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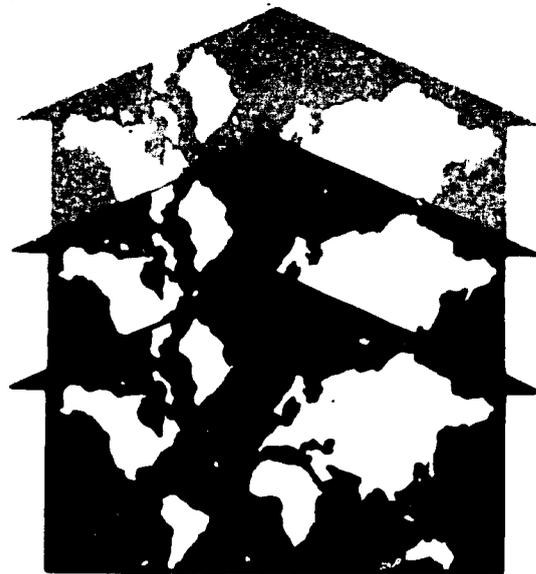
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**PHILIPPINES SHELTER SECTOR
ASSESSMENT**

Volume III: Olongapo City Report

November 30, 1978

**AGENCY
FOR
INTERNATIONAL
DEVELOPMENT**



OFFICE OF HOUSING

**PHILIPPINES SHELTER
SECTOR ASSESSMENT**

Volume III: Olongapo City Report

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Note:

While the findings and recommendations of the report have been discussed with representatives of the Government of the Philippines, the report is not to be interpreted as the official position of either the Government or of the Agency for International Development.

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ABBREVIATIONS

BIDA - Barangay Improvement Development Assistance
CDAP - City Development Assistance Program
CDC - City Development Coordinator
CIP - Capital Improvement Plan
CPDB - City Planning and Development Board
CPDS - City Planning and Development Staff
DLO - District Land Officer
GSIS - Government Service Insurance System
MLGCD - Ministry of Local Government and Community Development
MSA - Miscellaneous Sales Application
MSSD - Ministry of Social Services and Development
NEDA - National Economic Development Authority
NPC - National Power Company
PUD - Public Utilities Department
RPTA - Real Property Tax Administration
RSC - Rural Service Center
SADP - Social Action Development Plan
SAT - Social Action Team
SEAP - Self-Employment Assistance Program
SSA - Shelter Sector Assessment
SSS - Social Security System

SUMMARY OF RECOMMENDATIONS

This report is part of a larger Shelter Sector Assessment (SSA) of the Philippines. It is an analysis of shelter needs in Clongapo City and the constraints in resolving those needs. In this report shelter is not defined as the house alone but is considered in the broader, environmental sense which includes land, infrastructure, utilities, social services and employment opportunities, all of which are integral components of viable shelter policies.

This report therefore first takes an overview of the city; its population trends, government structure, economy, finance, and income distribution. The dimension of its shelter problem is gauged by analyzing the condition of the present housing stock; the housing needs due to population growth, immigration, losses to stock, etc.; and the human settlement patterns within the city, i.e., their densities, types and standards. Since the SSA is focused on the shelter needs of lower-income groups, the socio-economic characteristics of the low-income population, including their priorities and felt needs in housing themselves, are also investigated.

Components of the shelter problem such as land, infrastructure, utilities, finance, institutions, policies, and, if necessary, the building materials and construction industries are reviewed to ascertain their types, standards, operational efficiencies and problems. Based on the foregoing findings, the final section sets out alternative shelter approaches and possible projects designed to meet the shelter needs -- defined broadly -- of lower-income groups. The criteria used to evaluate these alternative solutions are: affordability by project beneficiaries, replicability of these solutions by the cities and on a national scale, institutional development, and consistency with national shelter policies. These approaches and projects are also considered within the context of the CDAP/RSC program in that many of the individual components of this program are combined in a comprehensive, area specific approach to focus on the shelter problems of particularly depressed barangays.

Clongapo and Angeles are somewhat unique in the CDAP/RSC program. Their economies are to a great extent dependent on the adjacent United States Bases and the resultant immigration and large service sector exacerbate the cities' shelter and public service problems. It is a known fact, however, that similar shelter problems for low-income families exist to varying degrees in all the CDAP/RSC cities. Since

the City Planning and Development Staffs (CPDS) are newly created, they are still weak and inexperienced and, thus, in need of sustained, long-term support in program and project design, execution and management. *It is, therefore, strongly recommended that similar missions be undertaken to other CDAP/RSC cities to ascertain their development problems and priorities and how the CDAP/RSC program can be effectively utilized to meet them.*

The following recommendations are an example of what might be done in the context of the CDAP/RSC program to begin to alleviate the shelter and environmental problems of low-income families in the depressed barangays of Olongapo:

1. Comprehensive Community Improvement

- a. Program Components -- Beginning in Pag-asa, improvement and legalization of squatter and nonsquatter families in the area of the present city garbage dump through:
 - construction of a circumscribing sea wall with sanitary land fill;
 - improvement and provision of roads and footpaths;
 - improvement of the drainage system;
 - provision of a portable water supply;
 - improved sanitation through sanitary cores and septic tanks;
 - small housing improvement loans.
- b. Approximate costs ^{1/} for 45.5 hectares in Pag-asa, Banicain and Kalaklan at the following standards for components which are cost recoverable:
 - Recoverable cost components including asphalt paving of main roads and compacted gravel footpaths in other areas, pipe borne water supply, and community septic tanks.

^{1/} See Appendix 2 for detailed cost estimates.

	<u>₱ Millions</u>
i. Pag-asa -- 18.9 hectares	₱ 4.2 M
ii. Banicain -- 19.5 hectares	₱ 4.3 M
iii. Kalaklan -- 7.1 hectares	₱ 1.6 M
iv. Subtotal	<u>₱ 10.1 M</u>
- <u>Nonrecoverable cost components</u> including perimeter wall construction, land fill, and surface drainage.	
i. Pag-asa	₱ 4.2 M
ii. Banicain	₱ 2.3 M
iii. Kalaklan	₱ 0.6 M
iv. Subtotal	<u>₱ 7.1 M</u>
- <u>Home Improvement Loans</u> for 50 percent of the project households averaging ₱ 3,000 per loan.	
	₱ 4.8 M
- <u>Total Upgrading Costs</u>	₱ 22.0 Million

- c. Target income groups have incomes at or below the July 1978 median income estimated at ₱ 375 per month. They will be provided with 100 square meter plots at densities of 378 persons per hectare (70 units per hectare). As the land is in the public domain, it will not be charged to beneficiaries. The nonrecoverable charges shown above will be financed separately as they benefit the entire city. Table 1 shows the monthly incomes required to afford upgrading components.

2. Sites and Services

- a. Project components. Undertake additional feasibility studies of sites in barangay Sta. Rita and/or on the ridge above upper Kalaklan for a project of 30 hectares which can provide space for approximately 2,100 units. The former site is a good location, but the land is privately owned and therefore expensive. The latter site is in public domain, but presently suffers from the lack of access.

TABLE 1
 Monthly Incomes Required
 to Afford Upgrading Costs in Olongapo

Infra- structure Standards	Home Improvement Loans or Connection Loans	Repayment Terms (10 percent downpayment)	Monthly In- come Required (15 percent of income for Housing)
100% asphalt paved roads	500	11%/20 years	P 313
50% asphalt paved roads	500	11%/20 years	P 240
50% asphalt paved roads	500	11%/30 years	P 220
Shared water and toilet facilities	250	11%/30 years	P 193

SOURCE: PADCO Analysis

b. Approximate costs ^{2/} for 30 hectares at standards similar to community improvement schemes.

i. Land (public domain)	P 0.0 Million
ii. Access road (nonrecoverable)	P 1.2 M
iii. Site development (recoverable)	P 9.0 M
iv. Home improvement loans (recoverable)	P 4.7 M
v. Subtotal	<u>P 14.9 M</u>

c. Combined Program Costs.

i. Community Improvement Component	P 22.0 M
ii. Sites and Services	P 14.9 M
iii. Total Costs	<u>P 36.9 Million</u>

3. Socio-Economic Programs for the Urban Poor

- a. Family training in the practice of improved sanitation techniques.
- b. Training of nutritionists for barangay centers to improve nutrition level in depressed areas.
- c. Public health staff training in health surveys, data collection and presentation.
- d. Establishment of barangay training centers and strengthening of city vocational training institute.
- e. Undertake feasibility studies for small industrial estate in Barric Barretto based on supply industries to new shipyard in Subic municipality.

4. Institution Building

- a. Fill existing vacancies in the CPDS and provide more intensive training in project analysis and development.
- b. Transfer present unrelated functions of the CPDS to relevant city departments.

^{2/} See Appendix 2 for detailed cost estimates.

- c. Reduce excess staff in the Offices of the Mayor, City Engineer, City Treasurer, and Public Utility Department.
- d. Initiate the RPTA as soon as possible.

5. Technical Assistance

- a. Short-term technical assistance in public finance to recommend a program for putting the city's finances on a viable basis.
- b. Short-term technical assistance in design and costing of community improvement/sites and services type projects.
- c. Short-term technical assistance and training in undertaking industrial feasibility studies.
- d. Long-term technical assistance with emphasis on training in project preparation, execution and management to build up the CPDS.

Chapter I

OVERVIEW

A. Population Trends

Olongapo has been growing more rapidly than other urban centers and the Philippines as a whole. Its population increased from 107,785 in 1970 to 147,109 in 1975, an increase of 36 percent or an annual compound growth rate of 6.4 percent. By comparison, the Region III growth rate was 3.1 percent while the national urban growth rate was 4 percent. The age structure shows a dependency ratio ^{3/} of 0.42 compared to 0.88 in the Philippines. This compares very favorably with low fertility countries which average 0.5.

Slightly more than half of Olongapo's growth has been due to migration rather than to natural increase. 14 percent of the population were migrants of which 76 percent came from other provinces and 17 percent came from other municipalities in Zambales province. 57 percent of the migrants and 52 percent of the total population were female.

The City Planning and Development Staff predicts a decreasing rate of growth attributed to the impact of the population control program and the reduction of activities inside the United States Naval Base. The latter will decrease the influx of migrants. Since recent population statistics are unavailable, the City Planning and Development Staff is using the National Census and Statistics Office urban population projections of a growth rate of 3.2 percent per annum. Assuming that the slower growth ratio predicted by the City Planning and Development Staff prevails, Olongapo's population will reach 200,000 by 1985 and 323,000 by 2000.

Three major ethnic groups comprise 67 percent of the population. Tagalog is the predominant dialect and is the mother tongue of 43 percent of the population. Ilocano is spoken by 12 percent and Samar-Leyte by 7 percent. The others speak foreign languages such as English or Chinese and other dialects. Out of the total population 94 percent can speak Tagalog and 65 percent can speak English. Over 30 percent of the population is Roman Catholic.

^{3/} The dependency ratio is the ratio of population under age 15 and over 65 to the working age population between 15 and 65

TABLE 2
 Olongapo Population Projections
 1980-2000

Year	Projected Population
1980	172,201
1985	201,574
1990	235,958
1995	273,205
2000	323,319

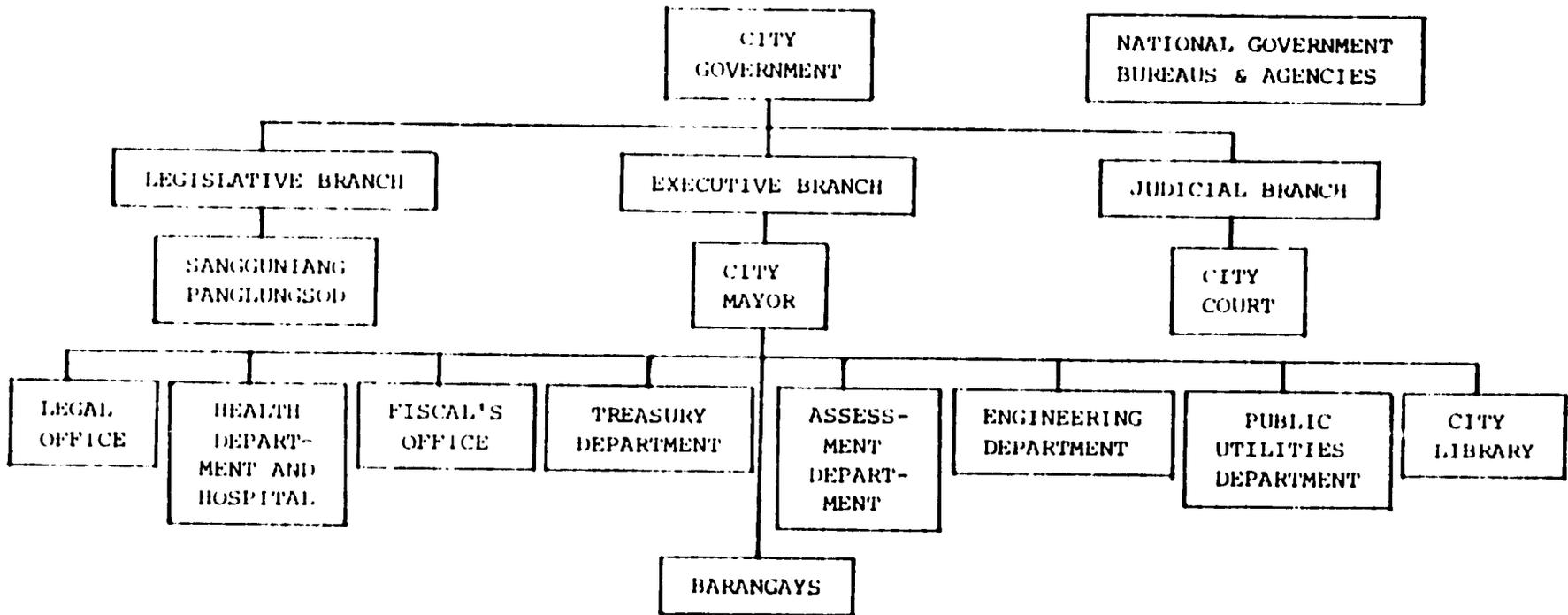
B. Government Structure

The government structure of Olongapo City is comprised of an executive, judicial and legislative branch. (Refer to organizational chart). The Mayor exercises immediate control over the executive and administrative functions of the city, subject to supervision by the President of the Philippines. The legislative power of the city is vested in the 18 member Sangguniang Bayan, presided over by the Mayor. Eight members are carry-overs from the previous city council. Department heads in the city government are appointed by the President, however, department head salaries are paid from city revenues.

While the appointment of the heads of departments by the President attempts to create a strong national link for programs and policies, it hampers self-reliance in creating responsive local programs. The Mayor, for example, exercises no control over the Department of Social Services Development, a department concerned with the social welfare needs of the city.

In addition, a link with national government occurs through the established local advisory committees for national programs. National programs such as nutrition, family planning and the green revolution are implemented at the local level through these advisory committees. The independent function of the national department offices and the advisory committees makes the coordination of city government extremely difficult. As a result, the city government employs staff, in the case of Olongapo 1,039 persons, consuming 40 percent of the city budget.

FIGURE 1
Organizational Chart
Olongapo City Government



SOURCE: Socio-Economic Profile of Olongapo City

The Mayor's support for decision-making and guidance for city development comes through the city council or Sangguniang Bayan. In Olongapo, this body determines the general direction for the city.

City Planning and Development Board

The Office of the Mayor employs 84 persons which provide personal and general services as well as technical support to the Mayor. The Mayor's strongest technical support for the guidance of city development comes through the City Planning and Development Board (CPDB). The CPDB, created in 1975 under a Memorandum Circular of the Ministry of Local Government and Community Development (MLGCD) and a section of PD-144, serves as a planning and implementing body to the Mayor. This Board replaced the City Development Council created by the Mayor in 1972. The previous council was ineffective due to its unwieldy size and lack of clear guidelines on functions and responsibilities. The memorandum creating the Board spelled out the following functions:

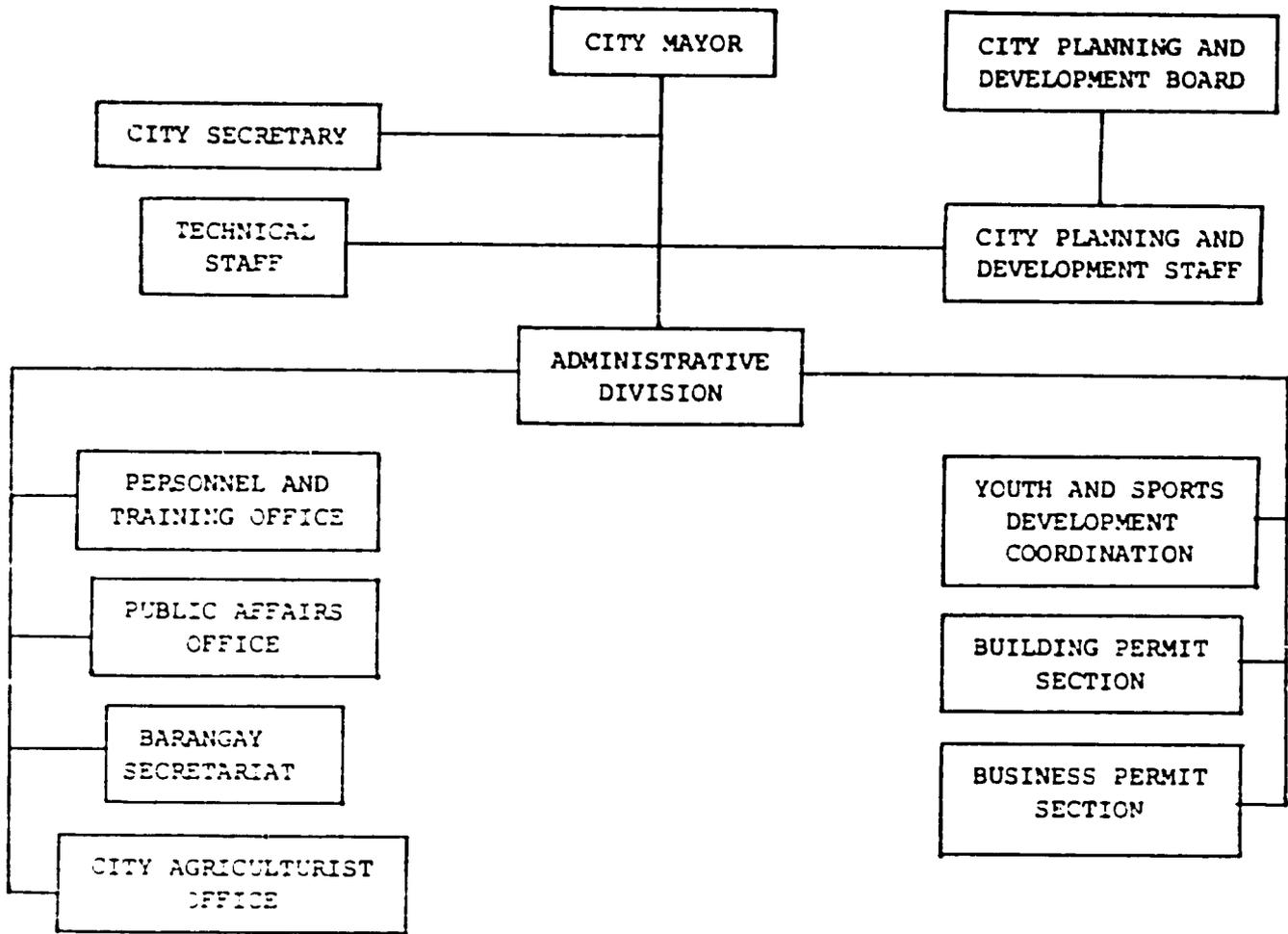
- study and recommend measures and ways of financing infrastructure and other development projects
- prepare and recommend criteria and standards in determining priorities for implementation of development programs and projects
- recommend schedule of priorities and system of allocating financial resources
- conduct public hearings

Four sectoral groups, composed mostly of private citizens have been organized to assist the Board in the formulation of development plans for the social, economic, physical and administrative sectors. However, now that the development plan is finished the groups are no longer meeting.

City Planning and Development Staff

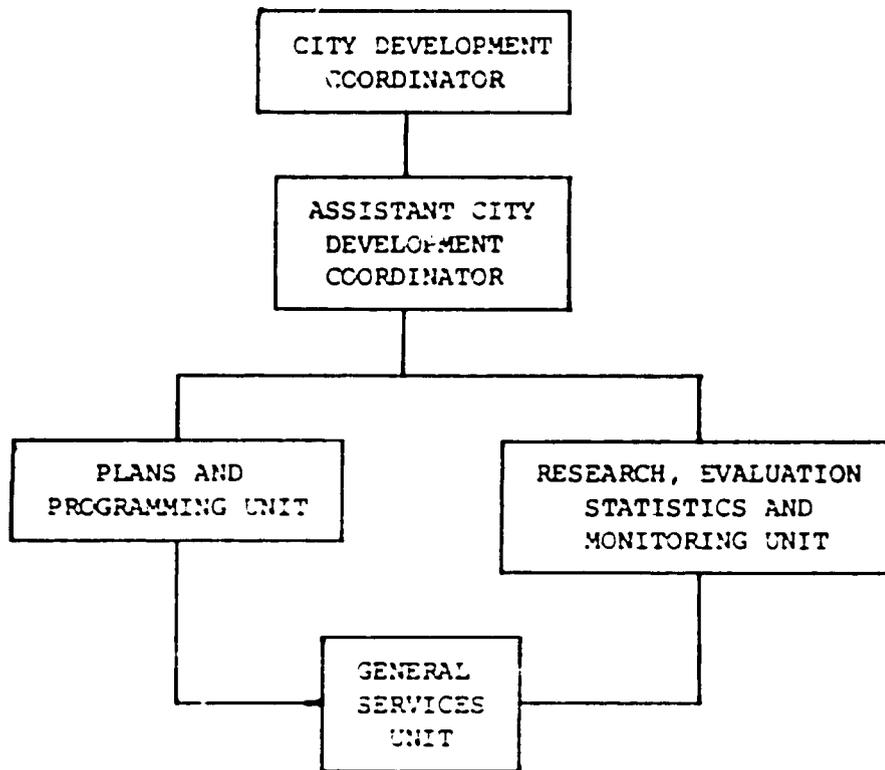
The City Planning and Development Staff (CPDS) (see organizational chart, figure 3) headed by the City Development Coordinator (CDC), serves as the technical planning arm of the Board. The CDC and the staff are appointed by the Mayor. Staff positions are approved for funding by the Department of Finance and MLGCD commensurate with rank

FIGURE 2
 Organizational Chart
 Office of the City Mayor



SOURCE: Socio-Economic Profile of Olongapo City.

FIGURE 3
Organizational Chart
City Planning and Development Staff



SOURCE: Socio-Economic Profile of Olongapo City.

classification. Although all positions were created in October 1975, the management specialist position was only funded in February 1978, while the sociologist position has not as yet been funded. The Civil Service Commission has not yet prepared the qualifications for these positions, thus delaying hiring. In addition, the Board must review and approve all applications for staff positions. The Mayor, however, makes the appointment for the position.

The present staff has a social worker, filling the sociologist position but has not filled the fiscal analyst, urban planner or management specialist positions. The present office is small and cramped.

The staff also is heavily involved in assisting other departments, since the Mayor has delegated more duties to the CPDS than initially outlined. This not only reflects the Mayor's confidence in the CDC but it bypasses department heads. The additional responsibilities, however, affect the availability of staff to do planning work or to prepare realistic work programs.

A list of City Planning and Development Staff duties and functions follows:

- Collect, analyze and interpret socio-economic and physical data and information.
- Formulate comprehensive urban development plans and zoning ordinance proposals.
- Set up development priorities and prepare feasibility studies; put into final form program/project proposals.
- Coordinate with the MLGCD and NEDA regarding development at the national and regional levels.
- Coordinate with other development agencies on development techniques and methodologies for urban planning.
- Coordinate and follow up activities and schedules of other city departments and agencies involved in development projects and programs.
- Monitor progress of programs/projects and present to the City Mayor for feedback and review.

City Development Officer

The Office of the City Development Officer, a local link of the MLGCD, has a small staff. The function of the office is centered on developing projects within the barangays. The current efforts are focused on the Barangay Improvement Development Assistance Project (BIDA). This is the first year of this national project, under which each barangay has ₱ 5,000 for small project improvements. A discussion of BIDA projects in Olongapo is presented in the section on social services (Sec. II. D. 2., esp. pp. 47-48).

C. City Economy

The economy of Olongapo is dominated by the Subic Bay Naval Base. It is the largest single source of employment. It provides a combined direct and indirect input into the city's economy which is estimated to be between \$120 million and \$130 million per year. Much of the commerce, services and small manufacturing sectors in the city depend on this source of income.

1. Summary of Sector Activities

Agriculture

Olongapo has a total land area of 18,500 hectares. 1,047 hectares are alienable land and the rest is timberland. However, according to Bureau of Forestry records, only 4,000 hectares have remained forested and an additional 454 hectares have been reforested.

Only 70 hectares of the 12,999 hectares of denuded forest area are being cultivated; this is mainly for individual planters' consumption. Similarly, livestock is raised only for the raiser's consumption.

Manufacturing

There are no raw materials for large-scale commercial production in Olongapo. The small and medium scale manufacturing units are classified into industrial and cottage industry categories and listed in Table 3.

TABLE 3
List of Manufacturing Industries
1977

Category	Activity	No.	No. of Personnel	Production Scale
Industrial	Blacksmith and Electro-plating Shop	4	19	Small Scale
	Iron and Metal/ Motor Works	13	52	Small Scale
	Hollow Blocks and concrete products	5	20	Medium Scale
Cottage Industry	Furniture	37	296	Medium Scale
	Ice cream Factory	8	40	Small Scale
	Sash Factory	2	10	Small Scale
	Shoe Manufac- turing	20	42	Small Scale
	Handicraft (Shell)	1	4	Small Scale
	Liquor/Wine	1	2	Small Scale
	Wax Factory	1	3	Small Scale
TOTAL		95	506	

SOURCE: Business Permit Section, Office of the Mayor.

Commerce and Services

The core of economic activity in Olongapo is the entertainment industry, catering mainly to military base personnel. In addition to the Subic Naval Base, the city is a rest and recreation area for United States Military Forces in Southeast Asia.

The following is a list of business and commercial establishments:

ACTIVITY	NUMBER OF ESTABLISHMENTS
Trading	1,996
General Services	661
Recreational and Entertainment	271
Transportation	254
Indoor Sports Facilities	61
Financial Institutions (Including Banks)	25
Technical Services	18
Outdoor Sports/Recreation	14
Telecommunications	12
Banking Institutions	11
Communications Media	7

There are two public markets. The main one is at East Bajac-Bajac. Constructed in 1975, it has 1,427 stalls and a large cold storage facility. The other is in Barangay Pag-asa. It is a one-story structure of light materials accomodating 919 stalls for wet and dry goods. There are numerous small open markets in public streets in other barangays gays.

The city slaughterhouse facilities are below the minimum standard set by the National Meat Inspection Commission. A modern replacement costing ₱ 161,600 is now being constructed on the same site.

2. Summary of Labor Force

In 1975, 106,151 people or 74 percent of Olongapo's total population belonged to the labor force which is defined as total population over ten years old and under 65. As can be seen in the table below, there are more persons in the labor force who are not economically active than those who are (see Table 4).

TABLE 4
Household Population 10 Years Old & Over
Economically and Not Economically Active by Sex, 1975
(Preliminary -- Based on hand tally of Census Results)

	Male	Female	Both Sexes	
			Frequency	Percentage
Persons Economically Active	25,349	18,826	44,175	41.61%
Persons Not Economically Active	20,541	39,836	60,377	56.98%
Not Stated	915	684	1,599	1.51%
TOTAL	46,805	59,346	106,151	100.00%

Source: NCSC

The economically active population is 41.6 percent of the total labor force. The 57.2 percent of the labor force which is not economically active is classified into the categories of housekeeper -- 57 percent, student -- 17 percent and others -- 26 percent. Females constitute 53 percent of the total labor force, outnumbering males.

88.9 percent were wage or salary workers, 10 percent in their own business and 1 percent unpaid family workers. The private sector employed 77.6 percent of the wage and salary workers while the government had 22.4 percent. The labor force of the city is principally concentrated in the United States Naval Base, Subic Bay. In 1973 there were 24,550 Filipino civilian employees which was about 56 percent of the economically active population. The labor force is projected to grow to about 143,000 by 1980 and to 180,000 by 1985.

D. City Finance

1. Revenues

Table 5 shows the city's sources of revenue for all funds since FY 1972. Combined revenues from taxation contributed an average of 31 percent of total revenue over the five year period, while receipts from the operation of public utilities provided an average of 50 percent.

Olongapo relies to a much greater extent on revenues from operations of public utilities than does Angeles. Because of the recent turnover of the telephone and waterworks systems to a private company and a special water district under LWUA, this revenue is now derived solely from the electric power system. In 1976 62.9 percent of total general fund income was from utility operations. However, under PD No. 477, income derived from the operation of public utilities must be used solely for the operation, maintenance and improvement of the utilities concerned. Thus, other city government operations must be financed from other sources, which made up only 37 percent of total income in 1976.

Significantly, real property tax collections were only P 1,023,989, or 4.2 percent of total revenues in 1976. While collections are expected to increase to approximately P 2 million, Olongapo City has not yet implemented the Real

TABLE 5

Statement and Relative Distribution of Financial Resources By Sources
of Revenue All Funds Combined, Olongapo City Government
Fiscal Years 1971-72 to 1975-76

Sources of Revenue	1971-72	1972-73	1973-74	1974-75	1975-76	Average 5 Years
Revenue from Taxation	34.40% 3,935,380.77	32.13% 5,832,467.93	32.40% 6,101,958.08	30.48% 6,784,045.95	26.44% 6,465,668.00	31.18%
Incidental Revenues	4.65% 535,382.12	4.50% 815,298.42	4.67% 871,735.77	5.42% 1,205,812.03	4.76% 1,163,784.00	4.80%
Receipts from Operation	7.90% 906,017.97	5.70% 1,035,188.28	5.70% 1,072,166.99	4.87% 1,082,893.64	4.72% 1,155,374.00	5.77%
Operation of Public Utilities (Sp. Acct.)	36.95% 4,235,369.51	49.25% 8,939,242.37	49.86% 9,392,978.71	55.00% 12,238,148.74	60.30% 14,748,836.00	50.27%
Other Receipts	16.10% 1,845,654.80	8.42% 1,527,029.01	7.41% 1,396,675.20	4.23% 942,293.92	3.78% 923,628.00	7.98%
TOTALS	11,457,805.17	18,149,226.01	18,835,514.75	22,253,194.92	24,457,290.00	100.00%

SOURCE: Socio-Economic and Physical Profile, City of Olongapo.

Property Tax Administration (RPTA) of the MLGCD. ^{4/} The RPTA has been passed by the City Council and procedural manuals issued; however, the City Assessor's Office has not yet begun to prepare the tax maps.

2. Expenditures

Table 6 shows the distribution of the city's expenditures from FY 1972 to FY 1976. The Operation of Economic Enterprises (public utilities) accounted for an average of 45 percent of total city expenditures over the period. According to the Socio-Economic and Physical Profile of the City, this is expected to reach over 60 percent in the future.

Table 7 summarizes total revenues and expenditures from FY 1972 to FY 1976. The table shows that the city has had an average surplus of 3.6 percent of total income over the five years. Upon investigating further, however, it was learned that the city is amortizing a consolidated debt of previous arrears to the National Power Company. This debt totals ₱ 19,591,719 and is being amortized at 14 percent over six years, with a payment of ₱ 403,702 per month. Since ₱ 150,000 monthly is coming from a National Government Transfer, the net monthly payment is ₱ 253,702.

Due to large technical losses in power transmission (see Chapter III, Section C), total income from the electric utility does not cover total expenditures including debt servicing. For FY 1977 the Public Utilities Department (PUD) had a deficit cash flow of ₱ 205,751. By August 22, 1978 the total deficit had accumulated to ₱ 713,913.

This continual debt burden to the NPC is affecting the city's routine and capital expenditures. Since income from the utility does not cover total expenditure, the deficit, and often recurrent monthly expenditures, has to be met out of the city's General Fund. Thus, although the city treasurer is now chairman of the budget staff, he often cannot certify expenditures requested by the Council and/or other departments.

An example is the authorized expenditure of the City Health Department for several new garbage trucks required not only to renew the fleet but principally to be able to climb the hill to the new dumping grounds. Due to lack of funds, only one truck can be bought at a time.

^{4/} This program is fully explained in Chapter III of Volume I of the Philippine Shelter Sector Assessment, prepared under a separate cover.

TABLE 6
Statement and Distribution of Expenditures by Function
All Funds Combined, Olongapo City Government
Fiscal Years 1971-1972 to 1975-1976

Functions	1971-1972	%	1972-1973	%	1973-1974	%	1974-1975	%	1975-1976	%	Average % Annual Dist.
General Administration	973,377	8.6	1,611,122	9.2	1,324,809	7.2	1,575,305	7.3	1,561,252	6.2	7.75
Government Finance	501,836	4.4	554,300	3.1	779,096	4.2	1,038,479	4.8	1,054,651	4.2	4.20
Adjudication	186,436	1.6	256,953	1.4	371,816	2.0	455,749	2.2	462,374	1.7	1.85
Protective Services	1,766,781	5.6	1,755,935	10.1	3,311,530	18.1	4,411,452	20.2	4,158,205	16.7	16.28
Social Improvement	1,285,687	11.3	1,280,783	7.3	208,785	1.1	525,185	2.5	207,480	0.9	4.70
Economic Development	1,036,432	9.2	1,083,615	6.2	596,599	3.2	2,261,591	10.4	1,667,404	6.7	7.18
Operation of Economic Enterprises	4,910,255	43.5	8,329,815	47.8	8,849,662	48.5	9,335,137	42.5	13,172,611	53.0	45.11
Inter-Government Aids	324,115	2.8	792,148	4.0	598,171	3.2	845,024	3.9	535,538	2.1	3.30
Loans, Advances and Transfers	288,985	2.5	646,780	3.7	169,500	0.9	40,000	0.1	----	---	1.48
Capital Outlays	1,140,543	10.1	1,081,894	6.2	2,027,097	11.1	1,226,638	5.6	2,014,537	8.1	8.25

SOURCE: Socio-Economic and Physical Profile, City of Olongapo.

TABLE 7

Annual Income/Expenditures & Surpluses
 All Funds Combined, Olongapo City Government
 Fiscal Years 1971-72 to 1975-76

FY's	Total Revenue Available for Expenditures	Total Expenditures	Surplus at the end of FY	% Relation of Total Expenditures to Total Income	% Relation Surplus to Total Income
1971-1972	11,762,907.85	11,287,943.59	474,964.26	95.96	4.04
1972-1973	17,983,303.60	17,393,360.43	595,023.17	96.64	3.36
1973-1974	18,853,518.75	18,237,068.83	562,449.92	97.01	2.99
1974-1975	23,213,554.01	22,074,562.12	1,138,991.89	95.10	4.90
1975-1976	25,515,300.56	24,834,057.22	681,243.34	97.33	2.67

SOURCE: Socio-Economic and Physical Profile, City of Olongapo.

According to the city treasurer, the large administrative expenditure by the city and its undercollection of the Real Property Tax -- only 40 percent of total collectibles from January to June 1978 (see Appendix 4) are other major causes for the city's financial problems. The latter should be improved by the RPTA. The Mayor is aware that the staff of some departments will have to be reduced before the city can undertake any major new activities or assume additional debt.

E. Income Distribution

Since income data for the total population of Olongapo City is not available, city government employee wages and salaries and non-United States citizens employed at the United States Naval Base have been used to approximate a city income distribution. Table 8 shows the percentage of each according to the NCSO income categories for 1977. Comparison of the two distributions highlights the low incomes of city government employees vis-a-vis those of Base employees. For qualified personnel, employment in the Base is thus always preferred to that in the city government. The median income of city employees, updated to July 1978 (using the consumer price index as a guide) is approximately ₱ 375 per month.

Among government employees, 85 percent have annual incomes below ₱ 5,000 as compared to only 0.6 percent of non-United States citizens employed at the Base. As mentioned previously, the base employed 24,500 non-United States citizens. Preliminary data show that Olongapo City reported 44,175 persons economically active in 1975. This would indicate that somewhat more than half (56 percent) of the economically active were employed at the Base.

Currently, estimates suggest that the number of non-United States citizens employed at the Base is between 20,000 and 21,000 persons. Wages and salaries for these employees are based on wages and salaries in Metro Manila for comparable positions in large companies. Salary increases are currently being negotiated by union representatives for the October 1, 1978 contract.

TABLE 8
Income Distributions, 1977

NCSO Annual Income Categories (Pesos)	City Government Employees 1/ Cumulative			Non-U.S. Citizen U.S. Naval Base 2/ Cumulative		
	No.	Percent	Percent	No.	Percent	Percent
3000-3999	433	42.0	42.0			
4000-4999	449	43.0	85.0	96	0.6	0.6
5000-5999	61	5.8	90.8	77	0.6	1.2
6000-6999	26	2.5	93.3	959	7.0	8.2
7000-7999	23	2.2	95.5	1999	14.3	22.5
8000-9999	27	2.5	98.0	5163	37.0	59.5
10,000-14,999	11	1.0	99.0	3889	28.0	87.5
15,000-over	9	0.8	99.8	1734	12.5	100.0
TOTAL	1,039	100%		13,907	100%	

SOURCES: 1/ Olongapo Socio-Economic Profile, 1977.
2/ Wages and Salaries Non-U.S. Citizens Employed, U.S. Naval Base, Olongapo. October 1, 1977, Public Affairs Office.

TABLE 9
Income Distribution for the
Barangay of Pag-asa, 1977

Monthly Income Categories (Pesos)	Number	Percent	Cumulative Percent
150 and below	300	23	23
150-300	135	15	38
300-400	150	12	50
400-500	148	11	61
500-600	135	10	71
600-700	218	17	88
700-800	68	5	93
800-900	51	4	97
900-1000	23	2	99
1000-over	12	1	100
TOTAL	1,290	100%	

SOURCE: MSSD Survey, 1977, Pag-asa, Olongapo City.

A more meaningful comparison to the CDAP "poorest of the poor" target group is shown in Table 9, which is based on income data collected in Pag-asa, identified as a depressed barangay by the MSSD in 1977. ^{5/} This sample reflects more accurately the income distribution of those households not employed by the Base or government. Fifty percent of these households have incomes less than ₱ 400 per month (₱ 4,800 annual).

A comparison with government employees' incomes reflects the proportion of households in Pag-asa below the minimum income of government employees (₱ 300/month). Approximately 38 percent of the Pag-asa households have incomes lower than ₱ 300 per month and 42 percent of the population falls below the lower limit of the "poorest of the poor", i.e. ₱ 333 per month.

Another MSSD survey conducted in 1976, estimated that 3,065 depressed families or 13 percent of the total population of the city have incomes below the poverty level and that 95 percent of these people migrated from other regions. Another criterion of the MLGCD target group is based on expenditures for food, clothing, housing and education. Data on local expenditures does not exist; however, expenditures for these items are available for the province of Zambales. In 1975, provincial expenditures showed 52 percent spent on food, 5 percent spent on clothing, 20 percent spent on housing and 5 percent spent on education. ^{6/}

^{5/} The annual range for the target groups defined by MLGCD as the "poorest of the poor" is between ₱ 4,000 and ₱ 7,000 for a household of six persons.

^{6/} Source: Total Family Expenditures by Group by Province, 1975, NEDA.

CHAPTER II

DIMENSIONS OF THE SHELTER PROBLEM

A. Housing Stock

As in other cities in the Philippines, Olongapo is experiencing a shortage of housing. However, the housing deficit in Olongapo has been due to the rapid population growth between 1970 and 1975 (6.4 percent per annum) and a slower housing construction rate due to a general slowing of economic activity in Olongapo after the Vietnam War, physical constraints such as the lack of serviceable land, the poor quality of subsoils, and the lack of building materials production near the city.

The 1970 census enumerated 19,685 dwelling units and a total population of 107,785 or 5.5 persons per dwelling unit. Since 1970 there has been no census of housing stock. However, the building permit section of the mayor's office has recorded an average of 300 residential building permits per annum prior to 1977. ^{7/} While building permit applications are a poor measure of residential construction rates due to gross underreporting of construction activity, they can be used as a crude proxy for estimating housing construction.

If the enumeration of building permits were accurate between 1970 and 1975 the total housing stock would have increased to 21,185 at a compound growth rate of 1.5 percent per annum. Thus by 1975, house occupancy rates would have increased to 6.9 persons per dwelling unit. However, if only 50 percent of new housing construction were covered by building permits, the total housing stock would have grown to 22,685 dwelling units or an occupancy rate of 6.6 persons per dwelling. This latter increase in housing stock represents a compound growth rate of 2.4 percent per annum, and is probably a more accurate approximation of new housing construction than building permit applications alone.

The 1970 census enumerated 20,011 households having an average household size of 5.4 persons. If household size remained constant throughout the five year period, 1970-75, the total number of households would have increased to 27,292. However, the slower rate in housing construction would have resulted in an increase in the number of households per dwelling unit to 1.22.

^{7/} Socio-Economic Physical Profile of Olongapo City

TABLE 10
Condition of Housing Stock
Olongapo City, 1970

Building Material of Walls	Type of Dwelling Unit				Total	Percent of Total
	Single	Duplex	Apartment	Barong- Barong		
Concrete	4,312	1,119	2,953	2	8,386	42%
Galvanized Iron	109	46	72	6	233	1%
Wood	6,596	1,308	2,718	109	10,731	55%
Bamboo	229	5	-	18	252	
Nipa	29	-	-	-	29	2%
Others	45	-	-	10	55	
TOTAL	11,320	2,478	5,743	145	19,685	

SOURCE: National Census and Statistical Office, 1970.

TABLE 11
Required Replacement Rate of Housing Stock
Olongapo City, 1970

	Building Material of Walls				Total
	Concrete	Wood	Galvanized Iron	Others	
Number of Units	8,368	10,731	233	336	19,685
Percent of Total	42%	55%	1%	2%	100%
Number to be Replaced in Ten Years	1,171	2,683	70	168	4,092
Percent	14% <u>1/</u>	25% <u>2/</u>	30% <u>3/</u>	50% <u>4/</u>	21%
Annual Replacement Rate	1.4%	2.5%	3.0%	5.0%	2.1%

SOURCE: PADCO Analysis

1/ Based on a probable life expectancy of 70 years.

2/ Based on a probable life expectancy of 40 years.

3/ Based on a probable life expectancy of 30 years.

4/ Based on a probable life expectancy of 20 years.

While housing construction in Olongapo may have been slower than the national urban average (estimated at 4.5 percent per annum), the condition of the housing stock as indicated by the 1970 census, is better than national urban housing conditions. 42 percent of the housing stock in Olongapo was constructed of concrete based materials as compared with only 20 percent nationally. Furthermore, while almost 20 percent of the national urban housing stock was constructed of light materials, only 2 percent of Olongapo's housing stock was built of bamboo, nipa and other similar materials (see Table 10).

Part of the housing stock becomes uninhabitable each year due to poor maintenance, poor construction techniques or changes in living patterns. The need to replace deficient housing stock is continual. Table 11 shows an estimate of the gradual replacement rate of deficient housing based on the probable life of each category of housing construction. As shown in Table 11, roughly 21 percent of the housing stock will require replacement every ten years, or 2.1 percent annually.

B. Housing Needs

An estimate of total housing needs in Olongapo is shown in Table 13. These housing need projections combine census data on population growth rates and household sizes, housing occupancy conditions, and changes in housing stock. The results show the size of the gap between the supply of housing in good condition and the need for new housing due to population growth, overcrowding and changes in household living patterns.

As shown in Table 13, roughly 3,090 households or 11 percent of all households were without adequate housing in 1976, but only about 660 households were supplied with new housing. Thus an additional 2,430 single family units were required to meet the 1976 housing needs. Due to the slow rate of housing construction ^{3/} and the rapid population

^{3/} As previously noted, the total housing construction rate is estimated at 2.4 percent per annum. However, an estimated 2.1 percent of the housing stock annually requires replacement because it has deteriorated to the point where it is no longer habitable. Thus a net housing construction rate of 0.3 percent per annum results when deteriorated housing is subtracted from the increases in the housing stock.

TABLE 12
 Number of Dwelling Units
 By Type of Occupancy
 1970

Total Number of Units	Owner Occupied Only	Owned and Part Rented	Owned and Part Occupied Free	Rented Only	Rented and Part Occupied Free	Occupied Rent Free	Occupied Free and Part Rented	Rented and a Part Rented
19,041	7,502	706	254	9,325	32	1,025	9	188
Single Household Occupancy			94%					
Multiple Household Occupancy			6%					

SOURCE: National Census and Statistics Office, 1970.

TABLE 13
Housing Needs in Olongapo
1975-1985

<u>Average Growth Rate of Housing Stock at 2.4% Per Year</u>					
Year	Population	New Households Formed <u>1/</u>	Total Housing Needs <u>2/</u>	Annual Increase in Housing Supply <u>3/</u>	Net Housing Needs <u>4/</u>
1975	147,109				
1976	151,316	373	3092	664	2428
1977	156,675	901	3924	680	3244
1978	161,688	930	4784	696	4087
1979	166,862	960	5671	713	4958
1980	172,202	991	6588	730	5857
1981	177,712	1022	7534	748	6786
1982	183,399	1055	8511	766	7746
1983	189,268	1089	9521	784	8736
1984	195,324	1124	10,563	803	9760
1985	201,575	1160	11,639	822	10,817

NOTES: Based on the following housing characteristics: Population growth rate (1975-1985) National Urban Census Projection 3.2 percent. Percent of multiple families households, 6 percent. Number of households per house, 1.22. Average required rate of replacement of deficient housing stock, 2.1 percent. 1/ The new households formed are the change in population due to population growth divided by the average number of persons per households. 2/ The total housing needs are the sum of the number of new households formed each year plus the number of households living in deficient housing plus the number of households living in overcrowded housing units. The latter is found by multiplying the total number of households times the percent of multiple family households. 3/ The housing supply is number of households supplied with housing and is found by multiplying the number of households per housing unit times the annual increase in the housing stock. 4/ The net housing needs is the total housing needs minus the housing supply.

SOURCE: PADCO Analysis.

growth, the number of households without adequate housing is projected to increase to almost 11,000 or 29 percent of all households by 1985.

Table 13 illustrates two interrelated trends which combine to increase the severity of the shelter problem: the slow rate of housing construction vis a vis population growth and previous housing deficits in relation to total housing needs. Annual additions to the housing stock lag behind the rate at which new households are being formed. While the annual population growth rate is estimated at 3.2 percent, the housing stock is only growing at about 2.4 percent. A large percentage of housing requirements is also due to the rapid deterioration of the present stock of housing. This demonstrates not only the need to increase the quantity of the housing stock, but also the need to improve the condition of the existing housing stock through upgrading programs.

The composition of housing needs can be further illustrated by comparing them with household incomes in Olongapo. Since an overall income distribution for Olongapo is lacking, city government employees' income statistics were used as a proxy. Table 14 shows the estimated breakdown of housing needs by income group.

As in Angeles, the greatest housing needs are found among low-income groups. However, in Olongapo, housing needs are also great among moderate-income groups (earning ₱ 4,000 to ₱ 4,999 per annum). 85 percent of all housing needs are among households earning less than ₱ 5,000. However, only 10 percent of the total number of households requiring housing over the five-year plan period will be supplied with new housing at current construction trends. The remainder will have to find shelter in either overcrowded or structurally poor housing.

Although the housing needs of middle- and upper-income groups (earning more than ₱ 5,000 per annum) are smaller, there will nevertheless be a substantial number of households in these groups requiring housing. During the 1978-82 period, over 5,500 middle- and upper-income households will require housing. However, out of that group, only about 500 will be housed in new units.

TABLE 14
 Olongapo: Housing Needs
 by Income Groups
 by Five-Year Period (1978-1982)

Income Group	Five-Year Philippine Development Plan - 1978-82			
	Housing Needs Due to Overcrowding & Poor Housing <u>1/</u>	Additional Housing Needs Created During Period <u>2/</u>	New Housing Built During Period <u>3/</u>	Net Housing Needs at End of Period <u>4/</u>
<u>Lower Incomes</u>				
Annual Income ₱ 3,999 and Below (42% of all Households)	13,896	2,082	1,529	12,362
<u>Middle Incomes</u>				
Annual Incomes ₱ 4,000-4,999 (43% of all Households)	14,228	2,131	1,566	12,656
<u>Upper Middle Incomes</u>				
Annual Incomes ₱ 5,000-6,999 (8.3% of all Households)	2,746	412	302	2,443
<u>Upper Incomes</u>				
Annual Incomes ₱ 7,000+ (6.5% of all Households)	2,151	322	237	1,913
Total All Income Groups	33,088	4,958	3,642	29,434

1/ Housing needs at the beginning of the period due to households living in dwelling units in poor structural condition and multiple household dwelling units.

2/ Due to new household formation resulting from population growth. Found by dividing the change in population by the average household size.

3/ The number of households being supplied with housing during the period under current trends.

4/ The housing deficit or number of households not being supplied with housing found by subtracting column 3 from columns 1 and 2.

SOURCE: PADCO Analysis and Table 13.

These housing projections illustrate the need to develop a comprehensive shelter strategy in Olongapo. While this strategy should aim at the construction of new housing projects, it should also emphasize upgrading the condition of existing housing. Furthermore, as indicated in Table 14, while these programs should attempt to meet the needs of all income groups, their major focus should be assisting lower-income groups. Such assistance could be in the form of improving existing low-income neighborhoods and developing new low-standard shelter projects.

C. Human Settlement Patterns

The City of Olongapo is organized into 16 barangay units. The most dense urban core is bounded on two sides by drainage channels and two sides by rivers (see map). Although Olongapo City covers an area of 18,500 has, the built-up area only covers 1,228 has. The linear settlement pattern conforms to the flat areas between the mountains that surround the city.

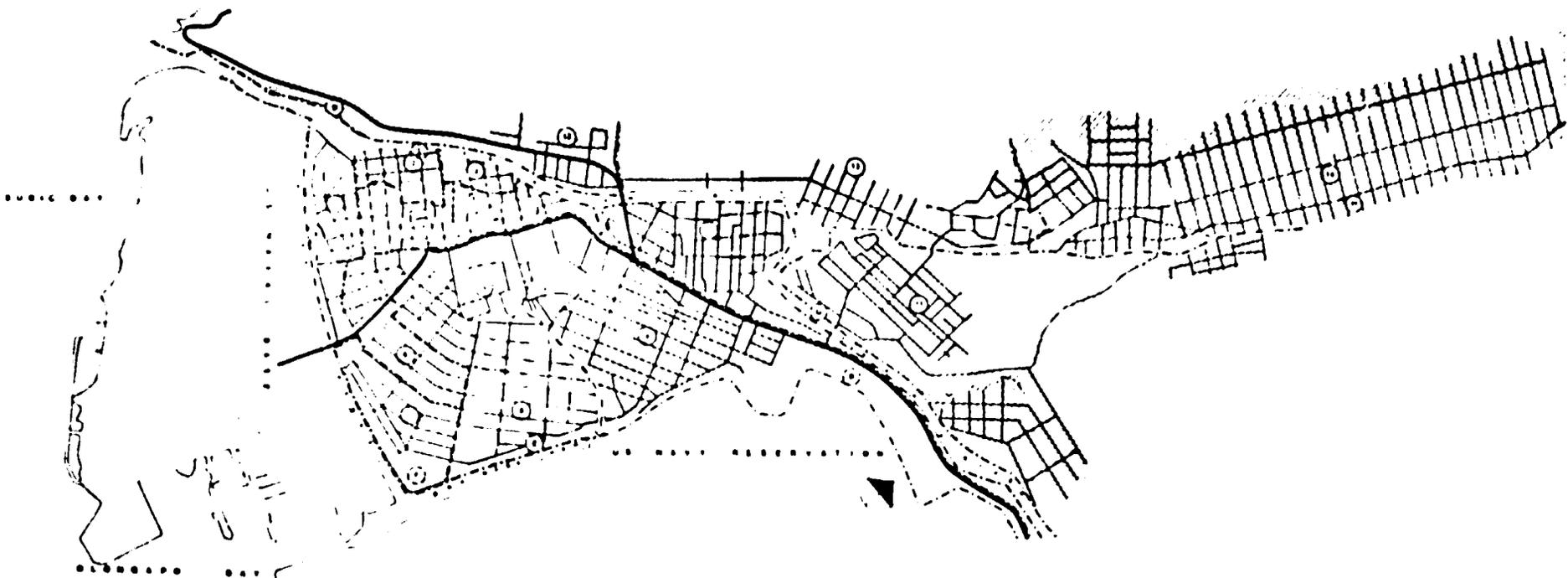
The densities of the built-up area of the city are shown in Map 1; the density pattern of those barangays identified as the most depressed is shown on the map. The large land area of some of the barangays tends to distort their densities especially in the case of settlements adjacent to drainage channels and the Kalaklan River.

Depressed Barangays

Nine barangays have been identified as depressed and the CPDS has completed social profiles for three of them (see Table 15). Those areas identified as most depressed (rather than blighted) are the sections along the drainage channel in Pag-asa, Kalalake Banicain and Kalaklan along the Kalaklan River. The scarcity of flat urban land and the lack of water has tended to increase densities at these sites. Another enclave of squatter settlement exists behind the Kalalake Elementary School on the bank of the Bajac-Bajac channel. In addition, a small strip of squatters remains along the Perimeter Road at Banicain in spite of previous relocations

POLITICAL SUBDIVISION MAP OLONGAPO CITY

1987



DEPRESSED AREAS

NO	BARANGAY	POPULATION '75
A	BANGLAN	5,420
B	EAST BANGAL BANGAL	15,524
C	EAST TAPINAC	14,000
D	KALINAGAN	5,975
E	KALINAGAN WEST	5,980
F	POD-ASA	5,975
G	OTA-OTA	25,100
H	NAWALAN HEIGHTS	5,987
I	BAR-DAG	5,887

BARANGAY LOCATIONS

1 BANGLAN	10 WEST BANGAL BANGAL
2 NEW BANGLAN	11 OTA-OTA
3 NEW BANGLAN	12 KALINAGAN
4 WEST TAPINAC	13 BARATUNAN
5 EAST TAPINAC	14 OROQUEN HEIGHTS
6 ASUMAN	15 CABALAN
7 POD-ASA	16 BARRO-TI...
8 KALINAGAN	
9 EAST BANGAL BANGAL	

POPULATION DENSITY/BARANGAY '75

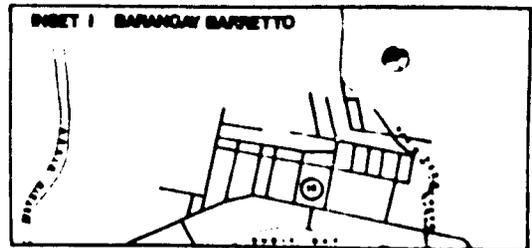
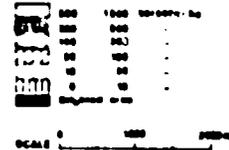


TABLE 15

Olongapo: Density Patterns for Barangays, 1970

Barangay	Population (persons)	Land Area (has.)	Density (persons per ha.)
Asinan	4,610	17.76	259
Banicain*	8,425	17.80	473
Barretto	7,350	186.00	39
East Bajac-Bajac*	18,534	64.70	286
East Tapinac*	14,803	53.40	273
Kalaklan*	5,373	75.04	71
Kalalake*	9,965	27.00	369
Mabaruan	8,232	53.30	154
Pag-asa*	6,379	17.90	355
Sta. Rita*	26,100	276.00	94
West Bajac-Bajac	8,530	40.40	211
West Tapinac	9,575	22.20	430
Gordon Heights*	8,947	173.00	51
Ilalim	1,942	4.60	419
Kababae*	2,397	5.60	422
New Cabalan	5,947	192.00	30
Total	147,109	1,228.00	

* Identified as depressed barangays.

SOURCE: Socio-Economic Profile of Olongapo. Population figures based on NCSO 1970.

In Pag-asa, the most depressed area, squatters have built their houses on the city's garbage disposal site along the drainage canal. Some families in the area depend on scavenging from the garbage dump for a livelihood. Tin cans are flattened and collected along with glass bottles for later sale. Scavengers make as much as ₱ 15 per day. All settlers are not squatters; some houses have building permits and electric meters (see picture).

Resettlement

Gordon Heights, which is approximately two miles from the city center, opened for development in 1969 as a resettlement site for squatters. Plotted on a grid-iron pattern with 450 square meter lots, the settlement was sited on rolling terrain of the north portion of the Kalaklan ridge. A total of 500 families were relocated from a squatter section in Pag-asa. During the relocation period no facilities or

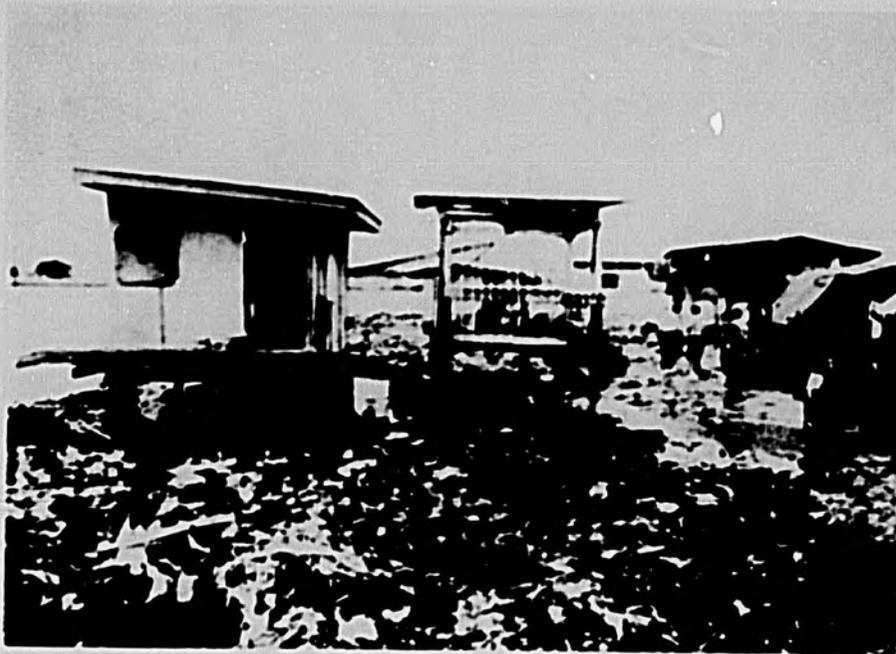


Photo 1

Low-income housing built over raw garbage in Pag-asa.

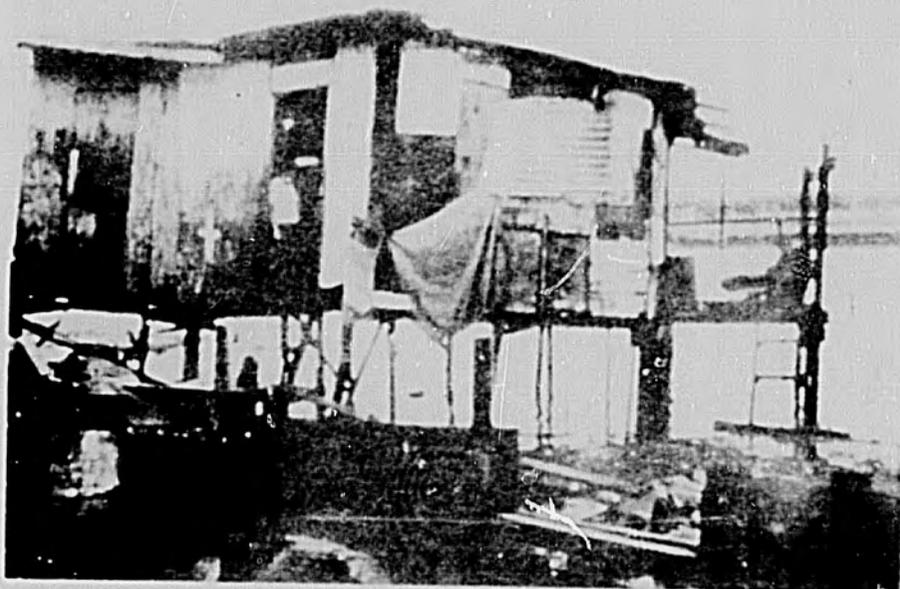


Photo 2

Low-income housing built of scrap material -- Pag-asa.

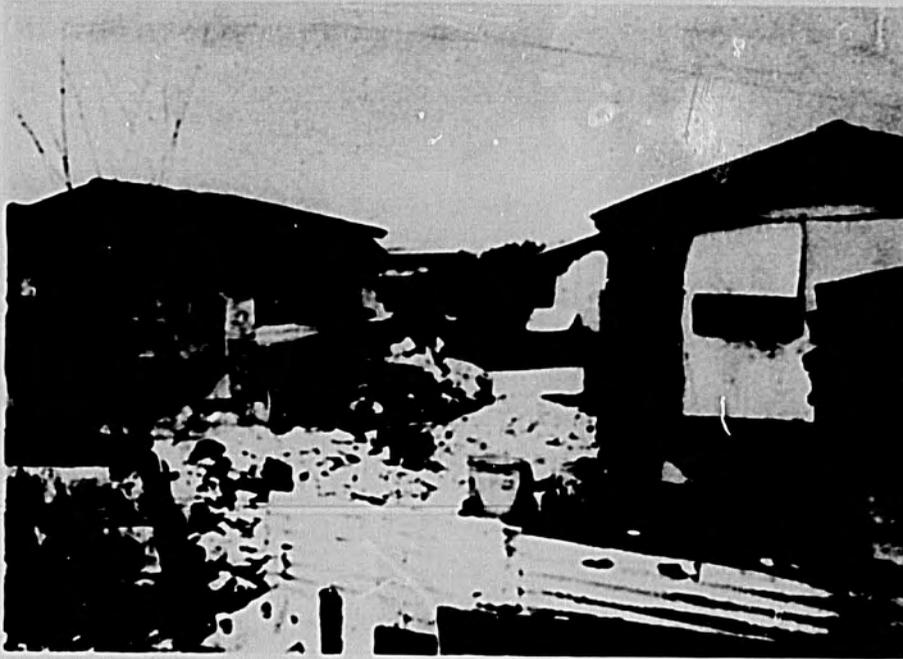


Photo 3

Some families in Pag-asa depend on scavenging from the garbage dump.

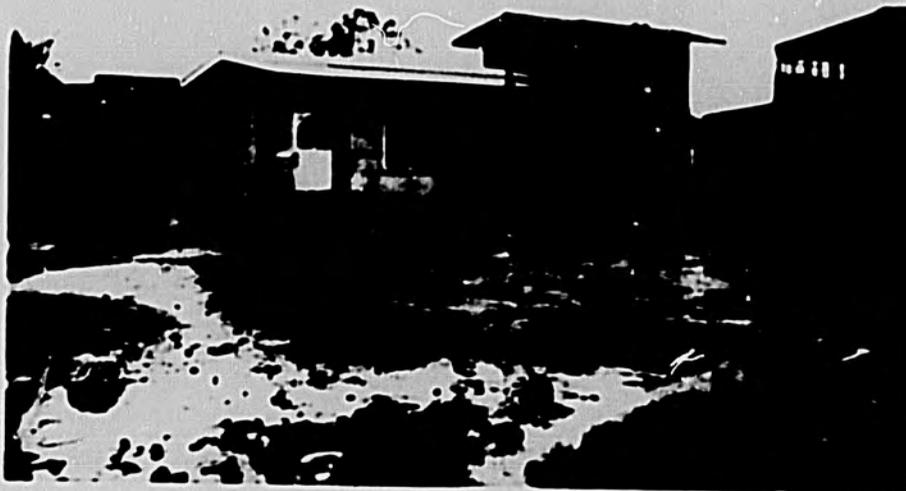


Photo 4

Substantial investment in Pag-asa house.

utilities were provided with the exception of gravel roads. Relocated squatters sold their lots to speculators and returned to the dense areas of the city. The lack of adequate services and distance from employment opportunities made the site unattractive to low-income households. Gordon Heights today serves the middle- and upper-income families who could afford to buy the land.

Subdivisions

Private subdivisions and estates exist only at barangay Sta. Rita. This barangay was never a part of the original naval reservation, therefore lands have been titled. Five subdivisions in Sta. Rita were developed and financed mostly by the GSIS and SSS. Not all of the subdivisions in this area have roads, street lighting or housing, even though individual lots are plotted. In Sta. Rita Village Phase II, which opened in December 1977, streets and lighting are under construction only for a third of the area that has been plotted.

Framework Development

Plan: Olongapo

The City Planning and Development Staff (CPDS) has developed a "Housing Framework Plan (1978-2000)" which is included in Appendix 3. The primary goal of the plan is to provide the population of Olongapo with a wholesome living environment. To do so it calls for the stabilization of construction costs, the greater reliance on local resources for construction, the development of local housing standards, the development of improvement schemes to upgrade existing blighted areas and resettle squatters now located on rights of way, watersheds and other unsafe areas, and the development of a diversity of housing types meeting the needs of different community groups.

To implement these goals, the plan suggests the immediate development of programs which would regularize the construction industry, and defer or lower real property taxes on residential dwelling units. It also suggests the development of a quality control laboratory, and slum improvement projects which would provide infrastructure, urban services and training programs. After beginning these immediate action programs, the plan envisions medium- to long-term housing projects which would relocate squatters from other areas and provide for the housing needs of other groups.

The plan is comprehensive in its approach recognizing the most problematic and urgent shelter problems facing Olongapo. It rightly places emphasis on improving existing depressed low-income areas and only relocating those households who are in areas which cannot be upgraded. However, it could focus more on possible actions at the local level. For example, many of the taxation policies affecting the construction industry are national policies over which local governments have little control. The plan also does not mention the land problem which is an area requiring remedial action. Both land tenure issues and the lack of urban land are severe constraints affecting the development of Olongapo.

Finance for shelter policies is a critical aspect of the plan given the limited city resources and the lack of private sector housing finance. Some financial resources are available from national and international assistance, but most will have to come from local public and private sources. To that end, the city will have to develop strategies for increasing both city revenues and mobilizing private resources. The energetic administration of real property taxes may in part provide increased municipal funds, while a partnership between the city and local business could increase private sector participation. Joint ventures with the NHA should also be pursued as that agency expands to provincial cities.

D. Socio-Economic Characteristics of Low-Income Population

1. Social and Cultural Characteristics of the Three Most Depressed Barangays

Results of a MSSD 1977 survey of Pag-asa show that of the 52 households randomly chosen and surveyed, almost all said that water, electricity, roads drainage and waste disposal were the major problems. Similar results were obtained in a survey done by the City Planning and Development Staff.

There is a strong sense of community in the barangay. Most of the people spoken to participate in at least one community activity. Friendly neighborhood relations were immediately obvious during the one day spent by an SSA team member in the barangay. The barangay captain reports that 70 percent of the residents participate in activities under his jurisdiction, while the most wealthy 30 percent do not. For example, in mid-August a landslide occurred

just outside Olongapo burying 30 persons and volunteers were requested to dig for the bodies. Pag-asa was proud of being the second most well represented barangay among the volunteers. Almost all of the interview respondents were active in some community organization. The community is building new drainage ditches, since the city engineers built the existing ones below high tide level and they back up. The residents are willing to work hard to upgrade their environment but their efforts are hampered by lack of the necessary capital and technical expertise.

A series of ten case study interviews was conducted in Pag-asa by a member of the SSA mission, the results of which are summarized in the following table.

TABLE 16
Summary of Pag-asa Case Studies

Interview	1	2	3	4	5	6	7	8	9	10
Family Size	4	4	7	9	5	7	8	8	7	3
Average Monthly Income (P)	300	300	280	900	140	400	330	500	810	560
Monthly Expenditures (P)	320	305	345	1055	300	411	150	450	525	350
% Income Spent on Housing	-	-	23	7	43	8	6	23	-	9
Savings (Deficit)	(-20)	(-5)	(-65)	(-155)	(-160)	(-11)	180	50	285	210

The interviews tend to confirm the results of previous surveys. Monthly household incomes ranged from P 140 to P 900 with an average of about P 450. While these results are not statistically significant, they do confirm the low-income and expenditure levels noted in the surveys. In cases where households had incomes of over P 5,000 per year there were significant multiple sources of income. In two of these four cases there were two incomes; the other two rented out rooms. In seven out of ten cases expenditures are greater than stated income. While this may be because of a tendency to understate incomes it may also be that the expenditures stated are more ideal than actual. In Angeles, for example, it was found that most families planned to spend P 10 a day for food. This was always the major and in some cases the only regular budget item. They said that when funds were short this could be decreased.

The percentage of income spent on housing varied, but was generally 20 percent or less. The families interviewed have an average household size of 6.2 as compared to an estimated 6.6 persons per dwelling unit for the city as a whole. It is evident that extended family living patterns are still common, often consisting of several generations and in-laws.

Following are two detailed examples of the case studies which were carried out.

Case 1

The elderly woman interviewed moved with her family from rural Zambales Province 18 years ago because they had no regular source of income and business opportunities were nil. The household now consists of the respondent, her daughter and two grandchildren ages eight and 13. A married son lives close by. Most customers of the family sari-sari store buy on credit so income from that source could not be estimated. Monthly expenditures are ₱ 300 for food, ₱ 5 for water and ₱ 15 for education. Electricity is obtained from the son's house free of charge. ₱ 12 a year is paid as government tax on land owned in the province. Some money is saved regularly but the total amount of savings could not be ascertained. The only regular source of income is a ₱ 50 to ₱ 100 monthly contribution from the son who works as a carpenter.

The dwelling unit is wooden and consists of two rooms 12' square and 6' x 8'. Part of the front room is the sari-sari store. The son and neighbors built the house in 1977 for ₱ 2,000. ₱ 1,500 was borrowed interest free from the wealthy Chinese employer of the son and is repaid by weekly pay check deductions. ₱ 500 is still owed.

The respondent does not like living in Pag-asa because of the lack of services. Drinking water is the major problem. Given the chance she would like to relocate but since regular income is so low, she does not have that option. She does not participate in any neighborhood activities having dropped out of the "Sixty-Up Club" because she "did not know where the money went". An appointment was made with the social worker accompanying the interviewer to discuss this at a later time.

Case 2

The owners of the house visited are 43 and 47 years of age. They have six children ages ten to 27 and a two year-old grandchild. The two year-old, obviously sickly and mal-nourished, was dirty and covered with flies on a mat on the floor drinking from a bottle. She was listless and completely oblivious of what was going on around her. The most noticeable item in the sparsely furnished room was the large color television set.

The husband works as a carpenter in a base construction company. He earns ₱ 2.50 an hour for a 12 hour day (₱ 600 a month) but has not been paid in the last two months. The family had a sari-sari store that sold food but they have eaten the goods. A ₱ 200 recapitalization loan was obtained from DSSD but that too has been consumed. A married son sends ₱ 200 a month for television payments. He believes that having a T.V. is more important than engaging in business. It will keep the younger siblings at home so that they will not come under the bad influence of neighborhood youth. The family also receives ₱ 300 a month total from the rental of five of the rooms in their seven room house.

Regular monthly expenses are ₱ 900 for food, ₱ 30 for electricity, ₱ 30 for water, ₱ 55 for gas and ₱ 40 for education. When the husband was working and the sari-sari store was in operation, ₱ 20 to ₱ 135 was saved monthly. They would like to re-open the store but do not know of any way to get initial capital since they have already gotten a DSSD loan.

Located on the paved main street the house is wood and well constructed. It was built in 1961 when the family began squatting on the lot which has since been purchased from the government. A water seal toilet is shared by family and tenants. The lot is 17 x 14 meters and the house covers an area of 40 x 24 square feet.

The main community problem is the water which not only is undrinkable but also has a bad odor. Like many other families they boil it before drinking. The wife is active in the Ladies' Auxiliary Brigade and the husband is in the Barangay Police Force.

Health and Sanitation Practices

Sickness such as TB and skin disease is prevalent in Pag-asa. Rats and insects are attracted by the fresh garbage. Many children are malnourished.

When residents seek medical assistance they go to Pope John XXIII Community Center administered by a Catholic agency in East Tapinac. The public health center in the barangay lacks medical personnel and supplies and is not well utilized. The center is staffed every other day and when the staff has free time they conduct outreach activities.

The following organizations are operating in the barangay.

TABLE 17

Agencies Operating in Depressed Areas of the City

Agency	Gov't/Private	Services	Office Location
Pope John XXIII Community Center	Private	Health	Outside Barangay
Philippine Medical Association with Olongapo Lion's Club	Private	Health	Outside Barangay
Olongapo Dental Society with Subic Bay Lion's Club	Private	Health	Outside Barangay
Dominado Maternity and Children's Clinic	Private	Health	Inside Barangay
Public Health Center	Government	Health	Inside Barangay
Pearl S. Buck Foundation, Inc.	Private	Education/ Culture	Outside Barangay
Doña J. E. Marcos Foundation, Inc.	Private	Education	Outside Barangay
Schools	Government/ Private	Education	Outside Barangay
Ministry of Social Services and Development	Government	Cultural	Outside Barangay
Sports Development Office	Government	Recreational	Outside Barangay

Employment Patterns

The City Planning and Development Staff survey in Pag-asa in 1977 found that 80 percent of households have one member working, 5 percent have at least two and 15 percent do not have any. Of those working 50 percent earn by commission, 30 percent through salary and 5 percent from wages. The other 15 percent earn by a variety of means including rentals. As an additional source of income some rent rooms in their dwelling units for up to ₱ 60 a month. Many of those listed as working are underemployed and living below the poverty threshold. They lack skills, education and opportunities.

Education

Most of the population has only a fourth grade education. There are 122 children of school age who are not attending school. This and a lack of recreational facilities and employment opportunities are major problems for youths.

Banicain

Barangay Banicain is located on the Kalaklan River and the drainage canal. The depressed areas are on the banks of these two water courses. The population of the entire barangay is 8,425.

Compared to the other depressed barangays, Banicain has an active economic sector. There are 78 sari-sari stores, 14 tailoring shops, 8 restaurants and 11 entertainment establishments. There are also food shops, beauty parlors and a local market. Of the depressed families surveyed, 30 percent vend in the barangay market and earn only a minimum income. 50 percent of the families are stevedores for freight contractors inside the base. This is seasonal depending on when ships are in port. The other 20 percent of the population has middle- or upper-income jobs on the base.

Most of the population has only an elementary school education. An average of three or four children per household attend school. The only recreational facilities are the playground of the Banicain Elementary School and a basketball court beside the Barangay Health Center. The Perimeter Friendship Park is close by but children usually walk 15 minutes to Marikit Park because it is better equipped with swings, slides and other facilities.

There is a strong community spirit in the barangay. People of all income groups respect the barangay officials and cooperate with council activities. They are easy to mobilize for any community undertaking.

In addition to low incomes, the major and most immediate problems in the community are physical. 40 families are affected by the erosion along Luna Street and are within the riverbanks of the Kalaklan River. The road is no longer visible. Water is also a problem. Artisan wells are not viable because of the soil conditions in the area. Water line service is poor and toilet facilities are lacking.

Lower Kalaklan

Barangay Kalaklan is divided in half by the Kalaklan Ridge. The depressed community is in Lower Kalaklan located along the bank of the Kalaklan River. It has 280 families. 80 percent of the families depend on fishing and related activities such as selling fish in the public market, gathering shells and smoking fish. 10 percent are blue collar employees at the Naval Base. 5 percent are government employees, 3 percent depend on fishing net making and 2 percent on banca (boat) making and repairing. Only 40 percent of the fishermen own their bancas. The rest either rent or share the income they earn from fishing with the owner.

The fishermen risk arrest by the United States Naval Base Patrol. The bancas do not have motors and sometimes the wind carries the banca within the area of the United States Naval Base unintentionally. Arrest can result in embargo of the vessel or suspension for at least two weeks. Also during typhoons and bad weather the fishermen have no other means of earning a living.

Most of the population has only an elementary school education. An average of three to four children per household attend school. The nearest school is located above the Kalaklan Ridge but there is a day care center within the community for preschool children. It is difficult for elementary school graduates to continue their education because the barangay is a 15 minute ride from the city high school and some cannot afford the expense of transportation.

The only recreational facilities are open spaces. Children play along the riverbank, on the bancas, on shore or under their houses which are built on stilts. Out-of-school youths spend much time playing billiards. There is also a cockpit arena near the entrance of the barangay. There is a strong community spirit and the neighbors know and help each other.

The community's major economic problem is lack of year around income earning opportunities. Since there is not a road within the community, the area cannot be reached in case of fire. Also in case of sickness or accident victims have to be carried up a steep hill. Crossing the river by banca at night is also dangerous and sometimes impossible.

2. Provision of Social Services to the Low-Income Population

Ministry of Social Services and Development

The Ministry of Social Services and Development is mandated to serve the poorest of the poor or those with monthly incomes below ₱ 350 in urban areas. Assemblies are held in the barangays to inform the people of available social services. The people are encouraged to articulate their problems and referrals are made to other agencies.

Socio-economic surveys of all 16 barangays were conducted by the MSSD and the out-of-school youth groups. Barangays were classified as depressed based on low income, lack of services, low resource utilization, number of out-of-school youths, vulnerability to disaster, high rates of population growth, malnutrition, and at least 30 percent of the population earning less than ₱ 350. Pag-asa, Banicain and Kalaklan were found to be the most depressed barangays based on these indicators and on visual inspection by MSSD staff. Therefore, the following programs are concentrated in these three areas.

Self-Employment Assistance Program (SEAP). Loans are made to youth and family heads who submit plans for income generating activities and are otherwise qualified in terms of character and residency. The maximum amount loaned is ₱ 500 with from six months to one year to repay at 0 percent interest. 50 percent of the borrowers repay. All receive regular follow-up visits from a social worker. From January to July 1978, 491 families participated in the program receiving average loans of ₱ 150. An additional 760 are targeted for loans during the remainder of the year.

Integrated Human Resources Development Program for Youth.

This program is implemented by Youth Development and Social Workers of the MSSD and by the Dona Josefa Edralin Marcos Foundation. The Lion's Club, Rotary and other civic organizations in the city also support the program by extending financial aid. The purpose of the program is to prepare youth, especially out-of-school youth, to be productive members of society. Components include socialization, skills training, and self-employment. As a direct contribution to the barangay they sponsor beautification campaigns. Out of 4,040 eligible youth, there are 580 participants from all 16 barangays.

Skills Training. 2,000 out-of-school youth, mothers and entertainers have graduated from the MSSD skills training program since it began in 1976. Classes are held in cosmetology, macrame, upholstery, electronics, furniture making, dress-making and tailoring. 30 percent of the graduates have been placed in jobs through the program or are self-employed. As of August 1978 there were 653 participants.

Day Care. MSSD operates 16 day care centers in Olongapo City for 960 children; 1,959 participate in the related supplemental feeding program. The 16 workers are paid by the city government and by civic organizations.

Budget. The internal budget allocation for 1978 is as follows:

Self-Employment Assistance Program	₱ 36,800
Practical Skills Training	₱ 6,765
Day Care and Supplemental Feeding	₱ 13,032
Emergency Assistance	₱ 6,340
Family Planning	- - -
Special Social Services	₱ 448
Total	₱ 63,385

The supplemental budget varies yearly and depends on the resourcefulness and persuasive power of the officer-in-charge and her staff. About ₱ 15,000 is raised by the annual "Walk for a Cause" sponsored by allied civic organizations. Through the "Person-to-Person" fund raising drive, wealthy citizens fund a youth group with ₱ 500 to ₱ 1,000 annually. Equipment and other assistance comes from the United States Naval Base. The day care program receives about ₱ 5,280 per month from external sources. Parents also contribute to the supplemental feeding program.

Effectiveness. The Olongapo MSSD has been named the best office in Region III for the last two years. The national award for Best Social Worker of the Year in 1976 went to one of the workers. Only five of the staff members have degrees in Social Work; the rest are trained in social sciences and the humanities. The officer-in-charge lists the major problems of the agency as:

- (1) Low salaries.
- (2) Lack of sufficient manpower to fully develop programs.
- (3) Lack of equipment.

Health Services

Most health services are provided by the City Health Department. The Department's priorities are:

- (1) Garbage collection and disposal.
- (2) Control of communicable diseases and expanded immunization program.
- (3) Nutrition and family planning.
- (4) Sanitary food handling.
- (5) Social disease control.
- (6) Joint programs with Subic Base.

There are 14 health centers in the city each staffed with a doctor, nurse and midwife. There is not one in Pagasa where, with New Kalaklan, the highest rates of infant mortality are found. Eight of the 14 health centers have been constructed since 1972. Public facilities are to serve the indigent population who cannot afford private services (medicine is free to indigents). No social workers work directly with the health centers. Problems include:

- (1) The high turnover rate of medical personnel because pay and working conditions are better in America and the Middle East.
- (2) Overlapping functions of various agencies engaged in health, nutrition and family planning.
- (3) Attitudes concerning health, nutrition and sanitation practices.

A City Population Office has been set up under an agreement between the National Population Commission and the city government. The efforts of the Central Family Planning Clinic located in the City Health Department have been successful.

In Operation Timbang in 1976 the City Health Department weighed 7,085 pre-school and school-aged children in ten barangays. 77 percent were suffering from some degree of malnutrition. Of the children weighed, 8 percent suffered from third degree, 25 from second degree and 44 from first degree malnutrition. 60 percent of the children weighed in Pag-asa were either second or third degree malnourished.

The following agencies have nutrition programs: City Nutrition Program, Ministry of Education and Culture, MSSD, MLGCD, City Government, Catholic Relief Service, private schools, and various civic organizations. The Catholic Relief Service operates 12 nutrition centers, each servicing about 70 people. In 1975 a malnutrition ward was added to the City General Hospital.

A survey conducted by the City Planning and Development Staff in 1977 showed that most barangay residents were not aware of the services offered by the health centers in their areas. The health department estimates that only 47 percent of their target population utilizes health services.

In spite of this, the 75-bed city hospital is overburdened with in and out patients. Patients go directly to this hospital and the five private hospitals which have a total of 161 beds rather than seeking help at barangay clinics which are understaffed and underequipped. The city hospital averages 100 outpatients a day. In order to increase program effectiveness it is necessary to increase awareness of primary services offered. Primary health services and the system of referrals to the next level of health care facilities must be strengthened. To some extent the MSSD, the City Population Office and barangay organizations assist with information dispersal. Paramedics, family planning outreach workers and social workers could play a larger role by maintaining the necessary close contact with the target population and arranging referrals. Public awareness and motivation should be the major thrust of the current program.

Community Development Programs

In addition to the cooperative program, the local branch of the Ministry of Local Government and Community Development organizes community development projects within the barangays. This is the first year of the program under which barangays are eligible for grants of ₱ 5,000 for improvement projects. Banicaín is building a drainage channel. With an additional ₱ 500 of Barangay Development

Funds available from the city government and the 10 percent of tax revenues paid by barangay residents which are returned to the barangay they are planning to remodel the barangay hall.

In Sta. Rita a ₱ 45,000 public market is being constructed using self-help with hired labor only for highly technical skills. ₱ 20,000 will be funded by the MLGCD, ₱ 10,000 by the city government, ₱ 5,000 by technical agencies and ₱ 10,000 by barangay funds. Started in May 1978, the structure will measure 10.5m x 3.6m x 36.5m and should be completed by October 1978. Projects in Kalaklan include the construction of two public toilets and a roof for the barangay hall.

Some of the barangay clubs and organizations are founded for the purpose of barangay improvement. The Barangay Police Force patrols the neighborhood. The 'Sixty-Up' club in Pag-asa provides assistance to needy older residents and has just completed a fund raising drive to supply the barangay hall with a blackboard. The Barangay Brigade provides assistance to victims of emergencies. The activities of the Ladies Auxiliary focus on barangay beautification.

Education

There are 22 public and four private elementary schools, one public and four private secondary schools and one barangay high school unevenly distributed throughout Olongapo. Barangays Pag-asa and West Tapinac do not have elementary schools. Children from these areas go to schools in adjacent barangays. A public secondary school is located in the center of the city near the entertainment district. A new barangay high school at Barretto opened for school year 1977-1978.

For school year 1976-1977 there were 48,628 students. The student-teacher ratio is 1:36 in the public elementary schools and 1:36 in the private. At the high school level it is 1:47 and 1:35 for the public and private schools, respectively. Parents prefer to send their children to public schools because of the lower fees and other expenses.

There are a total of 495 public school classrooms giving a ratio of classrooms to students of 1:55. Based on the national standard of 1:40, the city is 183 classrooms deficient.

According to a city councilman, the high school is on triple session and has reached the enrollment maximum of 55 students per classroom. Students who cannot be accommodated have to go to private schools if they can afford it. Priority admission goes to graduates of public elementary schools and transfer students from other cities.

There are four vocational schools and one college. Among the population 20 years and older, 5 percent or 3,657 were college degree holders in 1975.

480 students dropped out of elementary school in SY 1976-1977, an increase of 8 percent from the preceding school year. Secondary level dropouts decreased by 9 percent.

Out-of-School Youth

In addition to the skills training program under the MSSD, there are two other agencies providing assistance to out-of-school youth. The Manpower Development Program of the city government trains about 400 out-of-school youth annually. Various vocational courses are offered and outstanding graduates recommended for job placements. The government appropriated ₱ 10,000 for the program in FY 1974-1975 and ₱ 6,000 in 1975-1976.

The Doña Josefa Edralin Marcos Foundation offers non-formal education programs for out-of-school youth and interested adults. The first phase in April-June 1977 trained 578 people in:

Nursing	Auto Diesel Mechanics
Tailoring	Refrigeration and Air-Conditioning
Dressmaking	Practical Electricity
Office Secretarial	Food Preservation
Practice	ARC Gas Welding

Increasing enrollment is expected as the program continues.

Coordination of Social
Services Delivery

Because of the many public and private agencies providing social services to the low-income population, coordination is necessary. Private organizations such as the Catholic Women's League and the Red Cross coordinate their programs through MSSD. However, there is duplication among national government agencies involved in similar projects. For example MSSD has a supplemental Feeding Program at its day care centers. The National Nutrition Commission through the City Nutrition Council maintains a malnutrition ward, and the schools handle nutrition information dissemination and education. Closer planning and coordination between the private and public sectors could do much to maximize the benefits of the services offered.

Chapter III

COMPONENTS OF THE SHELTER PROBLEM

A. Land

Olongapo is unique among Philippine cities in that all of its land, except for about 100 has., is public land. This came about when the United States Naval Base which formerly controlled the land as part of the Naval Reservation, turned over 18,500 has. to the Philippine government in 1959. Of this total, however, only about 1,228 has. is surveyed. Since 1959, the Bureau of Lands has been in charge of the initiation and issuance of land titles.

The process of acquiring the certification of title is long and complicated. To date only about 30 percent of the total 6,000 surveyed lots have acquired actual title. The process can be summarized as follows:

1. Application for Certification of Title is made at the district office of the Bureau of Lands. This application is called a Miscellaneous Sales Application (MSA).
2. The subject property is assessed for value by three people:
 - (a) A land inspector from the Bureau of Lands;
 - (b) The city treasurer or the city assessor;
 - (c) The director of the district office of the Bureau of Lands, i.e., the District Land Officer (DLO).
3. The MSA is then sent for final approval to the Director of Lands in Manila.
4. Once approval is obtained and the government price for the land is paid, the application is signed by the President as represented by the Minister of Natural Resources.
5. The application is then sent to the Registrar of Deeds of the province for official registration and issuance of title to the applicant.

As mentioned above only some 30 percent of all applicants have proceeded beyond step four. This is mainly because they don't want to pay the price set by the Bureau of Lands for the property. This price is very low, usually about ₱ 5/sqm., but it is in addition to the market sales price of the land, if the previous owner did not have full title.

Because titled lots cannot be sold for ten years, most applicants actually do not want to acquire full title. In fact, the MSA is considered mortgagable by private and public banks, but a title is only mortgagable at government banks because of the restriction on sale. Thus, the MSA serves as a de facto title in Olongapo. However, to obtain longer finance terms than one year, the owner also has to be a member of the GSIS or the SSS.

Those wishing to acquire title to unsurveyed land outside the present scheme of subdivision, must first obtain approval from the Bureau of Lands that the property is in the disposable domain of the Bureau of Forestry. Once this approval is obtained, the Bureau of Lands surveys the property and the City Assessor sends a team for assessment and registration on the city's tax rolls. The MSA is then applied for.

Thus, for 'new' lands outside the scheme of subdivision, such as land fill in Pag-asa or a new sites and services scheme, the city would not have to pay anything. Since the ₱ 5/sqm. set by the Bureau of Lands for title registration is paid to the city treasury, the city would essentially be charging itself. The city can, however, charge any amount in selling or leasing the land to third parties.

Map 2 shows the market valuation of land in the surveyed part of the city. The schedule of values is shown in Table 18.

TABLE 18
Schedule of Land Values
For Olongapo City (Per SQM.)

	<u>Commercial</u>		<u>Residential</u>		
	1973	1977	1973	1977	
C-1	350	450	R-1	60	100
C-2	250	350	R-2	40	80
C-3	150	250	R-3	20	60
C-4	-	150	R-4	20	40
			R-5	20	20

Both 1973 and 1977 average assessed values were somewhat lower than those in Angeles City. The areas recommended for improvement in Chapter IV of this report, Pag-asa, Banicaín and Kalaklan are in R-2 and R-3 categories. However, since much of this land is in the unsurveyed portions of the city, most of it would not have to be purchased.

B. Infrastructure

1. Roads and Transportation

The road network in Olongapo consists of 17.2 kilometers of national roads, 88.7 kilometers of city roads and 23.1 kilometers of barangay roads, a total of 129.1 kilometers. Only 2 percent of the roads are concrete surfaced; 64 percent are asphalt surfaced. The remainder are mainly gravel barangay roads. 8/

Due to the poor bearing capacity of the subsoils in Olongapo, road construction is difficult and requires thickened sub-bases to support loads adequately. Heavy rains combined with poorly constructed sub-bases have resulted in failure of the road surfacing in much of the network. As a result, the road system requires continual maintenance.

The construction and maintenance of the Olongapo road network is the responsibility of the city engineering department. 66 percent of the funding for maintenance of the road network comes from the city's general fund; the remainder is contributed by the national government. With the exception of national roads, all of the funding for the construction of new roads comes from city revenues. In 1978 the combined budgets of the city engineering department totalled ₱ 2.1 million. Salaries and employee benefits equalled roughly 43 percent of that total allocation. Capital outlays for maintenance of existing roads and construction of new roads accounted for 42 percent of the combined budget. 9/

8/ Socio-Economic Physical Profile of Olongapo City. City Development and Planning Staff.

9/ Annual Performance Budget, Calendar Year 1978. City of Olongapo. Pp. 118-128, and 152-163.

The city engineering department constructed an annual average of ten kilometers of new roads between 1972 and 1977. The Department has a combined staff of 172. Ten members of the staff are in professional or administrative positions and six are building and lot inspectors. The remainder of the permanent staff are skilled and unskilled workers engaged in construction and maintenance.

TABLE 19
City Road Construction
1972-1977 (Kilometers)

Year	Gravel	Asphalt	Concrete	Total	Bridges
1972	-	8.3	-	8.3	16.4 m
1973	-	13.2	0.9	14.1	-
1974	-	14.0	-	14.0	-
1975	2.2	6.1	-	8.3	15.0 m
1976	4.1	5.7	-	9.3	9.9 m
1977	2.0	4.3	-	6.3	27.0 m
Totals	8.3	51.6	0.9	60.8	68.3 m

Source: City Engineering Department.

The City Planning and Development Board projects a total capital investment program for roads, bridges and drainage and flood control of ₱ 13.170 million between 1979 and 1983. As shown in Table 20, 61 percent of the investment will be in road construction, 14 percent in bridge construction and 25 percent in drainage and flood control projects.

TABLE 20
Proposed Investment in Roads,
Bridges and Drainage-Flood Control
Projects: 1979-1983

	Roads	%	Bridges	%	Drainage & Flood Control	%	Total	%
Infrastructure Fund	4,560		210		1,480		6,250	48%
General Fund	2,680		930		760		4,370	33%
National	850		700		1,000		2,550	19%
Total	8,090	61%	1,840	14%	3,240	25%	13,170	100%

Source: Capital Improvement Program (1979-1983) City of Olongapo.
City Planning and Development Board.

Transportation

All transportation systems in Olongapo are privately owned. The public conveyance system consists of 4,209 public utility jeepneys, 3,040 tricycles, 397 taxis and 1,660 buses. The latter provide both service within the city and access to other cities. Public conveyance vehicles represent 57 percent of all motor vehicles registered by the Local Transport Commission as of December 1976.

The jeepneys and tricycles travel regularly established routes and charge rates fixed by the Board of Transportation. The average daily take-home pay of the drivers on these routes is about ₱ 25.00. ^{10/}

The jeepney/tricycle transport system is quite efficient according to World Bank studies conducted in other large Philippine cities. In Olongapo, the combination of 7,432 jeepneys, tricycles and minibuses provides an estimated 60,000 passenger places ^{11/} per hour or 0.4 places per inhabitant. By comparison, 2,814 private passenger cars provide only 6,000 additional places.

2. Surface Water Drainage

Olongapo is drained by a system of five rivers and man-made drainage channels. In the built-up area of the city, most of the drainage system consists of open drainage canals constructed by the United States Navy while the city was still part of the Naval Reservation.

Deforestation of watershed areas and the urbanization of both watershed areas and riverbanks have resulted in extensive siltation of the natural water courses. Uncontrolled building along drainage canals and in many cases directly over them has combined with poor solid waste disposal to greatly reduce the effectiveness of the existing drainage system. During heavy rains many areas of the city experience

^{10/} Socio-Economic and Physical Profile, City of Olongapo. City Planning and Development Staff. July 1977. Pp. 59-66.

^{11/} Based on an estimated 12 places per jeepney, 2 places per tricycle and 16 places per minibus. Passenger cars were estimated to carry an average of 2 persons per trip.

frequent flooding. Due to poor percolation capacity the surface soils become easily saturated and surface runoff collects in stagnant pools. Many of the lower-income and squatter sections of Olongapo have no drainage systems which increases drainage problems in other areas which drain through the squatter settlements.

Both human wastes and solid wastes are disposed of directly into the drainage system, intensifying pollution and the risk to water supplies, particularly to shallow wells in low-income areas (see pictures).

The city engineering department which is responsible for maintaining and improving the drainage system spends only about 25 percent of its annual maintenance budget on maintaining the system. In its second budget, the infrastructure fund, there is no separate provision for drainage. ^{12/} The city engineering department has no master plan for improving the drainage system. Its only topographical maps of the drainage system are inaccurate and out of date.

In the past there has been little control in preventing squatting on drainage canal rights-of-way. In fact in some areas squatters have received permits for buildings directly over drainage canals (see picture).

The entire drainage system needs to be dredged to open up water courses now clogged with garbage and silt. There is a need to resurvey the entire system and develop comprehensive drainage plans for the city as well as to increase the elevation of existing low-lying areas. Squatters in the rights-of-way of drainage canals and watershed areas should be resettled and there should be greater control of future squatting in these areas. Finally, current reforestation programs of watershed areas should be intensified to reduce surface runoff during heavy rains.

^{12/} Annual Performance Budget, Calendar Year 1978.
City of Olongapo. Page 155.



Photo 5
Building over drainage canal in Pag-asa.

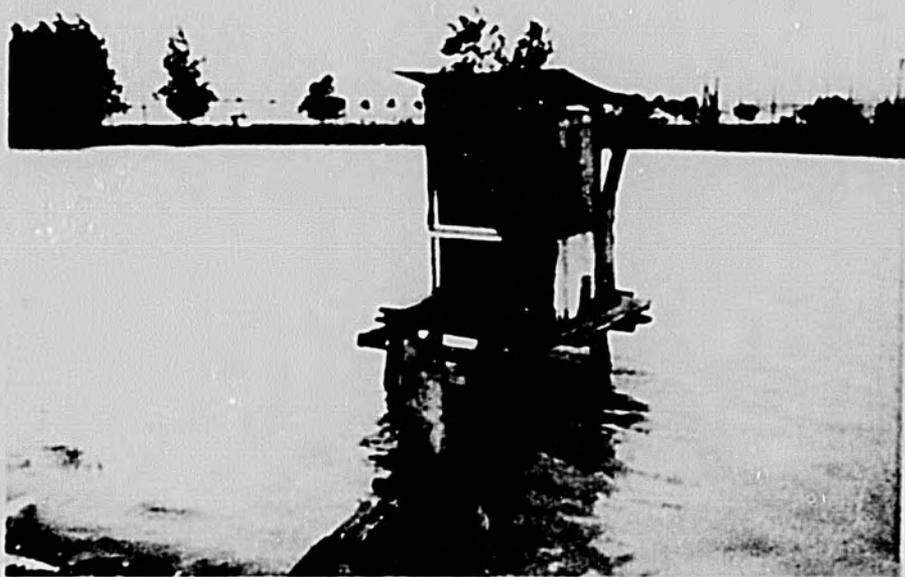


Photo 6
Toilet over drainage canal in Pag-asa.

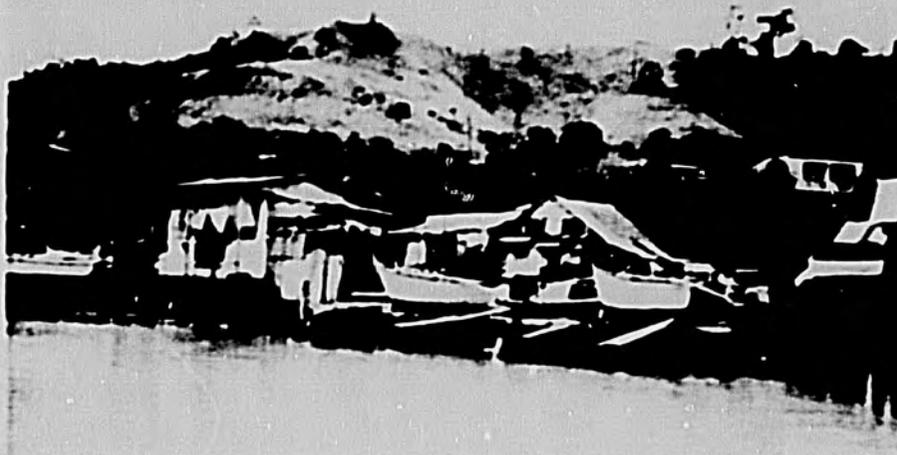


Photo 7

Low-income housing built along canal in Lower Kalaklan.



Photo 8

Building in water shed areas due to shortage of land.

C. Utilities

1. Olongapo Water District

In 1977, the city of Olongapo established a quasi-public corporation or water district under the jurisdiction of the Local Water Utilities Administration to operate the municipal waterworks. The Olongapo City Water District is managed by a general manager under a board of directors representing the major sectors of Olongapo's population as mandated by PD 198 which established LWUA.

The present distribution system built by the United States Navy is over 30 years old. It serves 14 of the 16 barangays or roughly 85 percent of the population. It cannot meet the present estimated average daily demand of 20 million gallons, due to the age of the system and the limited capacity of supply services. Due to low pressure, some areas receive no water service and have resorted to shallow wells to replace inadequate supplies of municipal water.

The water district estimates that about 45 percent of the water supplied to the system is lost due to leakage or illegal connections. Furthermore, its two present sources of water, the Mabayan and Sta. Rita rivers, can only provide the system with a maximum of 4.8 gallons per day. The water from these sources is quite turbid because of deforestation in their watershed areas. During periods of heavy rains siltation can reduce pumping efficiency of the two pumping stations by 25 percent.

Only about 35 percent of the 7,366 domestic and commercial customers have metered connections. The rest are charged a flat rate of ₱ 5.00 per month per occupant using each connection. To rectify this situation, the local water district expects to have completely metered the system by the end of 1978.

Raw water being supplied to the system is filtered and treated. The water district, in conjunction with the environmental health unit at Subic Naval Base, tests water samples drawn from water taps daily.

The Olongapo City Water District now has a staff of 95 permanent personnel. Ten of these employees are professional or managerial staff. While its present staff size is adequate for the water district's current operations, enlargement of the district's service area would require additional staffing.

The local water district in conjunction with LWUA has developed plans to replace up to 90 percent of the existing distribution system and to extend its service area to include all 16 barangays. When the total system is completed, including development of a new surface water source 24 kilometers away from the city, it is expected to cost ₱ 200 million. The first phase, replacing the existing distribution network, will serve about 60 percent of the population and is to be completed by 1981. The program is being financed by a long-term loan from LWUA at 9 percent over 25 years.

2. Sewerage

All sewerage systems in Olongapo are privately owned and operated. 40 percent of households have water sealed toilets connected to some form of septic tank. The remainder use pit latrines or have no access to toilet facilities. In the latter case, human wastes are usually wrapped in paper and thrown into water courses or drainage canals.

The city health department started a program to increase the number of toilets in the city in 1977. From its initial surveys, it found that only 40 percent of the houses inspected had sanitary toilet facilities. The department encouraged each of its sanitary inspectors to encourage homeowners to construct new facilities. As a result of this campaign which was conducted entirely without capital funding, 279 units were constructed.

3. Construction

During the peak period of the Vietnam War, there were 14 general contractors operating in Olongapo as well as larger contractors from Manila constructing multi-story buildings. However, due to the construction slow-down at the end of the Vietnam War, the number of registered contractors operating in Olongapo has decreased. While actual statistics were not available, the city development and planning coordinator estimates that there are presently no registered contractors operating in Olongapo. However, there are still a number of smaller scale informal sector contractors engaged mainly in housing construction.

TABLE 21
Sanitary Facilities by Household and Barangay
Olongapo City, 1977

Barrios	Estimated Population	No. of Household	No. of Septic Tanks	No. of W. Sealed Toilets	No. of Pit Privy	Without Toilets
Olongapo City	152,201	28,374	6,576	14,307	451	925
Asinan	6,906	1,006	438	1,187	-	8
Banicain*	10,721	1,688	441	1,248	-	14
Barretto	9,646	1,222	476	1,480	12	28
E. B. B.	22,810	3,651	791	1,508	11	65
E. Tapinac	18,099	3,212	912	1,597	-	10
Kalaklan*	7,669	995	107	228	13	25
Kalalake	12,261	2,015	642	1,149	-	14
Mabayuan	10,528	1,537	210	432	14	31
Pag-asa*	8,675	1,298	391	694	-	32
Sta. Rita	31,336	4,749	784	1,399	8	133
W. B. B.	10,826	1,493	390	660	-	8
W. Tapinac	11,871	2,023	340	1,133	-	-
Gordon Heights	11,243	1,548	253	852	77	176
Ilalim	3,266	399	194	220	-	5
Kababae	3,721	459	150	312	-	4
N. Cabalan	8,722	1,079	56	209	316	372

Source: City Health Department: Toilet Survey, 1977.

* Most depressed barangays.

The procurement of building materials is an additional constraint to construction. The nearest supplies of sand or gravel are at least 24 kilometers away over the zigzag pass. Other major building materials come mainly from Manila. Construction problems are compounded by the poor bearing capacity of the soil. As a result, construction costs can be 40 to 50 percent greater than in other areas.

There also appears to be inefficient design and supervisory capacity in both the city engineer's office and the local water district. While both are staffed with competent professionals, they are engaged in their current development projects. Moreover, because many contractors have shifted their operations away from Olongapo, large-scale shelter programs may be difficult. The city engineer's small construction crew is inadequate for comprehensive development.

4. Solid Waste Disposal

Prior to mid-1977, a private contractor collected solid wastes in Olongapo. However, due to increased operating costs and inefficient collection procedures, the city health officer has been placed in charge of garbage collection and disposal.

Under present management, the city has been divided into zones under the direct supervision of 12 sanitary inspectors who monitor the collection teams. Under the new system the city has saved ₱ 400,000 from its one million pesos solid waste disposal budget in the last year.

The city has five garbage trucks, two of which were provided by USAID and three from Subic Naval Base. To service the city with daily collections, the trucks are run in three shifts. To maintain this service, the city employs 14 drivers and 49 street cleaners. However, the city health officer estimates that eight new trucks and additional staff are needed to fully service all areas of the city.

Due to present dumping practices, solid waste disposal has become a major environmental health hazard which, according to health officials, has been the cause of an increase in infant mortality. Since 1959, Olongapo City has been dumping garbage in the drainage canal at Pag-asa opposite the naval base. Due to the shortage of urban land in Olongapo, squatters have settled in Pag-asa on and around the garbage dumping site. The decomposing, unprocessed garbage (see picture) pollutes the drainage canal and endangers potable water supplies, which come primarily from shallow wells in Pag-asa.



Photo 9

The city's garbage is dumped in the low-income neighborhood of Pag-asa.

Since 1972 the city health officer has recommended the movement of the garbage dump to a sanitary landfill site away from populated areas near barrio Barretto. Although a new site has been chosen with assistance from the United States Navy, the city's ancient fleet of garbage trucks is unable to navigate the hills leading to the site. Furthermore, since the access road to the new landfill site is unsurfaced, recent heavy rains have made it impassable.

The health officer, in conjunction with the city treasurer, is also studying the feasibility of charging for garbage collection to recoup some of the costs of maintaining the system. To further increase city revenues from garbage collection, the city health officer has also advocated hiring contractors to recycle the garbage prior to covering it with fill.

5. Power Supply (Public Utilities Department)

The Public Utilities Department (PUD) was established to provide municipal public utilities: water, power and telephone communications. However, due to the operating costs of maintaining the water and telephone services, they were turned over to private corporations.

The PUD's stated responsibilities are to operate and maintain the electrical system, maintain records of subscribers, prepare monthly billings, develop programs for upgrading and extending the electrical system and inspect all private sewer connections. The latter function is mainly provided by the city health department.

Due to amortization of the loan covering the PUD's previous deficits from the National Power Corporation, funds for capital improvement are limited. In FY 1978 it accounted for less than 1 percent of the PUD's budget appropriations. ^{13/} As a result of the lack of capital improvements, the public utilities engineer estimates that 44 percent of the system's primary and 70 percent of the secondary distribution lines require replacement. There are frequent breakdowns in the system; service is sporadic and often cut during heavy storms.

^{13/} Annual Performance Budget, Calendar Year 1978.
City of Olongapo, pp. 137-150.

Virtually 100 percent of the geographic area of Olongapo has electric service. The PUD presently has about 15,000 connections. However, the PUD is only in charge of billing the customers. The city treasurer is responsible for collecting the bills. As a partial result of this division of responsibility, only about 80 percent of PUD's consumers regularly pay their bills. Informal estimates of nonpaying customers indicate that roughly 50 percent are commercial and industrial firms.

Due to the lack of capital improvement to the system, the PUD has relatively little excess capacity. Its current load equals almost 90 percent of its 20,000 KW capacity. If current consumption patterns continue, this excess capacity is expected to be consumed by 1980.

Present power consumption patterns indicate the inefficiencies of the system. Of the total power purchased from the National Power Corporation (NPC) in 1976, only 62 percent of the actual consumption was billable to private consumers. The water district, a major power consumer, has been unable to pay its bills due to its inability to increase water rates to cover its operating costs. 23 percent of the power purchased from NPC was lost due to technical reasons, poor billing procedures or illegal connections. The remaining 7 percent was consumed by government users and street lights (see Table 22).

TABLE 22
Power Consumption in Olongapo ^{1/}

Consumer	Annual Consumption	Percent of Total Consumption
Private Sales ^{2/}	4,200,000 KWH	62%
Public		
Government Buildings	360,000 KWH	5%
Street Lights	110,000 KWH	2%
Water District ^{2/}	550,000 KWH	8%
KWH technically lost	920,000 KWH	23%
KWH lost for other reasons	680,000 KWH	
Total	6,820,000 KWH	100%

^{1/} Source: Socio-Economic Physical Profile of Olongapo.

^{2/} Billable consumption.

Presently the PUD has a permanent staff strength of 136, 22 of whom are professional or administrative. However, its design capacity is limited to only three engineers. 14/

D. Finance

Local financial institutions seem to contribute little to capital investment in the city. Investment capital is frequently channeled out of the city to Manila. This is due in part to the lack of adequate investment opportunities perceived by business. It is also due to the land tenure problem in the city and the inability of many potential borrowers to use land as collateral. Aside from local branches of the Central Bank and PNB, there are five commercial banks, one savings bank, one development bank and one rural bank in Olongapo City. There are also four credit cooperatives, including organizations in the pre-cooperative stage. Some of the Self-Employment Assistance Program loans are channeled through commercial banks to familiarize the low-income population with formal sector finance.

Housing Loans

One bank gave "package deal" real estate loans in subdivisions in Sta. Rita but has discontinued them. A few banks do give housing loans or real estate loans on a selected basis if the individual is a regular depositor. At the Thrift Savings and Loan Association, Inc., an individual who qualifies for a loan may secure a loan of up to ₱ 500,000.

The terms of real estate loans in all banks are determined by the Central Bank. Loans may be made for one year at 12 percent interest plus a 3 percent service charge, or for a maximum of three years at 19 percent interest (including service charge). The amount of the loan is determined by the amount of the collateral. If the individual's character and credit rating from past loans is good, a loan may be approved in three days.

Central Bank regulations distinguish between loans with titled and untitled land. The maximum interest on a titled land is 12 percent interest plus a 3 percent service charge for one year. In the case of untitled land, interest rates are at 14 percent plus a 3 percent service charge for one year.

14/ Annual Performance Budget, Calendar Year 1978.
City of Olongapo. Pp. 137-150.

As of August 1978, Thrift Savings and Loan had 156 individual housing loans outstanding. Of these, only 28 percent were in arrears. In seven years of banking, Thrift has only foreclosed on four loans. Central Bank regulations do not allow banks to hold property after foreclosure. The property must be sold within five years following court settlement plus a redemption period of one year.

Subdivision lots purchased on the installment basis from the developer have terms of a 10 percent down payment and 10 percent interest over ten to 15 years. The developer holds the title until payments are complete. Another method of financing with developers is through the SSS. The individual applies to SSS while the developer begins building the house. The SSS releases money in stage payments based on percentage completion. SSS financing is very attractive with 5 1/2 - 6 percent interest and automatic salary deductions over 15, 20 or 25 year periods.

Sta. Rita Village subdivision opened Phase II in December 1977, but only 40 of the 400 lots have been sold to date. All lots are titled; they average 180 sqm. in size and the average cost is ₱ 170/sqm. No financing is offered on the lot, but the buyer may finance initial house construction up to ₱ 5,000 through the SSS housing loan.

Cooperatives

The Department of Local Government and Community Development (DLGCD) supervises the cooperative movement in Olongapo. There are now three cooperatives and one pre-cooperative. ^{15/} The DLGCD audits the cooperatives and runs a continuous education program including 16 hours of pre-membership classes on the principles of cooperatives. People are initially hesitant to join because many cooperatives failed before martial law.

The Subic Employees Cooperative is the largest having 5,951 members and ₱ 5,121,270 in deposits. The per capita average deposit grew 34 percent between 1976 and 1977 from ₱ 641 to ₱ 860. Almost 4,000 loans were made in 1977 at an average loan value of ₱ 2,167 for the purposes shown in Table 23.

^{15/} A full-fledged cooperative must have at least 250 members.

TABLE 23

Loans Made by the Subic Employees Cooperative

Purpose	No. of Loans	Total Loan Amount	Average Loan
House Repair	979	P 2,132,000	2,178
Education	700	P 1,533,200	2,190
Medical	937	P 2,044,250	2,182
Small Business	310	P 680,950	2,197
Home Lot	144	P 255,050	1,771
Other	862	P 1,874,450	2,175

The Olongapo Transport Cooperative is comprised of over 300 jeepney owners and drivers. The combined membership owns over 100 jeepneys. The cash balance as of June 1978 was P 16,403. Started in 1976 the Olongapo Savings Cooperative, Inc. is made up of over 500 entertainers, a category which includes hospitality girls, managers of entertainment establishments and cooks and waiters. The members, who may earn P 50 to P 200 a day, have each invested P 500 in stock.

The Banicaian Market Vendor's Association has just started and is still in the pre-cooperative stage. Each member must purchase shares worth P 100, but most members clear at least P 20 to P 40 in profits daily. Loans of a maximum of P 200 are available at 6 percent per annum with six months to repay. The only collateral necessary is another member's guarantee. As yet, there have not been any defaults. The cooperative treasurer, a position which rotates among members, collects payments as small as P .25 to P 1 on a daily basis. Of the money raised half is relent and the other half used to buy food commodities in bulk at wholesale prices.

Chapter IV
PROSPECTS AND ANALYSES

A. CDAP/RSC Components

The CDAP/RSC project purpose is to improve the quality of life of poor people in the 15 selected cities by focusing on the administrative, organizational and operating procedures tested in the Provincial Development Assistance Program.

The project focus is to enable the most disadvantaged in the cities to gain a greater measure of self-reliance while, at the same time, encouraging the poor to share in the decision-making of local officials. The project has six activities ^{16/} which are to be undertaken in the first six months of participation:

- In order to strengthen administrative and organizational capability in planning and coordinating support for urban poverty issues, the local planning office will undertake socio-economic surveys.
- Training seminars and workshops will be conducted for members of the CPDB and the CPDS as well as "interaction" training so the urban poor may participate in decision-making.
- Each participating city will organize a Social Action Team (SAT) to survey poor communities of the city, to organize the poor and to interact with them to identify priority projects.
- Each city will formulate a Social Action Development Plan (SADP).
- Each city will adopt a Capital Improvement Plan (CIP).
- Each city will draft an equipment pool operations manual (EPDP).

^{16/} Source: Rural Service Center Project Paper, pp. 55-57.

Although the adoption of the CIP and the drafting of an EPDP are not components of the Rural Service Center project, they are listed under the activities for cities participating in the project. The Real Property Tax Administration (RPTA), a national project for all cities and municipalities, is also not a requirement of RSC cities. This program, organized under the four divisions of tax mapping, records management, assessment, and tax collection is aimed at increasing the collection of tax revenues and improving the efficiency of property assessment.

The Rural Service Center Project focuses on two components, the organization of the poor by the social action team to identify projects that are needed and the formulation of the social action development plan. An initial list of possible projects for the poor in the Rural Service Centers prepared by the staffs of RSC and CDAP includes projects for barrio markets, trash disposal, community centers, playgrounds, community toilets, water supply, drainage, day care centers, sewerage, sidewalks and street improvements.

Olongapo City entered the Rural Service Center project in January 1978. A 30 day training workshop for local members of the CPDS has been completed. A Social Action Team has been organized and has worked with the poor to identify projects. The CPDS has prepared a Social Action Development Plan which was submitted to the CDAP in May 1978 for approval. Olongapo City has also adopted a CIP and is now preparing for implementation of the RPTA. A socio-economic profile of the city was completed in 1977, as well as the Framework Development Plan which has been adopted by the Sangguniang Bayan.

B. Possible Projects Under CDAP/RSC

This section sets out three areas of action which the city might take with the assistance of the CDAP/RSC program to relieve its shelter problems. In the Olongapo City Social Action Development Plan (SADP) three basic programs for the improvement of conditions for the urban poor are called for:

Skills Development Training - the establishment and equipping of training centers throughout the city to be managed and operated by the Barangay Council.

Sanitary Improvement - the provision of improved drainage systems and the installation of individual toilets.

Utilities and Infrastructure - the provision of water, electricity, roads, and social services in deficient areas.

Based on consultations with various Social Action Teams, the following projects acceptable to the target population were selected:

Training Centers	Barangay Wharves
Sanitary Toilets	Feeder Roads
Landfill and	Barangay Halls
Drainage System	Spring Development
Water Supply	

A supplement to the SADP is a socio-economic profile of the barangays of Pag-asa, Banicain and Kalaklan (see Map 2) in which most of the foregoing projects are concentrated. After touring the areas and reviewing the data on all of the depressed barangays in Olongapo, the SSA Team came to essentially the same program conclusions as the CPDS. The following program recommendations, therefore, should be viewed in the context of the Olongapo SADP and considered as supportive to it.

1. Comprehensive Community Improvement

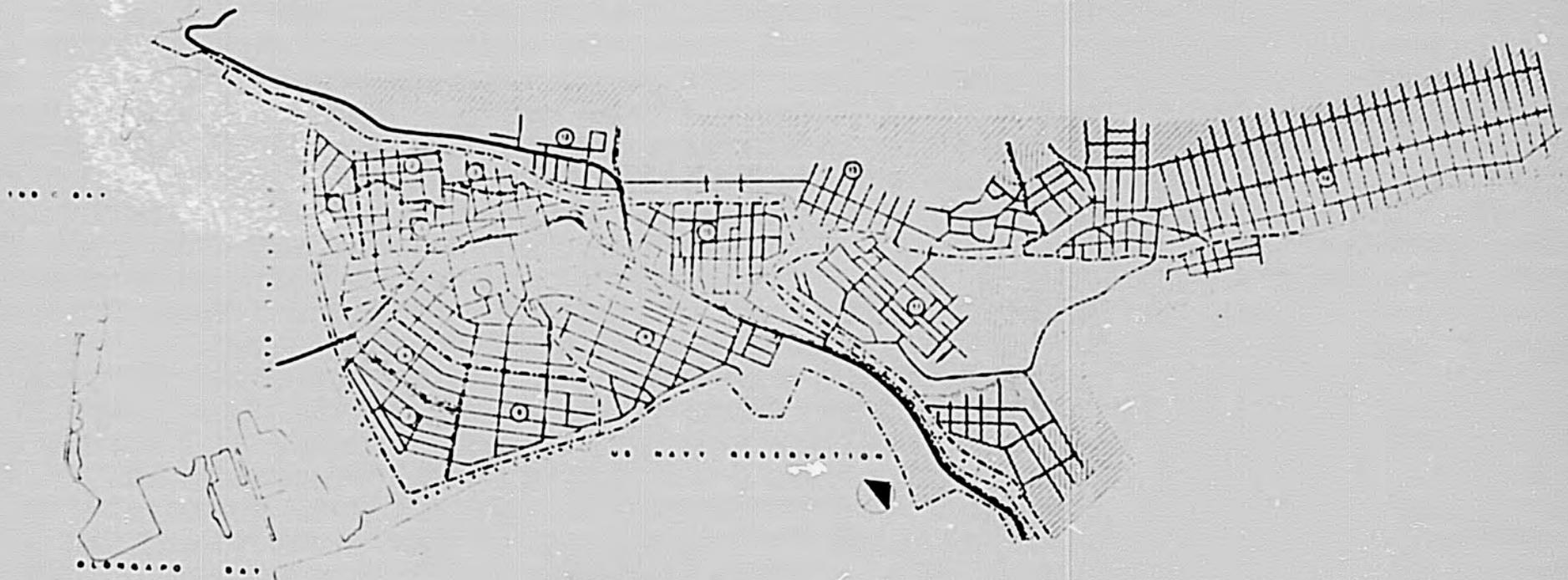
As was seen in the section on Human Settlement Patterns, the barangay of Pag-asa is not only one of the most dense, it is also one of the poorest. The squatters who have been building their shelter on the land fill and the garbage dump as well as earning their living from scavenging make it one of the most depressed areas in the city. It is directly across the drainage canal from the United States Naval Base.

Since the families have been building on the land fill and sometimes the raw garbage itself, the area has gradually expanded into the city's drainage canal. It is strongly felt that this encroachment into the canal should be stopped before it affects the overall drainage of the city. The construction of a sea wall would not only circumscribe this expansion, but it would also delimit the area so that it could be properly filled, surveyed and upgraded. The following project components are, therefore, recommended for Pag-asa:

- a. Construction of a sea wall (if possible all the way to the main gate of the Naval Base) and land fill in the area of the present dumping ground.
- b. Upgrading of existing roads and the provision of paved footpaths.

COMMERCIAL AND RESIDENTIAL LAND VALUATION MAP OLONGAPO CITY

FIG. 2



BARANGAY LOCATIONS

- | | |
|------------------|--------------------|
| 1 BARKAN | 10 WEST BANG BANG |
| 2 NEW KAMBAG | 11 STA. RITA |
| 3 NEW KALAS | 12 KALALAN |
| 4 WEST TUPING | 13 BAGAYPANG |
| 5 EAST TUPING | 14 SIKHONG MEMBITA |
| 6 JOMBAN | 15 CAGALAN |
| 7 PND. ADA | 16 BANGITO |
| 8 KALALAN | |
| 9 EAST BANG BANG | |

LEGEND

COMMERCIAL	RESIDENTIAL
1st	1st
2nd	2nd
3rd	3rd
4th	4th

SCALE 0 500 1000

- c. Improvement of the existing drainage system.
- d. Provision of a potable water supply as part of the improvement of the overall system.
- e. Provision of and training in the use of improved sanitation techniques based on group septic tanks with individual toilets. The use of large rocks and coarse sand in the land fill can act as a large soakaway for the new septic tanks.
- f. Provision of necessary community facilities as required and/or recommended in the SADP.
- g. Provision of small housing improvement loans to stimulate the shelter improvement process.
- h. Relocation of those families in the road and foot-path rights-of-way to nearby plots created by the land fill.
- i. Survey and regularization of new and existing house plots with extension of legal tenure by the city.

Similar types of project components can also be programmed for Banicaín and Kalaklan, especially continuation of the city-built sea wall and regularization of plots along the canal in Banicaín. In Banicaín and Kalaklan, erosion control of river banks, construction of small concrete wharves for local fishermen, and provision of improved sanitation, water supply and community facilities will all support the SADP. In both areas, however, selective clearance and relocation to nearby plots will be necessary to regularize and protect the river banks.

The SSA team has estimated unit costs for various standards of infrastructure in Pag-asa. Land fill, however, is very difficult to estimate and will have to be done in more detail at a later stage. Table 24 shows the estimated unit costs for the project. Based on different combinations of infrastructure and services, the impact of various financial terms on monthly payments and on incomes is also shown in Table 24.

2. Sites and Services

Due to the lack of low-cost, serviceable land within easy access to the city, the provision of a comprehensive sites and services scheme will be difficult. Given the existing high densities in the city, however, and the projected increase in new households, low-standard serviced plots with adequate community facilities should be in high demand. While there is an oversupply of middle and high cost plots in barangay Sta. Rita, lower standard plots on public land at economic terms should be very attractive to low-income, working class families who are renting in the center city barangays.

There are two areas where a new sites and services scheme might be carried out. One is in barangay Sta. Rita in the El Ranchito area where there are already some squatters. This land, however, is privately owned and would be quite expensive to the city. The other area is on top of the ridge above upper Kalaklan and in back of the cemetery. This area is public land, but has very difficult access. Presently there is only a construction road built by the NPC to the area. Due to the heavy rains, the SSA team was unable to visit the site. In the future, the site should be inspected for possible access via footpaths from streets in Upper Kalaklan.

3. Analysis of Shelter Alternatives

Table 24 provides an analysis of the alternative levels of service and infrastructure which could be provided in Olongapo for both community improvement and new sites and services development. Although densities in the squatter settlements have not been measured exactly, they appear to be high. The higher densities in the table (64 to 70 units per hectare) are those applicable to community improvement. Lower densities are shown as possible alternatives for new sites and services developments.

The table shows that incomes of well over ₱ 1,000 per month would be required to afford the higher standard improvements or sites and services developments. (This assumes interest rates of 11 percent for 20 years with a 10 percent downpayment.) Only as standards are reduced do the improvements become affordable to households in the target population. This is primarily due to the high unit construction costs in Olongapo which are over twice as high as in Angeles.

TABLE 24
Olongapo: Monthly Payments at Different Standards

Plot Size M ²	Density		Housing Standards				Home Im- provement/ Connection P	Total Unit Cost	Repayment Terms			Monthly Payment P	Monthly Income Required 4/	
	Person/ HA.	DU/ HA.	Land Costs P/M ²	Infra- structure P/M ²	Built Area M ²	Built Costs P/M ²			Interest Percent	Period Years	Down Payment Percent			
<u>Charge Cost of all Improvements (Infrastructure + Perimeter Wall) 1/</u>														
100	345	64	5	71	20	450	-	16600	11%	20	10%	212		
<u>Charge Costs of Infrastructure 2/ + Core Housing Unit but Not Perimeter Wall</u>														
150	238	44	5	57	20	450	-	18300	11%	20	10%	219	1,446	
120	292	54	5	57	20	450	-	16440	11%	20	10%	203		
100	345	64	5	57	20	450	-	15200	11%	20	10%	192		
<u>Provide Home Improvement Loan Instead of Core Housing Unit</u>														
150	238	44	5	57	-	-	2500	11800	11%	20	10%	136	909	
120	292	54	5	57	-	-	2500	9940	11%	20	10%	120	799	
100	345	64	5	57	-	-	2500	8700	11%	20	10%	108	729	
<u>Reduce Infrastructure Standards 3/ by Providing Graveled Footpaths in Some Areas</u>														
120	292	54	5	46	-	-	2500	8620	11%	20	10%	102	686	
100	315	54	5	46	-	-	2500	7600	11%	20	10%	94	625	
<u>Provide Connection Charges Instead of Home Improvement Loan</u>														
120	292	54	5	46	-	-	500	6620	11%	20	10%	84	564	
100	345	64	5	46	-	-	500	5600	11%	20	10%	75	500	
<u>Charge for Infrastructure but Not Land</u>														
120	292	54	0	46	-	-	500	6020	11%	20	10%	76	505	
100	345	64	0	46	-	-	500	5100	11%	20	10%	68	453	
<u>Increase Densities by Reducing Public Space</u>														
120	313	58	0	46	-	-	500	6020	11%	20	10%	72	482	
100	373	69	0	46	-	-	500	5100	11%	20	10%	65	432	
<u>Charge Only for Asphalt Paving Drainage, Water Supply and Septic Tanks 5/</u>														
100	378	70	0	33	-	-	500	3800	11%	20	10%	47	313	
<u>Charge Only for Asphalt Paving of 70% of Roads, Water Supply and Septic Tanks</u>														
100	378	70	0	28	-	-	500	3300	11%	20	10%	41	273	
<u>Reduce Asphalt Paving to 50%, the Remaining Circulation Composed of Compacted Gravel</u>														
100	378	70	0	24	-	-	500	2900	11%	20	10%	36	240	
<u>Increase Repayment Period</u>														
100	378	70	0	24	-	-	500	2900	11%	25	10%	34	227	
100	378	70	0	24	-	-	500	2900	11%	30	10%	33	220	
<u>Further Reduce Asphalt Paving to 30% of Circulation</u>														
100	378	70	0	22	-	-	500	2700	11%	30	10%	30	200	
<u>Share Water Supply and Toilet Facilities Among Two Households</u>														
100	378	70	0	22	-	-	250	2450	11%	30	10%	29	193	

1/ Applicable to community improvement projects only.

2/ Infrastructure includes asphalt paving of all foot paths and streets, 0.5 meters of fill over 60% of the area, water supply and septic tanks.

3/ Infrastructure includes asphalt paving of main roads and compacted gravel footpaths, 0.5 meters of fill over 60% of the area, water supply and septic tanks.

4/ Housing expenditure is assumed to consume 15% of monthly income.

5/ The perimeter wall, land fill and surface drainage can be financed separately as they benefit the entire city.

Source: PADCO Analysis.

Even when land costs are zero, which is possible in Olongapo due to the public ownership of land, it takes an income of ₱ 432, slightly above the 1978 median, to afford the improvement package. However, in the case of community improvement when the perimeter wall, land fill and surface drainage are not charged to the occupant but financed separately since they benefit the entire city, income levels well below the median (down to about the 35th percentile) can be reached. If paving standards are further reduced and the payment period is increased to 30 years, families with incomes of close to ₱ 200 per month can be served. This assumes that they can pay ₱ 30 per month or about 15 percent of income for the improvement. If water and toilet facilities are shared, even the lowest income families can be served.

4. Socio-Economic Programs For the Urban Poor

The major problems of the depressed barangays are poor health and sanitation and the lack of employment opportunities.

Health

a. The primary health care system is not functioning well. The health centers located in almost all barangays are often bypassed in favor of the City General Hospital which cannot handle the large number of patients. The health centers should be better staffed and equipped in order to attract patients. Also the population should be made aware of the services offered.

b. Health problems are exacerbated by a lack of nutritional knowledge. 60 percent of the children weighed in Pag-asa by the City Health Department were found to be malnourished. Current nutrition programs should be supported and nutritionists trained for barangay centers in depressed areas.

c. Increased public awareness of improved sanitation techniques through family training programs would do much to improve the standard of living.

Employment

a. While there are programs designed to assist unemployed and underemployed adults and youth, the MSSD workers do not have sufficient skills in business administration to implement them. Only 50 percent of the Self-Employment Assistance Program loans are repaid. This program could benefit from technical assistance in small business and loan administration.

b. Only 30 percent of the Skills Training Program graduates find jobs or are self-employed. A market study of local job opportunities, the results of which would be used in determining the skills to be taught, would strengthen the program's placement component.

c. As stated in the section on the City Economy (I.C.), Olongapo depends practically entirely on the Naval Base as its economic base. The Mayor and Chamber of Commerce would like to lessen this dependence if at all possible. One possibility that arose during discussion with Chamber of Commerce officials was the creation of a small industrial estate in Barrio Barretto, to be composed principally of supply type industries to the Kawasaki shipbuilding yard to be built in the municipality of Subic. The city could provide the land, infrastructure and services and members of the Chamber of Commerce could recruit entrepreneurs willing to invest. The CPDS could also do prefeasibility studies to determine the type of industries which might be required.

Another possibility for the creation of more useful employment is the retraining of some of the oversupply of 'hospitality girls'. Present estimates by the City Health Department place the number of girls at about 6,000. Support of the barangay centers and the city's vocational training institute could give some of the girls the option of learning a skill, such as dressmaking, typing, bookkeeping or clerking.

C. Program Requirements

1. Land

In the case of Olongapo, the acquisition of land, if a site is available, is not a great problem since most of the land is in the public domain. Once a site is located, all that is required is its survey by the Bureau of Lands and transfer to the city. As mentioned above, the principal problem is the location of an accessible site for a low-income sites and services scheme.

2. Finance

Although the records appear to show a surplus, the actual cash flow of the city is in deficit due to amortization of a consolidated debt of nearly ₱ 20 million to the NPC. Furthermore, the Capital Improvement Program (CIP) 1979-1983, the source of the funds for the SADP, shows only ₱ 25.5 million available from all sources compared to a projected expenditure of ₱ 39.3 million. Upon inquiry, the SSA team was told that the deficit of ₱ 13.8 million over five years was to be met from CDAP Fixed Amount Reimbursements (FAR).

The city's income will not substantially increase, however, until, inter alia, the RPTA is fully undertaken, the PUD is more efficiently run, and garbage collections are charged for. During the preparation of any major projects for the city it is strongly recommended that short-term technical assistance on public finance be programmed in order to ascertain how the city's finances can best be put on a viable basis.

3. Technical Staff

Although the Olongapo CPDS is larger (16) and older (four years) than that of Angeles City, it too has vacant posts that remain unfilled including a management analyst, a fiscal analyst, an economist, and a sociologist. In addition, the staff has been given many tasks unrelated to its prime function such as checking all requisition vouchers before expenditure (in addition to the City Treasurer's Office), assisting the Mayor in the management of the City Hospital, and designing all city buildings plus some drainage plans. Thus, in order to prepare and execute projects adequately, the CPDS not only has to be built up, but its unrelated functions taken over by the relevant departments.

While the CPDS needs specific additional personnel, many city departments must reduce their staffs in order to reduce city expenditures. Redundant staff exists in the Office of the Mayor, the City Treasurer, the City Engineer and the Public Utility Department. Hard decisions must be taken to reduce the city's payroll as a step toward budget surpluses. Some of those laid off, however, might subsequently be employed in implementing and operating some of the new projects recommended in this report.

4. Technical Assistance

As mentioned above, short-term technical assistance in public finance is considered a prerequisite to any large scale programming of additional funds. A program for building up the city's revenues and cutting back its expenditures must be formulated before the city can assume any major new debt burden.

In addition, long-term technical assistance could be used in program and project formulation, preparation, and management. This would be very similar to the long-term technical assistance recommended for Angeles City. One advisor familiar with all phases of project development and management could work out of either city giving long-term, sustained support and training to each of the CPDSs. He could also bring in short-term specialists in fields such as housing finance and economics, estate management, etc. In addition to on-the-job training, informal seminars and formal short courses should also be planned.

Appendix 1

OLONGAPO: OFFICIALS INTERVIEWED

Hon. Geronimo Limpumano	Mayor
Macario de Leon	Director, City Planning and Development Staff (CPDS)
Eddie Adlao	Engineering Analyst, CPDS
Rozdan Alsa	City Treasurer
Lt. Don Clark	Environmental Health Officer, Preventive Medicine Service, Subic Naval Base
Nicolas de Leon	Assistant City Engineer
Dr. Generoso Espinosa	Director, City Health Department
Dominador Farin	City Engineer
Lorna Jamboa	Statistician, CPDS
Howard Goode	Subic Base Community Relations Officer
Hannah Gorospe	Researcher, CPDS
Lt. Hall	Planner, Center for Public Works, Subic Naval Base
Juanita LaForteza	Officer-in-Charge, Ministry of Social Services and Development
Salito Manahas	Technical Assistant to the Mayor on Land Matters
Antonio Manikan	Manager, Olongapo Savings Cooperative
Elizabeth Marzan	Researcher, CPDS
Jimmy Mendoza	Assistant to the City Development Coordinator
Englogio Morales	General Manager, Olongapo City Water District
Elister Panganiban	Senior City Engineer
Jose Ramirez	City Assessor
Andres Reyes	Barangay Captain, Pag-asa
Members of the Chamber of Commerce	
Ministry of Local Government and Community Development -- Community Development Officers	
Public Utilities Engineer -- Public Utilities Department	
Thrift Savings and Loan Association, Inc. officials	

Appendix 2

OLONGAPO: COST BREAKDOWN

Proposed Upgrading Costs for
Pag-asa, Banicaín and Kalaklan

<u>A. Recoverable Costs</u>	<u>P Millions</u>	<u>S Millions</u>
Includes footpaths, roads, water supply and septic tanks.		
1. Pag-asa (13.9 ha.)	P 4.2 M	
2. Banicaín (19.5 ha.)	P 4.3	
3. Kalaklan (7.1 ha.)	P 1.6	
4. Subtotal	<u>P 10.1 M</u>	
 <u>B. Nonrecoverable Costs</u>		
Includes perimeter wall, surface drainage, fill and some terracing. Since these costs benefit the entire city, they are not charged directly to project beneficiaries.		
1. Pag-asa -- perimeter wall, fill drainage	P 4.2 M	
2. Banicaín -- perimeter wall, drainage	P 2.3	
3. Kalaklan -- shore stabilization plus terracing	P 0.6	
4. Subtotal	<u>P 7.1 M</u>	
 <u>C. Home Improvement/Connection Loans</u>		
An estimated 3,135 households will benefit from above program. It is assumed that 50 percent will be able to take an average home improvement loan of P 3,000.	P 4.8 M	
 <u>D. Total Upgrading Program</u>	 P 22.0 M	 S 3.0 M

Sites and Services

Site location assumed to be on plateau above Kalaklan Ridge. All land for project is public domain.

A. Recoverable Costs P Millions S Millions
(Three Year Development Program)

Assume 10 has. of land to be developed per year or 300 residential lots. Development costs include site work, surface drainage, water supply plus water tanks, community septic tanks, asphalt roads and footpaths.

1. First Year (10 has.)	P 3.0 M
2. Year 2 (10 has.)	P 3.0
3. Year 3 (10 has.)	P 3.0
4. Subtotal	P 9.0 M

B. Nonrecoverable Costs

1. 2 Kilometers of asphalt access road	P 1.2 M
--	---------

C. Home Improvement Loans
(Recoverable)

A total of 2,100 households will benefit from the above program. It is assumed that 75 percent will require average home improvement loans of P 3,000.

P 4.7 M

<u>D. Total Sites and Services Costs</u>	P 14.9 M	\$2.4 M
--	----------	---------

Combined Costs of Upgrading and Sites and Services

	<u>P Millions</u>	<u>S Millions</u>
1. Total Upgrading Costs	P 22.0 M	
2. Total Sites and Services Costs	P 14.9	
3. Total Both Programs	P 36.9 M	\$50 M
4. Recoverable Portion 78 percent	P 28.6 M	
5. Nonrecoverable Portion 22 percent	P 3.3 M	

Appendix 3

HOUSING FRAMEWORK PLAN: OLONGAPO CITY

(from the City Framework Plan 1978-2000)

Goal

- Provision of decent dwelling units and wholesome living environment to the population.

Objectives

- Stabilize the costs of construction materials and to relate construction standards to the cultural and social level of population.
- Increase benefit to low-income groups in the provisions of housing and to upgrade present and proposed sites.

Policies and Strategies

- To provide necessary incentives to the production, handling and marketing of locally found non-metallic minerals used in construction industry.
- To safeguard and initiate proper quality control of goods manufactured from locally extracted raw materials.
- To develop/formulate housing standards that will be responsive appropriate to the local social values, culture, income level to supplement the rigid general application of the National Building Code's provisions on standards.
- To encourage development of building system to maximize use of indigenous resources and reduce cost.
- Provide basic services, facilities, utilities and other amenities to housing or residential areas.

- Relocate and resettle squatter families on unsanitary sites, unsafe areas such as river banks, canals, edges of a national highway, easements and rights-of-way, public spaces reserved for high priority government infrastructure programs.
- Improve slum and blighted areas that can be integrated to present or future urban form or structure.
- Encourage a diversity of housing types. High density development shall be encouraged in areas with ready access to public transport and employment areas.
- Institute punitive action on affluent squatters.

Programs/Projects/Activities

Immediate:

- Installation of equitable tax structure on building construction industry.
 - a. exemption from taxes/reduced to aggregate costs to distributors or suppliers.
 - b. lower building permit fees on social housing projects.
 - c. deferred payment/lower real property tax on residential dwelling units.
- Installation of quality control standard laboratory.
 - a. rigid quality control on manufactured construction materials, supplies, hardwares, etc., to protect consumers of their investments.
 - b. rigid control on weights and measures on aggregates.
- Development of housing standards to supplement National Building Code's standards on dwelling units.
- Slum Improvement. Improve and integrate slum areas in the urban form structure. The areas in Pag-asa, Kalalake, and Banicaoan, all along the drainage channel.
 - a. Projects:
 - road construction
 - water, electricity supply
 - parks, playground provisions
 - social services
 - sewerage system
 - sanitary facilities
 - training program for skill development.

Medium to Long Range:

- Relocation. Relocate and resettle squatters in the area of: Olongapo City National High School, Kalalake Elementary School, Kalaklan Elementary School, Lot 21, city cemetery, lighthouse, street dead ends and watersheds to the designated housing areas.
- Development of squatters staging area.
- Low-cost housing.
- Government Employees Housing Project.
- Tenement housing.

Appendix 4

REAL PROPERTY TAX COLLECTIONS

Comparative Statement of Collections from Basic
Real Property Tax from January to June 1978

Actual Collections

	<u>Jan.-June 30, 1978</u>	<u>Jan.-June 30, 1977</u>	<u>Remarks</u>
Current Years	P 621,596.03	P 496,754.79	P 124,841.24
Previous Years	209,850.34	186,785.81	23,064.53
Penalties	32,677.72	25,699.99	6,997.73
Totals	<u>P 864,124.09</u>	<u>P 709,240.59</u>	<u>P 154,883.50</u>

	<u>Estimated Revenue</u>	<u>Collection Jan.-June 30, 1978</u>	<u>% of Coll.</u>	<u>Balance Collectible</u>
Current Years	P 1,500,000.00	P 621,596.03	41%	P 878,403.97
Previous Years	533,000.00	289,850.34	39%	323,149.66
Penalties	120,000.00	32,677.72	27%	87,322.28
Totals	<u>P 2,153,000.00</u>	<u>P 864,124.09</u>	<u>40%</u>	<u>P 1,298,875.91</u>

Total Assessed Valuation
of the City

<u>Taxes Due, 1978</u>	<u>Collection Jan.-June 30, 1978</u>	<u>Percentage of Collection</u>
P 2,154,811.10	P 864,124.09	40%

Table 25
City of Olongapo
Comparative Statements of Realty Tax Collections
Basic Tax for the Calendar Years 1972 - 1977

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Year	Collectibles			Actual Collections							
	Previous Years	Current Year	Total	Previous Years	% of (2)	Current Year	% of (3)	Penalties	% of (4)	Total	% of (4)
1973	314,895.61	1,082,035.40	1,396,931.01	314,895.61	100%	608,750.24	56%	62,820.44	.04%	986,466.29	70%
1974	271,278.81	1,912,082.10	2,183,360.91	271,278.81	100%	745,375.69	38%	89,308.04	.04%	1,105,962.54	57%
1975	367,141.93	1,415,604.20	1,782,706.13	367,101.93	100%	714,470.08	50%	48,243.34	.02%	1,129,815.35	63%
1976	417,688.13	2,077,785.70	2,495,473.83	417,688.13	100%	833,759.60	40%	75,238.93	.03%	1,327,686.56	53%
1977	359,544.32	2,136,900.90	2,496,445.22	359,544.32	100%	896,227.84	41.94%	65,233.79	.02%	1,321,005.95	57%
Collection Efficiency (All Years)											
	1,730,508.80	8,624,408.30	10,354,917.10	1,730,508.80	100%	3,798,583.45	45%	340,844.54	.03%	5,870,936.68	60%

Source: Office of the City Treasurer, City of Olongapo.