

No. 001

Japan International
Cooperation Agency
(JICA)
Department of Interior
and Local Government
Republic of the Philippines

**BASIC DESIGN STUDY REPORT
ON THE PROJECT FOR REHABILITATION
OF
PUBLIC MARKETS
IN THE TYPHOON RUPING AFFECTED AREAS
IN
THE REPUBLIC OF THE PHILIPPINES**

October 1992

Ishimoto Architectural & Engineering Firm, Inc.

Japan International
Cooperation Agency
(JICA)

BASIC DESIGN STUDY REPORT ON THE PROJECT FOR REHABILITATION OF PUBLIC MARKETS
IN THE TYPHOON RUPING AFFECTED AREAS IN THE REPUBLIC OF THE PHILIPPINES

October 1992

Ishimoto Architectural & Engineering Firm, Inc.

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PREFACE

In response to a request from the Government of the Republic of the Philippines, the Government of Japan decided to conduct a Basic Design Study on the Project for Rehabilitation of Public Markets in the Typhoon Ruping Affected Areas in the Republic of the Philippines and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Philippines a study team headed by Mr Satoshi MACHIDA, Deputy Director of the Second Basic Design Study Division of the Grant Aid Study and Design Department, JICA and constituted by members of Ishimoto Architectural & Engineering Firm, Inc. from March 16 to April 15, 1992.

The team held discussions with the officials concerned of the Government of the Republic of the Philippines and conducted a field survey at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to the Philippines in order to discuss a draft report and the present report was prepared.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of the Philippines for their close cooperation extended to the teams.

October, 1992



Kensuke YANAGIYA
President
Japan International Cooperation Agency

October 1992

LETTER OF TRANSMISSION

Mr. Kensuke YANAGIYA
The President
Japan International Cooperation Agency
TOKYO, JAPAN

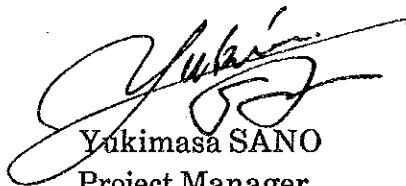
We have pleasure in submitting you herein the "Basic Design Study on the Project for Rehabilitation of Public Markets in the Typhoon Roping Affected Areas in the Republic of the Philippines".

This study was completed over 7.5 months period from March 13, 1992 to October 30, 1992, as per the contract concluded between JICA and our company. While engaged in this study we have thoroughly taken into consideration the local conditions in the Republic of the Philippines, and at the same time as estimating the appropriateness of this project, we have endeavoured to design a project which is truly applicable to the Japanese Grant Aid framework.

We would like to warmly thank the representatives of firstly JICA and the Ministry of Foreign Affairs from whom we have received great assistance and guidance during the course of the study. Furthermore, on the Republic of the Philippines side we would also like to thank the Department of Interior and Local Government, representatives of the various local government bodies, the JICA Philippines office and the Japanese embassy in the Philippines for their valuable advice and assistance.

We anticipate that your organization will use this report as the basis of its activities during the advancement of this project.

Very truly yours,



Yukimasa SANO

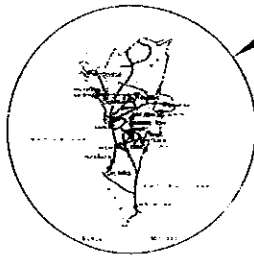
Project Manager

Ishimoto Architecural & Engineering Firm, Inc.

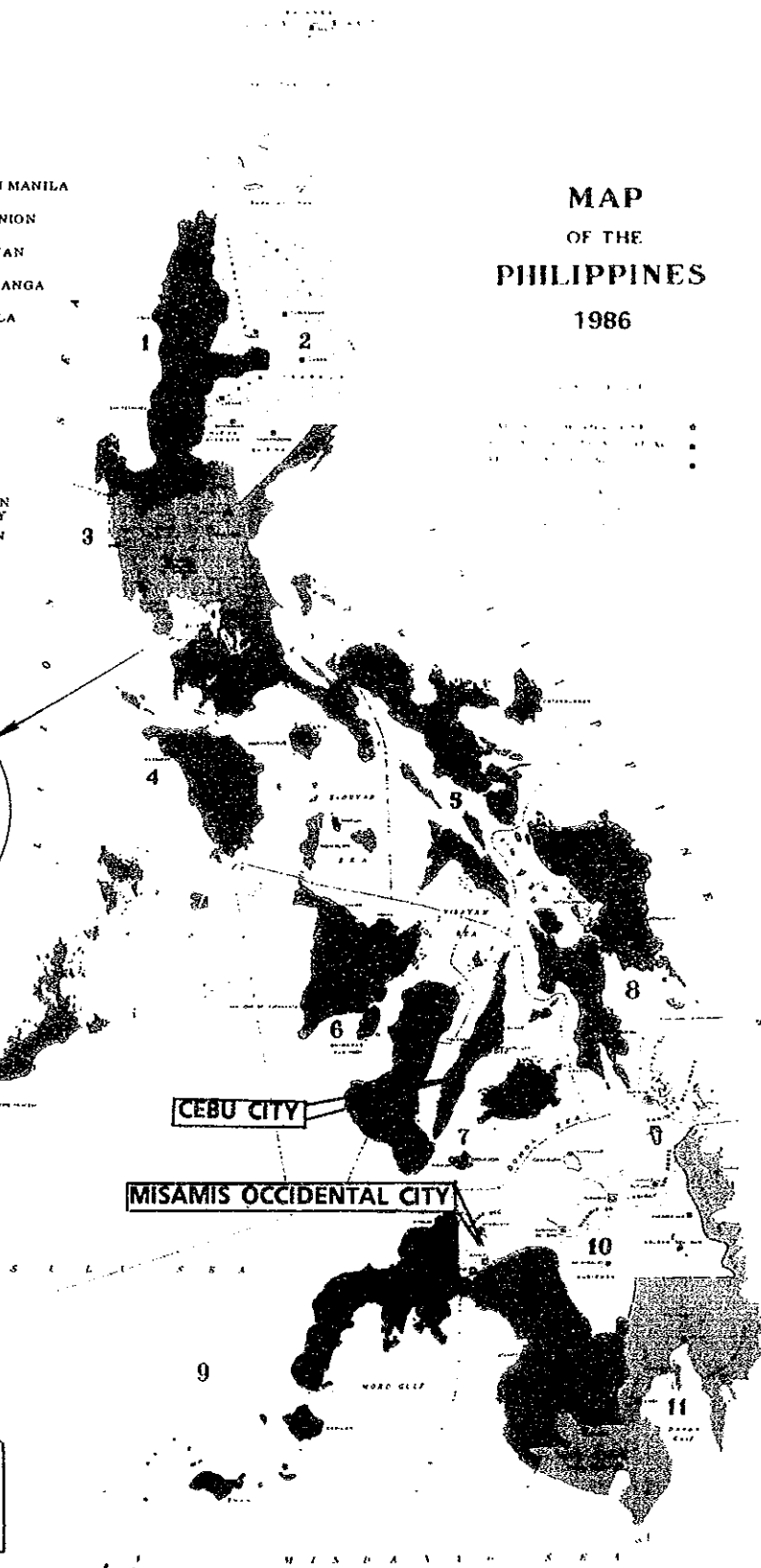
**MAP
OF THE
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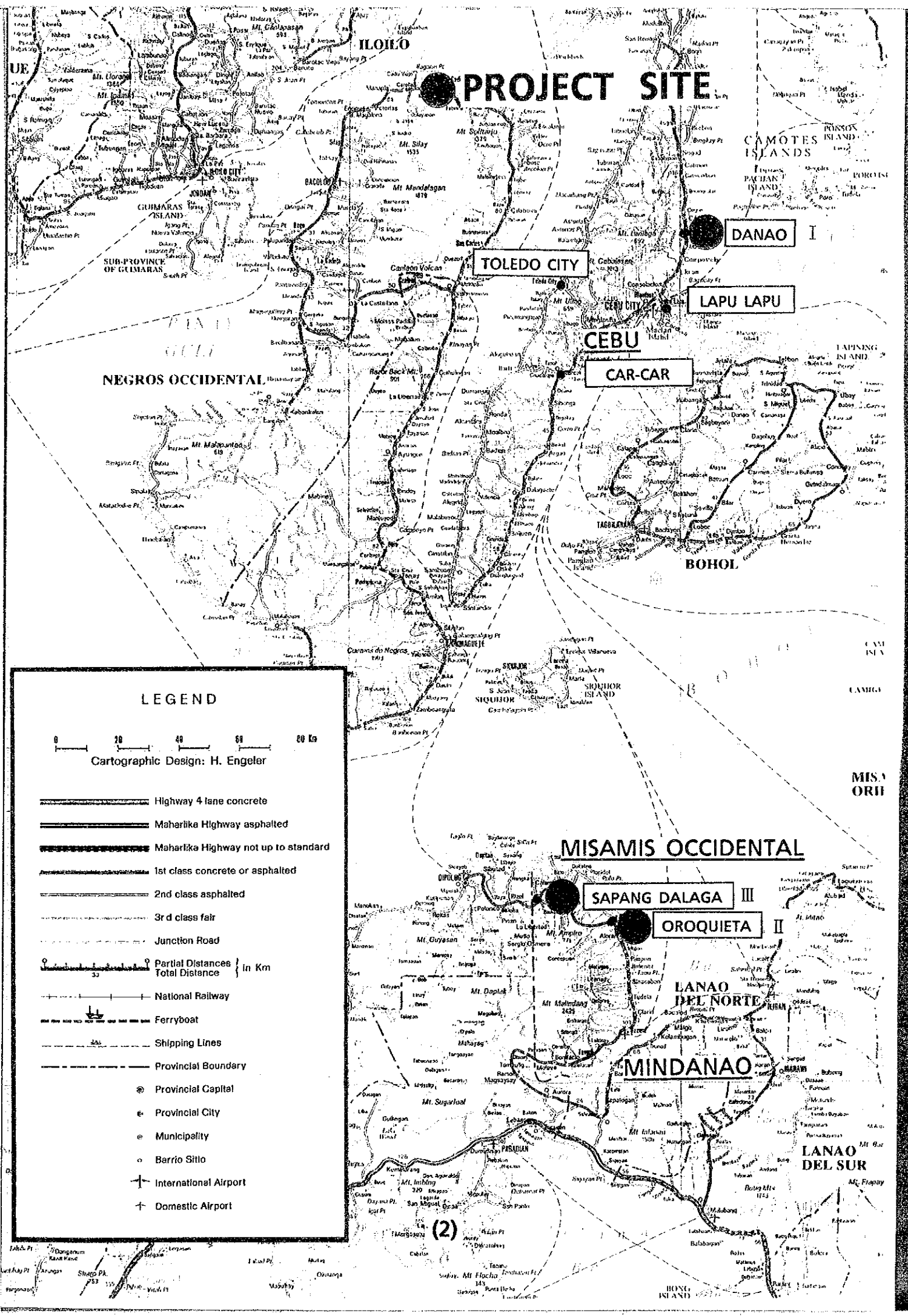
REGIONAL OFFICES

- NATIONAL CAPITAL REGION — METROPOLITAN MANILA
- REGION NO. 1 — ILOCOS REGION
REGIONAL CENTER — SAN FERNANDO, LA UNION
- REGION NO. 2 — CAGAYAN VALLEY REGION
REGIONAL CENTER — TUGUEGARAO, CAGAYAN
- REGION NO. 3 — CENTRAL LUZON REGION
REGIONAL CENTER — SAN FERNANDO, PAMPANGA
- REGION NO. 4 — SOUTHERN TAGALOG REGION
REGIONAL CENTER — METROPOLITAN MANILA
- REGION NO. 5 — BICOL REGION
REGIONAL CENTER — LEGAZPI CITY
- REGION NO. 6 — WESTERN VISAYAS REGION
REGIONAL CENTER — ILOILO CITY
- REGION NO. 7 — CENTRAL VISAYAS REGION
REGIONAL CENTER — CEBU CITY
- REGION NO. 8 — EASTERN VISAYAS REGION
REGIONAL CENTER — TACLOBAN CITY
- REGION NO. 9 — WESTERN MINDANAO REGION
REGIONAL CENTER — ZAMBOANGA CITY
- REGION NO. 10 — NORTHERN MINDANAO REGION
REGIONAL CENTER — CAGAYAN DE ORO CITY
- REGION NO. 11 — SOUTHERN MINDANAO REGION
REGIONAL CENTER — DAVAO CITY
- REGION NO. 12 — CENTRAL MINDANAO REGION
REGIONAL CENTER — COTABATO CITY



NATIONAL CAPITAL REGION





PROJECT SITE

NEGROS OCCIDENTAL

TOLEDO CITY

DANAO I

LAPU LAPU

CEBU

CAR-CAR

BOHOL

MISAMIS OCCIDENTAL

SAPANG DALAGA III

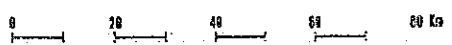
OROQUIETA II

LANAO DEL NORTE

MINDANAO

LANAO DEL SUR

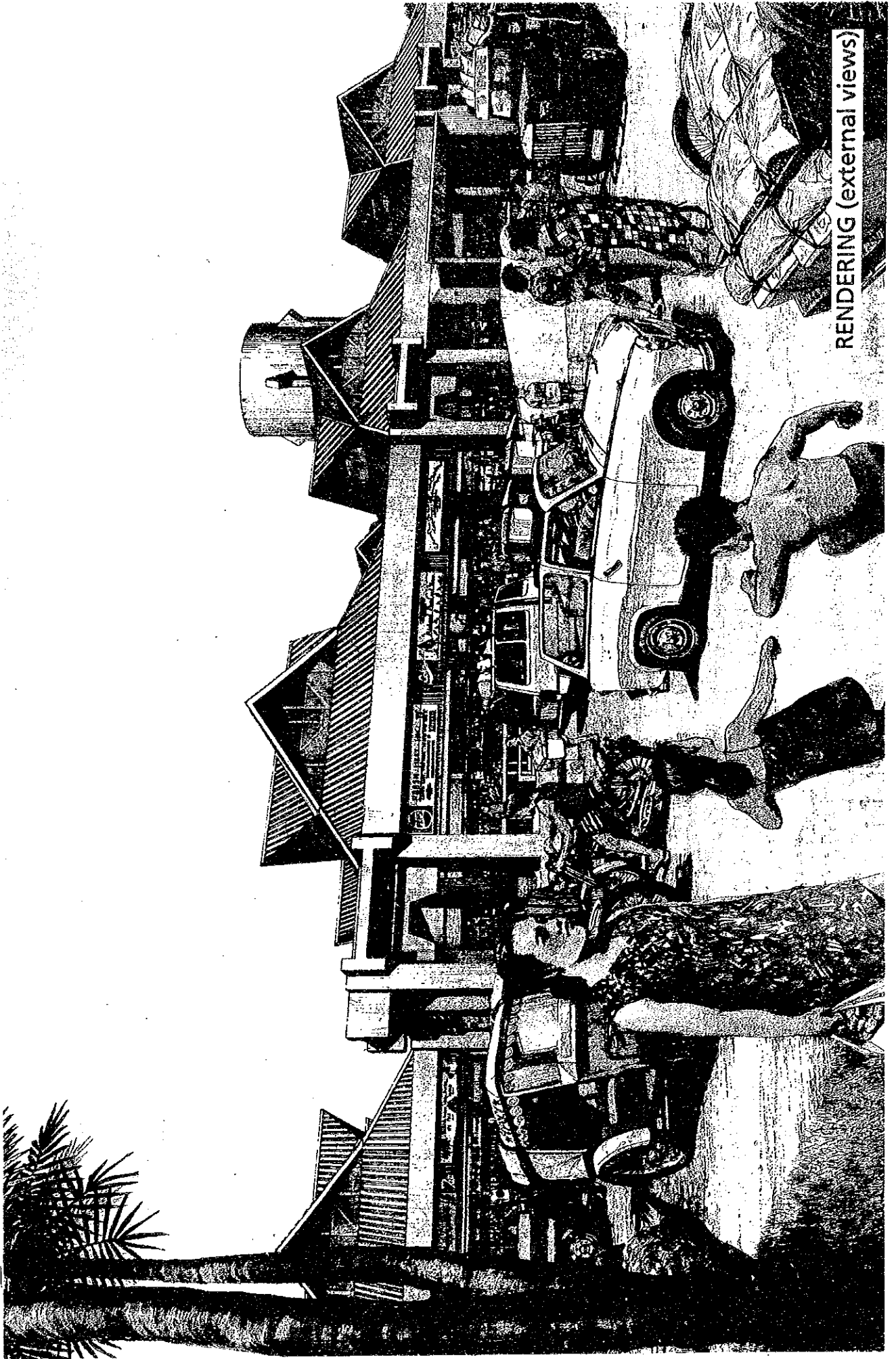
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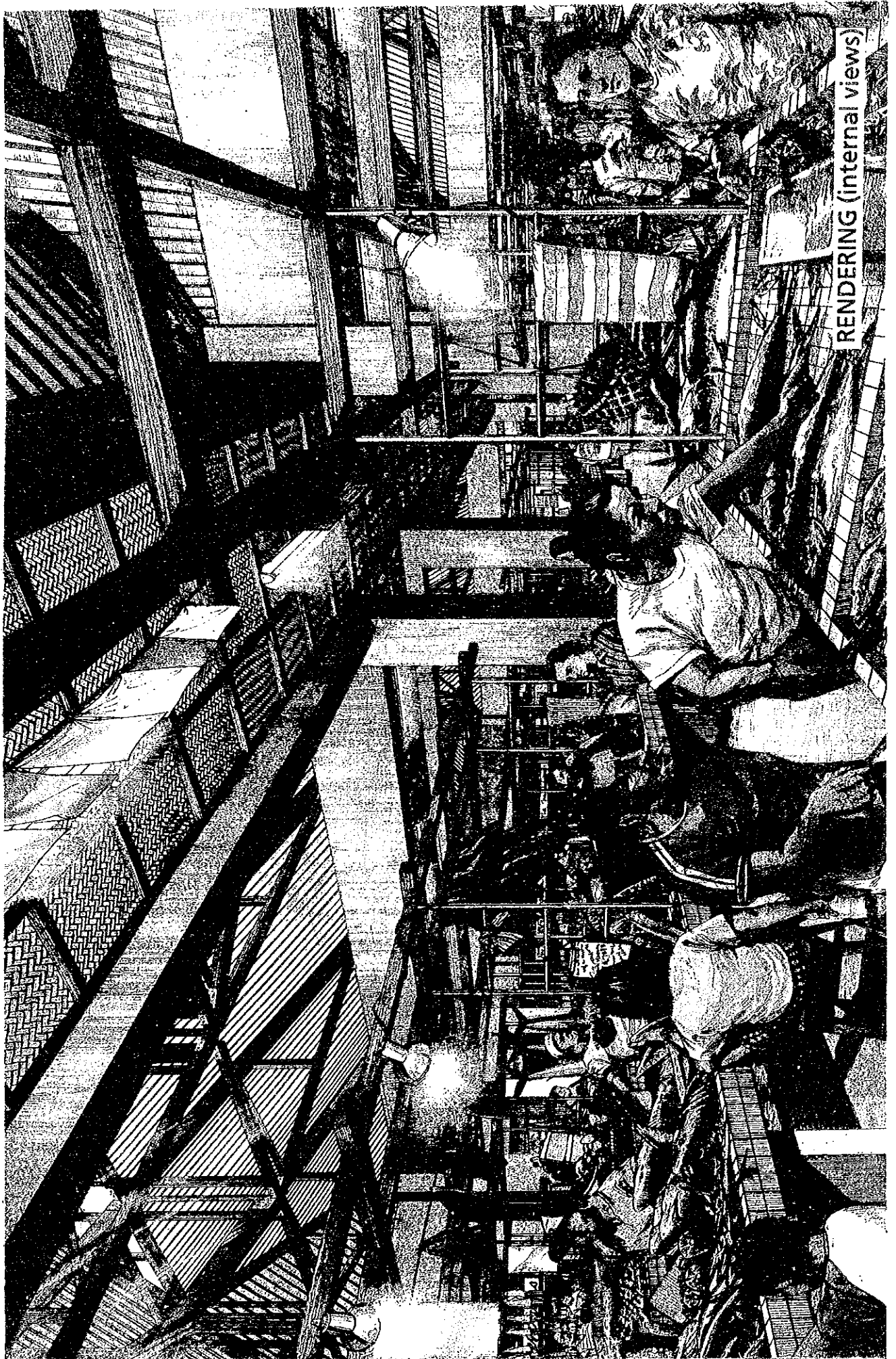
Cartographic Design: H. Engeler

- Highway 4 lane concrete
- Maharlika Highway asphalted
- Maharlika Highway not up to standard
- 1st class concrete or asphalted
- 2nd class asphalted
- 3rd class fair
- Junction Road
- Partial Distances } In Km
Total Distance }
- National Railway
- Ferryboat
- Shipping Lines
- Provincial Boundary
- Provincial Capital
- Provincial City
- Municipality
- Barrio Sitio
- International Airport
- Domestic Airport

(2)

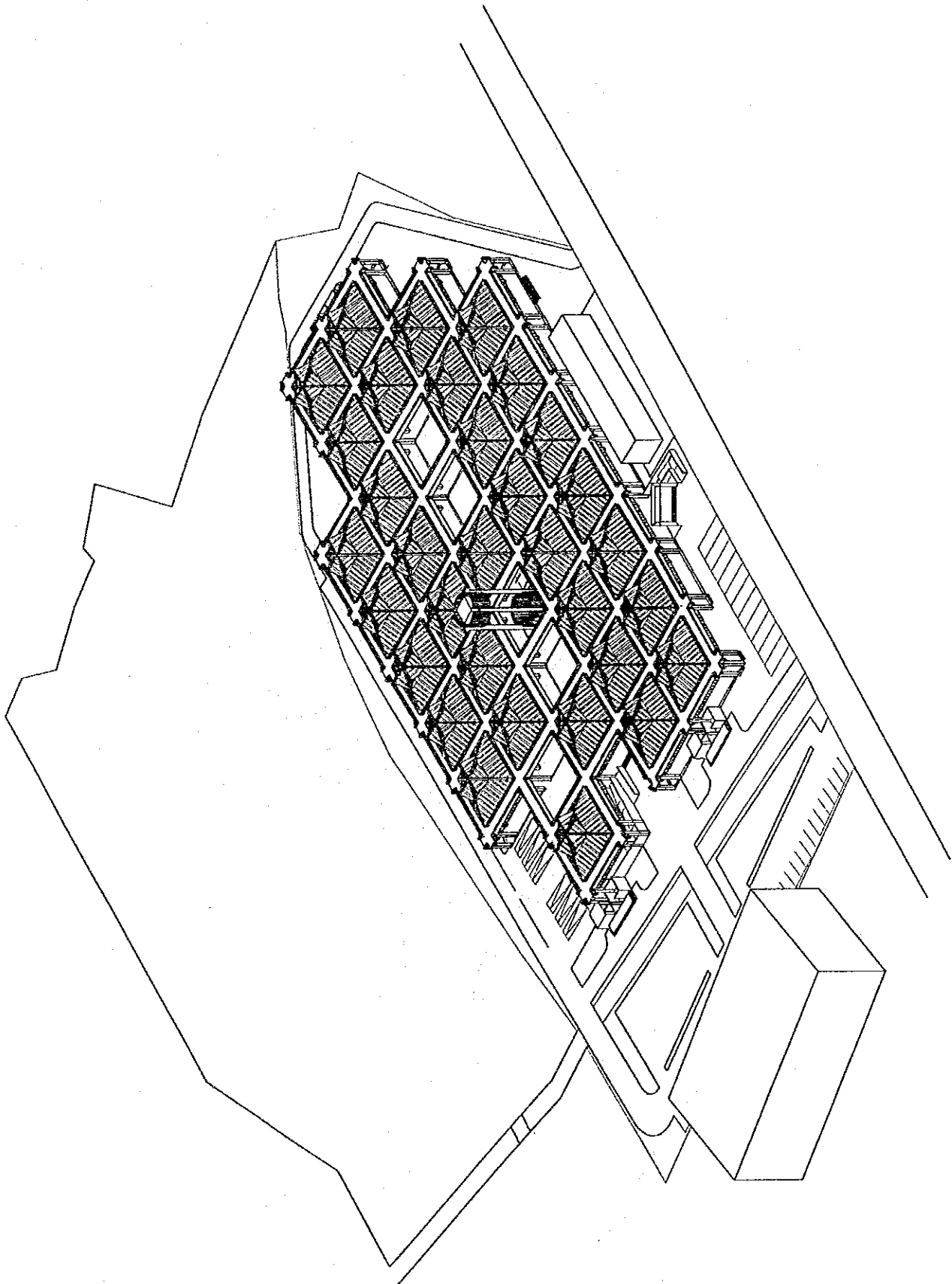


RENDERING (external views)

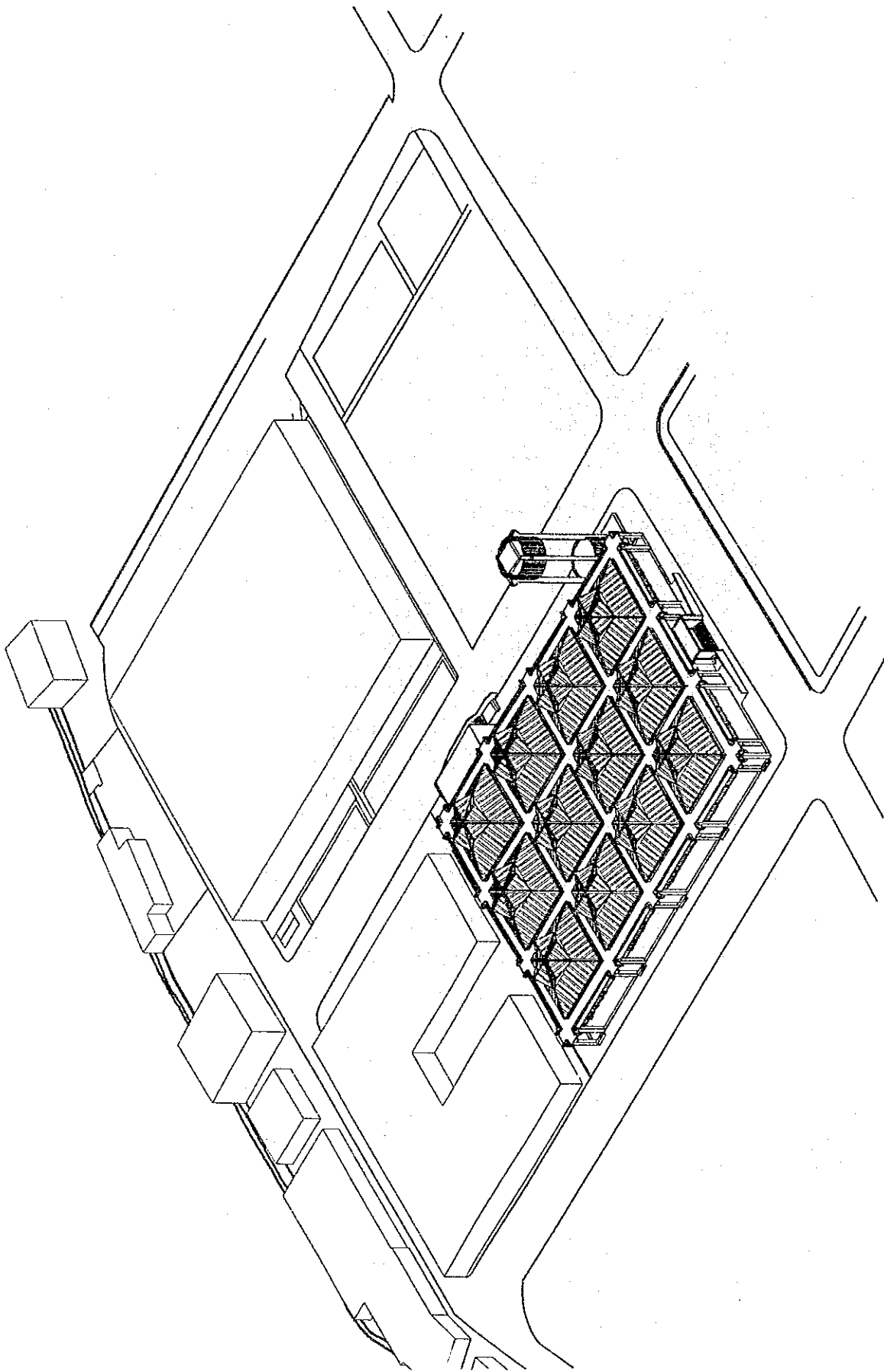


RENDERING (internal views)

1. DANA O MARKET ISOMETRIC VIEW

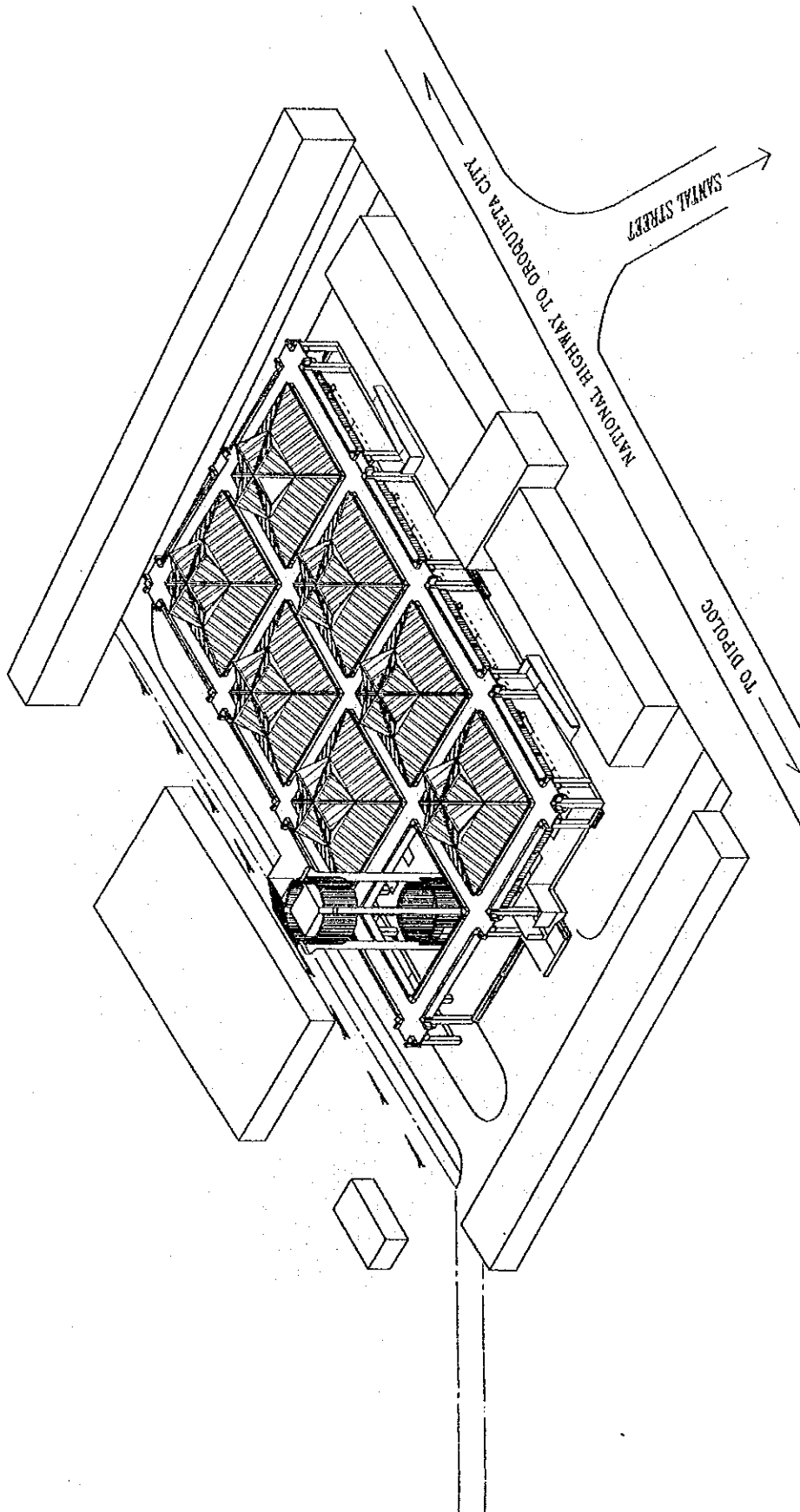


2. OROQUIETA MARKET ISOMETRIC VIEW

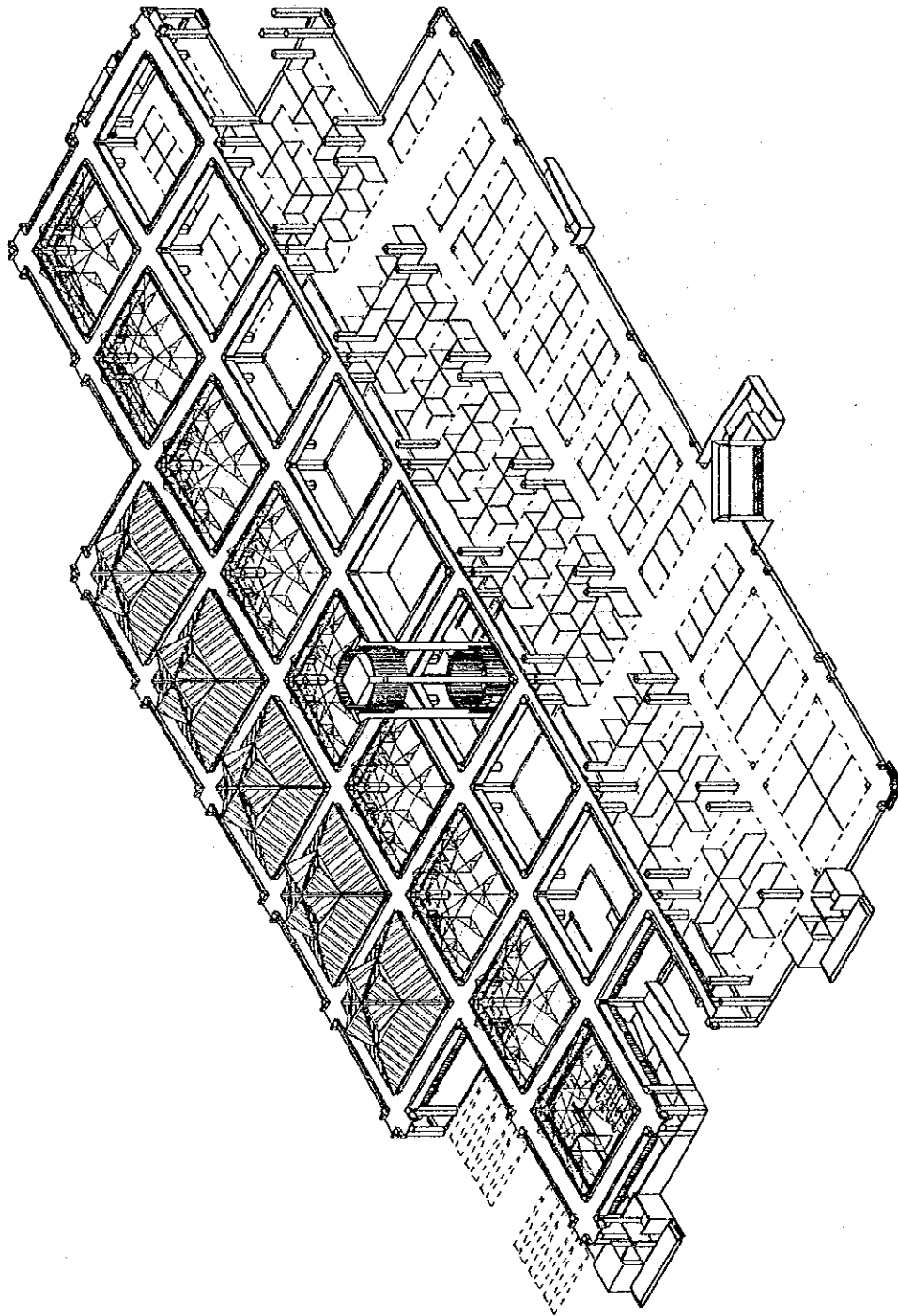


(6)

3. SAPANG DARAGA MARKET ISOMETRIC VIEW



SPACE COMPOSITION OF THE PROJECT



SUMMARY

SUMMARY

Due to its geographical location, the Republic of the Philippines suffers typhoon damage every year. A large scale typhoon, "Ruping", which developed in November 1990, struck the Visayas and Mindanao regions in the central Philippines and caused massive damage to the social infrastructure in these regions. The damage was particularly severe in Visayas Provinces and the northern part of Mindanao Island, and restoring the social infrastructure which is urgently required by the citizens in the cities, towns and villages in the disaster areas, will be a large burden on the meager financial resources.

This typhoon inflicted severe damage to the public market places which are essential for the daily lives of the local people. Through the efforts of various local government bodies and with the assistance of the central government, rehabilitation has been undertaken to a certain degree, but due to financial problems full-scale restoration will be difficult, and the work has been confined to emergency repairs. Furthermore, in addition to the typhoon damage, there are many public markets with worsening safety and sanitary conditions due to the disorderly increase of stalls and the fact that the markets were already old and dilapidated. In order to rapidly restore these facilities the Government of the Philippines requested Grant Aid from the Government of Japan in the execution thereof.

In response to the request, the Government of Japan decided to undertake a study, and the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a study mission to the Philippines for the period from October 23 to November 11, 1991. As a result of the preliminary study, five (5) locations in Cebu Province and two (2) locations in Mindanao, Misamis Occidental Province were confirmed as market places for which Grant Aid has been requested, as follows:

[Cebu Province]

- 1) Lapu-Lapu Market (new construction)
- 2) Car-Car Market (rebuilding of sections of the existing market and relocation of the slaughter house)
- 3) Danao Market (new construction)
- 4) Toledo Market
 - ① DAS Market (expansion of the existing market and relocation of the slaughter house)
 - ② Poblacion Market (expansion of the existing market and relocation of the slaughter house)

[Misamis Occidental Province]

- 5) Oroquieta Market (reconstruction of the Barracks section and relocation of the slaughter house)
- 6) Sapang Dalaga Market (reconstruction of sections of the existing market place and new construction of the slaughter house)

Furthermore, based on the results of the preliminary study, JICA dispatched a basic design study mission to the Philippines from March 16 to April 15, 1992.

The basic design mission reconfirmed the construction site, performed research on local conditions and collected data, etc. As the results of the onsite survey, there was no prospect for site preparation of the Poblacion Market, so that the request was changed to only six (6) locations. Ultimately, four (4) locations in Cebu province and two (2) locations in Misamis Occidental Province were confirmed as market places for which assistance was required. After the discussion with the Government of the Philippines, the survey mission prepared minutes of meetings on fundamentally agreed issues.

After returning to Japan the results of the research was studied and analyzed, and a Basic Design Study Report (Draft) was produced detailing the definition of the appropriate scale of the facilities and the restoration plans. The Final Basic Design Study Report was produced by confirming the details of the draft report and meetings held from 10th to 18th September, 1992.

The typhoon damage to each of the market places is as follows. Portions of the buildings have collapsed at the Lapu-Lapu and Danao markets in the suburbs of Cebu city, and have been abandoned. Furthermore, the windows, roof and pillars have suffered severe damage, and have not been restored except for emergency repairs. There are other market places which have been restored using typhoon damage reconstruction funds from the Government of the Philippines or by using money provided independently by the various cities, but the work has been limited to emergency repairs. However, due to the problems of extremely bad sanitary conditions and safety standards as the result of overcrowding and dilapidated conditions of the markets in addition to the typhoon damage, it has become urgently required to try to carry out a comprehensive rehabilitation of the public markets including improving the overcrowding and dilapidation problems, at the same time as dealing with the issue of restoring the typhoon damage. The Government of the Republic of the Philippines has recognized the necessity of rehabilitating the public market places, which play an important role as the economic foundation of the nation and as the foundation of daily life for the citizens. In 1987 and 1989 the government produced the "Modular Approach" (Guide to Local Government Units for the Restoration of Public Market Places) and "Slaughter House" (Slaughter House Engineering Guidelines), and the rehabilitation work has progressed on a nation-wide scale through the local government bodies.

At the same time as assuming part of this role, this project emphasizes the restoration of public market places which suffered typhoon damage.

Therefore, this project is basically based upon the policies and standards for restoring public markets which the Government of the Republic of the Philippines has promoted in the past. Shown below is the summary of the current conditions of the market places involved in this project:

(1) Lapu-Lapu Market Place

In addition to severe typhoon damage, the existing market is extremely congested due to a rapid population increase as the result of recent development and the dilapidated state of the building has become obvious, so there is a strong need to construct a new market place. Relocation of the residents, land registration, land filling and licenses for infrastructure facilities are currently being sought for the site, but there is no prospect of budget allocation for site preparations, and no agreement has been reached with the local citizens.

(2) Car-Car Market Place (Rotonda Market Place)

It is hoped to be able to make a large improvement to the market place environment by reconstruction of sections of the existing market place and by improving the drainage system. The site of the former market will be used as a temporary alternative location of the market place during the construction work. Conditions at the alternative site are favorable as there is a comprehensive drainage system and a section of the roof of the former market remains. But the soil condition of building site is unsuitable for construction of new designed Market building (reinforced concrete structure) by the boring data. A site for the new slaughter house has been prepared at a location about 600m away from the market place. A relocation site for the residents of the new site has been obtained and the relocation process is under way. But no agreement has been reached with the residents of the site.

(3) Danao Market Place

The existing market place is extremely congested without any room to spare, and furthermore the rehabilitation of typhoon damage will also difficult, so an adequate site has been secured and it is planned to construct a new market place. Sections of the site are low lying so filling will be required in parts, but the city authorities intends to undertake the filling work. The relocation of residents from within the site has already been completed, preparatory work at the site has commenced, and there are no majors obstacles in the implementation of this project.

(4) Toledo Market Place (Don Andres Soriano Market: DAS Market)

The main building, which suffered typhoon damage, has been restored by the city authorities, but the surrounding sections will be rebuilt as the restoration work was inadequate. A corner of the former market place, which is 6km from the site, has been secured for the slaughter house, and it is hoped that this will not be connected to just the DAS market but also the smaller markets in the surrounding area and the Poblacion market. Operation and distribution will be undertaken by officials from the market place management. As the site is owned by the city there are no problems, but the site for the market is located on a ravine slope so larger site preparation costs will be required compared to other markets. Furthermore the shape, area and location of the building site is inadequate for the contents of the request.

(5) Oroquieta Market Place

This market consists of 4 blocks; Market A, Market B, the Barracks and the Hawkers section. Under the current conditions there is little necessity to urgently rebuild both the A and B Markets. However, in addition to suffering typhoon damage the Barracks are also remarkably dilapidated, and there are hygiene problems as there is no paving or drainage facilities, so there is a strong need to reconstruct. The location of the site, its form and the environment is suitable as a slaughter house, but there is no prospect for the land acquisition of a slaughter house.

(6) Sapang Dalaga Market Place

In addition to suffering typhoon damage the Sapang Dalaga market place is dilapidated and there is a danger that the building will collapse, so reconstruction is urgently required. Furthermore, slaughtering is performed outdoors near the market place, so slaughter house facilities are required. A slaughter house site has been secured and soil quality data has been obtained so there are no obstacles in implementing the plan.

As the results of onsite surveys and the study of these public markets and sites, the process of land acquisition, condition for sites and the relocation of residents etc. is still continuing and considering these local conditions, the details of the project, which has been designed three (3) market facilities from the above information, are as follows:

Summary of the Facilities under the Scope of the Project

Market Name	Location	Outline of Restoration	
(1) Danao Market	Danao City (Cebu Province)	Construction of a new market place	7,829.91m ²
(2) Oroquieta Market	Oroquieta City (Misamis Occ. Province)	Reconstruction of sections of the existing market	2,916.02m ²
(3) Sapang Dalaga Market	Sapang Dalaga Town (Misamis Occ. Province)	Reconstruction of sections of the existing market Construction of a new slaughter house	1,848.96m ² 285.61m ²

Within the items that were researched, the following facilities were determined to be not applicable for implementation as a part of this project due to the results of the surveys.

(1) Toledo Market (DAS Market):

Reconstruction of sections of the existing market and relocation of the slaughter house.

(2) Oroquieta Market:

Relocation of the slaughter house

(3) CarCar Market:

Reconstruction of sections of the existing market and relocation of the slaughter house.

(4) Lapu-Lapu Market:

Construction of the new market building

The estimated period necessary for the project consists of three (3) months for the detail design work, twelve (12) months for the construction work.

And the estimated project cost to be borne by the Republic of the Philippines will be approximately 4.52 million pesos.

In the past, if the total income were 100%, expenditure for maintenance and management costs of public markets in this area accounted for about 84.3% of the total income, and the remaining 16% was taxation income. However, it is forecasted that after this project has been completed there will be a 30% to 40% increase in rental payments from the rehabilitated stores without increasing the former rents, so at the very least taxation income will increase from 15.7% to 32% of the total income, even if it is forecasted that expenditure on maintenance and management costs will increase for the new facilities. Therefore, even without altering the existing rental fee ratios it will be possible to easily pay for the maintenance and management costs for the markets which will be better than current conditions. At the same time it will also be possible to ensure funds for the ongoing preservation and improvement of the facilities, which was hardly done at all in the past, and it is hoped that this will lead to independent development of maintenance and management by the city authorities.

The public market places in this project are important facilities which are the foundation of daily life for the local residents in each area. The restoration of these public markets, which are old, dilapidated and suffered typhoon damage, will contribute to securing the livelihoods of the local people, stimulating the regional economy of the Philippines and also improve hygiene and sanitation. It can be expected that there will be a large beneficial effect for all of the local residents. Furthermore, these facilities will support the social and economic foundation of the Republic of the Philippines, and it turn these markets are closely related to the development and stability of the Philippines social economy. Therefore, it is considered as being appropriate to carry out this project within the scope of the Grant Aid Program.

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APPENDIX

CHAPTER 1 GENERAL

General **1**

CHAPTER 1 GENERAL

Due to its geographical location, the Republic of the Philippines suffers typhoon damage about 10 times a year. A large scale typhoon, "Ruping", which developed in November 1990, struck the Visayas and Mindanao regions in the central Philippines and caused massive damage to the social infrastructure in these Mindanao regions. The damage was particularly severe in Cebu Province and on Mindanao Island in Misamis Occidental Province, and restoring the social infrastructure which is urgently required by the citizens in the cities, towns and villages in the disaster areas, will be a large burden on the merger financial resources.

This typhoon inflicted severe damage to the public market places which are essential for the daily lives of the local people. Public markets in the Philippines occupy a position in the center of the regional economy and distribution system by supplying products required for living such as foodstuffs, articles for daily use, clothing, and various other items, etc. In addition to the fact that most of the public markets in the regions which suffered typhoon damage were already old and dilapidated, the congestion at the markets was worsening year by year due to increased temporary stalls and vendors counters, and the decline in safety and sanitary conditions is becoming serious.

For these reasons, the various local government bodies, with the assistance of the central government, have moved to restore the public markets, but due to financial problems, full-scale restoration will be difficult. In order to attempt to rapidly restore these facilities in May 1990 the Government of the Republic of the Philippines requested Grant Aid from Japan.

Receiving this request, the Government of Japan decided to carry out a basic study in order to confirm the details of the request, to ascertain the current conditions, and to investigate the possibility of Grant Aid. JICA dispatched to the Philippines a basic study mission, headed by Mr Satoshi MACHIDA, Deputy Director of the Grant Aid Study Department, Second Basic Design Study Division, JICA, from October 23 to November 11, 1991. A basic design study mission, also headed by the same Mr Satoshi MACHIDA visited the Philippines from March 16 to April 15, 1992.

On returning to Japan, the study mission reviewed and analyzed the research materials and details of the meeting results, estimated the effect that this Project

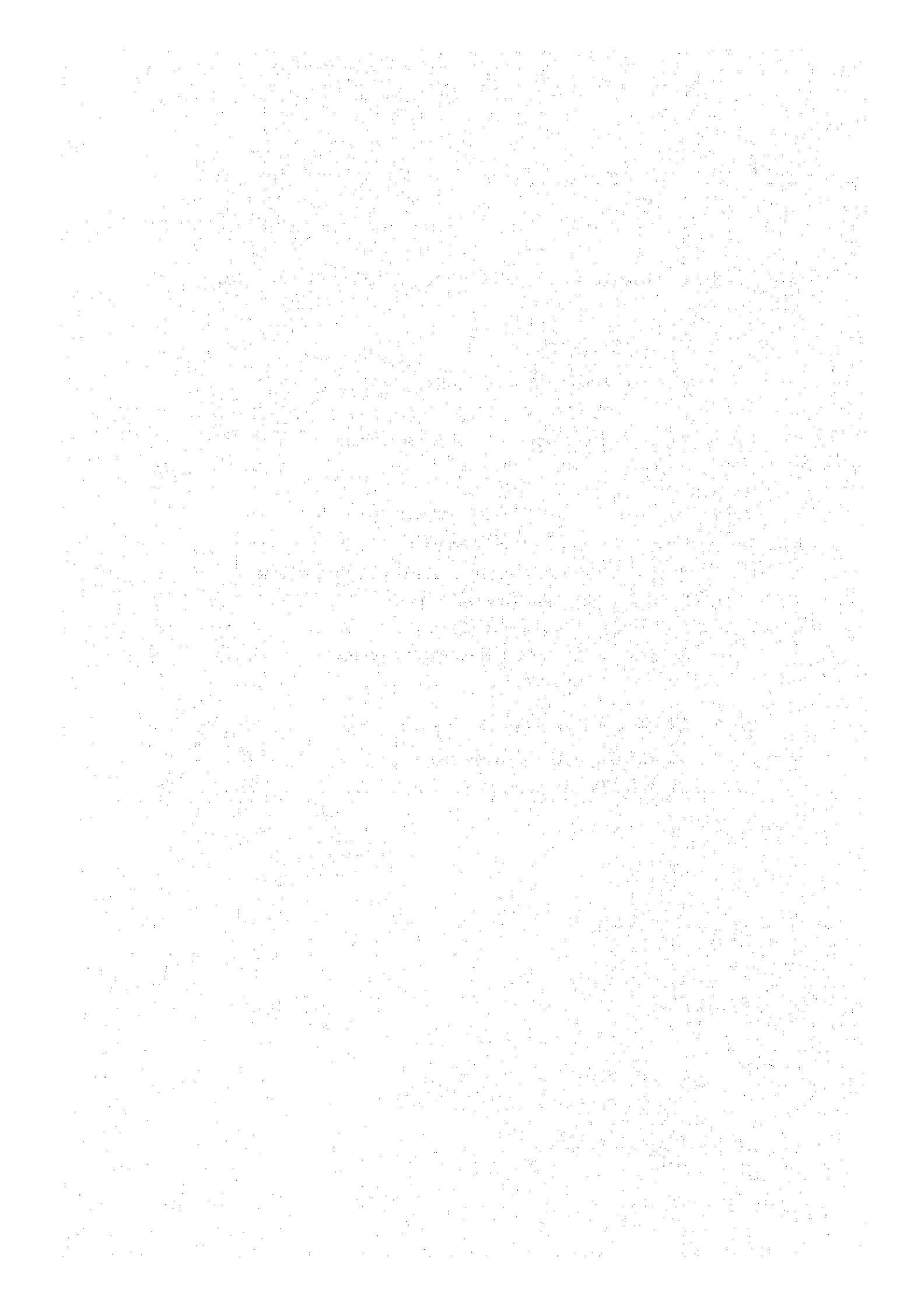
would have upon the regional Philippines economy, upon securing the livelihoods of the local people, and upon improving the environment, drew out a basic design of the most suitable size with optimum facilities, and summarized them in the Basic Design Study Report (Draft). Based upon this draft report, JICA dispatched the study mission headed by Mr. Koichi Miyoshi, Director, Second Basic Design Study Division of the Grant Aid Study and Design Department, JICA to the Philippines for a period extending from 10th to 18th September, 1992, and the mission held discussions regarding to the details of the draft report with the representatives of the other parties.

This report, based upon the results of the above mentioned study results, details the facilities which could be considered as the most suitable, basic designs for the materials, estimated project costs as well as the validity of the project, suggestions and so forth, relating to the execution of this project.

The composition of the study mission, representatives of the Government of the Republic of the Philippines, the field survey schedule and the minutes of meetings are attached as supplementary documentation at the end of the report.

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CHAPTER 2 BACKGROUND OF THE PROJECT

2 - 1 Outline of the Republic of the Philippines

2 - 1 - 1 Historical Background and Current Conditions

(1) Historical Background

The native people of the Philippines were the Negroid race, who migrated during the period when the country was attached to the continental land mass by a land bridge, and the forefathers of the current inhabitants are said to be of Malaysian descent who crossed over the sea in about the 11th century B.C. In about the 9th century the racial structure consisting of people of Malaysian descent took root.

The Philippines was influenced by Hinduism in the 5th century and the Islamic religion in the 15th century. Christian missionary work spread rapidly after the country became a Spanish colony in 1574, and nowadays 91% of the country's population is Christian, 7% Islamic, and the remaining 2% practice other religions.

After Spanish rule the Philippines was ceded to America under the Peace Treaty signed by the American and Spanish Governments in December 1898, and a federal government was established in November 1935. In 1939 a law of independence was passed which granted independence in 10 years. During the Second World War the country was recognized as an independent Japanese republic in October 1943, but Japan lost the war, and on July 4th 1946 the Philippines became independent from American rule. In May 1973, Philippines Independence day was fixed as being 12th June (the day in 1898 when General Aguinaldo and the Filipino-American Allied Forces triumphed over the Spanish army) and 4th July became Filipino-American Friendship day.

After independence, the first Roxas administration was established, followed by the Quirino administration which was inaugurated in January 1950, the Magsaysay administration which was established in January 1954, the Garcia administration in January 1958, the Macapagal administration in January 1962, and then followed by the Marcos administration inaugurated in January 1966. The second Marcos

administration followed this from January 1970, during which martial law was declared from September 1972 until January 1981, and after this the third Marcos administration was established in June 1981.

The assassination of Benigno Aquino, husband of the former President Aquino, at Manila International Airport in 1983 was the turning point for the worsening social and economic conditions to suddenly come to the surface. The fourth Marcos administration was established as the result of presidential election on 7th February 1986, but protests against election fraud rapidly escalated, and on 25th February, which was the day appointed for the presidential inauguration ceremonies, Marcos went into exile in America. In this way, Mrs Corazon Aquino became the president in inauguration ceremonies held immediately on 25th February (February Revolution). President Aquino proclaimed a provisional constitution on 25th March of that year, a new constitution was drafted and the new constitution came into effect on 11th February 1987 as the result of a national referendum held on 2nd February of that year.

After the establishment of the administration Senate and House of Representative elections were held followed by local government elections and Barangay elections, and the political power structure was well-order. However, shortly after this the Aquino administration has been continually subjected to criticism from within and outside the cabinet, military coup d'etat incidents, the Tolentino incident with the forced inauguration swearing of oath of the acting president, cabinet resignations and reshuffles, confrontations with the vice-president, and so forth. During this time there have been such incidents as the rebellion of several army commanders, protests by farmers which led to bloodshed, and is there was an unsuccessful coup d'etat centered in the metropolitan area from 1st to 9th December 1989. In response to this unsuccessful coup d'etat attempt a state of emergency was declared on 6th December. Since then political instability has increased. In addition to this many external factors and natural disasters such as the large earthquake which struck Luzon Island in July 1990, the outbreak of the Gulf War in August of the same year, the massive damage inflicted by the typhoon in November 1990, and the Mt Pinatubo volcanic eruption in June 1991, have combined to force the Philippine economy into an increasingly troubled state.

On the other hand, the communist guerrilla New Peoples Army (NPA), that was reformed from the Huk Group which was organized against the

Japanese Occupation Army during the Second World War, has been expanding the power and scope of guerrilla activities (the NPA signed a cease fire agreement on 27th November 1986, but since this time there has been a discrepancy between the basic policies of the two parties during negotiations, and the cease fire lapsed on 8th February 1987). There have been repeated terrorist acts carried out against police and military personnel in the metropolitan areas, but activity has decreased since a large scale crack down in 1988 which included the arrest of 7 leaders. Furthermore, the struggle by Islamic fundamentalists which began in the latter half of 1968 and which was centered around the Moro National Liberation Front (MNLF) movement, that was based around Mindanao, expanded and became increasing violent in 1973. Peace negotiations were organized, and a cease fire was agreed to, but the negotiations broke down, however, since 1978 the leadership of the MNLF fragmented, and the power of the movement has greatly decreased since 1984.

On the foreign diplomacy front, the Philippines had an extremely close relationship with the United States of America since directly after independence including military pacts, treaties, massive economic support, and so forth. Under the new treaty which was signed on 7th January 1979, Filipino sovereignty of the American military bases in the Philippines was established, and America was committed to provide support in the fashion of compensation for the base leases. On 17th October 1988 an agreement was signed by the Aquino administration guaranteeing the American military in the Philippines continuous use of bases from 17th October 1989 until 16th September 1991. America has strongly supported the Aquino administration since it was established.

Japan also has a close relationship with the Philippines due to geographical and historical reasons, and Japan is placing the greatest importance on positioning itself as one of the supporting countries. Subsequent to the reparation treaty that was signed in May 1956, Japan has cooperated with America and strongly supported the Aquino administration, which has gradually strengthened ties with Japan since its inception.

(2) Current Conditions

Large scale natural disasters such as typhoons, earthquakes and volcanic eruptions which have occurred one after another in recent years have severely affected the deteriorated Filipino economy, and it will be extremely difficult for the country to rebuild the economy or improve the lifestyles of

the citizens through its own efforts in the immediate future, thus additional international assistance has become essential.

A new administration, provincial governors, city and town mayors were selected in the first large scale general elections since Philippine independence which will be held on 11th May 1992. There is no doubt that the most important topic for the government and the Philippine people will be to decide what sort of mechanisms will be used to cope with the problem of improving the country's economy and the lifestyles of the people.

2 - 1 - 2 Social and Economical Background

(1) Population

According to the May 1990 statistics, the population of the Republic of the Philippines is 60,477,000 people, with an average annual population growth rate of 2.3%, and a population density of 202 people per 1km². The population distribution is 65-70% rural. However, the urban population ratio has steadily increased from 31.6% in 1975 to 37.2% in 1980, in conjunction with the progress of industrialization. Furthermore, the average age of Filipinos is comparatively low. Approximately 36% of the total population is under the age of 20, and the working age population (15 to 64 years of age) is approximately 60% of the total population.

(2) Structure and State of the Economy

The Philippines industrial structure is broken down as follows. Agriculture, fisheries and forestry, manufacturing and service industries accounted for 31%, 25% and 44% of the 1970 gross national product respectively, and in 1989 these ratios had changed to 27%, 33% and 40%. During this 20 year period the relative importance of the manufacturing sector has increased, while the agriculture sector has relatively decreased.

The improvements in political stability and the regulation of the labor organizations that were the objectives of the martial law system imposed by the previous Marcos administration which started in 1979 and caused domestic and overseas investment rapidly increased under the national development plan, which aimed for capital intensive urban industrialized development, and the economic growth rates during the 1970's maintained a high growth rate of about 6% every year.

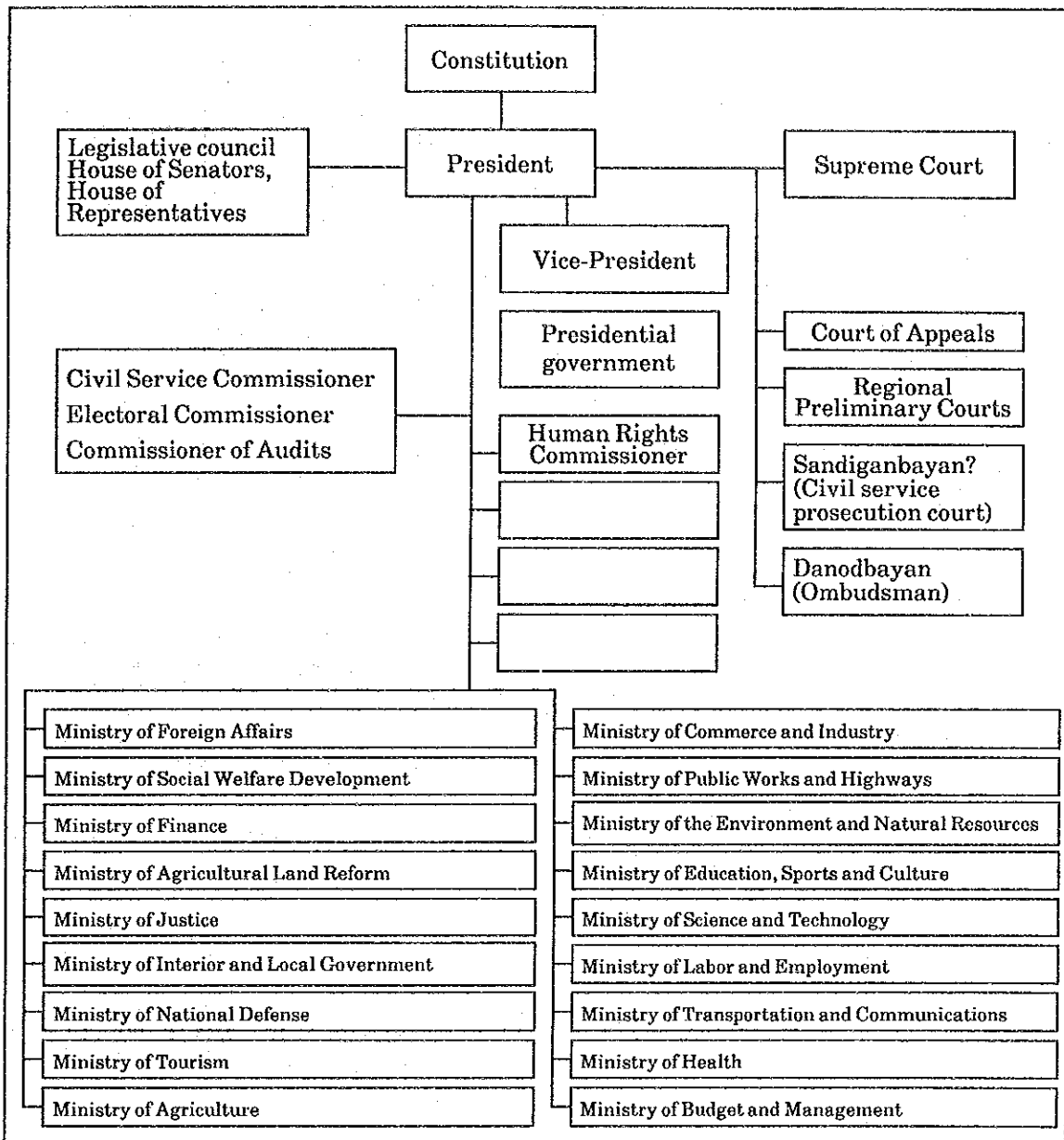
However, the Philippine economy went into a slump as the result of the second oil shock which started in 1979 and caused a world wide recession, and continuous sluggish economic growth rates of 3.3% in 1981, 1.9% in 1982 and 1.1% in 1983 were recorded. Furthermore, negative growth rates of -7% and -4.1% were recorded in 1984 and 1985 respectively, due to many negative factors accumulating such as the political instability around the time that former-senator Aquino was assassinated in 1983, a massive exodus of capital, mushrooming budget deficits, enlargement of the foreign debt and the suspension of IMF financial talks. During this time, the number of unemployed rapidly increased from 1.1 million in 1983 to 1.55 million in 1984, while on the other hand inflation worsened. Consumer prices rose a record breaking 50.4% in 1984, and a high rate of 23.2% was also recorded in 1985.

Since the inauguration of the Aquino administration in February 1986 the economy has recovered due to an economic recovery policy adopted by the new administration which was sanctioned by the IMF, and after three years there was a turnaround in the actual GNP to record positive growth rates (1.5%). The following year in 1987 consumer demand increased in response to the governments economic stimulation policy, and this in turn spurred investment activity, leading to a 5.9% increase in GNP. The economic recovery also continued in 1988, with a 6.7% increase in actual GNP being recorded for the year. However, since 1989 economic growth rates have slowed down somewhat. The 1989 GNP growth rate was 5.5%, but inflation worsened and consumer prices increased 10.6%, which was the second time double digit increases have been recorded since the current administration came to power (see appendix A-15-23).

(3) Politics and Administration

The Philippines achieved independence as a republic in 1946, and started conducting the state affairs based upon the American presidential system. President Marcos invoked martial law in September 1972, and seized control of the administrative, legislative and a portion of the judicial powers. However, criticism arose both at home and abroad against the dictatorial state politics of the Marcos administration which had lasted for 20 years, and in February 1986 the Marcos administration was overthrown and the Aquino administration established. The new administration ratified a new constitution in February 1987, and in July the legislative powers were transferred to the national assembly. The various systems for

Fig. 2-1-1 Philippines National Assembly Administrative Organization



As of December 1990, the administrative districts have been divided in 75 provinces, 60 cities and 1,536 municipalities, and there are 41,293 Barangay, which is the smallest administrative unit under the municipalities. The administrations have been classified in 14 regions; No.I-XII, the national capital region and the Cordillela Autonomous region, and outposts of the government organizations have been located in these regions. Table 2-1-1 below shows the details of the administrative regions (see appendix A-13 for further information relating to maps of the administrative regions and population statistics by region).

Table 2-1-1: Philippine Administrative Classifications

Region	Province	City	Municipality	Barangay
National Capital		4	13	1,689
Cordillera Autonomous	5	1	75	1,156
Region I (Ilocos)	4	3	122	3,250
Region II (Cagayan)	5	-	93	2,297
Region III (Central Luzon)	6	5	116	2,870
Region IV (Southern Tagalog)	11	8	213	5,300
Region V (Bicol)	6	3	112	3,456
Region VI (Western Visayas)	6	8	123	4,045
Region VII (Central Visayas)	4	9	123	3,002
Region VIII (Eastern Visayas)	6	3	140	4,388
Region IX (Western Mindanao)	5	4	100	2,699
Region X (Northern Mindanao)	7	7	117	2,481
Region XI (Southern Mindanao)	5	2	84	1,764
Region XII (Central Mindanao)	5	3	105	2,896
Total	75	60	1,536	41,293

2-1-3 Environment

(1) Location and Topography

The Philippines are located between 6° and 20° latitude north from 117° to 127° longitude east, and the land area is 300,000km², which about 80% the size of Japan. The Philippines is the worlds largest archipelago, and consists of 11 major islands and 7,100 smaller islands dotted over an area extending 1,000km from north to south.

The Philippines is broadly divided into three geographical regions; Luzon, Visayas and Mindanao. The largest island is Luzon with a land area of 140,000km², followed by Mindanao island with an area of 96,000km². The Visayas region consists of groups of small islands located between Luzon and Mindanao islands, with a total land area of 15,000km².

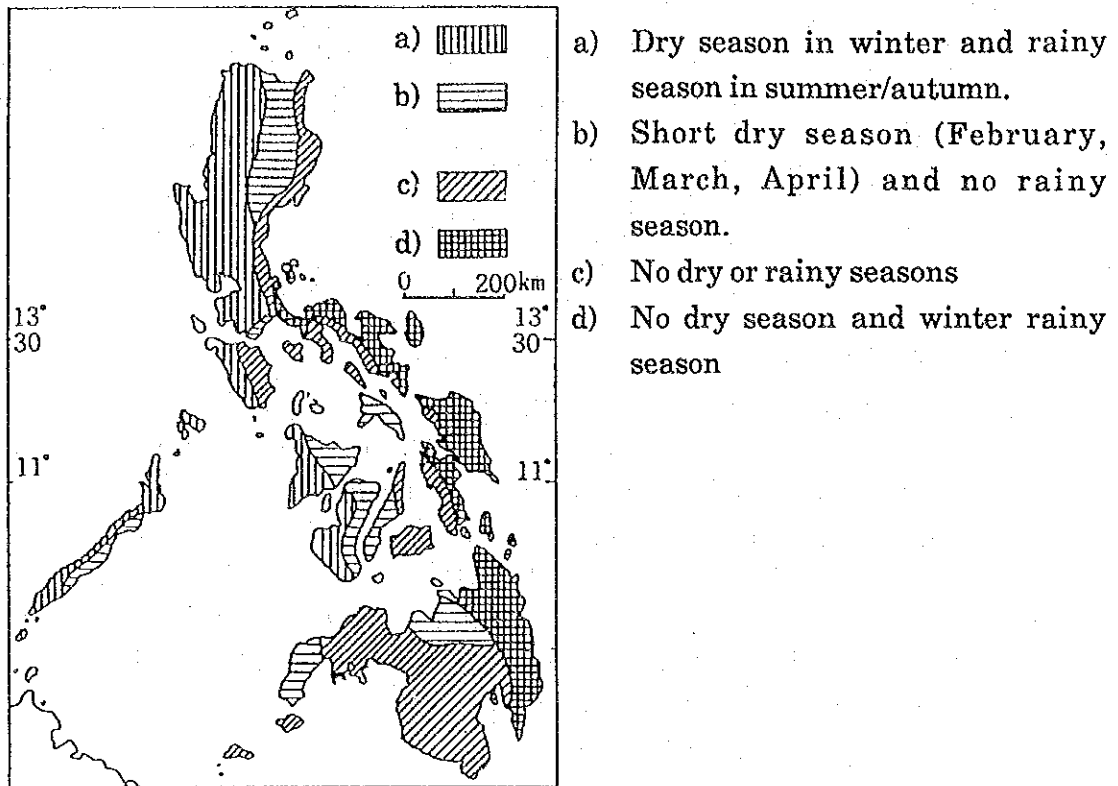
(2) Climate and Weather

The Philippines has a tropical climate with high humidity, and a very limited temperature difference in the level areas within the island group. The maximum temperature recorded at Jolo located at 6° latitude north is 35.7°C, and the average temperature during the hottest month is 27.0°C, and in Aparri located at 18.5° latitude north the figures are 37.8° C and 28.0°C respectively. There is very little seasonal variation.

In general there are a number of types of rainfall caused by the conditions of the changing air flows due to the contours of the land. The Philippines Meteorological Agency has classified the climate into four climatic patterns by the presence of a dry season, presence of a rainy season, and rainfall type (see Fig. 2-1-2). (appendix A-24)

- a) Regions which have a clearly defined dry season (November to April) and rainy season (May to October). Regions on the western side of Luzon, Mindanao, Negros and Palawan islands have this climate type (Baguio, Manila, Iloilo).
- b) Regions which do not have a clearly defined dry season, but do have a rainy season from November to January (winter). (Legaspi, Tacloban)
- c) Regions which have a short dry season from January to April, but which do not have a distinguished rainy season. (Cebu, Zamboanga, Tuguegarao)
- d) Regions which do not have clearly defined dry or rainy seasons (Davao, Calbayog)

Fig. 2-1-2: Climatic Regions in the Philippines



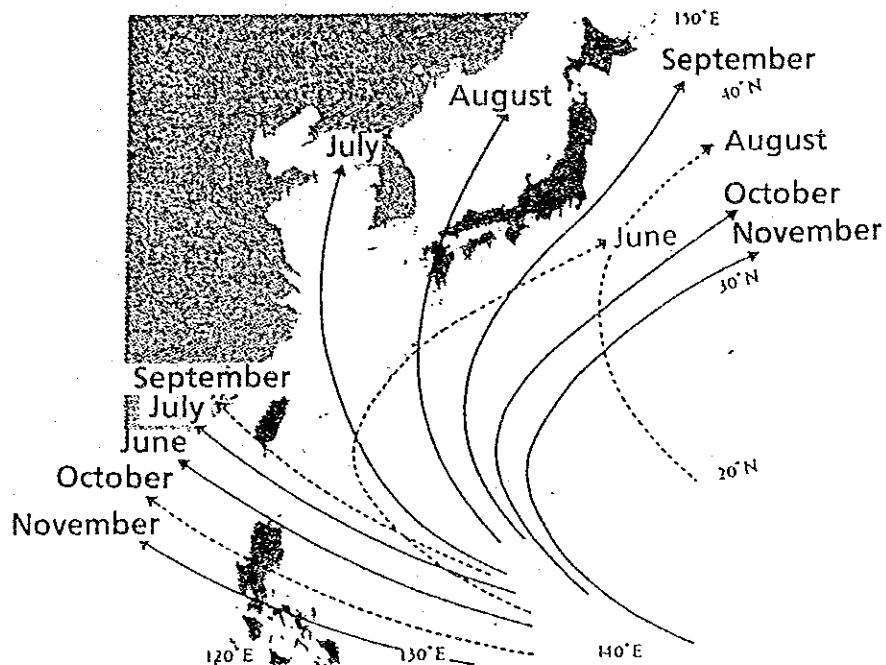
(3) Typhoons and Earthquakes (Volcanoes)

80 to 100 tropical depressions develop through out the world during as average year, and about 10% of these form in the seas surrounding the Philippines. The Philippines are struck by typhoons about 20 times a year (see Table 2-1-3), but there are typhoons which have not fully developed as the Philippines is located close to the area where the typhoons originate, so these typhoons are not necessarily always accompanied by violent winds and rains as we imagine of typhoons in Japan. Fig. 2-1-3 shows the typical paths of typhoons throughout the year. Typhoons in the Philippines are most frequent around November. Typhoons are comparatively infrequent between 8° and 11° latitude north (including Cebu, Bohol and Misamis) and account for approximately 7% of the typhoons which strike the Philippines. Between 11° and 13.5° latitude north (Luzon Island) typhoons strike frequently, and damage often occurs (see appendix A-25~27)

The powerful typhoon "Ruping", which struck the Visayas region in November 1990, was a great disaster that resulted in approximately 2000 death and missing person casualties.

Furthermore, the Philippines is located in one of the worlds prominent seismic (volcanic) regions (see appendix A-24), and the powerful earthquake which struck the northern section of Luzon Island on 16th July 1990 resulted in more than 3000 death and missing person casualties. In the wake of this, the largest volcanic eruption this century occurred at Mt Pinatubo in Zambales province in the central part of Luzon Island on 4th June 1991, and inflicted massive damage that shook the economic and social foundations of the Philippines.

Fig. 2-1-3: Typical Typhoon Paths Shown by Month



Note: The solid lines shown the major paths of the typhoons and the dotted lines shown typhoons which correspond to these.

Source: Encyclopedia, Heibonsha

Table 2-1-2: Number of Typhoons Striking the Philippines Shown by Month 1950 - 1990

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual summary
1950	0	0	0	0	1	2	3	1	3	2	2	1	15
1955	1	1	0	1	0	0	2	3	1	4	1	1	15
1960	1	0	0	1	1	2	2	6	1	3	0	2	19
1965	2	1	1	0	2	2	6	2	3	1	1	0	21
1970	0	1	0	0	0	3	2	4	4	4	2	1	21
1971	1	0	1	3	3	2	5	2	3	5	2	0	27
1972	2	0	0	0	0	2	4	2	4	2	1	1	17
1973	0	0	0	0	0	1	2	4	1	3	1	0	12
1974	1	0	0	0	0	3	4	4	2	5	2	2	23
1975	1	0	0	0	0	0	1	2	4	3	2	1	14
1976	1	1	0	1	1	3	3	3	4	0	2	3	22
1977	1	0	0	0	1	1	4	2	4	2	2	2	19
1978	0	0	0	1	0	3	1	7	6	4	2	1	25
1979	0	0	1	1	2	1	3	3	3	4	2	2	22
1980	0	1	1	1	3	2	4	3	2	2	3	1	23
1981	0	1	0	0	0	3	5	4	3	2	3	2	23
1982	0	0	2	0	1	0	5	4	4	2	0	2	20
1983	0	0	0	0	0	0	3	3	4	6	4	3	23
1984	0	0	0	0	0	1	2	8	1	4	3	1	20
1985	1	0	0	0	1	2	2	3	4	3	0	1	17
1986	0	1	0	1	1	2	3	2	1	4	3	3	21
1987	1	0	0	0	0	1	4	3	2	2	2	1	16
1988	1	0	0	0	1	3	3	0	3	6	2	1	20
1989	1	0	0	0	1	2	6	1	2	3	2	1	19
1990	0	0	0	0	3	3	2	3	4	1	3	1	20

Note: Tropical cyclones are classified according to the maximum winds blowing about their centers. They may fall under any of the following categories:

- (a) tropical - up to 63 km/hr
- (b) tropical storm - from 64 to 118 km/hr
- (c) typhoon - above 118 km/hr

Source: Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

2 - 2 Summary of Related Projects and Development Plans of the Appropriate Authorities Sector

2 - 2 - 1 National Development Plan - Medium Term Philippine Development Plan 1987-1992

(1) Economic Development Plan

The Marcos administration, which assumed power in 1965, implemented 6 economic development plan policies since 1967.

The direction and actual achievements of these economic policies can be divided into three periods as follows; before the declaration of martial law in 1972, from 1973 after martial law was imposed until the second oil shock in 1979, and from 1980 until the collapse of the administration (in 1986). Until the declaration of martial law in 1972 economic development was achieved by using constructive economic practices based upon the 1967 Investment Promotion Act and the 1970 Export Promotion Act. Under martial law after 1973 administrative organizations went under reforms using state powers, public works spending was expanded in order to support the economy, foreign currency was introduced in order to supplement development funds which were prone to fall short, overseas loans were encouraged by the leaders of government related financial organizations, and the government undertook wide ranging intervention in the economy such as price controls in order to control inflation. For these reasons the Philippine economy became a "hot house economy" due to budget deficits and overseas borrowing, and the country's trading status worsened when the second oil crisis struck in 1979, and the Philippines was faced with a deepening world recession as well as an economic crisis. Under the pressure of massive overseas debt the government altered its course to adopt belt tightening policies. The 6th Five Year Development Plan (1984-1987) was revised to convert to a strategy of uniform agricultural and industrial development, and to include policies which placed the greatest emphasis on promoting the export of processed agricultural products and labor intensive products. The transition of the National Development plan is shown as follows:

1st Four Year Development Plan	1967~70	
2nd Four Year Development Plan	1971~74	
3rd Four Year Development Plan	1972~75	
4th Four Year Development Plan	1974~78] Long term 10 year plan
5th Five Year Development Plan	1978~82	
6th Five Year Development Plan	1983~87	
Revised Four Year Development Plan	1984~87	

(2) Medium Term Philippine Development Plan 1987-1992

On 18th March 1986, President Aquino, who assumed office in February of that year, announced the "Medium-term Philippine Development Plan 1987-1992", which was the economic development plan for 1987 to 1992 during her period in office. The main points of the development strategy were dispersion of centralized control of economic development to the regions, development and promotion of regional manufacturing and industry as well as regional infrastructure, at the same time as placing the highest priority on "Regional Development". Furthermore, the "Emergency Employment Expansion Policy" was implemented in the latter half of 1986 aimed at the rural areas, and the "Combined Housing Development Plan" was implemented in 1987 aimed at the urban areas in order to adjust the conditions set forth in the "Medium-term Plan".

Table 2-2-1 Target rates for major economic indicators under the Medium-Term Development Plan

Category \ Year	Estima- tion 1986	Target rate						Estima- tion 87-92
		1987	1988	1989	1990	1991	1992	
GNP (Billions of Pesos, 1972 prices)	89.4	95.3	101.9	108.6	116.2	124.3	132.7	113.2
Growth rate (%)	1.1	6.5	6.9	6.7	7.0	6.9	6.7	6.8
GNP (Billions of Pesos, current prices)	619.6	697.3	811.8	927.3	1,075.7	1,253.2	1,438.0	1,033.9
Inflation rate (%)	2.0	5.2	8.7	7.0	8.3	8.9	7.4	7.6
GNP per head of population (Pesos, 1972 prices)	1,597	1,661	1,734	1,808	1,891	1,977	2,064	1,856
Growth rate (%)	-1.3	4.0	4.4	4.3	4.6	4.5	4.4	4.4
GNP per head of population (Pesos, 1972 prices)	11,063	12,157	13,825	15,430	17,497	19,934	22,378	16,870

Source: Philippine 5 Year Development Plan 1986-1992

As is stated in the opening comments in this development plan report, "The ultimate objective of the development efforts is to alleviate poverty, and allow each and every Filipino to lead a better life in a just and fair society". Furthermore it is stated that, "Our major duty during this period is to accomplish an economic recovery in the short term, and achieve steady economic growth over the long term. In accordance with these aims this plan is proposed in order to restructure the necessary economic structures by promoting the alleviation of poverty, expanding employment, redistribution of income and achieving stable economic growth, which are all objectives of this project. Therefore the immediate objectives of the economic restructuring will be the major political topics of (1) the alleviation of poverty, (2) creation of employment opportunities, (3) promoting equality and social justice, (4) accomplishing sustained economic growth. This project will be supervised and controlled by the National Economic and Development Authority (NEDA), under the authority of the President, and will receive the financial support of the Ministry of Budget and Management.

2 - 2 - 2 Regional Development Plans

In 1991 the Department of Interior and Local Government (DILG) formulated the "Philippine Regional Municipal Development Project" (PRMDP) within the context of the Government of the Philippines policies of decentralization and

balanced regional development, and this was implemented from January 1992. The major objective of this project is to strengthen and revamp municipal government (strengthen training and improving the skills of municipal government employees), and pilot centers have been established in specially selected areas as a training ground for this project. Furthermore, these pilot centers will have the dual effect of encouraging economic and structural self reliance among local governments through the onsite training and study by staff, as well as formulating concrete secondary development plans and work projects for the sites.

The "Philippine Regional Municipal Development Project" has been prepared to achieve the following objectives:

- i) to encourage self reliance among local governments through institutional strengthening including the training for their staff and officials.
- ii) to stimulate economic development of selected regional and subregional pilot centers through the implementation of a program of physical interventions.
- iii) to address the persistent and pernicious problems of poverty and service deprivation in the selected pilot centers.
- iv) to improve the responsiveness of local government to the development needs of the private sector.
- v) to enhance the role of the community and non-government organizations in the formulation and execution of development initiatives.

Based upon the above listed objectives and growth, development locational and performance criteria, a group of 15 local government units have been selected as pilot centers under the program. The staff of these will be the beneficiaries of a comprehensive range of decentralized Management Enhancement Programs (MEPs) which seek to strengthen the technical and managerial capability of the project centers to identify, plan, design and implement development projects. The MEPs will be implemented through three major university systems which together support campuses spread throughout the country. The MEPs comprise a series of nine programs covering aspects of; (1) development management, (2) planning, (3) legislation, (4) community development, (5) public enterprise

management, (6) financial management, (7) facility planning and management, (8) municipal engineering and (9) operation and maintenance.

Of the 15 pilot centers, seven have been selected to propose and promote a Physical Action Program of subprojects geared towards addressing the priority infrastructure and facility development needs in parallel with carrying out of the above mentioned Management Enhancement Program. The subprojects identified and prepared for inclusion in the Physical Action Program have been selected by the project centers in accordance with their Medium Term Investment Programs. The project package for each participating local government unit has been subjected to the review by the project team to ensure that it is consistent with the Development Plan for each center.

The scope and variety of subprojects is diverse, and the sectors included are; municipal enterprises (markets, slaughter houses and bus terminals), road and bridges, water supply, drainage, facility, housing (community development programs and sites and services developments), solid waste management, motorpools and maintenance equipment, and industrial estate and traffic management.

2 - 2 - 3 Development Plans of the Appropriate Authorities Sector

The following sorts of Management Enhancement Programs and Physical Action Programs have been formulated modelled on the principles of the National Development Plan and the Regional Development Plan. Furthermore, along side these projects there is an especially pressing need for the restoration of regional public market facilities (in the Visayas and North Mindanao regions) that suffered heavy damage from the powerful typhoon "Ruping" which struck recently.

(1) Objectives of the Municipal Government Development Plan

The program aims to enhance the technical and managerial capability at the local government unit level, and address major development constraints and opportunities of a number of key regional and subregional service centers. The overall objects of the project are as follows:

- 1) To support self sufficient of local governments through strengthening of the training for their staff and officials

- 2) To enhance balanced regional development by providing strengthening of the training for the staff concerned and development opportunities for selected regional and subregional service centers.
- 3) To support the Government of the Philippines decentralization policy by establishing a regionalized training system for local government and other provincial and regional level employees.
- 4) To strengthen the role of the selected centers as providers of agricultural and industrial services and to strengthen urban-rural linkages.
- 5) To encourage a closer relationship and greater degree of coordination between local government, the private sector and non-government organizations in achieving local development goals.
- 6) To address the persistent and pernicious problem of poverty and service deprivation in selected centers.
- 7) To help the project local government organizations in their efforts to provide affordable serviced land to the urban poor and, where feasible, land tenure for slum dwelling squatters.

(2) **Scope of Work and Structural Components of this Project**

The project comprises of a number of development and assistance components and developed to realize the objectives outlined in section (1) above. These are:

1. A training program for local government unit staff and officials to promote decentralization of administration

Management Enhancement Program (MEPs)

The MEPs subcomponent is designed for a three-year implementation period and will initially focus on the fifteen identified project cities which are located in ten regions of the country. The MEPs training, research and technical assistance will be administered by the Local Government Academy (LGA) of the DILG and delivered through eight campuses of three university systems (see appendix A-9~11).

2. Physical Action Program (infrastructure and facilities improvement work, etc)

Physical Action Program

The Physical Action Program involves the implementation of infrastructure subprojects and provisions of equipment in seven of the 15 selected local government units, and of facility projects in five of these LGUs. The infrastructure and equipment subprojects for each LGU comprise any or all of the following:

- Infrastructure improvements and equipment provisions (seven cities)
 - a. Municipal Enterprises
 - Bus terminals
 - * lucrative projects for local governments (new, extensions and rehabilitations)
 - Markets
 - Slaughter houses
 - b. Public Utilities
 - Water supply
 - * In the Philippines there are special public utilities which have been formed in each region and administer the water supply only.
 - c. Infrastructure (new and rehabilitation)
 - Roads and bridges
 - Drainage
 - d. Others (new and rehabilitation)
 - Solid waste management
 - Motorpool and equipment
 - Industrial estates
 - Traffic management
- Facility Projects (five out of the seven cities listed above)
 - a. Community Improvement Projects (CIP)
 - b. Provision of essential community infrastructure and facilities in existing resettlement sites.
 - c. Sites and services projects for low-income families.

3. Performance Evaluation and Management Information System (MIS)

The performance evaluation system will be established on a pilot basis in conjunction with the Management Information System (MIS) in all of

the project cities, the 10 associated regional DILG offices, and the appropriate bureau of the central DILG office.

4. Livelihood Program

The livelihood program will provide financial and technical support to the newly-established Community Bank Project of the Care and Share Apostolate under the Catholic Bishops Conference of the Philippines. Credit will be made available through three loan windows:

- a. New microventures/enterprises
- b. Existing group microventures/enterprises
- c. Established cooperatives and community groups.

Initially this project component would be implemented in eight of the selected local government units.

5. Technical Assistance

Technical assistance will be provided for all projects (and for participating local government units in special cases). Technical assistance to the LGUs at the project management level will be concentrated on the following sectors:

- a. Feasibility studies for
 - Ports
 - Bridges
 - Industrial estates
 - Water supply
- b. Other technical studies on
 - Traffic management
 - Environmental conservation (green zones, forests, monuments, etc.)
 - Planning and development
 - Water supply
 - Drainage masterplans

6. Project Implementation Assistance

Consulting services will be required to assist with the setting-up of the Project Management Unit (PMU), project design and implementation and in on-the-job training for project management staff.

7. Mapping

Photomosaic and topographic maps will be generated at scales suitable for planning and preliminary engineering works and infrastructure mapping.

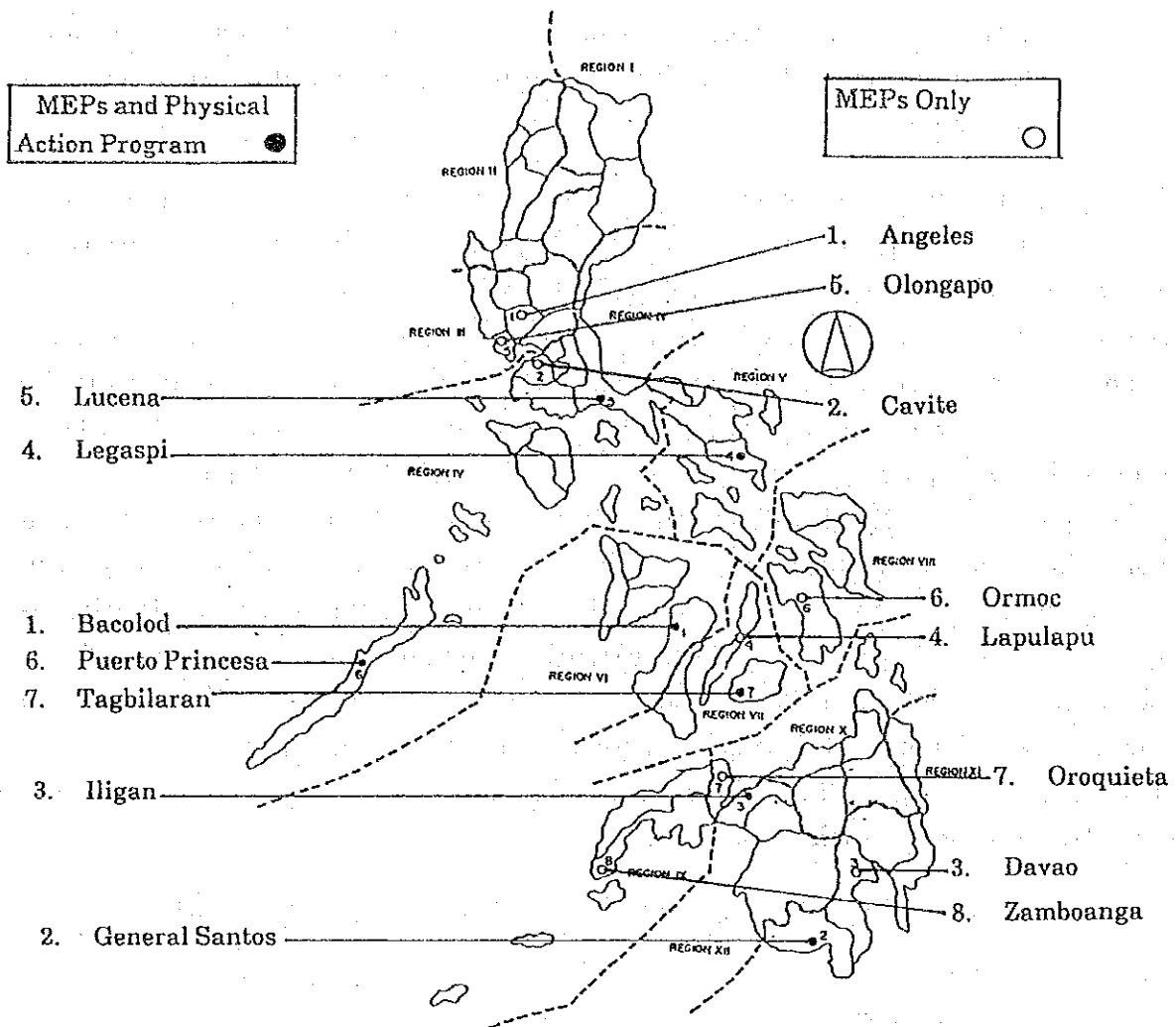
This project is focussed on the previously mentioned 15 selected regional and subregional urban centers, with the Physical Action Program initially concentrating on only seven of the 15. In the process of qualifying LGUs for inclusion in the project, the broad selection principles adopted emphasized the need for the select LGUs to demonstrate a strong potential for achieving the project objectives through successful implementation of both the institutional and physical development aspects of the project. The selection process placed a high priority on regionally significant growth centers with high revenue growth and potential, a strong private sector, a high technical and administrative capability to implement institutional reforms and physical projects, but also significant levels of service deprivation. The successful extension of the Philippine Regional Municipal Development Plan to other cities and municipalities will depend upon the ability of the pilot LGUs to demonstrate the benefits of the project.

Table 2-2-2 and Figure 2-2-1 show the 15 pilot center LGUs included in the project based on the two-step selection process.

Table 2-2-2: Management Enhancement Program Centers

MEPs and Physical Action Program ●		MEPs Only ○	
LGU	Region	LGU	Region
1. Bacolod	VI	1. Angeles	III
2. General Santos	XII	2. Cavite	IV
3. Iligan	XII	3. Davao	XI
4. Legaspi	V	4. Lapulapu	VII
5. Lucena	IV	5. Olongapo	III
6. Puerto Princesa	IV	6. Ormoc	VIII
7. Tagbilaran	VII	7. Oroquieta	X
		8. Zamboanga	IX

Fig. 2-3-1: Location of Management Enhancement Program Centers



2-3 Details and Contents of the Request

2-3-1 Background and Details of the Request

(1) Background of the Request

In addition to worsening economic and social conditions the social and economic foundations of the Philippines have been greatly affected by damage from typhoons, floods, droughts, earthquakes, etc which have struck the country one after another due to its geographical characteristics. Amongst these disasters the powerful typhoon "Ruping", which struck in November 1990, caused massive damage, particularly to the Visayas and the Northern Mindanao regions in the central section of the Philippines. All of the public market places, which are the foundation of daily life for the regional citizens, suffered great damage from this typhoon, and the

rehabilitation of these facilities is a great burden on the meager financial resources of the towns and cities in the disaster area. The public markets are an essential part of the regional citizens lives so emergency repairs have been carried out to a certain level through the efforts of various local government units and with the cooperation of the central government, but it is difficult to carry out adequate restoration. Furthermore, the public market buildings which suffered great damage are also remarkably dilapidated, in addition to also being in an extremely dangerous and unhygienic state due to disorderly expansion of the stores.

As there was an especially urgent requirement for the restoration of public markets in the typhoon affected areas, the Government of the Philippines formulated a rehabilitation plan for the typhoon damaged markets primarily on Cebu Island, Bohol Island and Mindanao Island in Misamis Occidental Province, and in May 1991 requested grant aid from the Government of Japan.

Receiving the request, the Government of Japan decided to undertake a study to determine whether or not cooperation was possible, and the Japanese International Cooperation Agency (JICA) dispatched a preliminary study mission to the Republic of the Philippines.

The results of the preliminary study showed that six municipalities and seven public market locations from the Government of the Philippines request, listed in Table 2-3-1 below, were suitable for basic design studies to be undertaken.

Table 2-3-1: Requested Public Markets for which Preliminary Studies were undertaken

Province	Cebu Province				Misamis Occidental Province	
City/ Town	1. Lapulapu City (Mactan Island)	2. Carcar Town	3. Danao City	4. Toledo City	5. Oroquieta City	6. Sapang Dalaga Town
Action Market Name	* New market construc- tion	* Carcar (Rotunda) Restoration	* New market construc- tion	* Poblacion * Don Andres Soriano Restoration	* Oroquieta Restoration	* Sapang Dalaga Restoration

2-3-2 Details of the Request

Table 2-3-2 below outlines the details of the request.

Table 2-3-2: Outline of the Details of the Request

1. LapuLapu Market (Cebu)
<ul style="list-style-type: none"> ① Construction of a new market place ② Ancillary facilities Car parking, space for hawkers, elevated water supply tank, rubbish collection areas, paving within the compound ③ Cold storage (ice house)
2. CarCar Market (Cebu)
<ul style="list-style-type: none"> ① Reconstruction of a section of the existing market place ② Ancillary facilities Car parking, space for hawkers, elevated water supply tank, rubbish collection areas, improvements to the drainage facilities within the site, paving within the compound ③ Relocation and construction of a new slaughter house ④ Ice house
3. Danao Market (Cebu)
<ul style="list-style-type: none"> ① Construction of a new market place ② Ancillary facilities Car parking, space for hawkers, elevated water supply tank, rubbish collection areas, paving within the compound ③ Ice house
4. Toledo Market (Cebu)
<ul style="list-style-type: none"> ① Relocation and construction of a new slaughter house (Poblacion Market, Don Andres Sariano (DAS) Market) ② Expansion (fish and meat markets) of the existing Poblacion Market and ancillary facilities Car parking, paving within the compound, space for hawkers ③ Cold storage (ice house) at the Poblacion Market ④ Cold storage (ice house) at the DAS Market ⑤ Expansion (Groceries, clothing and miscellaneous good) of the existing DAS Market and ancillary facilities Car parking, paving within the compound, fire station, space for hawkers
5. Oroquieta Market (Misamis Occidental)
<ul style="list-style-type: none"> ① Reconstruction of a section of the existing market place ② Ancillary facilities Paving within the compound, car parking, rubbish collection areas, space for hawkers ③ Relocation and construction of a new slaughter house
6. Spang Daraga Market (Misamis Occidental)
<ul style="list-style-type: none"> ① Reconstruction of a section of the existing market place ② Ancillary facilities Car parking, paving within the compound, elevated water supply tank, well and manual pump, rubbish collection areas, space for hawkers ③ Construction of a new slaughter house

Items to be Confirmed

However, it is a necessary condition that action be taken, confirmed and certified for procedures regarding land acquisition, site preparation, relocation of residents, relocation of stores and so forth related to the above listed requested work and be completed by the end of June 1992 (This condition has been attached as the local government bodies halted work during the general elections).

CHAPTER 3 SUMMARY OF THE PROJECTS AREAS

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CHAPTER 3 SUMMARY OF THE PROJECTS AREAS

3 - 1 Summary of the Project Sites

3 - 1 - 1 Location and Topography

Six villages in two provinces (Cebu and Misamis Occidental) are the sites for this project.

Cebu Province is located in the Visayas region which consists of the small groups of islands between Luzon and Mindanao Islands. Cebu Province consists of Cebu Island itself and the surrounding 167 islands. Cebu Island is 220km long from north to south, and 41km wide at its widest point, with a small mountain range running through the center of the island.

Furthermore, Misamis Occidental Province is located on the eastern end of the Zamboanga peninsula in the northern part of Mindanao Island, and consists of the Northern Mindanao administrative region. The province has an area of 1,939km² with plains along the coastal regions, and Mt. Malindang (2,452m) in the inland mountainous region.

3 - 1 - 2 Climate and Weather (typhoons)

In the Philippines the weather patterns have been classified into 4 climatic types. The two provinces in which the project sites lie in are "Regions which have a short dry season from January to April, but which do not have a distinguished rainy season". (see Fig. 2-1-2). Climate data for Cebu Province and climate data by region is shown in Tables, 3-1-2 and 3-1-3. (see appendix A-24)

Table 3-1-1: Climatic data for Cebu Province

Cebu Province	Average yearly rainfall	1,638.2 mm
	Minimum monthly rainfall	50.4 mm
	Maximum monthly rainfall	206.5 mm
	Average maximum and minimum temperature	26.4 – 28.7 °C
	Minimum temperature	22.6 °C
	Maximum temperature	33.1 °C

Table 3 - 1 - 2: Monthly maximum and minimum temperatures (°C) by region: 1986 to 1988

Month	Philippine Islands		Luzon Island		Visayas Islands		Mindanao Island	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
1	20.9	31.8	19.7	31.1	22.1	31.3	20.9	32.8
2	20.6	32.3	19.5	31.5	21.8	32.4	20.5	33.1
3	21.3	33.3	20.7	34.3	22.0	31.9	21.2	33.8
4	22.4	34.6	22.1	35.7	23.0	33.1	22.2	34.8
5	23.2	34.5	23.4	34.6	23.4	33.9	22.7	35.0
6	22.7	34.0	22.7	33.7	23.2	33.7	22.2	34.5
7	22.5	32.7	22.3	32.7	23.2	31.9	22.1	33.6
8	22.3	33.0	22.3	32.8	23.0	33.4	21.7	32.8
9	22.3	32.7	22.1	32.2	22.4	31.9	22.2	34.1
10	22.1	32.5	21.9	32.2	22.8	32.3	21.6	33.1
11	21.5	32.6	21.1	31.8	22.2	32.7	21.3	33.2
12	20.6	31.6	19.4	30.7	21.5	31.0	21.1	33.0

Source: Philippine Statistical Yearbook (hereforth abbreviated to PSY), 1989, Chapter 5, p. 29; PSY 1988, p. 329; PSY 1987, p. 293)

Monthly rainfall (inches) and number of days of rain per month by region: 1986 to 1988

Month	Philippine Islands		Luzon Island		Visayas Islands		Mindanao Island	
	Rainfall	Days of rain	Rainfall	Days of rain	Rainfall	Days of rain	Rainfall	Days of rain
1	143.0	13	109.5	11	202.2	16	216.8	16
2	85.7	10	68.2	9	70.6	12	123.5	11
3	69.0	8	31.4	5	70.7	10	145.0	12
4	82.5	8	70.6	7	96.3	9	100.7	9
5	122.1	10	149.9	10	65.9	8	114.0	11
6	206.2	16	248.4	16	185.6	16	183.2	17
7	273.0	17	339.6	16	224.2	17	200.4	17
8	264.2	16	326.5	17	212.7	15	175.4	16
9	224.7	17	284.5	17	171.0	16	176.4	16
10	350.2	18	447.0	19	332.3	19	221.7	17
11	326.5	17	204.8	15	368.3	18	268.9	19
12	139.1	13	162.7	12	188.7	16	122.2	13

Source: Philippine Statistical Yearbook (hereforth abbreviated to PSY), 1989, Chapter 5, p. 29; PSY 1988, p. 329; PSY 1987, p. 293)

Typhoons strike the Philippines about 20 times a year (see Table 2-1-2). The two provinces in which the sites for this project lie are located between 8 to 11 degrees latitude north, and according to statistics 7% of the typhoons which strike the entire Philippines land area will hit these regions. When looking at the typhoon paths shown in Fig. 2-1-3 it can be seen that typhoons are particularly likely to strike these two provinces around December. Typhoon "Ruping" struck the Central Visayas and Northern Mindanao regions in November 1990. Typhoon "Uring" hit the Leyte region in November 1991 and caused massive damage. (see appendix A25 to 27).

3 - 1 - 3 Social and Economic Conditions of Each Project Region and the Current Status of Each Market Place

(1) Cebu Province and Misamis Occidental Province

The population of Cebu Province is 2,646,000 people and the rate of population growth is 2.8% according to May 1990 statistics. The province is centered around the trading and industrial areas in the Visayas region. Cebu Island and Mactan Island (where Cebu International Airport is located) have developed as the regional industrial center and tourism areas. Cebu Province is part of Administrative Region VII, and has 5 cities, 8 municipalities, with 1,193 barangays under these. The municipalities which are the sites for the project are Danao City, Lapu-lapu City, Toledo City and Carcar Town.

Misamis Occidental Province is located in the northern section of Mindanao Island, and is on the eastern end of the Zamboanga peninsula. The province has a land area of 193,932ha and consists of 3 cities, 4 municipalities and 490 barangays. The population of the province is 424,000 people and the rate of population growth is 1.63% according to May 1990 statistics. The municipalities which are the sites for the project are Oroquieta City and Sapang Dalaga Town.

(2) Study of the current status of each target city and market, and details of the request:

1) Lapu-Lapu City

Lapu-Lapu City is located on Mactan Island which is about 15km away from Cebu City.

Cebu International Airport is on Mactan Island, and the island is linked to Cebu Island by the Mandaue-Mactan Bridge. Lapu-Lapu City has a land area of 58,500ha, and consists of twenty-nine barangays. The population in 1990 stood at 146,194 people which is an increase of 1.5 times over the 1980 figure of 98,723 people. The large majority of the city's residents are engaged in farming and fishing, and Mactan Island is one of the tourism areas in Cebu with beautiful beaches. At the same time, the Mactan Export Processing Zone has been established on the island, and there has been remarkable economic development in recent years through inviting companies to set up large scale plants and

factories. Other manufacturing includes cottage industries such as stone work, furniture, rattan and shellcraft.

Currently, there is a single public market established in the center of the commercial district in Lapu-Lapu City. This markets deals with fish, meat, vegetables and fruits, cereals, daily necessities, groceries and miscellaneous items. The market is not only used by customers from Lapu-Lapu City, but also by customers from Mactan Island on the opposite shore. The market is well positioned in the city, and serves as a distribution point for the products manufactured in the city and the daily necessities, miscellaneous items, clothing, etc. traded.

- Existing Market

There is only one public market in the city, and this was constructed during an era when the population was about 30,000 people. The population has currently increased to levels five times greater than this, and the market is extremely dilapidated and congested. The site is also small, so the construction of a new market is urgently required. In addition to this, the market suffered heavy typhoon damage, and the sales area that was already lacking was reduced even more, which has hindered some sales operations.

The current market is located in the heart of the city's commercial district and operates 24 hours a day. The area of the site is approximately 1ha and there are 792 stores, but the road side stalls have merged into the surrounding streets, and the whole area is extremely congested. There are two buldings with two stories and they are connected upstairs to each other by a passageway. Most of the windows and eaves were damaged by the typhoon, and have not been repaired yet. The second floor section leaks rain water and the floor is in an unsafe condition, so the stores have been temporarily removed and repair work is being performed. The building is incredibly dilapidated for a building constructed during the 1970's. Explosive population growth and a chronic shortage of market space has accompanied the development of the city.

- New Site

The new site is halfway between the city and the international airport, and faces onto a high quality road in which construction work is currently progressing using an OECF loan. This road is a

part of the "Metro-Cebu Development Project," and it is being built as a bypass extending the bridge linking Cebu and Lapu-Lapu. The work was planned for completion in 1991, but as of April 1992, there is still paving work being carried out on a section of the road.

The new site has an area of 3ha. Acquisition of the land has not been completed yet, but proceedings to file an application for registration, relocation of the residents, etc. are progressing, and a budget has been allocated for site preparation work. There are nine land owners and only one resident living within the site. The site is level, but is about 30 to 50cm lower than the surface of the road, so ground filling work will require time and money.

※ Recently, the original requests and the building site has changed by the public hearing, so that there is no prospect to prepare the project site and no agreement with the citizens.

- Problem Points and Observations

There is a great necessity to construct a new market due to the dilapidated and typhoon-damaged condition of the existing market, but the land acquisition process is still proceeding. The city authorities will be able to authorize the budget which has already been allocated to the project when a decision about the project is reached, and all proceedings will be able to be completed promptly. Furthermore, work has been halted during the midst of the general elections, and it is predicted that the new administration will be able to complete the site preparation work within the required period of time.

- ① The purchasers using this market are comparatively high income urban consumers when compared to citizens living in farming and fishing communities. The market will be mainly used by residents of Lapu-Lapu City and residents from the northern areas of Mandaue City.
- ② Lapu-Lapu City has had a massive population influx over the past 20 years as the result of corporations expanding and tourism development. The former city market place, which was completed in 1970, serves the role of kitchen of the swelling city.