

outlet and no distribution system; (b) Level 2, indicating a communal faucet system; and (c) Level 3, referring to a piped system connected to individual houses. In total, the coverage of households served by these three levels was 35.8% throughout the country. In the three regions, these were 35.4%, 36.7% and 56.7%, respectively, as shown in Table 1.22. In terms of coverage, Region VIII had the most number of households served among the three.

(5) **Electrification**

The electrification program for the country and for regions concerned is shown in Table 1.23. While the electrification coverage in the municipal level was almost sufficient, individual connection levels were still considered backward as seen in the table. In the three regions, the ratio served remained at less than 40%, falling way below the national average of 52%.

(6) **Communications**

Telephone service penetration in the three Regions was quite backward from expected levels. Telephone density, i.e., the number of connections per 100 persons, in these areas were 0.62, 0.93 and 0.08, respectively, as shown in Table 1.24. These figures were much smaller than 1.47 which represented the country and way below the density in NCR which is 8.31.

## **1.7 Standard of Living**

### **1.7.1 Housing Condition**

Based on the 1980 census, there were 68,719 housing units in Iloilo Province, 165,875 units in Cebu Province and 56,699 units in Leyte Province. As shown in Table 1.25, their building structures are classified into three types in general: (a) Type 1 is made of strong materials such as concrete and iron; (b) Type 2 is made of usual materials such as wood and asbestos; and (c) Type 3 is made of light materials such as cogon, nipa and bamboo. With regard to the building structure, the above dwelling units were distributed as shown in the table.

The average age of dwelling units was 13 years in Iloilo, 14 years in Cebu and 12 years in Leyte. In all provinces, type 2 dwelling units were the oldest among the three types, averaging more than 15 years old.

Regarding the floor area of housing units, Table 1.26 shows the distribution of units by housing type such as single house and duplex. The average floor area of all housing types was 56 m<sup>2</sup> in Iloilo City, 51 m<sup>2</sup> in Cebu City and 46 m<sup>2</sup> in Tacloban City. Most houses in flood-prone areas install floor against habitual inundation. Having three or four steps to the floor level, the houses would install the floor at least 50 cm higher than the ground level.

### **1.7.2 Family Income and Expenditure**

Living conditions may be derived sketchily from family income and expenditure. As regards average family income, the regional annual averages in the regions and provinces concerned were much lower than the national average of 65,186 pesos in 1991, ranging from 57% to 73% of the national family income. This disparity between national and regional figures, though, was not so much as that found in the per capita GDP, as discussed in Section 1.4.

The national annual family income of urban people was 89,571 pesos on average, which was almost 20% more than that of the entire people. In Iloilo and Cebu cities, however, the average income were 112,954 pesos and 78,009 pesos as shown in Table 1.27, exceeding the national average income of urban areas.

Engel's coefficient, which is a rate of food to total income, would have a higher value than the lower the family income. Region VIII, for one, spent 55.5% of its 31,760 pesos family expenditure for food, accounting for 45.8% of family income of 38,475 pesos. Iloilo City's coefficient was 31.3% for an income of 112,954 pesos, because 34.8% for an expenditure of 101,692 pesos was spent for food as seen in the table. On the other hand, other expenses like housing for instance, ran contrary to the Engel's coefficient. In other words, urban living with its high income level and diversified spending patterns was seen to be approaching the international level.

## 2. FLOOD DAMAGE

The purpose of damage estimation is to determine the economic benefit derived from the flood control works under present conditions vis-à-vis the future. The benefit is defined as the difference between both flood damages with project and without project. The structure of flood damage, the procedure of estimation of probable flood damage and the results of flood damage estimation are mentioned in this Section.

### 2.1 Structure of Flood Damage

The economic losses due to flooding are divided into two main sections, namely:

- (1) Losses due to damage to existing facilities and suspension of business activities because of inundation; and
- (2) Expenses for emergency activities to flood victims during and after inundation.

There are two types of damage to existing facilities, and these are:

- (1) Damage losses to properties of economic entities which consist of (a) accumulated properties and structures such as buildings, machinery, equipment and irrigation facilities; and, (b) inventory stock and products such as finished products, works-in-process, raw materials, goods for resale and crops under cultivation; and
- (2) Opportunity losses which also consist of two parts: (a) expected profits through damaged products and merchandise; and (b) suspension of business or production activities due to inundation and profits lost during restoration of damaged facilities and infrastructure.

From the social standpoint, on the other hand, the losses come in two forms, and these are:

- (1) Damage to dwelling units, which include household effects as well as residential building; and
- (2) Damage to infrastructure which consist of (a) social infrastructure (schools and medical facilities); and (b) physical infrastructure (transport, water supply, electricity supply and telephone and river structures).

This structure of damage losses is illustrated in Fig. 2.1. Taking this structure into consideration, flood damage is estimated by the following items below:

- (1) Direct damage, which is divided into five items, as follows:
  - Dwelling unit which include the building itself and the indoor movables or household effects in it.
  - Industrial establishments consisting of factory building, machinery, equipment for production, inventory stock such as finished products, works-in- process, raw materials and goods for resale and expected profit through production.
  - Trading establishments including store, furniture, equipment, inventory stock such as merchandise and materials for sale, and expected profit through damageable inventory of stock.
  - Palay production consisting of accumulated production cost and expected net income. Irrigation facilities are considered to be a kind of physical infrastructure.

- Inland fishery production represented by prawn farm consisting of accumulated production cost expected net income.
- (2) Infrastructure damage, both social and physical, is assumed to be 35% of the above direct damage, as derived from similar studies and past flood damage records.
  - (3) Indirect damage comprises (a) opportunity losses of business and/or production activities and (b) emergency activities. Business losses take into account only the affected establishments in the manufacturing and trading sectors while damage due to emergency activities and operation losses are based on the government flood damage reports. However, due to the ambiguity of data, the amount of indirect damage is assumed to be the same 10% of the direct damage.

## 2.2 Damageable Assets and Their Values

The flood-prone area, that is, the target area for the current study, is demarcated by the JICA Study Team. The target areas of the four cities are 5,675 ha in Iloilo, 3,456 ha in Cebu, 1,900 ha in Tacloban and 313 ha in Ormoc, as shown in Table 2.1. A mesh block of 250 m interval squares was super-imposed on the map of the target area, each square representing 6.25 ha. The inventory of respective damageable assets is discussed in the following subsections.

### 2.2.1 Housing Units

The number of dwelling units in the flood-prone areas is enumerated by mesh block on the basis of the Barangay 1990 census. The total number of housing units in the target areas of the four cities was estimated, as shown in Table 2.1, at 56,033 in Iloilo; 79,254 in Cebu; 22,906 in Tacloban and 4,701 in Ormoc.

According to Table 2.2, the unit construction cost (pesos per m<sup>2</sup>) of a new house for one-family ranges as follows: 3,750 pesos for Type I (reinforced concrete structure); 3,050 pesos for Type II (semi-concrete structure); 2,200 or 1,450 pesos for Type III; and 650 pesos for Type IV. The average floor area was 54 m<sup>2</sup>, referring to Table 1.26. Therefore, the new dwelling unit cost is 203,000 pesos for Type I, 165,000 pesos for Type II, 119,000 or 78,000 pesos for Type III and 35,000 pesos for Type IV. According to the 1980 census, the average age of dwelling units was 13 years as seen in Table 1.25. Supposing that a dwelling unit was maintained under condition of average maintenance, its depreciated value may be 31% for Type I, 44% for Type II, 70% for Type III and 85% for Type IV, as shown in Table 2.3. Accordingly, the average market value was estimated at 141,000 pesos for Type I, 92,000 pesos for Type II, 36,000 or 23,000 pesos for Type III and 5,300 pesos for Type IV.

In this current study, the market value of dwelling unit is assumed to be 100,000 pesos, as discussed in the Master Plan Study. This value is almost the same value as Type II of 92,000 pesos.

Incidentally, the determination of average damageable value dwelling units is based on market value which was evaluated by the City Assessor. Table 2.4 shows the distribution of assessed market value regarding dwelling units in Cebu City in 1993. The average value of entire units was 77,636 pesos. This value is slightly lower than the value estimated above.

Indoor movables or household effects were assumed to be half of the value of dwelling unit. Namely, they were estimated at 50,000 pesos. Incidentally, average annual family expenditure in Iloilo City was 102,000 in 1991 as seen in Table 1.27. This value of household effects was almost equal to half of the annual expenditure and to the total amount

of five years expenses for damageable materials of about 10,000 pesos discussed in Section 1.7.

Assessed values of damageable assets in the other three cities were estimated to be the same as those in Iloilo City, because of data availability. Thus, the average present value of a dwelling unit was assumed to be 100,000 pesos and that of household effects was 50,000 pesos.

### 2.2.2 Agricultural Production

Agricultural production in the study area is described as follows:

#### (1) Crop Production

As discussed in Section 1.5, Iloilo concentrated on palay production, Cebu on corn and Leyte on several crops. In Iloilo City, most palay fields are irrigated according to the field survey. Regarding crop cultivation lands in the target areas estimated in Table 2.1, Iloilo and Tacloban cities include comparatively ample crop fields in the target areas: 2,088 ha in Iloilo and 739 ha in Tacloban. Cebu and Ormoc cities, however, do not have much crop fields: 116 ha in Cebu and 38 ha in Ormoc. Thus, cultivated crop in the target areas was assumed to be represented by palay.

The degree of crop damage varies from month to month, depending on the cropping stage and timing of flood occurrence. Therefore, the annual average damage value of crop per hectare is estimated as an aggregate of expected net income and accumulated expenditure for production expenditure until the time when flood occurs. In that case, flood frequency and planted area cultivated in each month have to be taken into account as well. It is expressed by the following formula:

$$DV = \sum_{i=Jan}^{Dec} CA_i \cdot FF_i \cdot (AC_i \cdot PC_i + NI)$$

where;

<i>DV</i>	:	damageable value (Pesos/ha)
<i>CA</i>	:	cultivated area (%)
<i>FF</i>	:	flood frequency (%)
<i>AC</i>	:	accumulated cost (%)
<i>PC</i>	:	production cost (Pesos/ha)
<i>NI</i>	:	net income (Pesos/ha)

Net income (*NI*) is estimated as gross income minus production cost. Gross income is a product of economic farmgate price and crop production. Economic farm gate price is estimated in Table 2.5. In the same manner, Table 2.6 gives economic farmgate price of urea. Using this price, production cost (*PC*) is estimated in Table 2.7. Applying these values and the above formula, damageable value of palay is estimated at 10,100 pesos per hectare, as shown in Table 2.8.

#### (2) Inland Fishery Production

In the four cities, inland fishery was identified only in Iloilo City. As seen in Table 2.1, there are fishponds having the total area of 326 ha. They produce mostly prawn and milkfish. In this current study, prawn was assumed as a representative species for fishery production. Referring to a typical farm calendar, three farms were selected in the target area.

The damageable value of fishery production is estimated through the same procedure as crop production mentioned in the previous part. Table 2.9 shows the procedure and the result of average damageable value of prawn. The value was estimated at 22,100 pesos per hectare.

### 2.2.3 Manufacturing Industry

The existing number of manufacturing establishments was 525 in Iloilo City in 1992, according to Socio-Economic Profile 1992, Iloilo City. However, the number of manufacturing establishments and their distribution in the flood-prone area was not clear because the manufacturing establishments are not identified on the topographic maps. Thus, the number was estimated by applying the unit rate of 1.6 establishments for every 1,000 urban people in built-up areas, referring to the conditions in Iloilo City in 1992, i.e., 525 establishments per 316 thousand of estimated urban people in 1992.

Once this assumption (1.6 establishments per 1,000 urban people) is applied to the regional level, 3,080 manufacturing establishments may be counted in Region VI in 1990 because of the 1,926 thousand urban population in the 1990 census.

Nevertheless, in Region VI, there may exist more than 17,000 manufacturing establishments, referring to Table 1.15. This figure was calculated from the following data. Table 1.15 indicates that 347 large establishments and 5,595 small and cottage establishments produced 4,330 million pesos of Value Added (VA) in 1989. On the other hand, Table 1.6 indicates that the total VA of the manufacturing sector in Region VI was 12,857 million pesos. The total VA of manufacturing establishments in Table 1.15 is almost equal to one-third of VA of the manufacturing sector in Table 1.6. Thus, almost three times of the reported number of manufacturing establishments should exist in order to attain the total VA in Region VI.

Accordingly, 525 manufacturing establishments in Iloilo City are considered as belonging to large or medium scale establishments. In this current study, therefore, the indices and ratio of large scale establishments is applied to estimate fixed assets and inventory stock.

Hence, 90% of VA by manufacturing sector is assumed to be produced more by medium scale establishments, so the average VA of establishments could be estimated at 4.97 million pesos per establishment, because VA of the manufacturing sector in Region VI in 1992 was 17,025 million pesos for 3,080 manufacturing establishments.

According to Section 1.7, the ratio of fixed assets to VA was 0.73, so the average value of fixed asset holdings of an establishment was estimated at 3.60 million pesos. Since this value included land for factory, the damageable value of fixed assets was 3.53 million pesos. In the same manner, since the ratio of inventory stock to VA was 0.29, the inventory stock of factory was estimated at 1.44 million pesos. These values were re-evaluated as 4.17 million for fixed assets and 1.70 million pesos for inventory stock at 1994 current prices, since the inflation for two years was estimated at 18% according to the Economic Indicators, April 1994, NSCB. The fixed assets were divided into 470 thousand pesos for buildings and 3.70 million pesos for machinery and equipment.

Assessed values of damageable assets in the other three cities were estimated to be the same as those in Iloilo City, because of data availability regarding the number of manufacturing establishments. Thus, the average present value of a manufacturing establishment was assumed to be 4.17 million pesos for fixed assets and 1.70 million pesos for inventory stock.

Incidentally, the number of manufacturing establishments in the target areas of respective cities was estimated as 487 in Iloilo, 680 in Cebu, 200 in Tacloban and 39 in Ormoc, as shown in Table 2.1.

#### **2.2.4 Trading Industry**

The existing number of trading establishments was 4,500 in Iloilo City in 1992. This total number accounted for 57.0% of the total business establishments of 7,890 in the city. In the same procedure mentioned in the previous subsection, the number of trading establishments was estimated to apply the unit of 13.9 establishments for every 1,000 people, referring to the data (4,500 establishments per 324 thousand of estimated total people in 1992) in Iloilo City. As a result, the number of trading establishments in target areas was enumerated as follows: 4,228 in Iloilo, 5,911 in Cebu, 1,735 in Tacloban and 340 in Ormoc.

Applying this assumption to the regional level, 77,500 trading establishments might be existing in Region VI in 1992 because the regional population was estimated at 5.58 million in 1992. Since VA of trading sector was 18,131 million pesos in 1992 as seen in Table 1.6, the average VA was estimated at 234,000 pesos per establishment. According to Section 1.5, the ratio of fixed assets to VA for the retail trading sector was 0.50, so the average value of fixed asset holdings of an establishments was estimated at 117,000 pesos. Since this value included the site where the store is located, the damageable value of fixed assets was 83,000 pesos excluding land value. In the same manner, the inventory stock of the store was estimated at 545,000 pesos, since the ratio of inventory stock to VA was 2.33. Considering the inflation between 1992 and 1994, the damageable fixed assets were re-evaluated at 98,000 pesos and inventory stock, 643,000 pesos. The fixed assets were furthermore divided into 54,000 pesos for buildings and 44,000 pesos for equipment.

Assessed values of damageable assets in the other three cities were assumed to be the same as those in Iloilo City, because of data availability. Thus, the average present value of a manufacturing establishment was assumed to be 98,000 pesos for fixed assets and 643,000 pesos for inventory stock.

Incidentally, the number of trading establishments in target areas of respective cities was estimated as 4,144 in Iloilo, 5,883 in Cebu, 1,767 in Tacloban and 340 in Ormoc, as shown in Table 2.1.

#### **2.2.5 Infrastructure**

Besides manufacturing and trading establishments, other economic establishments and infrastructures are existing in the flood-prone areas as damageable assets. According to the economic profile in Iloilo City, other economic entities were enumerated at more than 2.8 thousand establishments or 36% of the total business establishments. Regarding infrastructure, several kinds of facilities were enumerated in the cities, as discussed in Section 1.6.

Nevertheless, the above facilities are divided into many different kinds, therefore, inventory of individual facilities is accounted in small numbers. Accordingly, it would be quite intricate to analyze these facilities individually. In this current flood damage study, therefore, they could be treated as a bulk facility in relation to the above discussed facilities, that is, dwelling units, manufacturing and trading establishments.

### **2.3 Distribution of Damageable Assets**

Distribution of damageable assets is worked out in the form of grid information. A mesh block is 250 m interval squares, as mentioned before. The inventory of damageable assets in every square is read or estimated on the basis of the aforesaid land use map, topographic map, administrative boundary map and socio-economic information.

Regarding dwelling units, the distribution was figured out through the following procedure. The dwelling units in a barangay are assumed to be distributed equally all over the Barangay area excluding agricultural land and/or green spaces. This connotes that the population

density in the barangay is assumed to be equal. In case that a grid is divided into two or more barangays, the population in the mesh block would be aggregated to the total of portions in respective barangays. The number of dwelling units is assumed to be the same as the household number which is estimated as a quotient of population divided by family size. Finally, the number of dwelling units by mesh block is counted up in the entire target areas.

Manufacturing establishments are not always distributed in densely inhabited areas such as the city proper and/or urban core. They would rather be established in surrounding areas of the urban core. Thus, their distribution was assumed as one manufacturing establishment in a grid for population density of between 500 and 100 persons per a grid.

Trading firms are basically established in densely inhabited areas. They would be established not only in the city proper and/or urban core but also in rural areas. Thus, they were assumed to be distributed as one store for every 75 persons in a grid having a density of more than 100 persons per mesh block.

The distribution of agricultural lands such as palay field and fishpond are figured out according to the land use map. In principle, there are no buildings such as dwelling units and industrial establishments in agricultural lands.

#### 2.4 Probable Flood Damage

Flood damage is calculated as a product of damageable property and damage rate. The damage rate for assets vulnerable to flood is determined with inundation depth. Since standard flood damage rates of buildings and other properties are not available in the Philippines, the damage rates which developed by the Ministry of Construction in Japan are tentatively substituted for the standard damage rates conceivable in the Philippines. Table 2.10 shows the standard flood damage rate by type of building and by inundation level.

Flood damage to infrastructure is estimated as 35% of the above direct damage. Indirect losses are also estimated at 10% of the direct damages including infrastructure damages.

By means of the aforesaid procedure, flood damages by different scales are simulated based on the result of area-depth analysis, unit values of damageable properties and damage rate. The results of respective rivers in Iloilo, Cebu and Ormoc Cities are shown in Table 2.11 to 2.18, and summarized in the table below.

City/ River	(Unit: Million Pesos in Economic Terms)					
	Return Period (Year)					
	2	5	10	20	50	100
<b>Iloilo City</b>	389	583	837	1,125	1,378	1,591
Jaro River	290	405	558	751	921	1,041
Iloilo River	99	178	279	374	457	550
<b>Cebu City</b>	356	597	752	1,016	1,325	1,515
Bulacao River	44	74	83	94	102	108
Kinalumsan River	65	123	180	277	331	355
Guadalupe River	80	159	213	333	441	518
Lahug River	96	144	168	186	291	365
Subang Daku River	71	97	108	126	160	169
<b>Ormoc City</b>	106	186	205	229	252	262

In the same manner, flood damage of poor drainage areas in Iloilo, Cebu, Ormoc and Tacloban cities are estimated as shown Table 2.19 to 2.22. The results are summarized in the table below.



City	(Unit: Million Pesos in Economic Terms)			
	Return Period (Year)			
	1	2	3	5
Iloilo City	14	15	16	16
Cebu City	118	167	167	168
Ormoc City	2	2	2	3
Tacloban City	78	98	102	107



### 3. SOCIO-ECONOMIC PROJECTION

#### 3.1 Development Plans

##### 3.1.1 Medium-Term Development Plans

The Medium-Term Philippine Development Plan for 1993-1998 presents the national economic development policies to support the long-term goals of poverty alleviation and improved income and wealth distribution. The major macro-economic objectives in the medium-term plan are: (a) a sustained and broad growth of output and employment; (b) price stability; and (c) a sound balance of payments position.

As of September 1994, the Medium-Term Plan is still under discussion in the Government. Therefore, the proposed figures as the aggregate targets in the plan are not concrete, which would be essential to project the future socio-economic frame for the current study. In this study, however, the targets are applied to project the future framework, although they are still tentative. The targets of GNP and GRDP during the period are proposed as follows:

Particulars	1993	1994	1995	1996	1997	1998	Average
<b>GNP *</b>	759.8	809.2	869.9	939.5	1,019.4	1,121.3	-
Annual Growth Rate (%)	4.5	6.5	7.5	8.0	8.5	10.0	7.5
<b>Per Capita GNP **</b>	11.4	11.9	12.4	13.1	13.9	14.9	-
Annual Growth Rate (%)	2.0	3.9	4.8	5.4	6.0	7.6	4.9
<b>GRDP Growth Rate (%)</b>							
Philippines	4.0	6.7	7.7	8.2	8.8	10.0	7.6
Region VI	2.8	6.7	7.1	7.7	8.1	9.6	7.0
Region VII	5.1	7.6	9.8	10.6	10.9	12.8	9.4
Region VIII	3.2	4.2	4.9	6.7	6.8	8.0	5.6

\* Million pesos at 1993 constant prices.

\*\* Thousand pesos at 1993 constant prices.

The above average growth rates are considerably higher than the real growth rates in the past. Incidentally, the average growth rates between 1985 and 1993 were 3.2% for the whole country, 3.3% in Region VI, 3.7% in Region VII and 2.1% in Region VIII, as discussed in Section 1.4.

To attain the national targets to support the national policy, Medium-Term Regional Development Plans for 1993-1998 are prepared in respective NEDA Regional Offices. As of September 1994, the plans have not been finalized, although the draft plans have been presented.

In addition to the Medium-Term Plan, the Government is preparing to proclaim the "National Physical Framework Plan for 1993 to 2022" as a long-term development plan. It proposes a rational land use and physical framework for the country to promote a major agri-industrial economy in the coming century. However, it does not present any macro-economic targets or goals for the proposed terms.

##### 3.1.2 Urban Development Plans

Among the four Cities, Tacloban and Ormoc cities have prepared their city development plans for 1993-1998 consistent with the medium-term development plans of the country and the region. These plans cover development projects on the overall public sectors such as education, health and physical infrastructures.

In Tacloban City, the government adopted the following issues:

- (1) Four items for transportation, including improvement of (a) roads and bridges, (b) seaport and airport, (c) water channel for sea-crafts, and (d) overall traffic network system.
- (2) Two items for water related, including improvement of (a) sewer and drainage system, and (b) water supply in the city proper.
- (3) One item for garbage collection and waste disposal.
- (4) One item for telephone system.

In Ormoc City, the government proposed the following targets:

- (1) Two items for transport, including intensification of (a) roads and bridges of barangay, city and national ones; and (b) airport.
- (2) Two items for water related, including development of (a) water supply through wells and spring boxes, and (b) flood control, drainage and seawalls. The latter items were broken down as follows: (a) river improvement of 12 km; (b) seawalls of 1.5 km; (c) improvement of drainage for 20 km; and (d) construction of single barrel box culverts of 238 km.
- (3) One item for communications, radio telegraph station.
- (4) One item for rural electrification.

### **3.2 Land Use Plans**

For the Master Plan Study, a land use plan is one of the most fundamental tools. The land use plan reflects not only the state of land utilization at a certain time but also the urban development policy in the area currently in effect. Therefore, it has to be formulated reasonably in accordance with the regional economic growth.

Land use plans of the four cities have been released by the respective city governments, and are illustrated in Fig. 3.1 to 3.4. Table 3.1 shows the areas classified by land use categories, which were measured with the land use plan maps. The plans, however, are not demarcated and do not reflect the city development plans. The city development plans do not mention the relationship between the development projects and the land use maps. Compared with the present land use, the land use plans could not be realized within the plan period. The proposed land use, therefore, should be considered simply to depict the desirable features in the cities taking urban problems and environment into account. At least, the land use plans are the ones which could be realized in the future, approximately by the end of the target year.

### **3.3 Population Projection**

The NSO provides population projections for the country and for its subdivisions down to municipal level during the period 1980 to 2030 in the publication called "Philippine Population Projection 1980-2010." These projections, however, do not incorporate the results of the 1990 census. Although the agency is making the new projections reflecting the results, so far the new one has not been released yet.

In this study, the future population is projected on the basis of the NSO projection, taking the 1990 census into account. Table 3.2 shows the population projected up to the year 2020 at 10-year intervals. In 2020, the population in the respective cities are projected as follows: 415,000 or 35% more than that in 1990 in Iloilo; 946 thousand or 55% more in Cebu; 194,000 or 42% more in Tacloban; and 183,000 or 42% more in Ormoc.

### 3.4 GDP and GRDP Projection

The long-term projection of GRDP is indispensable for formulating the future framework of the socio-economic structure in the project sites. Official GRDP projections in the Medium-Term Development Plan is described in Section 3.1. The plans, however, present the projections only to the year 1998. After that, no projection scenarios were suggested in any of the development plans. Therefore, GRDP in the future is estimated on the following assumptions.

- (1) Till the year 1998, GRDPs of the respective regions will increase at the growth rates predicted in the Medium-term Development Plans.
- (2) Between 1998 and 2000, GRDPs will grow at two-thirds of the above rates.
- (3) Beyond the year 2000, GRDPs will grow at a half of the rates applied in the above item (1).

GRDPs projected under the above assumptions are shown in Table 3.3. By 2020, GRDPs in the respective regions are projected at 1985 constant prices as follows: 155 billion pesos or 3.1 times of that in 1990 in Region VI; 206 billion pesos or 4.4 times in Cebu; 44 billion pesos or 2.5 times in Region VIII. In the same manner, per capita GRDPs are estimated as: 20,800 pesos or 2.3 times of that in 1990 in Region VI; 33,000 pesos or 3.2 times in Region VII; and 10,400 pesos or 1.8 times in Region VIII.

### 3.5 Future Prospects of Damageable Assets

While the structure of damageable properties remains constant, economic value and distribution of damageable properties in the flood prone areas will change in the future. Taking the socio-economic projection in previous sections into consideration, these changes are derived in the following manner:

- (1) The number of damageable dwelling units is computed by dividing projected population by family size, and assuming that the latter is constant.
- (2) The average damageable value of both residence and its household effects is assumed to increase in proportion to growth of GRDP per capita.
- (3) The total values of both depreciable assets and inventory stock in the respective industrial sectors (manufacturing and trading) basically increase in proportion to the growth of GRDP.
- (4) Distribution of damageable properties was assumed as follows:
  - Increment of dwelling units in a 250 m mesh block will be constant in the same mesh block, thereby increasing the population density in the mesh block.
  - Increase of damageable assets which will be caused by increment of the number of industrial establishments in the future is assumed to be absorbed in the increment of the number of damageable assets of individual establishments. Thus, although the assessed values of an individual establishment are considered to have outwardly larger damageable assets than the actual values, the number of establishments could be frozen in the same number as the present one even in the future.

Applying the aforesaid procedure, flood damages in the future are estimated as shown in Table 2.11 to 2.18. They are summarized in the following table.

(Unit: Million Pesos in Economic Terms)

City	Return Period	2000		2010		2020	
		2	50	2	50	2	50
<b>Iloilo City</b>		570	2,034	776	2,783	1,057	3,810
Jaro River		419	1,344	565	1,822	761	2,471
Iloilo River		151	690	211	961	296	1,339
<b>Cebu City</b>		614	2,272	956	3,509	1,490	5,424
Bulacao River		78	179	122	282	193	444
Kinalumsan River		112	569	175	879	274	1,358
Guadalupe River		137	751	212	1,154	329	1,776
Lahug River		163	494	252	757	388	1,161
Subang Daku River		124	279	195	437	306	685
<b>Ormoc City</b>		145	341	186	435	239	555

In the same manner, flood damages of poor drainage areas in the future are estimated in Table 2.19 to 2.22. The results are summarized in the table below.

(Unit: Million Pesos in Economic Terms)

City	Return Period	2000		2010		2020	
		2	5	2	5	2	5
Iloilo City		22	24	33	36	47	50
Cebu City		285	287	467	470	739	745
Ormoc City		3	3	5	5	6	6
Tacloban City		135	147	182	198	240	262

## 4. ECONOMIC EVALUATION FOR MASTER PLAN

### 4.1 Basic Conditions for Economic Evaluation

Economic evaluation of the proposed flood control projects based on economic benefit and cost is a guideline of assessing their economic viability. Economic benefit is given as the effect of reduction in annual mean flood damage to assets in and around the flood protection area under present socio-economic conditions. Since design flood for rivers is determined to be 50 year probable flood at the stage of the master plan, benefit corresponds to reducible amount of annual mean flood damage after completion of construction works against a 50-year probable flood and expects some effects derived from the works against more than a 50-year probable flood. In the same manner, drainage rehabilitation projects are designed for a 5-year probable flood.

Economic cost differs from financial cost in the sense of value judgment since the former is valued at real resource cost and the latter is resource cost valued at market prices. Thus, to estimate the economic costs of the proposed project, the financial costs estimated in the Supporting Report on Construction Plan and Cost Estimate have to be converted by using conceivable adjustment.

Economic evaluation is carried out to ascertain the economic viability by comparing the economic benefit and the economic cost. As a method of project evaluation, economic internal rate of return (EIRR) is utilized as a tool of assessing economic viability on whether the proposed projects are to be worth being invested. Besides EIRR, net present value (NPV) and benefit-cost ratio (B/C) are presented as supplementary indices, which are discounted at 10% per annum.

In estimating the economic cost and benefit, the economic values are estimated applying the following conditions and assumptions.

#### (1) Conversion Factor

All the costs involved in every project have to be measured as economic costs, i.e., the real costs or "opportunity costs" incurred from the viewpoint of the national economy. The measurement of economic cost of a commodity, for instance, depends on how likely it is to be procured - whether by increasing import, decreasing export, expanding domestic production or diverting.

Market price of land has peculiar characteristics as compared with other commodities, especially in urban areas. Land price should be evaluated on the basis of productivity of the land for productive plots such as crop cultivation and balance of supply and demand for non-productive land such as residential plots. On the other hand, land price is sometimes distorted by speculation in future escalation expectation and by social prestige. In this study, land price of the project sites was evaluated on the basis of the assessed value by the city assessor of the respective cities concerned and also the assessed value for municipal property tax. Thus, the price could be assessed in a conservative manner. In the economic evaluation of this study, the land value would play the decisive role of the project implementation. Thus, the land cost estimated in the aforesaid way was treated as the same for the other construction costs in this evaluation study.

It is clearly impracticable to trace procurement sources for all the project inputs. Thus, the local currency portion of economic costs was estimated to be approximately 82% of the financial costs, referring to the "Estimating Shadow Exchange Rate, Shadow Wage and Social Rate Discount, 1984, UNDP/NEDA."

(2) **Economic Life**

The economic life of the proposed projects is considered at 50 years after completion of the construction.

(3) **Price Level**

The basic price level for estimates is set at the end of June, 1994. Foreign exchange rate is set at 26.91 pesos per US\$ in obedience to the official exchange rate at the same time.

(4) **Land Enhancement**

Economic benefit accruing from land enhancement in the future within the basin areas is discussed as the conceivable benefit of the projects in this current study. The land enhancement benefit is estimated on the basis of population increase and improvement of both people's living standard and economic activity of industries in the basin areas.

#### 4.2 **Economic Cost**

The financial construction costs, as described in the Supporting Report on Construction Plan and Cost Estimate, consist of the following items:

- (1) Main Construction Cost;
- (2) Compensation Cost;
- (3) Government Administration Cost;
- (4) Physical Contingency Cost; and
- (5) Engineering Service Cost.

After going through the conversion procedure to the financial costs, the respective economic costs are obtained as presented in Table 4.1. They are summarized as follows.

(Unit: Million Pesos in Economic Terms)

City	River Improvement	Drainage	Total
Iloilo	2,073	147	2,220
Cebu	2,705	637	3,342
Ormoc	345	20	365
Tacloban	-	191	191

The operation and maintenance (O&M) cost is annually required during the economic life of the project after completion of the project. The O&M cost is also given by making adjustment to economic prices. The O&M cost is assumed at 0.3% of the total direct construction cost.

In order to compare economic efficiency, construction schedule is standardized as follows:

- (1) The First Year: Engineering Services
- (2) The Second Year: Land Acquisition and Compensation
- (3) The Succeeding Years:
  - o Three Years: Construction Works for Flood Control
  - o Two Years: Construction Works for Drainage Rehabilitation



### 4.3 Economic Benefit

Flood control benefit is defined as the damage reduction by the designed works as mentioned before. The benefit is also converted from financial value to economic value by means of the conversion factor. The benefit, i.e., reduction of flood damage, by return period is estimated in Table 4.2 to 4.13 for the respective projects.

Its annual average benefit is a key factor to identify the economic viability of proposed projects. In calculating the annual average benefit, reference should be made to probability or frequency of flooding on the basis of flood occurrence intervals discussed in the Supporting Report on Hydrology. The annual average benefit is calculated using the following formula:

$$B = \sum_{i=1}^n \frac{1}{2} [D(Q_{i-1}) + D(Q_i)] \cdot [P(Q_{i-1}) - P(Q_i)]$$

where;

- $B$  : annual average benefit  
 $D(Q_{i-1}), D(Q_i)$  : flood damage caused by flood with  $Q_{i-1}$  and  $Q_i$  discharge, respectively  
 $P(Q_{i-1}), P(Q_i)$  : probabilities of occurrence of  $Q_{i-1}$  and  $Q_i$  discharge, respectively.  
 $n$  : number of floods applied

The annual average benefits derived from the respective projects are calculated in Table 4.2 to 4.13, which were estimated under present conditions. Table 4.14 summarizes the annual benefit of the respective projects. The annual benefit of the total projects under present conditions in the cities are summarized as follows.

(Unit: Million Pesos at Economic Terms)

City	River Improvement	Drainage	Total
Iloilo	400	12	412
Cebu	378	121	499
Ormoc	108	2	110
Tacloban	-	77	77

The annual benefits under future conditions are estimated in the same tables. The benefits are assumed to increase in proportion to population growth and improvement of both people's living standard and economic activity of industries annually. The growth rates are assumed in Section 3.5. The annual benefit in the year 2020 are summarized as follows.

(Unit: Million Pesos at Economic Terms)

City	River Improvement	Drainage	Total
Iloilo	1,102	30	1,132
Cebu	1,569	541	2,110
Ormoc	241	4	245
Tacloban	-	191	191

The benefit is assumed to accrue just after completion of the construction works. Although the annual benefit is constant during the economic life under present conditions as shown in Table 4.15, the benefit under the future conditions is expected to increase annually in proportion to the land enhancement, as seen in Table 4.16.

#### 4.4 Economic Evaluation

All project sites are located in urbanized areas of the four cities. The respective cities are representative cities in the regions and are growing rapidly. Thus, these projects would be evaluated under future conditions rather than under present conditions.

Flow of the economic costs and benefits during the economic life of 50 years is shown in Table 4.15 under present conditions and in Table 4.16 under future conditions. The tables also show EIRR, NPV and B/C for the respective projects. Table 4.17 summarizes all EIRRs of the projects. Table 4.18 shows NPV and B/C under future conditions.

Among flood control projects in the cities under future condition, the most effective one is Ormoc City, EIRR of which was 28.6% as shown in Table 4.17. The following cities are Iloilo City of 21.9% and, finally, Cebu City of 19.8% as seen in the table. All the projects except Subang Daku River Project are viable from the economic point of view, because EIRRs of the projects exceed the 15% of the opportunity cost of capital in the Philippines.

Regarding drainage improvement projects, the proposed schemes in Tacloban City are economically the most effective, EIRR of which was calculated at 27.8%. Although the schemes in Cebu City are viable, EIRRs of other schemes in Iloilo and Ormoc cities are 12.7% and 11.9%, respectively, not so high as compared with other projects.

Regarding total integrated projects including both flood control and drainage improvement projects in the four cities, Ormoc City was the most effective from the economic point of view, having the highest EIRR of 27.8%. Succeedingly, Tacloban City showed the same EIRR of 27.8% as Ormoc City, but lower NPV and B/C than Ormoc City. Besides, Tacloban City does not include river improvement schemes. Iloilo City and Cebu City show the EIRRs of 21.3% and 21.1%, respectively. However, the EIRRs of both cities under present conditions were calculated at 13.5% for Iloilo City and 11.2% for Cebu City. From the economic view point, Iloilo City has more urgent priority than Cebu City.

## 5. ECONOMIC EVALUATION FOR URGENT PLAN

### 5.1 Basic Conditions for Economic Evaluation

Conditions for economic evaluation in the feasibility study were almost the same as the master plan study. Only the disbursement schedule was different from the master plan study. The implementation period of the projects are assumed as follows: (a) one year for detailed engineering service; (b) two years for expropriation of project sites and for preparation of construction; and (c) three years for construction works in Iloilo City and two years in Ormoc City. Accordingly, in total, six years are needed for Iloilo City and five years for Ormoc City.

### 5.2 Economic Cost

After going through the conversion procedure to the financial costs, the respective economic costs are obtained as follows.

(Unit: Million Pesos)			
City	River Improvement	Drainage	Total
<b>Financial Cost</b>			
Iloilo	1,322	166	1,488
Ormoc	371	10	381
<b>Economic Cost</b>			
Iloilo	1,106	139	1,245
Ormoc	311	8	319

The above costs are disbursed in accordance with the construction schedule as mentioned in Supporting Report on Construction Plan and Cost Estimate. The annual disbursement schedule of the respective projects is shown Table 5.5 and 5.6.

The operation and maintenance (O&M) cost is annually required during the economic life of the project after completion of the project. The O&M cost is assumed at 0.3% of the total direct construction cost.

### 5.3 Economic Benefit

Flood control benefit is defined as the damage reduction by the designed works as mentioned before. The urgent projects of river improvement works are planned to control the 20-year flood discharge, so the projects can reduce the flood damage within a 20-year return period. The project benefit, i.e., reduction of flood damage, by return period is estimated in Table 5.1 to 5.4 for the respective projects.

The annual average benefits accruing from the respective projects are calculated in the same tables. The annual benefit of the respective projects in the two cities are summarized as follows.

(Unit: Million Pesos in Economic Terms)			
City	River Improvement	Drainage	Total
Iloilo	528	12	540
Ormoc	101	2	103

In addition, future economic benefit is also discussed, including the land enhancement in the project areas. In this case, value of assets in the flood-prone areas is expected to increase in proportion to population increase and economic growth in the future. Accordingly, benefit would increase under the future conditions more than that under the present conditions. These benefits are estimated in the tables as well. They are summarized as follows.

Year	Iloilo City			Ormoc City		
	River Project	Drainage	Total	River Project	Drainage	Total
2000	768	17	785	137	2	139
2010	1,037	26	1,063	176	3	179
2020	1,402	37	1,439	225	4	229

The benefit is assumed to accrue just after completion of the construction works. The annual benefits in respective years are shown in Table 5.6.

#### 5.4 Economic Evaluation

Flow of the economic costs and benefits during economic life of 50 years are shown in Table 5.5 under present conditions and in Table 5.6 under future conditions. The tables also show EIRR, NPV and B/C for the respective projects. The table below summarizes the EIRR of the projects.

Year	Iloilo City			Ormoc City		
	River	Drainage	Total	Riverct	Drainage	Total
<b>Under Present Conditions</b>						
EIRR (%)	27.8	5.9	26.3	23.5	16.5%	23.2
NPV (Million Pesos)	4,396	14	4,410	748	10	758
B/C	6.2	1.1	5.7	4.0	2.6	3.9
<b>Under Future Conditions</b>						
EIRR (%)	38.6	13.9	37.0	32.6	26.2	32.3
NPV (Million Pesos)	10,450	184	10,634	1,572	27	1,599
B/C	13.3	2.8	12.2	7.3	5.2	7.2

EIRR of the entire projects in Iloilo City shows that the projects are clearly viable since it is 26.3% even under present conditions. The projects in Ormoc City are also viable because EIRR is 23.2%.

#### 5.5 Sensitivity Test

The estimates and assumptions in this study have been arrived after careful study on professional experience and expert judgment, but there always remains the question as to the degree of reliability of inputs. It is customary, therefore, to test the results of economic analysis for sensitivity to variation in certain important inputs.

The sensitivity test is carried out to only the variation in the total discounted costs and benefits, without any examination of the variation in the major inputs. The test is made for the variation in 10% of the cost and benefit with respective EIRRs of the total proposed schemes in the cities for the urgent projects under present conditions, and the results are given in the following table.

Cost	Iloilo City		Ormoc City	
	Benefit		Benefit	
	Base Case	10% Down	Base Case	10% Down
Base Case	26.3%	24.4%	23.2%	21.2%
10% Up	24.6%	22.8%	21.4%	19.6%

Even in the worst case such as 10% decrease in benefit and 10% increase in cost, EIRR still holds a higher rate than the opportunity cost of capital of 15%, and this is identified to be economically viable.



## 6. RIVER ADMINISTRATION

### 6.1 General Policy

Article 26 of Republic Act No. 7160 states: "Public works and infrastructure projects and other facilities, programs, and services funded by the National Government under the annual General Appropriations Act, other special laws, and pertinent executive orders, and those wholly or partially funded from foreign sources, are not covered by the devolution of basics and facilities under...". The devolution has been proceeding since budget year 1992 and implementing year 1993 from the National Government to Local Government Units (LGUs) to enable them to perform specific functions and responsibilities.

The National Government is responsible for management of major river basins in the twelve (12) regions and Metro Manila and implemented projects are usually funded by foreign sources. Therefore, construction works at other river basins and drainage areas are controlled by the LGU.

### 6.2 Administration for Medium and Small River Basin

Except for the major river basins and Metro Manila, administration of river basins fall under the LGU's responsibilities. LGUs include the barangay, municipality, province and city. Construction and maintenance activities involving infrastructure facilities in medium/small river basins and urban drainage are basically funded by LGUs. The LGUs shall, in addition to their existing functions and responsibilities, provide basic services and facilities related to the river basin, to cover the following:

(1) Barangay

- Maintenance of barangay roads, bridges and water supply systems; and
- Infrastructure facilities, health, social welfare services, etc.

(2) Municipality

Construction and maintenance of infrastructure facilities funded by the municipality to serve the needs of the residents including, but not limited to:

- Municipal roads and bridges;
- Communal irrigation systems, small water impounding projects, and other similar projects;
- Seawalls, dikes, drainage and sewerage, and flood control;
- Artesian wells, spring development, rainwater collectors, and water supply systems; and
- Other similar facilities.

(3) Province

Construction and maintenance of infrastructure facilities funded by the province to serve the needs of the residents including, but not limited to:

- Provincial roads and bridges;
- Inter-municipal waterworks, drainage, and sewerage, flood control, and irrigation systems;
- Reclamation projects; and
- Other similar facilities.

(4) City

All services and facilities provided by the municipality and the province and, in addition thereto, the following:

- Adequate communication and transportation facilities; and
- Support services and facilities for education, police, and fire protection.

Flood control works are acted upon by request from the local government and the necessity is investigated and reported by the local engineer. The operation and maintenance will also be served by the LGU.

### **6.3 Administration for Urban Drainage**

The basic idea of the budget is the same as that of rivers at LGUs, with distinctions being made by type of road. If the drainage channel is along a national road, the management is under the national office; otherwise, it will be managed by the LGU.



## 7. ORGANIZATION AND ACTIVITY

The organization of DPWH is already well established nationwide; however, some activities of DPWH still encounter various problems, especially, for operation and maintenance works.

### 7.1 Organizational Setup for Flood Control Works

Flood control projects can be categorized into those belonging to the national level and those belonging to the local level. A flood control project belonging to the national level category is defined to be in the 12 major river basins, having a catchment area of 1,400 km<sup>2</sup> or more, and in Metro Manila. Those projects are undertaken and funded by the national government or its regional office. Therefore, the rest of the river basins and drainage are undertaken and funded by the local government. However, when the maintenance and operation works are on protected national facilities such as national bridges, roads and public facilities, the project will be managed by the national government with its budget.

Flood control works under the national level are initiated under a request of a local government and/or the district office of DPWH concerned. An investigation on the necessity of the project is carried out and reported by the district engineer. If the project is recognized to be necessary, the request form will be filled in by the district engineer and sent to the regional office together with a proposal and design. Through the evaluation by the DPWH regional office and the finalization by the regional director, the request will be endorsed to the Regional Development Council (RDC) and the Central Office for inclusion in the national budget. Based on the budgetary requests from all regional offices, the programming division of the DPWH central office summarizes all request forms and arranges the budget for each regional office. On the other hand, projects on the local level are implemented by the LGU's engineering office, using local funds. In addition, projects of both levels may avail funds from foreign loans or grants.

### 7.2 Implementation of Compensation Works

A project may be funded by the national government or foreign sources and supervision of flood control works is undertaken by the DPWH regional office. One of the main problems of project implementation is compensation for house evacuation and land acquisition, and there are two types of compensation processing methods available: one for private house owners and another for squatters.

#### Private House Owner

For private house owners, the major works of compensation are managed by the Regional PMO and DPWH. The main procedure is as follows:

- (1) Require owner to submit a Tax Declaration;
- (2) Verification of Tax Declaration from the Assessor's Office;
- (3) Decide the compensation price; and
- (4) Negotiation with Private Owner.

If the private owner agrees with the compensation price, a contract for land acquisition is prepared. If the owner does not agree with the price, the process goes to the City Appraisal Committee (CAC). The members of the CAC in Metro Manila are the following:

- (1) Metropolitan Manila Commission Governor's Representative
- (2) DPWH Representative
- (3) City Assessor
- (4) City Engineer
- (5) City Treasurer

Their function is to investigate the price of house and land, and to negotiate with the house owner. The negotiation will be tried twice for each owner; otherwise it will proceed to a court of law for judgment. The members of CAC in Iloilo City and Ormoc City are the City Mayor, the City Assessor, the City Engineer and the City Treasurer or City Prosecutor. Even if some of the members are not the same as Metro Manila, the procedure for compensation at every city is almost the same (refer Fig. 7.1 to 7.3).

### Squatters

Compensation for squatters is defined under Republic Act No. 7279 and its implementing rules and regulations to ensure the observation and resettlement procedures mandated by the Urban Development and Housing Act of 1992. These implementing rules and regulations shall not apply to those squatters who constructed their structures after March 28, 1992, the effective date of RA 7279. The procedure of compensation is not the same as a private owner, because a census is required before the notice of resettlement is prepared. The items shown in the census are the following:

- (1) Physical Survey
- (2) Mapping and Household listing
- (3) Tagging
- (4) Actual Census
- (5) Data Evaluation/Processing and Master List Preparation
- (6) Processing of Census Claims
- (7) Information Drive on Resettlement Site

In order to deal with squatters, a local committee is established to guard against squatting syndicates and professional squatters. The members of the committee in Metro Manila are the following:

- (1) Mayor of the concerned city/municipality with a permanent alternate;
- (2) Local chief of the PNP with a permanent alternate;
- (3) Representative of the PCUP with a permanent alternate;
- (4) President of the PCUP accredited urban poor organization with permanent alternate; and,
- (5) A representative from the private sector who shall be chosen by the above members.

The committee has the following functions:

- (1) Within 60 days from the effectivity of Executive Order No.129, adopt the necessary measures to identify and effectively curtail the activities of professional squatters and squatting syndicates, including the names of public officials and/or private individuals or companies abetting or tolerating the commission of the act;
- (2) Provide the Housing and Urban Development Coordinating Council (HUDCC), and NHA copies of identified squatters syndicates and professional squatters in order to safeguard against their inclusion in future programs/projects and recommend disqualification in the existing programs.
- (3) Provide legal assistance to victims of professional squatters/syndicates and make available, through the PNP and DOJ, a consolidated list of squatting syndicates and professional squatters;
- (4) File the necessary charges before the court or Prosecutor s Office;

- (5) Undertake investigation on violation cases on demolition and eviction forward to it and recommend appropriate action on the same to the concerned agencies;
- (6) Monitor demolition and eviction activities; hence, it shall draw up and establish its monitoring system;
- (7) Submit reports to the National Committee Office of the President, copy-furnish concerned agencies involved in the implementation of RA 7279; and
- (8) Call on any government entities for assistance, if necessary.

In the case of Iloilo City and Ormoc City, the procedure for squatters is easier than in Metro Manila, because of the smaller scale of area and houses. Members of the local committee come from the Department of Social Welfare and Development (DSWD), City Engineer Office (CEO) City Planning and Development Office (PDO) and Local Chief Executive. Besides the Local Committee, the resettlement of squatters needs the cooperation of Non-Governmental Organizations (NGOs). Based on the records of past resettlement at both cities, no serious problems have occurred. (Refer Fig. 7.4 to 7.6).

### 7.3 Operation and Maintenance of River

If infrastructure projects are constructed with financial assistance from foreign funds, the maintenance and operation works are undertaken by the Project Management Office (PMO), DPWH until the end of implementation. After completion of the project, the basic services and facilities are turned over to the LGU. The LGU is responsible for a set of services and facilities in accordance with the established national guidelines and standards. From the organizational point of view, in Region VI, the Maintenance Division under the Assistant Regional Director for Operations, and its functions are the following (refer to Fig. 7.7 to 7.10):

- (1) Undertake/supervise the construction of infrastructure period and systems in the Region.
- (2) Prepare/review plans, specifications, program of work and estimate for projects to be repaired and/or rehabilitated.
- (3) Prepare annual program for maintenance, repair and rehabilitation of projects in the Region.
- (4) Perform such other functions that may be assigned.

The maintenance works is mostly carried out by the regional office's maintenance division, regional equipment services and construction division except in some special cases. However, Iloilo City does not have enough equipment and manpower to operate and maintain all works, because of its small budget. On the other hand, in the organization of Ormoc City, the City Engineer's Office has six (6) sections such as planning and design, building, administration, finance, construction and maintenance. The maintenance works is carried out by the maintenance section upon the request of City Engineer within the allocated budget.

In the 1994 DPWH Budget, the allocation for the construction of infrastructure is about 13.8 billion pesos, and that of maintenance work is 1.94 billion pesos or 7.14% of the construction cost. The national budget for construction of flood control is 1.9 billion pesos, that is 13.77% of the total budget for construction. The budgets for construction for Regions VI and VIII are 0.62 billion pesos or 4.48% of the whole country and 0.83 billion pesos or 6.03%, respectively.

The national budget allocation for the maintenance of flood control works is limited to 0.16 billion pesos. This budget is allotted to 15 regional offices, and the maintenance budget for Regions VI and VIII are 6.75% and 7.01% of the whole, respectively.

Iloilo City has its own local fund of 4.06 million pesos for maintenance works and 0.38 million pesos for flood control which is 11.53% of the whole maintenance budget of the city. The maintenance works of flood control facilities in Iloilo City have been undertaken under two (2) projects; their main tasks are to repair revetments and concrete wall of rivers. Ormoc City has allocated 3.37 million pesos for maintenance and 0.38 million for flood control, which is 8.74% of the total maintenance budget of Ormoc City (refer to Table 7.1). The maintenance works for flood control in Ormoc City have been undertaken with four (4) projects, and out of the four, two projects are for river controls and the other two are drainage works.

From the above, shortage of budget is becoming more serious with LGUs. Therefore, the activities for maintenance and operation at LGUs are not functioning well due to budgetary constraints.

### Reference and Data Collected

Code	Title	Issued on	Issued by
<b>I. Socio-Economic Information</b>			
S-01	Food Balance Sheet of the Philippines, 1987-1989		NSCB
S-02	National Handbook on Land and Other Physical Resources	July 1991	NLUC, NEDA
S-03	Philippine 1980, Population, Land Area, and Density: 1970, 1975 and 1980		NCSO, NEDA
S-04	Accomplishment Report 1978-83/84, Iloilo City	May 1984	GOF
S-05	Design Guidelines Criteria and Standards for Public Works and Highways, Vol.II		BD
S-06	Provincial Profile of Iloilo, 1993	Jan. 1993	PPDO
S-07	Cebu and Negros Profile	Nov. 1988	WRC
S-08	Cebu River Basins, Central Visayas	Dec. 1982	NWRC
S-09	Leyte Basins, Eastern Visayas	May 1980	NWRC
S-10	Provincial Profile, Leyte	Dec. 1990	NSO
S-11	Socio-Economic Profile, Iloilo City 1991	1991	City Planning & Dev. Office
S-12	Cebu City Profile 1993	1993	Cebu City Mayor Dept. Plan. & Dev.
S-13	Profile of Central Visayas 1991	June 1991	NEDA, Regional Office VII
S-14	Socio-Economic Profile of Tacloban City	1993	Tacloban City, Plan. & Dev. Dept.
S-15	Socio-Economic Profile 1993, Ormoc City	1993	Ormoc City
S-16	Organizational Chart and Functional Chart of Cebu City Government	1993	Cebu City Hall DOPD
S-17	Organizational Chart and Functional Statement, Ormoc City	1993	Ormoc City Hall
S-18	Socio-Economic Profile Iloilo City, 1992	1994	City Hall of Iloilo
S-19	Annual Report 1993	March 1994	NEDA
<b>II. Development Plan</b>			
S-20	Medium-Term Philippine Development Plan 1987-1992	Nov. 1986	GOF
S-21	Updates on the Medium-Term Philippine Development Plan, 1990-1992	Nov. 1990	NEDA
S-22	Medium-Term Philippine Development Plan 1993-1998 (Draft)	1993	NEDA
S-23	Medium-Term Public Investment Program, 1988-1992	June 1988	NEDA
S-24	1990 Philippine Development Report	June 1991	NEDA
S-25	Staff Appraisal Report, Philippine, Municipal Development Project	May 1984	UWSD, EAPPD
S-26	Regional Cities Development Project, Technical Report, Iloilo City		MPWH
S-27	Regional Cities Development Project, Addendum Technical Report, Iloilo City		MPWH
S-28	Regional Development Plan, 1993-1998	1993	Regional Develop. Council
S-29	Regional Development Plan and Investment Program, 1993-1998, Eastern Visayas	1993	Regional Develop. Council

Code	Title	Issued on	Issued by
S-30	Western Visayas Region, Development Plan 1993-1998	1993	Regional Develop. Council
S-31	City Development Plan, Ormoc City, 1993-1998	1993	Ormoc City, City Mayor
S-32	Western Visayas Region, Development Plan 1993-1998, Executive Summary	Dec. 1992	RDC, Region VI NEDA, Region VI
S-33	City Development Plan 1993-1998 and Annual Investment Program 1993	1993	Tacloban City City Mayor
S-34	Major Development Programs and Projects 1986-1992, Tacloban City	1986	The Aquino Administration
S-35	Major Development Programs and Projects 1986-1992, Ormoc City	1986	The Aquino Administration
S-36	City Development Plan, Iloilo City	1994	City Hall of Iloilo
<b>III. Census and Statistical Databook</b>			
S-37	1992 Philippine Statistical Yearbook	Oct. 1992	NSCB
S-38	Philippine Yearbook, 1989	Dec. 1989	NSO
S-39	1990 Census of Population and Housing, Philippines	Dec. 1990	NSO
S-40	1990 Census of Population and Housing, Cebu, Report No.2-28G	Dec. 1990	NSO
S-41	1990 Census of Population and Housing, Iloilo, Report No.2-41F	Dec. 1990	NSO
S-42	1990 Census of Population and Housing, Leyte, Report No.2-51H	Dec. 1990	NSO
S-43	1990 Census of Population and Housing, Iloilo, Report No.2-43F	Dec. 1990	NSO
S-44	Philippine Population Projections 1980-2030		Minister of Economic Plan.
S-45	Philippines - 1970 Census of Population and Housing	April 1974	NCSSO
S-46	Iloilo - 1970 Census of Population and Housing	April 1974	NCSSO
S-47	Cebu - 1970 Census of Population and Housing	April 1974	NCSSO
S-48	Leyte - 1970 Census of Population and Housing	April 1974	NCSSO
S-49	1980 - Census of Population and Housing, Philippines	May 1983	NEDA/NCSSO
S-50	1980 - Census of Population and Housing, Iloilo	May 1983	NEDA/NCSSO
S-51	1980 - Census of Population and Housing, Cebu	May 1983	NEDA/NCSSO
S-52	1980 - Census of Population and Housing, Leyte	May 1983	NEDA/NCSSO
S-53	1987 Annual Survey of Establishments, Manufacturing	1989	NSO
S-54	1987 Annual Survey of Establishments, Wholesale and Retail Trade	1989	NSO
S-55	1993 Philippine Statistical Yearbook	Oct. 1993	NSCB
S-56	1992 Social and Economic Trend in Region VI	Dec. 1992	NSCB
S-57	Economic Indicators, April 1994	April 1994	NSCB
S-58	1988 Annual Survey of Establishments, Vol.III Manufacturing (Large Scale)	March 1993	NSO
S-59	1988 Annual Survey of Establishments, Vol.III-A Manufacturing (Small Scale)	Oct. 1992	NSO
S-60	1988 Annual Survey of Establishments, Vol.VII Wholesale and Retail Trade	Dec. 1992	NSO

Code	Title	Issued on	Issued by
S-61	Selected Statistics on Agriculture	May 1994	BAS
S-62	Selected Statistics on Agriculture 1989-1993, Region VII	1994	BAS
<b>IV. Flood Damage and Rehabilitation Report</b>			
S-63	Damage Report Brought About by Super Typhoon Ruping	Jan. 1991	Cebu City, Dept. of Plan. & Develop.
S-64	Disaster Monitoring Report, Typhoon Ruping, November 1990	Nov. 1990	DSWD, Cebu City
S-65	Results of Disaster Operations, Typhoon Ruping in Cebu City	1990	OCD, Region VII
S-66	Rehabilitation Plan 1992-1996 for Ormoc City	Dec. 1991	Ormoc City
S-67	Special Rehabilitation Plan for Leyte and Ormoc City	Dec. 1991	
<b>V. Economic and Financial Databook</b>			
S-68	1992 Forty-Fourth Annual Report	March 1993	Central Bank of Philippines
S-69	Taxable Units, Market Value, Unit Cost and Depreciation Table in Cebu City, 1993	March 1993	Cebu City, City Assessor & MICS
S-70	Taxable Units and Their Assessed Value in Tacloban City	1993	Tacloban City Assessor's Office
S-71	1988 Family Income and Expenditure Survey, Volume I, National Summary, Final Report	June 1990	NSO
S-72	1988 Family Income and Expenditure Survey, Volume II, Provincial/Key City, Final Report	Aug. 1990	NSO
S-73	Estimating Shadow Exchange Rate, Shadow Wage and Social Rate Discount	1984	UNDP/NEDA
S-74	Quarterly Review of Commodity Market, Fourth Quarter 1992	Dec. 1992	World Bank
S-75	Medium-Term Public Investment Program 1993-1998 (Draft)	1993	NEDA
S-76	1991 Family Income and Expenditure Survey, Volume I, National Summary, Final Report	Nov. 1993	NSO
S-77	1991 Family Income and Expenditure Survey, Volume II, Provincial/Key City, Final Report	Jan. 1994	NSO
<b>VI. Infrastructure</b>			
S-78	Metro Iloilo Water District, Water Supply Feasibility Study	June 1980	LWUA
S-79	Ordinance 1360, Revised Road Details for Cebu City	Feb. 1990	Cebu City
S-80	The Panay River Basin-wide Flood Control Study, Supporting Report II	Nov. 1985	JICA
S-81	Study on Ilog-Hilabangan River Basin Flood Control Project, Interim Report	March 1991	JICA
S-82	Feasibility Studies on the Improvement of Major Road Sections in Luzon, Visayas		DPWH

***T A B L E S***



Table 1.1 Census Population and Labor Force in Philippines and Province: 1970, 1980 and 1990

Item	Census Population (Thousand)			Percentage Distribution (%)			Average Annual Growth Rate (%)	
	1970	1980	1990	1970	1980	1990	'70-'80	'80-'90
<b>Philippines</b>								
01. Population	36,684	48,317	60,559	100.0	100.0	100.0	2.79	2.28
02. Urban	11,678	18,025	29,440	31.8	37.3	48.6	4.44	5.03
03. Rural	25,066	30,292	31,119	68.3	62.7	51.4	1.91	0.27
04. 15 Years & Over	29,928	28,003	36,572	81.6	58.0	60.4	-	2.71
05. Labor Force	11,679	15,140	21,107	31.8	31.3	34.9	2.63	3.38
06. Labor Participation Rate	39.0%	54.1%	57.7%	-	-	-	-	-
07. Employed	10,737	14,184	19,318	29.3	29.4	31.9	2.82	3.14
08. Employment Rate	91.9%	93.7%	91.5%	-	-	-	-	-
09. Unemployment	942	956	1,788	2.6	2.0	3.0	0.15	6.46
10. Unemployment Rate	8.1%	6.3%	8.5%	-	-	-	-	-
<b>Iloilo Province</b>								
01. Population	1,168	1,434	1,763	100.0	100.0	100.0	2.07	2.09
02. Urban	334	395	524	28.6	27.6	29.7	1.69	2.86
03. Rural	834	1,039	1,239	71.4	72.4	70.3	2.22	1.78
04. 15 Years & Over	819	853	1,085	70.1	59.5	61.5	-	2.44
05. Labor Force	395	-	594	33.9	-	33.7	-	2.06 *2
06. Labor Participation Rate	48.3%	-	54.8%	-	-	-	-	-
07. Employed	361	412	515	30.9	28.7	29.2	1.33	2.26
08. Employment Rate	91.3%	-	86.6%	-	-	-	-	-
09. Unemployed	34	-	79	2.9	-	4.5	-	4.30 *2
10. Unemployment Rate	8.7%	-	13.4%	-	-	-	-	-
<b>Cebu Province</b>								
01. Population	1,634	2,092	2,638	100.0	100.0	100.0	2.50	2.35
02. Urban	652	925	1,382	39.9	44.2	52.4	3.56	4.10
03. Rural	982	1,167	1,256	60.1	55.8	47.6	1.74	0.74
04. 15 Years & Over	1,153	1,253	1,610	70.5	59.9	61.0	-	2.54
05. Labor Force	595	-	959	36.4	-	36.4	-	2.41 *2
06. Labor Participation Rate	51.6%	-	59.6%	-	-	-	-	-
07. Employed	558	707	882	34.2	33.8	33.4	2.39	2.24
08. Employment Rate	93.8%	-	91.9%	-	-	-	-	-
09. Unemployed	37	-	77	2.3	-	2.9	-	3.74 *2
10. Unemployment Rate	6.2%	-	8.1%	-	-	-	-	-
<b>Leyte Province</b>								
01. Population	1,110	1,303	1,484	100.0	100.0	100.0	1.62	1.31
02. Urban	239	319	485	21.5	24.5	32.7	2.95	4.27
03. Rural	871	983	998	78.5	75.5	67.3	1.22	0.15
04. 15 Years & Over	756	734	856	68.1	56.3	57.7	-	1.56
05. Labor Force	389	-	475	35.1	-	32.0	-	1.01 *2
06. Labor Participation Rate	51.5%	-	55.5%	-	-	-	-	-
07. Employed	357	374	432	32.2	28.7	29.1	0.45	1.46
08. Employment Rate	91.9%	-	90.8%	-	-	-	-	-
09. Unemployed	32	-	44	2.9	-	2.9	-	1.61 *2
10. Unemployment Rate	8.1%	-	9.2%	-	-	-	-	-

Source: (1) 1970, 1980 and 1990 Census of Population and Housing, Philippines (NSO)

(2) 1970, 1980 1990 Census of Population and Housing, Cebu, Iloilo and Leyte (NSO)

Note: \*1 In 1970 census, figures were accumulation of 10 years old and over.

\*2 Average annual growth rate between 1970 and 1990

Table 1.2 Census Population and Labor Force in Selected Four Cities:  
1970, 1980 and 1990

Item	Census Population (Thousand)			Percentage Distribution (%)			Average Annual Growth Rate (%)	
	1970	1980	1990	1970	1980	1990	'70-'80	'80-'90
<b>Iloilo City</b>								
01. Population	209.7	244.8	307.6	100.0	100.0	100.0	1.56	2.31
02. Urban	209.7	244.8	307.6	100.0	100.0	100.0	1.56	2.31
03. Rural	0.0	0.0	0.0	0.0	0.0	0.0	-	-
04. 15 Years & Over	149.5	153.6	202.0	71.3	62.8	65.7	-	2.78
05. Labor Force	71.0	-	110.2	33.8	-	35.8	-	2.23 *2
06. Labor Participation Rate	47.5%	-	54.6%	-	-	-	-	-
07. Employed	65.6	-	100.0	31.3	-	32.5	-	2.12 *2
08. Employment Rate	92.5%	-	90.7%	-	-	-	-	-
09. Unemployed	5.3	-	10.3	2.5	-	3.3	-	3.34 *2
10. Unemployment Rate	7.5%	-	9.3%	-	-	-	-	-
<b>Cebu City</b>								
01. Population	347.1	490.3	604.6	100.0	100.0	100.0	3.51	2.12
02. Urban	347.1	490.3	604.6	100.0	100.0	100.0	3.51	2.12
03. Rural	0.0	0.0	0.0	0.0	0.0	0.0	-	-
04. 15 Years & Over	249.9	308.6	393.4	72.0	62.9	65.1	-	2.46
05. Labor Force	127.7	-	232.3	36.8	-	38.4	-	3.04 *2
06. Labor Participation Rate	51.1%	-	59.1%	-	-	-	-	-
07. Employed	118.5	-	216.4	34.1	-	35.8	-	3.06 *2
08. Employment Rate	92.8%	-	93.2%	-	-	-	-	-
09. Unemployed	9.1	-	15.9	2.6	-	2.6	-	2.80 *2
10. Unemployment Rate	7.2%	-	6.8%	-	-	-	-	-
<b>Tacloban City</b>								
01. Population	76.5	102.5	136.4	100.0	100.0	100.0	2.97	2.90
02. Urban	76.5	102.5	136.4	100.0	100.0	100.0	2.97	2.90
03. Rural	0.0	0.0	0.0	0.0	0.0	0.0	-	-
04. 15 Years & Over	52.9	59.9	82.6	69.1	58.4	60.6	-	3.27
05. Labor Force	25.5	-	45.0	33.4	-	33.0	-	2.87 *2
06. Labor Participation Rate	48.3%	-	54.5%	-	-	-	-	-
07. Employed	23.3	-	42.0	30.4	-	30.8	-	2.99 *2
08. Employment Rate	91.2%	-	93.3%	-	-	-	-	-
09. Unemployed	2.3	-	3.0	2.9	-	2.2	-	1.42 *2
10. Unemployment Rate	8.8%	-	6.7%	-	-	-	-	-
<b>Ormoc City</b>								
01. Population	84.6	105.0	129.2	100.0	100.0	100.0	2.19	2.10
02. Urban	-	14.1	38.5	-	13.4	29.8	-	10.57
03. Rural	-	90.9	90.8	-	86.6	70.2	-	-0.02
04. 15 Years & Over	58.6	59.2	75.6	69.3	56.4	58.5	-	2.49
05. Labor Force	31.7	-	41.4	37.4	-	32.0	-	1.35 *2
06. Labor Participation Rate	54.1%	-	54.7%	-	-	-	-	-
07. Employed	29.697	-	38.7	35.1	-	30.0	-	1.33 *2
08. Employment Rate	93.8%	-	93.5%	-	-	-	-	-
09. Unemployed	2.0	-	2.7	2.3	-	2.1	-	1.60 *2
10. Unemployment Rate	6.2%	-	6.5%	-	-	-	-	-

Source: (1) 1970, 1980 and 1990 Census of Population and Housing, Philippines (NSO)  
(2) 1970, 1980 1990 Census of Population and Housing, Cebu, Iloilo and Leyte (NSO)

Note: \*1 In 1970 census, figures were accumulation of 10 years old and over.

\*2 Average annual growth rate between 1970 and 1990

Table 1.3 Population Density and Average Family Size at 1990 Census

Province/City	1990 Census Population	Land Area (ha)	Density (Persons/ha)	Number of Households	Family Size (Persons/Family)
1. Iloilo Province	1,762,604	532,400	3	320,499	5.50
Iloilo City	307,620	5,600	55	56,617	5.43
- Arevalo	25,064	414	61	4,581	5.47
- City Proper	56,103	236	237	10,774	5.21
- Jaro	79,326	2,441	32	14,642	5.42
- La Paz	66,186	939	71	12,242	5.41
- Mandurriao	29,752	1,201	25	5,237	5.68
- Molo	51,189	369	139	9,141	5.60
2. Cebu Province	2,638,290	508,840	5	506,109	5.21
Cebu City	604,630	28,090	22	114,708	5.27
- Cebu Urban	541,674	4,820	112	102,446	5.29
- Cebu Rural	62,956	23,270	3	12,262	5.13
3. Leyte Province	1,483,563	626,830	2	287,872	5.15
Tacloban City	136,415	10,090	14	24,897	5.48
Ormoc City	129,224	46,430	3	24,895	5.19
- Ormoc Urban*1	42,612	377	113	8,053	5.29
City Proper	14,761	96	154	2,850	5.18
Outskirts	27,851	281	99	5,203	5.35
- Ormoc Rural	86,612	46,053	2	16,842	5.14
Rural Core*2	15,992	-	-	3,119	5.13
Rural Area	70,620	-	-	13,723	5.15
4. Total of 4 Cities	1,177,889	90,210	13	221,117	5.33

Source: (1) Cebu City Profile 1993 (City Mayor's Office)

(2) City Development Plan, Ormoc City (City Planning and Development Office)

(3) 1990 Census of Population and Housing, Cebu, Iloilo and Leyte (NSO)

Note: \*1 The following 38 Barangays are located in urbanized areas:

29 Barangays in City Proper; Aletria; Bagong Buhay; Batuan; Can-adieng; Cogon;  
Dona Feliza Mejia; Don Felipe Larrazabal; Punta; and San Isidro.

\*2 Counted as urban population in the 1990 census.

Table 1.4 Number of Gainful Workers in 15 Years Old and OVER by Sector

Item	Gainful Workers (1000)			Percentage Distribution (%)			Ave. Growth Rate(%)	
	1970	1980	1990	1970	1980	1990	'70-'80	'80-'90
<b>Philippines</b>	11,130	14,174	21,098	100.0	100.0	100.0	2.4	4.1
1. Agriculture	5,832	7,295	7,947	52.4	51.5	37.7	2.3	0.9
- Crop Production	5,400	6,513	-	48.5	45.9	-	1.9	-
- Fishery	354	708	-	3.2	5.0	-	7.2	-
- Others	78	74	-	0.7	0.5	-	-0.5	-
2. Industry	1,913	2,153	3,009	17.2	15.2	14.3	1.2	3.4
- Manufacturing	1,368	1,370	1,874	12.3	9.7	8.9	0.0	3.2
- Construction	460	635	936	4.1	4.5	4.4	3.3	4.0
- Others	86	149	199	0.8	1.0	0.9	5.7	3.0
3. Services	3,205	4,560	8,568	28.8	32.2	40.6	3.6	6.5
- Commerce	837	1,384	2,054	7.5	9.8	9.7	5.2	4.0
- Others	2,368	3,176	6,513	21.3	22.4	30.9	3.0	7.4
4. Not Described	179	166	1,575	1.6	1.2	7.5	-0.8	25.3
<b>Iloilo Province</b>	361	413	554	100.0	100.0	100.0	1.3	3.0
1. Agriculture	187	242	253	51.8	58.6	45.6	2.6	0.5
- Crop Production	169	208	-	46.8	50.5	-	2.1	-
- Fishery	15	25	-	4.2	6.2	-	5.4	-
- Others	3	8	-	0.8	1.9	-	10.1	-
2. Industry	65	38	56	18.0	9.2	10.2	-5.2	4.0
- Manufacturing	47	21	32	13.0	5.2	5.8	-7.6	4.2
- Construction	16	14	22	4.4	3.4	3.9	-1.2	4.3
- Others	2	2	3	0.6	0.6	0.5	2.2	0.8
3. Services	101	125	230	28.0	30.4	41.6	2.2	6.3
- Commerce	30	27	55	8.3	6.6	9.9	-1.0	7.3
- Others	71	98	175	19.7	23.8	31.6	3.3	6.0
4. Not Described	5	8	14	1.4	1.9	2.6	4.4	6.3
<b>Cebu Province</b>	558	708	1,040	100.0	100.0	100.0	2.4	3.9
1. Agriculture	286	339	296	51.3	47.9	28.4	1.7	-1.4
- Crop Production	258	286	-	46.2	40.5	-	1.0	-
- Fishery	26	47	-	4.7	6.6	-	6.0	-
- Others	2	6	-	0.4	0.8	-	11.6	-
2. Industry	94	136	205	16.8	19.2	19.7	3.8	4.2
- Manufacturing	65	87	142	11.6	12.3	13.7	2.9	5.0
- Construction	22	33	45	3.9	4.7	4.3	4.2	3.1
- Others	7	16	17	1.3	2.2	1.7	8.5	1.0
3. Services	167	231	366	29.9	32.6	35.2	3.3	4.7
- Commerce	47	60	94	8.4	8.4	9.0	2.4	4.7
- Others	120	171	272	21.5	24.2	26.2	3.6	4.8
4. Not Described	9	2	173	1.6	0.3	16.7	-13.4	55.3
<b>Leyte Province</b>	357	374	478	100.0	100.0	100.0	0.5	2.5
1. Agriculture	246	254	250	68.9	68.0	52.2	0.3	-0.2
- Crop Production	231	228	-	64.7	61.0	-	-0.1	-
- Fishery	13	23	-	3.6	6.1	-	5.9	-
- Others	2	3	-	0.6	0.9	-	5.3	-
2. Industry	38	30	38	10.6	8.0	8.0	-2.3	2.5
- Manufacturing	29	15	22	8.1	4.1	4.6	-6.3	3.9
- Construction	9	14	14	2.5	3.7	3.0	4.3	0.5
- Others	0	1	2	0.0	0.3	0.4	-	3.9
3. Services	66	85	186	18.5	22.7	38.9	2.5	8.2
- Commerce	19	18	45	5.3	4.9	9.5	-0.3	9.5
- Others	47	66	140	13.2	17.8	29.4	3.5	7.8
4. Not Described	4	5	4	1.1	1.2	0.9	1.4	-0.6

Source: (1) 1970, 1980 and 1990 Census of Population and Housing, Philippines (NSO)

(2) 1970, 1980 and 1990 Census of Population and Housing, Cebu, Iloilo and Leyte (NSO)

Table 1.5 Present Land Use in Selected Four Cities

Land Use Category	Iloilo*1		Cebu		Tacloban		Ormoc	
	Area (ha)	Share (%)	Area (ha)	Share (%)	Area (ha)	Share (%)	Area (ha)	Share (%)
<b>1. Built-up Area</b>								
1) Residential Area	1,713.7	30.6	2,293.5	66.0	328.7	17.9	332.7	32.0
2) Commercial Area	297.1	5.3	545.9	15.7	128.8	7.0	29.3	2.8
3) Institutional Area	268.2	4.8	113.9	3.3	130.6	7.1	69.7	6.7
4) Industrial Area	120.0	2.1	154.7	4.5	-	-	4.2	0.4
Sub-total	2,399.0	42.8	3,108.0	89.4	588.1	31.9	435.9	41.9
<b>2. Natural/Green Space Area</b>								
1) Park, Open-spaces, etc.	76.1	1.4	147.4	4.2	35.6	1.9	12.4	1.2
2) Agricultural Land	2,887.0	51.6	0.0	0.0	-	-	-	-
- Crop Field	1,853.5	33.1	0.0	0.0	-	-	-	-
- Upland Field	256.8	4.6	0.0	0.0	-	-	-	-
- Fishpond, Saltbeds	776.7	13.9	0.0	0.0	-	-	-	-
3) Not Identified	237.9	4.2	219.6	6.3	1,217.7	66.1	590.8	56.9
Sub-total	3,201.0	57.2	367.0	10.6	1,253.3	68.1	603.2	58.1
<b>3. Total</b>	<b>5,600.0</b>	<b>100.0</b>	<b>3,475.0</b>	<b>100.0</b>	<b>1,841.4</b>	<b>100.0</b>	<b>1,039.1</b>	<b>100.0</b>

Source: \*1 The land use was identified with the topographic map which drawn as the survey results of JICA in 1994.

\*2 The land use was identified with the topographic map of the scale of 1:50,000 in 1993.

\*3 Covering the town proper and its surrounding areas demarcated by the Ormoc City Government.

Table 1.6 (1/2) Gross Regional Domestic Product by Economic Sector

Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993
(Unit: Million Pesos)									
<b>Gross Domestic Product in Philippines</b>									
1. Agriculture	140,554	145,807	163,927	183,515	210,009	235,956	261,868	294,922	317,918
1) Crop Production	86,756	84,592	96,922	106,785	126,256	140,191	152,287	173,857	188,790
Palay	22,476	20,595	21,706	25,147	31,565	36,416	36,373	35,761	42,615
Corn	9,491	8,724	10,471	11,776	15,329	16,469	14,699	18,233	18,107
Coconut	11,307	6,938	11,003	12,494	12,050	12,515	13,819	20,352	18,489
Sugar Cane	3,791	3,093	4,004	4,351	6,650	6,962	9,288	9,567	9,538
Others	39,691	45,242	49,738	53,017	60,662	67,829	78,108	89,944	100,041
2) Fishery	27,058	32,019	31,256	34,708	36,460	40,833	47,276	51,341	56,931
3) Livestock & Poultry	17,743	19,864	22,493	28,966	36,152	46,025	54,959	65,093	66,627
4) Forestry	8,997	9,332	13,256	13,056	11,141	8,907	6,541	4,631	5,570
2. Industry	200,548	210,528	235,094	280,957	322,964	371,347	424,504	443,813	482,694
1) Mining & Quarrying	11,893	14,144	14,354	15,275	15,446	16,659	17,504	16,263	16,621
2) Manufacturing	143,851	149,958	169,627	204,784	230,163	267,485	315,938	326,839	349,595
3) Construction	29,037	29,784	37,104	42,814	57,281	64,903	61,962	67,968	80,060
4) Elec. Gas & Water	15,767	16,642	14,009	18,084	20,074	22,300	29,100	32,743	36,417
3. Services	230,781	252,552	283,743	334,710	392,471	469,934	561,638	612,823	665,713
1) Commerce	82,835	87,825	96,518	114,085	133,224	154,592	180,485	193,573	207,563
2) Others	147,946	164,727	187,225	220,625	259,247	315,342	381,153	419,251	458,151
4. Total	571,883	608,887	682,764	799,182	925,444	1,077,237	1,248,011	1,351,559	1,466,326
<b>Gross Regional Domestic Product in Region VI</b>									
1. Agriculture	15,083	15,486	17,302	19,087	22,229	24,382	27,701	31,430	34,742
1) Crop Production	8,954	7,363	8,806	9,527	11,303	11,961	14,157	15,398	17,806
Palay	2,807	2,530	2,995	3,369	3,720	3,625	3,744	4,104	5,474
Corn	109	112	137	155	178	142	143	258	314
Coconut	345	295	449	460	495	513	561	884	845
Sugar Cane	2,228	1,824	2,239	2,400	3,377	3,563	4,963	4,791	4,883
Others	3,465	2,601	2,986	3,143	3,532	4,119	4,747	5,363	6,289
2) Fishery	4,203	6,034	6,180	6,651	7,087	7,856	8,085	9,752	10,465
3) Livestock & Poultry	1,925	2,088	2,315	2,909	3,839	4,565	5,459	6,279	6,471
4) Forestry	0	0	1	1	0	0	0	0	0
2. Industry	10,861	11,524	12,072	15,028	17,249	18,849	21,533	22,024	24,408
1) Mining & Quarrying	900	1,228	843	916	893	1,520	1,829	1,761	1,966
2) Manufacturing	8,082	8,289	9,360	12,061	12,857	14,697	16,701	17,025	18,467
3) Construction	1,229	1,324	1,477	1,587	2,950	1,999	2,254	2,260	2,821
4) Elec. Gas & Water	651	684	393	464	549	633	750	978	1,155
3. Services	16,701	17,544	19,516	23,150	26,978	32,201	38,502	41,603	45,578
1) Commerce	7,693	7,713	8,485	10,373	12,230	14,491	17,318	18,131	19,523
2) Others	9,009	9,831	11,030	12,777	14,749	17,710	21,184	23,472	26,055
4. Total	42,645	44,554	48,890	57,265	66,456	75,433	87,737	95,057	104,728

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank

Table 1.6 (2/2) Gross Regional Domestic Product by Economic Sector

	(Unit: Million Pesos)									
Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993	
<b>Gross Regional Domestic Product in Region VII</b>										
1. Agriculture	5,676	5,868	6,563	7,438	9,317	10,681	12,466	13,574	14,446	
1) Crop Production	2,902	3,107	3,647	3,999	5,083	5,367	6,142	6,570	7,122	
Palay	361	345	390	461	743	722	803	637	805	
Corn	593	543	623	686	978	1,066	933	941	798	
Coconut	370	307	484	503	472	495	533	938	863	
Sugar Cane	379	302	431	477	838	852	1,306	1,218	1,229	
Others	1,199	1,609	1,718	1,873	2,052	2,232	2,566	2,837	3,425	
2) Fishery	1,085	938	962	1,010	1,085	1,267	1,575	1,609	1,816	
3) Livestock & Poultry	1,653	1,785	1,955	2,428	3,149	4,047	4,748	5,395	5,509	
4) Forestry	37	37	0	0	0	0	0	0	0	
2. Industry	11,744	12,704	15,024	18,205	21,640	23,609	26,744	26,794	28,834	
1) Mining & Quarrying	2,058	2,056	2,620	3,452	3,750	2,764	2,828	2,162	2,016	
2) Manufacturing	7,709	8,532	9,819	11,784	13,848	16,068	18,628	19,021	20,741	
3) Construction	1,224	1,335	1,841	1,972	2,959	3,563	3,630	3,648	3,719	
4) Elec. Gas & Water	753	782	743	997	1,083	1,214	1,658	1,963	2,358	
3. Services	18,235	19,708	21,739	26,229	30,781	36,250	43,817	47,348	51,015	
1) Commerce	9,476	10,159	11,088	13,846	16,282	18,847	22,308	23,638	25,039	
2) Others	8,759	9,549	10,651	12,383	14,498	17,404	21,510	23,709	25,976	
4. Total	35,656	38,280	43,326	51,872	61,737	70,540	83,028	87,715	94,296	
<b>Gross Regional Domestic Product in Region VIII</b>										
1. Agriculture	6,180	5,998	6,844	7,754	8,714	9,839	10,661	12,116	12,891	
1) Crop Production	4,410	3,952	4,564	4,920	6,048	6,793	7,210	8,168	8,768	
Palay	1,190	970	966	1,161	1,692	2,092	2,145	2,183	2,621	
Corn	575	459	589	637	731	766	672	741	638	
Coconut	905	620	898	869	983	1,036	952	1,487	1,322	
Sugar Cane	78	69	89	98	216	226	322	297	309	
Others	1,661	1,835	2,021	2,155	2,426	2,672	3,119	3,461	3,879	
2) Fishery	748	883	922	1,040	1,067	1,322	1,525	1,712	1,859	
3) Livestock & Poultry	541	647	703	868	1,263	1,609	1,808	2,107	2,154	
4) Forestry	481	516	655	926	336	116	118	128	109	
2. Industry	4,947	4,786	5,298	7,168	7,945	9,306	11,753	10,262	11,258	
1) Mining & Quarrying	292	156	55	28	79	226	216	220	263	
2) Manufacturing	3,599	3,602	4,057	5,808	6,799	7,609	8,922	8,291	9,285	
3) Construction	678	631	869	970	685	1,023	2,043	1,095	932	
4) Elec. Gas & Water	378	397	317	362	382	448	573	655	778	
3. Services	5,098	5,535	5,996	6,908	7,981	9,263	10,838	11,825	12,778	
1) Commerce	976	943	1,049	1,182	1,361	1,552	1,823	1,966	2,088	
2) Others	4,122	4,592	4,947	5,726	6,620	7,711	9,015	9,860	10,690	
4. Total	16,226	16,319	18,139	21,830	24,640	28,408	33,252	34,203	36,926	

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank

Table 1.7 Percentage Distribution of GRDP by Economic Sector: 1985-1993

Economic Sector	(Unit: %)								
	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>Philippines</b>									
1. Agriculture	24.6	23.9	24.0	23.0	22.7	21.9	21.0	21.8	21.7
2. Industry	35.1	34.6	34.4	35.2	34.9	34.5	34.0	32.8	32.9
- Manufacturing	25.2	24.6	24.8	25.6	24.9	24.8	25.3	24.2	23.8
3. Services	40.4	41.5	41.6	41.9	42.4	43.6	45.0	45.3	45.4
- Commerce	14.5	14.4	14.1	14.3	14.4	14.4	14.5	14.3	14.2
4. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Region VI</b>									
1. Agriculture	35.4	34.8	35.4	33.3	33.4	32.3	31.6	33.1	33.2
2. Industry	25.5	25.9	24.7	26.2	26.0	25.0	24.5	23.2	23.3
- Manufacturing	19.0	18.6	19.1	21.1	19.3	19.5	19.0	17.9	17.6
3. Services	39.2	39.4	39.9	40.4	40.6	42.7	43.9	43.8	43.5
- Commerce	18.0	17.3	17.4	18.1	18.4	19.2	19.7	19.1	18.6
4. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Region VII</b>									
1. Agriculture	15.9	15.3	15.1	14.3	15.1	15.1	15.0	15.5	15.3
2. Industry	32.9	33.2	34.7	35.1	35.1	33.5	32.2	30.5	30.6
- Manufacturing	21.6	22.3	22.7	22.7	22.4	22.8	22.4	21.7	22.0
3. Services	51.1	51.5	50.2	50.6	49.9	51.4	52.8	54.0	54.1
- Commerce	26.6	26.5	25.6	26.7	26.4	26.7	26.9	26.9	26.6
4. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Region VIII</b>									
1. Agriculture	38.1	36.8	37.7	35.5	35.4	34.6	32.1	35.4	34.9
2. Industry	30.5	29.3	29.2	32.8	32.2	32.8	35.3	30.0	30.5
- Manufacturing	22.2	22.1	22.4	26.6	27.6	26.8	26.8	24.2	25.1
3. Services	31.4	33.9	33.1	31.6	32.4	32.6	32.6	34.6	34.6
- Commerce	6.0	5.8	5.8	5.4	5.5	5.5	5.5	5.7	5.7
4. Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank

Table 1.8 GRDP per Capita in the Philippines and Regions Concerned: 1985-1993

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>In Pesos</b>									
Philippines	10,596	11,025	12,081	13,819	15,638	17,788	20,139	21,313	22,596
Region VI	8,638	8,869	9,565	11,010	12,557	14,007	16,011	17,048	18,459
Region VII	8,559	9,016	10,011	11,760	13,732	15,394	17,778	18,427	19,436
Region VIII	5,554	5,539	6,104	7,284	8,152	9,318	10,814	11,029	11,806
<b>In US\$ Equivalent</b>									
Philippines	570	538	587	654	718	727	734	839	829
Region VI	465	433	465	521	576	573	583	671	678
Region VII	460	440	487	557	630	629	648	726	713
Region VIII	299	270	297	345	374	381	394	434	433

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank



Table 1.9 (1/2) Gross Regional Domestic Product by Economic Sector

(Unit: Million Pesos)									
Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>Gross Domestic Product in the Philippines</b>									
1. Agriculture	140,554	145,725	150,414	155,292	159,964	160,734	162,937	163,571	166,853
1) Crop Production	86,756	86,616	85,860	90,925	93,650	93,562	93,886	95,816	97,879
Palay	22,476	23,590	22,837	23,138	25,281	24,873	25,868	24,412	25,495
Corn	9,491	9,528	10,119	10,466	10,203	10,950	11,093	11,009	11,210
Coconut	11,307	10,515	9,652	9,008	7,007	7,084	6,798	6,815	6,827
Sugar Cane	3,791	3,364	3,053	2,997	3,897	3,652	4,646	4,871	5,257
Others	39,691	39,619	40,199	45,316	47,262	47,003	45,481	48,709	49,090
2) Fishery	27,058	23,246	30,920	28,581	29,628	30,783	32,001	32,375	32,636
3) Livestock & Poultry	17,743	19,624	21,295	24,522	27,416	29,069	29,687	31,194	32,841
4) Forestry	8,997	16,239	12,339	11,264	9,270	7,320	4,732	4,186	3,497
2. Industry	200,548	205,164	213,390	232,053	249,177	255,549	248,719	247,385	251,789
1) Mining & Quarrying	11,893	12,313	11,232	11,704	11,389	11,091	10,770	11,495	11,571
2) Manufacturing	143,851	146,453	154,604	169,316	179,154	183,925	183,111	179,947	181,289
3) Construction	29,037	28,547	31,742	33,235	39,878	41,858	35,285	36,261	38,673
4) Elec. Gas & Water	15,767	17,851	15,811	17,797	18,756	18,674	19,552	19,681	20,255
3. Services	230,781	240,534	253,121	271,238	290,310	304,409	304,866	307,986	314,455
1) Commerce	82,835	86,917	90,038	95,180	102,729	107,428	108,002	109,780	112,478
2) Others	147,946	153,617	163,083	176,057	187,581	196,980	196,865	198,206	201,977
4. Total	571,883	591,423	616,925	658,582	699,451	720,691	716,523	718,942	733,097
<b>Gross Regional Domestic Product in Region VI</b>									
1. Agriculture	15,083	15,249	16,045	16,182	17,106	16,718	17,599	18,934	19,503
1) Crop Production	8,954	7,739	7,910	8,044	8,415	7,771	8,591	8,925	9,700
Palay	2,807	2,908	3,151	2,944	3,035	2,525	2,773	2,901	3,439
Corn	109	120	133	131	114	99	106	146	174
Coconut	345	459	388	343	285	287	271	298	314
Sugar Cane	2,228	1,953	1,725	1,775	2,037	1,877	2,385	2,523	2,688
Others	3,465	2,300	2,513	2,851	2,944	2,984	3,056	3,057	3,086
2) Fishery	4,203	5,462	5,973	5,673	5,882	6,212	6,125	7,002	6,630
3) Livestock & Poultry	1,925	2,048	2,161	2,464	2,808	2,735	2,882	3,006	3,173
4) Forestry	0	0	0	0	0	0	0	0	0
2. Industry	10,861	11,406	10,586	10,631	11,703	11,716	11,969	11,700	12,335
1) Mining & Quarrying	900	1,245	694	647	582	1,234	1,267	1,252	1,453
2) Manufacturing	8,082	8,118	8,192	8,297	8,496	8,587	8,887	8,597	8,811
3) Construction	1,229	1,265	1,263	1,248	2,130	1,374	1,288	1,235	1,389
4) Elec. Gas & Water	651	777	437	439	494	521	527	616	681
3. Services	16,701	17,173	18,227	19,888	21,305	22,137	22,202	22,659	23,229
1) Commerce	7,693	7,774	8,271	9,216	10,090	10,681	10,994	11,175	11,424
2) Others	9,009	9,399	9,956	10,672	11,216	11,456	11,208	11,484	11,805
4. Total	42,645	43,828	44,858	46,700	50,114	50,571	51,769	53,293	55,067

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank

Table 1.9 (2/2) Gross Regional Domestic Product by Economic Sector

(Unit: Million Pesos)

Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>Gross Regional Domestic Product in Region VII</b>									
1. Agriculture	5,676	5,857	5,834	6,166	6,698	6,915	7,302	7,098	7,423
1) Crop Production	2,902	3,214	3,157	3,332	3,553	3,439	3,711	3,542	3,656
Palay	361	392	401	399	535	430	504	397	490
Corn	593	120	133	676	671	708	723	642	537
Coconut	370	466	419	377	279	281	268	274	272
Sugar Cane	379	326	303	297	434	401	561	598	651
Others	1,199	1,912	1,901	1,583	1,634	1,619	1,655	1,631	1,707
2) Fishery	1,085	837	871	814	883	972	1,122	965	1,049
3) Livestock & Poultry	1,653	1,764	1,806	2,019	2,262	2,503	2,469	2,591	2,717
4) Forestry	37	41	0	0	0	0	0	0	0
2. Industry	11,744	12,221	13,553	14,693	15,247	15,296	14,778	14,000	13,946
1) Mining & Quarrying	2,058	1,978	2,569	3,336	2,534	2,162	1,831	1,625	1,500
2) Manufacturing	7,709	8,204	8,601	8,915	9,637	9,844	9,941	9,388	9,462
3) Construction	1,224	1,267	1,564	1,521	2,156	2,365	1,991	1,887	1,764
4) Elec. Gas & Water	753	772	819	921	920	925	1,016	1,100	1,220
3. Services	18,235	19,433	20,275	22,248	23,868	24,869	25,157	25,586	26,182
1) Commerce	9,476	10,272	10,653	11,864	12,819	13,375	13,634	13,799	14,124
2) Others	8,759	9,161	9,622	10,384	11,049	11,495	11,523	11,788	12,058
4. Total	35,656	37,511	39,662	43,107	45,813	47,080	47,238	46,684	47,551
<b>Gross Regional Domestic Product in Region VIII</b>									
1. Agriculture	6,180	6,302	6,209	6,510	6,271	5,953	6,014	6,006	6,062
1) Crop Production	4,440	4,282	4,044	4,153	4,193	3,936	3,939	3,851	3,888
Palay	1,190	1,122	1,014	1,050	1,067	901	934	883	966
Corn	575	511	528	539	437	442	461	402	361
Coconut	905	922	768	658	584	608	485	503	509
Sugar Cane	78	77	71	69	123	118	149	151	165
Others	1,691	1,650	1,664	1,837	1,982	1,866	1,910	1,913	1,887
2) Fishery	718	822	878	801	823	960	1,044	1,062	1,051
3) Livestock & Poultry	541	631	655	743	973	962	950	1,013	1,050
4) Forestry	481	568	632	812	282	94	81	80	73
2. Industry	4,947	4,559	4,712	5,486	5,375	5,634	6,468	5,140	5,184
1) Mining & Quarrying	292	166	54	35	72	174	132	144	153
2) Manufacturing	3,599	3,417	3,597	4,387	4,487	4,397	4,707	4,005	4,129
3) Construction	678	604	735	743	499	720	1,275	625	498
4) Elec. Gas & Water	378	372	326	321	317	344	354	366	403
3. Services	5,098	5,180	5,254	5,486	5,727	5,868	5,844	5,891	6,018
1) Commerce	976	965	1,003	1,018	1,071	1,141	1,154	1,174	1,202
2) Others	4,122	4,215	4,251	4,468	4,656	4,727	4,690	4,717	4,816
4. Total	16,226	16,041	16,175	17,483	17,373	17,454	18,325	17,037	17,264

Source: (1) 1993 Philippine Statistical Year book, NSCB

(2) Data presented by NSCB and Central Bank

Table 1.10 Annual Growth Rate of GRDP by Economic Sector: 1985-1993

Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>Philippines</b>									
1. Agriculture	-	3.68	3.22	3.24	3.01	0.48	1.37	0.39	2.01
2. Industry	-	2.30	4.01	8.75	7.38	2.56	-2.67	-0.54	1.78
- Manufacturing	-	1.81	5.57	9.52	5.81	2.66	-0.44	-1.73	0.75
3. Services	-	4.23	5.23	7.16	7.03	4.86	0.15	1.02	2.10
- Commerce	-	4.93	3.59	5.71	7.93	4.57	0.53	1.65	2.46
4. Total	-	3.42	4.31	6.75	6.21	3.04	-0.58	0.34	1.97
<b>Region VI</b>									
1. Agriculture	-	1.10	5.22	0.85	5.71	-2.26	5.27	7.59	3.00
2. Industry	-	5.01	-7.18	0.42	10.09	0.11	2.16	-2.25	5.43
- Manufacturing	-	0.45	0.91	1.28	2.40	1.07	3.50	-3.26	2.49
3. Services	-	2.83	6.13	9.11	7.13	3.91	0.29	2.06	2.52
- Commerce	-	1.06	6.39	11.43	9.48	5.86	2.93	1.65	2.23
4. Total	-	2.77	2.35	4.11	7.31	0.91	2.37	2.94	3.33
<b>Region VII</b>									
1. Agriculture	-	3.18	-0.38	5.68	8.64	3.23	5.61	-2.80	4.58
2. Industry	-	4.06	10.90	8.42	3.76	0.33	-3.39	-5.27	-0.38
- Manufacturing	-	6.42	4.83	3.66	8.09	2.15	0.99	-5.56	0.79
3. Services	-	6.57	4.33	9.73	7.28	4.19	1.16	1.71	2.33
- Commerce	-	8.41	3.70	11.37	8.05	4.33	1.94	1.21	2.36
4. Total	-	5.20	5.74	8.69	6.28	2.77	0.33	-1.17	1.86
<b>Region VIII</b>									
1. Agriculture	-	1.98	-1.48	4.85	-3.68	-5.07	1.03	-0.13	0.94
2. Industry	-	-7.86	3.36	16.43	-2.02	4.81	14.80	-20.52	0.85
- Manufacturing	-	-5.04	5.25	21.98	2.27	-2.01	7.05	-14.91	3.10
3. Services	-	1.61	1.43	4.42	4.39	2.46	-0.40	0.81	2.15
- Commerce	-	-1.18	3.93	1.55	5.16	6.54	1.13	1.79	2.34
4. Total	-	-1.14	0.83	8.09	-0.63	0.47	4.99	-7.03	1.33

Source: (1) 1993 Philippine Statistical Year book, NSCB  
(2) Data presented by NSCB and Central Bank

Table 1.11 Real Growth of GRDP per Capita in the Philippines and Regions: 1985-1993

Economic Sector	1985	1986	1987	1988	1989	1990	1991	1992	1993
<b>GRDP per Capita at 1985 Constant Prices</b>									
Philippines	10,596	10,709	10,916	11,388	11,819	11,901	11,562	11,337	11,297
Region VI	8,638	8,725	8,776	8,979	9,469	9,391	9,448	9,558	9,706
Region VII	8,559	8,834	9,165	9,773	10,190	10,275	10,114	9,807	9,801
Region VIII	5,554	5,444	5,443	5,833	5,747	5,725	5,960	5,494	5,520
<b>Annual Growth Rate (%)</b>									
Philippines	-	1.06	1.94	4.32	3.79	0.69	-2.84	-1.95	-0.35
Region VI	-	1.00	0.59	2.31	5.46	-0.83	0.60	1.17	1.55
Region VII	-	3.22	3.74	6.63	4.27	0.83	-1.56	-3.04	-0.06
Region VIII	-	-1.97	-0.02	7.17	-1.47	-0.39	4.10	-7.82	0.47

Source: (1) 1993 Philippine Statistical Year book, NSCB  
(2) Data presented by NSCB and Central Bank

Table 1.12 Production of Major Crops: 1991 - 1993

Crop	1991			1992			1993		
	Area (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)	Area (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)	Area (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)
<b>Philippines</b>									
<b>1. Cereals</b>									
- Palay	3,425.0	9,673.3	43,723.8	3,198.1	9,128.9	42,996.4	3,282.4	9,434.3	49,906.9
- Corn	3,589.0	4,654.9	17,270.2	3,331.4	4,618.9	21,708.2	3,149.3	4,798.0	21,446.6
<b>2. Major Crops</b>									
- Coconut	3,093.3	11,290.9	18,968.7	3,076.7	11,404.9	23,038.1	3,075.2	11,317.0	21,049.8
- Sugar Cane	271.5	21,824.5	14,622.4	267.0	21,801.9	13,552.1	374.0	23,366.1	13,786.0
- Banana	311.3	2,951.1	9,738.6	321.4	3,059.2	10,523.7	325.8	3,110.2	11,010.0
- Pineapple	57.7	1,117.1	4,691.8	60.6	1,135.2	4,801.9	66.9	1,189.7	5,603.3
<b>Iloilo Province</b>									
<b>1. Cereals</b>									
- Palay	206.0	500.7	2,388.6	203.4	560.2	2,767.5	216.8	708.9	4,133.1
- Corn	13.2	21.3	87.8	19.3	23.1	97.1	30.4	28.2	104.3
<b>2. Major Crops</b>									
- Coconut	23.3	50.2	84.3 *	23.0	59.1	119.4 *	23.0	71.2	132.4 *
- Sugar Cane	17.4	1,052.7	705.3 *	137.3	1,076.5	669.1 *	201.6	1,145.3	675.7 *
- Banana	19.9	99.0	326.8 *	20.9	122.7	422.1 *	20.9	126.0	446.1 *
- Pineapple	0.2	1.7	7.2 *	0.3	1.7	7.3 *	0.2	1.8	8.3 *
<b>Cebu Province</b>									
<b>1. Cereals</b>									
- Palay	7.0	9.8	50.2	4.5	5.5	31.0	3.7	5.7	28.9
- Corn	120.2	284.0	1,411.5	100.4	249.4	1,378.9	73.0	144.5	707.8
<b>2. Major Crops</b>									
- Coconut	45.3	90.3	151.7 *	44.4	100.0	201.9 *	44.1	92.9	172.9 *
- Sugar Cane	12.1	731.3	490.0 *	11.0	677.3	421.0 *	11.9	732.6	432.2 *
- Banana	6.7	52.0	171.5 *	7.0	49.3	169.7 *	7.1	52.3	185.2 *
- Pineapple	0.0	0.2	0.8 *	0.0	0.1	0.4 *	0.0	0.1	0.5 *
<b>Leyte Province</b>									
<b>1. Cereals</b>									
- Palay	98.1	225.2	1,031.2	96.9	215.0	976.2	94.0	239.9	1,214.0
- Corn	144.6	155.4	570.3	94.4	101.0	378.6	91.1	96.5	402.2
<b>2. Major Crops</b>									
- Coconut	148.0	317.2	532.9 *	145.0	372.1	751.7 *	144.9	356.0	662.1 *
- Sugar Cane	13.4	810.3	542.9 *	9.5	803.9	499.7 *	14.5	879.0	518.6 *
- Banana	8.5	42.1	138.9 *	8.5	47.4	163.1 *	8.7	41.0	145.0 *
- Pineapple	0.1	1.6	6.6 *	0.1	1.5	6.3 *	0.1	1.5	7.1 *

Source: (1) 1993 Philippine Statistical Yearbook, NSCB

(2) Data presented by BAS

Note: \* Unit prices of national (or regional) average were applied because of data availability.

Table 1.13 Inland Fishery Production of Brackish Water Fishpond: 1991-1993

Item	1991			1992			1993		
	Area*1 (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)	Area*1 (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)	Area*1 (1000ha)	Quantity (1000ton)	Value (Mil. Pesos)
Philippines	-	291.0	18,449.0	114.5	234.9	19,296.4	164.3	234.7	23,331.9
- Milkfish	-	213.7	7,231.0	69.6	145.6	5,775.5	66.8	124.5	5,302.6
- Tiger Prawn	-	45.7	8,247.0	34.5	76.0	12,472.4	29.9	86.1	15,619.8
- Others	-	31.6	2,971.0	10.4	13.3	1,048.4	67.6	24.0	2,409.5
Iloilo Province	11.6	12.3	-	7.1	15.5	964.8	8.3	16.7	1,071.2
- Milkfish	-	-	-	6.0	12.2	435.8	7.2	13.3	478.8
- Tiger Prawn	-	-	-	1.0	3.3	529.0	1.0	3.4	588.0
- Others	-	-	-	0.0	0.0	0.1	0.0	0.1	4.4
Cebu Province	1.7	1.6	-	1.2	3.4	275.8	0.9	2.3	232.0
- Milkfish	-	-	-	0.9	1.9	81.1	0.7	1.2	43.0
- Tiger Prawn	-	-	-	0.2	1.4	168.8	0.2	1.1	188.9
- Others	-	-	-	0.2	0.2	26.0	0.0	0.0	0.1
Leyte Province*	0.9	0.1	-	0.3	0.3	50.1	0.2	0.2	27.4
- Milkfish	-	-	-	0.1	0.1	6.6	0.1	0.1	4.4
- Tiger Prawn	-	-	-	0.2	0.2	43.6	0.1	0.1	22.8
- Others	-	-	-	0.0	0.0	0.0	0.0	0.0	0.2

Source: (1) 1993 Philippine Statistical Yearbook, NSCB

(2) Data presented by BAS

Note: \*1 Area operational reported were mono culture area only, while total production regards loss of type of culture where tabulated.

\*2 Including Biliran Sub-Province

Table 1.14 Inventory of Livestock and Poultry: 1991-1993

Species	(Unit: 1000 Heads)		
	1991	1992	1993
<b>Philippines</b>			
1. Livestock			
- Carabao	2,647.0	2,577.0	2,560.0
- Cattle	1,676.0	1,658.0	1,910.0
- Hog	8,006.0	8,022.0	7,950.0
- Goat	2,102.0	2,240.0	2,560.0
2. Poultry			
- Chicken	65,491.0	63,127.0	85,620.0
- Duck	8,268.0	8,512.0	8,390.0
<b>Iloilo Province</b>			
1. Livestock			
- Carabao	113.5	107.5	104.4
- Cattle	42.7	49.8	51.1
- Hog	185.3	168.8	181.6
- Goat	95.0	94.9	85.0
2. Poultry			
- Chicken	2,867.0	3,241.1	2,897.5
- Duck	227.1	398.1	339.2
<b>Cebu Province</b>			
1. Livestock			
- Carabao	44.9	44.7	43.4
- Cattle	90.3	88.5	97.4
- Hog	325.7	332.4	298.2
- Goat	192.4	209.2	213.1
2. Poultry			
- Chicken	3,131.4	3,133.6	3,324.0
- Duck	142.7	198.5	214.0
<b>Leyte Province</b>			
1. Livestock			
- Carabao	76.6	73.3	71.9
- Cattle	13.6	12.2	15.0
- Hog	320.6	328.3	295.3
- Goat	28.1	30.9	32.2
2. Poultry			
- Chicken	1,023.1	1,224.8	1,089.8
- Duck	180.8	227.2	80.6

Source: (1) 1993 Philippine Statistical Yearbook, NSCB

(2) Data presented by BAS

Note: \*1 Including Biliran Sub-Province

Table 1.15 Assets Holdings of Manufacturing Industry: December 1989

Item	(Value in Million Pesos)			
	Philippines	Region VI	Region VII	Region VIII
<b>I. Large Scale Manufacturer with Average Total Employment of 10 and More</b>				
1. Number of Establishments (nos)	10,154	347	862	102
2. Employment (Average for the year)				
1) Total (persons)	949,488	26,502	66,560	5,299
2) Paid Employees (persons)	940,363	26,123	65,619	5,102
3) Compensation	40,589	1,179	2,005	276
3. Production and Value Added				
1) Value of Output *1	463,055	12,529	23,485	15,682
2) Production Cost *2	303,034	8,549	13,269	13,797
3) Value Added	160,022	3,980	10,215	1,885
4. Fixed Assets				
1) Land	5,965	72	204	19
2) Building	29,480	319	948	8,914
3) Transport Equipment	4,369	128	186	267
4) Machinery	56,005	2,218	2,400	369
5) Other Fixed Assets	15,324	160	169	10,898
Total	111,144	2,897	3,907	20,467
5. Inventory				
1) Finished Products	23,578	564	734	896
2) Works-in-Process	12,196	56	360	2,155
3) Material, Fuel & Supplies	41,602	524	1,359	1,406
4) Goods for Resale	1,227	10	58	877
Total	78,603	1,154	2,511	5,334
<b>II. Small Scale and Cottage Manufacturer with Average Total Employment of Less Than 10</b>				
1. Number of Establishments (nos)	67,651	5,595	3,422	2,224
2. Employment (Average for the year)				
1) Total (persons)	258,311	19,159	12,484	7,683
2) Paid Employees (persons)	155,905	10,603	6,075	3,834
3) Compensation	2,440	150	66	34
3. Production and Value Added				
1) Value of Output *1	19,873	882	555	270
2) Production Cost *2	12,126	531	323	168
3) Value Added	7,748	350	232	102
4. Fixed Assets				
1) Land	1,420	140	28	18
2) Building	2,106	135	51	79
3) Transport Equipment	1,318	152	53	16
4) Machinery	2,382	112	72	67
5) Other Fixed Assets	53	1	1	1
Total	7,278	540	205	181
5. Inventory				
1) Finished Products	900	8	33	4
2) Works-in-Process	204	4	31	1
3) Material, Fuel & Supplies	780	9	39	4
4) Goods for Resale	274	144	1	10
Total	2,158	165	104	19

Source: 1989 Annual Survey of Establishments, Vol. III and III-A Manufacturing, NSO

Note: \*1 In producers' prices

\*2 Following selected costs only: (1) Materials and supplies purchased; (2) Fuels purchased, (3) Electricity purchased, (4) Contract work and industrial services done by others, (5) Merchandise purchased for resale and (6) Indirect taxed.

Table 1.16 Assets Holdings of Wholesale and Retail Trade: December 1989

Item	(Value in Million Pesos)			
	Philippines	Region VII	Region VI	Region VIII
<b>I. Wholesale Trade</b>				
1. Number of Establishments (nos)	2,737	116	218	39
2. Employment (nos)				
1) Total	90,781	2,591	6,389	910
2) Employees	89,005	2,562	6,255	884
3) Compensation	5,534	127	231	38
3. Sale Amount and Value Added				
1) Annual Sales	144,806	6,597	6,686	574
2) Gross Margin	27,581	1,336	856	122
3) Value Added	21,084	917	493	80
4. Fixed Assets				
1) Land	1,219	39	60	4
2) Building	4,012	50	120	12
3) Transport Equipment	1,221	44	82	6
4) Machinery	2,615	25	30	11
5) Other Fixed Assets	1,512	3	10	1
Total	10,579	161	303	35
5. Inventory				
1) Goods for Resale	17,871	558	1,040	54
2) Materials & Supplies	1,505	12	17	8
3) Fuels, Lubricants Oils & Greases	1,646	0	1	0
4) Other Inventories	418	0	47	6
Total	21,441	571	1,105	68
<b>II. Retail Trade</b>				
1. Number of Establishments (nos)	4,219	295	311	68
2. Employment (nos)				
1) Total	124,993	7,089	10,976	1,287
2) Employees	121,294	6,864	10,550	1,156
3) Compensation	4,043	239	283	34
3. Sale Amount and Value Added				
1) Annual Sales	73,690	4,054	6,423	511
2) Gross Margin	12,177	643	686	87
3) Value Added	9,126	502	483	58
4. Fixed Assets				
1) Land	1,160	74	67	5
2) Building	2,009	99	149	11
3) Transport Equipment	630	31	62	3
4) Machinery	787	35	57	5
5) Other Fixed Assets	214	12	9	3
Total	4,800	253	344	26
5. Inventory				
1) Goods for Resale	13,383	1,171	1,290	144
2) Materials & Supplies	124	1	6	1
3) Fuels, Lubricants Oils & Greases	2	0	0	0
4) Other Inventories	26	0	8	0
Total	13,535	1,172	1,305	145

Source: 1989 Annual Survey of Establishments, Vol. VII Wholesale and Retail Trade, NSO



Table 1.17 Price Indices for Metropolitan Manila Area: 1985 to 1993

(1978 = 100)

Year	Month	Retail Price Index			Wholesale Price Index					
		All Items	Mineral Fuels & Lubricans	Construc- tion Materials	All Items	Mineral Fuels & Lubricans	Automo- tive Fuel	Portland Cement	Reinforced Steel	Construction Activities Lumber Products
1985		366.4	519.0	350.4	409.3	562.4	607.7	328.6	315.1	291.0
1986		370.6	426.8	339.2	410.6	491.8	492.7	347.8	315.7	294.7
1987		393.4	420.8	348.8	444.0	467.2	472.5	382.6	327.9	342.3
1988		432.4	408.9	377.0	498.5	366.5	459.0	384.8	337.1	383.4
1989		467.6	343.0	459.0	550.7	397.0	400.7	506.5	404.2	471.4
1990		512.6	472.0	503.5	607.5	578.9	594.4	684.1	441.7	551.6
1991		609.0	799.0	629.7	335.7	643.2	819.0	878.8	540.7	625.0
1992		640.1	641.7	651.7	720.6	614.5	686.6	659.4	528.5	699.0
1993		633.0	588.0	690.0	712.5	579.5	657.8	701.3	559.4	730.0
1994	January	683.5	588.3	734.2	759.2	536.0	665.8	706.8	560.2	770.7
	February	685.0	617.4	750.9	753.1	535.6	678.4	695.7	560.2	770.7
	March	682.6	587.4	751.2	757.8	532.2	-	-	-	-
	April	685.5	587.4	754.9	758.2	564.2	-	-	-	-

Source: (1) 1993 Philippine Statistical Yearbook, NSCB  
 (2) Data presented by Central Bank

Table 1.18 Foreign Exchange Rate of Pesos per US Dollar at the End of Period: 1985 to 1993

Month	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	18.400	19.103	20.478	20.870	21.350	22.543	28.000	26.527	25.348	27.676
February	18.359	21.979	20.528	21.010	21.350	22.761	28.000	26.045	25.280	27.701
March	18.467	20.600	20.550	21.016	21.330	22.750	28.000	25.383	25.513	27.565
April	18.493	20.500	20.484	21.018	21.564	22.805	27.842	25.804	26.385	27.277
May	18.490	20.502	20.466	20.905	21.608	22.977	27.806	26.250	27.094	26.874
June	18.465	20.580	20.456	21.062	21.807	23.270	27.750	25.584	27.272	26.910
July	18.666	20.426	20.440	21.038	21.880	23.860	27.750	24.910	27.695	-
August	18.605	20.470	20.453	21.079	21.880	25.000	27.000	23.924	28.043	-
September	18.640	20.448	20.600	21.336	21.945	25.750	27.000	25.120	29.813	-
October	18.755	20.436	20.725	21.392	22.100	25.750	27.000	24.636	28.831	-
November	18.758	20.436	20.877	21.379	22.234	28.000	26.700	25.492	27.958	-
December	19.032	20.530	20.800	21.335	22.440	28.000	26.620	25.096	27.699	-

Source: Data presented

Table 1.19 Inventory of Educational Facility: 1990-91 School Year

Item	Philippines		Region VI	Region VII	Region VIII
	No. of Schools	Enrollment			
Pre-School	3,783	397,364	89	228	89
Government	2,527	165,997	71	135	71
Private	1,256	231,367	18	93	18
Elementary School	34,010	10,427,077	3,061	2,635	3,061
Government	32,475	9,727,575	3,034	2,549	3,034
Private	1,535	699,502	27	86	27
Secondary School	5,387	4,033,597	358	373	358
Government	3,304	2,564,045	284	205	284
Private	2,083	1,469,552	74	168	74
Tertiary School	2,016	1,347,715	113	112	113
Government	540	-	86	20	86
Private	1,476	-	27	92	27

Source: 1993 Philippine Statistical Yearbook, NSCB

Note: In general, the period of school attendance for respective schools are as follows:

2 years for pre-school; 6 years for primary school; 4 years for secondary school; and 4 years for tertiary school. The period of tertiary school depends on the field of study.

Table 1.20 Inventory of Hospitals, Barangay Health Station and Rural Health Units: 1991

Item	Philippines	Region VI	Region VII	Region VIII
1 Hospital	1,663	80	90	73
Public	562	50	41	48
Private	1,101	30	49	25
Bed Capacity	81,647	4,763 *1	6,096 *1	2,778 *1
Bed Capacity per 1000 Population	1	1 *1	1 *1	1 *1
2 Barangay Health Station	10,683	1,271	948	600
3 Rural Health Unit	2,299	164	200	164

Source: 1993 Philippine Statistical Yearbook, NSCB

Note: \*1 Data in 1988

Table 1.21 Inventory of Roads and Bridges: 1991

Item	Philippines	Region VI	Region VII	Region VIII
<b>1. Road by System Classification (km)</b>	154,296	13,381	9,424	8,726
National	26,818	2,664	1,673	2,353
Provincial	28,960	2,023	2,328	1,413
Municipal	10,968	514	733	606
City	4,189	295	253	71
Barangay	83,353	7,885	4,437	4,283
Others	8	-	-	-
<b>2. Road by Surface Type (km)</b>	154,296	13,381	9,424	8,726
Concrete	10,220	642	336	1,513
Asphalt	11,774	1,002	1,103	572
Gravel	40,092	3,676	3,188	2,005
Earth	8,203	176	352	335
Not Recorded	84,006	7,885	4,445	4,301
Road Density (m./sq. km)	514	953	887	1,038
Land Area (Sq. km.)	300,000	14,042	10,627	8,405
<b>3. Bridge</b>				
Length of Bridges (m)	235,486	23,515	13,271	25,092
- Permanent *1	177,936	16,054	9,710	15,205
- Temporary *2	57,550	7,461	3,561	9,887

Source: (1) National Handbook on Land Other Physical Resources, NLUC and NEDA

(2) 1993 Philippine Statistical Yearbook, NSCB

(3) Data presented by DPWH

Note: \*1 Concrete, Steel and Similar Materials

\*2 Bailey, Timber, Coconut and Similar Materials

Table 1.22 Number of Households by Water Supply Systems: 1990

Item	Philippines	Region VI	Region VII	Region VIII
<b>1. Existing Water Supply System*1</b>	893,661	76,427	63,498	26,724
Level I *1	892,916	76,336	63,460	26,674
Level II *2	156	9	7	1
Level III *3	589	82	31	49
<b>2. Households Served</b>	4,057,425	346,449	305,995	314,467
Level I	3,395,227	267,819	242,796	288,915
Level II	27,981	1,066	1,048	83
Level III	634,217	77,564	62,151	25,469
<b>3. Coverage of Household Served (%) *4</b>	36.8	35.4	36.7	56.7
1990 Census Population (1000)	60,559	5,385	4,582	3,049

Source: (1) National Handbook on Land Other Physical Resources, NLUC and NEDA

(2) 1993 Philippine Statistical Yearbook, NSCB

Note: \*1 Water supply Level I consist of shallow wells, deep wells, dug wells, developed springs, rivers/ponds/undeveloped springs and rain collectors, as of 1987.

\*2 RWSA projects (completed-operational), as of July 31, 1987.

\*3 1990 Number of cities/municipalities covered by water districts, as of June 30, 1990.

\*4 Family size was assumed at 5.5 persons.

Table 1.23 Electrification Program: Coverage, Number and Percent Served  
As of December 31, 1989

Item	Philippines	Region VI	Region VII	Region VIII
<b>1. Municipality Level</b>				
Program Coverage (nos)	1,382	128	121	134
Number Energized (nos)	1,293	128	121	112
Percent Served (%)	94	100	100	84
<b>2. Barangay Level</b>				
Program Coverage (nos)	34,715	3,835	2,722	4,051
Number Energized (nos)	20,951	1,998	1,675	1,780
Percent Served (%)	60	52	62	44
<b>3. Total Connection</b>				
Program Coverage (nos)	5,830,000	713,000	469,000	461,000
Number Energized (nos)	3,059,923	280,985	184,875	163,541
Percent Served (%)	52	39	39	35

Source: (1) National Handbook on Land Other Physical Resources, NLUC and NEDA

Table 1.24 Telephone Service Penetration by Operator Category  
As of December 31, 1988

Item	Philippines	Region VI	Region VII	Region VIII
<b>1. Total Towns</b>	1,565	130	131	141
<b>2. Towns Served *1</b>				
1) PLDT				
- No. of Towns Served	140	12	8	0
- Capacity	534,940	24,081	27,249	0
2) Government				
- No. of Towns Served	70	5	2	7
- Capacity	22,649	2,022	1,716	1,315
3) Others *2				
- No. of Towns Served	80	3	3	3
- Capacity	39,980	671	2,211	1,071
4) Total				
- No. of Towns Served *1	283	20	12	10
- Capacity	597,569	26,774	31,176	2,386
- Total Connection *3	888,964	33,452	42,634	2,386
- 1990 Census Population (thousand)	60,559	5,385	4,582	3,049
- Telephone Density per 100 persons *3 *4	1.47	0.62	0.93	0.08
<b>3. Towns not Served</b>	1,282	110	119	131

Source: (1) National Handbook on Land Other Physical Resources, NLUC and NEDA

(2) 1993 Philippine Statistical Yearbook, NSCB

Note: \*1 Totals do not add up due to service duplication.

\*2 Filphone, Pilipino Telephone, Telecommunications Office (TLEOF), Northern Telephone, etc.

\*3 Data in 1990

\*4 As a reference, the telephone density in NCR, the densest area, was 8.31.

Table 1.25 Number of Dwelling Units by Year Built and by Building Type in Urban Areas: 1980

Year Built	Iloilo Province			Cebu Province			Leyte Province		
	Type I	Type II	Type III	Type I	Type II	Type III	Type I	Type II	Type III
1976 - 1980	1,564	4,399	12,140	1,719	14,742	26,412	866	3,491	17,000
1971 - 1975	1,477	5,655	8,878	1,660	14,820	17,855	862	2,665	7,320
1961 - 1970	1,108	9,268	8,404	1,833	24,576	19,749	654	4,381	6,874
1951 - 1960	564	5,676	4,167	656	14,174	11,852	246	3,131	3,945
1942 - 1950	235	1,434	2,582	235	5,286	5,327	85	1,422	1,524
1941 or Earlier	151	694	323	65	2,394	2,520	94	1,154	985
Total	5,099	27,126	36,494	6,168	75,992	83,715	2,807	16,244	37,648
Grand Total		68,719			165,875			56,699	
- Weighted Average of Year Built	1968	1965	1968	1969	1965	1967	1969	1963	1970
- Average Age(yrs)	12	15	12	11	15	13	11	17	10
- Average Age of All Types		13			14			12	

Source: 1980 Census of Population and Housing: Iloilo, Cebu and Leyte, NSO, NEDA

Note: Building types are classified on the basis of construction materials as follows:

	Outer Walls	Roof
Type I	Galvanized iron, Concrete, tile, etc.	Galvanized iron, Concrete, tile, etc.
Type II	Wood, Plywood, Mixed, Asbestos, etc.	Asbestos
Type III	Cogon, Nipa, Salvaged materials, etc.	Cogon, Nipa, Salvaged materials, etc.

Table 1.26 Number of Dwelling Units by Type of Unit and by Floor Area: 1980

Floor Area (sq.m.)	Iloilo City			Cebu City			Tacloban City		
	Single House	Duplex	Others	Single House	Duplex	Others	Single House	Duplex	Others
Less than 30	16,087	327	547	39,978	725	3,977	8,443	77	339
30 - 49	10,836	431	442	17,301	617	1,379	3,698	75	155
50 - 69	4,052	283	228	6,295	392	738	1,929	35	189
70 - 99	3,003	168	230	4,757	402	549	825	45	99
100 - 149	2,132	334	189	4,531	381	510	654	31	49
150 - 199	1,249	116	81	2,244	182	172	308	5	28
200 - 249	660	90	81	1,443	75	111	188	19	30
250 - 299	451	35	15	771	15	81	114	10	10
300 & Over	490	49	34	937	30	177	152	5	52
Total	38,960	1,833	1,847	78,257	2,819	7,694	16,311	302	951
Grand Total		42,640			88,770			17,564	
Weighted Average of Floor Area (sq.m.)									
- Each Type	54	89	71	50	72	53	44	78	73
- All Types		56			51			46	

Source: 1980 Census of Population and Housing: Iloilo, Cebu and Leyte, NSO, NEDA

Table 1.27 Average Family Annual Income and Expenditure: 1991

(Unit: Pesos, %)

Item	Philippines	Philippines	Region VI	Region VII	Region VIII
	(Entire)	(Urban)			
I. Average Annual Income	65,186	89,571	47,723	45,255	38,475
II. Average Annual Expenditure	51,991	70,551	42,670	35,400	31,760
III. Details of Expenditure (%)	100.0	100.0	100.0	100.0	100.0
1 Food	48.5	45.0	50.3	52.0	55.5
- Consumed at Home	44.7	40.4	48.2	48.7	54.4
- Consumed Outside the Home	4.4	4.6	2.1	3.3	1.1
2 Tobacco and Alcoholic	2.7	2.3	4.0	2.7	3.6
3 Clothing, Other Wear	3.7	3.5	4.3	3.6	3.2
4 Housing Expenses	21.3	24.2	19.4	19.6	16.8
- Fuel, Light & Water	5.7	5.9	5.5	5.3	5.2
- Furniture and Equipment	2.1	2.4	2.1	1.9	3.0
- Rental Value of Dwelling Unit	12.4	14.9	9.5	10.6	6.8
- Maintenance & Repairs	1.1	1.0	2.3	1.8	1.8
5 Taxes Paid	1.4	1.8	0.9	1.6	1.5
6 Other Expenses	22.4	23.2	21.1	20.5	19.4
- Education	3.0	3.2	3.0	2.7	2.5
- Medical Care	1.8	1.8	2.3	1.5	1.3
- Others	17.6	18.2	15.8	16.3	15.6
IV. Annual Savings (Balance)	13,195	19,020	5,053	9,855	6,715
Item	Province			City	
	Iloilo	Cebu	Leyte	Iloilo	Cebu
I. Average Annual Income	43,104	39,562	36,943	112,954	78,009
II. Average Annual Expenditure	37,633	30,305	32,264	101,692	65,983
III. Details of Expenditure (%)	100.0	100.0	100.0	100.0	100.0
1 Food	52.2	54.4	54.3	34.8	45.0
- Consumed at Home	51.1	50.2	53.2	31.7	40.2
- Consumed Outside the Home	1.3	4.2	1.1	3.1	4.8
2 Tobacco and Alcoholic	4.2	3.1	3.8	2.3	1.5
3 Clothing, Other Wear	4.3	3.6	3.0	4.9	3.1
4 Housing Expenses	17.2	15.8	17.5	28.8	27.3
- Fuel, Light & Water	5.7	5.3	4.8	5.8	6.2
- Furniture and Equipment	1.1	1.7	3.7	4.8	1.4
- Rental Value of Dwelling Unit	8.1	6.6	7.2	15.7	19.0
- Maintenance & Repairs	2.3	2.2	1.8	2.5	0.7
5 Taxes Paid	0.7	1.6	1.9	2.9	1.2
6 Other Expenses	21.4	21.5	19.5	26.3	21.9
- Education	3.6	3.3	2.4	3.3	2.2
- Medical Care	3.2	1.7	1.3	2.2	1.3
- Others	14.6	16.5	15.8	20.8	18.4
IV. Annual Savings (Balance)	5,471	9,257	4,679	11,262	12,026

Source: 1991 Family Income and Expenditure Survey, NSO (Ref.S76 & S77)

Table 2.1 Inventory of Major Damageable Assets in Target Area

Item	Iloilo	Cebu	Tacloban	Ormoc
1. Total Target Area (ha)	5,675	3,456	1,900	313
2. Living Quarters				
- Population in 1990 Census	287,794	393,397	117,566	23,021
- Population in 1994	0	0	0	0
- Family Size	5.5	5.3	5.5	5.2
- Housing Units	0	0	0	0
3. Industrial Buildings				
- Manufacturing Industry *1	0	0	0	0
- Trading Industry *2	0	0	0	0
4. Agricultural Lands (ha)				
- Palay Field	2,088	116	739	38
- Fishponds	326	-	-	-

Source: Socio-Economic Profile, Iloilo City, 1991, CPDO

City Development Plan, Ormoc City, 1993-1998, Ormoc City Mayor

Major Development Programs and Projects 1986-1992, Tacloban City, Aquino Admi.

Note: \*1 Assumed to be approximately 1.6 establishments per 1,000 urban people.

\*2 Assumed to be approximately 13.9 establishments per 1,000 population.



Table 2.2 Unit Construction Cost of Buildings by Type in City of Iloilo: 1994

Type of Building	Type I	Type II	Type III		Type IV
			Group A	Group B	
1 Dwelling Unit					
1) One-Family	3,750	3,050	2,200	1,450	650
2) Duplex	3,550	2,850	2,000	1,250 -	
3) Apartment	3,550	2,850	2,000	1,250 -	
2 Industrial Building	2,250	1,550	1,025	775 -	
3 Commercial Building	3,350	2,650	1,950	1,450 -	
4 Office Building	3,950	3,250	2,450	1,750 -	
5 School Building	3,250	2,550	1,850	1,350 -	
6 Hospital Building	3,950	3,250	2,450	1,750 -	

Source: Unit Cost in Iloilo City, 1994, City Assessor of Iloilo City

Note: Classification of Buildings are defined referring to their structural characteristics, as follows:

- Type I - Reinforced Concrete
- Type II - Semi-Concrete
- Type III - Strong Materials
  - Group A - First grade wooden structural framing
  - Group B - Third grade wooden structural framing
- Type IV - Temporary makeshift structure

Table 2.3 Depreciation Table by Type of Building and by Maintenance

(Unit: %)

Age	Type I		Type II		Type III		Type IV	
	Maintenance		Maintenance		Maintenance		Maintenance	
	Good	Poor	Good	Poor	Good	Poor	Good	Poor
1	2	12	3	13	5	15	8	18
2	4	14	6	16	10	20	16	26
3	6	16	9	19	15	25	24	34
4	8	18	12	22	20	30	32	42
5	10	20	15	25	25	35	40	50
6	12	22	18	28	30	40	48	58
7	14	24	21	31	35	45	56	66
8	16	26	24	34	40	50	64	74
9	18	28	27	37	45	55	72	82
10	20	30	30	40	50	60	80	90 *
11	22	32	33	43	55	65	-	-
12	24	34	36	46	60	70	-	-
13	26	36	39	49	65	75	-	-
14	28	38	42	52	70	80	-	-
15	30	40	45	55	75	85	-	-
16	32	42	48	58	80	90 *	-	-
17	34	44	51	61	-	-	-	-
22	44	54	66	76	-	-	-	-
23	46	56	69	79	-	-	-	-
24	48	58	72	82 *	-	-	-	-
25	50	60	-	-	-	-	-	-
33	66	76	-	-	-	-	-	-
34	68	78	-	-	-	-	-	-
35	70	80 *	-	-	-	-	-	-

Source: Depreciation Table in Iloilo City, 1994, City Assessor of Iloilo

Note: Refer to Note of Table 2.2 regarding Type I to IV of Building.

\* Calculated maximum depreciation value (DV). Thus, (1-DV) means Residual Value (RV) Rate of the building.

Table 2.4 Present Assessed Value of Dwelling Units

	Bracket of Assessed Value (Pesos)	Number of Units (Units)	Market Value (Pesos)	Average Market Value (Pesos/Unit)
1	25,000 & Below	23,060	286,967,480	12,444
2	25,001 - 50,000	12,652	455,642,849	36,014
3	50,001 - 75,000	6,733	415,294,637	61,680
4	75,001 - 100,000	3,704	320,035,018	86,403
5	100,001 - 150,000	4,224	511,025,395	120,981
6	150,001 - 200,000	1,927	329,428,477	170,954
7	200,001 - 250,000	995	222,623,166	223,742
8	250,001 - 350,000	933	274,208,023	293,899
9	350,001 - 500,000	524	216,511,524	413,190
10	500,001 - 1,000,000	339	224,551,362	662,393
11	1,000,001 - 3,000,000	122	187,771,792	1,539,113
12	3,000,001 - 10,000,000	38	212,099,079	5,581,555
13	10,000,000 Above	15	634,487,966	42,299,198
	Total	55,266	4,290,646,768	77,636

Source: Taxable Units, Market Value, Unit Cost & Depreciation Table in Cebu City 1993, Cebu City, City Assessor & MICS