィリピン大学農学部土壌学科ロス・バニオス(UPLB)



土壌･水管理局職員には、ここでDiploma取得又は、現在取得中の者も多い。
センター設立後も研修の講師の派遣や共同研究の推進が計画されている。

土壌分析室

土壌･水管理局との共同研究も実施されている。

生物学科研究室

生物学科ではアゾラの委託試験を行っている。