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Japan International Cooperation Agency (JICA)

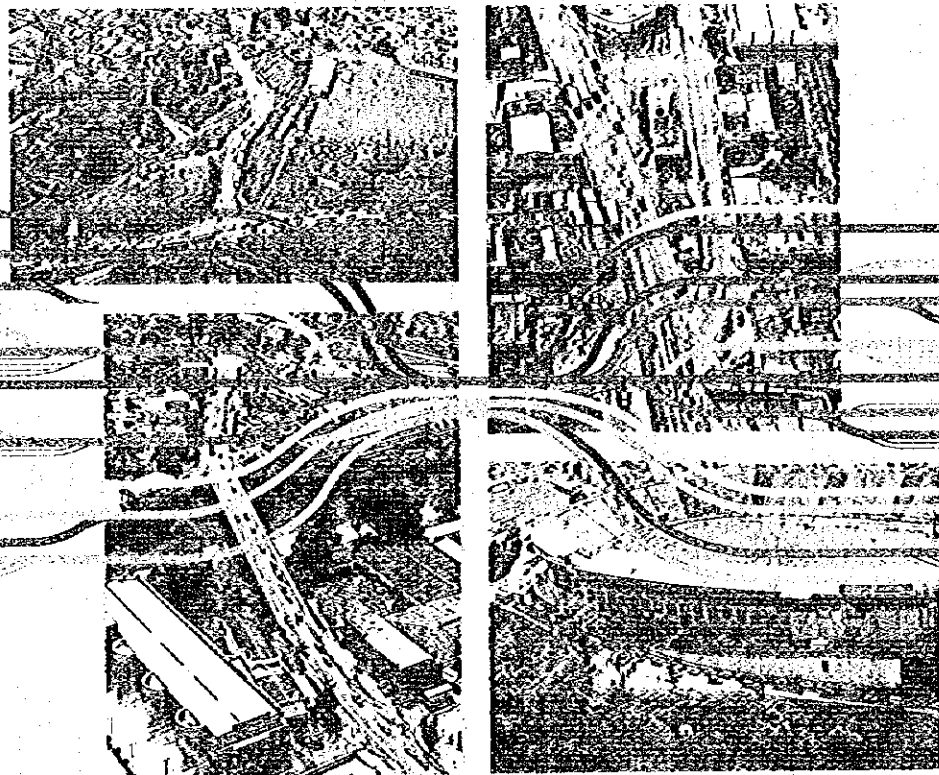
No. 22

Tegucigalpa Municipality of The Central District
The Republic of Honduras

THE TEGUCIGALPA URBAN TRANSPORT STUDY

FINAL REPORT APPENDIX

VOLUME 4



NOVEMBER 1996

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URBAN TRANSPORT STUDY
FINAL REPORT
APPENDIX
VOLUME 4
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Japan International Cooperation Agency (JICA)

Tegucigalpa Municipality of The Central District
The Republic of Honduras

**THE TEGUCIGALPA
URBAN TRANSPORT STUDY**

**FINAL REPORT
APPENDIX**

VOLUME 4

NOVEMBER 1996

ORIENTAL CONSULTANTS COMPANY LIMITED
CENTRAL CONSULTANT INCORPORATED

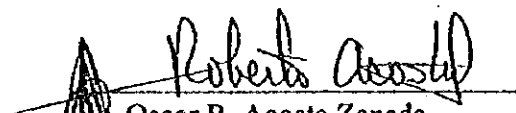


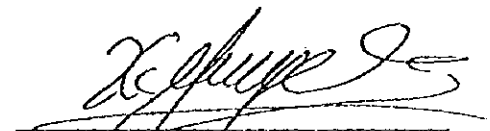
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APPENDIX

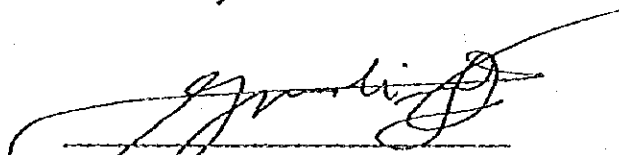
MINUTES OF MEETING
ON
THE INCEPTION REPORT
OF
THE TEGUCIGALPA URBAN TRANSPORT STUDY

Tegucigalpa, July 12, 1995

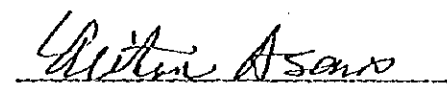

Oscar R. Acosta Zepeda
Alcalde Municipal del
Distrito Central


Mr. Kazuro Yanagida
Leader, Study Team
Dispatched by
Japan International Cooperation
Agency

Witnessed by


Dr. Guillermo Molina Chocano
Minister
Secretary of Planning
Coordination and Budget

Witnessed by


Dr. Mitsuyuki Asano
Chairman
JICA Advisory Committee

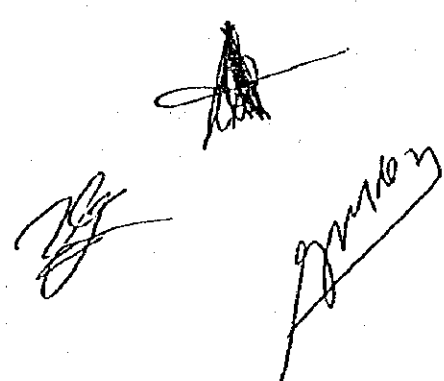
MINUTES OF MEETING
THE TEGUCIGALPA URBAN TRANSPORT STUDY

The Study Team dispatched by The Japan International Cooperation Agency (JICA) submitted ten (10) copies in English and forty (40) copies in Spanish of the Inception Report to the Urban Planning Bureau of Tegucigalpa Municipality of the Central District (METROPLAN) on July 10, 1995. At the submission of the report, Mr. Kazuro YANAGIDA, Leader of the JICA Study Team (the Study Team), and members explained the contents of the report. A meeting to discuss the report was held on July 11, 1995.

The meeting was chaired by Ing. Oscar R. Acosta Zepeda, Alcalde Municipal Del Distrito Central Tegucigalpa Ciudad with the attendees attached in Annex 1. The contents of the Inception report were generally agreed by both sides through the discussion. Major topics discussed during the meeting were as follows :



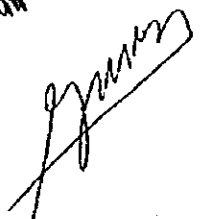
1. In response to the submission of the Inception Report, the Central District Municipality assigned the members of the steering committee and counterpart as Annex 2.
2. METROPLAN and the Study Team agreed that the study area will cover Tegucigalpa's metropolitan region which is approximately 130 km².
3. The Study Team shall include and consider the following items as described in the Inception Report.
 - 3.1 Environmental assessment including the air pollution.
 - 3.2 Fare system for buses and taxis.
 - 3.3 Truck and bus terminals and taxi pools.
 - 3.4 Traffic control.

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4. Government agencies in Honduras which will be involved in the study should cooperate when traffic and environment surveys are being carried out by the Study Team.
5. It was agreed that the Study Team shall periodically explain the contents and progress of the Study to members of Steering Committee and Comité Vial.
6. Honduras side requested the Japanese side to accept some Honduras counterpart to go to Japan so as to facilitate technical transfer during the course of the Study.
7. The Inception Report and the Minutes of Meeting were prepared in both English and Spanish. In case of any divergence arising from the interpretation of the document above-mentioned, English shall prevail.

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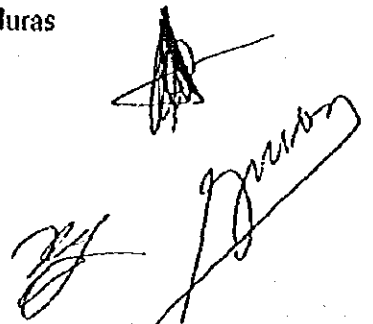
Annex 1

ATTENDEES OF THE MEETING

Honduras Side

Mr. Oscar R. Acosta Zepeda	Alcalde Municipal del Distrito Central
Mr. Guillermo Molina Chocano	Ministerio de SECPLAN
Mr. Roberto Abadie Abarca	Comandante General de Bomberos
Mr. Virgilio Ordoñez	HONDUTEL
Mr. Joaquin Guardado	Gerente de Infraestructura / A.M.D.C.
Mr. Hector Suazo	Dirección Nacional de Tránsito
Mr. Miguel Angel Valladares	Dirección General de Transporte
Mr. Isaac Vilorio B.	Departamento de Señalización Vial SECOPT
Mr. Roy Alonzo	SECPLAN
Ms. Zoila Estela Dominguez	SEDA
Mr. Mauro Mejía	Ministerio de Educación Pública
Mr. Norman Zúniga Borjas	Gerente de la Gerencia de METROPLAN
Mr. Lisandro Calderón	Gerencia de METROPLAN
Mr. Henry Banegas Cárcamo	Gerencia de METROPLAN
Ms. Delfina María Solórzano	Gerencia de METROPLAN
Mr. Felipe Mejía Cruz	Dirección Nacional de Tránsito
Mr. José Armando Andino	Sindicato de Transporte Urbano
Mr. Angel Ovidio Andrade	Comité Vial (Secretario)
Mr. Ramon H. Mungula	UNAH
Mr. Rodolfo del Cid M.	Comité Vial (Fiscal)
Mr. Luis F. Díaz Zelaya	Colegio de Arquitectos de Honduras

CRS

Handwritten signatures and initials in black ink, including a large signature that appears to be 'Dominguez' and other initials.


JICA Study Team

Mr. Kazuro Yanagida	Team Leader
Mr. Takao Inami	Team Member
Mr. Shigeru Okutsu	Team Member
Mr. Keiichi Ichikawa	Team Member
Mr. Hitoshi Okita	Team Member

JICA Advisory Committee

Mr. Mitsuyuki Asano	Chairman of Committee
Mr. Jun Nakamura	Member of Committee
Mr. Akihiko Nagano	Member of Committee
Mr. Kazufumi Shiii	Coordinator of Committee

CRS

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Annex 2

HONDURAS STEERING COMMITTEE AND COUNTERPARTS

Members of Steering Committee

Mr. Oscar R. Acosta Zepeda	Alcalde Municipal del Distrito Cental
Mr. Roberto Abadie Abarca	Comandante General de Bomberos
Mr. Virgilio Ordoñez	HONDUTEL
Mr. Joaquin Guardado	Gerente de Infraestructura / A.M.D.C.
Mr. Hector Suazo	Dirección Nacional de Tránsito
Mr. Miguel Angel Valladares	Dirección General de Transporte
Mr. Isaac Vilorio B.	Departamento de Señalización Vial SECOPT
Mr. Roy Alonzo	SECPLAN
Ms. Zoila Estela Dominguez	SEDA
Mr. Mauro Mejía	Ministerio de Educación Pública
Mr. Norman Zúniga Borjas	Gerente de METROPLAN / A.M.D.C.

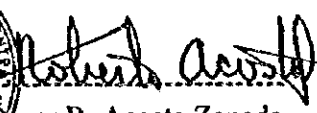
Members of Counterpart

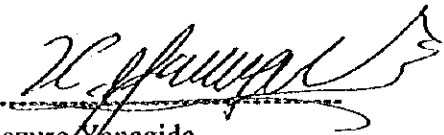
Mr. Norman Zúniga Borjas	Gerente de la Gerencia de METROPLAN
Mr. Lisandro Calderón	Gerencia de METROPLAN
Mr. Henry Banegas Cárcamo	Gerencia de METROPLAN
Ms. Delfina María Solórzano	Gerencia de METROPLAN
Mr. Felipe Mejía Cruz	Dirección Nacional de Tránsito

MINUTES OF MEETING
ON
THE PROGRESS REPORT
OF
THE TEGUCIGALPA URBAN TRANSPORT STUDY

Tegucigalpa, November 1, 1995

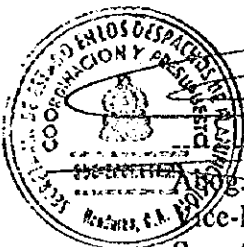


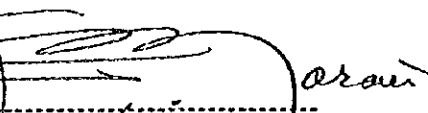

Oscar R. Acosta Zepeda
Alcalde Municipal del
Distrito Central



Mr. Kazuro Yanagida
Leader, Study Team
Dispatched by
Japan International Cooperation Agency

Witnessed by

Witnessed by



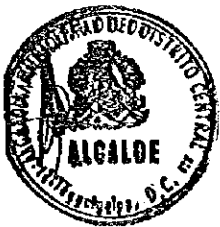

Abog. Arturo Morales Funes
Vice-Minister
Secretary of Planning, Cooperation
and Budget



Mr. Jun Nakamura
Member of Advisory Committee
Japan International Cooperation Agency

MINUTES OF MEETING
ON
THE TEGUCIGALPA URBAN TRANSPORT STUDY

The meeting of the Steering Committee was held on October 31, 1995 under the chairman of Ing. Oscar R. Acosta Zepeda, Alcalde Municipal del Distrito Central Tegucigalpa Ciudad with the attendees listed in Annex 1. At the beginning of the meeting the Study Team dispatched by the Japan International Cooperation Agency (JICA) submitted forty (40) copies in Spanish and ten (10) copies in English of the Progress Report to the Urban Planning Bureau of Tegucigalpa Municipality of the Central District (Metroplan). Mr. Kazuro Yanagida, the Leader of the JICA Study Team, explained the contents of the report. A comprehensive discussion was conducted between Honduras side (Annex 2) and the Japanese side. Through this discussion the contents of the Progress Report were satisfactorily agreed upon by the Honduras side.

At the end of the meeting, the Study Team requested the cooperation of the Committee Members to collect information on the future economic situation and future development plans in Tegucigalpa. The Steering Committee accepted this request.



J.N. 

Annex 1

HONDURAS STEERING COMMITTEE AND COUNTERPARTS

Members of Steering Committee

Mr. Oscar R. Acosta Zepeda	Alcalde Municipal del Distrito Central
Mr. Roberto Abadie Abarca	Comandante General de Bomberos
Mr. Virgilio Ordonez	HONDUTEL
Mr. Joaquin Guardado	Gerente de Infraestructura/A.M.D.C.
Mr. Hector Suazo	Direccion Nacional de Transito
Mr. Miguel Angel Valladars	Direccion General de Transport
Mr. Isaac Vilorio B.	Department de Senalizacion Vial SECOPT
Mr. Roy Alonzo	SECPLAN
Ms. Zoila Estela Dominguez	SEDA
Mr. Mauro Mejia	Ministerio de Educacion Publica
Mr. Norman Zuniga Borjas	Gerente de METROPLAN/A.M.D.C.

Members of Counterpart

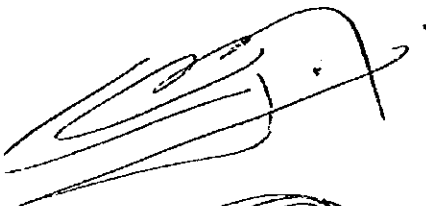
Mr. Norman Zuniga Borjas	Gerente de la Gerencia de METROPLAN
Mr. Lisandro Calderon	Gerencia de METROPLAN
Mr. Henry Banegas Carcamo	Gerencia de METROPLAN
Ms. Delfina Maria Solorzano	Gerencia de METROPLAN
Mr. Felipe Mejia Cruz	Direccion Nacional de Transito

JICA Study Team

Mr. Kazuro Yanagida	Team Leader
Mr. Takao Yamane	Team Member
Mr. Keiichi Ichikawa	Team Member

JICA Advisory Committee

Mr. Jun Nakamura	Member of Advisory Committee
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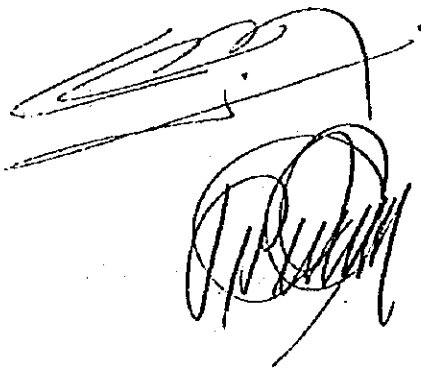
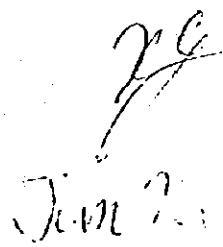
Jun Na

RELATED ORGANIZATIONS

Honduras Side

Mr. Oscar R. Acosta Zepeda
Mr. Guillermo Molina Chocano
Mr. Roberto Abadie Abarca
Mr. Virgilio Ordonez
Mr. Joaquin Guardado
Mr. Hector Suazo
Mr. Miguel Angel Valladares
Mr. Isaac Vilorio B.
Mr. Roy Alonzo
Ms. Zoila Estela Dominguez
Mr. Mauro Mejia
Mr. Norman Zuniga Borjas
Mr. Lisandro Calderon
Mr. Henry Banegas Carcamo
Ms. Dellina Maria Solorzano
Mr. Felipe Mejia Cruz
Mr. Jose Armando Andino
Mr. Angel Ovidio Andrade
Mr. Ramon H. Munguia
Mr. Rodolfo del Cid M.
Mr. Luis F. Diaz Zelaya

Alcalde Municipal del Distrito Central
Ministerio de SECPLAN
Comandante General de Bomberos
HONDUTEL
Gerente de Infraestructura/A.M.D.C.
Direccion Nacional de Transito
Direccion General de Transporte
Departamento de Senalizacion Vial SECOPT
SECPLAN
SEDA
Ministerio de Educacion Publica
Gerente de la Gerencia de METROPLAN
Gerencia de METROPLAN
Gerencia de METROPLAN
Gerencia de METROPLAN
Direccion Nacional de Transito
Sindicato de Transporte Urbano
Comite Vial (Secretario)
UNAH
Comite Vial (Fiscal)
Colegio de Arquitectos de Honduras

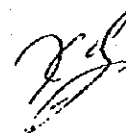
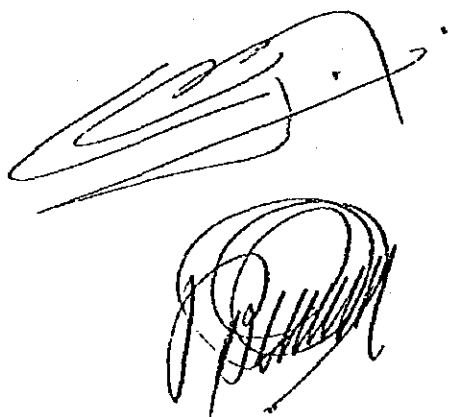
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JICA Study Team

Mr. Kazuro Yanagida	Team Leader
Mr. Takao Yamane	Team Member
Mr. Keiichi Ichikawa	Team Member

JICA Advisory Committee

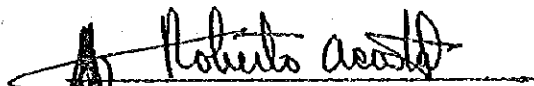
Mr. Jun Nakamura	Member of Advisory Committee
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Jun Na

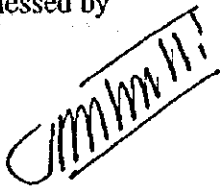
MINUTES OF MEETING
ON
THE INTERIM REPORT
OF
THE TEGUCIGALPA URBAN TRANSPORT STUDY

Tegucigalpa, March 13, 1996

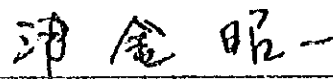

Oscar R. Acosta Zepeda
Mayor
Tegucigalpa City


Mr. Kazuro Yanagida
Leader, ICA Study Team
Dispatched by
Japan International Cooperation Agency

Witnessed by


Mr. Julio Cesar Quintanilla
Vice-Minister
Secretary of Planning, Cooperation
and Budget

Witnessed by


Mr. Shoichi Tsugane
Member of Advisory Committee
Japan International Cooperation Agency

**MINUTES OF MEETING
THE TEGUCIGALPA URBAN TRANSPORT STUDY**

The Study Team dispatched by The Japan International Cooperation Agency (JICA) submitted ten (10) copies in English and forty (40) copies in Spanish of the Interim Report to the Urban Planning Bureau of Tegucigalpa Municipality of the Central District (METROPLAN) on March 11, 1996. At the submission of the report, Mr. Kazuro Yanagida, Leader of the JICA Study Team (the Study Team), and members explained the contents of the report. A meeting to discuss the report was held on March 12, 1996.

The meeting was chaired by Mr. Oscar R. Acosta Zepeda, Mayor of Tegucigalpa City, with the attendees attached in Annex 1. The Contents of the Interim Report were generally agreed by both sides through the discussion. Major topics discussed during the meeting were as follows:

1. Since six (6) projects listed in the master plan were already designed by SECOPT, the Study Team will review these design at the next stage. The Study Team requested Honduras side to submit these design at the beginning of next stage.
2. Honduras side requested the Study Team to propose the fare of the public transportation. However, since the public transportation companies did not indicate enough operating and financial data and information on analysis of the fare, the Study Team answered not to consider the fare of the public transportation in this Study, however, the Study Team agreed to submit the related data obtained during the Study and explain the analytical method at the next stage.
3. Honduras side requested that the implementation cost would be indicated by US dollar in Final Report. The Study Team agreed with this request.
4. Honduras side requested the Study Team to give the traffic survey data and the result of traffic analysis by floppy-disk to the METROPLAN. The Study Team agreed to present these data, however, not agreed to present the software.
5. Honduras side requested the Japanese side to hold a seminar on the Urban Transport Plan in Tegucigalpa. The purpose of the seminar is to explain the study contents and analysis methods. The Study Team agreed that this message would be conveyed to the management of the JICA headquarters in Tokyo.
6. The Interim Report and the Minutes of Meeting were prepared in the both English and Spanish. In case of any divergence arising from the interpretation of the documents above-mentioned, English shall prevail.

Annex I

ATTENDEES OF THE MEETING

Honduras Side

Mr. Oscar R. Acosta Zepeda	Mayor of Tegucigalpa City
Mr. Julio Cesar Quintanilla	Vice-Miniter SECPLAN
Mr. Alejandro Ulloa de Thuin	Advisor of Mayor
Mr. Roberto Abadie Abarca	General Commander of Fire Department
Mr. Virgilio Ordoñez	HONDUTEL
Mr. Joaquin Guardado	Infrastructure Manager/A.M.D.C.
Mr. Miguel Angel Valladares	General Direction of Transportation
Mr. Isaac Vilorio B.	Departament of Road Marking SECOPT
Mr. Roy Alonzo	SECPLAN
Mr. Mauro Mejía	Ministry of Public Education
Mr. Norman Zúniga Borjas	Manager of METROPLAN/A.M.D.C.
Mr. Lisandro Calderón	Managment of METROPLAN
Mr. Henry Banegas Cárcamo	Managment of METROPLAN
Ms. Delfina María Solórzano	Managment of METROPLAN
Mr. Angel Ovidio Andrade	Road Committee (Secretary)
Mr. Ramón H. Munguía	UNAH
Mr. Luis F. Díaz Zelaya	Honduran Architects Association

JICA Study Team

Mr. Kazuro Yanagida	Team Leader
Mr. Takao Yamane	Team Member
Mr. Takao Inami	Team Member

JICA Advisory Committee

Mr. Shoichi Tsugane	Member of Advisory Committee
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JICA Honduras Office

Mr. Kazumi Kobayashi	Deputy Director General
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**MINUTES OF MEETING
ON
THE DRAFT FINAL REPORT
OF
THE TEGUCIGALPA URBAN TRANSPORT STUDY**

Tegucigalpa, September 9, 1996

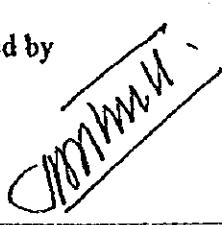


Oscar R. Acosta Zepeda
Mayor of Tegucigalpa City




Mr. Kazuro Yanagida
Leader, Study Team
Japan International Cooperation Agency

Witnessed by



Mr. Julio Cesar Quintanilla
Vice Minister
Secretary of Planning, Cooperation
and Budget

Witnessed by



Mr. Jun Nakamura
Member of Advisory Committee
Japan International Cooperation Agency

MINUTES OF MEETING
THE TEGUCIGALPA URBAN TRANSPORT STUDY

The Study Team dispatched by The Japan International Cooperation Agency (JICA) submitted ten (10) copies in English and forty (40) copies in Spanish of the Draft Final Report to the Urban Planning Bureau of Tegucigalpa Municipality of the Central District (METROPLAN) on September 5, 1996. At the submission of the report, Mr. Kazuro Yanagida, Leader of the JICA Study Team (the Study Team), and members explained the contents of the report. A meeting to discuss the report was held on September 6, 1996.

The meeting was chaired by Mr. Oscar R. Acosta Zepeda, Mayor of Tegucigalpa City, with the attendees attached in Annex 1. The Contents of the Draft Final Report were generally agreed by both sides through the discussion. Major topics discussed during the meeting were as following:

1. Japanese side requested the Honduras side submit the written comments on the Draft Final Report to Japanese side until October 4, 1996. Honduras side agreed with this request.
2. The Study Team will be submitted the Final Report within two (2) months after the receipt of the written comments on the Draft Final Report from Honduras side.
3. Japanese side requested that the Final Report will be open to the public. Honduras side agreed with this request.
4. The Draft Final Report, Final Report and the Minutes of Meeting of the Draft Final Report were prepared in the both English and Spanish. In case of any divergence arising from the interpretation of the document above-mentioned, English shall prevail.

ATTENDEES OF THE MEETING

Honduras Side

Mr. Oscar R. Acosta Zepeda	Mayor of Tegucigalpa City
Mr. Julio Cesar Quintanilla	Vice Minister SECPLAN
Mr. Alejandro Ulloa de Thuin	Advisor of Mayor
Mr. Roberto Abadie Abarca	General Commander of Fire Department
Mr. Virgilio Ordoñez	HONDUTEL
Mr. Joaquin Guardado	Infrastructure Manager / A.M.D.C.
Mr. Miguel Angel Valladares	General Direction of Transportation
Mr. Luis F. Díaz Zelaya	General Direction of Transportation
Mr. Isaac Vilorio B.	Department of Road Marking SECOPT
Mr. Mario Mejía	Ministry of Public Education
Mr. Norman Zúniga Borjas	Manager of METROPLAN / A.M.D.C.
Mr. Lisandro Calderón	Management of METROPLAN
Ms. Delfina María Solórzano	Management of METROPLAN
Mr. Angel Ovidio Andrade	Road Committee (Secretary)
Mr. Ramón H. Munguía	UNAH
Mr. Anahel Pérez Suazo	Chief of Transit Police
Mr. Felipe Mejía	Transit Police

JICA Study Team

Mr. Kazuro Yanagida	Team Leader
Mr. Takao Inami	Team Member
Mr. Akio Tatsuno	Team Member
Mr. Hitoshi Okita	Team Coordinator

JICA Advisory Committee

Mr. Jun Nakamura	Member of Advisory Committee
Mr. Shoichi Tsugane	Coordinator

Embassy of Japan

Mr. Masayoshi Ono	Prime Secretary
-------------------	-----------------

JICA Honduras Office

Mr. Kazumi Kobayashi	Deputy Director General
Mr. Tsugiyoshi Nakamura	Officer



APPENDIX 4

Appendix 4 TRAFFIC SURVEY

Study Team has carried out the following 14 surveys :

1. Person Trips
2. Screen Lines
3. Cordon Lines
4. Vehicle Velocities
5. Traffic Volumes at Intersections
6. Traffic Volumes on Major Roads
7. Parking on Streets
8. Parking in Lots
9. Bus Passengers
10. Bus Terminals
11. Bus Stops
12. Taxi Pools
13. Truck Terminals
14. Road Inventory

This chapter will present each survey in detail.

4.1 Person Trip Survey

4.1.1 Purpose of Survey

The "Person Trip Survey" was formally called "the Survey of Origin and Destination of Person Trip in Tegucigalpa and Comayagua".

This was conducted to obtain the most basic data of transport demand for urban transport planning and investigated the daily movement of persons.

Traffic Demand is a result of each person's desire to travel from place to place for a certain purposes, such as the place of origin and destination, the purpose of the trip, means of transport, and related facilities. This information gives an understanding of transport demand.

4.1.2 Basic Approach to Zoning

Dividing the survey area into zones was an important and basic preparation for the person trip survey. The Zone would be used as the unit of analysis for forecasting the traffic demand. Also, the zone is used for an analysis of the characteristics of traffic. For instance, characteristics of traffic generation and attraction, in the relation to population or employment by day and night time, the area of land use, the number of establishment, vehicle ownership, etc..

The Censuses on 1988, used as the unit of reporting the Colonia or Barrio. There is also a larger unit than Colonia or Barrio, The Sector. In the urban study area of Tegucigalpa and Comayagua, there are 524 Colonia and Barrio and 29 Sectors. the Study team used the "Sector" for the initial determination of the zones.

The zone were determined on the following concepts from the sectors.

- (1) There was clear differences in land use in the same section.
- (2) Land use was expected to change in the future.

(3) Zone can be separated clearly into several areas of independent traffic activities.

4.1.3 Zoning

Zoning was based on the Sectors used in the National Census. The urban area of Tegucigalpa and Comayaguela (Study Area) was divided into 74 zones. Where a sector had a high density of population, it was divided into several zones. Sectors located near the boundary of study area were not divided into many zones, even if Sectors was very large. These Sectors did not have many principal roads connecting with the urban area. Other Sectors with many new residential developments were divided into more than 3 zones. Those Sectors planned to develop as residential areas in future were dealt with similarly.

The center area of Tegucigalpa was one Sector. The central area of Comayaguela, was also one Sector. The Study Team divided the central Tegucigalpa sector into 3 zones. The central area of Comayaguela was divided into 4 zones. Other sectors are divided average 3 zones.

The origin and destination zoning of study area is shown in following Fig.4.1.1. Zone code is shown in Table 4.1.1. Zoning of Center area of Tegucigalpa is shown in the Fig.4.1.2. The zoning of Comayaguera is shown in Fig.4.1.3.

The zoning of Department of Francisco Moron is shown in Fig.4.1.4.
Zoning of outside area of Dep. Francisco Morazon is shown in Fig.4.1.5.

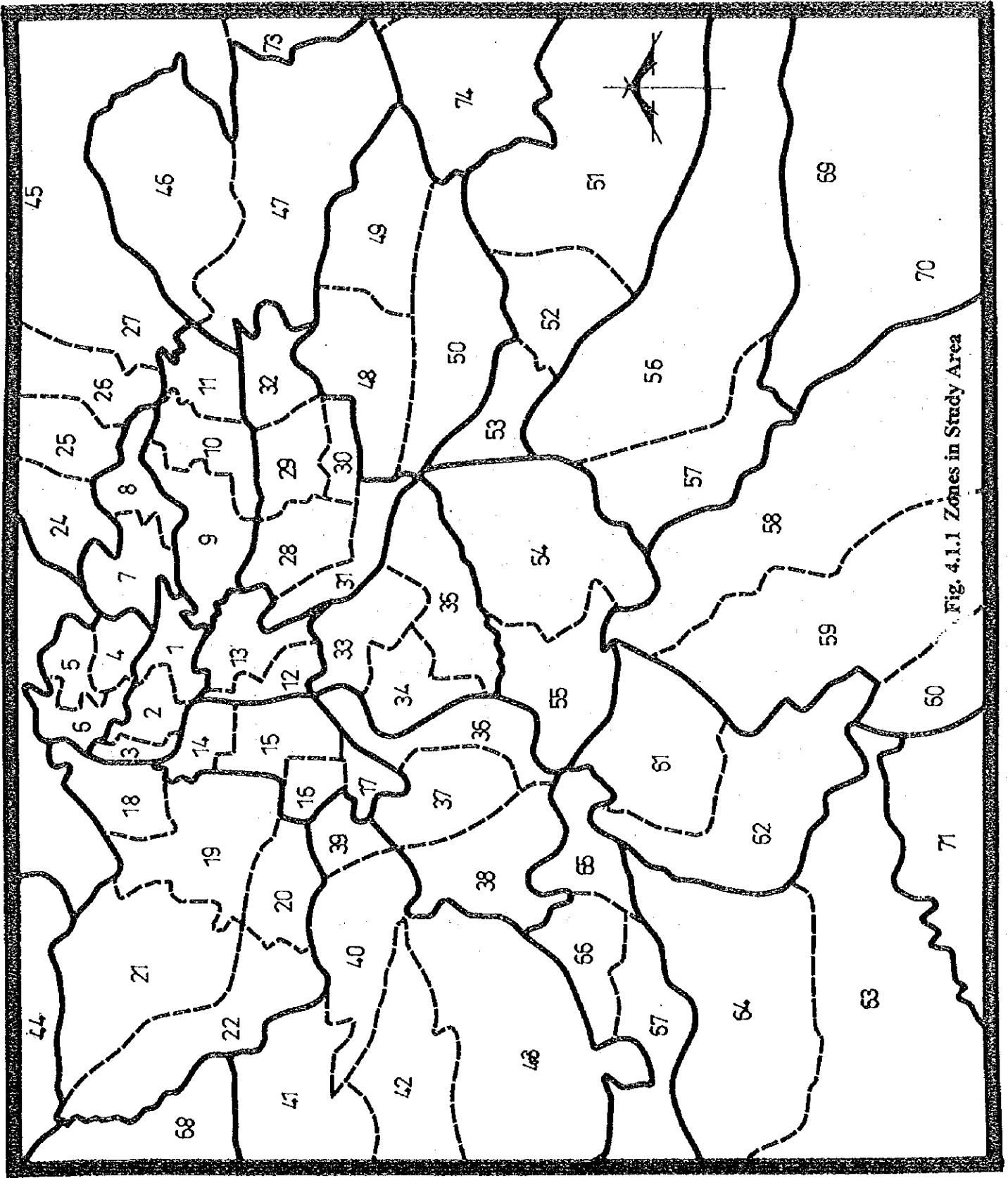


Fig. 4.1.1 Zones in Study Area

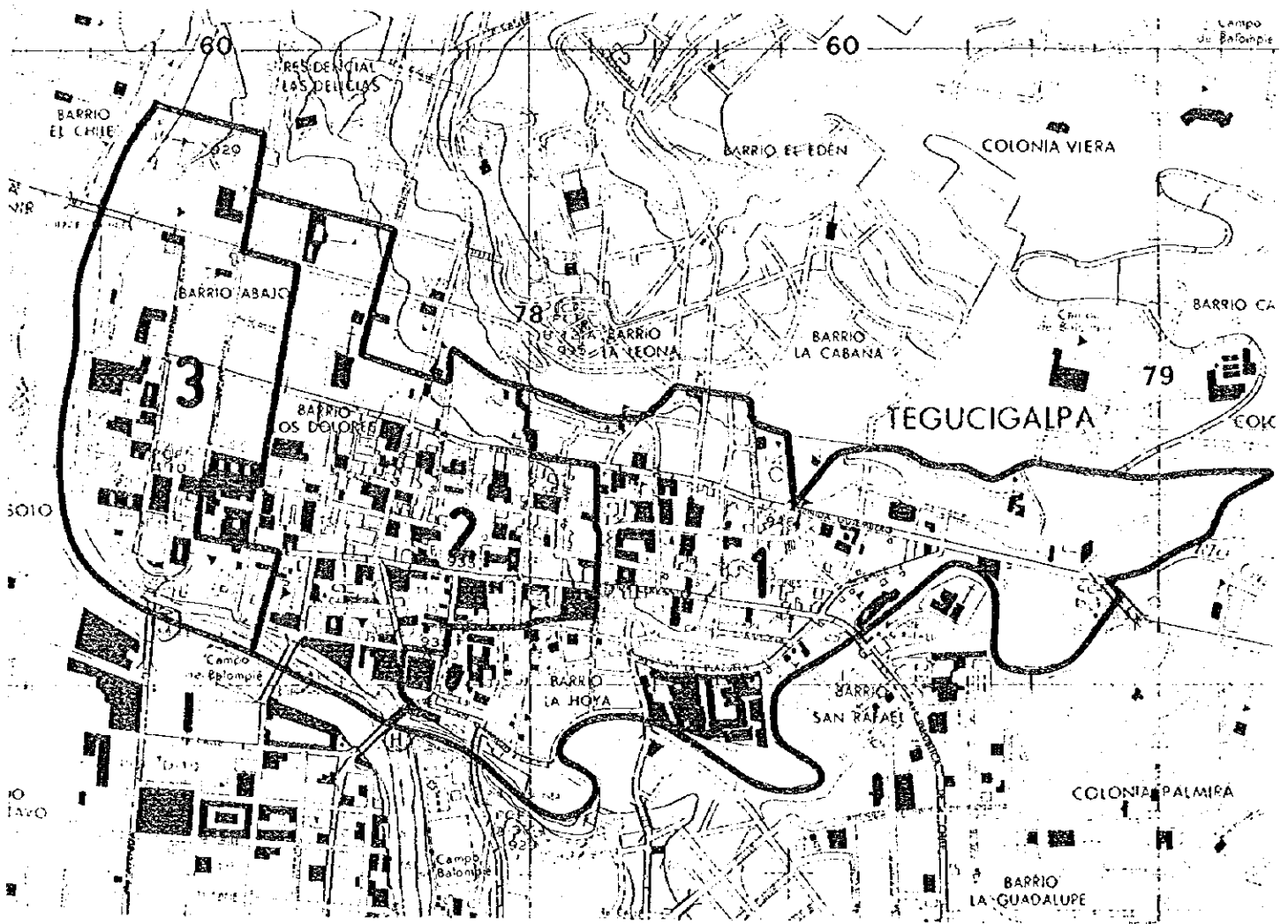


Fig. 4.1.2 Zoning in Centro Area of Tegucigalpa

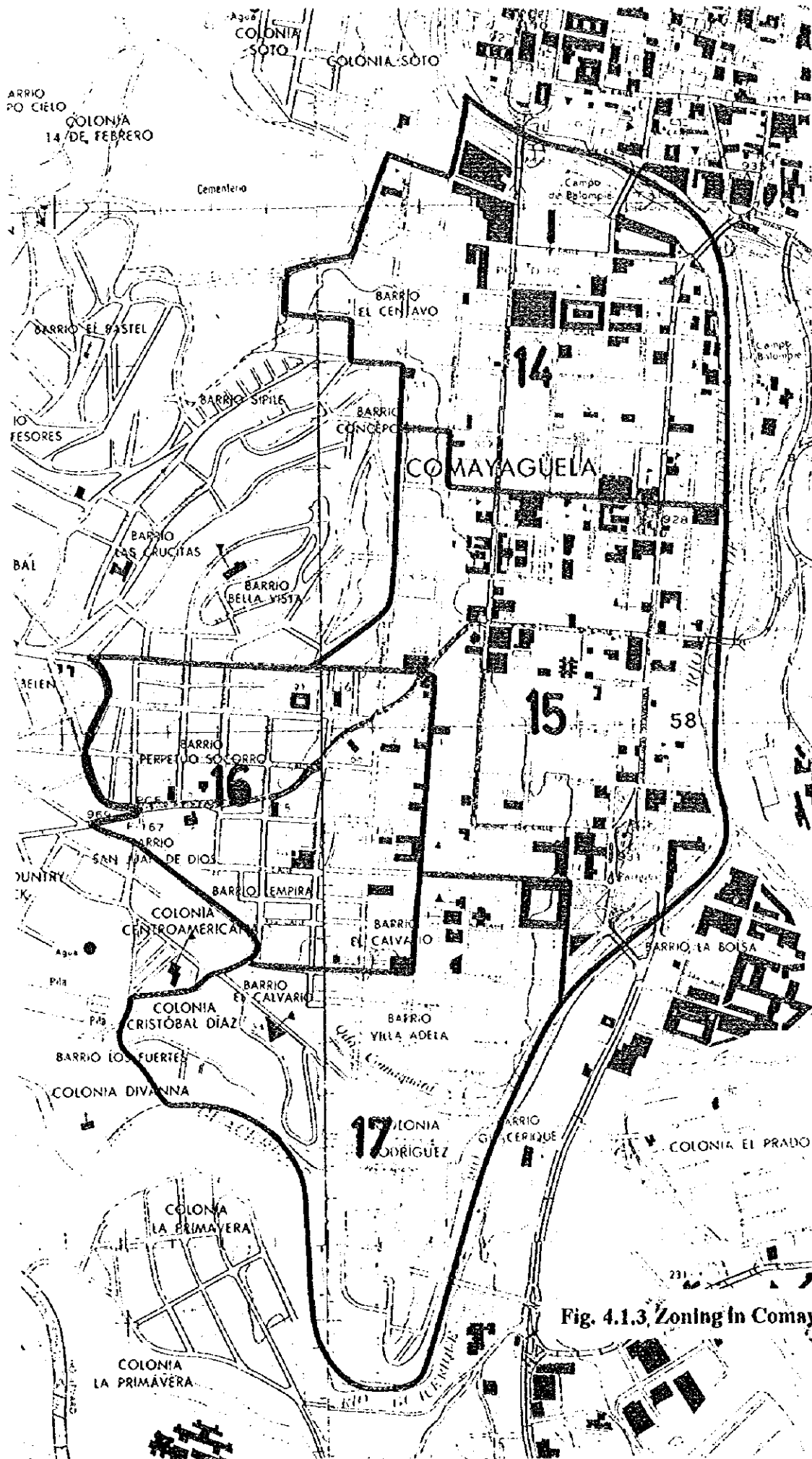


Fig. 4.1.3 Zoning in Comayagua

DEPARTAMENTO DE FRANCISCO MORAZAN

DIVISION REGIONAL

Elaborado por Sara Judith Reyes, Tito Vilalta, Alex Castillo y
 con el apoyo técnico de Ángel G. Hernández y
 con el apoyo de Eusebio Castro, Asesor Técnico del
 BANCO MUNDIAL SUTELSA. Elaborado en
FUENTES: Serie de mapas departamentales del Instituto Geográfico
 Nacional, División Político-Territorial, 1974, de la Dirección
 General de Estadística y Censos, Honduras en cifras, 1986, de la
 Dirección de Estadística y Censos del Ministerio de Economía y
 Finanzas del Estado de Honduras, 1987, y de la Dirección de
 Estadística y Censos del Ministerio de Economía y Finanzas
 del Estado de Guatemala, 1987.

PROYECCION TRANSVERSA DE MERCATOR
 ESCALA APROXIMADA
 1:700,000

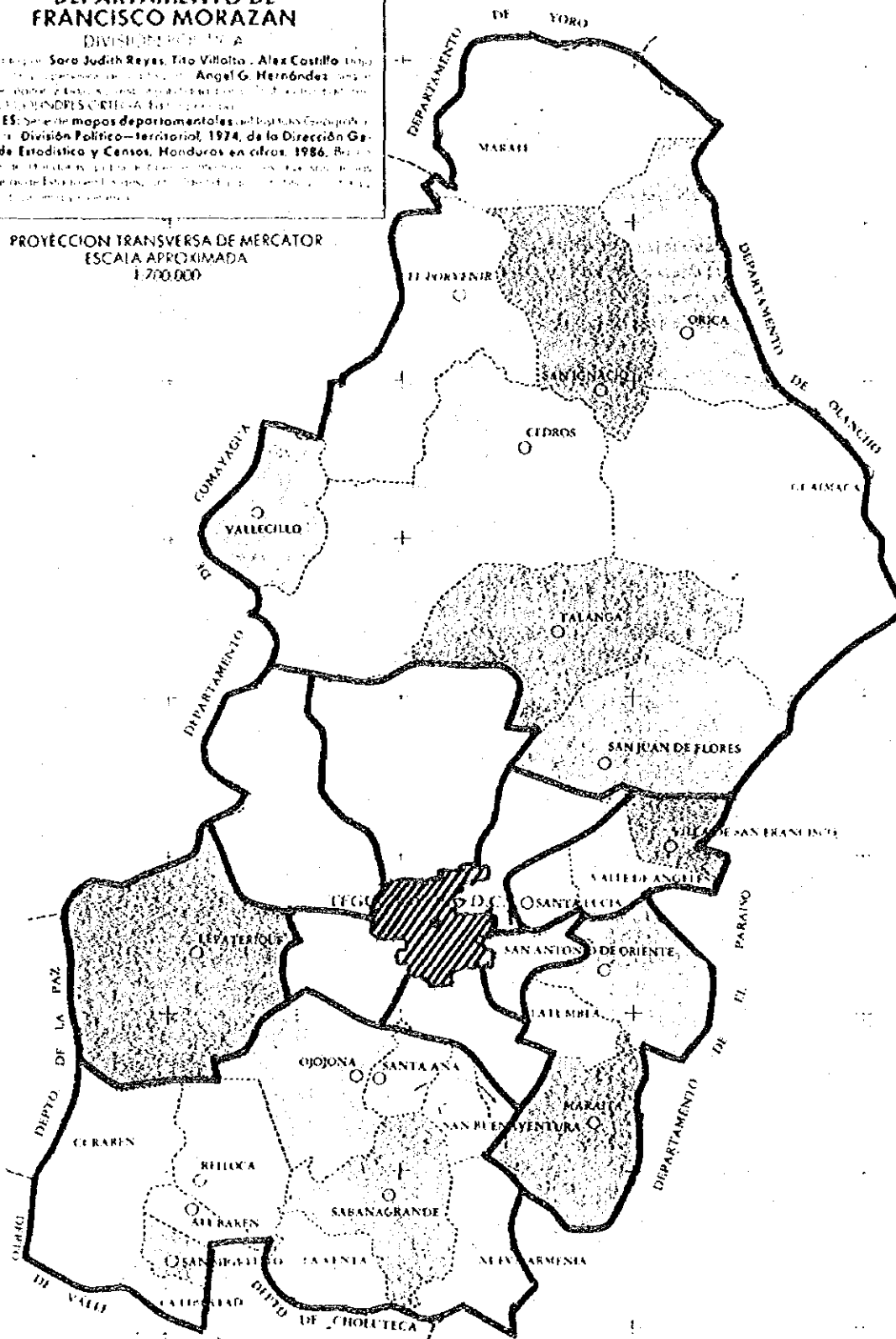


Fig. 4.1.4 Zones in Dep. Francisco Morazon

35945

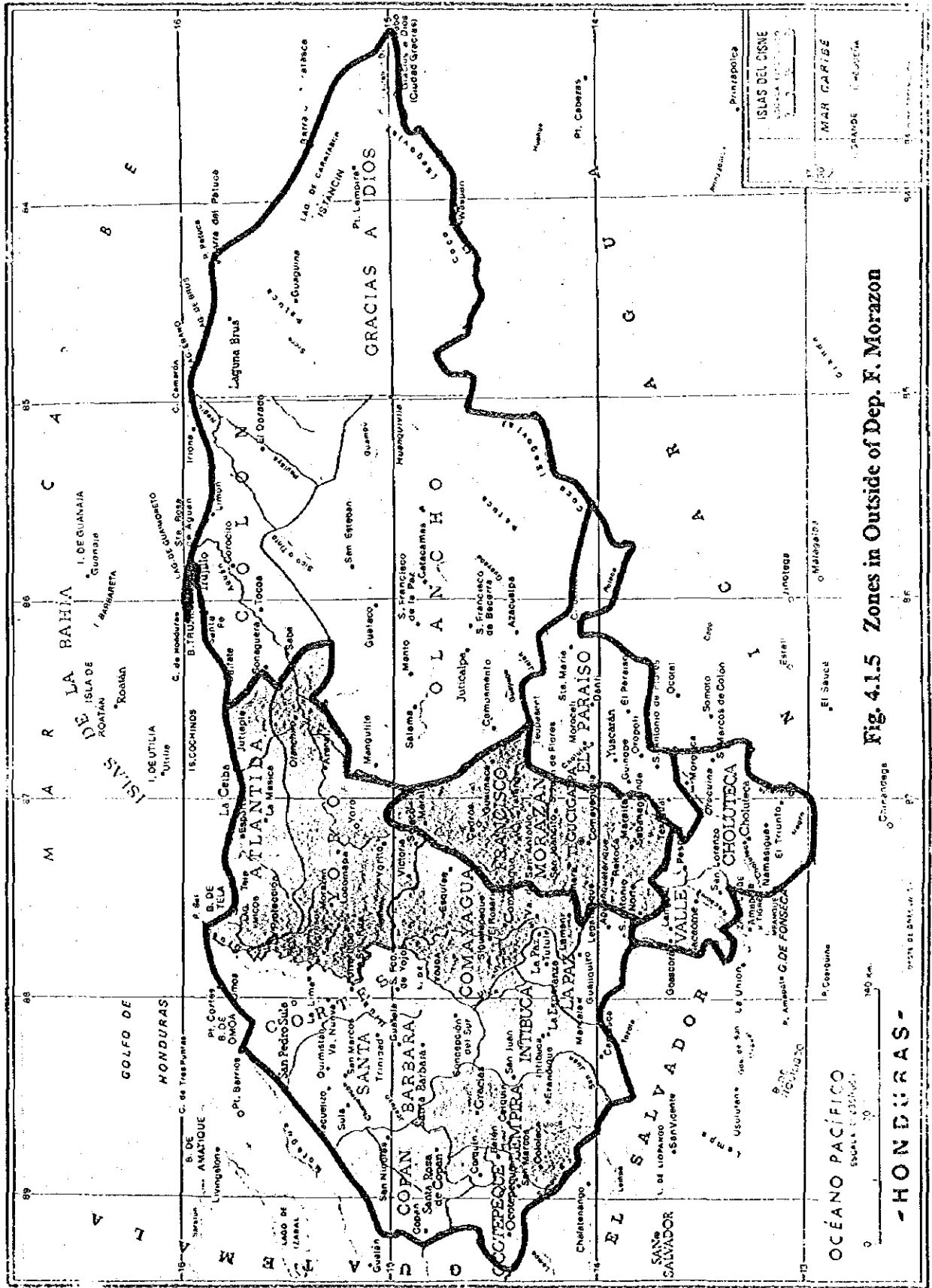


Fig. 4.1.5 Zones in Outside of Dep. F. Morazon

ZONE CODE

Table 4.1.1

No. Zona	Sector	Area
1	Sector 1	Bo. El Olvido
		Bo. Guanacaste
		Bo. La Hoya
		Bo. La Merced
		Bo. La Ronda
		Bo. La Plazuela
2	Sector 1	Centro de Tegucigalpa
		Bo. El Centro
		Bo. El Jasmin
		Bo. Las Delicias
3	Sector 1	Bo. Los Dolores
		Bo. Abajo
		Bo. La Concordia
4	Sector 2	Bo. Moncada
		Bo. Alambra
		Bo. El Eden
		Bo. La Cabana
		Bo. La Leona
5	Sector 2	Bo. La Zaragoza
		Bo. Buenos Aires
		Bo. Bella Vista
		Bo. El Bosque
6	Sector 2	Bo. El Picachito
		Bo. Buena Vista
		Bo. La Fuente
7		Bo. Linton
		Bo. Miramesi
		Col. Altos de La Cabana
		Bo. Casamata
8	Sector 3	Bo. El Manchen
		Col. Viera
		Bo. Jardines de Las Mercedes
		Col. Las Mercedes
		Col. La Reforma
9	Sector 4	Col. Mesia
		Bo. San Pablo
		Col. La Campana
		Bo. Las Palomas
		Col. Matamoros

ZONE CODE

No. Zona	Sector	Area
9	Sector 4	Col. Palmira
		Col. San Carlos
		Col. San Rafael
10	Sector 4	Col. Argentina
		Col. El Castano
		Bo. Pueblo Nuevo
		Bo. San Felipe
11	Sector 4	Col. Lara
		Col. La Fraternidad
		Col. Los Proceres
		Col. Sabanagrande
12	Sector 5	Col. Altamira
		Cerro Juan A. Laines
		Bo. La Pagoda
13	Sector 5	Bo. Morazan
		Bo. Guadalupe
14	Sector 6	Bo. Comayaguela
		Bo. El Centavo
		Bo. La Chivera
		Bo. Sipile
15	Sector 6	Bo. Concepcion
		Bo. El Calvario
		Bo. El Obelisco
		Bo. Villa Adela
16	Sector 6	Bo. Calvario
		Bo. Comaguara
		Bo. Lempira
17	Sector 6	Bo. El Socorro
		Col. Rodrigues
18	Sector 7	Col. 14 de Febrero
		Col. Campo Cielo
		Bo. El Chile
		Col. El Porvenir
19	Sector 7	Col. Soto
		Bo. Bella Vista
		Col. Campo Cielo
		Bo. El Pastel
		Col. Las Ayestas
		Bo. Las Cruzitas
Bo. La Flor No.2		
		Bo. Los Profesores

No. Zona	Sector	Area
19	Sector 7	Bo. San Cristobal
		Bo. San Martin
		Col. San Martin
		Bo. Sipile
		Col. 3 de Mayo
20	Sector 7	Bo. Belen
		Bo. El Pedregalito
		Residencial Granada
		Col. La Haya
		Col. Las Mercedes
		Col. Monsenor Fiallos
21	Sector 7	Col. Alemania
		Col. Brasilia
		Col. Brisas de Olancho
		Bo. La Flor No. 1
		Col. Independencia
		Bo. La Flor No. 1
		Col. La Laguna
		Col. Las Pavas
		Col. Rosalinda
		Col. Tiburcio Carias Andino
		Col. 3 de Mayo Sector No. 4
		Col. San Juan del Norte 1 y 2
		Col. Villa Cristina
		Col. Villa Franca
		Col. Villa Union
Col. Zapote Centro		
Col. Zapote Norte		
22	Sector 7	Bo. Carrizal No. 1 y No. 2
		Col. El Rosario
		Col. La Esperanza
		Col. Policarpo Paz
		Col. Santa Fe
		Col. Santa Isabel
		Col. Torocagua
23	Sector 8	Col. Brisas del Picacho
		Col. Cerro Grande
		Bo. La Estrella
		Bo. Puente Colorado
		Col. Sagastume
24	Sector 9	Bo. El Reparto
		Residencial Estanzuela

No. Zona	Sector	Area
24	Sector 9	Col. Reparto Abajo Col. Reparto Arriba
25	Sector 9	Col. Guillen Col. Nueva Santa Rosa Col. Roberto Suazo Cordova
26	Sector 9	Col. Bolivar Residencial Las Joyas Col. Los Girasoles
27	Sector 9	Bo. El Rincon La Tigra Col. Lomas las Minitas Col. Rodas Alvarado Col. 21 de Octubre
28	Sector 10	Col. Las Minitas Col. Las Palomas Col. Ruben Dario Col. Tepeyac
29	Sector 10	Col. Aurora Col. Castano Sur Col. Lomas del Guijarro
30	Sector 10	Col. Lomas del Mayab Col. Los Profesionales Col. Payaqui
31	Sector 10	Col. Alameda Col. Reparto Mandofer
32	Sector 10	Col. Brisas del Valle Col. Los Almendros Col. Monte Carlos
33	Sector 11	Col. Quezada
34	Sector 11	Col. El Prado Col. Humuya Col. Perez
35	Sector 11	Col. Altos de Miramontes Col. Banco del Fomento Col. Elvel Col. Loma Linda Norte Col. Loma Linda Sur Col. Miramonte
36	Sector 12	Bo. La Granja Bo. Guacerique Bo. La Bolsa Col. Maradiaga

No. Zona	Sector	Area
37	Sector 12	Col. El Alamo
		Col. La Primavera
		Bo. Mirafior
		Col. Rodrigues
		Bo. San Jorge
		Col. Tiloarque
		Residencial Villa Espanola
		Zona Clinica Periferica
38	Sector 12	Col. Altos de Tiloarque
		Col. El Trebol
		Col. Lomas de Tiloarque
		Col. Marbella
		Col. Nueva Esperanza
		Col. Republica de Venezuela
39	Sector 13	Col. Altos del Milagro
		Col. Bendeck
		Col. Centro Americana
		Col. Cristobal Diaz
		Col. Divanna
		Bo. Juan de Dios
		Col. Lomas del Country
		Bo. Los Fuertes
40	Sector 13	Col. Centro America
		Col. Country Club
		Col. El Progreso
		Col. Interamericana
		Col. Mayangle
		Col. Santa Cecilia No.2
		Col. Vegas del Country
41	Sector 13	Col. Espiritu Santo
		Col. Santa Cecilia
		Col. Villa de San Antonio
42	Sector 13	Col. Arturo Quezada
		Col. Cantarero Lopez
		Col. Centro America Oeste
		Col. Israel Norte
		Col. La Fuente
		Col. La Soledad
		Col. 21 de Febrero

ZONE CODE

No. Zona	Nombre	Area
42	Sector13	Col.23 de Junio
43	Sector13	Col. Altos de San Francisco
		Bo. El Eden
		Col. El Retiro
		Col. Flor del Campo Sector No.2
		Col. Israel Sur
		Col. Los Laureles
		Col. San Buenaventura
		Col. Santa Eduvigis
		Col. San Francisco
		Col. Venezuela
		Col. Villa Los Laureles
44	Sector14	Col. Cerro Grande No.2
		Bo. La Cuesta
45	Sector15	El Hatillo
		Residencial Los Pinares
46	Sector16	Col. Estados Unidos
		Col. 30 de Noviembre
		Col. Trinidad
47	Sector16	Aldea Suyapa
		Col. Izaguirre
		Col. La Esperanza
		Col. La Lomita
		Col. La Nueva Era
		Col. Los Profesores
		Col. Santa Isabel
		Col. San Miguel
		Col. 13 de Julio
		Col. 28 de Marzo
48	Sector17	Col. Altos de Las Lomas
		Col. Florencia Norte
		Col. Florencia Oeste
		Col. Lomas del Guijarro Sur
49	Sector17	Col. Jesus de La Buena Esperanza
		Col. Monte Verde U.N.A.H.
		Col. Universidad Norte
50	Sector17	Col. Florencia Sur
		Col. Tres Caminos

ZONE CODE

No. Zona	Sector	Area
51	Sector18	Col. Brisas de Suyapa
		Col. 17 de Septiembre
		Bo. Los Higueros
		Col. Villa Nueva Norte
		Col. Villa de San Caralampio
52	Sector18	Col. Residencia Bella Oriente
		Col. Residencia Gloria a Dios
		Col. Residencia Villa Valencia
		Col. Hato de Enmedio
53	Sector18	Col. Casavola
		Col. Hato
		Col. Luis Landa
		Col. San Ignacio
54	Sector19	Col. El Hogar
		Residencia Las Colinas
		Col. La Joya
		Col. Miraflores
		Col. Miraflores Sur
55	Sector19	Col. Altos de Las Colinas
		Col. El Zarzal
		Col. Las Brisas
56	Sector20	Col. Kennedy
		Col. Los Pinos
		Col. Residencial Guaymuras
		Col. San Angel
		Col. Victor F. Ardon
		Col. Villa Nueva Sur
57	Sector20	Bo. La Joya
		Col. Las Palmas
		Residencial Lomas de Jacaleapa
		Col. Residencial Plaza
		Col. Santa Isabel
		Col. Vista Hermosa
58	Sector21	Col. Residencial Aleman
		Col. La Pena
		Col. Los Llanos
		Col. Mirador San Isidro
		Col. Monterrey
		Col. Montes del Sinai

ZONE CODE

No. Zona	Sector	Area
58	Sector21	Col. San Jose de La Vega
59	Sector21	Col. Alta Vista
		Col. 14 de Marzo
		Col. San Jose de la Pena
60	Sector21	Col. Jardines de Loarque
		Col. Mirador de Loarque
		Col. Nuevo Loarque
		Col. Rio Grande
		Col. Rio Grande Norte
		Col. Rio Grande Sur
61	Sector22	Col. Altos de San Jose
		Bo. El Coco
		Col. El Cortijo
		Col. Faldas del Pedregal
		Col. Jardines de San Jose
		Col. Montelimar
		Col. Oscar A. Flores
		Col. San Jose del Pedregal
62	Sector22	Colonia Satellite
63	Sector23	Col. Godoy
		Col. La Felicidad
		Residencial Las Hadas
		Col. Los Angeles
		Col. Los Periodistas
64	Sector23	Col. Altos de Los Robles
		Col. America
		Col. Llanos del Potrero
		Residencial Los Robles
		Col. Modelo
		Col. 15 de Septiembre
		Col. SantaBarbara
		Col. Sulucal
65	Sector24	Bo. Bolivar
		Col. Jardines de Toncontin
		Col. La Burrefa
		Col. La Pradera
		Col. Rivas

ZONE CODE

No. Zona	Sector	Area
65	Sector24	Col. San Luis
66	Sector24	Col. Flor del Campo
		Col. Henry Merrian
		Col. Las Delicias
		Col. Modesto Rodas Alvarado
67	Sector24	Col. Ciudad Nueva
		Col. Inestroza
		Col. La Rosa
		Col. Las Torres
		Col. Santa Barbara
68	Sector25	Col. Altos del Paraiso
		Col. Brisas del Norte
		Col. Cantarero Lopez
		Col. Centro Americana Oeste
		Col. El Carrizal No. 1
		Col. El Carrizal No. 2
		Col. Nueva Danli
		Col. Nueva Providencia
		Col. Jose Angelica
		Col. Jose A. Duarte No. 1
		Col. Jose A. Duarte No. 2
		Col. Jose A. Duarte No. 3
		Col. Jose A. Duarte No. 4
		Col. Lomas del Norte
		Col. Los Senderos
		Col. San Juan Bosco
		Col. Vegas del Carrizal
69	Sector26	Col. Los Pinos
		Villa Altamira
70	Sector27	Aldea El Rodeo
		Aldea Gavilantepec
		Aldea Germania
		Aldea Los Jutes
		Aldea Santa Rosa
71	Sector28	Col. Altos de Loarque
		Col. Altos de Loarque
72	Sector29	Aldea Suyapa
		Col. El Sitio
		Col. La Sosa
73	Sector29	Col. Era No. 2
74	Sector29	Col. Brisas de Suyapa

ZONA	ALDEA O CASERIO
75	Santa Cruz de Abajo, Santa Cruz de Arriba, San Matias, Tamara, Zambrano, San Francisco de Soroguara, El Portillo del Durazno, El Durazno, Cerro Rinco Chiquito, Laguna del Pedregal, Cerro Pacaya, Cerro El Tablon, Cerro La Cruz, Secahuales, Cerro Limas, Laguna de Panal, Ocote Vuelto, Cerro La Palma, Cerro La Culebra, La Culebra, Los Enanos, Lotificacion Francia, El Macueliso, Malguarita, El Portillo de la Cruz, La Languinta No. 2, Montana Azacualpa, Los Mangos, Guayabillas, El Espinal, El Borbollon, Agua Blanca, El Terreno Reasapa, El Carrizal, El Tigre, El Rusio, Rancho Amarateca, Jicotat, La Canada del Muerto, La Roca, El Zurzular, Santa Rosita, Las Moras, Ocote Bonito, Centro Diamante, Las Vallos, La Pelleja, Postre Sabana, La Jagua, El Reventon, Bosques de Zambrano, Guanajaniquil, Cerro Zambrano, El Tablon, Las Limas, El Zapote, El Suyatal, San Isidro, Las Moras, Agua Zarca, El Portillo del Mango, Coralitos, Montana de Coralitos.
ZONA	ALDEA O CASERIO
76	Rio Abajo, Las Flores, Rio Hondo, Guangololo, Coa Abajo, Coa Arriba, Soroguara, Guascalito, Monte Redondo, Cofradia, La Venta, Agua Blanca, El Espino, Las Posas, El Guanabano, El Ciruelo, Las Marias, El Portillo, La Cienega, Polo Blanco, El Jicarito, El Guayabo, El Naranja, La Poza, El Mogote, El Jute o Sabana del Toro, El Matazano, Las Sabanas, Casa Quemada, El Higuito, Las Oricas, El Espinal, La Colmena, El Aguacate, Jocomico, La Quebrada, La India, Villa San Judas, Proyecto Victoria, El Carrizal, Zeoate, Las Nuevas Flores, El Tablon o La Sierra, Jucumbre Abajo, Carboncitos, Los Cerritos, Las Casitas, El Amatillo, Las Plancitas, Los Charcos, Ciudad Blanca, Barranco Blanco, Villa Carmencita, La Mojada, El Puente, El Potrero, El Ocotal, La Canada, Las Culebras, Los Ranchitos, Santa Regina, El Ocolillo, La Aurora, La Pacaya, Santa Fe, Nueva Venta, Llano de Itamapa, La Laguna, Canforal, El Pito, El Portillo de los Izotes, Tamal y Queso, Chaguite Grande, Terreno Blanco, Las Pilas, El Quiscamote o Cedrito, Enano Bonito, Santa Maria del Camino.
ZONA	ALDEA O CASERIO
77	Jutiapa, San Juancito, El Naranja, Cerro Mina Grande, Los Guayacones, Villa Lolita, La Tigra, Los Platos, El Arco, Sabana del Rincon, La Paisona, Lo de Ponce, El Chaguilton, La Pacaya, Las Matas, Las Pilitas, Montana del Carrizal, Los Plancitos, Los Coralitos, Los Limones, Las Trojas, Los Juncales, El Matasano, Cerro La Chanchera, Jutiapa Abajo, El Puente, La Cantadora, La Cruz de Martin, Cerro El Manteado, Jucuopita, El Aguacatal, El Durazno, El Chaparro, Jucuar, La Reforma, El Mateado, El Polillal, Los Eucaliptos, Barrio Carbonera, El Rosario, La Laguna, Guacamaya, El Suyatal, Montana Jucuar.

ZONA	ALDEA O CASERIO
78	La Montanita, San Juan del Rancho, Piedra Herrada, Cerros Los Muertos, Monte Oscuro, Tierra Hieca, Cerro Triquilapa, El Portillo, El Terreno, Cerro el Tablon, El Chorro, Cerro Chachao, El Rodeo, El Guachilipin, El Empalme, La Laguna, El Carrizal, Cerro la Coyotera, Las Casitas, El Higuero, Piedra Grande, Cerro de Oro, Las Tablas, Cerro Cantagallo, Canta Gallo.
ZONA	ALDEA O CASERIO
79	El Tizatillo, Azacualpa, El Sauco, Las Joyas, El Ojo de Agua, Paso Ancho, Las Trosas, Sabana Larga, Cerro Las Mesas, El Aguacate No. 2, La Cinega, Las Acacias, Cerro La Culebra, Cerro La Mesa, Colonia Villeda Morales, El Puente, El Espinal, La Estacada, Tabloncito, Matalaja, La Lima, El Molino, Laguna del Pescado, Tierras del Palo, Cerro Casa Quemada, Cerro Sobre El Cerro, El Terrero, La Laguna, La Crucita, El Aguacate No. 1, Cerro Milpa Grande, Cerro La Peña, Las Moras, El Jicaro, Terreno Blanco, Suntule, Los Limones, La Estancia, Santa Elena, El Alamo, Yucuma, Las Casitas, Apamar, Montana de Izopo, Las Lajitas, Loma Larga, El Aguacate, La Joya, Guajiniquil, Cerro Pena Blanca, Cerro La Mole, Cerro Las Moras, Cerro la Torre, La Campana, La Calera, Cerro La Mojada, El Rodeo, Los Encuentros, El Paconal, La Estancia, El Rincon, La Puerta, Las Trojas, La Vuelta del Horno, El Ocote, El Mazatal, La Pedrera, Cuevecitas, El Portillo, Sabana Larga, La Joya, El Boqueron, Cerro Boqueron, Cerro Pedernales, Monterrey, Matuas, El Carrizal, Las Trancas.
ZONA	ALDEA O CASERIO
80	Nueva Aldea, Las Tapias, Mateo, La Calera, La Sabana, Concepcion de Rio Grande, El Guayabal, Los Laureles, Cerro Jocomico, La Poza, Zacate Colorado, Cerro Las Bancallis, Cerro El Pedregal, Las Champas, El Cimorron, Cerro La Virgen, Granja Nueva, Jocomico, El Aceituno, Los Achiotos, Barrio Arriba, Los Robles, Hato de Los Corales, Uporito, Los Pedernales, Cerro La Reposadera, Cerro La Chinga, Colonia Alto de Montereal, Cerro Las Orquetas, El Hato, El Espinal, La Cieneguita, Las Tranquitas, Milpa Redonda, La Anona, Cerro El Trigo, Puerta de Golpe, Agua Zarca, La Sierra, Las Trojas, El Empedrado, Cerro Ocotatio, El Jicaro, La Chorrera, Tierra Blanca, Portillo de Monte Redondo, Monte Redondo, Cerro San Jose, Las Olominas, El Naranja, Los Rincones.

ZONA	
81	<p>CEDROS EL PORVENIR MARALE SAN JUAN DE LAS FLORES TALANGA SAN IGNACIO GUAIMACA ORICA</p> <p>montana de santa maria, valle de siria, pueblo nuevo, mata de platano agalteca, trinidad de quebrada, vallecillo, suyacal, el tamarindo, el tablon, cedros abajo, el guante, las animas, santa rosa de siria, san antonio de pastos, jalaca, la ermita, valle de talanga, agua blanca, las quebradas, el ocotal, la labranza, majada verde, rio dulce, los charcos, valle arriba, palmira, el rosario, la esperanza coralitos, cerro bonito, el jicaro, san jose de ramos, pajarillos el garbon, la cruz de suyapa, chandala, marcos, el naranjal, el ocote siracagua, cofradia, el zarzal, yamaguare, san luis, miravalles, joyas de caballo, las delicias, el zurzular, la aserradera, las delicias, el zurzular, la aserradera, san marcos, casas viejas, cerro bonito, rio abajo, el guanacaste, sabanagrande, el tomate san quiti, san marquitos, el ensimo, el nance, san francisco de ocote, guatemalita, san miguel de barrosas, el pedernal, escano de tepate, urrutias, yuculateca, san jose del naranjal, el panal, agua caliente el escanito, pueblo nuevo, guayabilas, el terreno, la esperanza rio abajo de siale, el carrizal, la flor, el naranjo, murranga, la travesia los planes, las lagunas</p>
82	<p>VALLE DE ANGELES</p> <p>el pedregal, la sabaneta, el coyolito, el liquidambar, montana grande el chimbo, zarabanda, las canadas, cerro grande, guanacaste, el piliguin, el eden</p>
83	<p>SAN ANTONIO DE ORIENTE TATUMBLA MARAITA</p> <p>las playas, la cienega, flor azul, joya grande, san antonio de occidente el jicarito, las mesas, tabla grande, santa ines, el limon, cofradia, linaca, la linea, cuesta grande, la union, terreno blanco, chaguite, terreno prieto, el retiro, la union, terreno san pedro, san pedro, el reducto, coato</p>
84	<p>SAN BUENA AVENTURA NUEVA ARMENIA SABANA GRANDE SANTA ANA OJOJONA REITOCA ALUBAREN SAN MIGUELITO CURAREN LA LIBERTAD</p> <p>el horno, la bodega, el sauce, el ciruelo, el calvario, cuesta chiquita, barajan, salalica, andurastas, las pinuelas, el limon, nueva arcadia, cicatara, la trinidad, el vino, el calvario, el divisadero, san carlos, san antonio, el calvario 2, el carrizal, apasinigua, dulce nombre, la ceiba, sacahuato, los nanzales, el aguacatal, aragua, saracaran, guerisma, el circulo, goascoran, santa cruz, el jicaro, el porvenir, las joyas, opimuca, ojos de agua, san jorge, la guadalupe, sabanetas, azacualpa, el rodeo, cerro del senor, san jose del naranjo, rio arriba, la concepcion, los tablonos, el halo, santa martha, quebrachal el pedrero, el potrillo de san juan bosco, cunimistan, lodo negro, la victorina, emituca, el porvenir, cartagua, mandasca, san marcos, toncontin, mecancierela, manzenilla.</p>

85	LEPATERIQUE
	oropoli, yerba buena, colguaque, la brea, el espino, malhuaca, montana de cimartaga
86	CHOLUTECA VALLE
	choluteca, la joyada, cedeno, pespire, san antonio de flores, marcovia monjeras, orocuina, morolica, numasigue, el triunfo, orocuina, morolica, numasigue, el triunfo, san marcos de colon, el espino, nacaome, caridad, santa lucia, aramesina, goascoran, fangua, alianza, sonora, el amatillo, puerto solo, amapala, isla del tigre, punta raton, isla meanguera.
87	EL PARAISO
	El paraíso, san lucas, guinope, moroseli, teupasenti, jacaleapa, agua fria, chichicaste, las trojas.
88	OLANCHO COLON GRACIAS A DIOS
	Juticalpa, la lima, el nace, san francisco de becerra, campamento, san pedro, mamisaca, azacualpa, guayape, santa maria del real, salama, calacamas, el aguacate, san francisco de la paz, juliquile, manto, guarizama, rio tinto, la union, dulce nombre de culmi, san esteban, el carhon, rio chiquito. Trujillo, isleta, tocoa, la brea, cuyamel, higueroles, durango, aguan, sava, puerto castilla, santa rosa de aguan, limon, iriona. Puerto lempira, brus laguna, barra patuca, lawalka, wanpurirpi, rustus, mocoron, sirsitura, avas, rio platano, barra de caratasca, cabo de gracias a dios, las payas, garifunas, sumus, misquitos.
89	ATLANTIDA CORTES YORO SANTA BARBARA COMAYAGUA INTIBUCA LA PAZ LEMPIRA OCOTEPEQUE COPAN
	La ceiba, el porvenir, la masica, corozal, triunfo de la cruz, lancetilla, san alejo, santiago, bahia de tela, punta sal. San Pedro Sula, baja mar, tulian, travesia, puerto cortes, el porvenir, omoa, guayamelito, choloma, cofradia, chamelecon, la lima, el porvenir, san miguel, villa nueva, pimienta, potreros, pulahpanzak, agua azul. Yoro, olanchito, arenal, jocon, puente grande, puentecitas, yorito, punta ocote, la habana, chancaya, el negrito, santa rita, el progreso. Santa Barbara, san pedro, concepcion del sur, ceguaca, arada, gualala, llama, chinda, trinidad, pelua, quimistan, sula, san jose de colinas. Comayagua, ajuterique, tenanpua, el sitio, san jeronimo, san antonio de la cuesta, jamalteca, la libertad, minas de oro, el rosario, siguatepeque, el rincon, taulabe, san jose de comayagua, pito solo.

	La Esperanza, jesus de oloro, masaguara, intibuca, yamaranguila, san juan, concepcion, camasca, santa lucia, columancagua, santa ana.
	Gracias, erandique, mapulaca, virginia, la virtud, valladolid, guarita, san juan guarita, tomala, junigual, colulaca, belen, las flores, lepaera. Nueva Ocoatepeque, mercedes, la labor, antigua, santa fe, agua caliente.
	Sta. Rosa de Copan, san juan de opoa, la entrada, florida, san antonio, la esperanza, los ranchos, santa rita, copan ruinas, garifunas, xicaques, lencas, chortis.
90	GUATEMALA
91	EL SALVADOR
92	NICARAGUA

4.1.4 Survey Flow and Schedule

1) Survey Flow

The overall survey flow chart is as shown in Fig.4.1.6. of next page..

Main items of such schedule are as followings.

(1) Sampling Design

Sampling methods, register form, sampling work procedures and the materials necessary for sampling work are carefully studied. The sampling ratio was set at 6.3 percent. The real sample rate of one household out of 11 was decided by using the ENEE* customers list, because of the possible risk of a low rate of non-response in this city. All five-year-olds and older members of the sampled households were covered by this survey.

* : ENEE ; Empresa Nacional de Energia Erectorica

(2) Working Survey Design

With regard to survey methods and questionnaires, study team solicited the opinion of our Honduras counterparts and related statistic data..

(3) Input Design

As regards data input and data coding following the field surveys, the study team based its input design on the opinions of the tabulation personnel and of analysis staff.

(4) PR

To get respondent cooperation, study team used the following of public relations media:

- a) Newspapers
- b) Radio
- c) Posters
- d) Letter of request for cooperation
- e) T-shirts

(5) During the end-July-end-August period

A home interview survey was conducted. During the survey period, an interviewer visited each of the sample households for personal interviews. The interviewers were trained by a manual in mid-July.

(6) Coding

In order to use a computer, Address of household and Direction in detail of Origin & Destination of person trips was changed to numeric code. All the items of questionnaire are listed on the coding sheet.

(7) Data Checklist Preparation

A computer was used to find out data entry and punching omissions and logical contradictions in entry content. This checklist includes warning errors to improve data-accuracy.

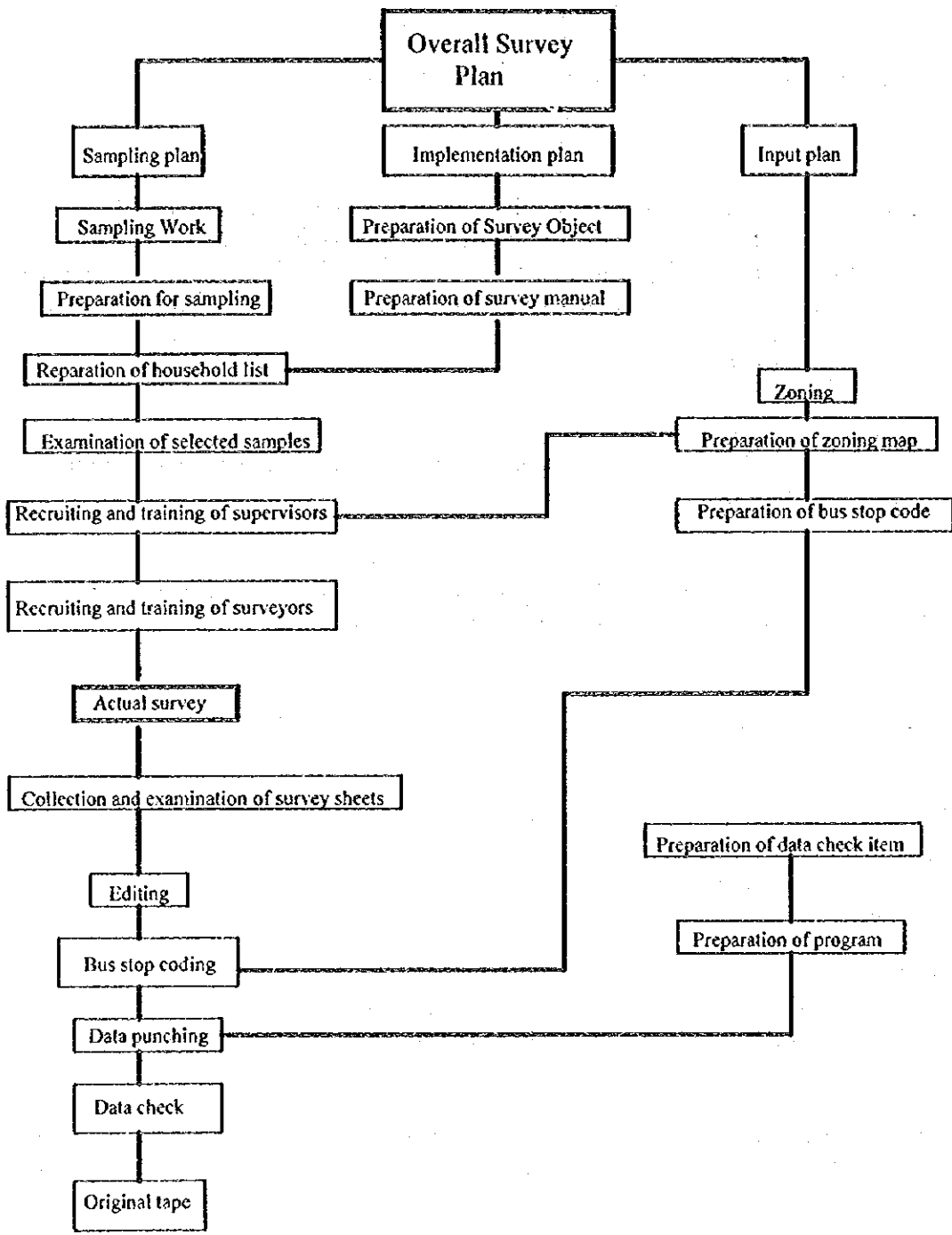


Fig.4.1.6 Survey Implementation Process

2) Survey Schedule

The schedule and current progress are shown in Fig. 4.1.7. The field survey period is scheduled for five weeks, from 24 July to 25 August..

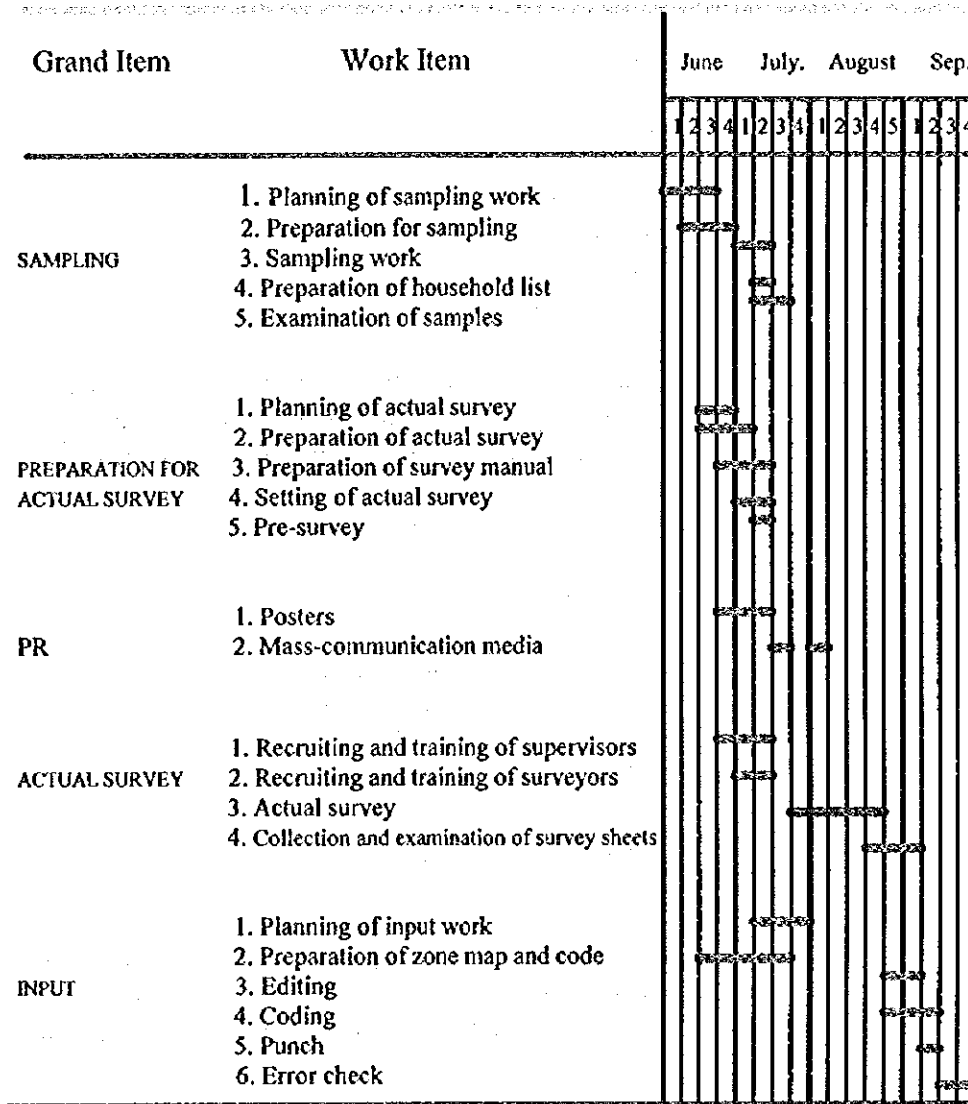


Fig.4.1.7. Survey Schedule

4.1.5 Sampling

1) Sample Rate

The sample rate was determined by a relative error, was calculated by the following formula, for a confidence coefficient of 95% and relative error of less than 20%, that is generally used in Japan.

$$RSD = K \times \sqrt{(ZK - 1) \times (1 - r)/r \times (1/N)}$$

where RSD: Relative Error

K : Confidence coefficient (1.96)

ZK : Number of category (40zone x 40categories)

r : Sampling Rate (5%, 6% and 7%)

N : Population parameter (700,000 x 3trips =2,100,000)

With the target relative error of 20 percent at the maximum, there was no problem in survey implementation with a sample rate around 6.7%. This is assumed that the effective sample rate is 6% when the effective response rate was 90%. The results of calculations based on the three different rate shown in Table 4.1.2.

Table 4.1.2. Sampling Rate and Relative Error

	Sampling Rate (%)	Survey Rate (%)	Relative Error (%)
CASE 1	5.00	4.5	23.57
CASE 2	5.56	5.0	21.41
CASE 3	6.67	6.0	19.71
CASE 4	7.78	7.0	18.32

Among these three, Case 1 and 2 exceed a relative error of 20 percent if an effective response rate of 90% is not achieved. While, Case 4 does not improve much in accuracy even when the sample rate is increased. Therefore, Case 3 was adopted with a sample ratio of 6.7 percent and survey ratio of 6.0 percent.

2) Sample List

Conceivable sample lists from which to choose a sample for our survey were (1) the 1988 original National Census, (2) the ENEE customer list, (3) SANAA customer list and (4) Catastro de Municipal. The original National Census and other conceivable sample lists had the following problems:

(1) National Census 1988

All the original file and list had been abolished when the Director General was changed and at present, there is no file, list and diskette of Census data for our study.

- (2) **ENEE Customer list***
This list is not a list of nighttime dwellers. It includes all the type of facilities not only individual household but also business offices, commercial stores and factories. Therefore, it permits no accurate determination of the total population and household. This list will cover about 130,000 facilities.
- (3) **SANAA Customer list****
This list is less comprehensive than ENEE list, but the areas of coverage was different. Thus, this list was used as a supplement list.
- (4) **Catastro (Department de Alcaldía Municipal)**
Catastro has data of a registration of land and house which has been newly constructed. This does not cover all the household in the city. Registered houses are few comparing to those already constructed. This provided a supplement list.

The study team decided to use ENEE customer list as the sampling list according to its coverage.

* ENEE: Empresa Nacional de Energia y Electric
em SANAA: Service Nacional Acuaductos y Alcantarillado

3) Sampling Methods

(1) Sampling Materials

Study team decided to use the Customer list of ENEE for sampling of households. This list is prepared for the bill sent to each household consuming electricity. This list covered almost the whole urbanized area in the city, even if in the area where illegal settlements. It listed more than 130,000 facilities including business office, commercial stores and factories (20~30% of total facilities).

List of SANAA and Catastro were been used as supplementary lists where The ENEE was insufficient. Result of sampled households were checked against the zonal sampling rate. Each zone should have well balanced.

Urban area of Distrito Central was divided into 29 Sectors, which followed the area categories used by The Census. This urban area contained 524 colonias and barrios. The Study team has divided these into 74 zones.

(2) Sampling Method

Random sampling was performed from the ENEE customer list. Picking samples of 9% from them. The address and name of householder was posted on the sample list.

It was made clear in the pre-survey work that the inhabitants in the city have a tendency not to collaborate in surveys, because of public safety (security), educational problems, effort to respond survey, etc.. Thus, it was necessary to collect a larger number of samples than computed, about 20~30% more.

Therefore, taking into consideration all this, the sample rate was increased to 9%. This would obtain the minimum 6% of the total households, even if the effective response ratio was only 70% 70%. In certain areas, ENEE customer list has clearly the number of block and house code. But the housed did not have similar numbers and dwellers have never known their address. Especially, illegally

developed areas have such tendency. The study team decided which households should be interviewed by a map of ENEE and Catastro of Municipalidad for Colonia Villa Nueva rather than from the list.

(3) Sampling Result

Sampling result is shown in following Table 4.1.3.

Table 4.1.3. Sampling Result

Zona	No. of Sample	Sample Rate by Hectares	Zona	No. of Sample	Sample Rate by Hectares	Zona	No. of Sample	Sample Rate by Hectares	Zona	No. of Sample	Sample Rate by Hectares
1	87	9.56	18	157	8.88	39	112	18.05	58	477	21.69
2	59	17.56	19	404	7.52	40	125	11.25	59	121	10.23
3	31	5.70	20	347	8.09	41	71	13.73	60	179	17.24
st	177	9.33	21	488	8.42	42	189	8.37	st	777	17.68
4	83	9.05	22	187	8.55	43	281	9.34	61	293	14.89
5	255	7.78	st	1593	7.85	st	758	9.49	62	50	9.90
6	88	12.10	23	145	9.32	44	201	18.04	st	343	13.72
st	408	8.53	st	145	9.32	st	201	18.04	63	49	20.33
7	128	11.57	24	116	7.75	45	51	21.79	64	171	11.48
8	146	8.70	25	98	7.23	st	51	21.78	st	220	12.72
st	274	8.34	26	71	22.98	46	82	11.05	65	123	11.88
9	98	12.73	27	82	7.28	47	488	14.07	66	210	9.53
10	41	7.72	st	385	8.57	st	550	13.52	67	122	10.17
11	40	8.24	28	83	17.85	48	59	36.20	st	455	10.25
st	177	8.19	29	91	19.08	49	75	43.60	68	439	21.25
12	20	5.87	30	21	13.48	50	38	21.23	st	439	21.25
13	111	8.31	31	28	9.88	st	172	33.48	69	0	0.00
st	131	8.24	32	20	7.87	51	212	17.48	st	0	0.00
14	139	11.08	st	224	14.80	52	367	10.88	70	0	0.00
15	103	5.88	33	10	12.20	53	28	55.32	st	0	0.00
16	51	8.91	34	45	13.20	st	605	13.13	71	18	14.08
17	82	5.92	35	99	13.79	54	328	14.31	st	18	14.08
st	355	7.45	st	164	13.50	55	38	7.78	72	183	9.95
sst	1520	8.11	36	50	11.08	st	384	13.21	73	15	10.79
			37	113	8.77	56	458	8.48	74	173	7.45
			38	122	10.43	57	150	24.12	st	351	8.58
			st	265	8.88	st	608	7.91	SST	2803	13.43
			st	2768	8.48	st	3309	11.37	GT	10198	10.21

4.1.6 Survey Questionnaire

(1) Design Policy

In questionnaire design, attention was paid to the following points.

1. All necessary survey items should be covered.
2. The questionnaire should be easily comprehensible to the interviewers and not misleading to the respondents.
3. Easy to check and code after the survey
4. Direct data entry and easy storage

To satisfy these requirements,

1. The respondent answers and the interviewer entries were printed in different colors on the questionnaire.
2. Personal attributes, household attributes and trip information were divided by bold lines from one another.
3. A zone code and a transferring-bus-stop coding column were provided to prevent errors in coding and punching.
4. In order that as many trips as possible could be entered on a single-sheet questionnaire, the space for a maximum of 10 trip entries were kept on both sides of the sheet.
5. The questions were printed from left to right in conformity to the local custom.

(2) Survey Items

The person-trip survey for the study area in Distrito Central was designed to cover the following items and details:

(A) Control Items

a) Whether a trip or trips were made

A column for recording whether the respondent made a trip or trips on the data of survey.

b) Reference Numbers

Designed to identify each questionnaire form in an eight digit number. As shown in the Fig 3.1.8, the first two digits indicate the zone of residence, the next four digits are the household number of the sampling list, and the last two digits the person number. The personal numbers are for the individuals of the family in the same household and given in serial numbers for that household.

c) Survey Date:

This two digit number presents the day when should be surveyed to fill out the questionnaire.

d) Number of Trips

This Column is for the entry of the number of trips of the respondent the family. It is used to find out errors in trip punching.

e) Date of Survey

This is to indicate the date of reported respondent trips. This column was filled out for each member of family.

(B) Personal Attributes

a) Sex

For the entry of the respondent's sex.

b) Age

For the entry of the respondent's age

c) Occupation or No Occupation

For the entry of the number indicating any of the respondent's seven occupational status's- whether the respondent has an occupation or not, whether the respondent is a housewife or a student, etc.

d) Specific Occupation

The respondent with an occupation is required to indicate which of the ten occupations shown he was.

e) Type of Industry

The respondent is required to indicate which of the nine types of industry shown he is engaged in.

f) Address of the Place of Work

When the respondent is employed, they are asked where they works. The address of work place and the relevant zone code was recorded.

g) Monthly Income

If the respondent had an income, they were asked about monthly income. The data were assigned to one of the ten income classes to make an entry.

h) School

In the case of a schoolchild or student, record the address and zone code of the school were each recorded.

(C) Household Attributes

a) Family Size

The number of family members, including those who live with them were recorded. This was used to know the change from the 1988 National Census.

b) Family Members Above Five years old

The number of family members above 5 years old were recorded. This determined the population parameter for checking the number of persons.

c) Car Ownership

Record the numbers of passenger cars and trucks owned.

(D) Trip Information

a) Number of trips

In the order of trip that respondent made in the day, The following information was obtained. Orderly number of trip which respondent has made in a day.

b) Origin of Trips

Zone where the respondent started the trip.

c) Start Time

Time when respondent has began the trip.

d) Destination

Zone where respondent finished the trip.

e) Finishing Time

Time when this trip has finished.

f) Objective of trip

What the purpose of the trip was.

g) Means of Transport

Record the means of transport used for the trip.(mode)

h) Transfer bus stations/stops

In the case of bus, travel the stops,stations, and transfers was recorded.

i) Driving

In the case of a trip using an automobile, record whether the respondent drove his or her own car was recorded.

j) Number of passengers

The number of passengers in the car was recorded, if the respondent drove the car.

k) Parking

When the respondent drove the car which of the five kinds of parking places were used was recorded.

(3) Questionnaire Sheet

The questionnaire sheet which was used for the Person trip survey is shown in Fig.4.1.8.

ALCALDIA MUNICIPAL DEL DISTRITO CENTRAL

ESTUDIO DE TRANSPORTE URBANO DE TEGUCIGALPA Y COMAYAGÜELA

ENCUESTA ORIGEN - DESTINO DE VIAJE DE PERSONAS

INFORMACION DE LA VIVIENDA

(1) Total de miembros del hogar: personas

(4) ¿Cuántos miembros caminaron a la parera del trabajo o escuela y cuántos en transporte?

(5) ¿Cuántos afines iban de viaje en el mismo lugar?

(6) ¿Dónde había vivido anteriormente?

(7) Total de miembros del hogar que viven en el mismo lugar:

(8) ¿Dónde había vivido anteriormente?

(9) Vehículo particular

(10) Vehículo de carga

INFORMACION PERSONAL

(1) SEXO: M F

(2) EDAD: años

(3) ESTADO CIVIL: CASADO SOLTERO VIUDO DIVORCIADO

(4) NIVEL DE ESTUDIOS: PRIMARIA SECUNDARIA TERCERA SUPERIOR

(5) TIPO DE TRABAJO: EMPLEADO EMPLEADA PROPIETARIO PROPIETARIA OTRO

(6) TIPO DE VEHICULO: AUTO MOTOCICLETA OTRO

INFORMACION PERSONAL

(7) SEXO: M F

(8) EDAD: años

(9) ESTADO CIVIL: CASADO SOLTERO VIUDO DIVORCIADO

(10) NIVEL DE ESTUDIOS: PRIMARIA SECUNDARIA TERCERA SUPERIOR

(11) TIPO DE TRABAJO: EMPLEADO EMPLEADA PROPIETARIO PROPIETARIA OTRO

(12) TIPO DE VEHICULO: AUTO MOTOCICLETA OTRO

(13) INGRESOS MENSUALES: MENOS DE 200 L.P. DE 201 a 400 L.P. DE 401 a 1,200 L.P. DE 1,201 a 2,000 L.P. DE 2,001 L.P. Y MAS NO DECLARARON

(14) LUGAR DE TRABAJO: RESIDENCIA OTROS LUGARES - ESCRIBASE DIRECCION O NUMERO

(15) INGRESOS MENSUALES: MENOS DE 200 L.P. DE 201 a 400 L.P. DE 401 a 1,200 L.P. DE 1,201 a 2,000 L.P. DE 2,001 L.P. Y MAS NO DECLARARON

* SU FECHA DE ENCUESTA ES DESDE LAS 4:00 A.M. DEL DIA _____ HASTA LAS 4:00 A.M. DEL DIA SIGUIENTE *

INFORMACION DEL VIAJE

(11) HORA DE SALIDA: (17) DESTINO:

(12) HORA DE LLEGADA: (18) TIPO DE TRANSPORTE: AUTOMOVIL MOTOCICLETA OTRO

(19) TIPO DE VEHICULO: AUTOMOVIL MOTOCICLETA OTRO

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Fig. 4.1.8 Survey Questionnaire

4.1.7 Presurvey

1) Objective

The Pre-survey had the following purposes on test survey.

- (1) Consideration of the questions in the questionnaire
- (2) Consideration of the wording of the questions
- (3) Determination of the degree of cooperation required and possible
- (4) Consideration of answer coding.
- (5) Difficulties in interviewing by the survey questionnaire

2) Pre-Presurvey Outline

The presurvey was conducted in two days, Thursday July 18 and, Wednesday, July 19, 1995. It involved:

- (1) Ten supervisors and 82 surveyors for interviewing
- (2) A sample of 5 holds chosen at random for each supervisor and surveyor
- (3) Assigned areas for each supervisor and surveyor.
- (4) The test questionnaire
- (5) No public announcement on Public Relations (PR)
- (6) Each interviewer was issued an ID card by Metroplan.

3) Problems and Solutions in the Pre-Presurvey

(a) Low Respondent Response

The response ratio was low, about 70-80%. Pre-survey were carried out by without PR activities. Low response was due to social condition in Honduras. Surveyors had ID card for this survey and spendt time explaining the objectives of the survey. But, still, many household refused to cooperate. Even if PR had been done, it would have achieved much the same results. More effort was made to have sufficient PR activity and wide use of the mass media.

(b) Difficulties

When the surveyor visits household in the daytime, there are no main person in the family present. In the nighttime, it becomes dangerous in many areas in the city. Therefore, a surveyor must to interview the member of family in the daytime. (surveyor was not to leave the questionnaire at the household) Consequently, the respondents of ten were either the young older persons or the house wife. These persons usually walki trips to/from school or the immediate are. Thus the survey was obtained from only a few members of the family. Surveyors don't like to Tegucigalpa is hilly. visit again and again to sampled houses, because they have to walk up and down many times. The intention of surveyors depended upon steepness of the surveyor's area.

There is no comprehensive address system in the city. Surveyor cannot find out the sampled household by ENEE customer list.. Indication systems of direction is different, from the list or sometimes the residents do not know their home address.

4) Consideration of Items in Questionnaire

- (a) The income classification follows the National Census.
- (b) Classification of occupation and economic activities, also follow the National Census.
- (c) The general spanish word for automobile was changed
To local Referense
- (d) Purpose of Trip;
Because of need to distinguish "go to work" and "returning to office", a trip of going back to work from the lunch from own home includes "regreso al trabajo (return to work)". This was due to distinguish between morning peak hour and lunch time peak hour traffic.

5) Considerations of the Follow-up Check System

From the result of pre-survey, it was impossible to examine our sample the validity concerning the information of family, trip data etc. Therefore, inspector to some of our sample households was sent to find out whether they had been visited by an interviewer, whether all family members had been interviewed with respect to trips, etc.

6) Dealing with Absence

The survey was conducted during the school summer holiday, especially for the bilingual school. Some primary and elementary schools do take vacations in different times from each other. Therefore not all, but many of the school take a vacation during the survey. At the same time, many working people take vacations. Thus, there were many cases in wich some members of family were absent. The interviewers were instructed to revisit households where of members were not available for the first interview. At the same time, the interviewers were urged to visit sample households on Saturdays and Saturdays when all household members were more likely to be at home.

4.1.8 Survey Preparations and Arrangements

1) Public Information

The person-trip survey visited ordinary homes. Therefore, in order to gain cooperation it was necessary to publicize the objectives and significance of the survey and provide information for a good public understanding of the survey. f the survey by publicity.

For this purpose, we carried out public information campaign using (1) A letter requesting cooperation, newspapers, television, radio, posters, and T-shirts.

(1) Letter of Request for Cooperation

Usually the letter explaining the study purpose of the person-trip survey would have been handed to each sample household by the interviewer before hand. This was not done because it would take to much for the full ENEE customer list. This was a decision resulting from the pre-survey. Official letters asking cooperation for Metroplan and study team, were sent to related public organizations before each zonal survey .

(2) Newspaper

Newspapers have great publicity effect and were used to announce public meetings with the Municipality of Distrito Central and the survey team. Otherwise, study team advertised through Metroplan in the newspapers to announce the conduct of the survey on 20,21,22 july in "El Dia", the public announcement is shown in Fig. 4.1.9 (1).

Metroplan in the newspapers to announce the conduct of the survey on 20,21,22 July in "El Dia", the public announcement is shown in Fig. 4.1.9 (2).

(3) TV and Radio

There was insufficient financial resources to buy television time. TV publicity was obtained as individual news-gathering as was the case with additional newspaper publicity. Radio broadcast on 28 July told about the person trip survey for one hour for the benefit of Municipal de Distrito Central. An outline of this program is shown in the following "RESUMEN DE LA ENCUESTA DE VIAJE DE PERSONAS.

(4) Posters

For wider and longer lasting public notice, two posters were published and widely distributed during the survey period. The posters were displayed at the following places for greatest exposure: Poster is shown in Fig.4.1.10.



Alcaldía Municipal del Distrito Central



SOLICITAMOS SU COOPERACION

La Alcaldía Municipal del Distrito Central, en colaboración con la Agencia Internacional de Cooperación del Japón, (JICA), con el propósito de dar inicio al estudio del mejoramiento del transporte urbano para Tegucigalpa, llevará a cabo en el período comprendido del 24 de Julio hasta finales del mes de Agosto del presente año, los siguientes trabajos, dirigidos a la población de la capital:

- 1) Entrevista de Hogares
- 2) Entrevista de Vehículos
- 3) Conteo del volumen de Tráfico
- 4) Entrevista de pasajeros de Buses
- 5) Entrevista de personas que utilizan estacionamiento

Cuando los encuestadores lleguen a su casa o lo entrevisten en la estación de bus, por favor coopere con ellos, previa presentación de la respectiva identificación extendida por esta Alcaldía Municipal del Distrito Central...

... Tegucigalpa progresa, la muni... cumple
Alcaldía Municipal JICA

 <p>ALCALDIA MUNICIPAL DEL DISTRITO CENTRAL</p> <p>DEPTO. DE METROPLAN</p> <p>SECCION:</p> <p>NOMBRE: <u>LILIANA C. RAMIREZ</u></p> <p>CARGO:</p> <p><u>ENCUESTADORA</u></p> 	<p>Se solicita a las autoridades civiles, militares y miembros de la comunidad la colaboración que él requiera en el desempeño de sus funciones.</p> <p>Fecha <u>21 - 7 - 95</u></p> <p>OSCAR ROBERTO ACOSTA Alcalde Municipal del D.C.</p> <p>NORMAN ZUNIGA Jefe Depto. de Metroplan</p> <p>JUAN VASQUEZ Jefe de Sección</p> <p>NOTA: En caso de extravío reportarlo al Depto. de Metroplan de la Alcaldía Municipal.</p>
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UNO PARA TODOS... Y TODOS POR LA CAPITAL.

Fig. 4.1.9 (1) PR on Newspaper

Solicitamos Su Cooperacion

La Alcaldía Municipal del Distrito Central, en colaboración con Agencia de Cooperación Internacional del Japon (JICA), con el proposito de dar inicio al estudio del mejoramiento del transporte urbano para Tegucigalpa y Comayagua.

Hoy, el encuestador llegara a su casa. Jefe de su hogar no esta.
 Visitare nuevamente el dia am / pm
 para preguntar al Señor o
 Srta.
 Por favor, dígales que recuerden los viajes del dia

Gracias

Fecha : am / pm

Encuestador :

Encuesta de Origen y Destino de Viaje de Personas
 La Alcaldía Municipal del Distrito Central - Mision JICA



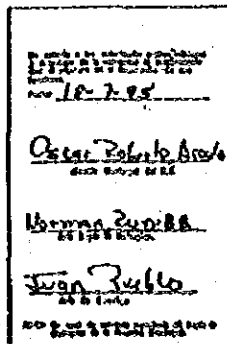
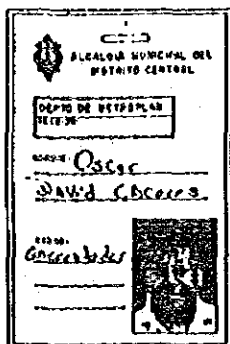
LA ALCALDIA MUNICIPAL DEL DISTRITO CENTRAL

SOLICITAMOS SU COOPERACION

La Alcaldía Municipal del Distrito Central, en colaboración con la Agencia Internacional de Cooperación del Japon, (JICA), con el propósito de dar inicio al estudio del mejoramiento del transporte urbano para Tegucigalpa, llevará a cabo en el periodo comprendido del 24 de Julio hasta finales del mes de agosto del presente año los siguientes trabajos, dirigidos a la población de la capital:

- 1) Entrevista de Hogares. 2) Entrevista de Vehículos 3) Conteo del volumen de Tráfico.
- 4) Entrevista de pasajeros de Buses. 5) Entrevista de Personas que utilizan estacionamiento.

Cuando los encuestadores lleguen a su casa o lo entrevisten en la estación de bus, por favor coopere con ellos, previa presentación de la respectiva identificación extendida por esta Alcaldía Municipal del Distrito Central...



...Tegucigalpa progresa la Muni cumple.

ALCALDIA MUNICIPAL JICA

El Sol

MIÉRCOLES 20 de Julio de 1995

Fig. 4.1.9 (2) PR on Newspaper

THE OUTLINE OF THE PROGRAM (I)

RESUMEN DE LA ENCUESTA DE VIAJE DE PERSONAS.

1.1. Objetivo de la Encuesta.

Esta investigación se llamará "Encuesta de Origen y Destino de viajes de personas en la Ciudad de Tegusigalpa y Comayaguela", y tiene el objetivo de obtener los datos básicos para analizar los proyectos de transporte, investigando el movimiento de personas durante un día.

La Municipalidad del Distrito Central está conduciendo una encuesta para los usuarios de los medios de transporte en el Area Urbano del Distrito Central, en cooperación con el Equipo de Estudio JICA*. Todos los datos de la encuesta son muy importantes para el planeamiento y desarrollo de las actividades del transporte y comunicación, para resolver los grandes problemas del sistema de transporte urbano.

*JICA: Agencia de Cooperación Internacional del Japon

1.2. Area donde se realizará la encuesta.

El área de esta encuesta se puede observar de manera general el mapa del Distrito Central.

La encuesta cubre las áreas urbanas del Distrito Central habitadas, como la ciudad de Tegucigalpa y Comayaguela.

Una muestra de 7,000 hogares, fue seleccionada del total de habitantes en esta área de estudio.

1.3. Personas a ser entrevistadas en la encuesta.

Las personas a ser entrevistadas serán el 5.0 por ciento de las viviendas dentro de las 143,215 viviendas que se encuentra en el área de la investigación.

Las personas a ser encuestadas serán todos los miembros de la familia, mayor de 5 años de edad.

1.4. Período y fecha de la Encuesta.

El período de la encuesta será aproximadamente 4 semanas entre el 24 de Julio y el 25 de Agosto. El día de semana (entre Lunes y Viernes). Los días sábados, domingos y días feriados no serán objeto de encuesta.

En la encuesta se registrará el movimiento de la persona durante 24 horas entre las 4 de la mañana del día siguiente.

1.5. Metodología para los encuestadores.

Para esta investigación, los encuestadores visitarán los hogares y ejecutarán la encuesta a los miembros de la familia, mayor de 5 años de edad. Los encuestadores anotarán el movimiento de cada uno de los miembros llenando las boletas por separado para cada persona.

Para satisfacer la naturaleza de la encuesta, se registrará el movimiento de la persona durante 24 horas entre las 4:00 a.m. del día encuestado a las 4:00 a.m. del día siguiente. Por ejemplo, si la visita tiene lugar el lunes, el dato puede cubrir el viaje de la persona de 4:00 a.m. del martes las 4:00 a.m. del miércoles (el próximo día de la visita para la encuesta).

THE OUTLINE OF THE PROGRAM (2)

1.6 Importante

Las respuestas de esta encuesta deben ser usadas solamente como datos del análisis del tráfico urbano y proyección del volumen de tráfico en el futuro. Estas respuestas no deben ser usadas con otro propósito o uso.

Cuando el encuestador llegue a su casa, él mostrará las cartas de identificación de METROPLAN y de la Misión Japonesa. Luego, el encuestador le explicará en detalle el contenido de la encuesta a usted y a su familia.
Por favor coopere con esta encuesta!

Sus respuestas serán de gran ayuda para resolver los problemas del transporte urbano.

2. Encuesta de Línea Cordon

2.1 Objetivo

Esta encuesta es suplementaria de la Encuesta de Viaje de personas. Los datos del movimiento de tráfico serán divididos en dos categorías: una a residentes del área urbana, y otra a residentes fuera del área urbana. La Primera es encuesta de viaje de personas y el posterior es encuesta de línea cordon.

Los objetivos de esta encuesta es obtener información de movimientos en el área urbana realizados por los residentes en el fuera de área urbana de estudio.

2.2 Metodología

La estación de encuesta ubicada en los puntos de cruce de los límites del área urbana en cada calle principal

Cada vehículo que entre o salga del área de estudio será entrevistado por el encuestador.

Habrán rotulos que indiquen que la estación de encuesta se encuentra 1 km adelante. En la estación, los policías detienen su carro a un lado de la calle. Luego el encuestador le hace algunas preguntas tales como lugar de domicilio, origen y destino de este viaje y propósito del viaje. El tiempo promedio de la entrevista es de 30 segundos.

2.3 Estación de Encuesta

La encuesta deberá ser llevada a cabo durante 24 horas en los 4 puntos en la calle principal cerca del límite del área urbana, como ser:

THE OUTLINE OF THE PROGRAM (3)

- 1) Carrtera de Norte
 - 2) Carrtera de Olancho
 - 3) Carrtera de Oriente
 - 4) Carrtera del Sur
- Y tambien encuesta de 16 horas en
- 1) Carrtera de Lepaterique
 - 2) Carrtera a Valle de Angeles

2.4 Horario de la Encuesta

Esta encuesta esta planeada a ser realizada en la primera o segunda semana de agosto.

2.5 Cooperación

La encuesta se lleva a cabo durante 24 horas. Deberá hacerse de forma ordenada, tranquila y segura mediante su cooperación

El equipo de estudio quiere cuidar de su forma de manejar mediante las indicaciones proporcionadas por la policia a los encuestadores.

ALCALDIA MUNICIPAL DEL DISTRITO CENTRAL
ESTUDIO DE TRANSPORTE URBANO DE TEGUCIGALPA Y COMAYAGÜELA
ENCUESTA ORIGEN - DESTINO DE VIAJE DE PERSONAS

INFORMACION DE LA VIVIENDA
(1) Tipo de vivienda
(2) Fecha de construcción
(3) Tipo de construcción
(4) Tipo de terreno
(5) Tipo de suelo
(6) Tipo de agua
(7) Tipo de electricidad
(8) Tipo de calefacción
(9) Tipo de ventilación
(10) Tipo de aislamiento

Formulario de identificación personal con campos para nombre, edad, sexo, estado civil, ocupación, nivel educativo, etc.

INFORMACION PERSONAL
(7) Sexo
(8) Estado matrimonial
(9) Ocupación
(10) Tipo de actividad
(11) Tipo de vivienda
(12) Tipo de terreno
(13) Tipo de suelo
(14) Tipo de agua
(15) Tipo de electricidad
(16) Tipo de calefacción
(17) Tipo de ventilación
(18) Tipo de aislamiento

* SU FECHA DE ENCUESTA ES DESDE LAS 4:00 A.M. DEL DIA HASTA LAS 4:00 A.M. DEL DIA SIGUIENTE *

INFORMACION DEL VIAJE

Table with columns for origin/destination, mode of transport, time of departure, and mode of arrival. Includes a legend for activity types and a list of possible destinations.

Encuestas entre las 4:00 y 5:00 de la mañana

Table with columns for origin/destination, mode of transport, time of departure, and mode of arrival. Includes a legend for activity types and a list of possible destinations.

Encuestas entre las 5:00 y 11:00 de la mañana



SOLICITAMOS SU COLABORACIÓN
EN EL PERÍODO
DEL 24 DE JULIO AL 25 DE AGOSTO

ENCUESTA DE OPINIÓN

Fig. 4.1.10. Poster (Cooperación JARON)

Main public facilities and offices
 Supermarket and major shops
 Schools and universities
 Football stadium
 wherever on the streets

(5) T-shirts

T-shirts bearing the symbol mark of the survey printed on them were produced and distributed to the interviewers, who wore them while working.

2) Materials Used for the Survey

In the field survey, surveyors carried the following materials;

- a. Traffic Survey Questionnaire
- b. List of Sampled Households
- c. Letter of Request for Cooperation
- d. Zone Code List and Zone Maps
- e. Interviewer ID Cards
- f. Interviewer Manual
- g. Ball-point pens to give as presents as thank-yons to household.

Interviewer ID card is shown as following Fig. 4.1.11..



Fig. 4.1.11 ID card of surveyor