

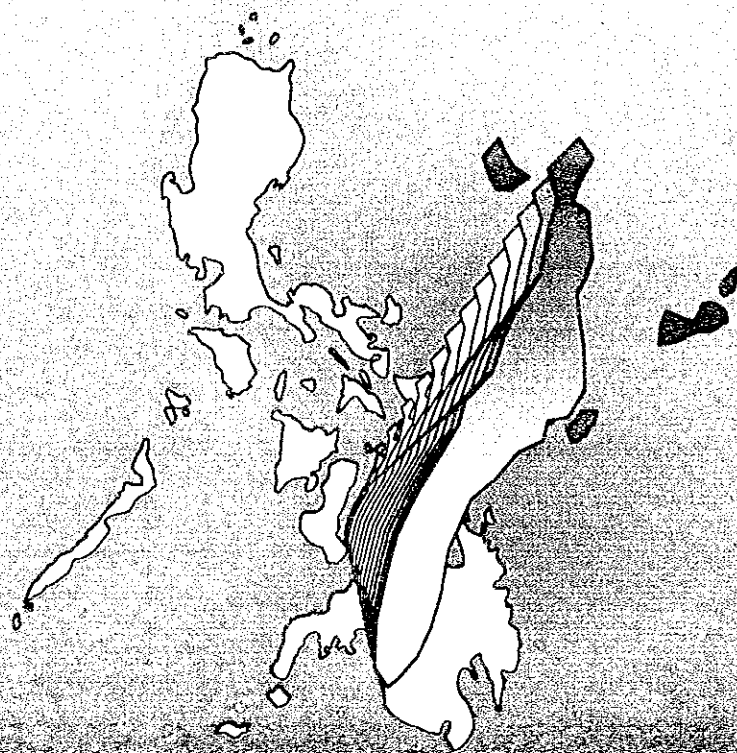
**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

**REGIONAL DEVELOPMENT COUNCIL REGION VII (RDC VII)  
REPUBLIC OF THE PHILIPPINES**

**THE STUDY ON THE  
CEBU INTEGRATED AREA  
DEVELOPMENT MASTER PLAN**

**FINAL REPORT**

**EXECUTIVE SUMMARY**



**JULY 1994**

**PACIFIC CONSULTANTS INTERNATIONAL  
INCORPORATED CO., LTD.**

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NIPPON KOEI CO., LTD.**

国際協力事業団

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## PREFACE

In response to a request from the Government of Republic of the Philippines, the Government of Japan decided to conduct a study on the Cebu Integrated Area Development Master Plan and entrusted the study to the Japan International Cooperation Agency (JICA)

JICA sent to the Philippines a study team headed by Dr. Katsuhide NAGAYAMA of Pacific Consultants International, between July 1993 and March 1994.

The team held discussions with the officials concerned of the Government of the Philippines, and conducted field surveys at the study area. After the team returned to Japan, further studies were made and the present report was prepared.

I hope that this report will contribute to the promotion of the projects and programs 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 Republic of the Philippines for their close cooperation extended to the team.

July 1994

A handwritten signature in cursive script, reading "Kensuke Yanagiya".

Kensuke Yanagiya

President

Japan International Cooperation  
Agency





July 1994

Mr. Kensuke Yanagiya  
President  
Japan International Cooperation Agency  
Tokyo, Japan

Letter of Transmittal

Dear Sir:

We are pleased to formally submit herewith the final report of "Cebu Integrated Area Development Master Plan Study".

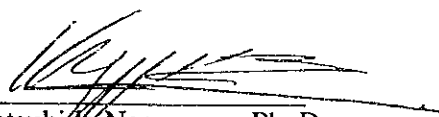
This report compiles the results of the Study which was undertaken in Cebu, Republic of the Philippines, from July 1993 to March 1994 by the Study Team, organized jointly by Pacific Consultants International and Nippon Koei, Co.Ltd.

We owed a lot to many people for the accomplishment of this report. First, we would like to express our deep appreciation and sincere gratitude to all those who extended their kind assistance and cooperation to the Study Team, in particular, the Steering Committee of the Central Visayas Regional Development Council, National Economic Development Agency Region VII, and Technical Working Groups.

We also acknowledge the officials of your agency, the JICA Advisory Committee and the Embassy of Japan in the Philippines.

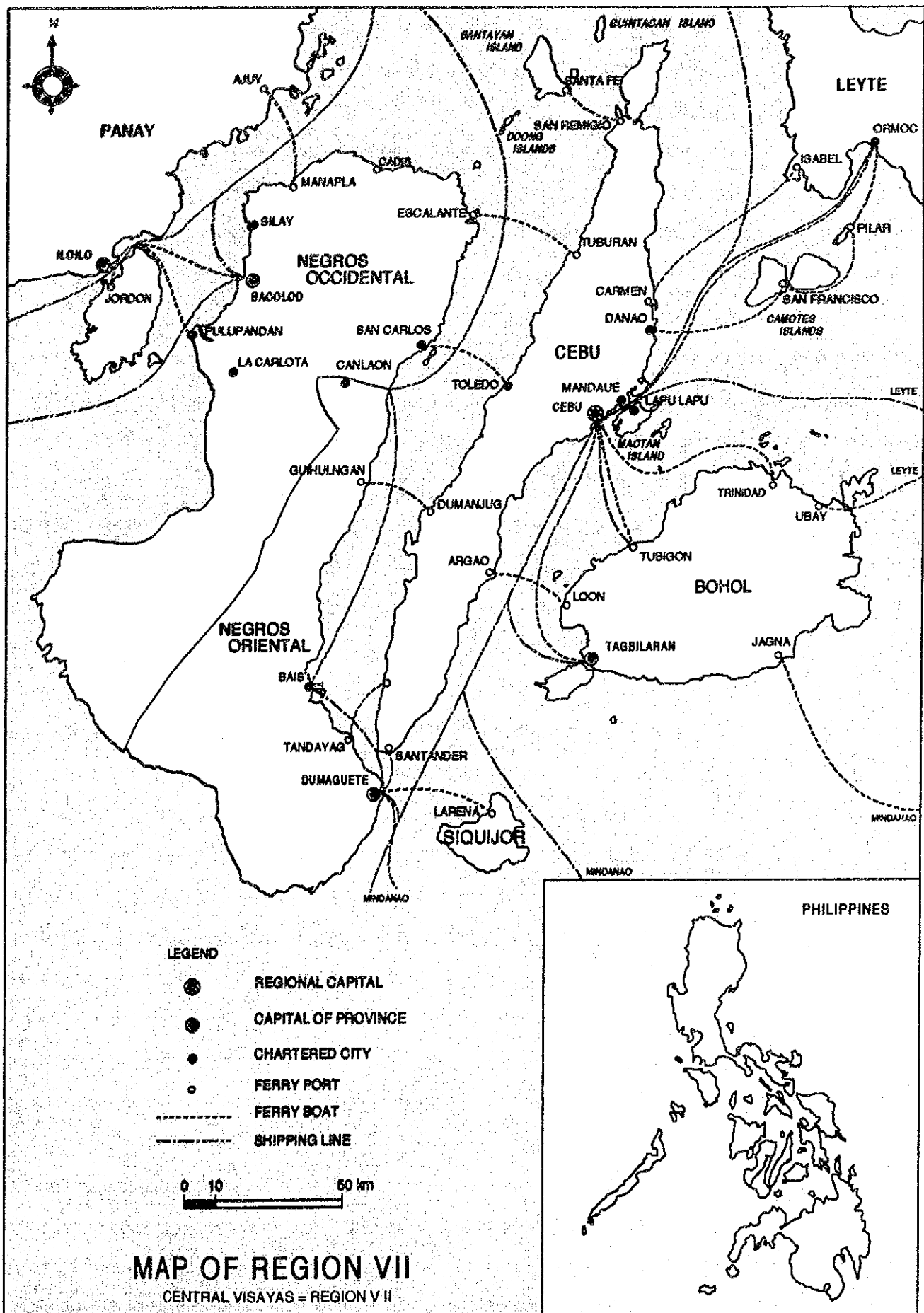
We wish the report would be able to contribute really to Cebu people and Cebu's socioeconomic development in the future.

Very truly yours,

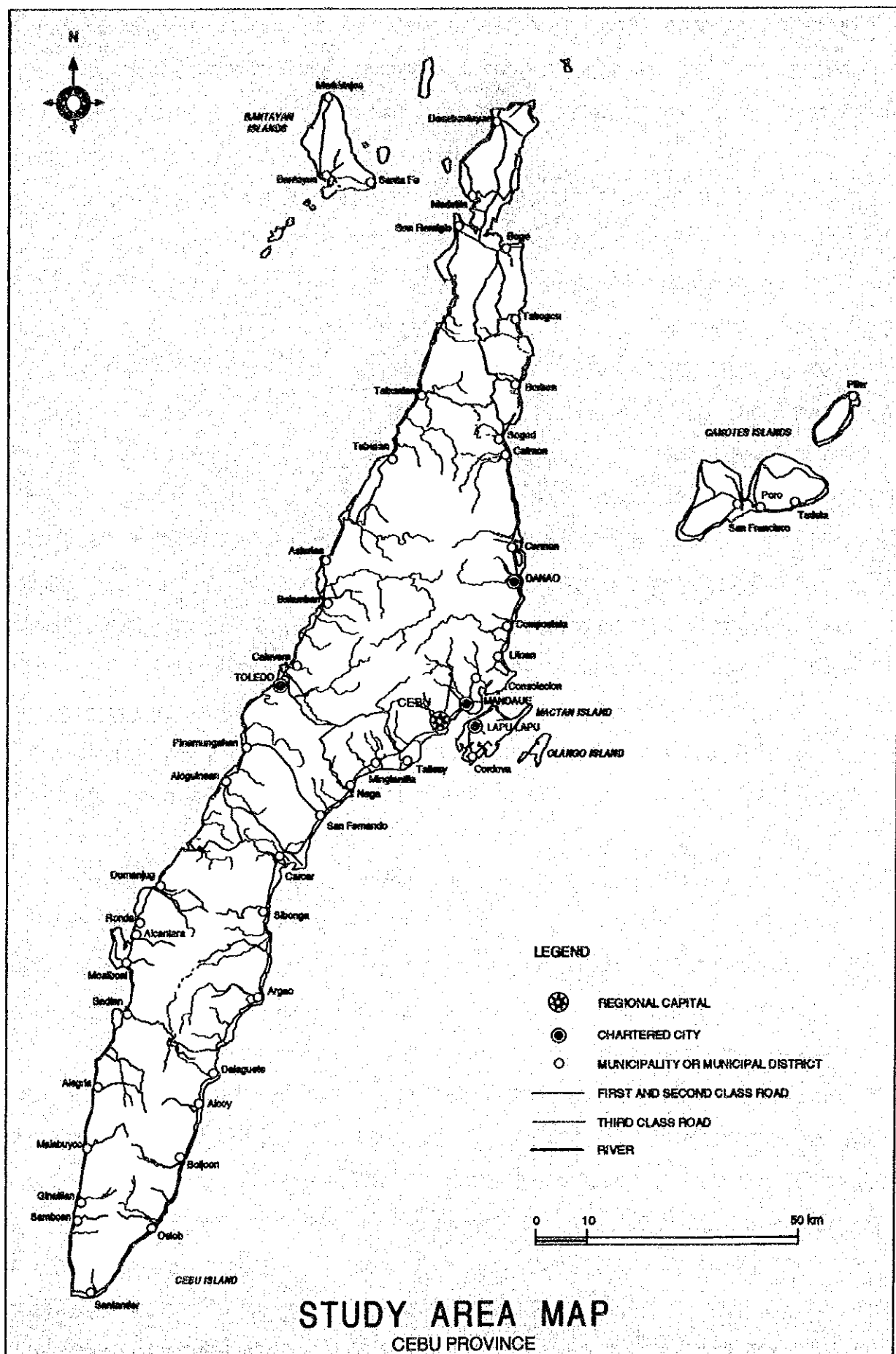
  
Katsuhide Nagayama, Ph. D.

Team Leader  
The Study Team for  
Cebu Integrated Area Development  
Master Plan Study

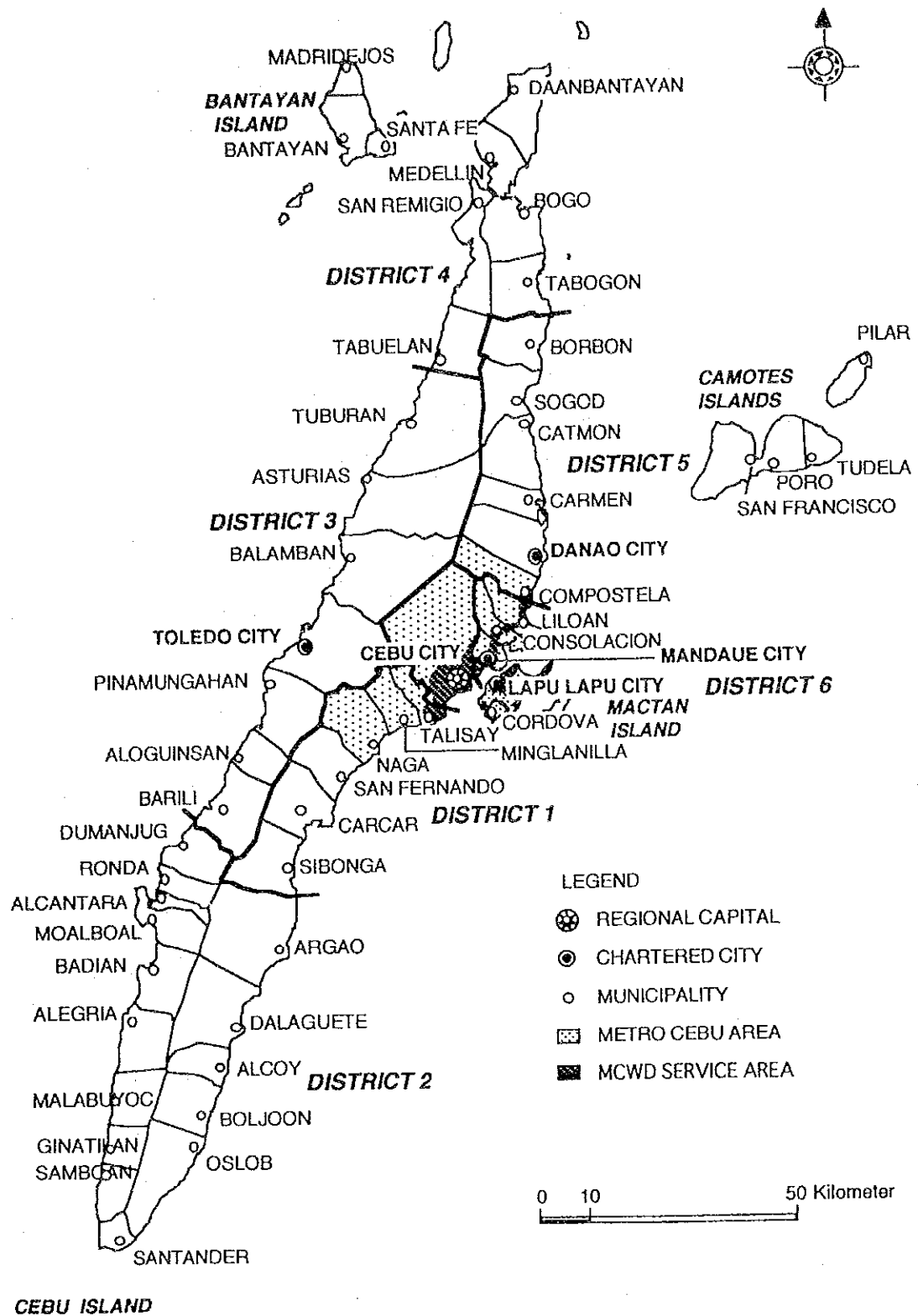










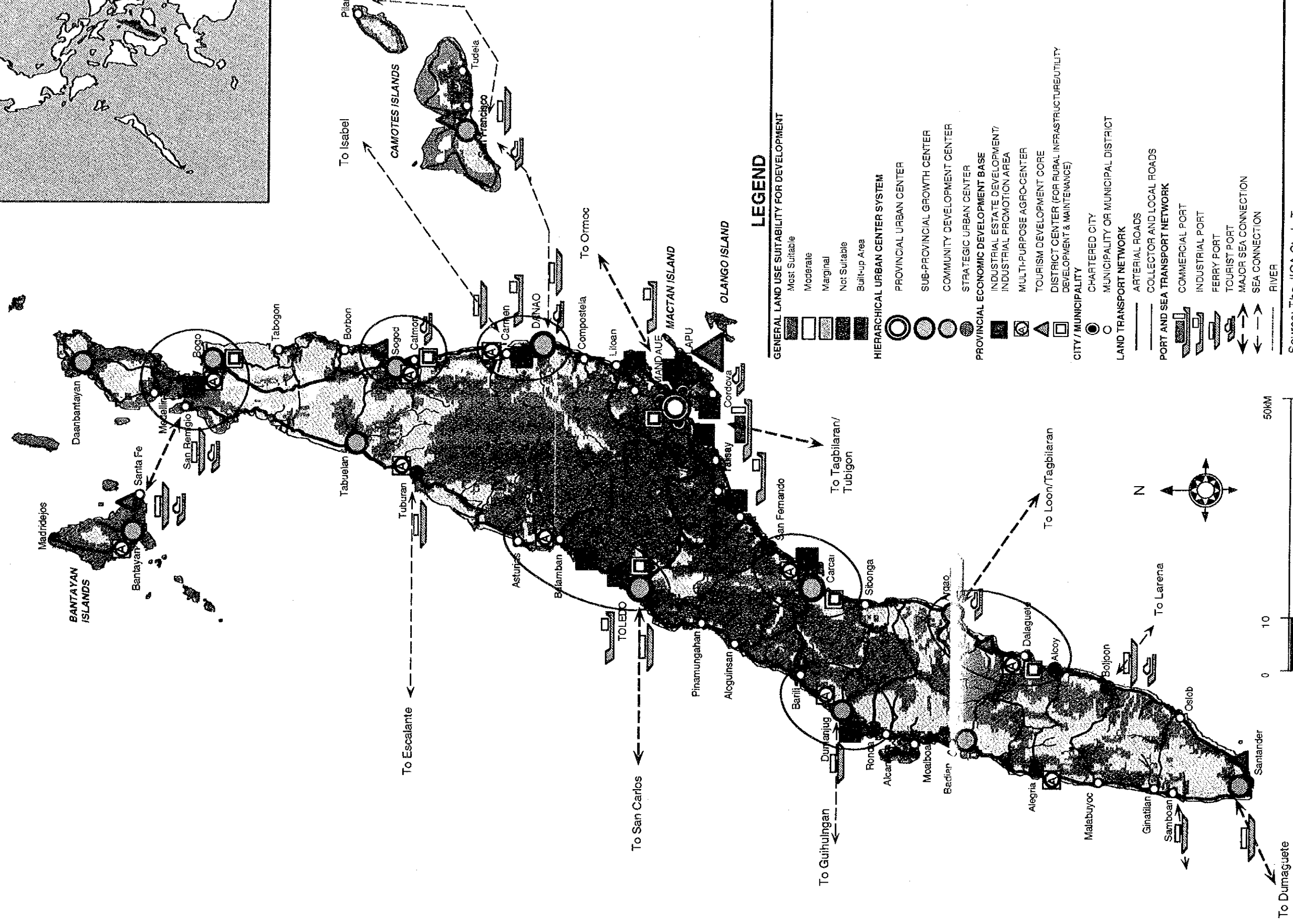
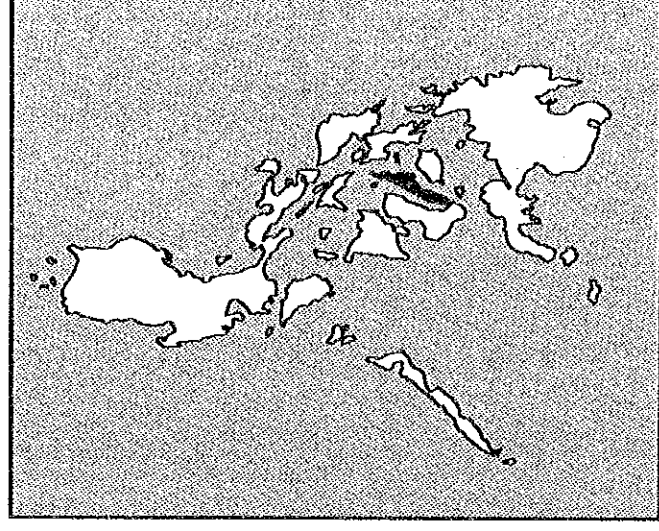


THE STUDY AREA MAP:  
ADMINISTRATIVE AND CONGRESSIONAL DISTRICT BOUNDARIES









## CEBU MASTER PLAN 2010



# AN OUTLINE OF THE STUDY

## 1. BACKGROUND

Even during late 1980s when the Philippines was facing economic stagnation, Cebu, as the second greatest economic center, enjoyed a considerably sound growth led by both foreign and domestic investment. However, although the Cebu economy is endowed with great potentials for further socioeconomic growth, a shortage in economic infrastructure still remain as a critical constraint to facilitate sustainable economic development in the long-term. The pressure of the relatively high population growth at more than 2.3% p.a. and the insufficiency in natural resource management have resulted in poverty in rural areas as well as serious urban problems in urban areas such as unemployment, squatting, traffic congestion and shortage in water supply. In order to solve these problems, a definitely deliberate and strategic approach is highly required, mobilizing all development resources on the long-term perspectives.

## 2. OBJECTIVES AND GOALS

The Study was conducted to addresses proper directions for solution of these planning issues, delineating a scenario of sustainable development towards the year 2010. The Study discusses development strategies, development framework, sectoral plans, implementation scheme and projects/programs to be undertaken in a phased manner.

The ultimate goals of the development were addressed with the following three: 1) Robust and Sustainable Economic Growth; 2) Balanced Growth; and 3) Social Development and Poverty Alleviation.

## 3. STRATEGIES FOR SOCIOECONOMIC DEVELOPMENT

For the sake of attaining these goals, three strategies to be pursued by both the central and local governments, are proposed in terms of "3Is", that is, "Industrialization", "Internationalization" and "Integration."

First, as for the strategy of "Industrialization", 4 measures are proposed: 1) intensive manufacturing development for take-off; 2) diversification of the service sector; 3) facilitation of agro-industry; and 4) strengthening of education and vocational functions.

Export-oriented industries should be further stimulated along with the aggressive promotion for foreign direct investment and at the same time, facilitation of small- and medium-scale local industries. Policy emphasis needs to be placed on the promotion of domestic market-oriented industries as well. To this end, the Study proposed a comprehensive program to support this policy, named "LEAP-CEBU (Local Economy Acceleration Program)".

In addition, a policy on industrial locations should be clearly addressed, based on the decentralization policy. This is a must to make use of the present impetus of industrialization with a long-term industrialization scenario. This includes plans of industrial estate development and/or designation of industrial promotion zones in the institutional framework. The land areas with more or less 1,600 hectares are needed to develop for industrial use.

As a national strategic project, the "Eastern Sea-board Development" in association with port and urban development is proposed, focusing the Toledo-Balamban Corridor, to accommodate basic manufacturing activities such as resource-based, energy-based and industrial materials industries.

Needless to say, empowered environmental measures are indispensable as one facet of the industrialization program. For this purpose, analytical and monitoring capability by the environmental administration should be strengthened.

Secondly, "Internationalization" is to foster international business and industries based on best use of Cebu's locational advantage. This strategy includes three areas: 1) promotion activities to attract more foreign investments; 2) encouragement of the tourism development; and 3) strengthening of the market and technological linkages with the world economy.

In this sense, the tourism sector is the most promising as a trigger to stimulate the regional economy. The "One-million Program" for foreign tourist arrivals should be pursued with joint efforts of the public and private sectors, targeting at being an internationally reputable resort competitive enough to Bali in Indonesia and Phuket in Thailand.

Encouragement of maritime/sea transport related business and diversification of export industries by making best use of the international gateway function represented by the Mactan International Airport are another vital strategy for internationalization of the Cebu economy.

Thirdly, "Integration" is a key concept to create an efficient development system to achieve the development goals. For this purpose, three types of integration are proposed: 1) to integrate development resources of the public and private sector; 2) to integrate Local Government Units' efforts and line-agencies; and 3) to integrate international and domestic funds and technologies.

These types of integration are particularly important in the agricultural sector. The agricultural sector is significant in the Cebu economy, providing 41% of the total employment (1990). However, due to limited arable land, a remarkable increase in employment and production cannot be expected. Problems lying in the agricultural sector could not inherently be solved without the integrated approach, taking into account the land holding system, social services and natural resources management. Based on this recognition, the Study proposes several projects/programs to support the agricultural activities such as: 1) facilitation of CARP; 2) diversification of agricultural products; 3) organization of farmers' cooperatives; 4) provision of a wide variety of training programs; 5) establishment of fair market systems; and 6) promotion of agri-business and agro-industries. In addition, these are related to social service programs such as 7) encouragement of the livelihood programs; and 8) provision of basic education and health services.

#### **4. SOCIOECONOMIC FRAMEWORK**

The per capita GRDP in Central Visayas Region is 14% lower than the national average in 1990. The Cebu economy shall have a significant role to uplift such a relatively low per capita level of the regional economy up to a level higher than the national average to mitigate the regional disparities. To this end, the Cebu economy should grow at a remarkably high rate. Based on an assessment of the economic growth potential, the following framework in 2010 was projected:

- Growth of Regional Product: a 7.2% p.a. growth in the long-term (3.0% in the agricultural sector; 7.0% in the manufacturing sector; and 8.4% in the service sector)

- Population of Cebu Province: 4.0 million in 2010, compared to 2.6 million in 1990
- New Employment Generation in Cebu Province: 859,000 in total by 2010 (29,000 in the agricultural sector; 168,000 in the manufacturing sector; and 662,00 in the service sector)
- Per Capita GRDP (in Central Visayas Region): P28,200 (in 1985 prices), or 1.4 compared to the national average, 1.0.

## **5. INFRASTRUCTURE DEVELOPMENT**

The following are major findings and recommendations for the infrastructure development to support the above economic growth:

### **Land Use and Natural Resource Management:**

Because of the island configuration, the areas suitable for development are so limited, that is, 14% of the total land area. Therefore, effective and intensive land use must be a vital planning principle. Out of a total of approximately 800 barangays, more than 500 barangays are located in the areas where are highly susceptible to erosion with steep slopes. From the environmental standpoint, an appropriate "community-based" resource management system is needed to establish, paying special attention to conservation of coastal and sloped areas.

### **Port and Sea Transport Development**

The port function must be the lifeline of the Cebu Economy. In order to strengthen the regional function of the Cebu economy serving the entire Visayas Regions, a functional sea transport network should be further improved and/or developed.

The international port function of the Cebu Port is, in particular, important and needs a thoughtful program for enhancement of its function on a long-term perspectives. It is identified that the Cebu Port will be able to capable to handle the cargo demands up to the year 2000 at the present site, should a comprehensive rehabilitation project be undertaken, however, it will no longer be functional in the year 2010, due to its physical and spatial constraints. Therefore, the Second Cebu International Port (SCIP) should be planned at another location. The Study identified several alternative sites for SCIP in both the main island and Mactan Island alongside the Mandaue Channel. Conduct of a full-scale master plan study for the SCIP development, including technical and engineering data collection and surveys, is highly required.

The inter-provincial ferry links should also be improved to assure transport safety and capacity. The highest priority needs to be given to the trunk ferry links with Negros, Leyte and Bohol.

### **Water Resource Development**

It is a crucial issue how to develop additional water resources and improve the existing water supply facilities in Metro Cebu in the long-term. Even at present, the water system depending on underground water has reached a critical level in terms of its supply capacity and inefficiency of the supply facilities. The on-going Mananga Project I and II, therefore, should be facilitated with the highest priority. However, should even the Mananga I and II projects be accomplished, they will be able to meet only the anticipated demand in 2000, but not the demand in 2010. To meet the long-term demand, additional large-scale water resources need to be developed. For this purpose, the Study Team proposes three alternatives: 1) development of the Lusaran Dam ; 2) development of the Inabanga Dam and

transmission pipeline from Bohol to Cebu; and 3) development of an integrated system with small- and medium-scale dams in potential river basins within the Greater Metro Cebu area. A full-scale technical survey and feasibility study is highly recommended to be conducted to select the most appropriate option.

Meanwhile, under the new local government act, main responsibility for rural water development is assumed by the Provincial Government. A sustainable implementing system, mobilizing all human and technological resources available at the local level, needs to be established in the provincial administration.

### **Land Transport Development**

The road network as a spatial framework to support the integration of local economies is proposed with: 1) three North-South development corridors in Metro Cebu; 2) East-West Links to connect the new growth pole of "Western Sea-board" and selected district centers; and 3) Cebu Island Circumferential Road to connect all the major human settlement centers in the Cebu Island.

On the other hand, barangay and municipal roads need to be developed and well-maintained, based on a local people's participation scheme in association with coherent budgetary and administrative systems of local government units. Existing roads with a total of 3,500 km should be well-maintained, at the same time, farm-to-market roads with 946 km should be newly constructed.

### **Metro Cebu Urban Development**

A shift to an intensive land use pattern is a prime issue for the Metro Cebu development. Due to its geographical and geological constraint, a population of 2.3 million, compared to 1.3 million as of 1990, thought to be maximum to accommodate within the presently defined Metro Cebu area. Therefore, employing a "Growth Control" policy, deliberate urbanization shall materialize, that is, facilitation of North-South urbanization and control/restriction of up-land development.

The main structure of the Metro Cebu development should be formulated in the long-term, with three North-South Corridors: 1) Coastal Industrial Corridor; 2) Arterial Urban Corridor; and 3) Uphill Corridor, and re-structuring of the public transportation system with introduction of a "Mass Transit System".

Development of urban utility facilities needs to be further facilitated. First, the water supply system development should be given the highest priority, as mentioned earlier; drainage systems should be structured in relation to measures for river basin management; the solid waste collection and treatment system needs to be further strengthened and enlarged; and the sewerage system needs to be facilitated especially in central commercial areas in Cebu City, Mandaue City and Lapu Lapu City.

In the meantime, the on-going Metro Cebu Development Project (MCDP), although it is facing difficulties in land acquisition, should be further facilitated under a coherent policy placing emphasis on urban infrastructure development projects.

### **Electric Power Supply**

Additional development for enlargement of the electric power supply capability in the long-term is a crucial planning issue. The on-going national project of inter-island interconnection development is expected to remove the problem of electric power shortage in Cebu Province, however, this cannot provide the substantial solution. Based on a balance analysis, additional plants with the 400 MW capacity will be needed.

To uplift the service level of rural electrification, especially in hilly barangays, a "Comprehensive Rural Electrification Program" should be explored, taking into account non-conventional energy sources such as small-scale solar system so on.

### **Telecommunication**

Since this sector has been liberalized for long-distance and international communication services, the government sector's role is to guide and support the additional investments for expansion of the services. For the local demands, the "National Telephone Program Phase I, Tranche I-2" is needed to be facilitated, pursuing an inter-sectoral cross subsidy scheme and privatization of the services.

## **6. DEVELOPMENT PHASING AND PRIORITY**

Based on the above discussions, the Study Team proposes a total of 143 projects/programs varying from social services and economic infrastructure development. All those are classified into three phases: Phase I (1993-1998); Phase II (1998-2005); and Phase III (2005-2010).

### **Phase I (1993-1998):**

The overall development directions during this phase have been addressed in the "1993-1998 Medium-Term Regional Development Plan (MTRDP)". This phase is recognized as a preparatory period when physical and institutional foundations necessary for sustainable development shall be formulated towards the forthcoming new era.

Fundamental conditions of the regional economy shall be sound and robust to accommodate the massive economic activities in the future. Emphasis of infrastructure development should be placed on formation of the basic structure for inter-regional and intra-provincial integration such as: 1) improvement of the Cebu Island Circumferential Road and strengthening of the East-West links in selected corridors; and 2) development of inter-regional sea-links with ferry ports in selected strategic areas. At the same time, in order to grasp the opportunity for take-off, industrial estates development, tourism development and water resources development should be given the highest priority. The institutional arrangement to strengthen the absorptive capacity of local government units is also facilitated in this phase.

### **Phase II (1998-2005):**

Phase II is characterized by rapid and vigorous growth or the period of "take-off", integrating intensive efforts for industrial development in the western coastal corridor, "Western Sea-Board" as well as strategic industrial development in Metro Cebu and other potential areas. Thus, priority should be given to public investment to support the expected economic growth and creation of job opportunities.

Metro Cebu urban development should also be further facilitated in a comprehensive manner to diversify the urban economy in association with human resource development to encourage the local enterprises and promote export business and local entrepreneurship.

### **Phase III (2005-2010):**

Phase III is recognized as the period with a dual objective: the growth adjustment period when the would-be-emerging socioeconomic distortion should be remedied; and preparatory period for further development beyond 2010. The achievement of "Equitable Growth" is the key objective in this phase. This will materialize by placing more emphasis on rural area development to resolve the long-standing issue of poverty alleviation.



Meanwhile, projects/programs with the highest priority, targeting at the year 2000, are proposed based on the following criteria:

- Urgently necessary to mitigate the critical constraint or resolve the crucial problem, otherwise the Cebu economy would be seriously hampered or spoiled in the near future;
- Greatly supportive to the on-going project/program which is recognized as being substantially important to formulate the basic infrastructure or the social base for sustainable development;
- Recognized as the one to be undertaken step by step with continuous efforts on the long-term perspectives to provide the public service of the "Island Minimum", but should be initiated urgently;
- Inherently provided by the public sector, but has not been done so far, or poorly performed; and
- Ready to be implemented because the preparatory work such as the feasibility study or the detailed design has been prepared or the implementation has been officially committed by responsible agencies.

## **7. ENVIRONMENTAL CONSIDERATIONS**

Conservation and protection of sensitive ecosystems are vital to materialize the sustainable development, and this is of particular importance to Cebu. Joint and well-coordinated environmental policies by both the national and local governments should be addressed for watershed management with a community-based approach in the up-lands and the coastal areas. Based on this recognition, integrated environmental projects/programs with the definite objectives of environmental conservation and pollution control are proposed.

## **8. FINANCE AND ADMINISTRATION FOR IMPLEMENTATION**

The sound administrative system of local government units (LGUs) is essential to initiate, plan, implement and maintain the proposed projects/programs in a proper manner under the New Local Government Act. In this regard, financial and institutional capability of LGUs should be further strengthened.

Under the devolution of some national government to LGUs enacted by the Local Government Code (LGC) of 1991, LGUs are obliged to generate an increasing portion of their income from local sources. Relative independence of financial position for LGUs needs to be strengthened, but the revenue performance of LGUs needs to be improved. This may be done through uplifting the collection efficiency of property taxes or other local taxes, such as those on industry, commerce, and practice of a profession. The tax administration for the property tax, in particular, should be further improved.

On the other hand, institutional issues in the government sectors are not only confined to shortage of professional manpower and financial constraints, but also to organizational and functional structures under the new LGC. The administrative system should be improved to enable LGUs to pursue adequate coordination among budgeting, planning, reviewing, monitoring and staffing. The Study Team proposes projects to support these efforts by LGUs.

## Table of Contents

1. INTRODUCTION .....	1
2. POTENTIALS AND CONSTRAINTS.....	3
2.1 Cebu Economy in the Philippines .....	3
2.2 Development Potentials .....	3
2.3 Constraints .....	4
3. GOALS AND STRATEGIES .....	6
3.1 Goals.....	6
3.2 Strategies .....	7
4. POLICIES AND MEASURES FOR ECONOMIC AND SOCIAL DEVELOPMENT ..	9
4.1 Creation of A Sustainable Development Base in Rural Area .....	9
4.2 Industrialization for Take-off.....	10
4.3 Tourism as A Trigger for Internationalized Economy.....	13
4.4 Integration of Agriculture and Rural Development .....	15
5. SOCIOECONOMIC FRAMEWORK.....	19
5.1 Projection of Socioeconomic Framework .....	19
5.2 Urbanization.....	19
6. SPATIAL FRAMEWORK AND INFRASTRUCTURE DEVELOPMENT .....	21
6.1 Land Use Suitability in Cebu Province .....	21
6.2 Human Settlement Center System.....	21
6.3 Transportation Network in Cebu Province .....	21
6.4 Rural Water Supply .....	28
6.5 Electric Power Supply .....	28
6.5 Telecommunication.....	29
7. METRO CEBU DEVELOPMENT.....	30
7.1 Urban Growth Management.....	30
7.2 Urban Structure and Road Network.....	30
7.3 Cebu International Port Development .....	32
7.4 Mass Transit System Development.....	33
7.5 Water Supply System Development.....	33

7.6	Drainage and Sewerage Systems Development .....	34
7.7	Public Housing Development .....	35
7.8	Mactan South Reclamation Project: A Concept of "Mactan Aqua Ville" Development .....	35
8.	DEVELOPMENT PHASING .....	37
8.1	Phase I (1993-1998) .....	37
8.2	Phase II (1998-2005) .....	38
8.3	Phase III (2005-2010) .....	39
9.	ENVIRONMENTAL MEASURES AND ADMINISTRATION .....	41
9.1	Approaches of Resource Management .....	41
9.2	Pollution Control/Management .....	42
10.	LOCAL GOVERNMENT FINANCE AND ADMINISTRATION .....	44
10.1	Absorptive Capacity of Development Resources .....	44
10.2	Revenue Generation .....	45
10.3	Institutional Capacity .....	47
11.	PROPOSED PROJECTS AND PROGRAMS .....	48
11.1	Prioritization .....	48
10.2	A List of Short- and Medium-Term Projects and Programs (Up to 2005) .....	49
10.3	A List of Long-Term Projects and Programs (2005-2010) .....	53

## **ABBREVIATIONS**

ACMDC:	Atlas Consolidated Mining & Development Corporation
ADB:	Asian Development Bank
BOMEDCO:	Bogo Medellin Company
BPI:	Bureau of Plant Industry
CARP:	Comprehensive Agrarian Reform Project
CCCI:	Cebu Chamber of Commerce and Industry
CCHDP:	Cebu City Hillyland Development Project
CDOP:	Community Development Outreach Project
CIP:	Cebu International Port
CUP:	Cebu Upland Project
CVRMS:	Central Visayas Resource Management Center
CVWSP:	Central Visayas Water & Sanitation Project
DA:	Department of Agriculture
DECS:	Department of Education, Culture and Sports
DENR:	Department of Environment and Natural Resources
DOF:	Department of Finance
DOH:	Department of Health
DOLE:	Department of Labor and Employment
DOST:	Department of Science and Technology
DOT:	Department of Tourism
DOTC:	Department of Transportation and Communications
DPWH:	Department of Public Works and Highways
DSWD:	Department of Social Welfare and Development
DTI:	Department of Trade and Industry
ECC:	Environmental Management Bureau
EMPAS:	Environmental Management and Protective & Services
ERDS:	Ecosystem Research and Development Sector
FG-PVP:	Federal Republic-German Photo-Voltaic Pumping Project
GRDP:	Gross Regional Domestic Products
GTZ:	Deutsche Gesellschaft für Technische Zusammenarbeit
HUDCC:	Housing and Urban Development Coordinating Council
JICA	Japan International Cooperation Agency
LGC:	Local Government Code
LGU:	Local Government Unit
LWUA:	Local Water Utilities Administration

MCDP:	Metro Cebu Development Project
MCWD:	Metro Cebu Water District
MEPZ:	Mactan Export Processing Zone
MRP:	Mandaue Reclamation Project
NAMRIA:	National Mapping & Resource Information Authority
NEDA:	National Economic and Development Authority
NGO:	Non-Government Organization
NIA:	National Irrigation Administrations
NIEs:	Newly Industrialized Economies
NMYC:	National Manpower and Youth Council
NPC:	National Power Corporation
NRNDP:	Natural Resources Management Development Project
OECF:	Overseas Economic Cooperation Fund
PAGASA:	Philippine Atmospheric Geophysical & Astron Services Administration
PDO:	Port District Office
PIDS:	Philippine Institute for Development Study
PITO-P	Private Investment Trade Opportunity Projects
PMO:	Port Management Office
POPCOM:	Population Commission
PPA:	Philippine Ports authority
PPDO:	Provincial Planning and Development Office
PTA:	Philippine Tourism Authority
PWDTF:	Provincial Water Works Development Task Force
RDC:	Regional Development Council
RLUC:	Regional Land Use Committee
TWG:	Technical Working Group
UNCHS:	United Nations Center for Human Settlement
WD:	Water District
WRC:	Water Resource Center

# 1. INTRODUCTION

## (1) Objectives of the Study

The objectives of the Study are:

- To prepare an integrated regional development master plan on long-term perspectives with the target year of 2010 for Cebu Province;
- To formulate medium-term investment programs up to the year 2000, and long-term projects/programs for 2010 on ward, and institutional measures necessary for effective implementation of the master plan; and
- To conduct technology transfer to the Philippine counterpart staff in the course of the Study.

## (2) Study Area

The study area is the entire Cebu Province. The macro-economic framework of Central Visayas Region, taking into account the influence area of the Metro Cebu economy, is included in the Study. The area of Cebu Province accounts for about 5,088 km<sup>2</sup>, and the population, as of 1990, is about 2,647 thousand.

Provincial urban centers such as Danao and Toledo City as well as Metro Cebu are given special attention, based on the assumption that they shall play significant roles in the socioeconomic development of Cebu Province.

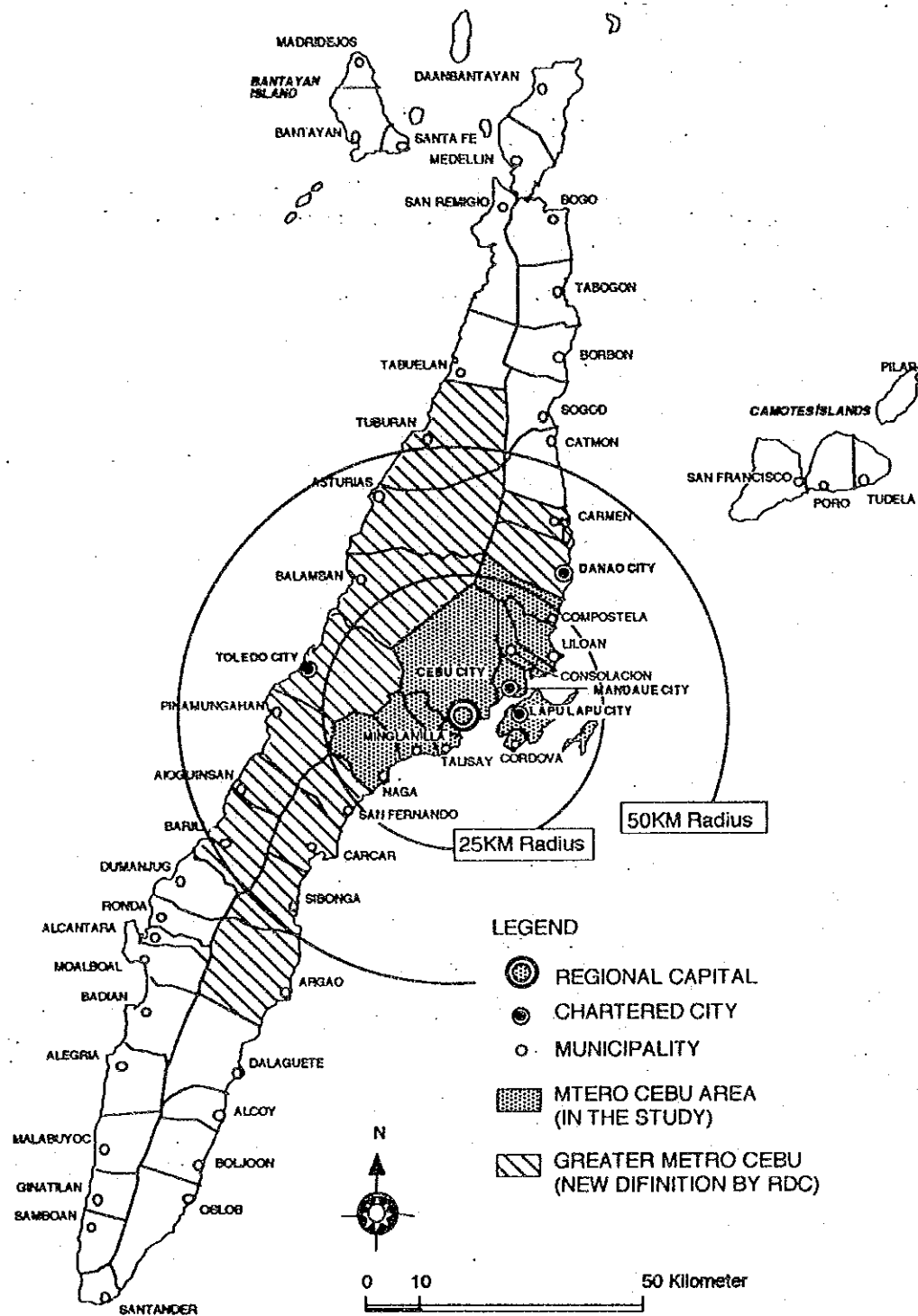
## (3) Definition of Metro Cebu

Metro Cebu is not an administrative jurisdiction but a deliberately recognized area centered on Cebu City. The Study Team defines Metro Cebu as the metropolitan area where *physical and socioeconomic development shall be pursued to solve existing and would-be-emerging urban problems centered on Cebu City, by mobilizing integrated efforts of the local government units concerned.*

Based on this definition, the coverage of Metro Cebu shall be wide enough to accommodate anticipated urbanization in the long-term. In the Study, Metro Cebu is construed as the metropolitan area encompassing three cities of Cebu, Mandaue, Lapu-Lapu and seven municipalities of Talisay, Minglanilla, Naga, Compostela, Liloan, Cordova and Consolacion, or the area with a 25 km radius centered on Cebu City. Under the above definition, the population of Metro Cebu, as of 1990, is 1,274 thousand.

However, viewing the longer-term perspective, RDC-Region VII has defined Metro Cebu as the area referred to as Central Cebu encompassing Carmen in the northern corridor, Argao in the southern corridor and Barili to Tuburan in the western coastal corridor, or the area with a more or less 50 km radius, as shown in Fig. 1.1. By this definition, the following cities and municipalities are additionally included: Danao City, Toledo City, Carmen, San Fernando, Carcar, Sibonga and Argao, Tuburan, Asturias, Balamban, Pinamungahan, Alguinsan, Barili. This area is recognized as "Greater Metro Cebu", and considered as the direct influential area of the Cebu economy in the Study.

Fig. 1.1 Defined Area of Metro Cebu



## **2. POTENTIALS AND CONSTRAINTS**

### **2.1 Cebu Economy in the Philippines**

Even during the late 1980s when the Philippine economy was facing serious economic stagnation, the Cebu economy enjoyed a considerably sound growth, through direct foreign investment and increased exports, and generally characterized in the country by the following:

- Cebu is the second largest, pivotal urban economic center in the Philippines, serving Northern Mindanao as well as Visayas with a 15 million population;
- Cebu is a predominant destination of direct foreign investment, following the National Capital Region (NCR);
- Cebu is a predominant site of export industries, trade and other supporting urban services;
- Cebu is an outstanding international tourist destination in the Philippines;
- Cebu is the second international gateway serving as a regional hub in air and sea transport network.

### **2.2 Development Potentials**

#### **(1) Improving Credibility of the Philippines**

Although the Philippine economy is behind its neighboring ASEAN countries in terms of industrialization, its climate of economic growth has improved due to the increasing political security under the Ramos Administration. The clear-cut slogan of foreign investment driven growth strategies, articulated in the "Philippines 2000", will increase the national credibility. This will favor Cebu's growth in the future.

#### **(2) Strategic Location**

Towards the 21st century, the economic predominance of the Asia-Pacific Region will be further enhanced. Cebu is located in the center of this region, encompassing most of major growing economies within the area of an economic and strategic distance of 2,000 KM radius, approximately three-hour flight distance. This locational advantage must be attractive to potential foreign investors.

#### **(3) Salient Economic Activities**

With proper directions and innovative efforts in mitigating existing constraints, Cebu could be competitive in the following economic areas:

- Direct foreign investments in manufacturing and tourism sectors;
- Export and trade business, and maritime industries;
- Agro-products, mineral resources-based, and processing industries;



- Tourism and travel-related industries; and
- Educational functions (especially tertiary education).

#### **(4) Growing Domestic Market**

Although the purchasing power is still weak on the average of the Philippines at present, people's consuming activities will be certainly increasing in magnitude and variety. Therefore, the Philippine domestic market itself will become a considerably huge market with a 75 million population in 2000. The Cebu industries should tap this domestic market as well as the international market. Emphasis should be placed on a new direction toward import-substitution.

#### **(5) Quality of Human Resources**

Being the regional education center, Cebu generated more than 10,000 graduates from higher educational institutes annually, of which more than 5,000 graduates are from a wide variety of colleges level vocational institutes. Availability of educated, serious, English-speaking and hard-working human resource must be one reason for foreign investments in Cebu. This quality human resource should be utilized for development of the modern sector of the Cebu economy.

### **2.3 Constraints**

#### **(1) High Population Growth**

An economy with too high population growth offsets its real economic growth in terms of upgrading people's standard of living, thereby deferring the take-off of the economy and adjustment of the income distribution. The present population growth rate of 2.38 % p.a. in Cebu Province is considerably high.

#### **(2) Water Supply Shortage**

Water supply is a must for all socio-economic activities. Water supply in Metro Cebu is already at a critical state, and being a constraint on further economic development by new investments in industrial, tourism and urban services sectors. Further deferment of the implementation of the planned Mananga Projects will seriously spoil the Cebu's economic potential.

#### **(3) Insufficient Infrastructure Support**

##### **Port and Sea Transport**

Cebu is widely recognized as a port city. Because of its island geography, sea transport is the life-line of the Cebu economy. Cebu Port annually handles 5 million ton of general cargo. However, the port facilities are very poor and inefficient. Drastic measures to strengthen the international and domestic shipping function of the Cebu Port should be undertaken, otherwise, the Cebu economy will lose its vested advantage in the Asian-Pacific Region. Modernization of the operation system and rehabilitation, improvement, and expansion of the existing port facilities must be undertaken to meet the internationally containerized system.

Intra- and inter-regional economic linkage is another stem function of the Cebu Economy. Cebu supports the Visayas economies and vice versa. However, inferior sea transport

facilities without safety measures continue to be operated. This hampers regional economic development as a whole.

### **Road Network**

The land transport network in Cebu Province cannot support the integration of local economies. The intermodal system with sea and land transportation has not been developed.

The circumferential road for the Cebu main island is very important for the provincial economy as the basic structure of the Island, but all the sections have not been paved yet. There are only three road links with smooth traffic connection between the eastern and western coast at present.

In the rural area, there are 2,400 km of barangay roads, but additional 1,000 km roads are needed to be developed to provide farm-to-market roads and serve local activities.

In Metro Cebu, traffic congestion is getting more serious and worsening the economy of agglomeration. Continuous efforts should be concentrated in structuring a functional transport network with introduction of a public mass transit system.

### **(4) Poor Management of Land Use and Natural Resources**

Scarcity of available land for general development is a serious constraint due to its natural configuration. The Study Team's analysis shows that the total of available land for development with less potential of erosion incidence, accounts for 1,213 km<sup>2</sup>, which is 25 % of the total area. Urbanization management especially in Metro Cebu, the watershed management, and the use of intensive agricultural farming systems are all crucial issues.

### **(5) Shortage in Human Resource**

To achieve modern industrialization, a volume of labor force capable of leading the movement is required. The Cebu economy needs more technocrats. Quality skilled workers, engineers, researchers in technology and science are needed to meet this demand. Vocational education has to match the growing demands of the industrial front.

### **(6) Limited Financial Resources of Local Government Units**

Under the new Local Government Code (LGC), the financial capabilities of local government units (LGUs) should be strengthened to initiate necessary projects/programs as well as assume the devolved responsibilities for sustaining projects/programs through improvement of the local tax administration. Cebu City has made noticeable efforts for tax collection to strengthen its absorptive capacity in recent years. However, most of LGUs need to undertake further improvement.

## **3. GOALS AND STRATEGIES**

### **3.1 Goals**

The Central Visayas Medium-Term Regional Development Plan (MTRDP) articulates the development vision that the region shall become a major site for new investments coming into the country and shall be the second gateway for international communications, travel, and trade. Cebu plays the prime role of the regional line-up activities to materialize this vision.

Based on this vision, and taking into account the potentials and constraints, the goals of development in the long-run shall be threefold as follows:

#### **(1) Robust and Sustainable Economic Growth**

The Cebu economy can serve as an engine to drive the Philippines to achieve an expected economic growth. Robust and sustainable growth of the Cebu economy will be able to be attained in the long run, provided collective and integrated development efforts to:

- 1) attract direct foreign investment and external funds;
- 2) diversify the existing industries and service; and
- 3) mitigate the bottlenecks of water shortage and insufficient infrastructure.

#### **(2) Balanced Growth**

An important objective of the development shall be directing the benefits accruing from the economic growth to rural and urban areas. This long-standing goal could be achieved with the following policy mix:

- 1) decentralization to avoid excess concentration of urban and industrial activities
- 2) agricultural diversification and rural market system development; and
- 3) Intra-regional transport network system development to integrate local economies and resources.

#### **(3) Social Development and Poverty Alleviation**

Social development concomitant with poverty alleviation is the ultimate goal in the long-term. This calls for:

- 1) creation of job-opportunities in rural and urban areas by enlarging the economic bases and strengthen agricultural, industrial and service sectors;
- 2) a structural reform in land holding and income distribution systems through the equitable and justifiable taxation;

- 3) social development using the bottom-up approach with continuous efforts by both the public and the private sectors; and
- 4) stability and continuity of policy environment.

## 3.2 STRATEGIES

The following strategies to achieve the goals are proposed:

### (1) Industrialization

Industrialization is defined as the process of making the society productive by constantly creating value-added outputs and using skill and cleverness of labor. The objectives of industrialization are simple and clear:

- 1) create more job-opportunities;
- 2) increase regional income;
- 3) strengthen export competitiveness;
- 4) to expand domestic market.

To these ends, four focal areas are proposed to be strategically emphasized:

1. place highest priority on the manufacturing sector;
2. diversify economic activities in the service sector;
3. emphasize the development of agro-industry;
4. strengthen the educational and vocational training functions; and

Diversification of economic activities in the service sector (as mentioned above) needs both horizontal and vertical expansion of urban services. The horizontal expansion appear in the process of enlarging the economic agglomeration, however, the vertical expansion is likely to be subject to some strategic policies. Hence, encouragement of private investments on provision of the first-class facilities of hotels, shopping malls and housing should be undertaken.

### (2) Internationalization

Internationalization should be pursued as another strategy to strengthen the Cebu economy to be competitively involved in the world market, and become one of the growth centers in Asian-Pacific Region. The potentials can be identified in:

- 1) Its locational advantage in the new international manufacturing structure especially in Asian-Pacific Region;
- 2) Popularity among travel-lovers and nature-lovers (especially divers) as a marine resort in the Asian Region with an advantage of the proximity to/from major source markets; and

- 3) Predominant accumulation of trade and shipping business, export-oriented industries and local entrepreneurship with international mind;

Policies should be addressed to incorporate "Cebu" into the world-wide economies, with special emphasis on the following:

- |   |
|---|
| <ol style="list-style-type: none"><li>1. encourage promotion activities to attract more foreign investments</li><li>2. encourage growth of the tourism sector</li><li>3. strengthen the market and technological linkages with the world economy.</li></ol> |
|---|

### **(3) Integration**

Integration is a key concept to be pursued in creating an efficient development system to achieve the development goals. The Philippines is too weak in integration of development resources. Many duplicated efforts are being made without coordination among relevant agencies. A coherent vision of development policy for the best use of resources is highly required. Integrated efforts should be made in the following three areas:

- |   |
|---|
| <ol style="list-style-type: none"><li>1) integrate development resources of the public and private sector</li><li>2) integrate Local Government Units' efforts and line-agencies</li><li>3) integrate international and domestic funds and technologies</li></ol> |
|---|

## 4. POLICIES AND MEASURES FOR ECONOMIC AND SOCIAL DEVELOPMENT

### 4.1 Creation of A Sustainable Development Base in Rural Area

#### (1) Management of Natural Resources and Environment

National and local environmental policies should be jointly formulated to address integrated development and management of the critical **watersheds** in Cebu. Development and management through **community-based approach** both in the uplands and the coastal zone should be pursued in that joint environmental policy. The inter-departmental coordination for **resources access** is highly required.

Emphasis would be on **reforestation, agroforestry** and **people's roles** for conservation of natural resources. Reforestation and agroforestry programs shall be undertaken both on government and private lands, especially those areas with slopes higher than 18%. Clear **policy guidelines** should be spelled out for the protection of secondary forest in the line with adequate soil and water conservation measures.

Industrialization policies should address an integrated environmental control to implement effective means and measures to prevent the pollution. It is recommended that the **total quantity control** in terms of water and air pollution is implemented, especially in Metro Cebu, taking into account the stringent necessity for controlling emissions and effluents from factories and plants within a tolerable range.

#### (2) Provision of Adequate Infrastructure

The inter-modal transport network system with sea and land transpiration should be developed. Because of the Cebu's significant position as the regional economic center, inter- and intra-regional transport connections should be enhanced. For the sustainable growth in the long-run, development of barangay roads is needed to be further facilitated as the **Island Minimum**.

Water supply facility in rural areas is another substantial issue. The major weakness stems from a lack of technical and engineering bases for identification of potential water source and maintenance of supply facilities. The sustainable development requires users' participation in the development, the users charge system for operation and maintenance and a more programmatic approach.

#### (3) Barangay Development

The "**Minimum Approach**" should be employed to distribute the development of these social services of primary education and preventive health care in as many barangays as possible. More revenue opportunities are needed to develop in barangay level. Agricultural diversification with development of functional marketing systems, encouragement of agri-business and tourism development in potential barangays should be further explored.

#### (4) Human Resource Development

Vocational functions should be further strengthened to produce human resource capable of taking part in modernized industrial and business sectors. People with intermediate technologies are needed to increase in number. At the same time, **non-formal education** should be given new emphasis in both urban and rural areas.

### 4.2 Industrialization for Take-off

#### (1) General Directions

Highest priority should be placed on development of the industrial bases in terms of both physical and institutional conditions. Otherwise, it would lose the opportunity of take-off. The following general directions are recommended:

1. Foreign investments-driven;
2. Strengthening of small- and medium-scale local enterprises;
3. Export and domestic market-oriented
4. Decentralization of industrial locations; and
5. Stress on human resource and technology development

#### (2) Proposed Policies

The comprehensive policies/measures for the deliberate industrialization should be formulated with the following:

##### 1) Establishment of the Policy Bases

- Formulate a "Central Visayas Long-term Industrial Development Plan", coordinated among relevant agencies and LGUs
- Develop **industrial estates** (one estate with the area of 100-200 ha) to accommodate international and domestic investments in the manufacturing sector. The land demand for industrial locations toward 2010 is projected to be 1,600 ha, of which:

Area to be developed for industrial estates/parks	:	1,000 ha;
Area to be developed for industrial promotion zone	:	600 ha.

- Develop **Western Sea-Board** in Toledo-Balamban-Asturias Corridor Area as a **new industrial base**. The Western Sea-Board Development is proposed as a national and regional industrial base. The manufacturing diversification is a substantial national issue. The development of material-based industries should be strengthened with special policy emphasis.
- Encourage promotion activities to attract **foreign investments** and exploit **export markets** focusing strategically on Asian Markets such as Japan, Korea, Taiwan, Hongkong, and Singapore.

- Establish the institutional system for industrial pollution protection. There should be strict countermeasures against pollution generation from individual plants/facilities.
- Develop a **Educational and Training Center** as a regional base of human resource and technology development, including of the R & D function

## 2) Potential Industries

The following industries are assessed to possibly locate in Cebu, because of its comparative advantages:

- Resource-based and related industries: 1) Agro-processing and food industries; 2) Marine resources processing; 3) Cement and its derivatives; 4) Construction materials; 5) Steel fabricate and metal; 6) Energy materials related; and 7) other intermediate goods processing.
- Location-advantageous/urban industries: 1) Maritime industries and marine goods manufacturing; 2) Paper and plastic packaging; 3) Data processing service industries; and 4) Other light industries
- Labor and technology-based industries: 1) Machinery parts/assembly; 2) Electric and electronic parts/assembly; 3) Transportation machinery and assembly; 4) Precision machinery parts/assembly; 5) Other knowledge-based industries.

## 3) Enhancement of Local Industries

Relevant line-agencies together with LGUs should support small- and medium-scale local industries and business incubators, providing the proposed measures/programs:

- **Local Economy Acceleration Program-Cebu (LEAP-Cebu)** with various components such as:
  - a. **International Technical Transfer Center**, composing of 1) Industrial Parks for small- and medium-scale local enterprises; and 2) Industrial park for international enterprises; 3) Bonded warehouse; and 4) Common facilities such as common workshop, training and research section, information center, exhibition space, administration and public relation and sanitary/utility facilities.
  - b. **Cebu Investment Promotion Center (One-Stop Center)** Development for the purpose of: 1) basic information for business opening in Cebu; 2) local partnership promotion; 3) introduction to local technologies and man-power; 4) support services for BOI and related administrative procedures; 5) arbitration, so on. The **World Trade and Training Center** with a trade business training and an exhibition functions may be attached to this center.
  - c. **Export Business Support Programs** such as 1) Production and Dissemination of Local Export Product Brochures; and 2) Market Exploitation Activities
  - d. **Technology and Financial Support Programs** for local enterprises such as: 1) modernization of plants; 2) cooperative organization, 3) consultation and diagnosis of management and production; 4) R and D activities, 5) export-market exploitation activities, 6) training of employees, so on.



- **Human Resource and Technology Network Program (HRTNP)** with a focus on enhancement of training function in industrial skill and technologies to match the current requirements, and making best use of existing training facilities and on-going programs. This includes:
  - a. Promotion of OJT Program
  - b. Formation of a "Technology Patent Market" linked with ASEAN and industrialized countries through a computerized information network system.
  - c. Micro credit program for support of business incubator
  - d. Establishment of "Human Resource Bank"
  - e. Provision of non-formal educational programs
- **Enhancement of Strategic Local Industries:** Strategic local industries which are likely to support and easily link with foreign export enterprises such as plastic and its processing, packaging and light industries, should be further facilitated with a linkage of the "LEAP-Cebu".

#### 4) **Industrial Location Policies**

The Study Team strongly recommends that the government should facilitate the development of **industrial estates** or institutionally designated areas of "**Industrial Promotion Area**" to accommodate locations and/or relocation of industries with three purposes of:

- Deliberate industrial locations;
- Environmental management; and
- Efficient infrastructure support.

A clear-cut "**decentralization policy**" for industrial location over the island should be prepared. This provides industrial development opportunities in rural areas. Fig. 4.1 shows a proposed concept of the industrial location structure in Cebu Province.

### (3) **Recommended Actions**

The following actions are recommended to be urgently undertaken for the planned industrialization embarking onto the current favorable wave

- 1) Arrange the institutional legal setting for "Long-term Industrial Location Program" including:
  - Designation of Industrial Estate Project Sites and Industrial Promotion Areas on the long-term basis, in coordination with LGU Land-use Zoning Plans
  - Establishment of "**Industrial Estate Development Guidelines**" articulating legal framework, design criteria, environmental guidelines, institutional incentives, advantages of infrastructure provision and local people's consensus making process, in coordination among DTI/BOI, MCWD, NAPOCOR, DPWH, DOTC and LGUs.

- 2) Support LGU efforts in the development of industrial areas/estates designated in their zoning plans, and encourage private sector participation in implementing under the Industrial Estate Development Guidelines.
- 3) Establishment of **an implementing body** for project/program of industrial estates development and tourism sector-related development. The Study Team recommends that the body, named Cebu Economic Development Corporation (CEDC), will be quasi-public, involving the private sector's participation <sup>1</sup>.
- 4) Promotion activities to induce foreign investors and exploit the export markets in strategic markets with joint efforts with DTI and DOT.
- 5) Preparation of the programs (possibly as foreign assistance program) of Local Economy Acceleration Program (LEAP)

### 4.3 Tourism as A Trigger for Internationalized Economy

#### (1) General Directions

"Cebu Tourism" is one of the most promising sector, which can trigger the internationalization policy. Tourism is one of export industry, and can contribute to the local economy. The recommended directions are:

- to develop Cebu into a full-fledged international tourist destination over the medium and long-term period to be competitive with such international resort destinations in the ASEAN as Phuket in Thailand and Bali in Indonesia
- to target at the reputable international resort, "**One-million Arrivals**" in 2010
- to diversify Cebu's tourism attractions to meet various segments of both international and domestic tourist market.

#### (2) Proposed Policies

The following policies should be made, integrating all development resources of the Private and public sector:

- 1) Enhance the position of Cebu as a tourist destination, especially in the area of tourism support infrastructure, vis-a-vis competing ASEAN destinations, including:
  - to increase the appeal and attractiveness of Cebu as a tourist destination, by diversifying tourist attractions and sights, vis-a-vis competing ASEAN destinations

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<sup>1</sup> The popular scheme in Japan is called the "Third Sector Scheme", i.e., the joint venture company with the public and private sector. Sizable scale of capital projects such as reclamation project, airport, new town, industrial estates, large-scale recreational facilities, etc., are mostly undertaken under this scheme.



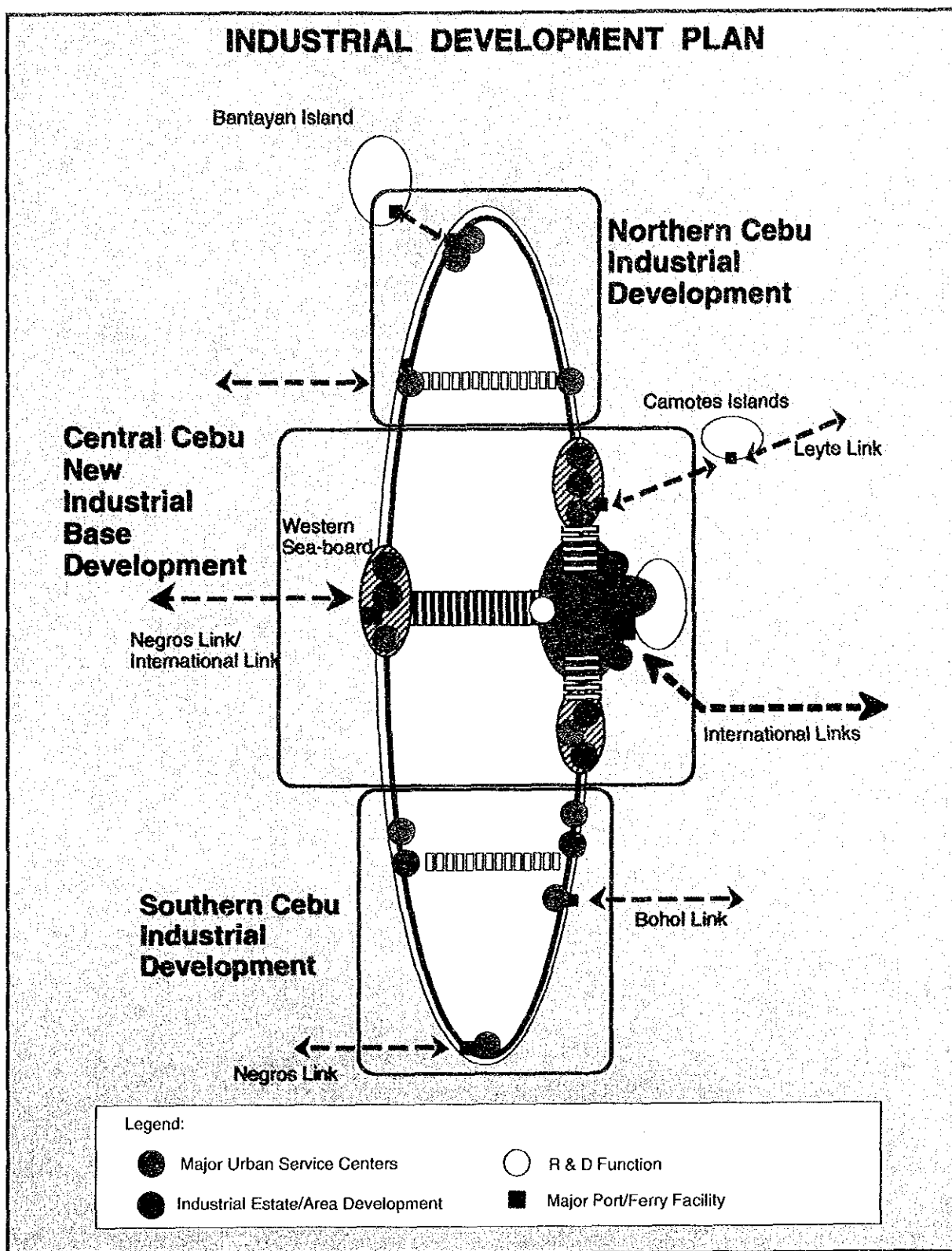


Fig. 4.1 A Proposed Concept of Industrial Development in Cebu Province



- to upgrade tourist servicing in Cebu through focused human resource development and training
  - to enhance the overseas promotional activities in strategic resource markets, especially focusing on the East Asian Market.
  - to improve supporting facilities/functions, including information services, installation of fine signs and information boards.
- 2) Strengthen the marketing towards the East Asia market such as Japan, Taiwan, Hong Kong and Korea. This market shared 70 % of the total of tourists in Cebu in 1993; and its significance will increase in the future.
  - 3) Tap the MICE (meetings, incentives, conferences and events) market.
  - 4) Enlarge the first class hotel accommodation capacity, i.e., a total of 6,600 beds, or approximately 3,900 rooms for the Cebu tourism up to 2010.
  - 5) Develop hi-land tourism in some potential areas to diversify tourism sources, and stimulate the barangays economies

#### **(4) Recommended Actions**

The plans should materialize, taking the following actions as soon as possible:

- 1) Establish an **implementing body** for project/program of tourism sector-related development as recommended in the Study. This should be the same organization proposed in the preceding section. This will act as a command center for tourism development and industrial development in Cebu.
- 2) Implement proposed projects and programs according to the time-frame.
- 3) Activate a massive continuous and repetitive community awareness campaign to enhance cleanliness like "NOT to Litter Streets" campaign, and "Wash Graffiti Away" operation.

### **4.4 Integration of Agriculture and Rural Development**

#### **(1) General Direction**

Agriculture in Cebu Province suffers from low productivity and subsistence-level production. An integrated approach, combined with rural and social development, must be adopted to solve the problems. The recommended directions are:

- Uplifting of productivity through: 1) diversification/intensification of agricultural land and activities; 2) facilitation of cooperative organization; 3) introduction of new value-added crops; and 4) encouragement of farmers training.
- Development of a functional market system
- Agri-business/industries promotion

## **(2) Proposed Policies**

The following policies are recommended to be pursued along with integrated efforts among relevant agencies.

### **1) Institutional development:**

Institutional development should focus on the formation of a strong system of farmers multipurpose cooperatives to promote and support financing, production, processing, and marketing activities. Government agencies should provide indirect support for the initial activities of the cooperative. Duplication of efforts caused by lack of coordination among agencies should be mitigated.

### **2) Support for effective implementation of CARP:**

The Comprehensive Agrarian Reform Program (CARP) is being implemented at very slow pace. The CARP has targeted the distribution of 49,656 ha in Cebu province, of which, up to date only 5,586 ha (11.2 %) have so far been distributed. The working capacity of agencies involved in the implementation of CARP should be enhanced. The implementation procedure should be simplified and economic resources for compensating landowners should be secured. Special attention should be given to organizing the cooperative of CARP beneficiaries along with the provision of required infrastructure.

### **3) Diversification and intensification of agricultural production:**

Effort must be directed towards changing the unsuitable present land use, especially in those in steep slopes which are highly susceptible to soil erosion. Diversification of agricultural production should be directed towards sound conservation with economic view points.

### **4) Development of marketing system:**

A fair market system of agro-products benefits both producers and consumers. At the local site, small farmers are always price-takers, because of insufficient volume of products salable at market, less accessibility to market information, no transport means and, hence, intervention of middleman. The following integrated measures are necessary to develop a fair market system:

- organize multipurpose cooperatives which will favor the economic benefit of small agricultural producers and fishermen, with functions of farming planning and shipping schedule, dissemination of market information, provision of technical instructions and transport services
- provision of public auction markets, required infrastructure and facilities such as refrigerators and storage.
- establish a hierarchical market system in the region with a network with the barangay level, district level and provincial/regional level.

### **5) Promote agri-business/industries**

Agriculture-related business opportunities should be promoted, making use of the Cebu's position of the regional economic centers. Many agro-products are flowing into Cebu from various regions. This predominant distribution function of Cebu implies high possibility to bear more value-added related to agricultural products through food processing, canning, packaging industries and other agri-business.

In Cebu Province, agri-business potentials are lying in **poultry, livestock** of cattle and hog, **fishery** and **cut-flower**, given a commercial scale of the activities. There is also high possibility to promote their processing and/or packaging industries. Especially, egg-based food processing may be noted.

**6) Support for rural entrepreneurship:**

The potential for agricultural development in Cebu is relatively small. Additional activities for income generation in the rural areas should be supported. Training should be provided for developing the entrepreneurial capacity of rural people, especially youth, enabling them to develop their livelihood. A micro credit scheme is necessary to be available for their business attempts.

**7) Measures to stop degradation of natural resources:**

The deterioration of natural resources is putting in risk not only agriculture and fishery production. High population growth, lack of alternative livelihood opportunities, persistence of a colonial type of land tenure, lack of coherent policy vision for supporting rural development, are the most important causes of mismanagement of natural resources. To achieve a sustainable use of natural resources these causes have to be mitigated.

**(3) Recommended Actions**

A wide variety of projects/programs should be deliberately and carefully prepared for agriculture and rural development. Coordination among relevant agencies and packaging of projects/programs are keys to make individual efforts more productive and constructive, avoiding duplication of investments. The integrated agricultural development needs to be supported by "strong political will".

Two types of actions should be undertaken in an integrated manner: institutional setting and preparation of the implementation of the proposed infrastructure projects:

**1) Institutional development and improvement of supporting services including:**

- Program for organizing land workers and fisherman's multi-purpose cooperative
- Support program for effective implementation of CARP.
- Program for implementation of an effective extension service
- Efficient Marketing system development program.
- Zonification of agriculture production based on land suitability, and soil and water conservation
- Diversification and intensification of farming system based on some combinations of food trees, fruit trees, vegetables, cut flowers, back-yard poultry and livestock production, with promotion for organic farming and IPM
- Promotion of agri-business/industries, linked with the above 6)
- Study for the market demands of citronella oil, neem, fiber crops and their processing
- Promotion and support for sea-water fishery production, sea weed production
- Training program for rural entrepreneurial development, identification of investment opportunities in association with financial support through a macro-credit scheme



- 2) Implementation of Projects/Programs for infrastructure development and maintenance, including:
- Construction of "**Multi-purpose Agro-Centers**" in 10 municipal canteros with a front-function of the operation and implementation of all the above institutional programs. These centers will have necessary facilities and equipment for the expected activities.
  - Farm-to-market road network development project
  - Facilitation of small-scale irrigation infrastructure development and rehabilitation project
  - Fish-landing pier <sup>2</sup> development project with a priority scheme <sup>3</sup>
  - Upgrading the existing "Farmers Training Center" located in Barili" to be the "Integrated Rural Livelihood Promotion Center"

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<sup>2</sup> A standard engineering design of the fish-landing pier useful for traditional out-rigger fishing boats are needed to be explored.

<sup>3</sup> The highest priority is given to Bantayan, Daan Bantayan, Bogo and Borbon; and the second priority, Moalboal, Tuburan and San Francisco. In the medium- and long-term, Alcoy, Dumanjug, Ginatilan, Ronda, Asturias, Santa Fe, Poro and Sogod need to be improved.

## 5. SOCIOECONOMIC FRAMEWORK

### 5.1 Projection of Socioeconomic Framework

Table 5.1 summarizes the results of the projection in Cebu Province, and briefly described as follows:

- Population of Cebu Province will grow at higher rates, compared to the regional average. The population will be 4.0 million, compared to 2.6 million as of 1990, with the average growth rate will be 2.1 % p.a.
- GRDP Growth in Region VII will account for approximately P192 billion in 2010 in 1985 prices, or about 4 times the 1990 GRDP. It will enjoy a 7.3 % p.a. growth on the average between 1990 and 2010. Such a long-term high growth rate may still be a considerably optimistic projection, however, will/should be attainable, given the strong policies expressed in the Study.
- Per capita GRDP will reach P28,237 in 2010, compared to P10,135 as of 1990. This average growth rate is 5.2 % p.a. which will lessen, then, overwhelm the comparative discrepancy to the national average, i.e., the relative rate will be 1.4 in 2010, compared to 0.86 of the present rate <sup>4</sup>.
- A total of 1.7 million will have gainful employment or about 2.0 times of the present number, as a result of the economic growth. A total of incremental jobs will be 860 thousand, and sectoral increases are: 1) 29 thousand in the agricultural sector; 2) 168 thousand in the manufacturing sector; and 3) 662 thousand in the service sector. Thus, the most greatest job-generating sector is the service sector.

### 5.2 Urbanization

The urbanization process will continue in Cebu Province, as shown in Table 5.2. The Population and Housing Census indicates that the urban population <sup>5</sup> ratio increased from 44.5% in 1980 to 52.5% in 1990. The average growth rate of the urban population during the past decade was 4.10% p.a., compared to that of the rural population, 0.8% p.a. This rapid urbanization momentum will be accelerated along with the economic growth in the future. As a result, the urban population ratio in 2010 will be 62.4%.

The concentrating inclination to Metro Cebu would continuously last without any effective decentralization policy. The projection shows that the population of Metro Cebu will account for 2.3 million, compared to 1.3 million as of 1990, hence, 1.0 million will be incremental. It will be undoubtedly a crucial issue how to accommodate this increased population in Metro Cebu given its hilly configuration and scarce land availability. This issue is further discussed in Chapter 7. Urban growth management is needed through the implementation of the urban policy mix with the local taxation on real property, control for subdivision development and decentralization led by infrastructure provision.

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<sup>4</sup> The GDP growth rate in the nation was assumed at 5.0 % p.a. The population growth rates are assumed at 2.17% between 1990 and 2000, and 1.85% between 2000 and 2010.

<sup>5</sup> "Urban Population" is defined as number of people who live in the areas with high densities of more than 10 persons per hectare.

**Table 5.1 Socioeconomic Framework for Cebu Province in 2000 and 2010**

	1990	2010	2010/1990	Growth Rate (% p.a.)
1) Population of Cebu Province	2.6 mill.	4.0 mill.	1.5	2.18
2) Population of Metro Cebu	1.3 mill.	2.3 mill.	1.8	2.89
3) No. Gainful Employment	0.9 mill.	1.7 mill.	1.9	2.23
4) GRDP in Central Visayas (in 1985 prices)	P47 bill.	P190 bill.	4.0	7.23
5) Per Capita GRDP	P10,135	P28,200	2.8	5.25
• Compared to NCR	0.36	0.61	-	-
• Compared to National Average	0.86	1.40	-	-

Source: The JICA Study Team

**Table 5.2 Urbanization Projection**

	1980	1990	2000	2010	Growth Rates		
					1980-1990	1990-2000	2000-2010
Total Population (Thousand)	2,092	2,647	3,291	4,023	2.38%	2.20%	2.03%
Urban	930	1,390	1,868	2,510	4.10%	3.00%	3.00%
Rural	1,161	1,257	1,423	1,513	0.80%	1.25%	0.62%
Urban Population Ratio (%)	44.5	52.5	56.8	62.4	-	-	-
Metro Cebu*	945	1,274	1,712	2,301	3.03%	3.00%	3.00%

Source: NSO and the Study Team

Note: \* The population of Metro Cebu includes both urban and rural population.

## 6. SPATIAL FRAMEWORK AND INFRASTRUCTURE DEVELOPMENT

### 6.1 Land Use Suitability in Cebu Province

Scarcity of land areas suitable for agricultural, urban and industrial uses is one of serious constraints for the development of Cebu. Therefore, land should be wisely utilized.

Areas with 265,617 ha, or 56 % of the total area of Cebu Province, are not suitable for any type of development or economic activities, but should be reserved for the environmental purpose. Only 64,580 ha, or 14 %, is suitable for development. Especially, those areas are mostly distributed in the southern part of Cebu Island.

### 6.2 Human Settlement Center System

Deliberate growth management measures need to be pursued under a decentralization policy. To this end, structuring of a hierarchical human settlement center system at the provincial level should be formulated in linkage with the hinterland development: higher ordered centers should be developed with higher levels of urban functions. The proposed human settlement center system is as shown in Table 6.1, and its spatial structure, as illustrated on Fig. 6.1.

### 6.3 Transportation Network in Cebu Province

The overall transport network structure is proposed as shown in Fig. 6.2. A well-functioning spatial structure should be formulated by considering the following policies.

#### (1) Port and Sea Transport

Key issues of the port development are identified as follows:

- 1) Improvement and expansion of **Cebu Port** to meet the future demand as a hub of international and inter-regional traffic flows;
- 2) Improvement and/or development of local ports for inter-regional and intra-regional transportation with **Ro-Ro services** and **road transport connections** .
- 3) Development of new **industrial ports** to support the planned industrialization
- 4) Development of **tourist ports** linked with tourism development

- The Cebu economy is characterized by its gateway function of international sea transport. Strengthening of the function of **Cebu Port**, therefore, is a crucial issue for the development of the Cebu economy. This issue is further discussed in Section 7.3, Chapter 7.

- There are 12 routes services in operation between Cebu Province and neighboring islands at present. These links should be **all** enhanced for inter- and intra-regional sea transport network, equipped with **Ro-Ro service**, and smooth connections with inland road transportation, and bus terminals. To aggregate efforts and funds, a more efficient and intensive investment program is needed to be pursued based on an "ordering system" as proposed in Table 6.2.
- In the short-term, no new locations of ferry ports are proposed, because the existing ports are all located in rational places with the shortest distance to/from the counterpart ports. It is recommended that emphasis is place on the improvement of these facilities to be fully functional, rather than new port development.
- In the medium- or long-term, some new links should be considered. These are:
  - Siquijor Link: Boljoon - Larena
  - Bohol Link: Cordova - Jetafe

By this new Bohol link development, the existing routes may be re-arranged.

- Taking into account the formulation of the **national trunk network** of the Panay-Negros-Cebu-Leyte corridor, the inter-modal link connecting with San Carlos-Toledo-Cebu-Olmoc should be given high priority.
- **Industrial ports** are developed in relation to industrial development in their hinterland. The most significant industrial port is proposed to support the proposed Western Sea-board development in **Toledo-Balamban Area**. It is also recommended that the existing industrial ports of **Mandaue** and **Carmen** are rehabilitated to be fully functional.
- **Tourist ports** are to be developed in association with ferry ports, or newly developed as exclusive tourist piers. The proposed marine excursion routes are: 1) Cebu, Mactan - Argao - Panglao (Bohol); Mactan-Panglao; 2) Hagnaya - Santa Fe; 3) Cebu, Mactan - Danao - San Francisco; 4) Boljoon - Larena (Siquijor), and 5) Mactan - Sogod. The berthing and landing facilities for high speed boats serving these excursion routes are required to be developed.

Table 6.1 A Hierarchical Human Settlement Center System

ORDERED LEVELS	FUNCTIONS	URBAN CENTERS
I. Regional Center	Highly functioning urban center to support regional economy	Metro Cebu
II. Provincial Urban Center	Highly functioning urban center to support provincial economy	Metro Cebu
III. Sub-provincial Growth Center (Tertiary Center)	Urban growth center to support sub-provincial economies and functioning as focal areas for decentralization	Toledo* - Balamban* Area Danao - Carmen Area Carcar
IV. Community Development Center	Urban growth center to support agricultural activities and rural development in district level	Bantayan, Daan Bantayan, Bogo*, Tabuelan, Sogod*, Dumanjug, Badian*, Argao*, Santander
V. Strategic Urban Center	Special functions for agricultural, tourism, mining, and industrial development	Tuburan, Barili, Ronda, Alegria, Alcoy, San Fernando, Dalaguete

Source: The Study Team

Notes: Centers with \* have been situated as "Tertiary Center: People's Industrial Enterprises" in Central Visayas Medium-Term Regional Development Plan, 1993-98.

Table 6.2 Sea Transport Links Development in Cebu Province

Connection	Primary (High Priority)	Secondary (Second Priority)
1) International Link	Cebu City	Toledo City
2) Inter-regional Link	Cebu City	Toledo City
3) Bohol Link	Cebu City / Argao	Cordova
4) Negros Link	Toledo City / Santander	Samboan / Dumanjug / Tabuelan
5) Leyte Link	Cebu City	Carmen / Danao City
6) Siquijor Link	Cebu City	Boljoon
7) Bantayan Link	Santa Fe-Hagnaya	-
8) Camotes Link	-	Danao-San Francisco

Source: The Study Team

Fig. 6.1 Spatial Structure of Human Settlement Center

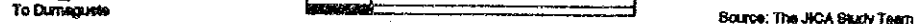
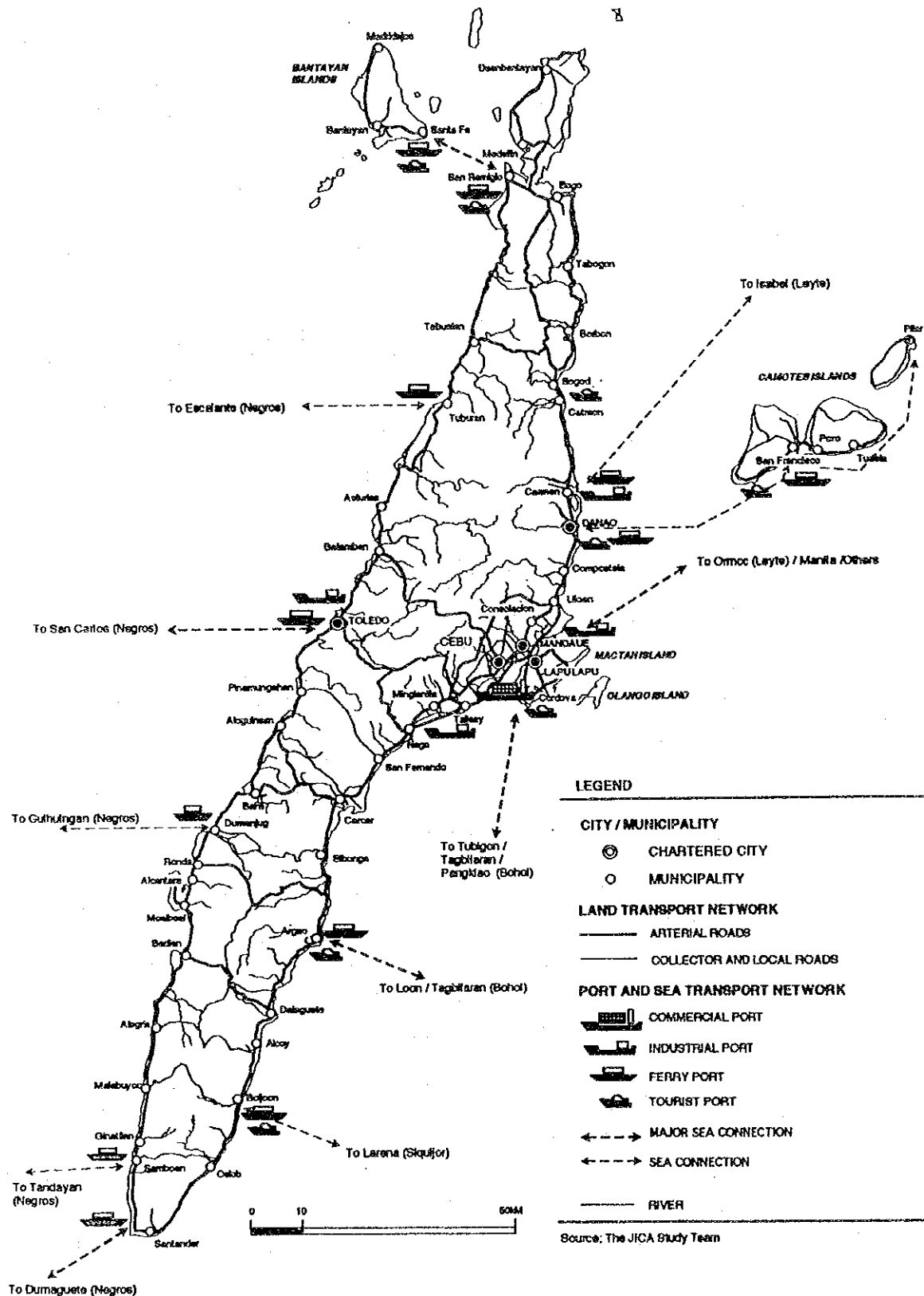


Fig. 6.2 A Proposed Transport Network Structure 2010





## (2) Road Transport

Key issues of the road development are identified as follows:

- 1) Improvement of the **Cebu Island Circumferential Road** as the basic structure to integrate local economies;
- 2) Improvement and/or development of a number of **East-West Links** with different functional levels;
- 3) Improvement, construction and maintenance of **Municipal and Barangay Roads** with people's participation; and
- 4) Establishment of a **District-based Implementation System** to support the above local road works

- The Cebu Island Circumferential Road with a total length of 512 km should be improved and maintained, including:

- 1) Widening of the section between Carcar and Carmen to more than 4 lanes;
- 2) Rehabilitation and pavement between Badian and Samboan;
- 3) New link improvement between Aloguinsan and Barili;
- 4) Rehabilitation/improvement of the rest of sections;

It is recommended that the provincial road section between Barili and Samboan will be converted to be the national road in order to harmonize the whole network.

- East-West links of Cebu Island should be improved/developed to integrate local economies as well as structure the industrial development spatial framework. Some ordered function levels are proposed, as shown in Table 6.3.
- The development of municipal and barangay roads should be continuously performed at district level in order to provide farm-to-market access and support rural development. This should be based on the long-term program including:
  - 1) Rehabilitation/betterment of existing barangay roads (a total of 2,877 km) and municipal roads (650 km)
  - 2) Construction of new farm-to-market roads with a total length of 945 km.
- Infrastructure activities related to roads should concentrate the efforts on maintenance work. New construction and/or maintenance of barangay roads should be undertaken, encouraging local people's participation in a self-help manner.<sup>6</sup> In order to support such efforts, "**Multipurpose District Centers**" are proposed to be established at the district level. This center shall function as a construction and maintenance depot with heavy equipment and as a construction engineering training center for local people.

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<sup>6</sup> This is well-known as "Pakyaw System" which is traditional in the Philippines, mandated by Executive Order No. 182, and Department Order No. 57, Series of 1987, Department of Labor and Employment. Thus, The institutional framework has been established. The issue is how to implement the system in effective manner to actually benefit the local people.

- There is a concept of the "Cebu Island Backbone Highway" running north and south through the Island <sup>7</sup>. Further studies are necessary to justify this project idea, paying special attention to the environmental impacts as well as technical and engineering problems.

Table 6.3 Cebu Island East-West Links Development

Functional Level	East-West Link	Traffic
1) Major Arterial Link	Toledo - Naga/Talisay	Industrial Cargo
2) Arterial Link	Balamban - Cebu (Trans-Central Highway)	Passenger General Commodities
3) Sub-links	Lugo - Tabuelan Carcar - Barili Argao - Ronda Dalaguete - Badian	Passengers, Agro-products General Commodities
4) Cebu South Vegetable Basket Roads	Sibonga - Dumanjug Arcoy - Alegria Boljoon - Malabuyoc Oslob - Samboan	Passengers, Agro-products

### (3) Air Transport

The **Mactan International Airport (MIA)** is now being improved to be the international standard, and fully equipped airport with a runway of 3,300m by 45m, under the Phase-I program. The following are recommended to be pursue in addition:

- Improvement of "Sense of Arrival", in physical and operational services;
- Expansion of air links in both international and domestic flight under the "Open Air" Policy; and

The **Toledo Airport** will be the core facility, or the gateway of the proposed Western Sea-Board development. In the long-run, Toledo Airport is recommended to be further developed as the substitutive airport of MIA in case of emergency.

There exist some local feeder airports (airdromes):

- **Santa Fe** and **San Francisco** should be properly maintained, and provided with land transportation services. Although the current traffic demands are obviously small, these

<sup>7</sup> This project idea was raised by the Steering Committee for the Study.

two airports are specially important in terms of not tourists and business purposes, but also security of emergency transportation in the remote islands.

- The necessity of **Argao** and **Bogo** airports should be privately maintained in the short- and medium-term. The public investment for the improvement and maintenance might be justifiable in the long-term.

Rationales of the new construction of local public airports in the other areas in Cebu Province cannot be identified at present, from the standpoint of the economic feasibility and sustainability of the public investment.

## 6.4 Rural Water Supply

Obvious problems on the present condition of inadequate and insufficient facilities, resulting in a comparatively low service level, are caused by: 1) the lack of a coherent maintenance supports; 2) the lack of technical and engineering data bases for identification of appropriate ground water source sites; 3) less attention to end-users' participation in the development and maintenance work; and 4) insufficient levels of equipment, manpower, support services and funding. Without an integrated approach to these problems, the substantial solution will not be able to materialize.

Under the new Local Government Code (LGC), the provincial government should play central and significant roles to respond to the local requirements. The technical and implementing capabilities of the provincial government should urgently be strengthened through the following:

- Formulate a coherent scheme of the long-term priority and target of the water works;
- Conduct the comprehensive study of ground water potentials in the entire Cebu Province to obtain the technical and engineering data base;
- Establish "**Provincial Technical Center for Rural Water Development**", as an implementing front with multi-purpose functions such as research, training, organization of users groups and equipment workshop. All the existing human and institutional resources should be mobilized and reorganized into this center; and
- Pursue a cost-recovery scheme, disseminating the users charge concept and the cross-subsidy concept; and seek some international fund assistance for the initiating activities of the programs proposed above.

## 6.5 Electric Power Supply

### (1) Future Power Balance

The electric power demand is increasing at a higher rate than the economic growth rate. The installed capacity by NPC in Cebu Grid is 334 MW in 1990, which is obviously insufficient to meet the future demand. The national project of inter-island interconnection development is going on, and the 300 MW cable is scheduled to be connected with the Leyte geothermal plant in 1996, and the 100 MW cable, from Negros in 1996. However, the following issues still remain for the solution:

- A more realistic and thoughtful national plan based on regional demands should be reviewed. In this connection, the demand forecast in Cebu Province should be reviewed.
- The "Control Center" to manage the mutual accommodation scheme in a proper manner is required to be developed.

The Study Team, based on the projected socioeconomic framework, identified that the power supply in Cebu Province will be short by **400 MW**<sup>8</sup> in 2005. Therefore, the following are recommended:

- New construction of power generation plants with 2 units of 200 MW combined cycle system by 2005.
- A privatization scheme to make the existing plants more efficient and develop new power generation plants to meet the local demands.

## **(2) Non-conventional Energy Development**

The ratio of rural electrification in terms of number of families is 43 %, considerably lower than the national average, 56 %. The supply grids are lying only the coastal strips and hardly reach the mountainous areas. To upgrade the service level especially for hilly barangays, non-conventional energy sources should be examined for the application, taking into considerations for 1) small-scale solar system; 2) universal type boiler power generation; or 3) other sources such as biomass.

## **6.5 Telecommunication**

Since this sector has been liberalized for long-distance and international communication services, the government sector's role is to guide and support the additional investments for expansion of the services.

For the local demands, the "National Telephone Program Phase I, Tranche I-2" is needed to be facilitated, pursuing an inter-sectoral cross subsidy scheme and privatization of the services.

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<sup>8</sup> By the interconnection system, Cebu Province will be supplied 200 MW only, because of 300 MW in-flow from Leyte and 100 MW out-flow to Negros. By the existing rehabilitation/retirement programs, 200 MW be possibly supplied. Therefore, a total of 400 MW will be available for supply. On the other hand, the demand is projected to be 800 MW in 2005.

## 7 METRO CEBU DEVELOPMENT

### 7.1 Urban Growth Management

#### (1) Urban Area Expansion and Population Density

The population of Metro Cebu in 2010 is projected at 2.3 million, compared to 1.3 million as of 1990. However, the spatial capacity in Metro Cebu to accommodate this incremental 1.0 million population is limited, because of its hilly geographical condition, that is, only 212 km<sup>2</sup>, or 30%, out of the total area of 708 km<sup>2</sup> is assessed to be areas with less erosion potential. Under these conditions, future urbanization in Metro Cebu should be deliberately managed with the following considerations:

- The land-use pattern should be deliberately shifted from the extensive use at present to an intensive one. Orderly high-dense urbanization in Metro Cebu should be pursued.
- From the spatial point of view, the 2.3 million population is thought to be maximum in Metro Cebu. Otherwise, the hilly areas with great erosion potentials would be urbanized, thereby leading to serious environmental problems by such excessive urbanization.
- Large scale up-hill land development should be controlled especially in important watershed areas such as Mananga, Mandaue, and Kotkot river basins. *The urbanization should be directed towards the north and south corridors and Mactan Island, rather than expanding to hilly and mountainous areas.*

#### (2) Orderly Urban Growth Center System

Development of urban growth centers are needed to lead to orderly urbanization under the decentralization policy in other than Cebu and Mandaue Cities. For this purpose, a hierarchical urbanization system for growth management is proposed as follows:

• Growth Control Centers:	Cebu City and Mandaue City
• First Order Growth Center:	Lapu Lapu City
• Second Order Growth Centers:	Compostela, Liloan, Naga, Cordova
• Tertiary Order Growth Centers:	Talisay, Consolacion, Mingranilla

### 7.2 Urban Structure and Road Network

Three North-South Corridors are recommend to be developed on long-term perspectives as shown in Table 7.1 In association with these major trunk corridors, urban collector roads are to be networked as shown in Fig. 7.1.

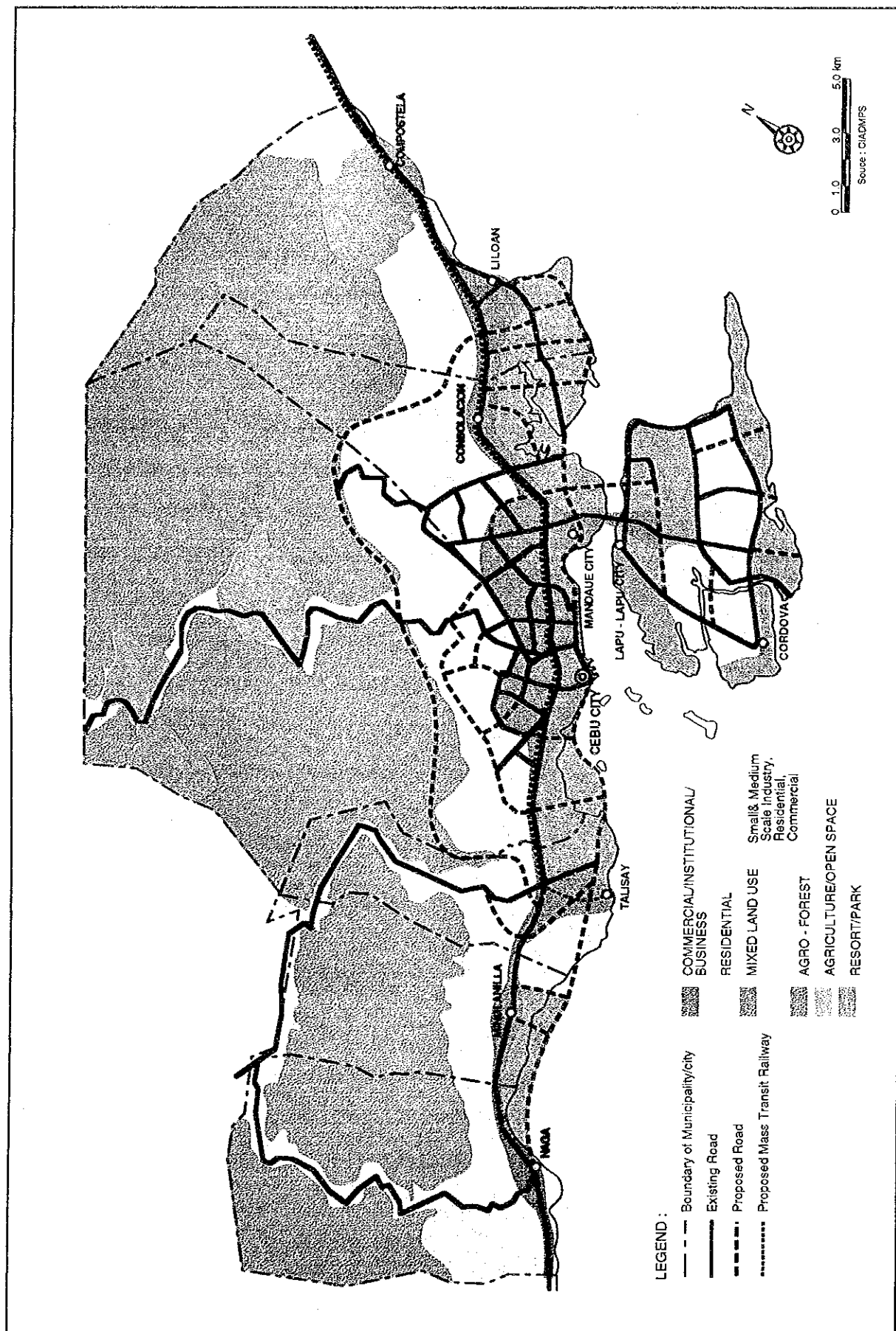


Fig. 7. 1 A Proposed Road Network in Metro Cebu 2010



Table 7.1 Three North-South Corridors Development in Metro Cebu

Corridor	Main Road	Section	Related Development
I. Coastal Industrial Corridor	Metro Cebu Coastal Highway: Extension of the Cebu South Coastal Highway	Liloan - Naga	<ul style="list-style-type: none"> <li>• Industrial estates;</li> <li>• Port facilities;</li> <li>• Goods distribution services</li> <li>• New urban business functions</li> <li>• Housing</li> </ul>
II Arterial Urban Corridor	Improvement and widening (6 lanes) of the existing North-South Highway	Carmen - Carcar	<ul style="list-style-type: none"> <li>• Urban and social services</li> <li>• Commercial and business activities</li> <li>• Housing</li> <li>• Introduction of mass-transit system</li> </ul>
III Uphill Corridor	Metro Cebu Circumferential Highways	Talisay - Consolacion	<ul style="list-style-type: none"> <li>• Educational and research facilities</li> <li>• Housing</li> <li>• Public services</li> <li>• Preserved area</li> </ul>

Source: The Study Team

## 7.3 Cebu International Port Development

### (1) Need of Improvement and Expansion of Cebu Port

Cebu Port, as an international gateway, needs to be functional enough to respond to future demands. In this regard, the following findings are noted:

- Up to 2000, the present Cebu Port, including the Cebu International Port (CIP), is capable of handling the anticipated demands (10 million tones of general cargo per year) with improvement and/or restructuring of wharves, installation of handling equipment (cranes), and widening of container yards. The improvement<sup>9</sup> is a must, and expected to be smoothly undertaken.
- The present Cebu Port will face a serious shortage in wharf length and space for supporting facilities in the long-term. To meet the demands by 2010 (15 million tones per year), its expansion and strengthening of the cargo handling capacity should be undertaken. However, the present location has no sufficient space for this requirement. Cebu Port needs to be developed at alternative place for its expansion, Second Cebu International Port (SCIP), by 2010.

<sup>9</sup> Improvement of the existing berthing facilities of Cebu Port under the 5th IBRD port project is now in the detailed engineering study phase.



- SCIP shall be an **international deep-sea port** with the international standard of containerization. The required wharf length is more than 1,000 m with land area more than 100 hectares for container yards and supporting facilities by 2010.

## **(2) Alternative locations for Second Cebu International Port**

To the above end, the most economically, technically and functionally suitable location should be sought. Some candidate locations along the Mactan Channel or in Metro Cebu are conceivable so far, namely,

- Consolacion;
- Mactan North reclamation area;
- Mactan South reclamation area;
- The planned Cebu South Reclamation Area, and
- Minglanilla reclamation area.

Due to a lack of detailed data/information on the related engineering aspects, the Study Team defers identification of which alternative site should be explored. Conduct of a detailed feasibility study for these candidate sites is strongly recommended to urgently be undertaken.

## **7.4 Mass Transit System Development**

Restructuring of the present public transportation system will be a vigorous issue soon along with increasing urban traffic congestion. Great dependence on the "Jeepney" and "Tricycle" will greatly hampers the economy of urban transport as a whole.

Introduction of a mass transit system (MTS) in the Arterial Urban Corridor, or the North-South Highway, is highly recommended to release urban traffic congestion in the long-term. MTS between Talisay and Liloan (about 20 km) is recommended for development in the first phase. A full scale technical and financial feasibility study should be undertaken, based on the study conducted by the Cebu Provincial Government <sup>10</sup>.

## **7.5 Water Supply System Development**

Special emphasis should be placed on the development of water supply system in Metro Cebu. The following are major findings of the Study Team:

- The present withdrawal volume from aquifers is exceeding over the safe yield level (180,000 m<sup>3</sup>/day), resulting in salinization problems, especially in southern part of Metro Cebu.
- Should the planned Mananga Project-Phase I and II (128,000 m<sup>3</sup>/day by both projects) be completed in schedule, the water supply capacity will be able to meet the demand in 2000. However, even if the supply capacity increases, the increase in the actual volume

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<sup>10</sup> "Feasibility Study on the Metro Cebu Mass Transport System" is being conducted as of January 1994. The intermediate findings are: 1) Alternative route with 13 stations and 2 terminals between Mandaue (Cebu North Rd./J.P. Rizal) and Talisay (Cebu South Rd./Tabunok-Toledo Rd.); and 2) the highest ridership for 2002 of 9, 200 per hour. The proposed northern end terminal, Mandaue, is thought to be too close to the congested area, and will have a difficulty in identifying the site to locate the workshop and supporting facilities. The Study Team recommends that this north terminal be located in Liloan.

of water supply could not be in place instantly. Hence, the deficit will not be able to be mitigated drastically.

- Metro Cebu needs to develop another water resource project other than the Mananga projects in order to meet the anticipated demand (400,000 m<sup>3</sup>/day in 2010). The project should be initiated as soon as possible. **Three options** are conceivable:

- A) Development of a large-scale water resource project , **Lusaran Dam Project** with a capacity of 160,000 m<sup>3</sup>/day.
- C) Development of the **Inabanga** (Bohol) water resource and transmission pipe-line project with a capacity of 330,000 m<sup>3</sup>/day)
- B) Development of a **combined system** with small and medium-scale projects in several river basins in areas with a certain extent (40 Km radius area)

- The Study Team strongly recommends to conduct the comprehensive study, including the feasibility analyses of the above three options.
- The MCWD's water supply pipeline system should be rehabilitated. The water leakage rate is thought to be as high as 40 %. Efficient computerized management systems of existing facilities as well as subscribers should be established to mitigate such a great loss of the available resource.

## 7.6 Drainage and Sewerage Systems Development

### (1) Drainage System

The drainage system should be improved through the following measures:

- Formulation of a flood control program based on the **river-basin approach**, taking note of five rivers: 1) Mandaue River; 2) Sunban Daku River; 3) Lahug River; 4) Guadalupe River; 5) Kinabunsan River; and 6) Bulacao River.
- Implementation of the program under the priority scheme: the highest priority be given to three river basins, namely, Sunban Daku, Lahug, and Guadalupe River.
- Coordination with road improvement projects, solid waste treatment programs/projects and sewerage system development.

### (2) Sewerage System

This capital investment project needs a long-term coherent planning approach, taking into account the following:

- In the short-term, the individual control approach should be adopted:
  - 1) installation of "septic tank";
  - 2) individual sewage treatment plants for large-scale facilities/area-development including the tourism promotion areas in Mactan Island;
  - 3) environmental control and monitoring of direct discharge in industrial areas.

- A prioritized implementation scheme of the public sewerage system development should be formulated. The highest priority be given to the central commercial areas of Cebu City, Mandaue City and Lapu Lapu City.
- The institutional scheme based on "**Polluter-Pay-Principle (PPP)**" should be pursued in order to sustain the sizable public investment. The levy system of fee charge should be developed in association with the levy system of MCWD.

### **(3) Need of Comprehensive Work in "Mactan Island"**

A comprehensive study of urban development in Mactan Island is urgently required for planning of drainage and sewerage systems. Since Mactan Island is/will be a focal area to accommodate various projects/activities such as industries, housing, commerce and business, tourism and airport-related services, the long-term plan of land use should be built as a planning basis of infrastructure development.

## **7.7 Public Housing Development**

Performance of the public housing sector in the Philippines is weak, compared to other ASEAN countries, and almost none existent in Metro Cebu. Efforts are being made in tackling squatter settlement problems. In addition to this, the Team recommends the provision of public housing for low-income families and labor-class families. This is a prime condition in the modern economy.

## **7.8 Mactan South Reclamation Project : A Concept of "Mactan Aqua Ville" Development**

### **(1) Rationales of Mactan South Reclamation Project**

The Mactan South Reclamation Project (MSRP) is a long-standing issue, because of 1) its location advantage; 2) necessity of new land for new development for public uses; and 3) easiness of reclamation work.

The Study Team examined the rationales of this reclamation project as follows:

- MSRP area is one of the most suitable alternative site for the "Second Cebu International Port" and its supporting areas;
- MSRP can provide a strategic resort area to accommodate new locations of international class resorts/hotels <sup>11</sup>.
- MSRP can provide sufficient and low-cost public land areas necessary for public services and public housing development which should be more enhanced for socioeconomic development to support the planned industrialization.
- MSRP can create public sea-shore lines available for a wide variety of coastal activities such as recreational, sea-transportation, maritime business and fishery.

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<sup>11</sup> It is projected that a total of 6,600 beds (or equivalent to 3,900 rooms) of hotel accommodations will be additionally required up to 2010 for Cebu tourism development. This means that more or less 10 large-scale hotels with 300-350 rooms will look for the land for their locations.

## **(2) A Concept of "Mactan Aqua Ville"**

Based on the above rationales, the Study Team proposes a development concept of "Mactan Aqua Ville (MAV) ", a complex with multi-functional facilities based on the long-term perspective. MAV with an area of 1,100 ha will involves:

- Second Cebu International Port;
- Maritime Business Center;
- New Hotel Resort Complex;
- Housing Complex; and
- Public Water Front Facilities

## **(3) Conditions for Development**

The following are imperative conditions for the implementation of the project:

- Definite initiatives by the public sector and organization of the implementing body;
- Formulation of the master plan and feasibility study;
- Long-term and consistent policy supports for the implementation;
- Coordination among line-agencies and LGUs;
- Water supply system (the most crucial factor) and electric power supply system; and
- Implementation of environmental measures.

## 8. DEVELOPMENT PHASING

From 1993 until the target year of 2010, a time-span of 17 years is divided into three phases: Phase I (1993-1998); Phase II (1998-2005); and Phase III (2005-2010). For each phase, focal development, spatial structure formation; and growth pattern, and target socioeconomic growth are proposed as summarized in Fig. 8.1, and briefly explained as follows:

### 8.1 Phase I (1993-1998)

The overall development directions during this phase have been addressed in the "1993-1998 Medium-Term Regional Development Plan (MTRDP)". The Central Visayas-MTRDP features the development frameworks of the four provinces including Metro Cebu to highlight their roles in development in the region and identifies the spatial dimension of sector priorities. The envisioned basic direction is assessed to be on the right way, and the following interpretation may be made in the long-term development scenario:

#### **(1) Objectives:**

This phase is recognized as a preparatory period when physical and institutional foundations necessary for sustainable development shall be formulated towards the forthcoming new era.

#### **(2) Focus of Development:**

Fundamental conditions of the regional economy shall be sound and robust to accommodate the massive economic activities in the future, pursuing the following policies:

- develop industrial estates/parks to accommodate foreign and domestic investments in the manufacturing sector under the long-term plan and governmental initiatives.
- foster local incubators for industrial diversification focusing on new development opportunities such as tourism, agro-processing and potential local industries
- restructure and/or improve institutional systems including the local taxation under the Local Government Code, so that local government units can strengthen their absorptive capacity to sustain the capital formation through projects/programs
- encourage the private sector to take part in the social capital formation;
- facilitate agricultural and rural development, based on the experiences of on-going and previous projects/programs such as CARP, CVRP, CUP, CVWSP, so on.

#### **(3) Spatial Structure:**

Emphasis of infrastructure development should be placed on formation of the basic structure for inter-regional and intra-provincial integration. This involves:

- improvement of the Cebu Island Circumferential Road and strengthening of the East-West links in selected corridors
- development of inter-regional sea-links with ferry ports in selected strategic areas.

- facilitation of the scheduled power supply from Negros and Leyte.
- commencement of rehabilitation and improvement of the Cebu Port;
- Metro Cebu development, including major projects such as: 1) the on-going MCDP; 2) the planned Mananga project; 3) widening and improvement of North-South highway; 4) development of Cebu South Coastal Highway; and 5) development of sanitary facilities and urban utilities.
- land preparation for locations of new industries and urban services in Metro Cebu, including the Cebu South Reclamation Project
- Encouragement of urban functions of Toledo and Danao Cities, with emphasis on urban services and transport functions

## **8.2 Phase II (1998-2005)**

### **(1) Objectives:**

Phase II is characterized by rapid and vigorous growth, integrating intensive efforts for industrial development and strategic area development. Producing a strong engine to boost the regional economy is the main objective of this phase.

### **(2) Focus of Development:**

Strategic industrial and urban development should be undertaken in Metro Cebu and other potential areas, and the western coastal industrial corridor, named "Western Sea-Board", or the coastal strip including Toledo-Balamban-Asturias. The key policies of this Phase are:

- to solve the chronic water problems in Metro Cebu;
- to facilitate the Metro Cebu urban development in a comprehensive manner, including housing, sanitary utilities and road network system (extension of MCDP);
- to encourage the development of the tourism sector, by providing basic infrastructure for the potential tourist areas;
- to promote human resource development programs, and encourage the local enterprises to promote export business and local entrepreneurship

### **(3) Spatial Structure:**

The East-West Links should be strengthened with the purpose of integration of the Metro Cebu economy and the new industrial areas, Western Sea-Board. For this purpose, two links should be strengthened: 1) the existing Toledo-Naga Link ; and 2) "Trans Central Highway (Cebu City-Balamban)

The Toledo-Naga link should be improved in order to function as an industrial traffic artery linked directly with the planned South Coastal Highway. On the other hand, the Trans Central Highway should function as the passenger traffic corridor rather than an alternative industrial artery, because of its alignment and environmental problems.

Another structure which shall be given importance is the "North-South Urban Highway" passing through Metro Cebu connecting both northern and southern sub-regional

economies with the Metro Cebu economy. These trunks shall function as the stems in the Metro Cebu intra-urban highway network.

International sea transport should be improved by upgrading the Cebu Port facilities and redevelopment of its supporting area.

### **8.3 Phase III (2005-2010)**

#### **(1) Objectives:**

Phase III is recognized as the period with a dual objective: the growth adjustment period when the would-be-emerging socioeconomic distortion should be remedied; and preparatory period for further development beyond 2010. Nevertheless, the achievement of "Equitable Growth" is the key objective in this phase.

#### **(2) Focus of Development:**

Diffusion of economic benefits accruing from the Phase II development over the region should be stressed. This will materialize by placing more emphasis on rural area development to resolve the long-standing issue of poverty alleviation.

At the same time, major infrastructure development for the next generation should be undertaken in this period, focusing on:

- Development of the "Second Cebu International Port" (expansion of the Cebu Port)
- South Mactan Reclamation Project (Mactan Marina City)
- Continuous effort to develop "Western Sea-Board"

#### **(3) Spatial Structure:**

In order to encourage the intra-provincial economic integration, development of some "East-West sub-links" and municipal/barangay roads should be more accelerated. Coupled with the transportation improvement, sub-regional centers with overall urban functions such as market, commercial, social and medical functions should be developed to formulate an integrated provincial network.

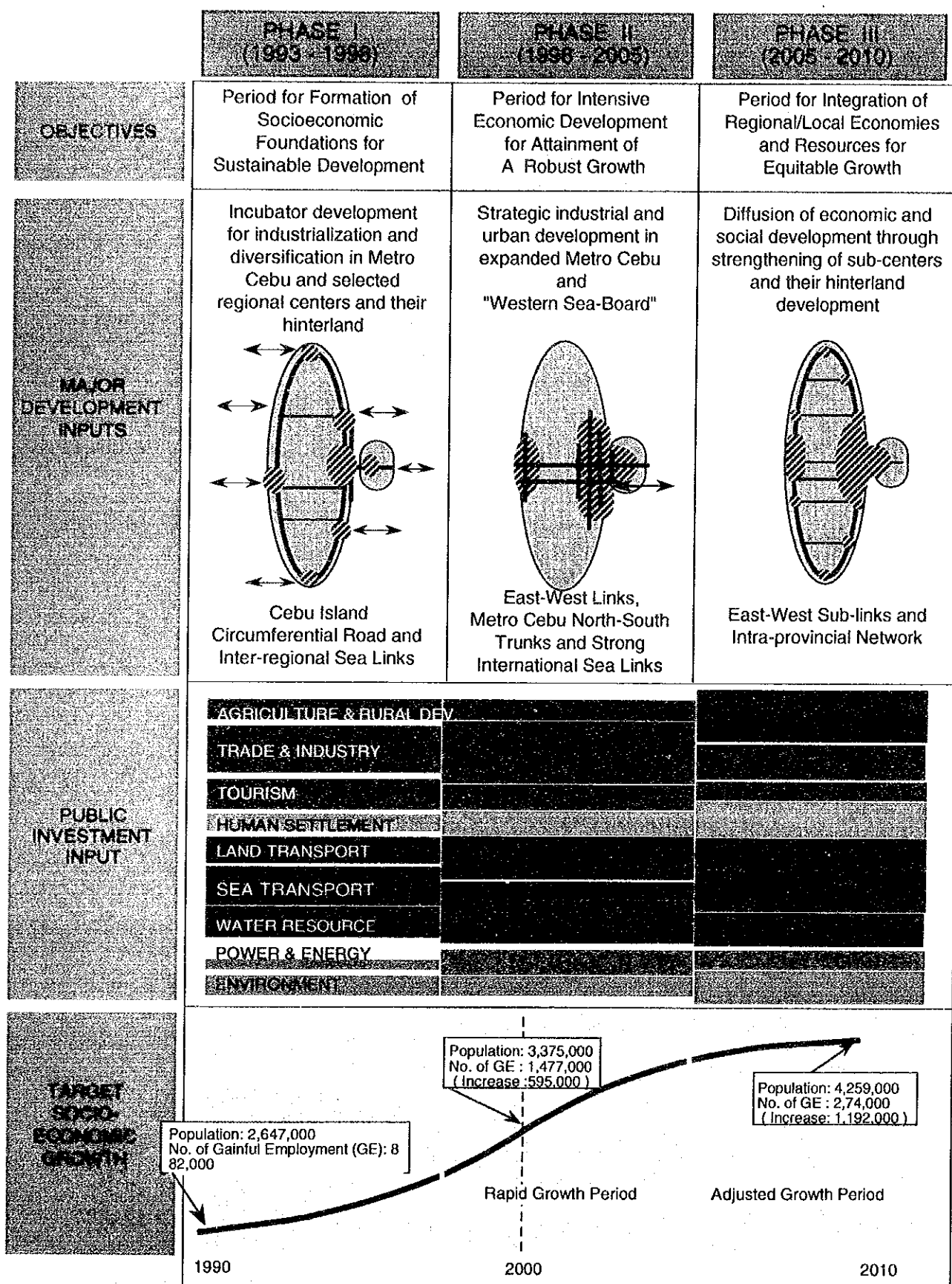


Fig. 8.1 A Proposed Long-Term Development Scenario



