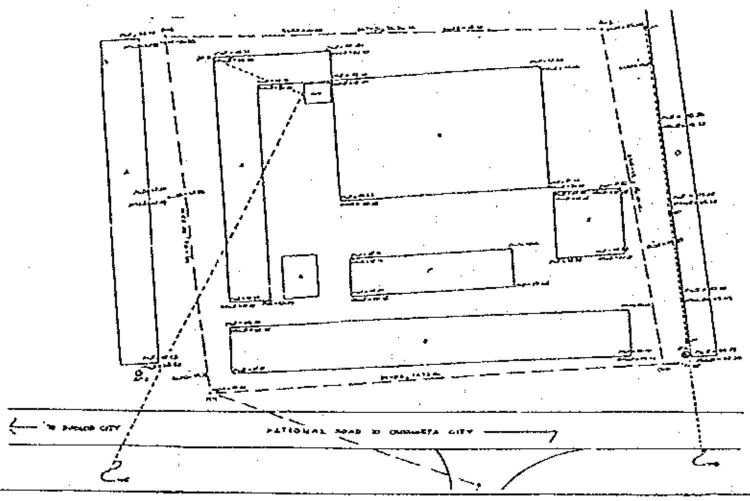
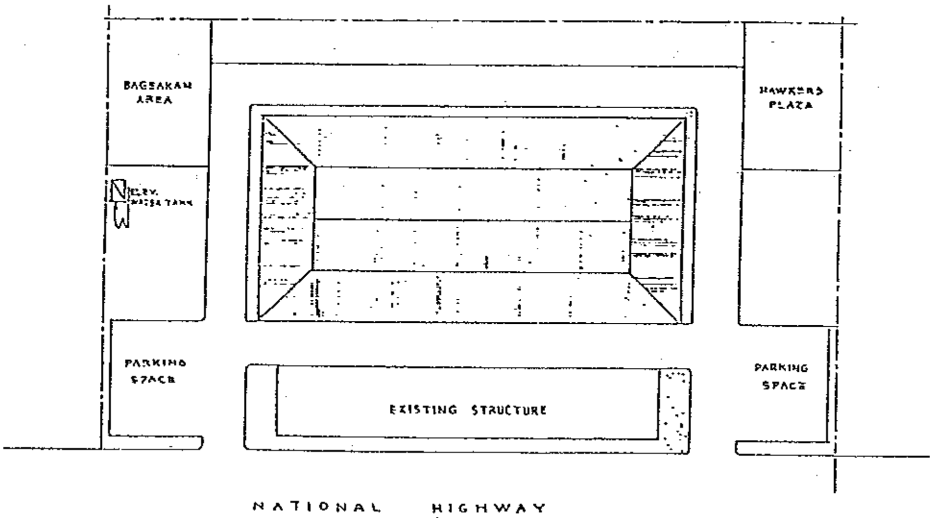
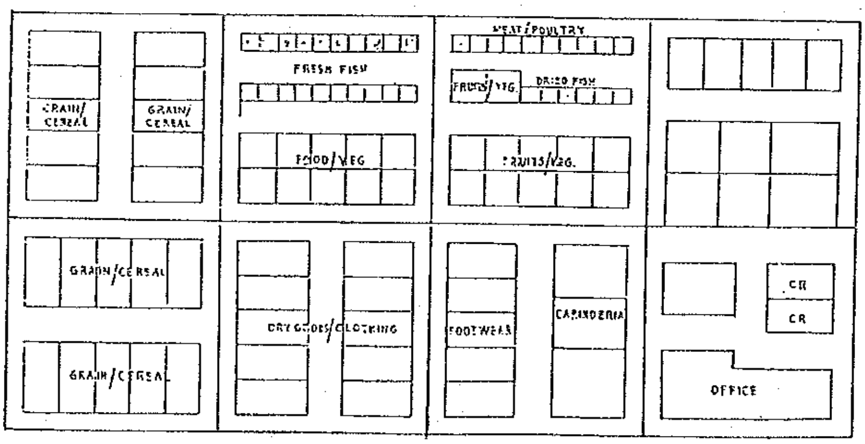
Fig. 3 - 1 - 21: Sapang Dalaga, Layout plan of the existing market facilities, layout plan and floor plan of the proposed building.

EXISTING PUBLIC MARKET SITE DEVELOPMENT PLAN





SITE DEVELOPMENT PLAN



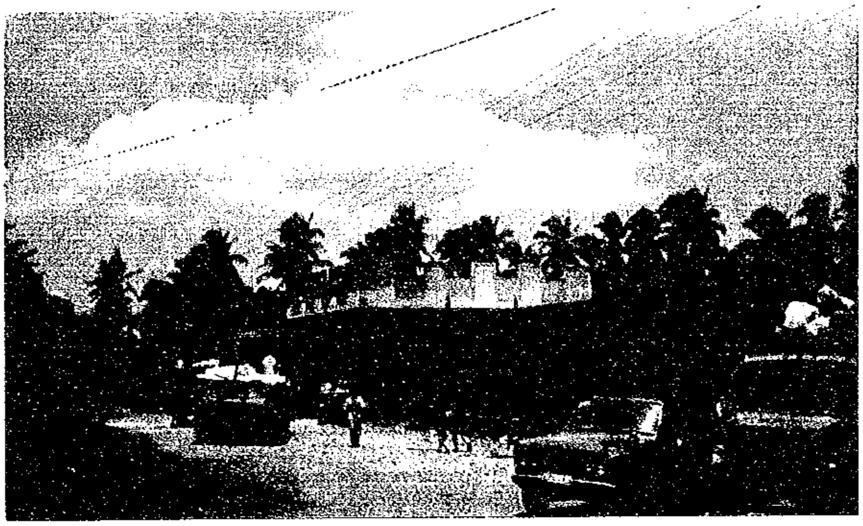
LAYOUT PLAN

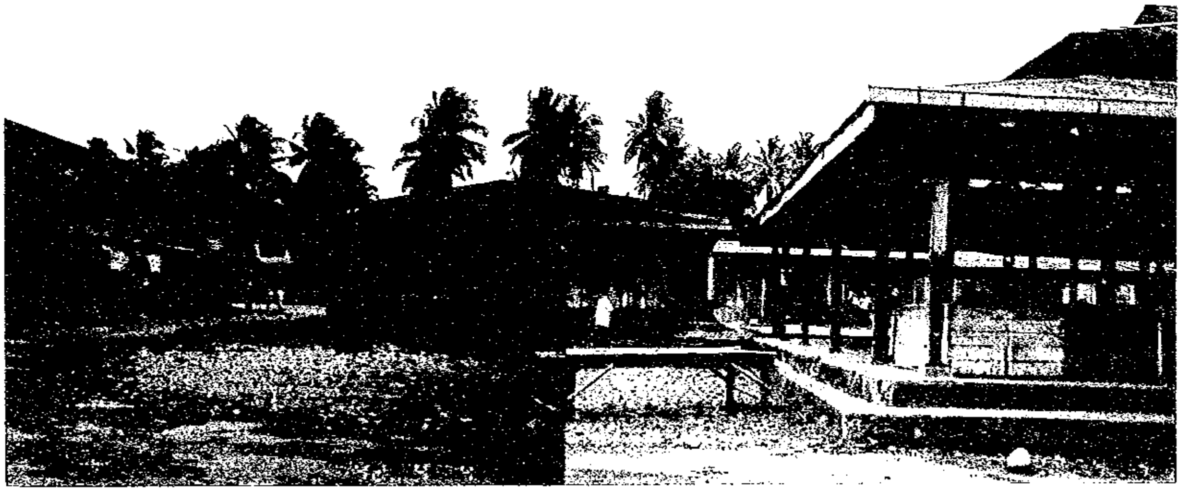
SCALE : 1 : 250 MTS.

SITE AND PUBLIC MARKET PRESENT APPEARANCE

① SAPANG DALAGA PUBLIC MARKET

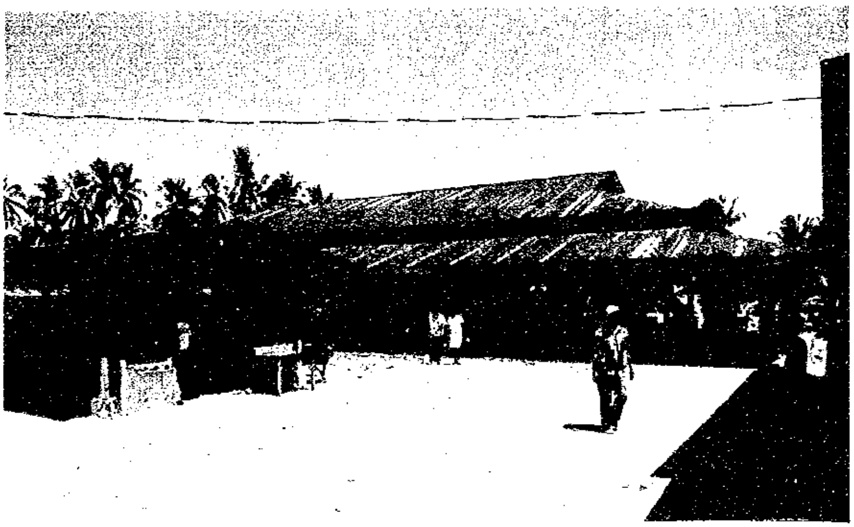
EXISTING PUBLIC MARKET VIEW FROM FRONT ROAD





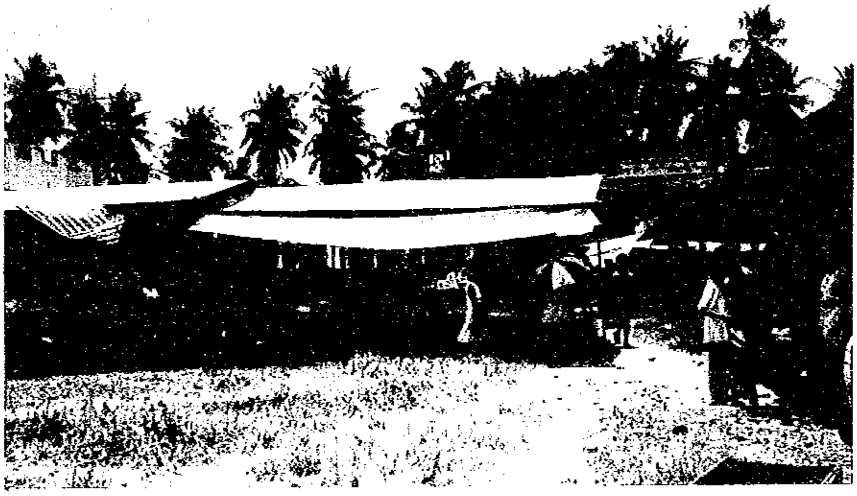
INSIDE PUBLIC MARKET SITE (REPAIR THE CENTER AND THE RIGHT SIDE RIDGE

REPAIR THE PUBLIC MARKET MAIN RIDGE

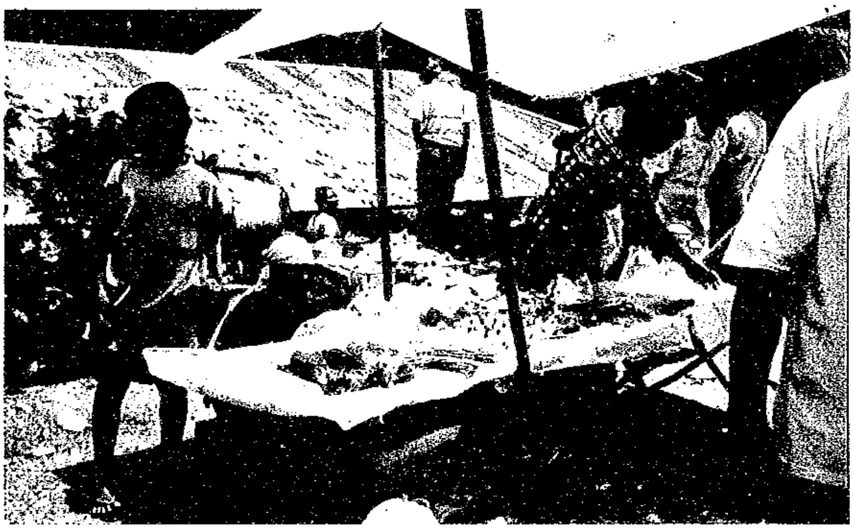


TEMPORARY STORE

TEMPORARY STORE



TEMPORARY STORE



TYPHOON DAMAGE
PRESENT STATE

Because of the pillar slip off from the ground sill, the main ridge is totally unsave to us.

SLAUGHTER HOUSE SITE

SLAUGHTER HOUSE SITE

Table 3－1－3 Site condition and research summary of the requested public markets

Market Studied	Site Conditions	Details of the Request	Conditions and findings at the time of site survey	Documents and drawings gathered and facts confirmed
Lapu-Lapu Market Cebu Province, Lapu-Lapu city Population: 146,194 people (1990) Study date: 3/19 (Thur) All members 3/23 (Mon) Group B 4/2 (Thur) Group A	**Existing Market** Site: Located in the center of the city's business district Site area: Approx. 1 ha Number of stalls: 658 stalls + Hawkers Condition of the facilities: Damage to the windows and columns due to the typhoon, dilapidated **New Site** Location: Facing a high standard newly constructed road Site Area: 3 ha Condition of the facilities: Land expropriation process continuing. 1 residence remains. The site is level, but 30-50cm lower than the surface of the newly Infrastructure : The infrastructure is in the process of being constructed at the same time as the new road construction is undertaken. Electrical power supply, water supply and drainage plans are available.	1) • Construction of a new market place for 500 stalls 2) • Site,Ancillary facilities, Administration office, Toilets, Rubbish collection areas, Pump shed, Car park, Paving within the compound, Bagsakan, Space for hawkers 3) • Cold storage (ice house)	• The land for the new project site is in the process of being expropriated. • The residents are currently being relocated. • The ground level of the site is 30-50cm lower than the level of the road which the site faces so ground filling will be necessary, and budget has been allocated for the work. • Design drawings and installation certificates have been obtained for the infrastructure outside the site. • It is possible to continue using the existing slaughter house facilities. * General elections are currently being held, and during the election period at the very least it will difficult to hold discussions concerning the interests of the individual citizens. (Especially, the resettlement of residents, discussions on the relocation of stalls and compensation paid to the tenants, deciding the priority order of tenants, land acquisition discussions, and so forth)	• Site maps • Electrical power and water supply design plans and installation certificates. • Land expropriation and written application for registration (Court order) • List of sub-contractors and a table of construction material costs • Rentals fees for the market place * Supporting documentation and drawings being received by the end of June, the work will not be halted.
Danao Market Cebu Province, Danao City Population: 73,358 people (1990) Study date: 3/29 (Fri.) All members 3/25 (Wed) Group B 4/1 (Wed) Group A	**Existing Market** Site: Located in business district in the center of the town Site area: Approx.1 ha Number of stalls: 300 stalls (+ 600 temporary stalls) Condition of the facilities: Typhoon damage to the roofs of the surrounding buildings can be seen. Two stalls within the market collapsed and have been left as such. The slaughter house is located away from the road. After the market has been relocated it is intended to redevelop the site as a commercial area or as a park, but concrete plans are lacking. The redevelopment plans will be decided before the end of July. **New Site** Location: Located about 300~400m away from the existing market, between the city hall and a gymnasium3, Site area: 3.6 ha	1) • Construction of a new market place for 500 stalls 2) • Site, Ancillary facilities, Administration office, Toilets, Rubbish collection areas, Car park, Paving within the compound, Bagsakan, Space for hawkers 3) • Ice house	• Acquisition of the land has been completed, and there are also no major obstacles for the ground filling plans • There was a problem obtraining the car parking space, but during the study period it was verified that the neighboring empty lot (next sto the gymnasium) was city land and could be used, so there are now no obstacles. • Request number of stalls has changed to 500 stalls at the time of site survey. • The residents have already relocated. • Drainage water from outside the compound can be discharged into the drainage gutter which runs through the site. However, it is necessary to undertake a river conservancy and a bridging work for connection between the site and the car parking. It is confirmed that the works will be carried out by the City authority.	• Site maps • Land registration • Certification of the relocation of residents, and plan drawings of the relocation site (have made an onsite inspection of the relocation site and have personally meet the residents) • Vendors relocation agreement and the certificate of agreement to relocate signed by the city authorities and the retailers association • Typhoon Ruping damage status • Information relating to some construction material costs * Supporting documentation and drawings being received by the end of June, the work will not be halted.

Market Studied	Site Conditions	Details of the Request	Conditions and findings at the time of site survey	Documents and drawings gathered and facts confirmed
Danao Market Cebu Province, Danao City	Condition of the site: • The topography of the site is such that there are low areas which will require ground filling. It has been decided to carry in the surplus soil left over from the construction of a golf course in the city suburbs. The area for the construction of the market is level. Work is in progress to remove obstructions from the site. The empty lot besides the gymnasium is being secured as the car park site. • The water supply will be provided by gravity driven water supply system. • It is possible to discharge various drainage waters into a small stream which flows through the site. • There is a rubbish dump at the rear of the site, and an alternative site has been located about 2km away.		* An independent plan by the city authorities has progressed from early on, and the site preparation was nearly completed before the study. * An agreement has been made between the city authorities and the retailers association regarding the relocation of the market, and there are tendency applications for individual vendors, but until the scale of the market and the construction schedule is confirmed. * Until the decision about the project is made the budget can not be put into effect.	
Toledo Markets (two locations) Cebu Province, Toledo City Population: 119,970 people (1990) Study date: 3/29 (Fri.) All members 3/25 (Wed) Group B 4/1 (Wed) Group A	Poblacion Market Site Site: Located on the seafront in the center of the city Site area: 13,000m² Number of salls: 270 stalls (600 stalls on market day) (The current market was constructed using an American loan) Condition of the facilities: • Typhoon damage was repaired by the city authorities. The slaughter house was not restored, but is still usable. Furthermore, a section of the market wall has collapsed and is currently being repaired by the city authorities • Move the slaughter house to an alternative site to allow for planned expansion of the market space, a fish market, cold storage and an administration office. • Existing car park Expansion of the new market and new construction of the slaughter house.	1) • Construction of a slaughter house 2) • Construction of wet-section market at the alternative slaughter house site, Ancillary facilities 3) • Cold storage	• There is a written consent from for residents relocating, and 141 households out of 143 have consented. • There is a drawing of the plans for the relocation site, and a grading work at the actual site has partially begun. * The large majority of residents living in the area where the wet-section will be expanded have consented to relocate, but a considerable amount of time and money will be required to create an alternative location, so it is not possible to estimate when this will be completed. * The expansion area faces the sea and embankment work will be required on the sea front. There are no clear plans nor budget, so it is not possible to estimate when site preparation work will be completed.	• Site maps • Floor plans of the existing market • Residents written consent to relocate and preparation drawings for the relocation site • List of tenant rents
	DAS Market Site Site: In a mining town in the south of the city (Atlas mine) Site area: Approx. 3,000m² Number of stalls: 61 dry goods lots and 110 wet-goods lots (the market is currently being restored and is planned to open in mid-April) Condition of the facilities: • Since the typhoon damage, all stalls within market, which has been undergoing total restoration, have been operating from temporary stalls on the road in front of the market. • The dilapidated slaughter house will be moved to an alternative site, and it is planned to expand the dry-goods section and construct space for temporary stalls and cold storage	4) • Cold storage (ice house) 5) • Construction of a groceries market at the alternative slaughter house site 6) • Site, Ancillary facilities Fire station Car parking etc.	• The market restoration work is nearly completed and is due to open in mid-April. * The area of the alternative slaughter house site is 3000m², but there is no drawing which shows the site boundaries. * The site is on a ravine slope, so funds for site preparation work such as site forming work, etc. will be required. * There is a fire station within the slaughter house site, and this will need to be reconstructed. * The dry-goods section is lacking about 120 stores.	• Plan drawing of the existing market (section being restored) (however, this drawing does not show the site boundaries) * A site location drawing, boundary drawing, the number of stores requested, project details and so forth have not been clearly defined, so the documentation will need to be supplemented. * Confirmed the boundary of the site for construction at the end of July, but the site area does not suficient for the plan.

Market Studied	Site Conditions	Details of the Request	Conditions and findings at the time of site survey	Documents and drawings gathered and facts confirmed
Toledo Markets (two locations) Cebu Province, Toledo City Population: 119,970 people (1990)	New Slaughter House Site Location: Located at a site (Media-once) about 12km from the Poblacion market and 6km from the DAS market. Condition of the site: There is already a building on the site which is a small scale public market.	7) • Construction of a slaughter house (Media-once) for joint use by the Poblacion and DAS markets	• The slaughter house is separated from the market places, but there will be no problem as a dedicated truck will be used for transportation. * There is an existing building, but in the front of the plot there is sufficient empty space to be able to construct the slaughter house without effecting the existing building.	* Confirm that there are no problems with the distribution system and the transportation procedures (the market employees will do the transporting) * Until the new slaughter house is completed the existing slaughter house can not be dismantled and removed. Therefore, site preparation work for the market construction can not be undertaken at the current point in time.
Car-Car Market Cebu Province, Car-Car Town Population: 70,841 people (1990) Study date: 3/29 (Fri.) All members 3/24 (Tue) Group B 4/3 (Fri) Group A	Existing Market Site Site: Located in the center of the town Site area: 1.2 ha Number of stalls: 148 stalls Condition of the site: The entire site is in a low lying area, so there was severe flooding damage due to the typhoon Condition of the facilities: • 6 existing buildings. The three timber buildings in the center of the market are dilapidated. Raw drainage waters flows via the drainage pipes in the surrounding area into the fields and is a hindrance to rice cultivation. • There is a temporary slaughter house, but it is out doors and unhygienic. New Slaughter House Site Site: Approximately 1 km away from existing market site Condition of the site: Not completed the site preparation Uncertain the data of boring and soil condition, water supply, electricity, drainage, etc.	1) • Partial reconstruction of the existing market Reconstruct the three central wooden buildings and the barracks 2) • Site, Ancillary facilities Administration office Toilets Rubbish collection areas Pump shed Car park Paving within the compound Bagsakan Space for hawkers 3) • Slaughter house 4) • Cold storage	• There is an alternative site at the former market place as a relocation site for temporary stalls. This is a sizable area, and is partially roofed. There are agreements with the large majority of the vendors and the retailers association to relocate. • The reconstruction of the dilapidated buildings and the improvements to the drainage system are required. • The slaughter house within the site is unhygienic and will require reconstruction. Furthermore, it is directed to construct the new slaughter house more than 300m away from the market place, so it will be necessary to relocate the slaughter house. • There are residents living in the site for the new slaughter house. A site for relocation has been prepared, but relocation discussions have not proceeded and an agreement to relocate have not been reached. * General elections are currently being held and the people responsible are unavailable, so the work is not progressing.	• Site and layout plans • Floor plan for the relocation of stalls, and the vendors relocation agreements • Site map for the slaughter house and map of the relocation site for residents • Confirmation of the temporary site to be used for stalls during the construction period • Confirmation of the number of stalls in the market • Confirmation that the site for the slaughter house has been secured. * This size of building is unsuitable for the ground that is to soft and week due to the boring test.

Market Studied	Site Conditions	Details of the Request	Conditions and findings at the time of site survey	Documents and drawings gathered and facts confirmed
Oroquieta Market Misamis Occidental Province, Oroquieta City Population: 54,600 people (1990) Study date: 3/23 (Mon) - 3/24 (Tue) All members 3/31 (Tue) - 4/2 (Thur) Group B 4/4 (Sat) - 4/5 (Sun) Group A	Existing Market Site Site: Along side the Layawan River in the center of the city Site area: 1.8 ha Number of stalls: Market A: Restaurant 40 stalls Market B: 376 stalls (raw fish, groceries, clothing) Barracks: 104 stalls Hawkers stalls: about 100 Condition of the facilities: • There are 8 buildings consisting of building A and B, the administration office, slaughter house, the agricultural products markets, the fish market, public toilets, and the fire station. • Both buildings A and B are dilapidated and did not suffer typhoon damage • The barracks are unhygienic as there is no flow paving nor drainage facilities • Slaughter house (dilapidated and it is instructed to relocate it) New Slaughter House Site Site: Approximately 1 km away from existing market place, along Lawayan river Condition of the site: Site is suitable for the slaughter house, but there is no prospect for land acquisition and site preparation.	1) • Reconstruction of the existing market place, temporary site for the barracks 2) • Site, Ancillary facilities Rubbish collection areas Car park and public bus terminal Space for hawkers, Bugsakan 3) • Slaughter house	• There is little necessity to urgently reconstruct building A and B, but there are hygiene problems at the barracks • During the construction period the appropriated stores will relocate to areas surrounding • The site for the relocation of the slaughter house is currently registered as private land. But, land preparation procedure can be rapidly taken after the election, so certification concerned will be obtained after the election is completed. * The site for the slaughter house is a suitable plot if land preparation can be arranged. * General elections are currently being held, and it is not possible to undertake negotiations regarding vendors compensation, land rights and acquisition, relocation and so forth. * Typhoon Ruping damage was limited to the barracks, and emergency repairs were undertaken for rain and wind. However, the dilapidated state and the damage to the building is a big problem, and loses can easily occur even under normal rain and wind conditions.	• Site maps, ground topology measurement diagram • Layout plan • Floor plan of the existing layout of building B • Floor plan for the relocate of stores during the construction work. • Memorandum pledging to provide the land for the slaughter house site, budget allocations for ground filling and embankment construction work (However, this site has been disqualified as it can not be confirmed when the site preparation work will be completed) • List of local sub-contractors • Price list for reference in calculations • Memorandum and conditions regarding the operating hours of public market places * The site which was originally proposed as the site for the slaughter house is unsuitable as the site preparation work will require a considerable amount of tie and money, and there is a possibility that the site will be flooded by rising waters from the neighboring river. * Plans for Car park and Hawkers are depend on a relocation of the slaughter house. * No prospect to prepare the new slaughter house site.
Sapang Daraga Market Misamis Occidental Province, Sapang Daraga Town Population: 21,900 people (1990) Study date: 3/24 (Tue) All members 4/3 (Sat) - 4/5 (Sun) Group B	Existing Market Site Site: Facing a national road (8m wide) in the center of the town Site area: Approx. 0.5 ha Number of stalls: 90 stalls Condition of the facilities: • The site is divided into two levels, with 8 market buildings on the upper level, and the fish market on the lower level. • The main roof of the market is horribly dilapidated and dangerous. • Inadequate water supply and drainage facilities New Slaughter House Site Site: Flat ground, no obstacles Only 100m away from the market place Condition of the site:	1) • Reconstruction of the market place Reconstruct in the temporary site created by removing the central two buildings and the auxiliary barracks • Site, Ancillary facilities Well Pump shed Elevated reservoir tank Rubbish collection areas Car park, Space for hawkers • Slaughter house	• Reconstruction of the dilapidated areas is urgently required. • Due to the regulation of the Philippines, the site shall be located more than 300m away from the main market building. The site for the slaughter house is located 100m away from the main market building, and 100m is adequate as this is not a residential area. * Water supply is ensured by pumping up water from a source located about 600m away from the market place. However, there are planned power outages which result in the market's water pump stopping operation and adversely affecting the water supply. The water source can supply abundant water, thus it is appropriate to install a manually operated pump well within in the compound.	• Site and layout plans • Floor plan for the relocation of stalls • Vendors agreements to relocate stalls • Agreement regarding Friday market • List of sub-contractors • Slaughter house site maps • Typhoon Ruping damage report

(3) Distribution organizations in the project areas and the surrounding districts (12 municipalities)

1) Public market places in the Philippines, especially markets in the regional city centers like those in Central Visayas and Northern Mindanao, which are the target areas of this project, are essential facilities that serve the role of the citizens kitchen. At the same time as playing the role of the distribution base for various products other than foodstuffs, markets also play a large role in the regional economic foundation.

The current status of public market facilities in the target areas for this project and the surrounding 3 provinces and 12 municipalities (including 7 cities), is as follows in Table 3-1-4.

Table 3 - 1 - 4: Status of public market facilities in the project and surrounding (12 municipal) areas

	Municipality	Population (people)	Number of public markets	Number of stores (number of regular vendors)
	Cebu City	618,000	6	Carbon Complex 1,579 (numerous)
O	Toledo City	123,500	2	– –
	Mandaue City	173,700	4 (however, this includes three small district markets)	Main Market 960 (1,500)
O	CarCar Town	70,000	1	96 (183)
O	Danao City	73,400	1	300 (600)
O	Lapu-Lapu City	146,100	1	428 (158)
	Oroquieta City	569,200	3 (however, this includes two small district markets)	924 (–)
O	Oroquieta City	52,500	1	416 (272)
	Plaridel	34,400	1	77 (–)
O	Sapang Dalaga	21,500	1	90 (–)
	Lopez Jaena Town	22,600	1	49 (–)
	Aloran Town	20,800	1	58 (–)

Source: Preliminary Survey Report

(Municipalities marked with a "o" signify markets which are subjects of this project)

When examining the status of public market facilities using the above table, it can be seen that Cebu City has six public markets for a population of about 600,000 people and Mandaue City has four public markets (including three small district markets) for a population of 173,700 people. Toledo City has two public markets for a population of 123,500 people but when the location is examined it can been seen that one site is located in the heart of the city center, while another location is 15km away from the city center in the ACMD copper and coal mining town. When examining the number of public markets versus the population of the other towns and cities it can been that there is a least one market established for each 100,000 people. Looking from this perspective it can be determined that there is a high level of urgency for the establishment of new public market facilities in Lapu-Lapu City, for instance. The current population is 146,100 people and there has been incredible industrialization and commercialization in recent years. The population of the city has rapidly increased, but there is still only one public market place.

2) Taking several examples from the project area and the surrounding 12 municipalities, one will consider the overall distribution mechanism of the towns and cities and the role that public markets play.

① In the case of Toledo City (Population: 123,500 people, two public markets) fresh fish is caught from the seas surrounding the city. Furthermore, fresh fish is also supplied from 86 ha of fishponds within the city. Fresh fish is landed at the Poblacion market site and at barangays Matabang, Mainggit, and Bato which are about 19km away from the Poblacion market. As of 1991, production of fish was bout 720 metric tons. Another source of fish is from Balamban (neighboring town).

Some livestock, poultry, eggs and agricultural products are sourced from the neighboring towns of Aloguinsan and Pinamunganan. These are mostly traded during Sundays - market day. On regular days, most of these products are those produced in the city. There is a heavy influx of agricultural products from other towns. A regular supply of vegetables is obtained from Canlaon City through the San Carlos City port. Since there are no commercial poultry or livestock farms in Toledo, most poultry and dairy products are sourced from other municipalities, particularly Balamban and Pinamungahan.

Dry goods are sourced out of from Cebu City and are distributed through Toledo to other municipalities in the western side of the island. Grains and cereals come from Toledo City and nearby municipalities, although some are sourced from as far away as Negros Occidental through the port. Toledo City serves as a wholesale and retail distribution point of a wide variety of commodities in the western section of Cebu Island.

② In the case of Lapu-Lapu City (Population 146,100 people, one public market) agricultural products, fresh fish, meat, cereals/grains, clothing, footwear, farm implements, and other dry goods are distributed though the public market.

Cultured fish is sourced out from the sea around Mactan Island and the fish farm of Cordova. Fish is landed at the Poblacion market site and at barangay Buaya, Canjulao, Engano and Maribago. As of 1989, production of fish was about 400 metric tons, most of which is sold through the market. Another source of fish is Danao City.

Some livestock, poultry, eggs and agricultural products are from the towns Cordova, Talisay, Minglanilla and as far as Pinamungaan. These are mostly traded during Saturdays and Sundays. On regular days, most of these products such as fruit and vegetables are those produced in the city. Since there are no commercial poultry or livestock farms in Lapu-Lapu most poultry and dairy products are sourced from other municipalities, particularly Balamban.

Dry goods are sourced out of from Cebu City and are distributed through Lapu-Lapu to other neighboring municipalities. Grains and cereals come from Toledo City and Lapu-Lapu City itself, and nearby municipalities, although some are sourced from as far away as Negros Occidental through the port.

③ In the case of Oroquieta City (Population: 52,500 people, one public market) agricultural products, fresh fish, meat, cereals/grains, clothing, footwear, farm implements, and other dry goods are distributed though the public market. Fish is sourced out from the Bohol Sea, Iligan bay, and Mindanao Sea. Total fish production for 1980 was estimated at 3,025 metric tons. Of the city's 47 barangays, 10 are classified as costal barangays, where most of the residents are engaged in fishing.

Livestock, poultry and vegetable production is mostly on homeyard level which are not sufficient to meet the demands in the market. Thus, a heavy influx of livestock comes from the towns of Calamba, Plaridel, Lopez Jaena, and agricultural products from the province of Cebu, Ozamis City, Dipolog City and Tudela. Coconuts are the city's number one agricultural crop. Grains and cereals are also sourced out from other neighboring towns.

Dry goods such as clothing, footwear, textiles and others are from Cebu and Ozamis City, and are distributed through Oroquieta to other towns in the province.

④ In the case of Cebu City (Population 618,000 people, six public markets) fresh fish sold in the public market are from the city, neighboring towns, and even as far away as Negros Occidental. Meat is sourced locally with live animals coming from neighboring towns and outlying barangays. Fruit and vegetables are from other towns and outlying barangays. Dry goods, groceries, sari-sari and other goods are mostly sourced locally. Some goods, however, come from Luzon and also from other provinces in the region. Some handicraft items, for instance come from Bohol and the Bicol region.

As can be seen from the above examples, public markets are not just the distribution mechanism for the target and surrounding areas of the city they are located and of other regions of the Philippines, but they are also the wholesale and retail distribution point for products to neighboring municipalities, especially processed goods such as clothing and groceries. The public markets in the Philippines do not just have the function of acting as the distribution base of products necessary for daily life of the regional citizens, but they also play an important role as the nucleus of regional commercial and economic activities.

3 - 1 - 4 Structural Elements of the Market Places and Current Status of the Project

1. Public Markets

(1) Outline of Public Markets in the Republic of the Philippines

Public markets in the Republic of the Philippines are the source of a wide variety of groceries and daily necessities as well as foodstuffs such as grains and cereals, fruit and vegetables, meat, and fish which are essential in the lives of the regional citizens. The public markets also have the function of wholesaling foodstuffs and dry goods to sari-sari stores (small groceries store selling a myriad of products) which are dotted throughout regional markets in the suburbs and elsewhere in the city. Public markets are also recognized as being important to the regional economy and distribution development as they provide a favorable location for local farmers to sell their agricultural products. (see Appendix A – 18, 29)

The turnover of the public markets throughout the country is massive, and according to auditing reports for example, half of the yearly personal income is spent on purchases at the public markets. In 1990, 421.5 billion pesos worth of products, which accounts for approximately one third of the gross national product, were distributed through the public markets. From these facts it can be understood just how important the activities of the public markets are to the Philippine economy and the lives of the citizens.

There are different types of public markets such as; regular markets, which serve an area of a city and municipal district, with stores, road side stalls and hawkers operating within the building or compound and in the surrounding area; periodic markets which serve towns and villages and only operate during fixed times on periodic market days; markets trading in specialized or specific products (livestock, garden plants etc., temple gate markets, fair markets). Public markets in the Philippines are primarily as described in the examples above, but there is no difference in the economic role they all play of supplying the regional people with the goods they require for daily life. These are facilities which do not miss out on the principal of one article / one price which is not always realized in the economies of developing countries. In addition, crowds of people gather at the public markets which consequently leads to social interaction, and on a certain level the mature bazaar economy is formed out of this interaction more than long-term trading experience.

(2) Function of Public Markets

If the function of public markets was to be summarized in an single expression it would be the economic activity that supplies the regional people with the products they require for daily life. The primary social and economic factors that retain the current functionality and form of the public markets are as follows:

1) The merit for the seller of putting him in contact with a large number of customers using limited capital, and allow him to undertake a low price, high volume business.

2) The buyer has a greater product selection, and the appeal and sense of security and that he can buy products cheaply due to competition between stores.

3) The distribution of lifestyle commodities to the regions is promoted through the retailers, and as a matter of course, wholesalers.

4) The appropriate amount of fresh and safe meat and meat products can be purchased when required. This is important for the eating habits in the rural areas when cold storage, etc., is not commonplace.

5) The public markets provide a location where the farmers from the neighboring areas can dispose of their produce and, at the same time, provide a place where they can purchase lifestyle commodities and farming implements, etc.

6) Social interaction is generated as the consequence of crowds of people gathering in one place. In this request, the public markets occupy a central position in regional social life.

For these sorts of reasons it can be considered that the current form of public markets was established through natural occurrences and they continue to exist in this form in developing countries which do not have mature commercial activities.

(3) Type of Stores

The word "Market" which has been used in this report does not refer to general "Domestic Markets" or "International Markets" with fixed pricing systems, and a system of modern multiple sales outlets, nor does it refer to markets which have the activities or systems which support these sort of facilities. The word "Market" in this report refers to a location or facilities where people gather in a predetermined place to buy and sell commodities. This sort of market is call a "Palengke" in the Philippines.

Note: In other areas of the country this sort of market is also called a "Merkado", "Pamilihan" and "Barakahan".

At these sorts of markets, general products which are essential for the lifestyles of the regional people such as fresh foodstuffs (meat, fish, vegetables, fruit), rice, maize, cereals such as soya beans, dried fish, clothing, footwear as well as spices, sauces, canned foods, confectionery, processed foods such as bread and noodles are dealt with. The markets also deal with general products required for daily life such as tableware, hardware, medical supplies, farm implements, paint, cosmetics, and stationery. Special stores include regional handicrafts (basket work, brooms, swords, etc), barber shops, pawn shops, and raffle ticket sales outlets. Furthermore, in each market place there are refreshments/eatery stores (carinderia) selling light meals and drinks. These facilities are used by the general consumers and by the retailers who operate from early in the morning until late at night.

(4) Form of the Stores

The form of the store depends upon its type of business and there are three types:

<u>Regular Stall</u>
The regular stalls are set up inside the market building and in the numerous stalls which have been laid out. The products to be sold are systematically arranged. The renter pays a fixed monthly fee to the appropriate city authorities that is determined by product type as well as the area and location of the stall. Meat and fish stores which use water are constructed from water resistant materials such as concrete and then tiled.

Makeshift Stall

Makeshift stalls are simply stores which have been created from tents put up from wooden planks, and are mainly used for the sale of dried fish, clothing, footwear and so forth. The holders of these stores pay the appropriate city authorities a daily location usage charge on a monthly bases or under a contract. These stores are constructed to be mobile, and on a first come / first served basis, the vendors secure desirable locations and set up sales operations in areas around the market building. However, depending upon the market, some semi-permanent makeshift stalls that have been constructed inside buildings can be seen.

Ambulant, Hawker

Ambulants or Hawker are vendors who sell fresh vegetables, garden plants, flowers, etc. from the top of simple stands or who line up their produce directly on the road surface. Numerous hawkers can be seen on Sunday market days, filling up the streets close to the market.

(5) Public Market Opening Hours

Generally, the public markets are open from early in the morning 365 days a year, and market worker has become a synonym for hard worker. The meat sales workers, in particular, have already commenced work at the slaughter house at about 4:00 am to ensure that all of the meat is arranged in the display cases before the first customers appear at about 9:00 am. The fish wholesalers also start early in the morning to deliver fish to all of the stores. Furthermore, the cafeterias, which provide light meals, are not only used by the customers, but also by a larger number of the workers who are employed at the market, so they operate from earlier in the morning (from about 7.00 am) until later at night (until about 9.00 pm) compared to other stores. For instances, there are special cases like the cafeterias in a large scale urban public market such as Lapu-Lapu which have many general customers and operate 24 hours a day, while other general market stores operate from about 8.00 am to about 7.00 pm. The markets are congested between about 10.00 and 11.00 am when many customers visit the market to purchase items for which freshness is important such as fish and meat. The markets are also congested between about 4.00 and 6.00pm as most of the local residents visit the market.

2. Store Outline

An outline of each type of store is as follows:

(1) Meat Store

Average store area: $1.5 \times 2(m) = 3(m^2)$

Average daily turnover: 4,000 pesos/day

Average store fee: 100 pesos/month

Distribution of the Meat:

Generally, there is a slaughter house located close to the public market. Livestock which has been purchased at auction, etc., by middlemen are processed at the slaughter house, and sold wholesale to the retail stores. Livestock slaughtered includes pigs, cattle, sheep and water buffalo, and about 50kg of meat per pig and the 150kg of meat per head of cattle is auctioned.

Special Characteristics:

- The meat which the store owners stocked from the slaughter house early in the morning is mostly sold out during the morning.
- Pork and meat products processed at the slaughter house are the main products, but chickens, ducks, etc., are normally processed at home. Other home made sausages and corned beef are sold at the market.

(2) Fish Store

Average store area: $1.5 \times 2(m) = 3(m^2)$

Average daily turnover: 1,500 to 2,000 pesos/day

Average store fee: 100 pesos/month

Distribution of the Fish: Wholesalers transport the fish from the local landing area (port). The fish are auctioned at the public market auction market (Bagsakan). At these auctions each type of fish is traded in units of boxes of a single type of fish.

Special Characteristics:

- The fish which was stocked early in the morning can be most sold by lunch time, but in cases where there is fish remaining, additional ice is added and it can all be sold by the evening. Most stores have an ice box.
- There is a large price difference of 15 pesos to 80 pesos per kg depending upon the type of fish. The fish is sold is many different ways such as by the kilogram, by number of fish and as raw processed fish.
- For products such as meat and fish which deteriorate easily, the store owner uses his experience to source just enough volume to be completely sold before the evening of that day. In the rare case where there is some surplus left over, it is stored in ice boxes and sold the next day or it is processed into dry fish.

(3) Cereal/Grain Store

Average store area: $2.0 \times 3.5(\mathrm{m}) = 7(\mathrm{m}^2)$

Average daily turnover: 5,000 pesos/day

Average store fee: 250 pesos/month

Distribution of the Rice: Rice can only be sold by retailers who have been authorized by the NFA (National Food Authority). The cereal/grain vendors at the public markets also require a license to operate. Rice is brought into the market by the rice distributors (companies operating the rice mills). The price of rice is 8 to 12 pesos per kilogram depending upon the quality.

Special Characteristics:

- One third of the total volume of rice distributed is traded at the public markets, with the remaining rice being sold by rice and cereal vendors in towns and sari-sari stores.
- Apart from rice, the cereal/grain stores also deal in corn grits and soya beans, etc.
- This type of store has a high turnover, but it is a low-cost / high-volume business, the store profits are low.

(4) Fruit and Vegetable Store

Average store area: $2.5 \times 2(m) = 5(m^2)$

Average daily turnover: 1,500 pesos/day

Average store fee: 200 pesos/month

Distribution of the Vegetables:

High quality vegetables such as round celery, cabbages, carrots, onions and potatoes are cultivated by farmers in cooler mountainous areas, and are primarily sold on market day.

Special Characteristics:

- There are many examples of farmers directly selling their own agricultural produce as ambulants and hawkers. Furthermore, there are also farmers who use stores that sell sari-sari to retail a portion of their agricultural produce. In the Philippines. small quantities of each type of vegetables are mixed together in a plastic bag and sold, and this is the wisest way to sell vegetables in areas where there are no refrigerators.

(5) Dried Fish Store

Average store area:

Average daily turnover: 2,500 pesos/day

Average store fee: 300 pesos/month

Distribution of the Dried Fish:

Fish is widely popular, and there is a high demand for dried fish in the Philippines where refrigerators are not common. It is a particularly important source of animal protein for people living in mountainous areas.

Special Characteristics:

- There are many different types of dried fish, and the stores dealing in dried fish have a large floor area compared to other stores.
- Recently there has been a great influx of canned fish and it is said that the consumption of dried fish has declined, but on market day there are still plenty of dried fish lined up for sale.

(6) Clothing and Footwear Stores

Average store area: 2 x 4(m) = 8(m^2)

Average daily turnover: 2,500 pesos/day

Average store fee: 250 pesos/month

Distribution of the clothing and footwear:

A wide variety and choice of apparel such as locally produced textiles, shirts, T-shirts, trousers, underwear, etc., and footwear such as shoes and sandals, etc., is sourced in from major cities such as Manila, Cebu and Danao.

Special Characteristics:

- Apart from the retail trade, goods are sold wholesale to traders in the regional areas
- The turnover of this type of store is uneven, so business can be difficult.

- Turnover is increasing each year as the level of income of the citizens improves.

(7) Sari-sari Product Store

Average store area: $2.5 \times 2(m) = 5(m^2)$

Average daily turnover: 1,500 pesos/day

Average store fee: 250 pesos/month

Distribution of Sari-sari Product:

Sourced out from large cities such as Manila and smaller cities close by. Sari-sari stores within the area compete with each other, attracting customers with the overall cheapness of the products they sell. Furthermore, they also wholesale products to regional sari-sari stores.

Special Characteristics:

- Sari-sari stores in the towns and villages sell on credit, but credit sales are not normally made in the markets.
- The sari-sari stores deal with a wide range of products, but the large proportion are low-value items, so the daily turnover is not great.

(8) Refreshment/Eatery Store

Average store area:

Average daily turnover: 2,000 pesos/day

Average store fee: 480 pesos/month

Details of the Cafeterias: The cafeterias sell light meals, side dishes, cakes and drinks. The customers are general consumers that come to the public market and the workers employed at the market. Depending upon the store, there are also places which sell distilled coconut liquor by the measure (measuring cups).

Special Characteristics:

- The turnover per person is about 10 to 30 pesos, so the daily turnover from 30 to 70 customers is not substantial.
- The store area is large in comparison to other types of stores.
- The opening hours are long, from early in the morning until late at night, as the cafeterias are used by people working at the markets.

(9) Other Types of Stores

① Chemist

These stores sell very plain medicines such as cold medicine, stomach and bowel medicine, and medicine for cuts and scratches. The store owner requires a license from the appropriate city authorities, and the customers are attended to by a qualified pharmacist.

② Cake Shop

These shops sells homemade cakes and bread as well as cool drinks and drinking water.

③ Stationery Shop

Sell school stationery such as notepads, pencils, ballpoint pens and other writing equipment, as well as personal stationery such as writing paper and envelopes.

④ Tableware and Glassware Shop

Sells pots and pans, small ovens, all types of plates, tableware, in addition to washbowls, buckets and glassware for daily use, ornaments, handicrafts, etc.

⑤ Hardware

Sells hardware such as nails, screws, cutters, pliers in addition to supplies for general house repairs such as paint and zinc plating, etc.

⑥ Fuel Store

Sells coal and firewood

⑦ Barbers Shop

Men's barbers and women's hair dressing shops, specialist manicure shops. These shops are dotted throughout the market, particularly markets.

⑧ Farm Implements

Sells farm implements such as sickles, hoes and spades.

⑨ Other Specialist Stores

- Distilled Liquor Store
  Sells coconut liquor by the measure (measuring cup)
- Raffle Ticket Shop
  Store selling public raffle tickets
- Pawn Shop
  Pawns watches and rings, etc. for cash.

3. Public Markets, Sari-sari Stores and Supermarkets

(1) Sari-sari Stores

These are small "groceries stores selling a myriad of products" with an area of $3m^2$ to $6m^2$ which operate in extremely small communities such as barangay and in towns. These shops sell the commodities necessary for everyday life, and this method of trading plays a particularly important role in regions where there are a large numbers of consumers with meager purchasing power.

The special characteristic of the sarisari stores method of business is that they supply small volumes of products necessary for everyday living, such as food provisions and groceries at low prices to a designated regional community. For example, these shops practice "loose selling" (Tingi), where a packet of tobacco, etc., is divided up and sold as individual cigarette, and "selling by measure" for products such as polished rice, sugar, fish sauce, coconut liquor, etc. The benefit of these trading practices is that the consumers can purchase products which are immediately required at an absolutely minimum expenditure. The customers are mostly low income families, and "credit purchases" are very commonly seen.

(2) Supermarkets

In recent years, the appearance of American style supermarkets which operate in the same way has been noticeable in the suburbs of larger Philippine cities. These supermarkets are in the middle of completely air conditioned buildings with escalators, and the consumers desire to purchase is spurred on by soothing music and colorful, lively posters, etc. The products these supermarkets sell are aimed at high income and younger consumers.

(3) Sari-sari Stores, Public Markets and Supermarkets

Each has its own special characteristic. The sari-sari stores stock products necessary for daily life in small-volume / low-cost units, while the public markets sell items using the bazaar method, and supermarkets cater to the high class tendencies. Generally, the image products which are sold by each of these stores are as listed below:

Sari-sari store:	Bread, noodles Seasonings, fish sauce, sugar Tobacco, candy Matches, candles, soap
Public markets:	Fresh fish, selection of meats All types of polished rice, maize floor, all types of vegetables and fruits Flavorings, cooking oil, sauces Locally produced textiles, general clothing
Supermarkets:	Electrical appliances Frozen food, high quality vegetables, fresh milk High class clothing and footwear, bags, etc. Jewelry, sporting goods, cosmetics.

Middle class families who own refrigerators use these different types of stores depending upon the products they are going to purchase. For instance they go to the public markets at the rate of once or twice a week to purchase in bulk the majority of the items they require for day to day living, in other words, polished rice, vegetables, fruit, fresh fish and meat. On the other hand they go to the supermarket from time to time to get electrical appliances, apparel, cosmetics, etc. They also visit the local sari-sari store for seasonings, fish sauce, matches, candles, and so forth.

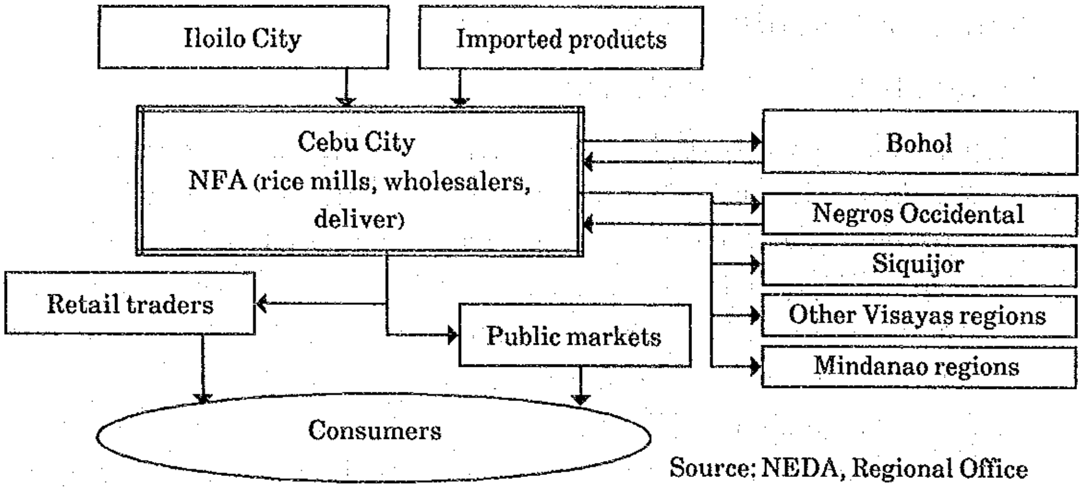
4. Distribution Flow of Products

(1) Distribution of Cereals/Grains

The volume of cereal/grain (polished rice and maize) production in Cebu Province is not sufficient to meet the consumer demands of the islands citizens, so the production is supplemented by shipping in products from surrounding provinces with surplus production capacity or by importing from overseas. Rice is mainly shipped in from Iloilo City on Panay Island and maize is primarily sourced from Cagayan De Oro on Mindanao Island and Danao City. Furthermore, the entire volume of flour used for bread and noodle making is directly imported from Australia and America using the facilities of the regional flour mills, and then sold as baking flour.

The sale of rice, which is a staple food, can only be performed by cereal/grain retailers who have obtained a license from the NFA (National Food Authority) regardless of the fact that the rice is locally produced or imported. Wholesalers are rice millers with economic resources who gather the unhulled rice from the cultivation areas themselves, store and polish the rice, and then supply the polished rice to the consumer areas. Cebu City is famous for its historical background which flourished as a distribution center for this sort of system. A flow diagram detailing the distribution of rice centered on Cebu City is shown in Fig. 3-1-22. It can be considered that the volume of rice supplied to the public market is one third of the total consumption volume. The remaining volume is supplied by sales outlets other than the public markets (sari-sari stores, specialist cereal/grain stores) and by the farmers themselves.

Fig. 3-1-22: Rice distribution flow diagram for Cebu Province

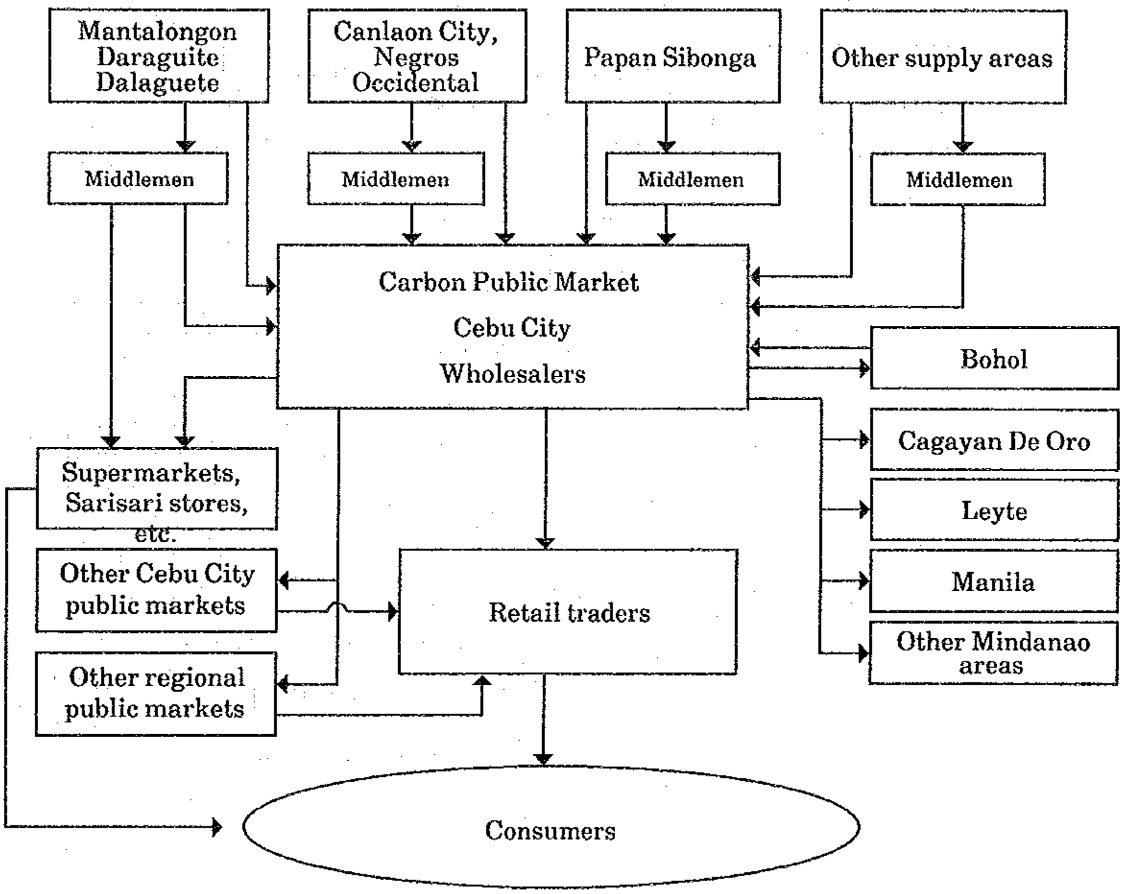


Source: NEDA, Regional Office

(2) Distribution of Vegetables (Fruit)

All types of vegetables (fruits which are produced on Cebu Island, and those produced elsewhere are collected through the hands of middlemen, and sold wholesale at the various public markets. Apart from this, farmers living in mountainous regions bring high quality vegetables directly to the public markets and sell them at roadside stalls. Generally, high quality vegetables such as carrots, celery cabbage, and cabbage cultivated in cooler mountainous regions are expensive, so the cheaper roadside stall vegetables are popular amongst the local people. A distribution flow diagram for vegetables (fruit) is shown in Fig. 3-1-23 below.

Fig. 3-1-23: Vegetable (fruit) distribution flow Figure for Cebu Province



Source: NEDA, Regional Office

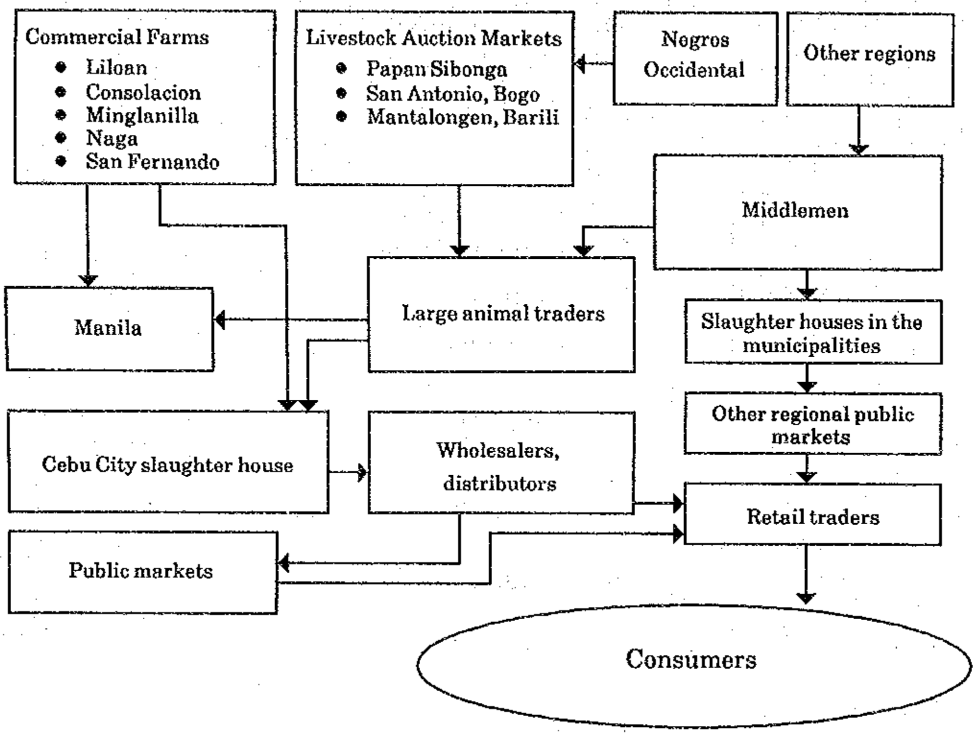
(3) Distribution of Meat

Livestock which has been raised on farms or by farmers on or off Cebu Island are transported to the livestock trading yards and auctioned through middlemen. The middleman takes the livestock, which he has successfully bid for, to the slaughter house operated by the public market and commissions the processing of the animals. On average, one head of cattle produces about 150kg of meat which can be sold, while a pig produces about 50kg. The more skillful middleman, the smaller the difference between the amount of meat he estimated at the time he made the successful bid and the amount of meat which he sells as the end product. After this meat has been cut up, it is auctioned to the public market stallers, and then arranged in the store.

Generally, stores dealing with meat sell 40 to 50kg of meat per day.

Furthermore, each customer purchases an average of about two to three kilograms (150 to 200 pesos) of meat.

Fig. 3-1-24: Meat distribution flow diagram for Cebu Province



Source: NEDA, Regional Office

(4) Distribution of Fish

Lapu-Lapu City, Danao City, Toledo City and Oroquieta City have their own ports for the supply of fish. In places where there is a dedicated fishing community, it is possible to ensure a rich fishery catch supply provided that the seas do not become rough. The other markets are relatively close to the sea so there are not that many problems with the supply. The following list shows the fishing ports which supply each of the project sites:

Lapu-Lapu Market:	Mactan fishing community Pasil Danao
CarCar Market:	Aloguinsan Argao

	Barili Dumanuag
Danao Market:	Danao fishing communities
Toledo Market:	Pasil Matabuogu Mainggit
Oroquieta Market:	All the fishing ports and fishing communities from Ozamiz City to Dipolog City
Sapang Dalaga Market:	As above.

After the fish have been hauled out, they are then auctioned (normally early in the morning) in units of boxes to the stores at the market wholesale area (Bagsakan).

(5) Distribution of Clothing and Miscellaneous Products

Clothing such as locally product textiles and apparel, bags and handbags, sandals and shoes, jewelry and cosmetics, as well as miscellaneous goods such as canned goods, seasonings, cooking oil and sugar are nearly all sourced in from major cities such as Manila, Cebu and Danao. The wholesalers for most of these products have their bases in Cebu, Manila and Davao and they are working to actively establish a nationwide supply network. Ships are the preferred method of transportation in the Philippines which consists of many islands.

(6) Refreshments/Eateries

The cafeterias in the public markets sell such items as light meals, side dishes, cake snacks, cold drinks, coconut liquor (local distilled liquor). Each cafeteria can seat between six and about twelve people, so they occupy a large floor area compared to other stores. Many of the customers are employees of the other market stores, so all of the cafeterias operate later than the other stores. There are also places like the Lapu-Lapu market where they operate basically 24 hours a day.

5. Consumer Trends

The purchasing trends of the consumers who come to the public markets are as follows:

(1) Income Classes

According to the NEDA regional office materials, the statistics bureau's "Family Income & Expenditure Survey Report, 1988" and as the result of onsite verbal inquiries, the average expenditure for a family of residents living in one of the following municipalities which was survey, is shown in Table 3-1-5. If a figure equivalent to 75% of the yearly expenditure is calculated by excluding education costs, church costs, medical costs, transportation costs, housing related costs, and so forth, the daily and yearly expenditure per person at the public market in each regional area is as shown in Table 3-1-5.

Table 3 - 1 - 5 Expenditure of Purchasers

Unit: Pesos

	Yearly Family Expenditure per Expenditure (Yearly)	Purchasing Family at the Public (Yearly)	Purchasing Family at the Public (Daily)
Lapu-Lapu	35,000	26,250	72
CarCar	19,250	14,440	40
Danao	26,000	19,500	53
Toledo (DAS)	24,000	18,000	49
Oroquieta	29,000	21,750	60
Sapang Dalaga	35,000	18,750	51

Source: NEDA Regional Office
Family Income & Expenditures Survey Report, 1988

(2) Consumer Trends by Product Type

In order to know how much of which products a general consumer purchased at the public markets, expenditures for each type of product was determined, as follows in Table 3-1-6. The results where based upon materials from the detailed study, "Family Income & Expenditures Survey Report, 1988". Verbal inquires were made on site by the study delegation for the prices for each type of product, and an average price was produced by combining these results with Philippine research materials.

Table 3 - 1 - 6 Expenditure per person and per family by product type

Product type \ Region	Lapu-Lapu	CarCar	Danao	Toledo (DAS)	Oroquieta	Sapang Dalaga
Meat	1.00 P	0.40 P	0.63 P	0.55 P	0.63 P	0.52 P
Fish	2.14	1.39	1.99	1.74	2.31	1.90
Cereals/grains	3.58	2.88	3.26	2.84	4.04	3.32
Fruit, vegetables	0.58	0.43	0.53	0.46	0.63	0.52
Clothing, footwear	1.40	0.71	1.14	1.11	1.52	1.26
Sarisari products	2.49	1.07	1.90	1.92	1.88	1.55
Cafeteria	1.11	0.19	0.51	0.25	0.17	0.14
Miscellaneous	0.86	0.43	0.57	0.29	0.31	0.25
Expenditure per person	13.16	7.50	10.53	9.16	11.49	9.45
Expenditure per family	71.85	39.53	53.39	49.28	59.63	51.41

Source : Family Income & Expenditures Survey Report, 1988

(3) Shopping Frequency and Market Usage Rate

The shopping frequency of consumers, in other words, market customers (the number of times a consumer visits the market during a fixed period of time) is divided up into the following main categories by the type region which is influenced by the economic power of the market at its center.

1) Poblacion Region
Group of consumers who reside within 1km of the market and who visit every day. These consumers normally walk.

2) Urban Region
Group of consumers who living within the urban area, but only visit the public market at a rate of three times a week as it is far way. These consumers normally use three wheeled taxis.

3) Rural Region
Group of consumers who live in the suburbs and who visit the public market at the rate of once a week. These consumers normally use jeepney and three wheeled taxis. The populations of these various regions were studied, and the daily rate of market usage by group was determined (Table 3 - 1 - 7).

Table 3 - 1 - 7 Market Usage Rate by Group

Group \ Region	Lapu-Lapu	CarCar	Danao	Toledo (DAS)	Oroquieta	Sapang Dalaga
1) Group that visits the market daily	NA	50 %	20 %	40 %	35 %	15 %
2) Group that visits the market three times a week	NA	25	40	35	30	10
3) Group that visits the market once a week	NA	25	40	25	35	75

From the above figures a contrast between Toledo (DAS) and Sapang Dalaga can be seen. This can be considered due to the fact that the large majority of the Toledo (DAS) consumers live concentrated in the mining town where the market is located, whereas most of the residents of Sapang Dalaga live scattered throughout the coconut groves far away from the public market.

(4) Transportation Usage

When the consumers visit the markets they utilize different types of transport such as walking, bicycle, three wheeled taxi, jeepney, and other modes of transport (bus, ferry, etc.). The ratio of consumer who use transportation classified by product type is shown in Table 3 - 1 - 8. These figures are the result of an onsite study.

Table 3 - 1 - 8 Consumer Transportation Usage Ratio

	Lapu-Lapu	CarCar	Danao	Toledo (DAS)	Oroquieta	Sapang Dalaga
Meat	15 %	NA	20 %	45 %	26 %	33 %
Fish	–	NA	5	–	5	–
Cereals/grains	68	NA	40	35	54	30
Cafeteria	13	NA	25	10	12	30
Miscellaneous	4	NA	10 (Ferry)	10	3	7 (BUS)

(5) Shopping Times

Survey results have obtained for the time periods during which consumers visit the public markets. These results are shown in Table 3 - 1 - 9.

Table 3 - 1 - 9 Purchasers Market Usage Time Periods

	Lapu-Lapu	CarCar	Danao	Toledo (DAS)	Oroquieta	Sapang Dalaga
Morning	54 %	NA	50 %	NA	47 %	20 %
Afternoon	10	NA	20	NA	21	50
Not particularly set	36	NA	30	NA	32	30

The reason that most of the usage is concentrated on the morning period is that there are many people who visit the market to purchase fresh meat, fish, etc. during the morning. Furthermore, it can be considered that the reason that there are more consumers counted during the afternoon period at the Sapang Dalaga market is due to the fact that this market is a long distance from the wholesale meat and fish markets.

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CHAPTER 4 NATURE OF THE PROJECT

4 - 1 Objectives

In addition to worsening economic and social conditions, the social and economic foundations of the Philippines have been greatly affected by damage from typhoons, floods, droughts, earthquakes, etc. which have struck the country one after another due to its geographical characteristics. Amongst these disasters the powerful typhoon "Ruping", which struck in November 1990, caused massive damage, particularly to the Visayas and the Northern Mindanao regions in the central section of the Philippines. All of the public market places, which are the foundation of daily life for the regional citizens, suffered great damage from this typhoon, and the rehabilitation of these facilities is a great burden on the meager financial resources of the municipalities in the disaster area. The public markets are an essential part of the regional citizens lives so emergency repairs have been carried out to a certain level through the efforts of various local government units and with the cooperation of the central government, but it is difficult to carry out adequate restoration. Furthermore, the public market buildings which suffered great damage are also remarkable dilapidated, in addition to also being in an extremely dangerous and unhygienic state due to disorderly expansion of the stores.

As there was an especially urgent requirement for the restoration of public markets in the typhoon affected areas, the objectives of this project are the restoration and improvement of located in Cebu province, Cebu island and in Misamis Occidental Province, Mindanao island, of the disaster damaged markets which have particularly urgent needs.

4 - 2 Review of the Request Details

4 - 2 - 1 Appropriateness and Necessity of the Project

The Department of Interior and Local Government contributed the following comments to the "Guideline for Restoration of Public Markets (Modular Approach) publication.

"The present plight of the public market system in the country calls for a vigorous intervention program by the national government to provide financial and technical assistance to local government units. This becomes doubly necessary in the light of concerted efforts of government functionaries to stir the economy and provide the impetus for continuous growth and development.

The public market is one economic enterprise managed by the local government unit which has great impact on the total development of the locality. It contributes significantly to the income of the city/municipality, affects the health and nutrition requirements of the populace, provides livelihood and employment opportunities to vendors and workers, and generally raises the level of economic activities in the area.

Continuous neglect of this local economic enterprise and public utility, therefore, will not only stunt the total development of the local units but will also arrest the upward surge of the national economy."

The Government of the Philippines formulated the previously mentioned "Guideline for Public Market Restoration" from this perspective, and has been promoting public market improvements on a nation wide scale centered on the Department of Interior and Local Government and the municipal governments. This project supports and assist these policies of the Philippine Government and is a project with extremely great beneficial effects as there is no doubt that it will contribute not only to the local residents but to the larger group of all of the citizens of the Philippines.

For this project it is necessary to research the appropriate scale and special problems which confront each of the request market sites, but also at the same time to study the nature of the facilities from a wider perspective which searches for the way which "public markets in the Philippines" should be. (see appendix A-30) According to the above policy, the Project should be studied by the wide range data, not only this Project concerned but also the other similar facilities data.

4 - 2 - 2 Review of the Appropriateness of the Requested Facilities

1. Estimation of the Economical Scale of Each Public Market Place

The economical scale of each public market is determined from all of the following factors; (1) the number of purchasers, (2) the turnover of each public market, (3) the turnover of each store, and (4) the number of purchasers per store. The appropriateness of the economical scale of the public markets requested can be confirmed using these factors.

(1) The Number of Purchasers for Each Public Market

The number of purchasers that visit each public market was calculated based on onsite surveys and is listed below. (see appendix A-29)

① Purchasers from within the region: From population statistics. (A)

② Purchasers from outside the region: The ratio of the number of purchasers who visit the market from outside the region was determined by onsite surveys. (B, C)

③ Purchasers who go to other stores: The ratio of within the area number of purchasers who go to sarisari stores and other stores within the region was determined by onsite surveys. (D, E)

The values in Table 4-2-1 are calculated from the values of ①, ②and ③.

Table 4-2-1: Number of purchasers for each public market

	Population within the region (1990)	Estimated ratio of purchasers from outside the region	Purchaser population including purchasers from outside the region	Estimated ratio of purchasers within the region who go to other stores	Number of purcha-sers who visit this market only
	(A)	(B)	(C)	(D)	(E)
Lapu-Lapu	146,197	1.3	190,052	0.20	152,042
CarCar	70,841	1.0	70,841	0.40	42,505
Danao	73,358	2.0	146,716	0.30	102,701
Toledo (DAS) *1	87,910	1.0	87,910	0.25	65,932
Oroquieta	52,200	1.5	78,300	0.30	54,810
Sapang Dalaga	17,945	1.0	17,945	0.25	13,459

(A) : Statistics Department materials (D) : Estimates from onsite surveys
(B) : Estimates from onsite surveys *1: Figures for Toledo are only for the DAS region

(2) The Average Turnover for Each Public Market (Demand Value)

The daily turnover for each public market has been calculated as follows, and appropriateness of the economical scale of the public markets requested can be confirmed using the demand value. (Table 4-2-2) (see appendix A-29),

① Number of households in each region:

The number of households was determined by dividing the population of each area by the average number of household members for that region. (F)

② Housekeeping expenditure:

The housekeeping expenditure (yearly) for each region was determined from the "Family Income & Expenditures Survey Report 1988". (G)

③ Consumption value at the public market:

Expenditures such as education expenses, transportation costs, medical costs, and other non-public market related costs are subtracted from the housekeeping expenditure. This is equivalent to 25% of the total housekeeping expenditure. The total value of yearly purchases at the public market by the purchasers of that region is then estimated. (H)

Furthermore, the average daily consumption value is calculated by dividing amount (H) by 365 days. (I)

④ Economical scale of the public market:

The yearly trading volume and the daily trading volume for each of the public markets is estimated by multiplying the consumption value per family at the public market by the number of households which purchase at that market. (J, K)

Table 4-2-2: Purchasers Expenditure Value for Each Public Market and the Total Demand Value for the Market

	Number of households in the region	Yearly household expenditures (pesos)	Expenditure value at the public market (pesos)		Economical scale of the public market (1,000's of pesos)	
			Yearly	Daily	Yearly	Daily
	(F)	(G)	(H)	(I)	(J)	(K)
Lapu-Lapu	27,832	35,000	26,250	72	730,590	2,002
CarCar	8,063	19,250	14,440	40	116,430	319
Danao	20,244	26,000	19,500	53	394,758	1,082
Toledo (DAS) *1	12,255	24,000	18,000	49	220,590	604
Oroquieta	10,559	29,000	21,750	60	229,654	629
Sapang Dalaga	2,470	25,000	18,750	51	46,313	127

(F) : The total number of purchasers in Table 4-2-1 is divided by the average number of household member for that region

(G) : Sourced from "Family Income & Expenditures Survey Report, 1988".

(H · I) : A figure equivalent to 25% of the household expenditure is calculated to be used for expenditures outside the public market.

(J · K) : (F) × (H)

(3) Turnover per Store

The average turnover for stalls in each public market has been calculated by dividing the daily turnover by the number of existing stalls. Appropriateness of the economical scale of the public markets requested can be confirmed using these figures. (see appendix A-29)

Table 4-2-3

	Daily turnover (pesos)		Number of existing stalls		Average daily turnover per stall (pesos)	
	(L)	Relative percentage	(M)	Relative percentage	(N)	Relative percentage
Lapu-Lapu	2,002,000	0.420	729	0.327	2,746	0.201
CarCar	319,000	0.067	96	0.043	3,323	0.243
Danao	1,082,000	0.227	350	0.157	3,090	0.226
Toledo (DAS) *1	604,000	0.127	279	0.125	2,165	0.159
Oroquieta	629,000	0.132	688	0.308	914	0.067
Sapang Dalaga	127,000	0.027	90	0.040	1,411	0.103
Total	4,763,000	1	2,232	1	13,649	1

(L) : Derived from Table 4-2-2 (K) (M) : Number of current stores as of 1992 (N) : (L) ÷ (N)

If it is assumed that the economic conditions of the stallholders, prices, products which the stall deal in, the economical scale and environment of the stalls, and so forth is uniform across all the markets, relative percentages of (L) and (M) are nearly equal, and it is expected that the percentage for (N) will be nearly the same for all stalls. From these results it can be seen that the particularly low daily average turnover per stall for the Oroquieta and Sapang Dalaga markets is due the fact that there is a large number of stalls for the population (the size and scale of each store is small, but the variety and number of stores is required.) and the purchasers have a low level of dependance on any one store. This urban and rural regional effect is evident from the figures, and at the current stage means that it is better to make the rural stall units comparatively smaller than the urban units.

(4) Number of Purchasers per Day and the Number of Purchasers per Store

The number of purchasers who visit each public market each day and the average number of purchasers per stall per day has been calculated in Table 4-2-4 as follows (see appendix A-29). From these results it can be seen that Oroquieta and Sapang Dalaga have a low number of daily purchasers for the reasons previously mentioned in (3) above. Furthermore, the DAS market in Toledo City is the most recently constructed of these markets and these facilities conform the closest to the national standards (Modular Approach). Thus, the economical scale of each type of stall at the DAS market should be aimed for as the percentage standards for stalls at other markets. In Table 4-2-3 the DAS market also shows figures which conform the closest to the standards. (L) $\fallingdotseq$ (M) and (N: 0.167) $\fallingdotseq$ 0.159.

Table 4 - 2 - 4: Number of Purchasers per Store for Each Public Market (Daily Average)

	Number of Households					Number of Purchasers					Average daily number of public market purchasers	Average daily number of purchasers per stall
	Poblacion	Municipal	Rural	Other areas	Total	Poblacion	Municipal	Rural	Other areas	Total		
	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)
Lapu-Lapu	12,815	13,947	–	8,028	34,790	89,705	41,841	–	8,028	139,574	19,939	20
CarCar	2,243	4,205	6,990	–	13,438	15,701	12,615	6,990	–	32,306	4,615	31
Danao	1,528	6,726	6,206	13,438	27,898	10,696	20,178	6,206	13,438	50,518	9,964	20
Toledo (DAS)	3,875	1,545	10,399	–	15,819	27,125	4,362	10,399	–	57,978	8,283	30
Oroquieta	1,036	6,082	2,938	5,028	15,084	7,252	18,264	2,938	5,028	33,404	6,448	11
Sapang Dalaga	428	1,164	1,701	–	3,293	2,996	3,492	1,701	–	8,189	1,170	11

(O・P・Q・R) : The number of households was derived from the population census
(T) : Estimate of the number of purchasers who visit the market each day
(U) : Estimate of the number of purchasers who visit the market three times a week
(V・W) : Estimate of the number of purchasers who visit the market once a week

(X) : (T) + (U) + (V) + (W)
(Y) : (X) ÷ 7days
(Z) : (Y) ÷ the number of stalls at each public market

From the result (Z) it can be seen that the economical scale of stalls at Oroquieta and Sapang Dalaga markets is about 1/3 the standard, and the Lapu-Lapu and Danao markets are about 2/3. Thus, when reconstructing the markets increasing the number of stalls at the same time as increasing economical scale of each type of stall is an important element for rehabilitating the market.

2. Estimation of the Number of Stalls

The existing, requested and forecasted number of stalls for the wet section (fresh fish and meat, etc.), the semi-wet section (cereals/grains, vegetables, fruits, dried fish, etc.), the dry and other sections (clothing, groceries, cafeterias, etc.) for each market is shown in Table 4-2-5.

In number of "Existing" stalls in this table shows the actual number of stalls at the time the Philippines government formulated the request report, while the "Forecasted *1" number has been calculated based on information from onsite surveys. This shows the number of stalls required at that point in time. Stalls in Philippine public markets are normally tenanted by private businesses, so the regular tenant may be substituted or the type of business may change, depending upon the wishes of the tenant. The overall economical scale of the stall may also increase and decrease depending on social and economic conditions. Furthermore, the "structural percentage (standard)" and "Requested" number of stalls are average figures which have been computed based on long term local experience. These are also figures which incorporate the future plans for each market and the level of rehabilitation of the market facilities, so by comparing the "Existing" and "Forecasted" number of stalls, it is possible to obtain an appropriate requested value, as long as there are not figures which a far out in either direction.

However, within the table the "Existing" and "Forecasted *1" figures for the Oroquieta market are the number of stalls for entire market (including sections that will not be rehabilitated), but the "Requested" figures are limited to just the area that will be restored, so these figures can not be compared. The "Requested" figure that was obtained as the result of onsite surveys, was nearly the same figure as the number of stalls which will tenant the reconstructed section, so this was determined to be an appropriate figure.

For the markets survey this time, the Toledo market is the most recently constructed facility, and it conforms the closest to the Department of Interior and Regional Government's public market rehabilitation policy (the modular approach). The Toledo (DAS) market verifies that the number of stores requested for the markets is appropriate using the following standard methods. Refer to table 4 - 2 - 1.

At the current stage the number of stores that are required at the Toledo market has been set as the standard, and the number of stores required for each market (required floor area ratio) (B) has been calculated from the ratio of the number of purchasers (A) for each market, that was obtained from marketing surveys. This method simply comparatively calculates the necessary (floor) area to cope with the number of purchasers for each market. However, this does not have a direct relationship to the size of each type of store required for each market, so the number of stores is statistically adjusted (D, E) based upon the number of purchasers per store type for each market, and the number of stores required for the current conditions (floor area ratio((F) is calculated under the same conditions.

The verification of this result is that the number of store required for the current conditions (F) and the number of requested stores (G) is extremely close, and it can be said that the number of requested stores is relatively appropriate for each of the markets.

The number of stores calculated using the above described method shows the number of stores (required floor space) required to handle the number of purchasers living (demand figure) in the region, so it is alight for the number and types of stores to be divided fittingly, taking into account the special characteristics of each market and each region.

Table 4 - 2 - 5: Demand and Proposed Number of Stalls by Product Type

	Structural percentage (standard)	Lapu-Lapu			CarCar			Danao			Toledo			Oroquieta			Sapang Dalaga		
		Existing	Requested	Forecasted *1	Existing	Requested	Forecasted *1	Existing	Requested	Forecasted *1	Existing	Requested	Forecasted *1	Existing	Requested	Forecasted *1	Existing	Requested	Forecasted *1
Wet Section																			
Fish	30 %	151	120	90	15	20	30	85	110	103	42	23	19	126	–	130	20	20	23
Meat		52	40	42	15	18	9	30	40	33	31	56	59	64	–	35	9	10	7
Semi-Wet Section																			
Cereals/grains *2		98	60	50	9	15	19	30	40	57	24	24	32	–	–	76	20	20	12
Vegetables/fruit	20 %	106	50	24	22	28	10	10	35	28	41	38	15	120	–	35	20	10	7
Dried fish *3		20	15	30	15	24	10	80	105	34	56	48	20	64	–	43	5	5	8
General Merchandise																			
Clothing	10 %	105	55	59	5	15	16	55	75	59	31	19	37	–	60	85	2	15	16
Groceries	15 %	60	100	104	5	10	23	70	70	99	21	34	65	–	40	106	2	5	19
Cafeterias	25 %	61	40	46	10	15	5	10	25	27	33	33	9	40	45	10	12	10	2
Other		76	20		–	3		–	–		–	5		274	25		–	10	
Total	100 %	729	500 *4		96	148		350	500		279	282		688	170		90	105	

*1 Forecasted number of stalls = (Total demand value per product type ÷ Average turnover per stall) + (10% stall expansion)

- Total demand value per product type
  = (Personal expenditure per product type) x (population dependant upon the market for daily commodities)
  The personal expenditure per product type was derived from the expenditure value for each type of consumption commodity listed in the "Family Income & Expenditures Survey Report, 1988", and this value was multiplied by the regional personal average expenditure value (yearly).
- Average turnover per stall
  = economical scale of each market (Table 4-2-2) ÷ current number of stall
- 10% stall expansion
  = future population expansion consideration

*2 The volume of cereals/grains distributed through the public markets is calculated to be 1/3 of the entire capacity

*3 The number of dried fish stalls is calculated to be 1/3 of the dried fish distributed.

*4 In Lapu-Lapu city the total number of public market stalls was calculated to 1,000 (500 at the existing market and 500 at the new market)

Average Turnover per Stall

	Daily turnover	Proposed number of stalls	Average daily turnover per stall
Lapu-Lapu	2,002,000	1,000	2,002
CarCar	319,000	148	2,155
Danao	1,082,000	500	2,164
Toledo	604,000	282	2,142
Oroquieta	629,000	584	1,077
Sapang Dalaga	127,000	105	1,209

Table 4 - 2 - 6 : Demand and Proposed Number of Stores by Product Type

— Relative capacity using the Toledo (DAS) market as the standard —

Market name	Average number of purchasers per day		Number of stores (floor area) required for the same conditions as the DAS market	Number of purchasers per store		Adjusted standard value for the same conditions as the DAS market	Relative ratio to the required number of stores for the same conditions as the DAS market		Current number of stores required for the same conditions as the DAS market	Construction classification	Number of requested stores (number of existing stores)
	(A) (people)	relative ratio	(B)	(C) (people)	relative ratio	(D)	(E)	relative ratio	(F)	(G)	
1) Lapu-Lapu	19,939	39.5 (%)	680	20	16.3 (%)	16.7 / 16.3	697	38.1 (%)	1,018 (stores)	Partial new construction	500 (plus 500 other stores)
2) CarCar	4,615	9.2	158	31	25.2	16.7 / 25.2	105	5.7	153	Partial restoration	148
3) Danao	9,964	19.8	340	20	16.	16.7 / 16.3	348	19.0	508	New construction	500
4) Toledo (DAS) ※	8,283	16.4	282 ※	30	24.4	16.7 / 24.4	193 ※	10.5	282 ※	Partial expansion	282 (including 76 stores
5) Oroquieta	6,448	12.8	220	11	8.9	16.7 / 8.9	413	22.6	603	Partial restoration	170 (currently 688)
6) Sapang Dalaga	1,170	2.3	40	11	8.9	16.7 / 8.9	75	4.1	110	Partial restoration	105
Total (Average)	50,419 (people)	100.0 (%)	1,720	123 (people)	100.0 (%)	The average for all of the proposed markets (16.7%) is divided by the relative ratio (C)	1,831	100.0 (%)	2,674 (stores)		

(A) = (Y) from Table 4-2-4 (Average number of purchasers per day)

(B) = The standard figure of 282 stores (floor area) for the DAS market divided by the relative ratio of the number of consumers. (the required floor area ratio for each market)
(* (B) 282 : 16.4% = X: (A) relative ratio)

(C) = (Z) from Table 4-2-4 (Average number of purchasers per store)

(D) = An adjusted figure for the number of stores (floor area) required for each market calculated from the ratio of purchasers per store (C) and the number of stores (floor area) required for the same conditions at the DAS market. (Avrage number of purchasers per store - 16.7% / (C))

(E) = The number of stores (floor area) required under the same conditions at the DAS market is multiplied by the adjusted figure (D) to produce the ratio of the number of stores (floor area) required for each market under the same conditions as the DAS market. (Average number of purchasers per store - 16.7%/(C) × (B))

(F) = The current number of stores required for each market under the same conditions as the DAS market is calculated by applying the ratio of number of stores (floor area) required for the same conditions as the DAS market (E) to the standard number of stores (DAS market, 282 stores). (*(F)/*(E) × (E))

※ For the requested markets, the number of requested and the number of stores which have been calculated as being currently required at the Danao market, which will be completely newly constructed, are the same. Also, the requested number of stores at the other markets has been determined as being appropriate as the number of stores remaining in the areas which will not be restored is basically the same as the number of stores currently required.

4 - 2 - 3 Research of the structural elements and scale of the project

1. Ideas relating to the functionality and scale of requested public market places

In the regional areas approximately 70% of the lifestyle commodities which the citizens directly need for daily life are distributed through the public markets. Therefore, the public markets play a very important role as a facility which can not be separated from the lives of the citizens, as the majority of citizens purchase most of their daily essentials, foodstuffs, and so forth from the public markets. Furthermore, the public market is a place where local producers, wholesalers, traders and consumers come directly into contact with each other. The public markets are the base of the regional community, the entertainment and information focal point for the local citizens and this is more important than its function as the collection and distribution base for commodities. The public markets are the center of the regional economy and distribution and are also one of the most important financial and administrative facilities of the local government units.

However, the public markets are in a position where they can not adequately cope with the social requirements previously mentioned due to the financial difficulties that the local government units are experiencing. In addition to this there is a lack of good facilities due to typhoon damage in recent years, so a study of the appropriateness of the requested facilities is shown in table 4-2-2 in the previous section. At the very least, it is necessary for the scale of the project to as much as possible include the types of stalls currently in the markets, the number of stalls, the stall area and the functionality of the market listed in the details of the request.

2. Estimation of the social role and necessity of public market places

In general public markets in the Philippines mainly consist of a stall section, Bagsakan section, administrative and common areas, slaughter house, car parking and hawkers sections. The structure of each section is detailed below. Furthermore, in the regional areas in particular, approximately 70% of the lifestyle commodities which the citizens directly need for daily life are distributed through the public markets, and the following structural elements of the public market are indispensable requirements for the functionality of a public market place.

(1) Stall Sections

1) Wet section (fish, meat, etc.)
2) Semi-wet section (cereals/grains, vegetables, fruits, dried fish, etc.)
3) Food groceries
4) Clothing, textiles
5) General merchandise
6) Cafeterias
7) Miscellaneous (barber shop, chemist, electrical appliance store, liquor store, photographer, etc.)

(2) Bagsakan section

1) Unloading area
2) Auction section, wholesale area
3) Cold storage (ice house), warehouse

(3) Administrative and common areas

1) Administration office
2) Toilets
3) Machinery room
4) Warehouse
5) Rest area
6) Miscellaneous (passageways, water tanks, Septic tank, rubbish collection areas, etc.)

(4) Slaughter house

1) Slaughter house
2) Holding area, auction area
3) Office
4) Livestock pens
5) Waste water treatment plant
6) Miscellaneous (water tanks, warehouse, toilets, etc.)

(5) Car parking

1) Vehicular car park and tricycle park for business use
2) Vehicular car park and tricycle park for customer use
3) Miscellaneous (side walks, waiting areas, etc.)

(6) Hawkers section

1) Stall section
2) Side walks and roads

In any case, the structural elements and scale of the requested public markets, which are the results of the appropriateness study for the requested facilities shown in the previous section 4-2-2, are the minimum requirements, and can be said to be appropriate. Therefore, details of the request have been combined with the results on the basic onsite surveys and the structural elements of each request public market are as shown in Table 4-2-7 following.

However, the requested floor area does not include a section of the ancillary facilities such as toilets, water tanks, septic tanks, warehouses, bagsakan, auction areas and other common area such as passageways which are required as a matter of common sense to provide functionality in the building, so it is necessary to add to the proposal an appropriate scale of necessary floor space for scale of the established and planned stalls. In particular, this scale will be basically set to the standards formulated by the Government of the Philippines in the "Modular Approach" (Public market guidelines), and will also be based on the requirements of each individual market, not just upon the figures produced by the regulations or set standards regardless of the market requests. The standards for defining the scale of the markets and the concepts will be based upon a calculated formula common to all markets.
(see section 5-2-2, Public market modules, "Modular Approach").

Table 4 - 2 - 7: Structural Elements and Scale of Each Requested Public Market.

Market name	Breakdown of the stalls	Number of stalls requested	Items confirmed by survey	Requested area(m²)
Lapu-Lapu Market (Cebu Province, Lapu-Lapu City)	Market			
	Fish Meat Fruit and vegetables Dry goods Grains and cereals Textiles Food groceries Cafeteria (Carinderia) Miscellaneous	88 36 38 116 74 52 48 38 10	• A part of passage ways, common areas and a section of the ancillary facilities, etc. are not included in the requested floor area. • Composed to other markets the store modules which were requested as standard are small.	4,561.92
	TOTAL	500		
	Administration and rest areas			202.00
	(Slaughter house)		• The existing slaughter house is usable so not required	(250.00) not included
	Cold storage			100.00
	TOTAL			4,763.92
CarCar Market (Cebu Province, CarCar Town)	Market			
	Fish Meat Fruit and vegetables Dry goods General groceries Grains and cereals Dried fish Cafeteria (Carinderia) Bakery	20 18 28 15 10 15 24 15 3	• The slaughter house will be relocated and new constructed. • The stores are currently operating from road side stalls so these facilities are required, but site preparation work is uncompleted. • Ancillary facilities such as the corridors and storage areas are not included in the floor area. • The area for restoration has been slight expanded (Encompassing the barracks section. The requested floor area has increased by approximately 800m²)	1,220.00 Includes: Administration office 100.00 Rest rooms 21.31 Rubbish collection areas 9.47 Other 113.22
	TOTAL	148		(1,695.52)
Danao Market (Cebu Province, Danao City)	Market			
	Fish Meat and poultry Dried fish Fruit and vegetables Food groceries and cereals Groceries Footwear and general merchandise Cafeteria (Carinderia) Miscellaneous	65 25 50 55 50 40 20 45	• 500 stalls have been added to the original request. ※ There is already approx. 6,000m² of floor space for requested corridors. • A part of passage ways, common areas and ancillary facilities, etc. are not included in the requested floor area.	4,147.20
	TOTAL	350		
	(Slaughter house)		• The existing slaughter house is usable so not required	(243.00)
	Cold storage		• An ice house would be appropriate considering the functionality of the market.	72.00
	TOTAL			4,500.60

Market name	Breakdown of the stalls	Number of stalls requested	Items confirmed by survey	Requested area(m^2)
Poblacion Market (Cebu Province, Toledo City)	Market			
	Fish	40	• There was no prospect for site preparation work for the Poblacion market, so it was removed from the project.	330.75
	Meat	35		
	Passages ways			239.51
	TOTAL	75		
	Administration office			49.00
	Rubbish collection areas			10.00
	Cold storage			117.00
	TOTAL			629.26
	Joint use slaughter house		• Facilities to be shared by the Poblacion and DAS markets	144.00
	TOTAL			144.00
DAS Market (Cebu Province, Toledo City)	Market			
	Fish	16	• Site boundaries unconfirmed.	
	Meat	45	• The market will consist of 76 stores not including fish, meat, fruit and vegetable stalls.	
	Fruit and vegetables	27		
	Dry goods	13		
	Food groceries and general groceries	16	• The building site will be the site vacated by relocating the existing slaughter house.	725.00 m^2
	Grains and cereals	12		
	Dried fish	18		
	Cooking ingredients	12	• The requested number of stalls is 164 and includes sufficient space for expansion	
	Cafeteria (Carinderia)			
	Pawn shop	3		
	Optometrist	2		
	TOTAL	164		
	Passage			525.00
	(Administration office)		• There is a fire station within the building.	(91.00)
	(Rest areas)			(36.73)
	Rubbish collection areas		• Administration and rest areas excluded.	13.12
	TOTAL			1,380.85
Oroquieta Market (Misamis Occidental Province, Oroquieta)	Market	(Existing)		
	Fish	126	• The work will be limited to the barracks section only, and the stores currently operating there will tenant the new market. It has been confirmed that there are 170 stalls.	
	Meat	24		1,890.00
	Fruit and vegetables	127		(Oroginal request
	Dried fish	60		8,176.22)
	Grains and cereals	55		
	Cafeteria	46		
	General groceries	90	• The original request also included restoration of paring within the exixting building. The requested floor area is 8,176.22m^2.	
	Dry goods	120		
	Cafeteria (Carinderia)	65		
	Miscellaneous	25		
	TOTAL	738		
	Cold storage		• An ice house would be appropriate considering the functionality of the market.	192.00
	Slaughter house		• Relocation recommendation has been issued.	243.00
	TOTAL			2,325.00

Market name	Breakdown of the stalls	Number of stalls requested	Items confirmed by survey	Requested area(m^2)
Sapang Dalaga Market (Misamis Occidental Province, Sapang Dalaga City)	Market Fish Meat and poultry Dried fish Fruit and vegetables Food groceries and Cereals Dry goods Footwear Food groceries and general merchandise Cooking ingredients Miscellaneous TOTAL	 26 (Fish, Meat and poultry) 10 20 10 5 5 15 10 10 105	• It has been confirmed that there are 105 stores. • The existing administration office and rest room facilities are till usable and have been excluded from the project. • A part of ancillary facilities have not included. • The area for restoration has been slight expanded (To encompass the restoration of a portion of the barracks section. The requested floor area has increased by approximately 400m^2)	1,776.00 m^2 Includes: Administaton office 50.00 Rest rooms 36.73 Pump room 16.00 Rubbish collection areas 6.72
	Slaughter house		• It is necessary due to slaughter is doing in open air • Site has been confirmed	
	TOTAL			(1,776.00)

4-2-4 Detailed research of the requested facilities and equipment

Details of the requested facilities and equipment, based on the results of the study of the project structural element and scale in section 4-2-3, is shown in Table 4-2-6 above. However, equipment is not included in this request for the reason stated below:

1. These facilities are rented as a location to encourage activities that benefit and profit the business operations of the public citizens. The facilities are to be operated, maintained, administered and financed from these rental fees.

2. Special equipment is not required for these facilities, and general office equipment and supplied required for the administration of the market will be financed through the rental fees.

3. The stallholders carry out their own independent trading activities, and thus should personally prepare any equipment required for an individual store.

4-2-5 Organizations implementing this project

The organization implementing this project is the Department of Interior and Local Government (DILG) (see Figure 4-2-1), and within this organization the Local Government Development Office (LGDO) or its sucsessor after the Public Market Development Program Office (PMDPO) (see Figure 4-2-2) will be the division in charge of the project. The DILG will undertake the overall coordination of this project and will be responsible for its implementation but the management and administration of the markets after the construction work has been completed will be entrusted to local government organizations. The implementation of this project has been divided into three phases; prior to implementation, construction phase, post-construction completion. The relationship between the DILG and the LGDO to this project has been explained as follows:

(1) Prior to construction:
The DILG will coordinate with all of the local government and related organizations, through the LGDO/PMDPO, in order to try to ensure the smooth progress of studies relating to this project. Furthermore, through the regional offices, the DILG will advise, guide and undertake any procedures required for the project implementation.

(2) Construction phase:
The LGDO/PMDPO will coordinate with the related organizations required for the implementation of the project, and will monitor and report on the progress of the work.

(3) Post-construction completion:
Each of the local governments will operate and administer the public markets. The LGDO will periodically monitor the management and administration of the municipalities, and issue guidance when necessary.

The revised Interior and Local Government Act came into force on 1st January 1992. This revision aimed to improve distribution of power to the regional areas. Jurisdiction of the agricultural, health and hygiene sections was transferred to the local government authorities from the wide range of services which until now have been provided by national operated organizations. The local governments have called for systems to be strengthened and for budgetary compensation in order to cope with these new jurisdictions, and the administration and management of the public markets will further increase the responsibilities of the local governments.

The role and responsibility of the DILG and the local governments is set forth in the "Municipal Government Development Plan", which defines the details of the educational plans for staff in positions of responsibility in each related department, implementation plans, management and administration plans, reporting and supervision plans, capital raising plans, and so forth. Currently, clarification of the allotment of responsibility and role that will be played by each organization is continuing in accordance with this plan.

Fig. 4 - 2 - 1: Department of Interior and Local Government Organization Chart

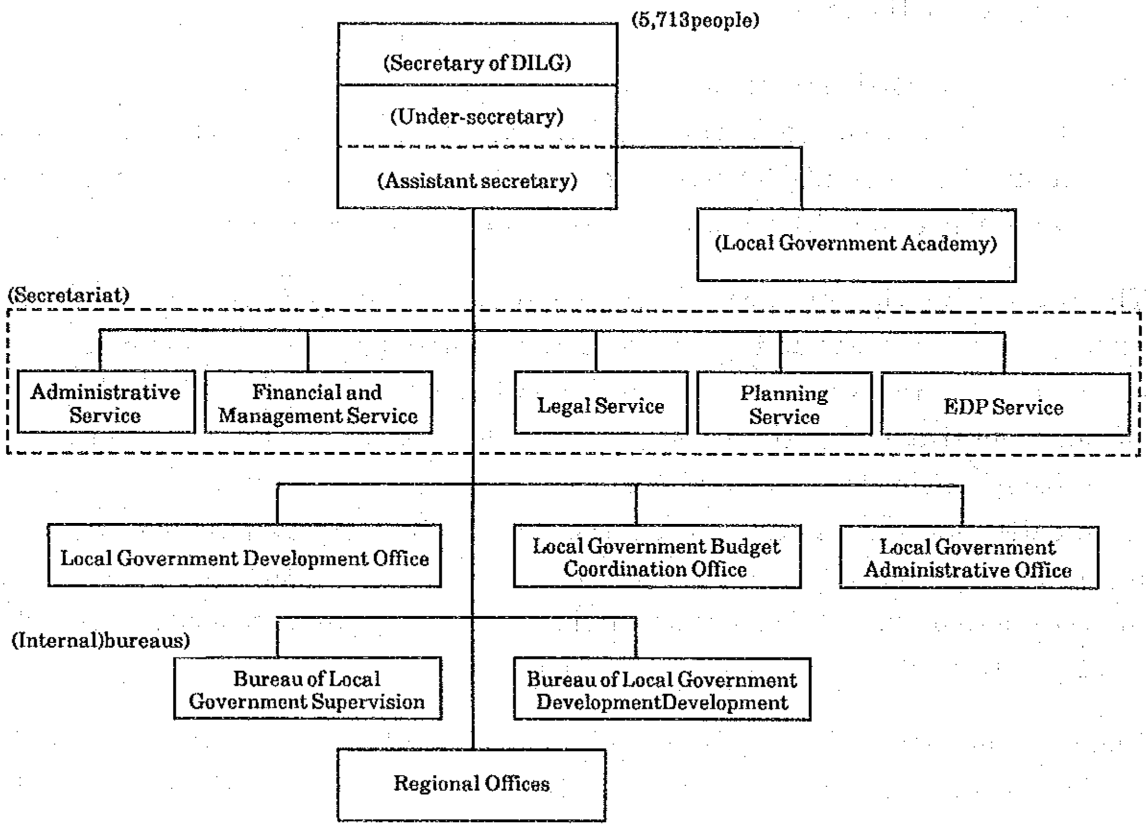
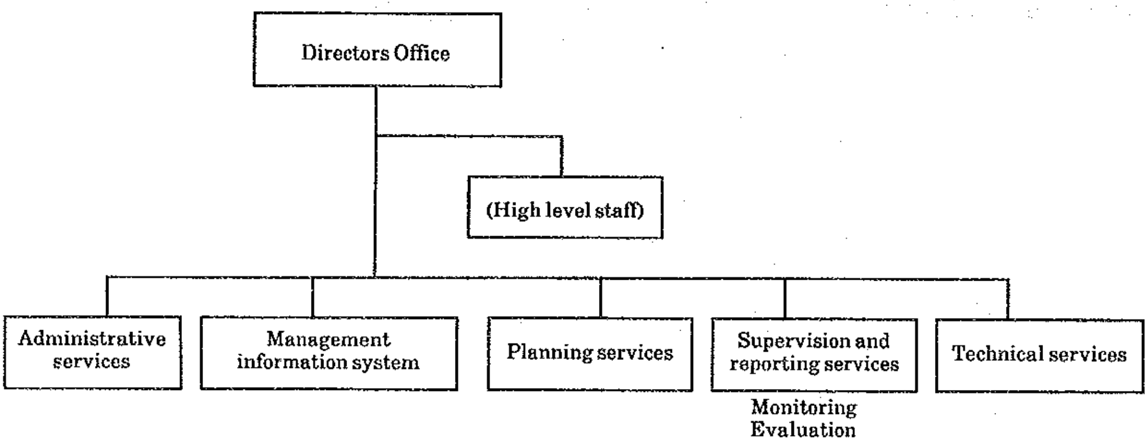


Fig. 4-2-2: Local Government Development Organization Chart



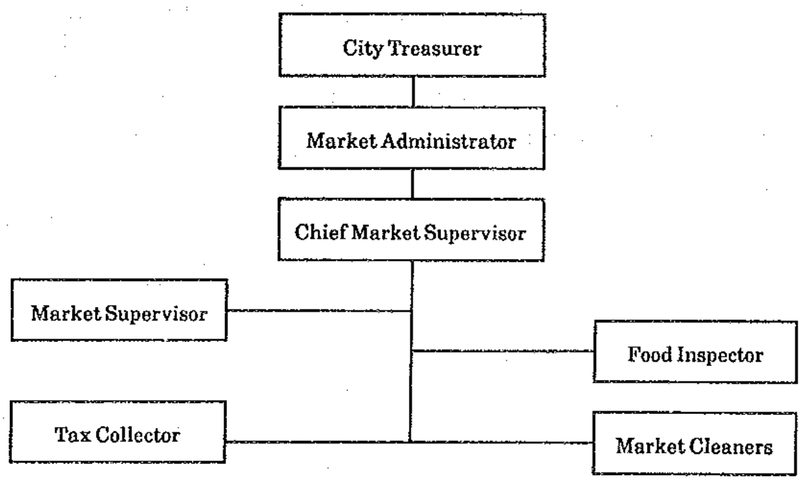
4-2-6 Public market places management operation system

(1) In accordance with the Local and Interior Government Law which was revised in October 1992, the administration and operation of public markets will be undertaken by the municipal authorities. The participation of the municipal mayor, as the highest person in charge, or the person in charge of the market, has been made compulsory in the public market management and administration system. The system under this person, employs a staffing system using management and administration guidelines (Municipal Government Development Plan) which have been defined by the Interior and Local Government Act and the Civil Service Commission in each municipality. Under this staffing system the establishment of three departments is required:

① Taxation collection departments
② Market maintenance and administration department
③ Security department

(2) The case in the Project will be given as an example. The other markets already also have the same system due to the conditions of the Interior and Local Government Law previously mentioned in section (1). Figure 4-2-3 shows the administration and management system in the Project.

Fig. 4-2-3: Public Market Administration and Management System Diagram



At the markets, the treasurer is in charge of personnel, administration and operations, and guidance and supervision relating to the market, as stipulated under city regulations. The market administrator, assisted by the market supervisor, undertakes the day to day management and supervision of the market. The chief market supervisor and the other staffs are resident at the market. Also, the market supervisor is a member of the treasury and is conversant in the tax collection activities. The major sources of taxation from the public market consists of:

① Income from daily tickets authorizing sales operations within the market or the surrounding area
② Rental fees from stores within the market
③ Income from the slaughter house

These taxes are collected by the tax collector at the ticket sales counter, etc. The stores normally pay monthly, and the fees for street side stalls and temporary stores are collected on a daily basis. The market administrator produces a daily income report and submits it to the treasurer. A monthly and yearly income report are produced based on these daily reports. The meat inspector periodically inspects the meat inside the market and its quality.

The market cleaners clean the market after 9.00pm when the market operations have finished. The market security has been scaled back overall, and is undertaken by the security men assisted by the police.

(3) Status of Public Market Income at the Municipalities in the Project Areas

The status of the yearly income (taxation collection) for the three years from 1989 to 1991 for the municipalities in the project areas can be seen in Table 4-2-8 below:

Table 4-2-8 Status of Public Market Income for Three Years for the Public Markets in the Project Area Municipalities

(Units: Thousands Pesos)

	Municipality Name	1989	1990	1991	
	Cebu City	–	12,230	9,477	(Jan. - Sep.)
O	CarCar Town	–	585	359	(Jan. - Jul.)
	Mandaue City	–	2,626	2,477	(Jan. - Sep.)
O	Danao City	743	948	–	
O	Lapu-Lapu City	580	1,517	1,130	(Jan. - Sep.)
O	Oroquieta City	885	1,039	–	

Source: Preliminary Design Survey Report

(Municipalities marked by (O) indicate markets targeted for this project)

Looking at Table 4-2-8, it can be seen that the yearly income (taxation income) from Lapu-Lapu public market in 1990 was 1,517,000 pesos. The break down of this figure was 510,000 pesos (33.5%) from stall rentals, 873,000 pesos (57.5%) income from ticket sales, and 134,000 pesos (9%) income from the slaughter house. The yearly income from Car-Car Public Market was 585,000 pesos. The break down of this figure was 515,000 pesos (88%) from stall rentals and ticket sales and 70,000 pesos (12%) from the slaughter house. On the other hand, the yearly income of 2,626,000 pesos at Mandaue Public Market consisted of 204,000 pesos (8%) from stall rentals, 1,524,000 pesos (58%) income from ticket sales, and 899,000 pesos (34%) income from the slaughter house. Furthermore, the yearly income of 1,039,000 pesos at Oroquieta City consisted of 804,000 pesos (77%) from stall rentals, 164,000 pesos (16%) income from ticket sales, and 73,000 pesos (7%) income from the car park.

In this manner the municipalities in the project area obtain 70 to 90% of the public market income (taxation collection income) from store rental or ticket sales income. However, the ratio of stall rentals and ticket sales income to total income varies greatly from municipality to municipality.

The other municipalities in the project areas are undertaking the collection of taxes, etc., using basically the same market administration and management system that Toledo City is, under the conditions of the Local and Interior Government Law and the regulations of each municipality. Under the Interior and Local Government Law, the DILG provides guidance and supervises the municipal government administrations and the administration and management of the public markets on a nation wide basis.

(4) Current Condition of Maintenance and Administration at Each of the Public Market

There is not yet any detailed data recorded regarding the maintenance and administration of public markets which were surveyed in this study so there was no alternative but to draw conclusions from the scant data and results of verbal inquiries onsite. It is considered that maintenance and administration of the public markets will be able to be undertaken based upon appropriate data and records as the result of recent DILG guidance.

In any case, from the results of the limited data and the verbal inquiries, and taking into consideration overall income and expenditure, the current status is as follows:

① The profit for individual stores (private business) is between 40 and 80% of the turnover, and there are also some high profit sectors with profits near 90%, but the store rental fee is a fixed rate so the market income is proportional to the number of stores.

② The charges for the electrical power and water supply used by individual stores are paid by the individual traders and are not directly related to the maintenance and administration of the market. Furthermore, charges for the total lighting used in the common areas and the charges for the water supply used for administration are paltry so the electrical power and water bills which the market is paying are currently less than 10% of the total market expenditures.

③ In locations where the maintenance, administration, operation and personnel costs are high, they do not currently exceed 70% of the total market income.

④ Once the newly constructed markets have been completed, the number of stores which can tenant the new facilities and the number of road side stalls will increase by between 30% and a maximum of 80%, compared to the existing number of stores, so it is forecasted that rental fee income will rise by over 30% at the very least.

The above listed figures are rough estimates but if the scale of the rehabilitated market and the scale of the existing market are compared with the condition that the existing store rental fees will not be altered, the scale of facilities incurring costs at the market will increase about two-fold. (In reality, the costs change considerably depending upon the hours of operation). Even if the area administered is increased, expenditure apart from facilities related costs will basically remain unchanged at the current levels, so it is forecasted that there will be an increase in rental fee income of more than 30% at the very least. Therefore, even if the increased facilities related expenditures such as electrical power and water supply are included, it is forecasted that tax income will rise by more than 50%

In other words, if management of income and expenditure is done appropriately, there will be absolutely no problems paying for maintenance and administration, and the public markets will also contribute to an increase in tax income for the local government organizations.

4 - 2 - 7 Range of the Study

The current conditions of the sites and an outline of the survey results are shown in Table 3 - 1 - 3.

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

(1) Toledo Market (DAS Market)
Land required for the expansion of the existing market building could not be secured. Furthermore, the site planned for the expansion of the main building was the site that would be vacated by the relocation of the existing slaughter house, but as the plans for the main building can not be implemented, there is little justification to relocate the slaughter house. The site that it was planned to relocate the slaughter house to has been secured.

(2) Lapu-Lapu Market and Oroquieta City Slaughter House
There is no prospect of site preparation work commencing.

(3) CarCar Market and CarCar Town Slaughter House
The plan for relocating the residents at the slaughyterhouse site has not been confirmed, so the design implementation can not be undertaken.

As the results of the soil quality survey (see Appendix A - 31) it has been determined that the ground for the proposed site for the CarCar Market (within the compound of the existing market) is soft and unstable, so special ground strengthening foundations will be required, and it will not be possible to construct the Market building to the same specifications as the other facilities planned.

From above results of the studies, the range of this Project is as follows:

1. Danao Public Market
   New construction

2. Oroquieta Public Market
   Reconstruction of sections of the existing market

3. Sapang Dalaga Public Market
   Reconstruction of sections of the existing market,

   and Sapang Dalaga Slaughterhouse
   New construction

4-2-8 Study of the relationship, overlap and so forth to similar projects and assistance programs by international agencies, etc.

The public markets all fall under the control of the local government bodies. There is a system in place whereby the local government bodies carry out the implementation of the work, under the guidance and administration of the DILG, and there is no overlap with similar projects of assistance programs by international agencies, etc. As was described in section 2-3, Outline of Related Projects, the DILG which is the main organization implementing this project, has distributed the development work, which was centralized in the past, to the regions. The DILG has formulated a regional government structure and skills development improvement plan, which is correctly called the "Municipal Government Development Plan", in order to promote uniform development throughout the entire country. This plan is currently progressing at the moment. Furthermore, in conjunction with this plan, the DILG is providing support and guidance to the municipal governments for the formulation of concrete regional development plans (Municipal government work - public markets, bus terminals, etc. - infrastructure - water supply, roads, ports, etc.), and the DILG is generally supervising and administering the entire regional government operation. Thus, there is no overlap with this project.

Overall, the "Municipal Government Development Plan" is coordinated through the government development fund as well as the OECF (Overseas Economic Cooperation Fund) and the ADB (Asia Development Bank) development systems. (see appendix A-9 to 12)

4 - 2 - 9 Necessity for technical assistance

The public markets are basically public facilities for private business activities so technical assistance is not particularly required.

4 - 2 - 10 Basic concepts for providing assistance

As a result of the above described studies, the effectiveness and feasibility of this project, the ability of the Government of the Philippines to implement the project, and so forth has been confirmed, and the effect of this project conforms with the ideals of the grant aid assistance system. Thus, it has been determined that this project is appropriate to be implemented using Japanese grant aid assistance. Consequently, the basic design will be implemented assuming Japanese grant aid assistance as follows.

4 - 3 Project Summary

4 - 3 - 1 Implementing organizations and management system

Implementing Organization:	Department of Interior and Local Government (Business administration: Local Government Development Office) or its successor Public Market Development Program Office (see Figures 4-2-1 and 4-2-2)
Operating System:	Local Government Organizations (Once the facilities have been completed, the operation will be controlled by the local government bodies, and the DILG will supervise, and issue guidance when necessary) (see Figure 4-2-3). The operating system for the public markets has been improved and been in operation, so that there is no problem for execution of the Project.

4 - 3 - 2 Work plan

The work plan is the project details as shown Table 4-3-1 and 4-3-4 based on the previously described facilities appropriateness studies. However, there are limitations on the sites which have been prepared as the proposed construction sites for each of the markets as the existing facilities will be partially reconstructed, etc. Also, the size of each type of store, the construction materials, construction methods, and so forth will be standardized based upon the results of surveys of the details of the facilities, but there are cases where the number of requested and planned stores can not be completed, regardless of the fact that each market has been designed to ensure uniform functionality and scale. In any case, the details of the project will be as practical as possible and will effectively use the limited sites.

Table 4-3-1 Proposed number of stores by product type

	Structural ratio (estimate)	① Danao	② Oroquieta	③ Sapang Dalaga
		Proposed	Proposed	Proposed
WET Section				
Fish 30%		110	–	20
Meat		40	–	10
SEMI-WET Section				
Cereal/ Grains		40	–	20
Vegetables/Fruits	20%	35	–	10
Dried Fish		105	–	5
GEN. MERCH. Sec.				
Clothing	10%	75	60	15
Sari-sari	15%	70	40	5
Cafeteria	25%	25	45	10
Others		–	25	10
Total 100%		500 (401)	170 (143)	105 (117)

Furthermore, the Oroquieta market is divided into 4 blocks, and the restoration will be limited to block housing the barracks section. As all of the stores in the entire market will not be relocated, the planned number of stores is the stores which currently tenant the barracks section.

The figures in brackets indicate the actual number of stores planned due to the current conditions of the site.

4-3-3 Maintenance and management plan

The public markets are rented as locations for the business activities of public citizens and the facilities will be maintained, administered, operated and funded through the rental fees. Estimates of the income and expenditure if the public market and retailers have been calculated from local income tax documents (refer to Table 4-3-2 - 4). Currently the DILG is attempting to strengthen the local governments and public market administration and operation, and in the future it is forecasted that income will increase if systematic market administration. Thus, maintenance and administration will not be a problem.

Table4 – 3 – 2 Market maintenance and management costs currently paid by the retail sector (averaged over the total number of stores

Market name	Annual market turnover (1,000's pesos)	Annual market rental income (1,000's pesos)	Rental income turnover (percentage of maintenance and management costs paid)
① Danao	394,758	948	0.0024
② Oroquieta	229,654	1,039	0.0045
③ Sapang Dalaga	46,313	295	0.0064

(1) The total rental income for the three market places is less than 1% of the turnover. Even if rental fees were doubled they would still be less than 1%, and they would not be a great financial burden on the retailers.

(2) From the rental fee income calculations (from Table 4-3-4) based upon the existing percentage of the market maintenance and management costs paid by the retailers for the planned stores, the total yearly income for the Sapang Dalaga market will increase from 295,000 pesos to 408,000 pesos, and the income for the Oroquieta market will increase from 1,039,000 pesos to 1,377,000 pesos, so it will also be possible to lessen the financial burden on the retailers.

(3) Once the reconstruction of the markets is completed, electrical power, water and drainage facilities will be provided, so expenditure will increase if these facilities are used, but the maintenance and management costs to be paid by the individual stores for partitions, passageways, common lighting and rubbish collection facilities will be decreased, so it will be possible to greatly improve the market environment without increasing the overall maintenance and management fees that the retailers were paying in the past.

Table 4 – 3 – 3 Market Income and Expenditure (Average for the three markets)

※ The total 1990 income is represented as an indexed figure of 100.
The store rental fee percentages remain unchanged.

Income/Expenditure items	1990 Income/Expenditure ratio	Income/Expenditure ratio after rehabilitation
Income		
Market income (Tickets etc.)	33.6	44.0
Slaughter house income	8.8	11.0
Rental fee income	57.6	75.0
Total Income	100.0 *1)	130.0 *1)
Expenditure		
Personnel costs	70.7 *2)	71.0 *2)
Maintenance and management costs	13.6 *3)	27.0 *3)
Total Expenditure	84.3 *5)	98.0 *5)
Tax Income	15.7 *4)	32.0 *4)

1) The total income will increase 30% after rehabilitation has been completed.
2) After reconstruction the number of employees will remain unchanged as will the personnel costs.
3) Electrical power, water supply charges, and other maintenance and management costs will double as a result of the restoration work.
4) Tax Income nearly doubles using the calculation of [Total Income *1)] – [Total Expenditure *5)] = [Tax Income *4)], but there was a severe shortage of funds to be spent on maintenance and management in the past and it was not possible to ensure the condition of the facilities, so the increased income after the restoration work has been completed will be used for this purpose.

The maintenance and management fees which will greatly change after the restoration has been completed will be the electrical power and water supply charges. If generous estimates are made and it is assumed that the total value of the existing maintenance and management expenditure *3) is for electrical power and water supply charges, and the scale of the facilities before and after restoration are compared the total cost will approximately double. However, on the other hand, 30 to 80% of the total income *1) is from stores which are able to newly tenant the market facilities, so based on conservative estimates (and forecasting increased income from road side stalls) it is hoped that income can be increased by 30%. Therefore, the Total income *1) becomes 130.0 and the Total expenditure *5) becomes 98.0, and thus the Tax income *4) doubles to 32.0. In other words, as the tax income of the market after restoration will double based upon conservative estimates, it will be possible to maintain and manage the market without any problems and the market will also contribute to stabilizing the finances of the local government authorities.

Furthermore, it will also be possible to adequately maintain and manage the market without increasing the current rental costs of the tenants.

Table 4 – 3 – 4 Rental fee income from the proposed stores

Name: Danao Market

	Sales	Proposed area (m^2)	Basis of estimates: Usage unit	Estimated number of stores	Proposed number of stores	Rental/month Pesos	Yearly rental fee income (Pesos)
WET Section	Fish	236.16	1.2m×2.4m=2.88m^2	103	82	100	8,200×12 = 98,400
	Meat	74.88	1.2m×2.4m=2.88m^2	33	26	100	2,600×12 = 31,200
SEMI-WET Section	Cereals/ grains	506.88	2.4m×4.8m=11.52m^2	57	44	250	11,000×12=132,000
	Fruit/ vegetables	126.72	2.4m×2.4m=5.76m^2	28	22	200	4,400×12 = 52,800
	Dried fish	103.68	1.2m×2.4m=2.88m^2	34	36	300	10,800×12=129,600
GENERAL MERCHANDISE	Clothing/ footwear	541.44	2.4m×4.8m=11.52m^2	59	47	250	11,750×12=141,000
	Groceries, sari-sari	729.60	2.4m×4.0m=9.6m^2	99	76	250	19,000×12=228,000
Cafeterias		576.00	4.0m×6.0m=24.0m^2	78	24	480	11,520×12=138,240
Miscellaneous		253.44	2.4m×2.4m=5.76m^2	60	44	250	11,000×12=132,000
Total		3,148.80		500	401		1,083,240 (1,264,000)

(The income for use of the market facilities and for use of the slaughter house has been estimated to be 30-70% of the rental fees. This income is primarily from the sale of tickets to road side stall vendors, but is not consistent.)

Name: Sapang Dalaga Market

	Sales	Proposed area (m^2)	Basis of estimates: Usage unit	Estimated number of stores	Proposed number of stores	Rental/month Pesos	Yearly rental fee income (Pesos)
WET Section	Fish	95.04	1.2m×2.4m=2.88m^2	23	33	100	3,300×12 = 39,600
	Meat	28.80	1.2m×2.4m=2.88m^2	7	10	100	1,600×12 = 12,000
SEMI-WET Section	Cereals/ grains	115.20	2.4m×4.8m=11.52m^2	12	10	250	2,500×12 = 30,000
	Fruit/ vegetables	57.60	2.4m×2.4m=5.76m^2	7	10	200	2,000×12 = 24,000
	Dried fish	31.68	1.2m×2.4m=2.88m2	8	11	300	3,300×12 = 39,600
GENERAL MERCHANDISE	Clothing/ footwear	172.80	2.4m×4.8m=11.52m^2	16	15	250	3,750×12 = 36,000
	Groceries, sari-sari	115.20	2.4m×4.0m=9.6m^2	19	12	250	3,000×12 = 36,000
Cafeterias		144.00	4.0m×6.0m=24.0m^2	2	6	480	2,880×12 = 34,560
Miscellaneous		57.60	2.4m×2.4m=5.76m^2	11	10	250	2,500×12 = 30,000
Total		817.92		105	117		290,760 (408,000)

(The income for use of the market facilities and for use of the slaughter house has been estimated to be 30-70% of the rental fees. This income is primarily from the sale of tickets to road side stall vendors, but is not consistent.)

CHAPTER 5 BASIC DESIGN

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CHAPTER 5 BASIC DESIGN

5 - 1 Design Basis

In accordance with the basic concepts of the National Development Plan of the Republic of the Philippines, the following design basis will be adopted with consideration to the results of the site survey, taking into account the social, economic, technical and environmental conditions surrounding the project sites.

1) Take the national policy and the development plan into consideration, while paying attention to construction plans and land utilization with sufficient possibility for future development.

2) Take into consideration the numerous disasters (typhoons, storms and floods, earthquakes, volcanic eruptions, droughts and so forth) which have occurred in recent years, and pay attention to this when planning site development, facilities and structural design.

3) Pay attention to using designs, equipment and materials, and construction methods most suitable for the local conditions and implement facility plans which are durable and which have been confirmed as being easily maintained.

4) Plan the size and functionality of facilities taking into account for the local business practices, the distribution system, the method of sales, the relationship to the end users, the social role that public market places fulfill, and so forth.

5) Pay attention to planning construction methods which are safe, are simple to implement construction, have technical development potential and are commonly used designs.

6) Taking into account the above listed design concepts and the objectives of the project, pay attention to planning facilities of suitable scale and scope for Grant Aid Project.

Considering the above listed design concepts, the basic design conditions and a basic design will be established by undertaking study and confirmation of the following major points, based on the data obtained as a result of the site survey.

1) Understand the Republic of the Philippines Economic Development Plan and background.

2) Understand and confirm the details of the request.

3) Document analysis

   (1) Political policy related documentation
   (2) Social, economic, cultural, environmental, historical, geographical related documentation
   (3) Legal and technical related documentation
   (4) Site survey and compilation of documentation
   (5) Documents detailing materials, construction and transportation costs

4) Confirmation and study of local conditions

   (1) Study the urgency and necessity of the project
   (2) Confirm the site preparation and project implementation system

5) Production and study of plans and basic design drawings

6) Appropriateness for Grant Aid Project

   (1) Project management ability of the organization in charge of the execution of the project
   (2) Ability of the local side to perform construction work and provide capital
   (3) Appropriateness of the project scale
   (4) Cooperation system and enthusiasm of the organization in charge of the execution of the project
   (5) Appropriateness of the construction work and the construction schedule

5 - 2 Study of the Basic Design Conditions

5 - 2 - 1 Philosophy of Sizing

The Government of the Republic of the Philippines has recognized the necessity of rehabilitating the public market places, which play an important role as the economic foundation of the nation and as the foundation of daily life for the citizens. In 1987 and 1989 the government produced the "Modular Approach" (Guide to Local Government Units for the Restoration of Public Market Places) and "Slaughter House" (Slaughter House Engineering Guidelines), and the rehabilitation work has progressed on a nation-wide scale through the local government bodies.
At the same time as assuming part of this role, this project emphasizes the restoration of public market places which suffered typhoon damage.

Therefore, even though this project is basically based upon the policies and standards for restoring public markets which the Government of the Republic of the Philippines has promoted in the past, because the project scale is determined by the actual conditions at each project site, there are cases where the standards can not always be adhered to. The main documents to be considered to for planning and design purposes are as follows:

1) "Modular Approach"
   Guide to Local Government Units for the Restoration of Public Market Places

2) "Slaughter House"
   Engineering Guidelines

3) The "National Building Code" of the Philippines and its implementing rules and regulations
   Other architectural related legal texts (Electricity, Mechanical & Plumbing, Structure)

4) "Medium-Term Philippine Development Plan 1987-1992"

5) "Philippine Regional Municipal Development Project"