

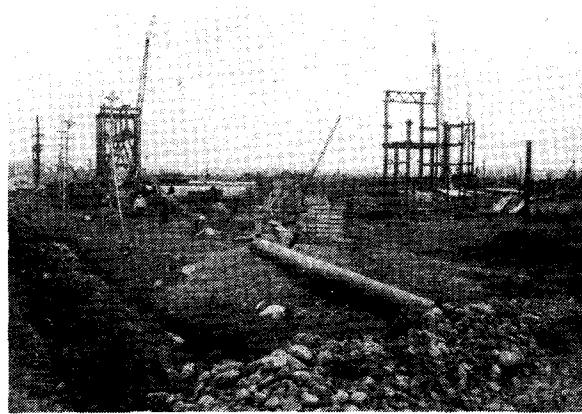
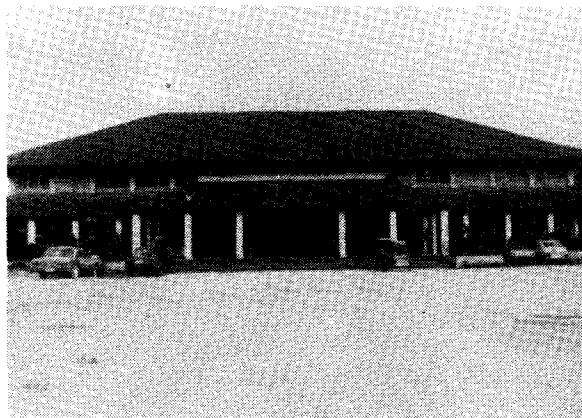
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TABLE OF CONTENTS

- 1 Issues in Urban Sewerage Planning in the
Laguna Lake Region: A Case Study of
San Pedro, Laguna
—*Antonio L. Fernandez*
- 16 Social Services Planning in New Communities:
Theoretical Aspects and Some Empirical
Observations from the Hongkong Experience
—*David R. Phillips*
- 28 Self-Reliance in Local Infrastructure
Development: The Case of the Lapu-Lapu
City Hall
—*Ernesto M. Serote*
- 38 A Study of Poverty Redressal Programs
in Metro Manila
—*Leandro A. Viloria*
—*Dolores A. Endriga*
- 61 About the Contributors

ISSUES IN URBAN SEWERAGE PLANNING IN THE LAGUNA LAKE REGION: A CASE STUDY OF SAN PEDRO, LAGUNA

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Introduction

In the context of a Third World country, centralized decision making seems to be the rule rather than the exception. To what extent can citizens participate in such an environment? The development process and modernization depend on values recognized by society, one of which is power.¹ Power has something to do with exerting influence over a person's or a group's present or future. When an infrastructure project is undertaken without thought to social learning, people sense powerlessness in themselves. People may feel coerced to accept whatever project is decided for them by people in power. For this reason, a type of participative management is perhaps more effective than a coercive approach because it elicits popular commitments.²

Participation, as it applies to housing and community actions, can have varying degrees or modes, ranging from minimal involvement in decision making to one of being able to control the actions of the official decision making body.³ One effort to involve the public in a similar vein as community organizing is undertaken as a type of "participatory research" at

the Institute of Social Work and Community Development.⁴ This is akin to "folk research" or folk planning mentioned by Kent,⁵ wherein distinctions between the expert and the non-expert are reduced. Kent also stresses the importance of dialogue, the "natural method of development planning among ordinary people."

Sewerage planning is a potential area of conflict among planners, politicians and the people. As such, it presents opportunities for community decision making or citizen participation in its many forms.

Planning for sewerage is not as urgent as for water supply, specially in areas outside Metro Manila. Short-term and long-term benefits are not easily cognizable specially because sewerage connotes getting rid of undesirable human waste which is regarded as practically useless and expensive to treat and dispose of ultimately. On the other hand, water supply attends to a basic need of man with immediate effects. A community sewerage system, moreover, is a capital-intensive public investment that requires justification not only from the technical, but more so from economic, financial, social and political points of view.

Planning for disposal of sewage actually involves many options – from low-cost on-site disposal to "hard" technologies. There is therefore, a need to particularly consider the public sentiment or reaction to sewerage proposals

¹ Laswell, Harold, et.al. (ed.) *Values and Development: Appraising Asian Experience*. The M.I.T. Press, Cambridge, Mass., 1976.

² Montgomery, John D., "Towards a Value Theory of Modernizations," in Laswell, *Ibid.*, pp. 11-19.

³ Hollnsteiner, Mary R., "People Power: Community Participation in Planning and Implementation of Human Settlements," *Philippine Studies*, 24(1976): 5-36.

⁴ Maslang, E.V. and P.R. Martinez, "In the Spirit of Participation," *ISWCD Bulletin* (1982-83), pp. 8 ff.

⁵ Kent, George, "Community-based Planning – A Better Approach to Development?" *National Development*, June-July 1981, pp. 78-79.

that would bring about possible changes in the community. The planner must dig deeper and might have to ask what the goals and objectives of the community are, and take these into account in the choice of approach, design and technology.

This paper draws insights from observations made during the writer's involvement in a planning episode in San Pedro, Laguna where a sewer interceptor system was proposed by the Laguna Lake Development Authority (LLDA). In addition, this paper hopes to bring out issues in sewerage planning in an urban area and see these as they relate to a larger area or region. Finally, it proposes a framework for future programs.

Background

The sewer interceptor project is a pilot demonstration project intended to prove the viability of a sewerage system in the Laguna Lake basin. In 1978, JD and DM Watson (foreign-based consultants) strongly recommended the installation of a large-scale sewer interceptor (lakeshore sewer interceptor project) on the northern shore covering the stretch from Taguig to Angono, another on the west shore including the towns from Muntinglupa to Cabuyao, Los Baños and Calamba, and a third one serving the towns of Montalban and San Mateo. Each of these three systems will have a sewage treatment plant. The goal of the Watson study was to prevent further degradation of the water quality of Laguna Lake, which was then being eyed as the future source of Manila's domestic water supply by the start of the next century.

A sewer interceptor, as defined by the Water Pollution Control Federation Glossary, "receives dry-weather flows from a number of transverse sewers or outlets and frequently additional predetermined quantities of storm water (if from a combined system) and conducts such waters to a point for treatment or disposal."

The possibility of such a plan being implemented was doubtful, even as mayors and town officials were informed that such a "plan" existed. The tremendous implications of passing on sewer charges to households were quite apparent.

The National Economic and Development Authority (NEDA) considered the retention of a portion of the original plan and this resulted in the choice of San Pedro as the site for a demonstration of the sewer interceptor concept. It is not really a new concept since a small portion of Makati is already being served by a sewerage system with a sewage treatment plant since the 1960's. Manila's master sewerage plan made by Black and Veatch International includes a number of sewage treatment plants.

The present study is an offshoot of a project on the "Proposed Sewer Interceptor: The Socio-Economic Aspects." The project, a joint venture of the Civil Service Academy (CSA) and the LLDA, started in December 1983. It attempts to determine the feasibility of the sewer interceptor project considering the physical and socio-economic characteristics of San Pedro as well as the attitudes of the beneficiaries. It is not so much to determine the technical soundness as to determine the level of awareness, knowledge, and attitudes of residents toward the project. This aim was accomplished partly by a survey.

A unique feature of the project was an information, educational and motivational campaign (IEM) similar to that used for the propagation of the family planning program, which consumed even more man-hours than the survey. The IEM campaign has a high potential for eliciting public participation. It utilizes the "pulong-pulong" (community assembly) and the seminar as public forums in addition to radio, television, newspapers and other media.

Several studies have been done about the Laguna Lake and its watershed. The Comprehensive Water Quality Management Program Report⁶ presents a compendium of valuable data and recommendations. An earlier IEM campaign was made in 1981 by the CSA⁷ throughout 50 barangays of 30 municipalities

⁶LLDA, Final Report. "Comprehensive Water Quality Management Program-Laguna de Bay." Summary Report Vol. 1-3, May 1978.

⁷Civil Service Academy, "An IEM Campaign for the Sewer Interceptor Project of the LLDA," Vol. 111 - Summary Report, 1981.

affected by the lakeshore sewer interceptor project. This set the precedent for the San Pedro project.

The objectives of the previous IEM campaign were basically the same as those in San Pedro. These were:

1. to create an awareness of the need to reduce the pollution level of the west shore of Laguna and East Marikina River;
2. to inform the target population about LLDA, its objectives, development thrusts and projects;
3. to orient the target population on the proposed sewer interceptor and the benefits that would accrue to them.

According to the report, the study resulted in overwhelming support for the project by the people. The study recommended the concerted and persistent effort of government and the private sector in the region to sustain this popular support.

The same report mentions a related study conducted by the Development Academy of the Philippines (DAP). The DAP study pointed out the necessity for determining the awareness, perception and attitudes of the residents towards the project. These circumstances led to LLDA's decision to conduct a more intensive information campaign and a survey of the socio-economic impact of the interceptor project towards the beneficiaries living in San Pedro.

San Pedro: The Setting for Planning

San Pedro is the first municipality in the province of Laguna right after Muntinglupa, Metro Manila. It is an urbanized municipality with a population of 74,556 (1980 census), distributed in 13,462 households. The population rose by 71.6 percent between 1975 and 1980.

San Pedro is the third most populous municipality of Laguna (San Pablo City included). Based on a 1976 survey done on all towns of the Laguna Lake basin,⁸ 53 percent of the

households had septic tanks (therefore equipped with flush toilets) while eight percent used pit latrines. Thirty nine percent had no domestic waste disposal system. Human waste is therefore a big contributor to lake pollution, specially in terms of nitrogen and phosphorus.

A cause of big worry for the LLDA authorities is lake eutrophication during the dry summer months. Fast growth of algae caused by excessive amounts of nutrients (nitrogen and phosphorus) going into the lake depletes oxygen supply needed by higher forms of life, most important of which is fish. Laguna Lake is one of the most accessible sources of common freshwater fishes such as bangus (*Chanos chanos*) and tilapia (*Tilapia mosambica*). San Pedro is estimated to contribute only 4.4 percent of the nitrogen and 4.6 percent of the phosphorus that comes from domestic wastes which find their way into the lake.⁹ The pollution load of San Pedro is still insignificant compared with that of Muntinglupa, Calamba and Marikina.

The 1984 socio-economic survey conducted by the CSA which covered 675 respondents in nine barangays revealed results shown in Table 1. The barangays were Holiday Hills, San Vicente, San Antonio, Nueva, Poblacion, Sto. Niño, Cuyab, San Roque and Tunasan – all to be covered by the proposed sewer interceptor.

San Pedro recently saw the mushrooming of subdivisions including the huge housing project, Pacita Complex. A little more than five kilometers from the poblacion core is the squatter resettlement area. There were 18 industries, five of which had satisfactory pollution control and never discharged wastes to the lake or tributaries. If the Presidential Memorandum (dated December 17, 1973) which provides that no new industries, factories or plants are to be established within a 50-km radius from Manila City Hall is to be strictly implemented by the Human Settlements Regulatory Commission (HRSC), pollution may be reduced.

⁸LLDA, *loc. cit.*, p. 6/50.

⁹Nitrogen has been identified by the water quality study as a major limiting factor in the cycle of the lake. When in excess of a certain amount, nitrogen can cause serious upsets.

Table 1

**Preliminary Survey Results of the Civil Service
Academy Study in San Pedro, Laguna**

-Household Characteristics-		<i>Per cent</i>
Water supply		
Piped water	33.97	
Pump (private)	27.89	
Artesian well	24.77	
Public faucet	5.63	
Open well	5.85	
Pump (public)	3.56	
Others	0.29	
Solid waste disposal		
Garbage collection	44.21	
Burning	52.81	
Dump in pit	22.4	
Wrap and throw	5.19	
Throw into lake	1.92	
Biogas	0.14	
Others	0.29	
Flush toilet with septic tank	44.1	
Owned the dwelling	79.65	
Average gross monthly household income	₱1,826.60	
Average monthly expenditures (of which 3.3% or ₱59.90 is for household expenses including utilities)	1,546.80	
Radio program listeners	29.08%	
Newspaper subscribers	49.7	
Bulletin Today	(21.36)	
Veritas	(34.12)	
What articles are read		
News	39.91	
Sports	17.65	
Comics	16.32	
Special Features	16.02	
Political	15.13	
Business	14.68	
Communication — major media		
Television	79.77	
Radio	71.06	
Newspaper	45.25	
Magazine	22.84	

The Planning Team

The project may not have easily appeared to be strictly part of a planning process especially to the CSA project members, who were more oriented towards training government executives. Perhaps, it was perceived to be a planning episode that requires a follow through — proof of the validity of the recommendation offered in the first CSA study. The CSA is an innovation of the late Albina Manalo-Dans in the Civil Service Commission. It strives to provide opportunities for research and also assist in the professionalization of government service.

The project was conceived jointly by the LLDA and the CSA. A pool of consultants or resource persons of which this writer was a member, had an advisory and consultative function regarding engineering, technical, social, economic and financial aspects.

The planning team consists of two groups by virtue of affiliation, namely: the CSA group and the local government group. The role of the latter was one of providing support and logistics, but their experience and familiarity with the communities have put them in a role that suits the technocratic type of a planner.

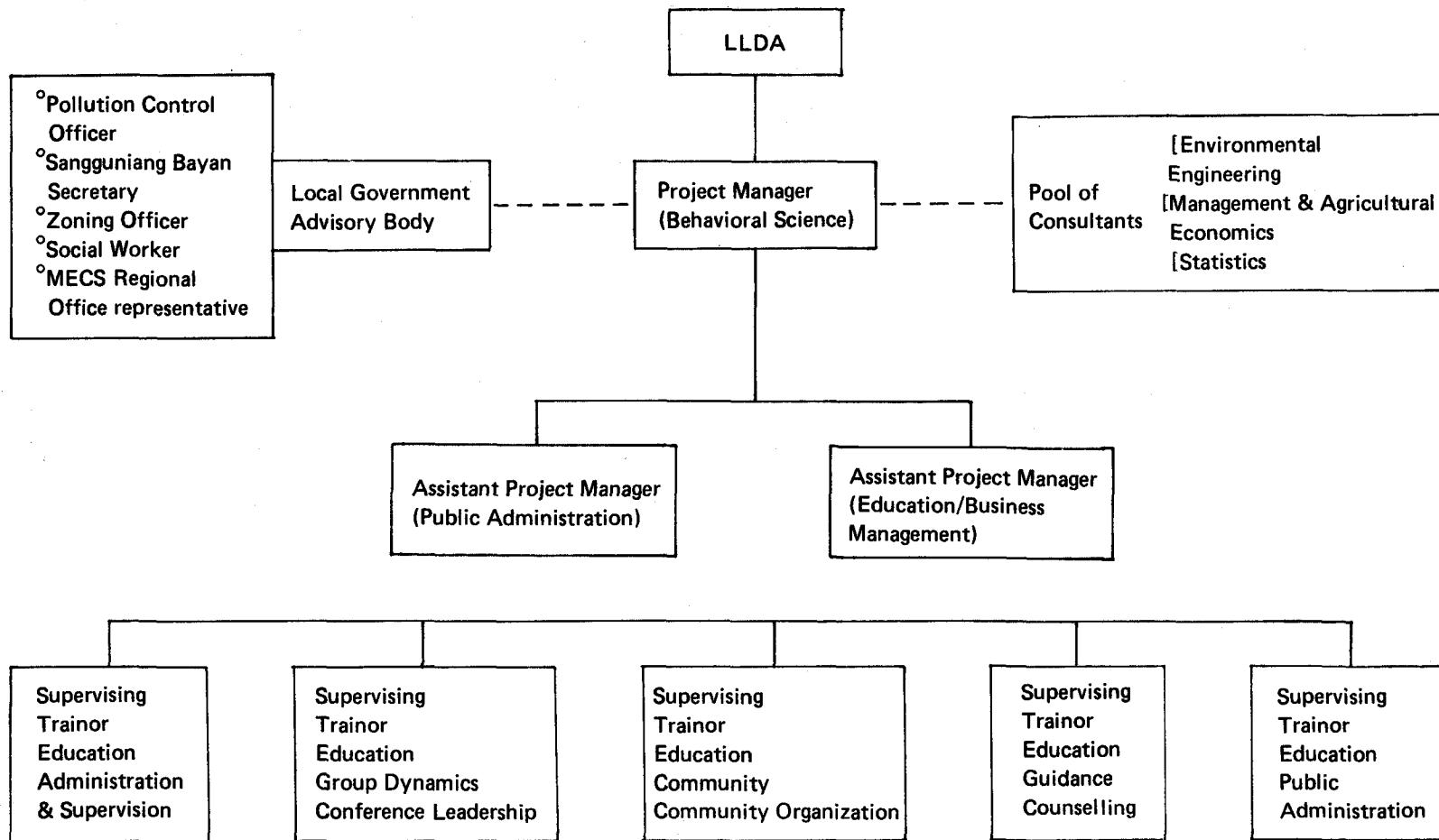
The organizational chart slightly differs from the one developed by the CSA (See Figure 1) based on this writer's perception.

A feasibility study demands that the resource person be objective and yet the project team appears to be practicing advocacy planning.¹⁰ In this case, the planners represent the interest of the regional body, LLDA. On the other hand, the members of the community usually identified as "powerless" are also the planners' concern. This appears to be the planners' dilemma. This observation in part reflects the "socio-political-environmental correlates of the technical problem" which will become more apparent later. A new ethic is called for, as Males writes: this ethic requires manipulation, subjectivity, advocacy, self-examination, examination of tools and techniques, synthesis instead

¹⁰Morgan, Robert and J. Alden. *Regional Planning: A Comprehensive View*, Wiley & Sons, Inc., N.Y., 1974, pp. 192-193.

Figure 1

PROJECT ORGANIZATION CHART



of analysis, and a bit of practice in listening and looking around in understanding."¹¹

The team of planners charged with increasing the people's awareness of a proposed sewer interceptor project also identified other options. An ocular survey in the early part of the project revealed some observations that tended to discourage the implementation of the plan. Some of the comments from the team were:

1. The residents in the area to be covered by the demonstration project belong to the low and lower middle income class. Another expense item, if ever sewer fees are charged, is to be discouraged.
2. A portion of Austria St. (2.5 m wide) where a 450 mm pipe was going to be laid is so narrow that construction may damage existing structures; transport of pipes, backfilling and bedding materials will pose problems.
3. An inverted siphon¹² (which facilitates the transmission of sewage where a pipeline drops beneath a valley, stream or other depression in the earth's surface) that crosses San Pedro river serves only the proposed sewer line in Ricarte and Quezon Streets; the high cost of the siphon could be diverted to increasing the coverage to another part of the urban core.
4. The river had become a place for dumping solid wastes from the houses located by it and passersby.

The proposed plan was actually made by a United Nations consultant who worked on the project in 1980. It was only during this project that the proposed plan was re-examined critically.

Therefore, when the campaign was programmed in detail, this writer sought to include low-cost options or alternatives for sewage or human waste disposal as well as proper solid

¹¹Males, Richard M., "Social and Environmental Factors in Urban Water Resource Management," in Albertson, Maurice, et. al., (eds.), *Treatise on Urban Water Systems*, Colorado State Univ., Colo., July 1971, pp. 711-714.

¹²Fair, Geyer & Okun, *Water and Wastewater Engineering*, Vol. I, John Wiley and Sons — Toppan, Tokyo, 1966, pp. 12-13.

waste disposal to increase the people's awareness of various measures that they could utilize to improve their environment.

The IEM Campaign and its Potential for Public Participation

The IEM campaign's rationale rests in recognizing that public support must be present when a program for development is launched. The CSA study observed that: "Cooperation and public support can only be attained if the public, especially those directly affected, are fully aware of and are motivated to accept the project".¹³

Table 2
Information, Education and Motivation
Campaign Methodology

- | |
|---|
| <p>1. <i>Pulong-pulong Session.</i> Conducted in a seminar type of group activity. Leaflets, komiks (Tagalog), slides and brochures are used as teaching and learning aids. Discussions and questions are encouraged.</p> |
| <p>2. <i>Slogan Contest.</i> A contest in the preservation and presentation of slogans designed for enhancing awareness on the economic usefulness of the Laguna Lake participated in by the inhabitants living near the lake.</p> |
| <p>3. <i>Laguna Lake Week Observance.</i> A joint effort with LLDA where an executive order would be drafted in observance of the importance of the lake towards economic development. This includes activities designed at continuously sustaining awareness on the need to protect the environment from pollution. Cultural shows, exhibits, seminars, symposia, etc. may also be held.</p> |
| <p>4. <i>Broadcast Interview and Print Media.</i> Radio and print media as well as the television are used as media of dissemination of information. Feature articles, news reports, reports of research works are published.</p> |
| <p>5. <i>Inclusion of "Lake Preservation and Protection" as Part of the Elementary Curriculum.</i> This will provide for a continuing education program starting with the young.</p> |

¹³CSA, loc. cit.

Shown in Table 2 is the IEM campaign methodology used in the CSA-LLDA project. Strategies 1 and 3 will each be discussed based on observations made by the writer both as participant and non-participant.

The Pulong-pulong Session

The pulong-pulong is held for one afternoon in each of the barangays. It usually lasts for three to four hours. The CSA team coordinates with barangay officials and public school teachers. The venue and date are set; the usual venue is either the barangay hall and the surrounding premises, or the public school yard.

The order of the session includes:

1. Discussion of
 - LLDA and its programs
 - the sewer interceptor project
 - waste disposal and recycling
2. Open forum
3. Slide presentation
4. Announcements of future activities (specifically observance of Laguna Lake Week)

The people are given information in layman's language about the realities during construction and the possible arrangements when it is implemented and operated. The pulong-pulong gives them opportunity to speak about their apprehensions. They are also informed about other options. The team is receptive to suggestions. An entry point to the subsequent steps in the planning process is thus opened for the people.

Laguna Lake Week Observance

This is scheduled to coincide with the founding of LLDA. Broadcast and print media are utilized. Key officials of LLDA and the municipal government provide impetus to the week-long observance by their presence. An exhibit that shows the message of the entire project through illustrations of various hard and soft approaches in dealing with their pollution problem is held at the municipal hall.

Seminars were held for two days (July 19-20, 1984); these presented opportunities for residents/target beneficiaries, representatives of industrial firms and technocrat planners to be

heard. Useful information were exchanged in an atmosphere of trust. The participants became involved in the discussions. The discussions revealed that much responsibility for environmental sanitation rests on the citizens themselves. One community leader openly advocated veering away from a high technology Western solution, which is the sewer interceptor system and appealed to participants to practise what they have learned ("Isang mabuting simula nang kailangang ipagpatuloy").

A representative from LLDA had always been present during seminars. An LLDA representative could become vulnerable to criticism as his agency had been under many controversies; however, he was not subjected to undue comments. On the contrary, his presence served as a visible sounding board which signified that communication channels were open.

Issues of Concern in Urban Sewerage Planning

The following issues belong to varied spheres and are by no means exhaustive. These can be grouped into: socio-technological, economic, financial, institutional, political, urban development, regional and public participation. The writer endeavors to cite the San Pedro case and note implications that may be anticipated in other localities. The order in which these appear is in no way indicative of priority or rank.

Socio-Technological Issues

"The origin of (this) major transformation of society is technology . . ." — this is how technology and social change are often related whether it be the viewpoint of Marx or Etzioni.¹⁴ In recent years, the concept of appropriate technology has garnered quite a number of followers all over the world, all believers in the message of the late E.F. Schumacher (of "Small is Beautiful" fame). In the field of energy,

¹⁴Rose, Hillary and Hammer, "Community Participation and Social Change" in Jones, David and Marjorie Mayo (eds.), *Community Work Vol. 2*, Routledge Publ. Co., London 1975.

Amory Lovins of "The Friends of the Earth" strongly argued against "hard" technologies in his book *Soft Energy Paths — Toward a Durable Peace*. The sewage treatment plant, long considered an answer to sanitation problems, can also pose high risks to the environment with increasing size or capacity.¹⁵

Through the U.N. Water and Sanitation Decade (1980-1990), it was proposed that a majority of the population be covered (i.e., providing water supply and sanitation facilities). The choice of water supply is virtually dictated by the type of water source, the availability of water and the ability of potential water users to pay. However, sanitation via human waste "disposal" is a choice dictated by legal requirements (such as P.D. No. 856, the Code of Sanitation). It is accepted practice that when an area has piped water system, a flush toilet or water closet is the only way to dispose of human waste.

Will the people be willing to forego modern sewerage systems and instead choose to build and maintain cheaper on-site disposal systems such as compost privies and the like? Will the public choose to spend money in order to avoid inconveniences rather than adopt appropriate technologies? In the urban core, particularly in San Pedro, there is limited space in some areas so that a septic tank and the ever-acceptable-but-often-misused flush toilet has become the normal sanitation fixture (and modern, too) in the typical urban household. Obviously, the bias for the flush toilet is a drawback to any attempt to sell the idea of more ecologically sound "soft" technologies.

Financial/Economic Issues

The demonstration project costs 1.5 percent of the whole lakeshore interceptor. In the case of the San Pedro sewer interceptor, two options were considered by the engineer-consultant.

One option was to include the plan developed by the U.N. consultant. The other option was to include in the project coverage the five or less industries in addition to the 600 households and 150 commercial establishments.

Total capital cost has been estimated at almost ₱28 million, based on costings made by the engineer-consultant. The loan source and loan ratio have been left unidentified. Much of the financial and economic criteria will depend on the financing available. Recovering the investment could be done through three means:

1. add surcharge proportional to real estate tax
2. charge user fees based on water consumed
3. pass cost only to industry (domestic uses do not pay for surcharge)

In Cebu and Zamboanga, where sewerage systems exist, and in Baguio where one is soon to be built, the principle of financing expenses and development of sewage collection and disposal is one through user charges. In the case of San Pedro, the burden on potential users will be lightened correspondingly in proportion to the 26 percent reduction in costs (capital + O&M) in the event that even just one industrial plant (a softdrink bottling plant) connects with and makes use of the sewer interceptor.

Whether industry is really receptive to the idea of connecting to the sewer interceptor has not been fully determined. Industrial firms which have operating treatment systems may choose not to. On the other hand, it is true that normal day-to-day operations bring problems in treatment efficiencies in that the effluents may not exactly conform to the standards set by the LLDA, which now regulates industrial pollution in the Laguna Lake watershed. The sewer interceptor system can ensure better compliance with water quality standards.

Based on the calculations done by the engineer-consultant, a residential household that consumes 30 cu.m./mo. will have to pay ₢27. Prior to monthly priced adjustments begun by the Metropolitan Waterworks and Sewerage System in April 1983, a household in Metro Manila would be charged ₢0.62/cu.m. (for

¹⁵ Max, Wesley, "The New Polluter: Giant Sewerage Treatment Plants," in Courrier, Kathleen (ed.), *Life After '80: Environmental Choices We Can Live With*, Brickhouse Publ. Co., Andover, Mass., 1980, pp. 119-122.

domestic users consuming 26-30 cu.m.); the monthly water bill would therefore be P18.60. The ability and willingness of the residents to pay will largely determine the socio-economic desirability of the project.

Politico-Institutional Issues

San Pedro is at present served by a water district in the poblacion core while independent deep wells are found in the outlying communities. The water district development has not been rapid enough to hasten the takeover by the Metropolitan Waterworks and Sewerage System (MWSS) of the water supply system as envisioned by the municipal development plan. The water district, in principle, has both water supply and sewerage functions. Understandably, the sewerage function is not vigorously carried out. If the plan pushes through, which institution will operate and manage the sewerage system? What implication does this have on succeeding similar projects in the lake basin? How does the local government fit into the picture?

Local officials in the construction business find the construction of the sewer interceptor a good business opportunity. They are therefore inclined to support the sewer interceptor project.

Regional Issues

The LLDA is a semi-public corporation under the umbrella of NEDA for policy and program integration, having developmental functions and regulatory powers over the Laguna Lake region. It can perform the following functions, among others:

1. To plan, finance and/or undertake infrastructure projects such as wastewater and sewerage works and water supply when so required within the context of its development plans, relocation or resettlement of population within the region;
2. To require cities and municipalities in the region to pass zoning ordinances and other regulatory measures;

3. To establish water quality standards and enforce these standards and penalty actions.¹⁶

The LLDA, though empowered as such has two of its major projects — hydraulic control structure and irrigation — being implemented and operated by the Ministry of Public Works and Highways and the National Irrigation Administration, respectively. These two agencies and LLDA, which take charge of the Lakeshore Interceptor project, form the Laguna de Bay Development Coordinating Council. The Council ensures the cooperation of all government agencies involved in the implementation of projects with foreign exchange components. It also helps the HSRC in the preparation of detailed town plans for the municipalities of Rizal and Laguna, most of which have already been completed.

The San Pedro sewer interceptor project is clearly identified as a demonstration project — one that will test the concept, the assumptions and organization required for the bigger lakeshore interceptor project. Strategies and innovations could be tested and mistakes avoided in the future. Since this project could serve as a precedent in this region, the LLDA cannot afford to shirk its responsibility as a regional body.

However, as a demonstration project, the San Pedro case has a local planning context that is not seen quite clearly from the regional perspective at which LLDA operates. These local-regional interfaces need further consideration.

Urban Development Issues

Sewerage can be used as a development tool because new industries can take advantage of the availability of a sewerage treatment plant that will substantially lessen their capital and operating costs. The effectivity of the 50-km radius ban on industry, on the other hand, counteracts this possibility. However, commer-

¹⁶ LLDA, Primer on LLDA (n.d.).

cial establishments that are big users of domestic water (laundries, restaurants, hotels, etc.) may yet come to the municipality and make the system more viable. The pattern of development can be shaped by the coverage of the system. How do people view this possibility?

In the U.S., sewerage is being used to regulate local growth.¹⁷ Based on earlier studies done on the Laguna Lake region, the provision of sewerage systems has become a necessity. Locally, sanitation and environmental quality rather than growth considerations appear to be of importance although the possible impacts on growth are quite recognizable. Without the ban, industries can channel wastewaters into the sewer interceptor. Capital investment on a treatment plant is therefore eliminated. In this manner, the sewer interceptor may attract industries to locate in San Pedro.

Public Participation Issues

The IEM campaign held in San Pedro may not have reached the entire population of the poblacion core but there were positive responses and commitments on the part of leaders and residents. What should come next is a good program to follow through what has been initiated. The task forces that were organized need to be supported and further strengthened. They could enlist the support of professionals in the community to enlighten the people on specific issues related to the choice of option available to them. The seminar had been a consciousness-raising activity. The results of discussions and their interpretation could be shared with other communities.

Among community organizers, a participatory strategy is developing.¹⁹ It integrates components of an overall strategy of social transformation. Empirical researches combined with practical political involvement are encouraged. This may prove useful to consider in the Laguna Lake basin because a regional body is perhaps hard to identify with especially if it carries out "development projects" that people may be forced to accept. In the local level alone, minimal participation is experienced. A program of regional scope offers even more obstacles. How strong and prevalent is "the sense of a region" among the people? Friedmann's concept of agropolitan districts may be relevant here.²⁰

The preservation of the lake depends on the cooperation of people. The lakeshore residents can be more vigilant of illegal cutting of trees and garbage dumping in streams and by the lakeshore. The inclusion of more topics on lake preservation in the elementary curriculum of schools in the district will instill a longer consciousness among the young of the soundness of residents acting in concert. The people have responsibility in keeping fish alive in the lake for millions in the region and in Metro Manila. They have the responsibility to maintain the water quality fit for use as domestic water supply to the primate city — the importance of which should never be forgotten. Obviously, even if the sewer interceptor is constructed and put in operation, the people have to know how to maintain the system. Just like a drainage system, the pipes must be free of solids that clog — plastic containers,

¹⁷Catanese, Anthony James, *Planners and Local Politics-Impossible Dreams*. Sage Publishing, Beverly Hills, 1974, pp. 72-76. See also Johnston, Robert A., "The Politics of Local Growth Control," in Mann, Dean (ed.), *Environmental Policy Implementation: Planning and Management Options and Their Consequences*. Lexington Books — D.C. Heath & Co. Lexington, Mass., 1982, pp. 207-221.

¹⁹Siongco, B.A., "Humanizing Research Through the Participation Method," *ISWCD Bulletin*, 1982-1983, pp. 10 ff.

²⁰Friedmann, John and Mike Douglass, "Agropolitan Development: Towards a New Strategy for Regional Planning in Asia," in United Nations Centre for Regional Development, *Planning in Asia*, Nagoya, pp. 373. According to Friedmann, the agropolitan district is a socio-economic and political space larger than a single village to which the network of social interaction extends.

bags, bottle caps, cigarette butts, tickets, candy wrappers, etc.

A parallel example may be cited at this juncture. Citizen movements and public participation made a significant contribution to the passage of a law banning the sale and use of synthetic detergent in Shiga prefecture, Japan in 1980.²¹ Shiga prefecture's boundary almost conforms perfectly to the watershed of Lake Biwa, Japan's largest lake.²² In 1965, a moldy smell was found in the drinking water of Kyoto, Japan's fifth largest city (Pop. 1.5 million) which drew its water from Lake Biwa. Skin disorders were attributed to pollution caused by synthetic detergents. By 1977, eutrophication entered advanced stages and the first large scale occurrence of red tide was observed. When it became known that the phosphorus released by synthetic detergents that households used every day was a major cause of the lake's condition, various campaigns were developed to move for the banning of synthetic detergents.²³

Bella and Overton²⁴ from the point of view of environmental engineering and management said that: in this field (of which sewerage planning is a part) "literature has been dominated by subjects of a tactical nature" rather than of strategies. Technical people are often called upon

to develop tactics. The planner, however, has involvement in both, either by choice or by "compulsion." Strategies do not solely depend on social and political aspects; technical or technological issues are in fact tied up with social issues, as mentioned earlier.

"Planning problems are wicked problems," state Rittel and Webber.²⁵ The kind of problems that planners deal with are societal problems, almost devoid of clearly defined bounds and limits, solutions and resolutions; they are simply "malignant," "vicious," "tricky," or "aggressive." Of the ten "distinguishing properties of planning type problems," one is singled out: "Every wicked problem can be considered to be a symptom of another problem." There are higher level problems that an individual fails to consider and therefore strategies and tactics may not actually solve the problem.

Caplow, on the other hand, sees the possibility for a sequential social change — "a feasible project of social improvement resembles any other technological project."²⁶ It is in fact possible to consider the San Pedro case as one that involves social improvement — i.e., "social change in a desired direction", as defined by Caplow. The previous discussion did serve to highlight the little presence of awareness of what an individual action can do to a bigger environment. Although perhaps without going through the accounts of the IEM campaign and issues, an ocular inspection in any town in the Philippines will confirm this observation. It is therefore suggested that a strategy for social improvement be given due consideration in the overall planning effort for San Pedro and other parts of the Laguna Lake basin.

Vlachos, who espouses long-term policies for social intervention, has a social system model

²¹"Shiga Bans Detergent Sale, Use," *Mainichi Daily News*, July 2, 1980.

²²Mayashi, Mitsuko, "From the 'Use Soap' Movement to the Lake Biwa Ordinance," Proc. Lake Biwa Conference, Otsu, Japan, August 27-31, 1981.

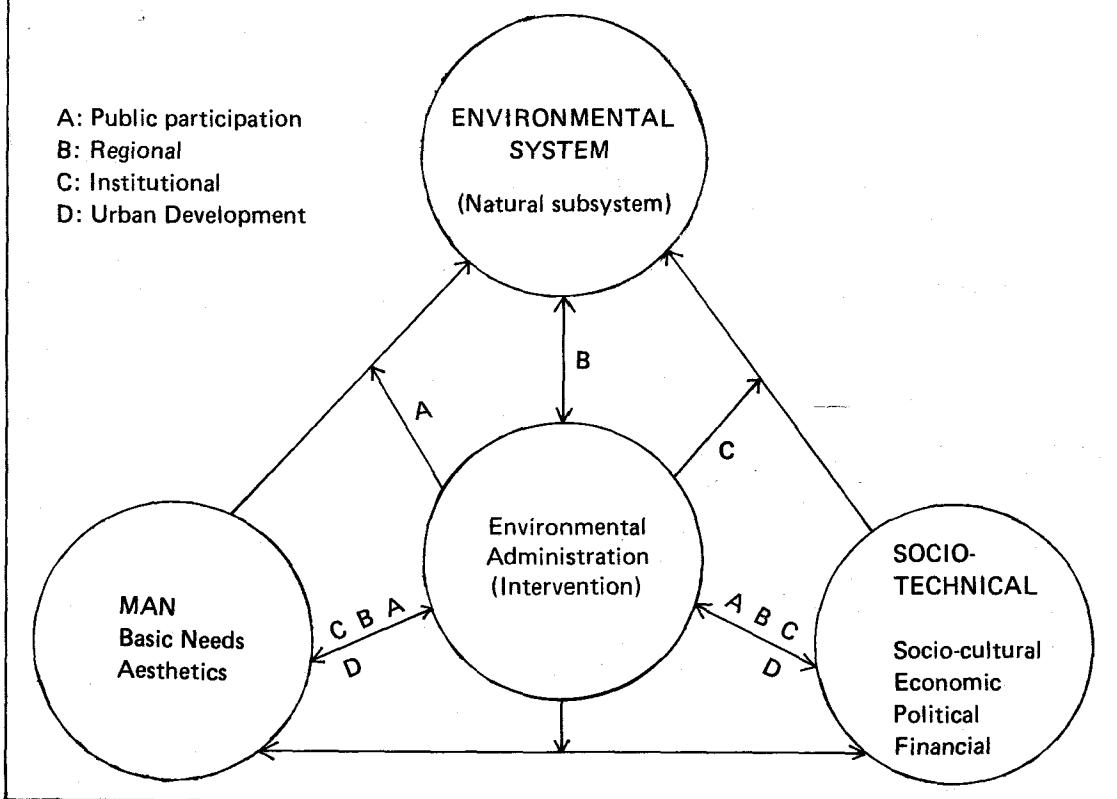
²³One such campaign was pursued by housewives called "the little soap ladies" who tirelessly promoted the use of powdered soap. The group gradually formed a consensus for cooperation among other campaign groups. The ladies even conducted short courses on doing laundry. This case illustrates the importance of allowing people to discover for themselves how much their present behavior can cause damage to the future and to actively participate.

²⁴Bella, David. A and W. Scott Overton, "Environmental Planning and Ecological Possibilities," *Jour. San. Eng. Div. (ASCE)* SA3 (June 1972): pp. 579-580.

²⁵Rittel, Horst W.J. and Melvin M. Webber, "Dilemmas in a General Theory of Planning," *Policy Sciences*, 4(1973): pp. 155-169.

²⁶Caplow, Theodore, *Towards Social Hope*, Basic Books Inc., N.Y., 1975, pp. 4-10.

Figure 2: Lee's Environmental Administration Intervention Model in the Context of Urban Sewerage Planning



that serves to graphically illustrate sequences, linkages and relationships.²⁷

Lee²⁸ also uses a geographical approach to illustrate his environmental administration intervention model. A modified version is illustrated in Figure 2. In this model, issues identified by this writer are classified as elements of

some of the components of the model. However, public participation is one that "belongs" to the interrelationships between Environmental Administration (EA) and Man as well as EA and the Socio-Technical (S-T). Whereas EA is not equated with planning, a symbiotic relationship is nevertheless observed in this context, otherwise the planning effort would be unsuccessful in some respects.

Lee focuses on three special problems in EA, namely: conceptual, coordination, and community/citizen participation. In the present study, participation has been a major thrust in the discussion and in every social improvement strategy, participation is given due emphasis. Public participation is mainly triggered off by an IEM campaign and sustained by citizen-planned activities held in cooperation with the municipal government.

²⁷Vlachos, Evan C., "Social Processes in Water Management Systems," in Albertson, Maurice et. al. (eds.) *Treatise on Urban Water Systems*, Colorado State University, Fort Collins, Colo., July 1971, pp. 722-739.

²⁸Lee, Edwin W. "Environmental Administration Systems Approach and Intervention Process Model," *Phil. Journal of Public Administration*, Vol. XXVI, No. 1 (Jan. 1982), pp. 1-18.

Figure 3 shows a participation-oriented social framework for a future program in conjunction with sewerage planning. This is only a framework from which the details could be worked out in more realistic terms in the future.

Efficient communication is considered an important aid in the whole strategy. Indeed, this is of importance when new man-made structures, including those in which water plays an important role, are to be presented to the public. Lindh²⁹ concluded that efficient communication is particularly valuable where "strategies must start from the relation between individual perception and social group norm." From mass communication literature, this statement in Laswell's classic essay³⁰ is lifted: "An individual passes from an *attention aggregate* (underscoring mine) to the public when he begins to expect that what he wants can affect public policy." This happens because of an effective effort to communicate and inform which can result in the public's acceptance of certain roles and responsibilities — and therefore participation. When this condition obtains, action can result.

The level in which the social improvement strategy—intervention, communication and information, participation—occurs roughly corresponds to that shown in the model. The key role-takers are LLDA, the municipal government and the public. The barangay, as represented by the officials, and the municipal government offer support and other means to stir consciousness among townfolk to manage community wastes. The levels are not to be interpreted as forming a strict hierarchy: for instance, LLDA can deal with the barangay directly.

The LLDA initiates the intervention through its projects which vary in scope— from baseline surveys to pilot demonstrations to infrastructure developments. For the purpose, a plan is assumed not implementable unless the social improvement process is in the participation stage and action brought about by public decision is seen to be definite. This is a long-term strategy that will utilize various kinds of communication and participation modes. The public is supported by planners who can give expert technical and professional advice.

The public, when properly made capable of supporting their operations may eventually conduct their own studies, researches, or surveys as the need arises or when consensus so demands. The modes listed on the left side of the figure are by no means complete. The possibilities are numerous. These could be further stimulated by a continuous flow of information from LLDA. These information are results of surveys and technology-oriented researches. Waste recycling workshops have always been popular; in this case, a tie-up with a private institution that develops appropriate technology will probably make such efforts more efficient as definite skills will be needed.³¹

Anticipated Problems and Future Possibilities

A multitude of problems will accompany this strategy. Follow-through is definitely a problem and quite a challenge that is anticipated. Hopefully, the socio-cultural trait of "ningas-cogon" could be hurdled. In fact, follow through is a more tedious and demanding activity than taking initiative.³² The urban planner must therefore make sure that the follow-through is in order before the initiative is taken.

This makes us realize that transfer of environmental education to planners and political

²⁹Lindh, Gunnar, "Socio-Economic Aspects of Urban Hydrology," *AMBIO*, Vol. 7, No. 1 (1978): pp. 16-22.

³⁰Lasswell, Harold D., "The Structure and Function of Communication in Society," in Schram, W. (ed.) *Mass Communication*, University of Illinois Press, Urbana, 1960, pp. 128-129.

³¹Villavicencio, Veronica F., "Work from Waste," A.T., Vol. 2, No. 4 (December 1983), pp. 128-129.

³²De Bono, Edward, *Wordpower*, Harper Colophon Books, 1977, p. 104.

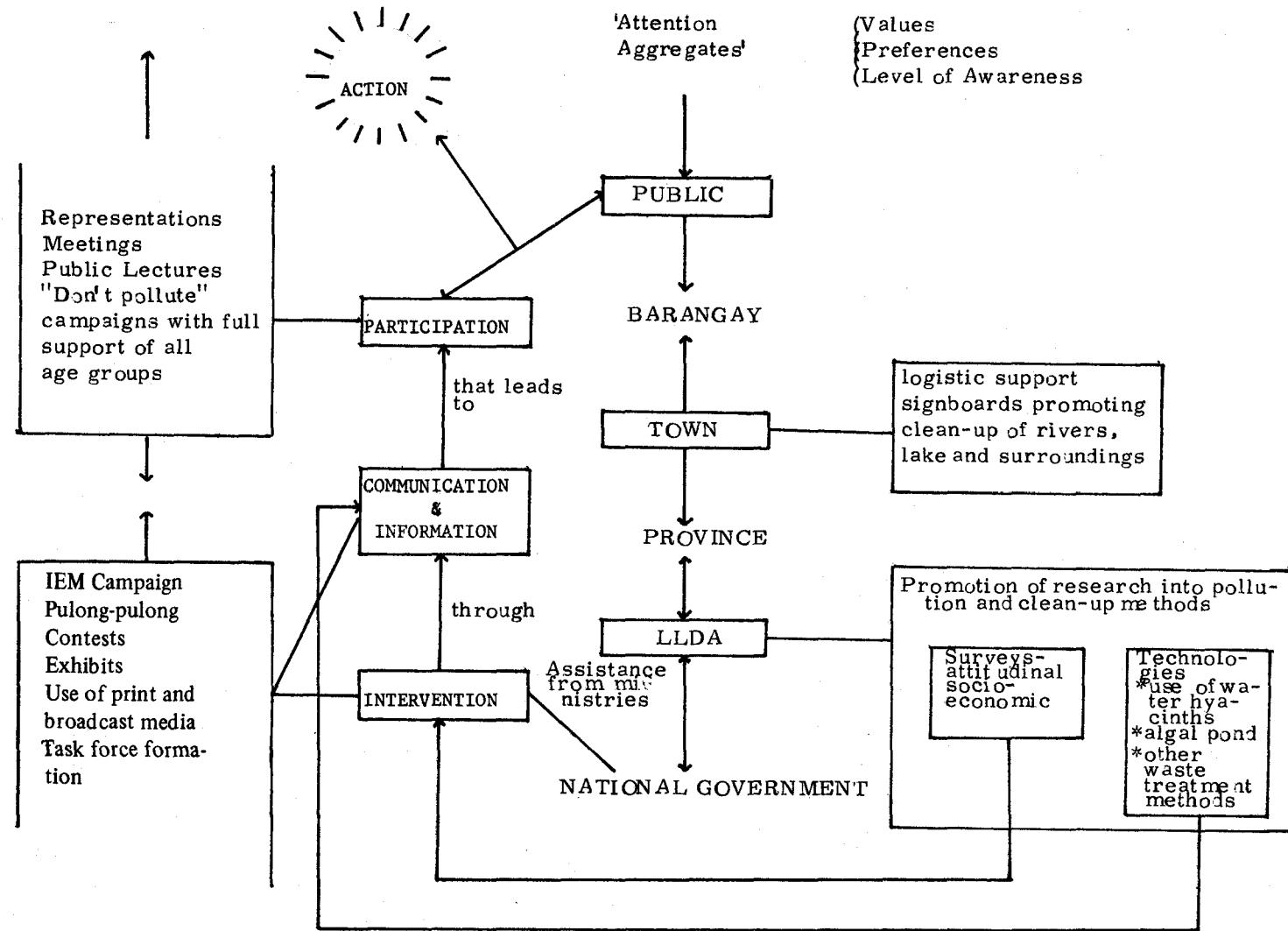


Figure 3. A Participation-Oriented Social Improvement Strategy Model

decision makers must also be ongoing. The spirit of the program has to be kept alive with the support of planners and political leaders. Several examples based on experiences of other countries particularly in Asia may prove to be informative and useful.³³

Conclusion

A participation-oriented social improvement strategy has been suggested in dealing with

planning for sewerage in urban areas particularly located in the Laguna Lake region. This strategy has been arrived at based on experience obtained from the CSA-LLDA project undertaken in San Pedro, Laguna, where a pilot demonstration interceptor project is proposed.

The strategy demands an interdisciplinary approach where communication is considered a key element. The urban community is viewed both as a sociological system as well as an urban ecosystem.

³³ Examples of such nature were presented in the U.P.- UNESCO Seminar on the Transfer of Environmental Education to Planners and Decision Makers in Southeast Asia held in Quezon City (December 6-9, 1983) and the Lake Biwa conference held in Otsu, Japan (August 29-31, 1984). The latter dealt with the experiences of several countries in managing lake environments. In many instances, the lake watershed has been treated as a planning unit for comprehensiveness.

SOCIAL SERVICES PLANNING IN NEW COMMUNITIES: THEORETICAL ASPECTS AND SOME EMPIRICAL OBSERVATIONS FROM THE HONGKONG EXPERIENCE*

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Introduction

As a geographer, I have become involved in research into the spatial aspects of health care and health care provision, as well as other social services planning. Geographers often ask the questions of facility location: are facilities adequate and are they in the correct places to serve their intended population? This forms part of what Smith (1977) has termed the "welfare approach" in human geography. Medical geography is related to this approach and it has increasingly, in recent years, involved the study of such welfare themes. This is what I have called the "contemporary" focus of medical geography (Phillips, 1981a).

Medical geography as a subject is one of the oldest branches of human geography although its traditional concern used to be disease ecology (the environmental and biological requirements of any disease attacking human beings) and, as such it is allied with the biomedical sciences. It also has a more direct spatial application in disease mapping which is mainly descriptive, plotting the locational incidence of diseases at various scales (international, national, re-

gional or local). This may help to highlight the distribution of diseases such as malaria, cholera, and hepatitis and it may also suggest associations with known environmental conditions or pinpoint concentrations of such ailments. The Americans and, to an extent, the British, have advanced this branch of the subject to study disease diffusion, or how diseases and their spatial incidence change over time as they become more or less prevalent. Finally, it may be possible to predict where diseases will increase or decrease and, if this can be done, then some sort of contribution can be made to saying where to locate treatment facilities (preventive or curative). These foci collectively make up what may be called "ecological" medical geography.

Contemporary medical geography, on the other hand, may be allied closely with topics such as urban geography and urban planning. It may include social area studies indicating which people suffer from higher rates of ill-health of various sorts, and it also includes the study of facility location and utilization. I see these as two sides of the same coin: Where the facility is located and how it is used (accessibility and utilization). It is surprising how relatively small account is taken of these two aspects in the planning mechanisms of most countries. I would be interested in our subsequent discussion to hear from you of the position taken in the Philippines.

*Lecture delivered at the School of Urban and Regional Planning, University of the Philippines, during the Diamond Jubilee celebration of the University (1983).

Therefore, we have both traditional and contemporary medical geography. Today's talk falls basically into the contemporary side and in it I am looking at social services which may be used as a generic term for a wide range of services although my own interest has generally been focused on medical services provision and on primary care in particular.

Planning Social Services in New Communities: General Aspects

This section goes through the range of factors which may influence levels and types of social service provision and their distribution. It is almost a "blueprint" which could be used to analyze health and social services system in any specific country. It could be of particular interest to health services planners in their analysis of a given situation. A number of topics need to be considered.

The Range of Social and Medical Facilities

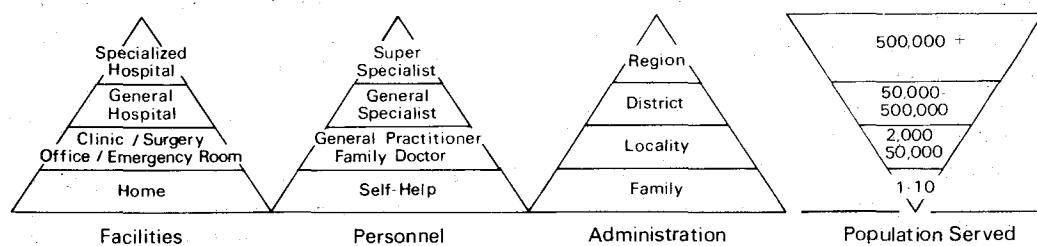
As I suggested, the generic term "social services" covers a wide variety of different services. These include educational services (some people do not class these as "social services," however) general and specialist medical services, sports and recreation and, an important service often neglected, information services. In addition, there are the preventive services such as fire, police and

ambulance. All of these have locational requirements to serve their intended client populations. As a side comment, the provision of social services fits well with the "basic needs" approach to shelter planning. I believe that the Philippine government is one of the few governments which very explicitly adopts this approach to services provision in new communities although the "basic needs" concept has been in existence for sometime. This may be a positive aspect for services planning in the Philippines and it fits in with the welfare approach to human geography mentioned earlier.

If we look at medical services as a specific example, we have the common problem in all services provision, that a certain volume or size of service has to be located usually at a specific site to serve a certain level or number of people. These questions may arise: Where should facilities be put? How large will they be and for how many people will they cater?

Medical services have commonly been represented as a hierarchy of facilities which become increasingly technology-oriented at higher levels (Figure 1). The specialized hospital lies above the more general hospital which is in turn above the clinic and the home. Specialization of personnel can be related to these various levels of specialists from super-specialists downwards. In Britain, we have the family doctor or general

Figure 1 – The Health Care Hierarchy



practitioner, more of a generalist, who refers to specialist cases which he thinks need a "higher" level of care or treatment than he can provide. Finally, there is self-help or self-care in the home. It will be noted that I have excluded at this stage traditional medicine (folk medicine) which usually exists at the primary level.

Administrative levels in health services can also be related to the facility and personnel hierarchies: regional, district, locality or family, which are essentially "units" for which care may be planned and provided. The locality may be the key planning size although the number of people in any given spatial unit will tend to differ from one country to another.

The idea emerging in this hierarchical conceptualization is that there will be (population) thresholds which must be crossed before any specific levels of service will be provided. This will be familiar to those who have studied Central Place Theory. However, the key to entering medical (and social) services is the primary level, particularly between level 1, the "ground floor" and level 2, the "first floor." Access to the primary care provider is essential since, in most systems, the personnel at this level control access to the higher levels. Therefore, the idea of climbing a step-ladder may be imagined. There may be ways of circumventing this hierarchical system (by paying high fees or by entry via emergency rooms, for example) but, by and large, access will be a referral system and the important questions are: Can people **get to** the primary physician and, can they **effectively** use him?

In countries where access to primary physicians is poor, a lot of things follow. An important matter is that health services planning may well be founded on poor data because figures for morbidity (ill-health) will be vague, because the primary physician tends to meet a high proportion of illnesses. If, because of poor access, he does not see the ill people he **should** be seeing, then he will not have the right idea about the health needs of the population as reflected by morbidity. Mortality (death rate) is, of course, more obvious because the dead persons can be enumerated and a cause of death can usually be established by autopsy. However, more breakthroughs in health are made through the reduction of morbidity: control or eradi-

cation of malaria, smallpox, tuberculosis, cholera, these sorts of thing. Preventive services such as family planning or health check-ups and screening are all also dealing with "morbidity" rates. Therefore, good quality data on these topics are essential.

The nature of referral differs very much from one country to another (which is discussed in Joseph and Phillips, 1984). In Britain, for example, access to higher levels is almost exclusively via the family doctor. In the USA, it can be by means of the family doctor or by buying straight into a specialist. In the USSR, it may be by referral by a doctor or by a paramedic such as a "feldsher" (medical assistant). In East African countries, admission may be via clinic or travelling medical teams. Therefore, the point of entry to the system can be the person's home, a clinic, a doctor's office or a hospital. The key nevertheless tends to be the access to primary care (this is the norm) although this can be circumvented in some systems. In the American system, for example, a specific specialist may be selected on a fee-for-service basis.

Provision of Services

The actual levels of service provided depend on a number of features. These as discussed below, form a blueprint or scheme to analyze any given health or social services system, which a newcomer could use to uncover the nature of the system.

National Levels of Resources Available

- *Financial resources* devoted to health care vary considerably, although, typically, during the mid-1970s, the expenditure on health care of most more-developed nations was taking up between six and eight percent of GNP. However, the priorities accorded to health are important. Does a nation view defense, housing, industry or other sectors as prime targets for expenditure? This varies considerably from nation to nation.
- *Levels of education* also vary. Does government set and monitor standards of its established universities? Are doctors and other health care professionals trained in universities and colleges or is there a considerable degree of "on the

job" training given such as in Russia and China? How rigid and how high are government controls and licensing standards over health and health care?

- **Manpower resources** depend on the availability of trained manpower. Countries such as India and the Philippines have many well-educated and well-trained medical personnel, many of whom are "exported." In the UK, for example, a considerable proportion especially of the lower ranks of hospital doctors, used to be from the Indian Sub-Continent although the proportion is probably falling. This represented a gain for us as we only had to pay their salaries but not for their training. Perhaps in the past it cost us £100,000 or more (approx. 1.7 million pesos) to train a doctor over five to six years (the actual accounting of such training is, of course, notoriously difficult to establish; for example, how should hospital equipment and teaching time be costed?). If a doctor (already trained) can be imported this represents a net gain for us. A similar situation exists in many other countries. These trained professionals, it may be argued, represent a loss to the "donor" countries as they could be employed at home if there are enough resources to pay them. Therefore, we must look at national priorities in manpower planning: do nations see health and welfare as central and key issues?

Levels of Medical Achievement

We can ask: what levels of technology have been achieved in a country and what is expected? Since the late 1970s, the World Health Organization, particularly since the Alma Ata Declaration of 1978, has recognized and emphasized the place of primary health care (p.h.c.).

This tends to be the most cost-effective and accessible form of treatment. It has to be decided whether a health care system will spend most of its resources on high technology, high cost techniques (such as transplant operations, scanners, expensive surgery, etc.) or whether it will devote more to public health and primary care (especially to the eradication of prevalent infectious diseases). Many developing countries have,

perhaps, mistakenly been persuaded to "modernize" their medical services to a point where most people cannot reach them. For example, it is suggested that in some countries such as Sierra Leone or Kenya, as many as 75 per cent of hospital beds and specialist doctors may be in the capital city (a reflection of primary), whilst perhaps only 25 percent of the population live there. The WHO would like to redress this trend to improve accessibility so we should remember that 'HI. TECH. is *not always best*' in health care.

We must also examine the *political economy* of any nation (the nature of its political control, its persuasive economic and political structure). This tends to govern whether a nation's social services are provided publicly as a welfare state, or privately. The former tends to be more expensive to the nation but fairer to individuals than most other systems. Is health and social care "free at the time of use," as it largely is in Britain (although things are changing there), USSR, China, Denmark and a few other places? Or is *private provision* relied on, either by insurance or direct payment? This is said to be typified by the USA although even there, now, some 1/5-1/4 of health costs are borne by public funds through schemes such as Medicare and Medicard. We should be aware that the dominant international trend is towards increasing state or government involvement in social service provision (even if only by providing universities to train the professionals).

It is difficult to analyze "political economy" financially or spatially, even in terms of health care. However, the general orientation and philosophy in social services is usually obvious: whether a country is *laissez-faire*, free enterprise, or welfare state. However, we must still ask ourselves what the nature of provision is when analyzing provision in a country.

The *existing infrastructure* will often govern what can be provided in new communities. This will affect what can be achieved *quickly* and we must ask:

- What facilities extend *near to* the new communities? Will totally new hospitals, clinics and other facilities need to be provided? This will depend on the location of the new developments relative to existing facilities. If they are too near

they may place an unacceptable strain on existing facilities. If they are too distant, then totally new services may have to be provided.

- Secondly, what are the *norms* which govern service provision? For example, what are the person : hospital bed ratios, or doctors : population ratios, which are used? What will residents tolerate and what do they expect? What standards do professionals demand or require?
- Finally, we need to take into account the *scale and speed* of new community building. If the scale and pace are too great, Armen (1976) and others suggest that a decision has to be made as to whether: (1) full levels of services will be provided *before* the population arrives and usage left to grow, or (2) the population should come in first, then facilities be provided (a timelag), or, ideally, (3) is planning sophisticated enough to enable them to grow simultaneously?

As I shall show later, the actual behavior of residents can upset the best plans.

Caution in the Use and Interpretation of Norms

A cautionary note should be sounded on the use and interpretation of planning norms, in health care in particular. The commonly-cited medical norms (apart from proportion of GNP spent on health) are:

population per physician] or variations
population per hospital bed] on these

We must be very cautious about believing these ratios of people to facilities. Sometimes they are meaningful whilst, at other times, misleading. The figures tend to give an appearance of "hard facts" to medical services. Does a ratio of, say, 10 hospital beds per 1,000 persons in the USA or Britain mean the same as it does in the USSR? This will depend on whether beds for the elderly, psychiatric hospitals or the like are included. Therefore, what is a hospital bed (ostensibly a simple question) may be construed very differently from one country to another.

Another example where norms can mean different things in different countries is with regard to care for the elderly. Is this financed from a health care budget or a social services budget or is it privately financed?

The source of funding may make a given health service which pays for care for the elderly seem well provided, whilst another (which funds such care from other budgets) may seem poorly provided. Some countries such as the Philippines may emphasize the importance of maintaining old people in the family whilst other cultures (especially in NW Europe or North America, where proportions of elderly persons have now reached 10-20 percent of the population) may seek to have institutional care for many old persons. This care *could* be included under health services provision but it is often more of a domestic social service type of care (i.e. providing residential homes, not hospitals).

Finally, if we cannot define what is meant by a hospital "bed," we cannot easily define and compare what we mean by a "physician." Length and standards of training, licensing and the like will govern how many persons can be registered as physicians. Some countries may include dubious or briefly-trained paramedics amongst their physician strength which can artificially inflate norms. Conversely, many countries *exclude* traditional healers from these figures in spite of the fact that large proportions of their citizens may rely on them for health care.

The message is, therefore, to *question* norms or, at least, give them some thought. The figure of one doctor : 10,000 persons (a WHO "norm") can mean different things in different countries. The same can be said of numbers and definitions of dentists, nurses, midwives, and other health personnel.

Distribution Aspects

The distribution of social and health care resources *relative* to the population is crucial. It is little use if 70 percent of physicians are urban-based when 70 percent of the population is *rural*, but this is often the case in developing (and in some developed) countries. One doctor : 10,000 people may be adequate in an urban area or where transport networks are good and efficient. However, in a dispersed rural environment, this figure may be inadequate, especially if services are centralized and non-mobile. This brings us to the key topic of ACCESSIBILITY. The concept tends to be relatively poorly understood by planners and deserves separate attention.

Accessibility as a Concept in Planning

Previously, planners pushed many of their hopes for service distribution on the Central Place Theory concept. Briefly, this theory suggests that, given certain minimum population requirements for a specific service, this will be provided once the population is exceeded. The planners have often held that efficiency is increased when services are provided in centers, from which they will be dispensed hierarchically (the higher-order services will be provided only in larger settlements). This accords with the health care hierarchy concept discussed earlier. However, this has often led to an over-concentration in centers (health clinics, health centers, etc.) and the term CENTRISM has been coined to describe this mentality or notion amongst planners (Low, 1975). In Britain an "ideal" health center is envisaged as serving 20-25,000 persons, with 10-12 doctors. However, within the catchment area (the "range") of the center we may well find areas of deficiency since people will not be able to reach the center.

Access has distinct components. Moseley (1979) reminds us that social, economic and physical matters can influence accessibility to facilities or services. Proximity is usually taken by planners to equal accessibility but in health care, we have the classic illustration to remind us that this is not necessarily so. For example, in many North American cities, certain immigrant and negro groups live in the Zone-in-Transition, near to the Central Business District (CBD). In the CBD, many high-cost physicians' offices are to be found but the black population will not usually be able to afford to attend these doctors. So, we are reminded by the findings of the Chicago Regional Hospital Study of the 1960s and early 1970s that spatial proximity does not necessarily ensure accessibility to health care (or to other social services). Here, we can already see economic, racial/ethnic and other barriers to access. We therefore should remember to distinguish between what are sometimes called *physical accessibility* (distance, mobility and means of transport) and *effective accessibility* ("usability," which includes social and other features).

These are key issues in planning and it is evident that *effective accessibility* often requires more improvement than does *physical*

accessibility. In Britain, our experience with large, modern and impressive health centers has been that they can sometimes be *alien* to lower status residents for whom they are intended. They are less acceptable and, sometimes, less accessible physically, than other, smaller scale, surgeries or physicians' offices.

A further important concept which can be used to plan for enhanced effective accessibility has been called "*space-time budgeting*." This is common-sense planning of facility opening hours to synchronize with the times at which residents can use them and the times at which transport is available to reach them. This is usually less important in cities but, in some rural areas and for some sorts of service, it is crucial that these are available at special times. For example, it is no good having clinic opening hours only from 9 a.m.-5 p.m., when many working people cannot attend (especially for routine or preventive matters). We need to take account of public transport availability times, the opening hours of services and people's availability. It is surprising how often these factors are overlooked, or they are subjugated to professionals' desire to avoid working during "anti-social hours." Space-time budgeting also reminds us of something that geographers have been aware of for some years, that time, costs and distance are not directly proportional in journey for services. Often, costs of travel (in money) are less than costs in time. Heavy traffic congestion, for example, can mean that a cheap public transport ride over a few kilometers can take an hour or more. Therefore the *total* cost to the individual of the journey must take account of his lost or wasted time, effort and his frustration.

Investigating the Utilization of a Social or Medical Service

The behavioral mode of research has become popular in investigating service utilization. In this, the individual is the focus: his attitudes, beliefs and behavior (how he perceives and uses a service and subsequent levels of satisfaction with the service). My own research has focused on medical service utilization and one theme in particular seems worthy of further research. This involves the *decision to utilize* a service.

Ideally, it may be envisaged that the *need* for a service (any public service) could be satisfied through the use of a convenient local facility (the "centrism" notion). However, it seems apparent that a number of factors influence the transformation of need into usage, and it is important to focus on the transformation of *recognized* need (as opposed to unrecognized need) into use of a particular facility. This has been investigated for medical services by, amongst others, Joseph and Poyner (1982). They discuss two models to explain utilization.

The first model is the traditional model, typical in consumer research. It proposes the conventional form of aggregate explanation, in which utilization is assumed to vary according to broad differences in consumer characteristics such as age, sex, income, education, occupation and residence. It can also vary according to the attributes of the facility such as type, size, location and so on.

An alternative model or level of explanation sees variations in utilization as a function of the consumer's *perception* of a service and specific facilities, and of their accessibility. A person will only use a particular facility when he (or she) perceives that the (recognized) need for a service should be satisfied, that a particular facility provides the necessary service and that the facility is convenient (accessible).

This second model is appealing as it allows more importance to consumer attitudes and knowledge. It is tied in with the concept of *action space*, which has been proposed as a determinant or influence on consumer travel behaviour (Huff, 1960; Horton and Reynolds, 1971). Consumer characteristics such as age, sex, occupation and income influence personal mobility and activity patterns. These in turn determine action space, the area of which an individual has knowledge, experience and perceptual values.

Action space will influence the amount and quality of information which people have. It has been found to vary with status, income, age and sex. Younger persons and men with higher social status and higher income will tend to have larger "action spaces" than lower income groups, older persons, or women. This is because, by the nature of their work, they usually tend to be familiar with greater proportions of the environment. With increasing action space,

there is also increasing awareness space (knowledge of larger areas of the city or country). Such persons are therefore more likely to know of alternatives to local facilities or to be aware of better or different facilities.

This has obvious planning implications. People with larger "action spaces" may be more likely to "shop around" for medical services. Therefore, they will tend to be less likely to use solely local facilities. This could well upset norms based upon persons per facility in planning. If, for example, doctors are provided in new communities at 1 per 10,000 persons, but if only 50 percent of the high status or young people in the same areas are using them, then a considerable under-utilization will occur. This could be wasteful of public resources (in this case, doctors) and, if the doctors are private practitioners, they may earn insufficient income to induce them to stay in the community. The corollary of this is that lower status or older age structure areas may tend to be relatively under-provided with services because their residents are relying more on local facilities because of their restricted action and awareness space. I have found support for this type of proposition in case studies in Britain and Hongkong. This can make planning of social services in many communities very difficult but such behavioral characteristics of future residents must nevertheless be taken into account by planners. I shall now give a brief outline of some results from research into this topic in Hongkong, some of which illustrate these and related planning problems.

An Empirical Example: Facility Planning in a Newly-Built Environment

The Hong Kong New Town Program

Hong Kong has, since the early 1970s, embarked on an ambitious new town program to provide homes in new towns for over two million persons by the 1990s. The underlying reasons for this program are quite well known, caused by high (if falling) birth rates, former legal and illegal immigrants from China and Vietnam and the need to rehouse existing squatters as part of government policy to improve housing. In addition, it has become government policy (and public expectation) that self-contained housing

should be provided for all family units requiring it. This could only be achieved in totally new environments (Phillips, 1980; 1981b).

Three initial new towns were planned (Tsuen Wan, Sha Tin and Tuen Mun), later joined by three "expanded" towns (see Figure 2). The population and physical growth of these towns will be very rapid: Sha Tin and Tuen Mun will each house over half a million persons and Tsuen Wan almost one million. Some two-thirds of the housing will be provided by the public sector. There is a great need for the provision of social services in these towns as it is the objective of the Hong Kong Government that they should become self-contained, pleasant living environments.

Planning in these New Towns

I have called the planning adopted in the Hong Kong new towns "planning by numbers." This is because, owing to the rapid developments, planners have had to stick quite rigidly to norms for space and services laid down in Hong Kong Outline Plan (now called Hong Kong Planning Standards and

Guidelines, HKPSG). HKPSG specifies such things as an overall aim of 5.5 hospital beds per 1,000 persons and one primary doctor per 6,000 persons in public housing estates (recently changed to one doctor per 7,500-10,000 persons). These may seem rather ungenerous norms by the western standards which Hong Kong hopes to achieve. However, I can suggest a reason why the primary medical care figures, at any rate, seem relatively poor.

Hong Kong has a system of western and traditional (Chinese) medical practitioners, mainly herbalists (Topley, 1975). Hong Kong Government provides and promotes only western medicine: it only plans explicitly for western medical facilities. Herbalist shops are *permissively* provided in new communities only under competitive retail sections of HKPSG. They are protected to an extent by legislation although most Government legislative activity aims to prevent traditional Chinese practitioners calling themselves "doctors" (Hong Kong Government, 1976). The government does not include traditional practitioners in its health care manpower calculations although there are probably still more traditional doctors than fully-registered

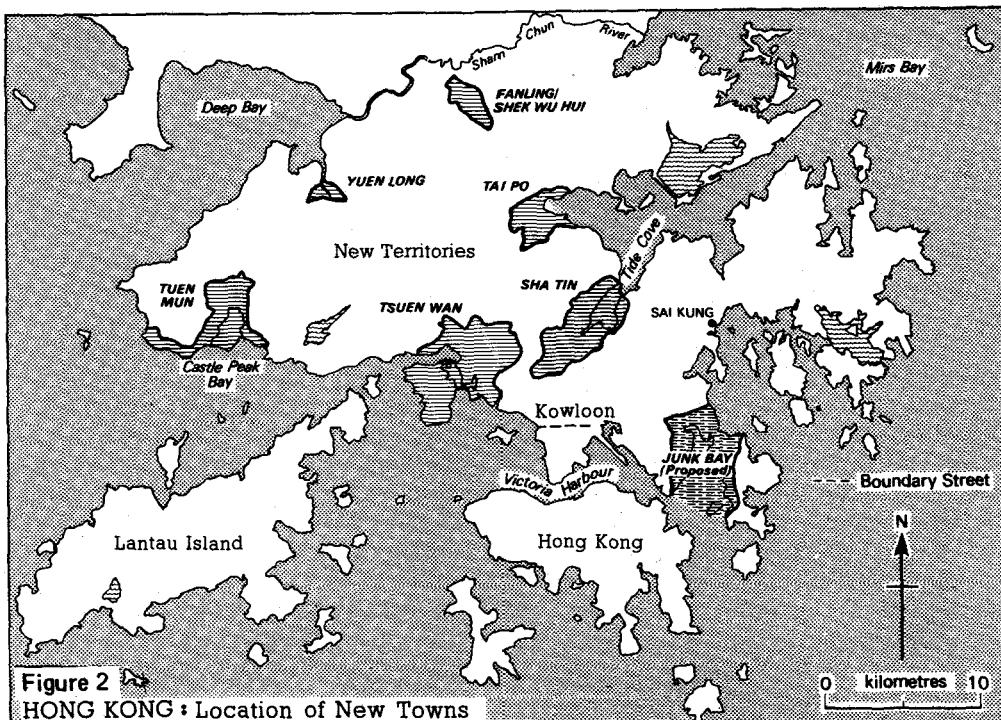


Figure 2
HONG KONG : Location of New Towns

western doctors in Hong Kong. In 1969, it was estimated that there were some 4,500 traditional practitioners, 70 percent of whom were herbalists. All would work in the primary care sector. In 1981, there were some 4,100 western-trained, registered practitioners serving Hong Kong population of 5.1 million. Many herbalists will be making a rather low income, but many Hong Kong residents will rely at least in part on traditional medicine. This may mean that the relatively poor levels of provision of western care can be augmented by such practitioners. However, little is known about health care behavior of residents in new communities in Hong Kong and I shall now discuss a survey of this.

Survey of Utilization Patterns in Sha Tin New Town

A survey was undertaken in 1982 of four sites with 50 respondents in each to investigate their use of traditional and western medical facilities and to relate this to other behavior factors. The sites were as shown in Table 1. Although "social status" is a difficult thing to assess in Hong Kong, it may be suggested that sites 1 and 2 (Lek Yuen and Wo Che) are lower status sites, being low cost public housing estates. Sites 3 and 4 are more middle status, as they are home ownership schemes (Sui Wo Court) or private housing (Tai Wai).

The survey was broad yet detailed on use of and attitudes to medical services in this new town. Only a very brief glimpse of results can be provided here to illustrate some propositions made earlier.

Table 2 illustrates the types of western medical facilities attended. It is evident that Sui Wo Court residents, in particular, are relying more heavily than other respondents on private doctors. Relatively few are attending the government clinics where consultations are cheap (virtually free). This immediately indicates some status differences between the sites. When all facilities attended are analyzed (Table 3), there is an even more extreme picture. Between 70-84 percent of low status respondents had, at some time, used a government clinic whilst only 28-38 percent of the medium status respondents had done so. This is an extreme difference and it suggests that the private doctors in the lower status estates may be bypassed for some reason (mainly financial) by some residents. Other attitudinal information gathered in the survey supports this suggestion.

It is interesting to investigate the location of primary care facilities utilized. Elsewhere, a variety of behavior has been found, often with higher status persons, more mobile and presumably with greater "action spaces," using more varied facilities and travelling further for primary medical care (Phillips, 1979a, 1979b). Table 4 indicates that 40 percent of Tai Wai respondents and 32 percent of Lui Wo Court residents (middle status) were attending primary care doctors outside Sha Tin altogether. Only 12 percent of lower status residents were travelling outside their immediate area for primary care. This supports the idea that lower status persons have more restricted action spaces and are more reliant on local facilities.

Table 1. Survey Sites in Sha Tin New Town, Hong Kong, 1982.

Site Name	Type of housing	Year opened	No. of flats	Approx. population 1981 census	Socio economic status of residents
1. Lek Yuen	Public housing	1975	3,269	15,500	Lower
2. Wo Che	Public housing	1977/8	6,075	33,500	Lower
3. Sui Wo Court	Home ownership	1980/1	3,501	15,000	Middle
4. Tai Wai	Mixed (private)	N/A	N/A	5,500	Middle

**Table 2. Sha Tin Survey: Types of Western Medical Facilities Attended (%)
(Facility cited first in responses)**

Site	None / No Info.	Private Doctor	LYHC	Government Clinic TWHC	Other Other	Other Facility
1. Lek Yuen	4.0	66.0	22.0	0.0	2.0	4.0
2. Wo Che	0.0	64.0	24.0	4.0	4.0	4.0
3. Sui Wo Court	10.0	80.0	6.0	2.0	6.0	2.0
4. Tai Wai	2.0	68.0	0.0	22.0	4.0	2.0

TWHC = Tai Wai Health Centre/Clinic.

**Table 3. Respondents Attending for Primary Care of a Government Clinic (%)
(when all facilities cited are analysed).**

	Attended	Not Attended
1. Lek Yuen	84.0	16.0
2. Wo Che	70.0	30.0
3. Sui Wo Court	28.0	72.0
4. Tai Wai	38.0	62.0

I further examined the reasons for these patterns. They could partly be explained by "place of previous residence." The medium-status respondents attending doctors outside Sha Tin were almost invariably still going to doctors they attended in a previous residential area. Therefore, these attendance patterns may be called something like "hangovers" from past residence or "relic patterns of travel" (Phillips, 1979b, 1981). These can make the planner's job something of a headache! Part of the explanation of these patterns may be that the Sui Wo Court residents had only recently moved to Sha Tin. Therefore, it seems likely that they are currently maintaining links with doctors in their old home area as indeed it may be desirable to do (Lloyd, 1977). Whether, in the future, they will change allegiance to attend Sha Tin facilities is an important question

(and very difficult to answer) since, if they do, they will throw an increasing burden onto local facilities.

Attendance at non-western facilities was also investigated (not tabulated here). There was overall a relatively lower rate of attendance at traditional facilities than has been found in older residential areas of Hong Kong. Only about 28-40 percent of low status and 20-26 percent of high status residents were attending traditional herbalists. This may be attributed, perhaps, to the fact that residents in these new communities could be more "modern" in their outlook, less traditionally-oriented. Indeed, comparable proportions of attenders at traditional practitioners have been found in Singapore, another "modern" city in South East Asia similar in some ways to Hong Kong. If there is a relatively small reliance on traditional medicine in the Hong

Table 4. Sha Tin Survey: Location of Western Facilities Attended. Where Identifiable (%).

Site	None No Info.	In Estate	Sha Tin	Tsuen Wan	Kowloon and New Kowloon	H.K. Island
1. Lek Yuen	6.0	78.0	4.0	0.0	12.0	0.0
2. Wo Che	0.0	54.0	34.0	0.0	12.0	0.0
3. Sui Wo Court	10.0	44.0	10.0	2.0	32.0	2.0
4. Tai Wai	2.0	50.0	2.0	0.0	40.0	6.0

Kong new towns, this must cast doubt on the adequacy of some of the medical service norms in HKPSG.

Utilization rates are not reported here but it could be that attendance at a more distant facility (for example, by the middle status respondents) may lead to lower rates of usage, which could be undesirable. However, elsewhere in Hong Kong, attendance rates at primary care doctors and especially at government clinics have been found to be very high. For example, each of three doctors in a polyclinic in one of the other new towns was seeing about 150 patients per day (some 20 per hour). This was also found at out-patient departments of government subvented hospitals (Phillips, 1981b). Such high rates of consultations are not generally considered to be conducive to good medical care and do not permit much time for preventive medicine or advice to be given by doctors to patients. Again, this suggests that some planning standards may be inadequate and need upgrading.

Conclusions

Can any lesson be drawn from the Hong Kong experience in providing services for new communities? I have discussed here only a very limited range of activities but a few general observations may be made.

First, planning by numbers can be misleading or even dangerous if past and present utilization patterns are not known. This type of planning tends to be inflexible, and unresponsive to changing consumer demands or to different socio-demographic composi-

tions of residential estates. Indeed, by its very nature, it caters to "average" population.

Secondly, we can indicate the need for detailed behavioral research into residents' utilization patterns, attitudes, aspirations and action spaces. From such research, a pool of knowledge may be built up to guide service provision in future new communities. This paper illustrates that there are sufficient variations between and amongst residents in new communities to warrant more flexible planning norms being developed.

Third, the integration of traditional and western medical services needs to be promoted. The World Health Organization calls for this, as only then can full benefit be derived for served populations (Vouri, 1982). Integration must begin at the planning stage and requires the cooperation of planners, and of the western and traditional medical practitioners themselves. If integration is not sought, then planning must continue to be "guesswork" to some degree, because the extent of the contribution of (or dependence upon) the traditional sector will not be known.

Finally, the accessibility, the form and the location of services seem to be crucial to their usage. The nature of services (private, government, in-patient, out-patient, etc.) will affect utilization and different facilities will tend to attract different sorts of clients. This is related to their *social accessibility* and perceived attractiveness to different groups. Therefore, the planning of services in residential areas must proceed in the light of the knowledge of the types of people who will eventually live there and use facilities.

Acknowledgments

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References

- Armen, G. (1976) "The programming of social services provision in new communities". *Town Planning Review*, 47-105-126.
- Town Planning Review, 47-105-126.
- Hong Kong Government (1976) *Medical Registration Ordinance*. Cap. 161, Part V, Section 31.
- Horton, F.E. and Reynolds, D.R. (1971) "Effects of urban spatial structure on individual behavior", *Economic Geography*, 47, 36-48.
- Huff, D.L. (1960) "Atopographic model of consumer space preferences". *Papers and Proceedings of the Regional Science Association*, 6, 159-173.
- Joseph, A.E. and Phillips, D.R. (1984 in press) *Accessibility and Utilization: Geographic Perspectives on Health Care Delivery*. London: Harper and Row.
- Joseph, A.E. and Poyner, A. (1982) "Interpreting Patterns of Public Service Provision in Rural Areas". *Economic Geography*, 58, 262-273.
- Lloyd, R.E. (1977) "Consumer Behavior after Migration: A Reassessment Process". *Economic Geography*, 53, 14-27.
- Low, N. (1975) "Centrism and the Provision of Services in Residential Areas". *Urban Studies*, 12-177-191.
- Moseley, M.J. (1979) *Accessibility: The Rural Challenge*. London: Methuen.
- Philips, D.R. (1979a) "Consumer Attitudes to General Practitioner Services: A Reflection of an Inverse Care Law in Intraurban Primary Health Care?" *Environment and Planning A*, 11, 815-824.
- Philips, D.R. (1979b) "Spatial Variations in Attendance at General Practitioner Services". *Social Science and Medicine*, 13D, 169-181.
- Philips, D.R. (1980) "New Towns Bring New Hope for Expanding Hong Kong". *Geographical Magazine*, LIII, 180-187.
- Phillips, D.R. (1981a) *Contemporary Issues in the Geography of Health Care*, Norwich: Geo Books.
- Phillips, D.R. (1981b) "The Planning of Social Service Provision in the New Towns of Hong Kong". *Planning and Administration*, 8, 8-23.
- Smith, D.M. (1977) *Human Geography: A Welfare Approach*. London: Edward Arnold.
- Topley, M. (1975) "Chinese and Western Medicine in Hong Kong: Some Social and Cultural Determinants of Variation, Interaction and Change". In Kleineman, A., Kuntsadates, P., Alexander, E.R. and Gale, J.L. (eds.) *Medicine in Chinese Cultures*. U.S. Department of Health, Education and Welfare. DHEW Publication No. (NIM) 75-653. Washington.
- Vuori, M. (1982) "The World Health Organization and Traditional Medicine". *Community Medicine* 4, 129-137.

SELF-RELIANCE IN LOCAL INFRASTRUCTURE DEVELOPMENT: THE CASE OF THE LAPU-LAPU CITY HALL

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Introduction

The municipal or city hall is probably the most important infrastructure facility in the local government unit. As the seat of local administration, the city hall is the first open window where the ordinary citizen comes in contact with, and is afforded direct experience of government. It is a place where government makes its influence felt, its services rendered, and its abstract powers reduced to tangible human scale.

To the local resident, the city hall holds up not only functional but also symbolic significance. It is, or ought to be, one of the most important landmarks in the city center that give the city its peculiar visual image. That unique character which a particular town or city exhibits is what imbues a sense of place to both residents and visitors alike.

In the Philippines, the town hall does not always enjoy such a commanding role among the complex of landmarks that make up the town center. It usually shares this role with the parish church which was the centerpiece of the Spanish colonialists' urban design. In fact, in many a Philippine town, the town hall appears to be a late addition to the urban landscape and in terms of scale and structural design it stands a poor relation to the parish church. In not a few cases, the site of the town hall is an insignificant corner of what used to be or remains church property.

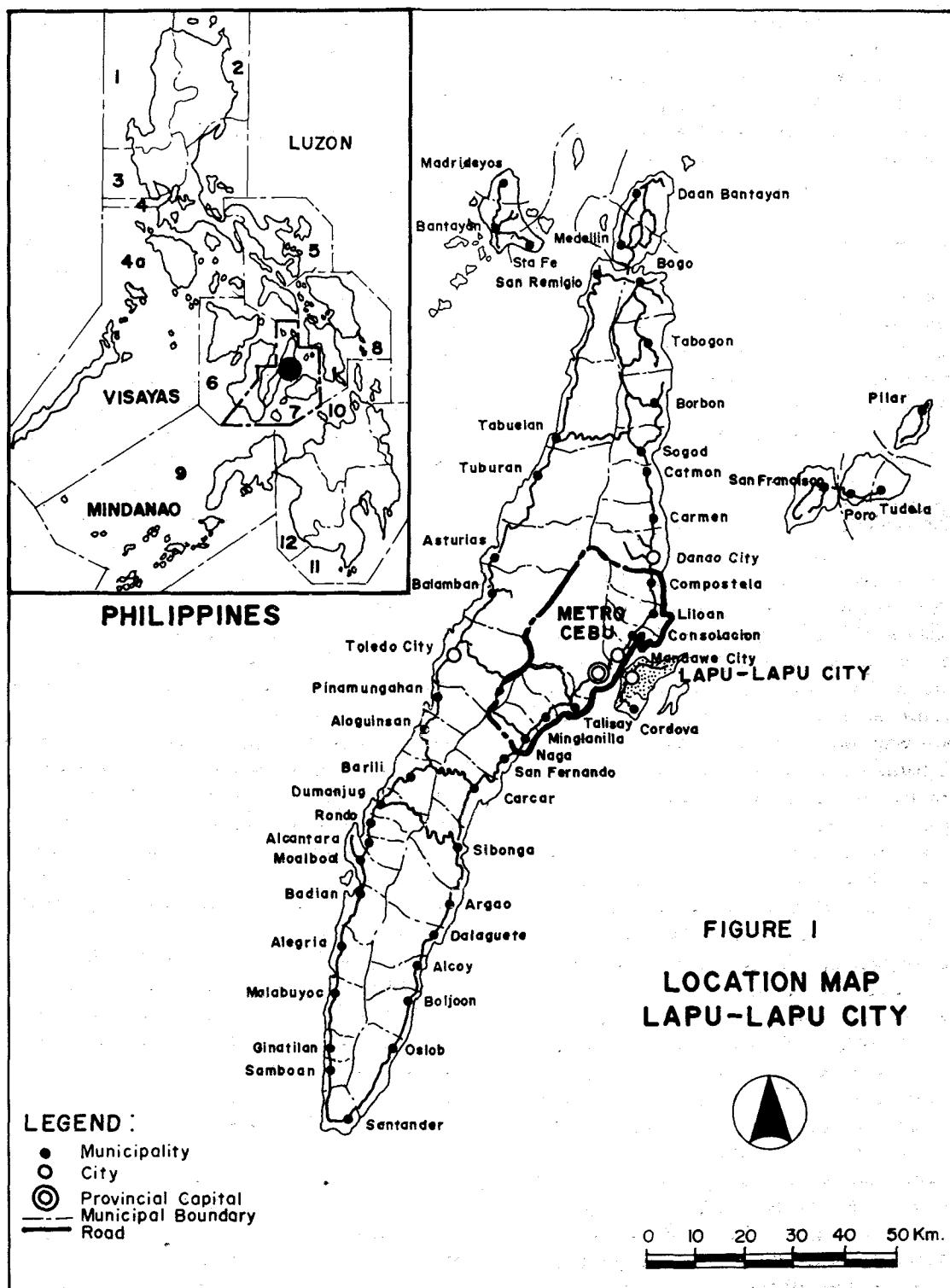
This is understandable because ecclesiastical power dominated 300 years of Spanish colonial rule in the Philippines. It was not until the latter half of the 19th century that secular power began to assume some measure of importance. The function of towns as political

units and not merely as church parishes was strengthened with the enactment of the Maura Law in 1893. Town halls as the seat of local political power began to spring up as an added element of the plaza complex (public square). The coming of the Americans at the turn of the century further strengthened secular power and the focal center of the town moved from the "convento" to the "municipio".

Under the Americans local governments have taken the form that they are in at the present time. And most of the existing town or city halls—including provincial capitols—were erected by the Americans during the first decades of the 20th century. Many of these remain as they were when they were built about 75 years ago. They have therefore become outmoded, cramped and even structurally unsafe, totally inadequate to serve the requirements of the present. In fact, inefficient services in local administration may be traced in no small measure to the quality of physical accommodation that the town or city hall offers its functionaries and the public.

Generally, financially strapped local governments cannot undertake major improvements on their administrative building without assistance from the national government. The cities and towns that now have modern edifices somehow managed to get a slice from the national public works budget invariably through the intercession of powerful politicians. On the whole, however, the construction of city halls receives a very low priority in the capital investment programming of the national government.

Of late, the Economic Support Fund, a component of the "rental" that the U.S. government pays for the use of the American military



bases in the Philippines, has been used to finance the construction of modern municipal or city halls, among other local infrastructures. But so far priority in assistance has been given to local government units within the immediate impact area of the Clark and Subic bases.

Without the assurance of external assistance therefore, few cities or towns would embark upon the construction of a modern administrative edifice. Lapu-lapu City is one of such few exceptions.

This article recounts how a local government chose to take the path of self-reliance and succeeded in undertaking a major capital investment project with only a token assistance from the national government — the construction of the new Lapu-lapu city hall.

Lapu-lapu City

Lapu-lapu City is an island city situated some five kilometers off the coast of Cebu City in central Philippines. For centuries the town had been known as Opon but when it became a city in 1961 under Republic Act 3134 it was renamed after the first Filipino hero — Lapu-lapu— who fought and killed Magellan in 1521. The battle site which is located about 10 km. from the city center on the island of Mactan remains a national shrine.

The city is reputed to be a resort city with its fine white beaches, clear blue waters, and abundant sea foods as the main weekend and holiday treats. Lapu-lapu is also famous for finely crafted Spanish guitars, its most important cottage industry product.

Urbanization has awoken the sleepy town since the early 1960s with a number of major development impulses. The first of these was the transfer of the Cebu airport to Mactan and its upgrading into what is now the Mactan International Airport. Besides serving as an international port of entry, MIA is also the hub of regional feeder routes linking the Visayas and Mindanao areas. It likewise handles the busiest domestic air traffic between Manila and Cebu.

The second major development impulse was the construction of the Mandaue-Mactan bridge, a concrete and steel span across the Cebu channel. This infrastructure facility has

linked Mactan island with the rest of Cebu province. Opened to traffic in 1973, the bridge has encouraged industrial firms to relocate in Mactan as well as enabled Lapu-lapu residents to hold on to their jobs in the mainland and commute back to the island. Today, Lapu-lapu forms part of Cebu metropolitan area which consists of three cities and six municipalities.

Finally, the Mactan Export Processing Zone (MEPZ) was located in the city and became operational in 1978. With this development, the economic transformation of Lapu-lapu had become irreversible. From a somnolent little town of fishermen and village artisans that seemed to proceed at its own sweet time for over 400 years, the city took on a dizzying spin during the last 20 years or so. It has become the busiest transport node outside Manila, a bustling industrial town, and at the same time, it is trying to live up to its reputation as a resort city.

Consisting of six islands of which Mactan is the largest, Lapu-lapu City has a total area of close to 6,000 hectares and a population (1980) of nearly 100 thousand. Due to its coral rock formation, the terrain is characterized by rock outcrops and the thin soil cover is unsuitable for sustained agricultural activities. Its land use pattern therefore reflects this physical constraint; the existing major land uses are urban in nature. Foreshore lands facing mainland Cebu are devoted to industrial activities. Commercial areas are concentrated in the poblacion. Recreational areas are found in the foreshore lands facing away from Cebu City. All other areas outside of these are largely residential. The airport and its ancillary facilities also occupy a large portion of the city's land area.

The Need for a New City Hall

The last two decades have seen a tremendous increase in the volume and variety of municipal services in the light of the rapid transformation in the character and function of the city. The old administrative center was turning out to be sorely inadequate for the kind of transactions that must be carried out from day to day.

The old city hall is a two-storey wooden building situated on one end of the public plaza near the waterfront. Its orientation to the Cebu channel dates back to 1872 when the first "casa municipal" was built. At that time only ferry boats linked the city to mainland Cebu. The building and the site have not changed much since then. Neither site nor building offered much possibilities for expansion.

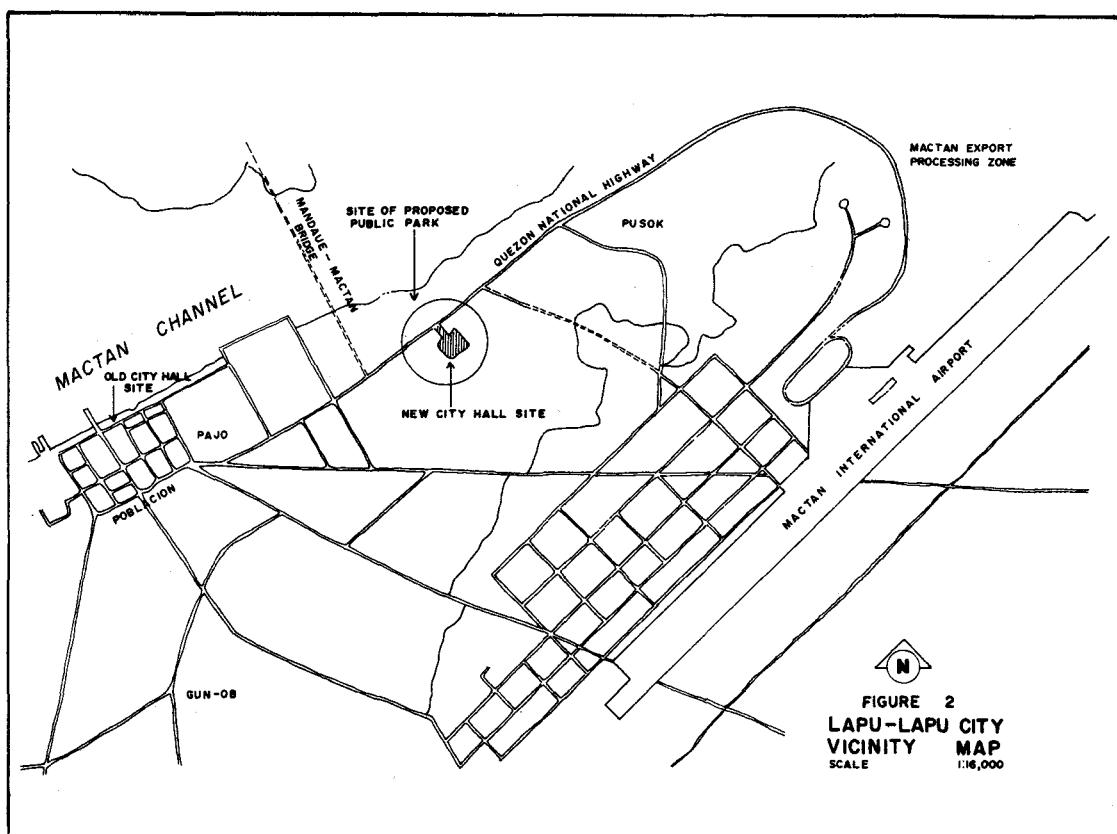
The need to build a new city hall on a new site has long been recognized by the city officials but due to the usual lack of funds they have had to make do with minor repairs and renovations on the old city hall. It was not until 1977 during the second term of Mayor Maximo V. Patalinjug, Jr. that they decided to do something concrete about it. They were not only going to build a new city hall; they were also moving to a new site.

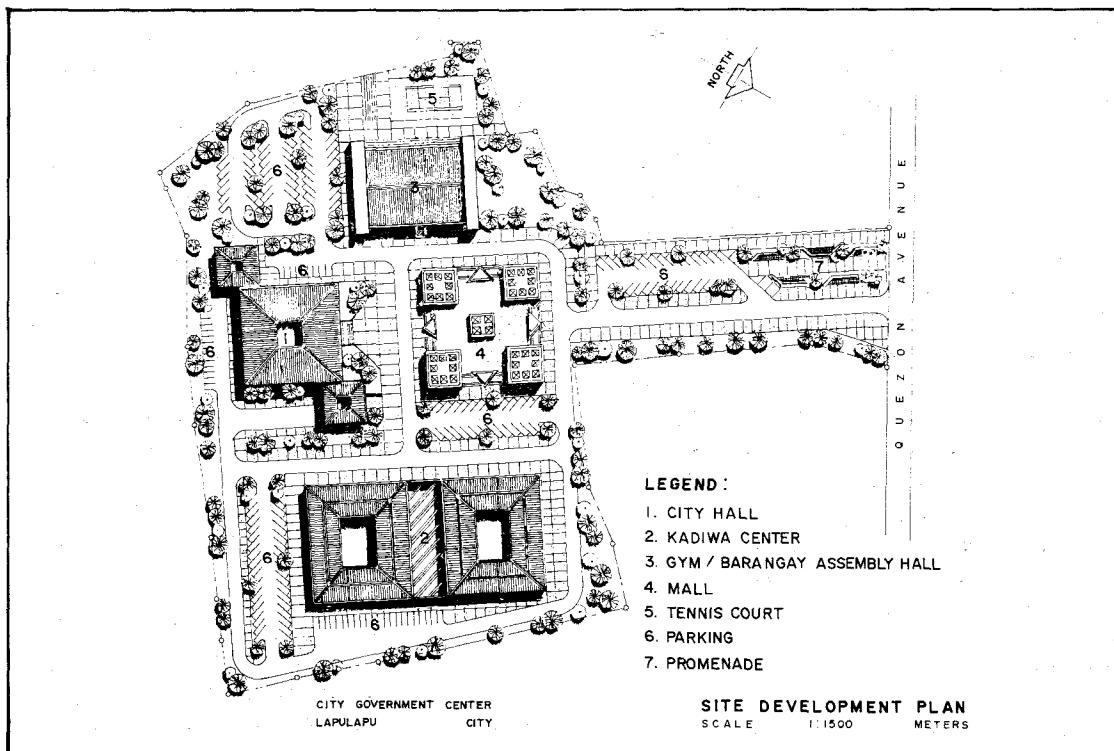
The New Site

Sangguniang Panglunsod (City Council) Resolution 494 (1977) created a committee on

site relocation with Councilor Rubi as chairman. The Committee subsequently recommended an area in barangay Gun-ob. This was however rejected by the City Engineer due to drainage problems. A new committee was then created. Vice-Mayor Rufo Y. Amores, himself an engineer, was the new chairman. The Amores Committee then recommended an area in barangay Pajo and Pusok. The Sangguniang Panglunsod found this new site acceptable and in November 1978 they passed Resolution 393 authorizing the acquisition of the lots from private owners. The 3.9 hectare site was expropriated at the cost of P2.3 million.

The new site is a little over a kilometer to the northeast of the old city hall. More centrally located than the old site, it is closer to major activity centers such as the airport and the export processing zone. It is also more accessible than the old site as the former lies along the Quezon National Highway, the only route connecting the airport to Cebu City and mainland Cebu. (See Fig. 2.)





Design and Feasibility Studies

Upon acquisition of the new site the council commissioned Sanghio and Associates to conduct feasibility and design studies. The preliminary site plan was officially approved under Resolution 339 (1979).

As originally conceived, the city hall would form part of a complex of buildings that includes a commercial center and a gymnasium. The city hall would house the entire workforce of the city government, with spare spaces to be offered for rent to local offices of national and provincial agencies. The commercial retail center would cater to local residents but tourists are also a potential market owing to its proximity to Mactan International Airport. The gymnasium would provide facilities for use by local youth. It could also be offered for lease to industrial firms in the MEPZ where they could hold their athletic and sporting tournaments, conventions, seminars and workshops. (See site plan).

The entire project was estimated to cost P30 million. A feasibility study was prepared for purposes of contracting for a loan with the

Philippine National Bank, a government commercial bank. The PNB however rejected the loan application on the ground that the city did not have the required loaning nor paying capacity. The Commission on Audit has estimated the legal borrowing capacity of Lapu-lapu in 1981 to be a little over P17 million with a paying capacity ranging from P0.9 million to P1.2 million yearly. Given these estimates (see Exhibit 1) the PNB doubted seriously the city's ability to raise the amount required for amortization and interest payments over a 10-year period on a loan of P30 million.

Indeed, a review of the financial statements of the city for the 5-year period from 1977 to 1981 reveals heavy reliance of the city on the national government. The share of national government contributions (BIR allotment) to total general fund revenues of the city fluctuated from 52 percent in 1977 to 62 percent in 1979 and back to 52 percent in 1981. Moreover, receipts from the two major local revenue sources — real property tax and business tax — averaged only 28 percent of total revenues over the 5-year period. (See Table 1.)

Exhibit No. 1

STATEMENT OF LEGAL BORROWING
AND
PAYING CAPACITY

CITY OF LAPU-LAPU

CLASS 1-A

BORROWING CAPACITY:

Assessed value of taxable real property on December 31, 1981.	P249,919,810.00
Seven percent (7%) of the above.	17,494,386.70
Less: Outstanding loans and other long-term indebtedness.	28,435.63
LEGAL BORROWING CAPACITY	17,465,951.07

GENERAL FUND

PAYING CAPACITY:

1977 Gross revenue	P3,620,923.44
Total budget charges (less sinking fund installment, repayment of loans and capital outlays)	P2,705,533.92
Excess	P 915,389.52
1978 Gross revenue	P3,607,466.89
Total budget charges (less sinking fund installment, repayment of loans and capital outlays) . . . P3,210,231.60	
Excess	P 397,235.29
1979 Gross revenue	P3,930,913.82
Total budget charges (less sinking fund installment, repayment of loans and capital outlays)	P4,160,971.31
Excess	P 230,057.49
1980 Gross revenue	P5,801,007.38
Total budget charges (less sinking fund installment, repayment of loans and capital outlays)	P5,183,762.61
Excess	P 617,244.77
1981 Gross revenue	P7,499,668.78
Total budget charges (less sinking fund installment, repayment of loans and capital outlays)	P6,800,562.67
Excess	P 699,106.11
(a) Total excess (shortage) in 5 years	P 2,398,918.20
(b) Average yearly excess (shortage) (total excess divided by 5)	P 479,783.64
(c) Gross paying capacity for loans (average yearly excess divided by .24 loan payable in 10 years with interest at 14 percent)	P 1,999,098.50
(d) 50% of gross paying capacity (in case of non-revenue producing projects)	P 999,549.25
60% of gross paying capacity (in case of revenue producing project)	P 1,199,459.10
(e) Less: Outstanding loans and other long-term obligations	P 28,475.63
(f) NET PAYING CAPACITY FOR LOANS IN 10 YEARS. (50%). P 971,113.62 (60%). P 1,171,023.47	
(X) OUTSTANDING LOANS and other long-term obligations: Per 1981 Trial Balance DBP — P28,435.63	

Source: Local Government Audit Office, Commission on Audit, Quezon City

Table 1
Revenue Performance in Percent Distribution
Lapu-Lapu City, 1977-1981

<i>Revenue Sources</i>	<i>1977</i>	<i>1978</i>	<i>1979</i>	<i>1980</i>	<i>1981</i>
<i>Tax</i>					
Real property tax	24.06	20.94	14.19	21.78	19.67
Business tax	10.55	10.51	7.54	6.63	6.62
BIR allotment	52.11	55.00	62.34	55.58	52.21
Other tax sources	7.71	5.99	4.75	6.04	7.12
Total tax revenues	94.42	92.53	88.82	90.03	85.62
<i>Non-Tax</i>					
Government services	1.67	2.27	2.61	1.89	1.34
Public enterprises					
—market/slaughterhouse	3.62	4.00	2.98	2.51	3.08
—rentals	.02	0.53	0.40	0.40	0.60
—interests	—	—	0.77	4.66	7.21
Miscellaneous	—	0.22	4.42	0.58	2.16
Total non-tax revenues	5.58	7.47	11.18	9.97	14.39
TOTAL REVENUES	100.00	100.00	100.00	100.00	100.00

Source of data: Local Government Audit Office
Commission on Audit
Quezon City

The Path to Self-reliance

The bank rebuff proved to be providential. The city government decided to take the path of self-reliance. The city council resolved to proceed with the implementation of the project to be funded from its own savings.

A new strategy of implementation was devised in such a way that construction of the complex would proceed by stages. The first building to go up would be the city hall, the least self-liquidating among the buildings in the complex. This move was calculated to raise the value of the city's physical assets on one hand, and to increase the financial viability of the remaining phases which are intended to be money-making enterprises, on the other.

Fund Raising Campaign

The city embarked on a fiscal program that

would enable it to realize large enough savings from both the general fund and the infrastructure budget. From the general fund two main sources of savings were tapped: freeze on hiring of personnel and suspension of the district fund of ₱10,000 allocated for each of the nine councilors, to spend in their respective districts. In five years, proceeds from savings on the district fund aggregated a mere half a million pesos. In addition, by operating on 75 percent of total plantilla force, the city government realized close to a million pesos yearly. This was done by not filling up existing vacancies in various offices and departments of the city government. (See Table 2.)

The shortfall in the general fund savings was covered by transfers from the annual infrastructure fund. The annual infrastructure budget of the city averaged about P4.5 million. (See Table 3.)

Table 2

Savings from Freeze on Hiring of Personnel

<i>Office/Department</i>	<i>Actual Force</i>	<i>Plantilla Items</i>	<i>Annual Savings</i>
Mayor's Office	26	38	P124,283
City Administrator	1	3	11,880
City Dev't. Coordinator	1	2	n.d.
Panglunsod Secretariat	—	3	17,520
Sangguniang Panglunsod	16	20	63,864
City Treasurer	27	44	148,020
City Assessor	14	23	89,832
City Fiscal	9	13	47,292
Trial Court	4	7	22,680
Division Office	27	33	39,792
City Health Office	19	22	78,204
City Library	3	4	7,608
Market & slaughterhouse	17	29	98,952
City Engineer	75	84	115,932
GRAND TOTAL	239	325	P865,859

Source: City Treasurer's Office

Table 3

**Savings and Continuing Appropriations
1977-1984**

<i>Calendar Year</i>	<i>General Fund</i>	<i>Infrastructure Fund</i>
1977	P1,087,063.86	P 373,056.81
1978	89,277.14	505,613.06
1979	793,858.14	2,271,059.15
1980	766,857.08	4,622,415.98
1981	1,244,832.60	6,289,960.21
1982	2,315,905.74	7,072,605.88
1983	3,821,018.44	2,422,576.67
1984	3,026,680.44	3,240,020.70

Source: City Treasurer's Office

Five years after the fund-raising campaign started in 1977, the accumulated savings from the general fund reached only about P4 million. But there were more than enough unexpended balances in the infrastructure fund to make up for the shortfall. So in 1981 it was decided that the implementation of the project could now safely proceed.

Actual Construction

In August 1982 the city council ratified the contract between Sanghio and Associates for the latter's architectural, engineering and construction supervision services. This same company was hired earlier to do the feasibility and site plan studies.

Actual construction started in February 1983. Contract period was for 300 days. Meanwhile savings from both funds continued to pile up from 1982 to 1984. Yearly budgetary appropriations for the project were as follows:

1981	—	P 3,450,000.00
1982	—	8,908,488.17
1983	—	1,988,863.33
1984	—	<u>1,887,127.07</u>
	TOTAL	P11,234,478.57

The amount appropriated covered the cost of building and payments for the expropriated private lots. A further outlay of P645,360.49 was released for the finishing touches. This was topped by a P200,000 budgetary aid from the national government.

One year after construction began, the new Lapu-lapu city hall was ready for occupancy.

Project Effects and Impacts

Within one year after the new city hall was inaugurated, the following impacts of the project became apparent:

1. It has greatly eased the congestion in the poblacion area by removing one major traffic attractor — the city hall. At the same time, it has made possible the recovery of additional open spaces in the city plaza after the demolition of a num-

ber of administrative buildings such as the City Engineer's Office, the Division of City Schools, the City Assessor's Office, and the City Development Staff that had been constructed therein.

2. The city's officialdom and bureaucracy and the different agencies of the provincial and national governments now enjoy a more wholesome environment with plenty of fresh air and sunshine in the new site, in sharp contrast to the cramped and muggy atmosphere of the old city hall.
3. The old city hall is now being renovated to accommodate only two remaining municipal services. The library and museum which had long occupied the basement of the concrete bandstand in the public plaza will be moved to the upper floor of the renovated old city hall. The police headquarters and city jail will continue to use the ground floor. Thus the availability of ample space is expected to upgrade the quality of these services.
4. The relocation to a new site has stimulated developments in an otherwise idle part of town. There is now a perceptible rush of private investments in the vicinity of the new city hall and land values are observed to have shot up to as high as 10 times.
5. The only adverse reaction from the public is that the new site is quite far from the traditional center. One advantage of the old plaza complex is that all major services — church, market, schools, government — are located within walking distance around the public plaza. This spatial arrangement is extremely economical and convenient to the ordinary citizen. With the transfer of the city hall to a new site residents will have to make extra trips to get there.
6. The bifocal character of the city center will surely come about in Lapu-lapu. Encouraged by their initial success in self-reliant capital investment programming, the city officials have decided to push through with the remaining phases of the building complex—with or without outside

funding. They have also passed a resolution seeking to acquire nearly four hectares of land across the Quezon National Highway opposite the new city hall to be developed into a park and public plaza. Thus, a new emerging node will tend to enlarge the city center and diffuse the latter's traditional functions.

Conclusion

Local governments are invariably reluctant

to undertake major capital projects without the assurance of external assistance. The usual excuse is the lack of financial resources. A review of the local development investment programs of most towns reveals such unwarranted modesty. The Lapu-lapu City experience has shown, among other things, that it only takes a strong political will and perseverance to transcend one's limitations (and otherwise humiliating rebuffs) and transform them into successful programs.

POVERTY AND POVERTY-REDRESSAL PROGRAMS AS PERCEIVED BY THE POOR OF MANILA*

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The Study

This study attempts to determine how the poor perceive their role vis-a-vis that of the government in efforts to improve their welfare. It also looks into their perception of the relevance and appropriateness of government programs of assistance and services to their felt needs.

Specifically, the study seeks to answer the following sets of questions:

1. What are the priorities of the poor in so far as satisfying their needs is concerned
What types of assistance, if any, do they think would be most helpful to them?
2. What are their expectations from the government for the solution of their problems? Corollary to this, what steps have they taken or are they intending to take to solve their own problems?
3. To what extent are they aware of various programs to uplift the welfare of the poor?
Have they participated in these programs?
If they have, what are their attitudes towards these programs? If they have not, why not?

Identifying the Poor. The study of poverty in the Philippines is still in its infancy and faces a number of conceptual and measurement problems. Previous attempts to measure poverty

have generally been based on two types of yardstick. One, is the absolute measure of poverty which is obtained by choosing a certain money income cut-off level called "poverty line". A household or family falling below this level is classified as poor. This method is convenient and easy to understand although it is considered crude and arbitrary. Another absolute measure is the "market basket" approach which is determined on the basis of income required to sustain a certain minimum standard of living defined in terms of nutritional levels, housing, clothing, etc. The other type of measures includes relative poverty definitions based on the concept of economic inequality or relative deprivation or access to food, services, employment, etc. Still others define poverty in terms of establishing an absolute threshold which is a fraction of average income as suggested by Plotnick and Skidmore¹ or in terms of the respondents' perceived poverty thresholds for income, food, rent, clothing and medical care as experimented on by Mangahas.²

There are many more measurements of poverty advocated by other authors. However, for purposes of this study, not one of these definitions was adopted. Instead, poverty indicators were designed to measure the relative position

*Excerpted from *Study of Poverty-Redressal Programs in Metro Manila*, Report submitted to the International Development Research Center, December 1983. The members of the research team were the following:

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¹Plotnick, Robert and Felicia Skidmore, *Progress Against Poverty* (A Review of the 1964-1974 Decade) N.Y.: Academic Press, 1975.

²Mangahas, Mahar. "Measuring Poverty and Equity Through Perception Variables". *The Philippine Economic Journal*, Vol. XVI, No. 4, 1977.

of households in the study area. These indicators were housing, income and employment. Weights were assigned arbitrarily to the different classifications under each poverty indicator. The higher the weight assigned, the poorer the classification. The relatively poorest household classified under the scheme received a total score of 35 points while a relatively "well-off" household received the lowest possible score of eight.

Sampling Design

The Sampling Frame. In order to identify the sampling frame for this study, all the 1460 barangays³ of Metro Manila were arrayed according to their average income per household based on the 1975 Integrated Census of Population and Its Economic Activities. From this array, the lowest five percent, consisting of 73 barangays, were identified. From this latter frame, a 20 percent sample, consisting of 15 barangays, was drawn systematically with a random start. Considering that the barangays were selected with known probabilities, certain characteristics of the population could be estimated.

The domain of study was pre-determined at the outset as comprising those households availing and not availing of poverty-redressal programs. To identify the domain of the study and to be able to select the poorest among the household residents of the 15 sample barangays, a house-to-house listing was conducted from July 1 to October 8, 1982. A listing form was devised to gather information on the eight indicators and to classify the subpopulations in terms of access to government programs.

A total of 5983 households were listed in the 15 sample barangays. Each household was evaluated and given a score in accordance with the weights assigned to each classification. All the households were arrayed according to their total scores from highest to lowest. They were classified further as to whether or not they had

availed of any government assistance intended to uplift the poor.

A total of 4044 households were found to have availed of at least one government program and the highest score reported under this category was 24. On the other hand, there were 1939 or about 32 percent of the total households listed in the study area that did not avail of any form of government assistance. The highest score reported under the "no" category was 35 points.

In order to obtain an adequate sample size to be interviewed for both categories (availment and non-availment of government programs) an arbitrary cut-off of 27 points was pegged for the "yes" households and a cut-off of 25 points for the "no" category to obtain more or less equal sample sizes. There were 573 households finally selected under the "yes" and 406 under the "no" classification.

During the actual interview, there was a high non-response rate of about 13 percent among the "yes" samples and a higher 24 percent non-response was encountered among the "no" samples. Furthermore, among the "no" samples interviewed, a high rate of shifting from "no" (not availing of any program at the time of listing) to "yes" category was observed so that the samples for this domain of the study have tremendously been depleted. The drawing of additional samples for the "no" category was then decided upon by lowering the cut-off score to 24. Replacements for the non-response samples in the "yes" category were not made because the shifting of "no" households to "yes" more than compensated for the non-response samples. Due to the shifting of "no" households to the "yes" category it became necessary to post-stratify the households after the actual interview for purposes of maintaining the domain of the study.

Finally, the total samples interviewed were 1021 households, 865 of which belonged to the "yes" category of availment whereas only 156 households were eventually classified under the "no" category. The post-stratification of households was necessary as a means of looking at the differences of opinion between these two types of households. The "no" households were considered as intended beneficiaries of government programs and by isolat-

³Barangay is the smallest political unit in the Philippines.

ing them it became possible to have an insight on the reasons for their non-availment. Estimates of the characteristics of the target population in the study (73 barangays) were not made because this study is not concerned with "totals" but rather with the responses of the selected poor. The samples were selected with known probability, hence, whatever proportions or means (averages) calculated can be considered as estimates of the characteristics of the entire study area.

Access to government programs is the core of this study. It is therefore the prime consideration in the analysis to determine or isolate the factors which account for the pattern of utilization. Access as used here carries an implied awareness on the part of the poor of the existence of certain institutions which provide services and yet some of them have opted not to utilize these services.

Characteristics of the Study Area

Physical Characteristics

The study area is composed of 15 barangays, all located in the City of Manila. Twelve of these are in the District of Tondo, two in Sampaloc, and one in San Nicolas. Physically, these areas are just like any other slum area in Metro Manila, where most of the houses are of salvaged material, built very close to one another and form a very irregular pattern. In fact, this is one of the reasons why a sketch map of each area was required during the listing: to make sure that all dwelling units in the area were covered, and to enable the interviewers to trace back the respondents after the sample households had been chosen.

In terms of facilities available, some barangays were a little better off than others. One of the barangays for instance, was continually flooded during the rainy season, and because of lack of sewer facilities, all kinds of filth floated on the water, posing health hazards. Otherwise, sanitation appeared to be a general problem because of the piles of uncollected garbage.

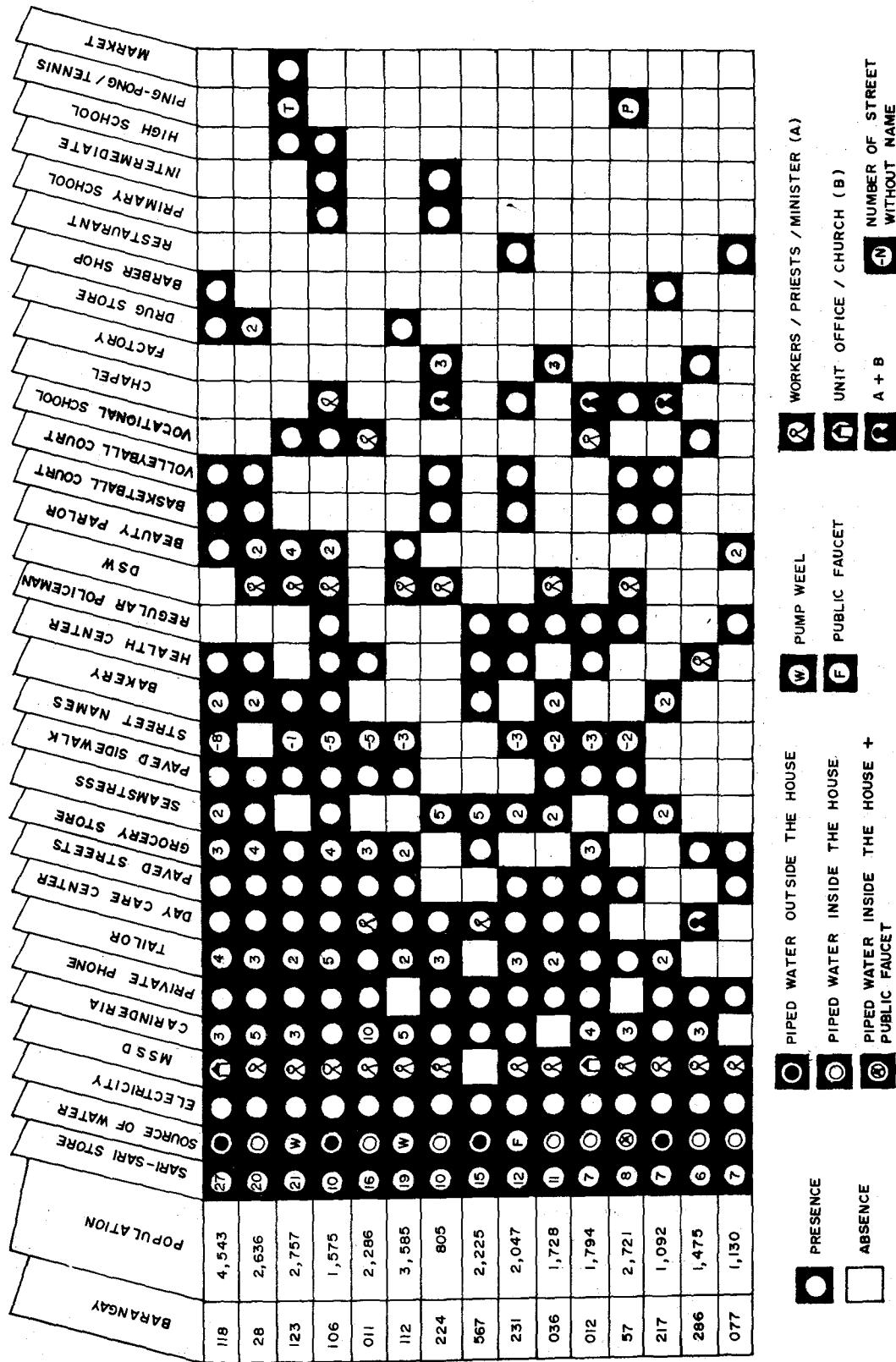
Figure 1, which is a modified scalogram, shows the various facilities available in each of the sample barangays. The facilities, in this scalogram are arranged according to frequency,

from the most to the least frequently found facility in the sample barangays.

The scalogram shows that different levels of facilities and services are actually found in some barangays. Thus, all barangays have sari-sari stores, but only one has a public market and 10 have grocery stores, although these are very small ones. To cite another example, there are several carinderias (dwelling units or small stores that serve meals) in many barangays, but only one barangay has a restaurant. The "carinderia" is actually part of the coping mechanism of the poor. Housewives save time (which they use instead for engaging in gainful activities) and transportation money by not going to market and instead buying cooked food (except rice which they themselves prepare) from the carinderia. Savings are also realized when only two or three servings of food are bought and shared among the entire household. Carinderia operators, for their part, also realize savings by buying in bulk and earn some profits from the sale of cooked food. It is also through the carinderia that good cooks, who are able to prepare good meals with inexpensive items, are able to benefit their neighbors.

Another service or facility shown in the scalogram is the Day Care Center. Day Care Centers were introduced fairly recently through Presidential Decree No. 1567 which directs the establishment of one in every barangay. Many of the sample barangays have therefore established one. In some instances the center may not necessarily be a separate structure but a house which doubles as such. The service or facility is intended for children aged six and below whose mothers need to work for a living, are ill, or otherwise are unable to attend to their care during part of the day. Volunteer mothers contribute five pesos a day. They themselves purchase, cook and feed the children in the day care centers. Care of these children includes creative group activities, supplemental feeding and nutrition education. The objective is to have healthy and well-developed children whose mothers are well-informed in the ways of providing for their children's physical, social, emotional and mental development. As the scalogram shows, two out of the twelve established day care centers are assisted by

FIGURE 1 SCALOGRAM SHOWING FACILITIES / SERVICES AVAILABLE IN SAMPLE BARANGAYS



social workers and priests or ministers; and one by social workers and priests as well as an agency unit office and a church.

Population Distribution

The 15 sample barangays registered a total population of 32,399 during the listing period from July 1 to October 8, 1982. The barangay population ranged from less than a thousand (805) to as high as 4532 in Barangay 118 of Tondo, Manila.

On the average, a barangay where the poor reside has about 400 households and a total population of about 2200. The average size of household membership in the study area is 5.42 which is considered comparable to other areas in Metro Manila. Among the sample barangays, Barangay 112 in Tondo which had the lowest average income per household during the selection process, exhibited the highest household size.

The following table shows the population distribution and the average household size in each of the different sample barangays:

Characteristics of Sample Households

Age-Sex Structure. The age-sex structure represents the product of variations of demographic processes such as fertility, mortality and migration. In urban centers like Metro Manila, the age-sex structure is usually different from that of other areas due to the in-migration of a certain age-group (usually 15-45-year olds) for the purpose of pursuing higher education or looking for work. Comparatively speaking, because of in-migration of adult persons, Metro Manila has a very low proportion of young persons in contrast to that of other regions.

In the case of the study area, the proportion of persons aged less than 15 years is 41.3 percent which is 6.6 percentage points higher than the figure for Metro Manila. This means that the dependency burden among the employed in the study area is greater than that of the average Metro Manilan.

The sex ratio is 100.3 which means that for every 1000 females there are 1003 males; a

TABLE 1 Population Distribution of Sample Barangays in Metro Manila

<i>Barangay</i>		<i>Total Household</i>	<i>Total Population</i>	<i>Average Household Size</i>
T O T A L		5983	32399	5.42
Barangay	112	Tondo	627	5.72
	011	Tondo	421	5.43
	286	San Nicolas	269	5.48
	224	Tondo	146	5.51
	012	Tondo	347	5.17
	106	Tondo	299	5.27
	567	Sampaloc	404	5.51
	118	Tondo	824	5.51
	509	Sampaloc	506	6.38
	123	Tondo	529	5.21
	077	Tondo	209	5.41
	217	Tondo	193	5.66
	026	Tondo	335	5.16
	028	Tondo	481	5.48
	231	Tondo	393	5.21

ratio that is slightly in favor of the males. The predominance of males is pronounced in the age group 25-39. All the other age groups are dominated by females except the 10-19 group, which has almost equal distribution of the sexes.

Household Composition and Average Income. Sample household membership ranges from one person to 21 persons with an average size of 5.84 persons. This average size is a bit higher than the average reported by the entire residents of the study area.

Some poverty studies have shown that there is a higher incidence of poverty among the bigger-sized households. Although this study did not delve into the actual measurement of absolute poverty, the results nevertheless showed that as the size of the household increases, the average monthly income correspondingly increases but the per capita income tends to decrease. This situation may contribute to the observation of some social scientists that poverty is more apparent among the large families because the income does not necessarily increase with the increase in household

If the average income of households in the study area is compared with that of Metro Manilans during the time of interview (approximately during the last quarter of 1982), the ₱952.74⁴ monthly income or about ₱2858.22 for one quarter, is rather low. On the average, a household in Metro Manila for the 4th quarter of 1982 as reported by NCSO was pegged at ₱8,736 or about ₱2,912 monthly. The average reported in the study area is even less than one-third that of the average Metro Manilan. The situation is even more deplorable if the average income of the City of Manila residents is taken into consideration. For the same period, the average income of Manila households was reported at ₱10,022 or approximately ₱3,340.67 monthly, which is 3.5 percent bigger than the average of the study area. Not one among the reported average income of each household size came close to one half the household income of an average Manilan. However, if the average income of the selected poor is compared with that of the lowest 30 percent as defined by the Ministry of Social Services and Development (MSSD) and as updated by

Table 2 Distribution of Household Size of Selected Urban Poor and Average Income

	<i>Households reporting</i>	<i>% Distribution</i>	<i>Average Income</i>		
			<i>of families per month</i>	<i>Per Capita per month</i>	<i>Income per day</i>
All households	1021	100.1	952.74	163.14	5.44
1 member	10	1.0	391.01	391.01	13.03
2 members	53	5.2	696.48	348.24	11.60
3 members	106	10.4	843.97	281.32	9.38
4 members	140	13.7	778.76	194.69	6.49
5 members	173	16.9	823.54	164.70	5.49
6 members	181	17.7	921.08	153.51	5.11
7 members	154	15.1	1057.95	151.13	5.04
8 members	71	6.9	1171.36	146.42	4.88
9 members	56	5.5	1163.00	129.22	4.31
10 members	30	2.9	1349.06	134.91	4.49
11 members	23	2.3	1361.57	123.78	4.12
12 and over	24	2.4	1686.39	116.30	3.88

membership. Table 2 illustrates the economic situation of the different household sizes in relation to their income.

⁴The value of the Philippine peso in late 1982 was ₱9.17 to US\$1.00.

the Consumer Price Index (CPI), only those households with membership of two or less will be qualified to avail of MSSD programs. A more realistic way of looking at the income picture of the selected poor would be to consider their income distribution.

Income Distribution. Table 3 also shows that about 66 percent of the 1021 selected poor had incomes below the average, using the midvalue of the income class as the basis of comparison. Whereas only 3.6 percent of the households in the study area have incomes above the Metro Manila average, only about 2.5 percent of them are within the City of Manila's average income level.

As shown in Table 3, the modal income class is ₱400-599 while the median monthly income is estimated at ₱683.91. This means, therefore, that more than 50 percent of the households studied are within MSSD's concern. However, if poverty is viewed on the basis of surrounding areas (MSSD's lowest 30 percent is a national average) there is no need to have a meticulous measurement tool to conclude that majority of the selected poor are in dire poverty in as far as their income is concerned. The standard of living in Metro Manila and in the City of Manila is certainly much higher than those of other highly urbanized areas such as Cebu City and Davao City.

Employment Status of the Labor Force. The potential labor force of the selected households (persons 15 years old and over) is composed of 3163 persons. However, only 49.7 percent were reported to have a gainful occupation at the time of interview. Majority of the employed persons are household heads and about one-fifth are working wives.

The household head and his spouse help each other essentially to support the family. Wives work in instances where the household head is jobless. Other members of his household also help support the entire family. There were 155 household heads who, whether by choice or by force of circumstance were reported to have no jobs.

Employment Rate. The overall employment rate in the study area was 29.2 percent. However, among the potential labor force, the employment rate was 49.7 percent. This means that, of the total potential labor force in the area, only 49.7 percent were gainfully employed during the last quarter of 1982. The employment rate for the same quarter for Metro Manila was 53.4 percent which is about 4 percentage points higher than that of the study area.

The employment rate among the males was about 40.8 percent and only 17.6 percent among the females. The low participation rate of the females in the area may be attributed to voluntary inactivity for the reason that

Table 3 Monthly Income Distribution of Selected Poor Households

Income Class (₱)	No. of Households Reporting	Percent Distribution	Cummulative Percent Distribution
All households	1021	100.0	
Less than 200	39	3.8	3.8
200 – 399	110	10.8	14.6
400 – 599	202	19.8	34.4
600 – 799	174	17.0	51.4
800 – 999	149	14.6	66.0
1000 – 1999	93	9.1	75.1
1200 – 1599	116	11.4	86.5
1600 – 1999	55	5.4	81.9
2000 – 2399	32	3.1	95.0
2400 – 2799	14	1.4	96.4
2800 – 3199	11	1.1	97.5
3200 – and over	26	2.5	100.0

they have to attend to household chores due to their inability to hire household help. Of the 1021 households included in this study, only three or less than one-half percent were observed to have employed domestic helpers and each of these households operated a small store.

Dependency Ratio. The dependency ratio of the population in the study area is 1:1, i.e., one person in the productive ages of 15 to 64 supports another one in the dependent ages of 0-14 and 65 and over. The economic dependency ratio of the area is 1:3.4, or one employed person supports 3.4 persons, including himself. The economic burden among the employed persons in the study area certainly is much heavier as against that of Metro Manila, which is 1:2.8 in 1980 (1980 Census of Population). This explains the very low per capita income in the study area as compared with the equivalent figures for Metro Manila as a whole.

Occupation of Employed Persons. Based on Metro Manila standards, the occupations engaged in by the employed persons in the study area are below par. Only 0.5 percent of those employed were reported to be professionals while 4.1 percent were clerical workers. The rest of the employed were found in sales, manufacturing, construction and services. Majority of the household heads were in the sales, stevedoring and transportation sectors. About 44 percent of the wives were also in sales and another 23 percent were in laundering and other domestic services.

About 48.7 percent of those gainfully employed earned less than ₱500 a month and only 2.3 percent were receiving compensation of ₱200 or more. The professional, technical and related workers reported the highest average earnings while the lowest average went to the domestic helpers or laundering services. The second highest average was reported by water transport workers followed by small store operators. Since the type of occupation of a person determines the level of this earnings, the types of occupations that majority of the employed persons in the area were engaged in explains the very low income of the households.

The Unemployed Heads. Of the 1021 household heads, 155 or about 15.2 percent were re-

ported to be out of work. Since most households reported the head as the main earner, the study looked into the sources of income of those households, whose heads were jobless. It also tried to find out their places of origin and whether they needed financial assistance. This provided an insight into how the poor households with jobless household heads lived. Table 4 reveals that about 9.4 percent reported no employed members in the family. The rest of the households reported at least one member employed.

It is typical among Filipinos to rely on the help of parents and relatives when a family is in distress and this still holds true even among migrants to the urban center. For the 30 households that reported no employed members, 10 percent did not state their source of income while 30 percent got their support from parents. About 27 percent relied on the help of relatives, 23.3 percent on room rentals, and 10 percent on remittances by husbands or sons employed abroad.

Table 4 Sources of Income of Households Without Employed Members

Sources of Income	No. of Households Reporting	% Distribution
Total	30	100.0
1. Support from parents	9	30.0
2. Support from relatives	8	26.7
3. Room rentals	7	23.3
4. Allowance from husband/son abroad	3	10.0
5. Not stated	3	10.0

Migration History of Households. The migration patterns of the selected poor and the corresponding length of residence in these barangays showed that of the total households only 271 or 26 percent were born in the barangays where they are now residing. The rest of the households either came from other areas within Metro Manila (636 or 62.3%) or from the different regions of the country except Region IX

(Western Mindanao). Most of those coming from outside the Metro Manila Area came from Central Luzon and Leyte-Samar areas. It is significant to note, however, that most of the households have been residing in these barangays for at least three years and a sizeable number (408 or about 40%) had been there for ten years or more.

Of the more than 70 provinces of the country, the households found in the sample barangays originated from only 28 provinces, of which Leyte, Samar and Bulacan seemed to have contributed the most. The Samar-Leyte provinces are known to be outmigration areas due to economic reasons. "Migration" as used here refers to movement of households from one place to another within the country. Hence, even if a household was formed in Metro Manila, if it did not originate from its present residence, it is considered as a migrant or mover household.

Responses of movers from the provinces indicate that the main reason for their coming to Manila is economic. Movers within Metro Manila on the other hand, change residences mainly for convenience such as: 1) to be near schools, relatives or work; 2) to live with

parents; or 3) to be independent from in-laws or parents.

The stated reason for the movement of the household such as "head found job" indicates an individual migration pattern initially by the main earner to look for a job in Manila and when he had finally found one, the family followed suit. This perhaps explains the high sex ratio of persons aged 30-39 in favor of the male.

The Place of Origin of Head and Spouse. Only about 11.2 percent of the households in the study area came from 28 provinces. Data show that only 358 of the household heads or about 35 percent were born within Metro Manila. Similarly, only 336 or about 40 percent out of 849 spouses were born also in Metro Manila. This confirms the earlier finding that migration to the City is more prevalent on an individual basis than on a household basis.

The place of origin of household heads and spouses is presented in Table 5. The table reveals a migration pattern which is similar for both the head and the spouse. At the barangay level, it will be noted that some barangays seem to be dominated by migrants of a particular region. For instance, the heads and spouses of Barangay 112, 286, 118, 123 & 028 mostly

Table 5 Place of Birth of Head and Spouse by Region

Region of Birth	Head		Spouse	
	No.	%	No.	%
National Capital				
Region (MM)	358	35.0	336	38.2
Region I Ilocos	63	6.2	47	5.3
Region II Cagayan Valley	9	0.9	5	0.6
Region III Central Luzon	115	11.3	72	8.2
Region IV Southern Tagalog	50	4.9	40	4.6
Region V Bicol	70	6.8	60	6.8
Region VI Western Visayas	121	11.8	98	11.1
Region VII Central Visayas	24	2.4	24	2.7
Region VIII Eastern Visayas	172	16.2	181	20.6
Region IX Western Mindanao	3	0.3	6	0.7
Region X Northern Mindanao	11	1.1	6	0.7
Region XI Southern Mindanao	1	0.1	3	0.3
Region XII Central Mindanao	21	2.1	1	0.1
Not stated	3	0.3	—	—
Total	1021	100.0	879	100.0

came from Visayas whereas Barangas 106, 077, 036 and 567 were dominated by heads and spouses who originate from the Luzon area. It is worthwhile to mention that there are very few household heads and spouses who came from the Mindanao provinces.

Perception of Problems. The respondents were asked to rank what they thought were the three most important family problems and the three most important community problems. Their responses to the questions reflect to a large extent their state of poverty and their physical surroundings, as shown in Tables 6 and 7.

Insufficient family income was the single most important family problem. This is attri-

buted to such factors as irregular jobs, jobless family members and low pay. Other problems cited were related to or were a consequence of low income. Problems about their house and lot, for instance, only reflected the fact that many of them were just doubling up with other families on squatted land, or else, they were staying with their parents; thus their tenure was very uncertain. Their worry about their children's education also reflected their perceived inability to provide for the higher education of their children so that the latter could enjoy a better life. Similarly, their health problems also reflected the low physical resistance and consequent predisposition to diseases of members of the family, coupled with unsanitary sur-

Table 6 Family Problems as Ranked by Respondents

<i>Family Problem</i>	R A N K I N G						<i>Total</i>	
	1st		2nd		3rd			
	No.	%	No.	%	No.	%	No.	%
Insufficient Family Income	705	69.05	213	20.86	41	4.02	959	93.93
Behavioral Problems	27	2.64	12	1.18	5	.49	44	4.31
Health Problems	58	5.68	40	3.91	9	.88	107	10.47
Inadequate Utilities	29	2.84	24	2.35	7	.69	60	5.88
No House	101	9.89	103	10.09	31	3.04	235	23.02
No Lot	9	.88	6	.59	1	.09	16	1.56
Children's Education	65	6.37	49	4.80	8	.78	122	11.95
Others	7	.69	4	.39	1	.09	12	1.17
None/No Answer	20	1.96	570	55.83	918	89.91	—	—
Total	1201	100.00	1021	100.00	1021	100.00	—	—

Table 7 Community Problems as Ranked by Respondents

<i>Community Problems</i>	R A N K I N G						<i>Total</i>	
	1st		2nd		3rd			
	No.	%	No.	%	No.	%	No.	%
Peace and Order	104	10.19	31	3.04	10	.98	145	14.21
Sanitation	676	66.21	319	31.24	82	8.03	1077	105.48
Drug Addiction	55	5.39	13	1.27	3	.29	71	6.95
Bad Roads	55	5.39	14	1.37	9	.88	78	7.64
Lack of Power	6	.59	19	1.86	5	.49	30	2.94
Gambling	10	.98	11	1.08	1	.09	22	2.15
Others	27	2.64	9	.88	7	.69	43	4.21
No Answer/Don't Know	88	8.61	605	59.26	904	88.54	1597	156.41
Total	1021	100.00	1021	100.00	1021	100.00	—	—

roundings. Behavioral problems refer to family members, usually the husband or the son, getting drunk frequently or being addicted to drugs. Inadequate utilities refer to lack of water, power and drainage.

Insufficient family income was ranked as the most important problem by about 69 percent, as second most important by about 21 percent, and third most important by some 4 percent of the respondents, making a total of about 94 percent who cited insufficient income as among the first three most important family problems. The second ranking problem involved the insecurity of tenure on their dwelling unit, and the third had to do with their concern about their children's education. This third-ranking problem probably reflected their desire for improved socio-economic status for their children and their belief that higher education is a good way of realizing that desire.

To be able to solve their financial problems, the majority of the respondents have tried to live within their meager resources. In other instances, some have resorted to borrowing from relatives, while looking for better sources of livelihood. In a few instances, children had to stop going to school either to help augment the family income or to look after younger siblings and the household as a whole while the parents worked. About 3 percent, however, who were steadfast in their desire to see their children through school allowed them to continue schooling regardless of the economic difficulties.

In regard to community problems, sanitation was given top priority. In fact, sanitation was cited by some 105 percent of the respondents because for some, the first, second, and third ranking problems were all classified under this same category.

The category of sanitation actually includes three related problems: lack of or inadequate water supply, improper garbage disposal, and lack of toilets, and the frequencies would rank these three problems in that order.

It may seem inconsistent that while there is presence of piped water in many of the barangays, lack of water would be cited as a major problem. This is explained by the continued use of rusty old pipes with very limited

capacity in these areas. In most cases, because of the condition of the pipes, no water flows from the taps. In a few cases where water does flow, when somebody in the neighborhood opens his tap, the rest are left without water. To remedy situation, residents either fetch water from a nearby public faucet or buy from peddlers. Enterprising residents usually bring around drums (empty oil barrel) of water in a pushcart and sell these at P2 to P3.50 per drum. In some cases, water is rationed by these peddlers to their regular buyers.

Similarly, the problem of garbage collection has been partly solved by residents who offer to dump garbage into the river or in any open space in the vicinity for a fee. In some cases, the garbage mound is burned; but this is, of course, rendered ineffectual by the presence of wet garbage.

The lack of toilets, on the other hand, has given rise to the "wrap and throw" practice of waste disposal. This practice, perhaps, has contributed to the infrequent collection of garbage from their area, since garbage collectors are reluctant to handle the waste. Others, instead of resorting to this practice, ask permission from the very few who have toilets, for the use of the facility, either for free or for a fee.

The second priority community problem, peace and order, involves common incidence of brawls, drunkenness, and burglary. Regarding this problem, people have tended to just stay out of trouble and not get involved.

Solutions to Problems. After being asked about their problems, the respondents were then asked: "How do you think these problems can best be solved?" The responses with reference to the first three problems are summarized in Tables 8 and 9.

The tables indicate that while the respondents showed a great deal of self-reliance in solving family problems by citing solutions which they themselves would do, they would rather leave the solution of community problems to others or just be resigned to the existence of such problems.

About 80 percent would take direct action to solve the top three family problems. Actually, the solutions offered were the ones they were already practicing, such as living within one's means, saving, borrowing, and looking

Table 8 Perceived Solutions to Priority Family Problems

SOLUTION	FAMILY PROBLEMS							
	Income		Housing		Education		Total	
	No.	%	No.	%	No.	%	No.	%
Take active steps to solve problems	649	—	115	—	49	—	804	—
Approach private institution/ individual	14	—	8	—	2	—	24	—
Approach public officials/service worker	59	—	43	—	6	—	108	—
Be resigned to situation/pray	135	—	37	—	14	—	186	—
Wait for relevant agencies to solve them	53	—	32	—	4	—	89	—
Don't know/no answer	38	—	—	—	47	—	85	—
TOTAL	939	—	235	—	122	—	1296	—

Table 9 Perceived Solutions to Priority Community Problems

SOLUTION	COMMUNITY PROBLEMS							
	Sanitation		Peace & Order		Road Repair		Total	
	No.	%	No.	%	No.	%	No.	%
Take direct action to solve problems	142	—	42	—	—	—	184	—
Accept situation as it is	481	—	220	—	44	—	745	—
Approach others who can solve problems	303	—	148	—	34	—	485	—
Others	3	—	2	—	—	—	5	—
Don't know/no answer	148	—	—	—	—	—	148	—
Total	1077	—	412	—	78	—	1567	—

for jobs or better means of livelihood. A small percentage of respondents would approach other agencies or individuals, to solve community problems. Individuals approached are usually the relatives, friends, neighbors or employers of family members. Private institutions refer to the religious groups who practice their apostolate in the area. The National Housing Authority was usually mentioned in relation to housing problems.

In contrast, only about 19 percent of the respondents would take direct action to solve community problems. These are the ones who choose to clean their immediate surroundings themselves or pay others to do it for them. These are also the people who dare to get involved and directly interfere when brawls take

place. A high percentage, about 75 percent, would just bear the situation, probably reflecting a sense of frustration about, or futility of doing anything. About 48 percent would seek help from others which include the barangay chairman or the police for peace and order, the Metropolitan Waterworks and Sewerage System for water, or an unspecified "government" for other problems.

Perception of Opportunities for Improvement in Manila

Migrant respondents were asked the question: "Do you think there are more, less, or just as much opportunities for improvement in Manila as in your hometown?" During the

Table 10 Perceived Opportunity for Improvement in Manila

<i>Perceived Opportunity for Improvement in Manila</i>	<i>Respondents</i>				<i>Total</i>	
	<i>Head</i>	<i>No.</i>	<i>Spouse</i>	<i>No.</i>	<i>No.</i>	<i>%</i>
Total	235	100.0	386	100.0	621	100.0
More	110	46.8	207	53.6	317	51.0
Same	48	20.4	66	17.1	114	18.4
Fewer	70	29.8	81	21.0	151	24.3
Don't know	7	3.0	32	8.3	39	6.3

interview, either the household head or his spouse responded to the question. The summary of responses is as follows:

Table 10 indicates that the spouses seemed to perceive more opportunities for improvement in Manila than the household heads, although in both cases there were more who thought there were more opportunities in Manila than those who thought there were fewer.

In general, more than one-half of the households considered Manila as having better opportunities for improvement while about one-fourth said otherwise.

Another question was asked: "If conditions remained the same, do you think your life will improve, will remain the same, or will worsen?" This question was asked of all respondents, regardless of whether they were migrants or not.

In general, most of the households (44.4%) thought that their life would improve or get better, more than one-third (38.4%) were uncertain, while only 11.4 percent were pessimistic about the future. The major reason cited by this latter group was that while their incomes remained low, prices of commodities continue to rise. Those who could not say whether life would improve or worsen, on the other hand, indicated that their jobs were unstable and not permanent. They also seemed to have a dim view of the future. The movers or migrant households were more optimistic than the non-migrants because 46.5 percent thought that life would improve, against only 38 percent among the non-movers.

Between "poor" and "non-poor" households, majority of the "non-poor" households felt that life would be better as against 37.4

percent of the "poor" who thought that life would improve. The migrant "non-poor" were more optimistic than their counterpart among the non-migrants.

The data, therefore, indicate that migrant households tend to be more optimistic in perceiving their life in the future than non-migrants, while those who considered themselves poor, regardless of whether they were migrants or not, tended to be more pessimistic than those who considered themselves "not poor".

The first finding could perhaps be explained in terms of Lee's theory of migration involving the "push" (negative) factors that make people want to move out of a place and the "pull" (positive) factors that tend to attract people to move to that place. In this case, migrants moved to Manila primarily because of "push" factors. It will be recalled that many of them came from depressed areas in the country. The mere act of moving had perhaps given them hope for a better life, although it is also probably true that there are more options for earning a living in Manila than in the provinces.

The second finding perhaps only reflects the hopelessness of the poorer among the poor since they have not been able to improve their life.

With reference to how they felt towards their community in relation to other areas in Metro-Manila, the question was asked: "If you were to decide, would you rather stay in this community or transfer to another place?" The responses, which reflect the degree to which they have been integrated into the community, were as follows:

Table 11 Perception of Migrant Households on Whether to Stay in or Move Out of the Community

<i>Migrant Classification</i>	<i>Total</i>		<i>Stay</i>		<i>Move</i>		<i>Responses</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
All Households	750	100.0	422	56.3	169	22.5	159	21.2
Poor	420	100.0	242	57.6	94	22.4	84	20.0
Not Poor	330	100.0	180	54.5	75	22.7	75	22.7
Households Availing	633	100.0	360	56.9	145	22.9	128	20.0
Poor	382	100.0	221	57.9	88	23.0	73	19.1
Not Poor	251	100.0	139	55.4	57	22.7	55	21.9
Households Not Availing	117	100.0	62	53.0	24	20.5	31	26.5
Poor	38	100.0	21	55.3	6	15.8	11	28.9
Not Poor	79	100.0	41	51.9	18	22.8	20	25.3

While the above responses reveal that majority of the migrant households (56.3%) have been integrated into the community, the reasons cited by the respondents could be gleaned from the following table.

Table 12 Reasons of Households for Deciding to Stay in Barangay

<i>Reason</i>	<i>No. Reporting</i>	<i>%</i>
<i>Total Households</i>	422	100.0
1. Grew up in the place with relatives and friends	136	32.2
2. Near place of work/school/market	121	28.7
3. Own house/free rent	86	20.4
4. Low rent/cheaper rent	19	4.5
5. Difficult to transfer/no money to move	23	5.5
6. No place to go	14	3.3
7. Peaceful place/contented here	23	5.5

About one-fifth, (21.2%) however, had no categorial answer while approximately the same percentage (22.5%) signified their intention to move out for the following reasons:

1. Go to the province because:
 a) we can farm (28)
 b) cheaper cost of living (7)
 c) more peaceful (12)
 d) life is difficulte here (8)
 e) to be with parents/relatives (11)

2. Go anywhere so long as:
 a) there is a job (20)
 b) cheaper housing (10)
 c) given a house (14)
 d) bigger space/more comfortable/peaceful (28)
 e) near work (18)
 f) near relatives and friends (13)

On the basis of the motivations of households to move out, 39.1 percent would prefer to go back to the province because the household can engage in farming activities or it is more peaceful there while 61.9 percent will move anywhere if there is a job, cheaper or free housing, work or relatives and friends nearby and if the new place is not crowded or is more peaceful and comfortable.

The responses of those without a categorial answer indicate that the reasons are more or

less the same although expressed in different shades of meaning as shown in the following table:

Table 13 Responses of Migrant Households Who are Not Sure of Staying or Moving Out

Reasons for Responding "It Depends"	No. of Households	
All Households	159	100.0
1. If there is a better/more peaceful place	82	51.6
2. If owner of present house will not drive us out due to inability to pay rent	25	15.7
3. If there is a better job	20	12.6
4. If we can own house and lot	19	11.9
5. If there is free housing or low rent	11	6.9
6. Anywhere except Tondo	2	1.3

Except for the second-ranking reason (to be driven away if they can not pay rent) the other reasons for staying or moving out would depend so much on the household's perceptions. Reason no. 2 is certainly not within the control of the households; there is an element of uncertainty in their staying in the community. In other words, if their landlord will not drive them away, they will stay. Otherwise, they will be forced to look for another place in which to stay.

Perception of Poverty

A series of questions were asked to determine the respondents' concept of poverty. First they were asked whether they considered themselves poor or not, and to this question, 599 households or 58.7 percent said they considered themselves poor, while the rest said they considered themselves not poor. There seems to be a common basis for the respondents' fitting themselves into the "poor" or "not poor" categories because in general, all households who

classified themselves "poor" had lower average incomes than those who classified themselves "not poor".

The respondents were also asked to state the minimum possible amount required to provide their household with the basic necessities as against the amount required for them to have the kind of life that they really wanted.

Regarding the income required to meet their basic needs, 18.4 percent felt that less than ₱400 a month would be adequate to meet their basic needs while the majority (54.3%) considered an income of ₱400 to ₱799 adequate to meet their basic needs.

If their actual incomes were compared to the amounts they said they required, only 29.2 percent of the total households could really be defined as "poor" since their stated amount required actually fell short of their actual income. In fact, the data show that majority, if not almost all of the households interviewed had very simple needs; the level of income they required is not even half of the present average income of Metro Manilans.

The situation therefore exists where there are 58.7 percent of the respondents subjectively rating themselves as "poor", but where only 29.2 percent may be "objectively" defined as "poor", based on their actual incomes and their estimates of income required for them to meet basic necessities. A possible explanation for this is that while the respondents may have been able to cope with their present economic condition materially (by reducing their needs to the barest minimum) and psychologically (by being resigned to it), they are essentially not satisfied with their present state and would like to improve it. This is shown, for instance, by the fact that a much larger proportion, 90.8 percent would require additional incomes if their *desired* style of life were considered. Table 14 summarizes the households requiring additional incomes to meet basic needs and their desired style of life, referred to as "standard of living."

When they were asked about the monthly income required to attain their standard of living, 26.5 percent mentioned the income range of ₱800-1199; 28.3 percent, ₱1200-₱1599; 19.6 percent, ₱1600-₱2399; and 21.2

Table 14 Distribution of Households Requiring Additional Amount to Meet Basic Needs and Standard of Living

<i>Present Income Class</i>	<i>Households Requiring Additional Amount to Meet: Basic Needs</i>			<i>Standard of Living</i>		
	<i>No.</i>	<i>%</i>	<i>% to Total Household</i>	<i>No.</i>	<i>%</i>	<i>% to Total Households</i>
All Households	298	100.0	29.2	927	100.0	90.8
Less than ₱400	102	34.2	10.0	148	16.0	14.5
400-799	149	50.0	14.6	374	40.3	36.6
800-1199	31	10.4	3.0	225	24.3	22.0
1200-1599	11	3.7	1.1	91	9.8	8.9
1600-1999	4	1.3	0.4			
2000-2399				59	6.4	5.8
2400-2799	1	0.3	0.1	13	1.4	1.3
2800-& over				17	1.8	1.7

percent did not require additional income. Of those who did, one-fourth required an additional amount ranging from ₱1 to ₱500; about one-third, ₱501-P1000; and a small portion of 0.4 percent wanted an additional amount of more than ₱8000 per month.

The question was also asked, "Why do you think some people are rich and others poor?" To this question, the respondents cited the following reasons why some people are poor:

<i>Factor</i>	<i>Frequency</i>	<i>%</i>
Lack of resources	422	43.3
Laziness	203	19.9
Destiny/luck	188	18.4
Combination of laziness and lack of resources	73	7.2
Having many children	21	2.0
Lack of ambition	12	1.2
Others	82	8.0

Almost half of the respondents attributed poverty to lack of resources, which includes lack of formal education, lack of capital and poor parentage. This is in recognition of the fact that one has to have something to start with, and that high level of education and/or net income (commonly referred to as capital) increase the probability of improved economic

status. High level of education is thought of as an effective means of getting a good paying job, while net income is normally used as capital for small business enterprises. The "others" category includes such responses as having vices or getting no assistance from other people.

Finally, when respondents were asked to what extent individual uplift depended on one's self, a large majority, 73 percent, replied that it depended *almost wholly* on the individual, while another 22 percent said that it depended to a large extent on the individual. Less than 1 percent said that it depended wholly on factors outside the individual.

The concept of self-improvement of the respondents seems to be that while the individual has to play a significant role in his own uplift, he has to have resources in the form of better education and financial capability for investment. Either of these will not be enough; both will have to be present to achieve positive results.

Their responses to the question, "What do you think should be done for the poor in Metro Manila?" are consistent with such conception. A big majority said that they should be provided with jobs, if they are willing to work. Following are the more significant responses to the question:

Provide job opportunities	60.23%
---------------------------	--------

Provide loans	5.29%
Provide house and/or lot	10.87%
Provide basic necessities	3.62%
Provide free schooling	1.27%
Lower prices of goods	1.47%
Send them back to the province	2.84%
Make the rich help the poor	2.25%
Enforce family planning	1.37%
Leave them alone	1.45%

These responses could still be further generalized into the following: provide basic needs (to include housing), make available gainful employment (by providing free education, loans and job opportunities), and others. Some of them were more specific in their answers in saying that industries or factories should be established in the area, and they expect the government to be able to do the things specified above. Thus, it is the perception of the majority that the role of the government is to provide the poor with the means to be gainfully employed.

Awareness and Utilization of Poverty-Redressal Programs

Utilization of Programs: All Households

In order to assess the extent of utilization of government programs and services in the study area, each household in the 15 sample barangays was asked if any member was availing or had availed of such government services. The following table shows the proportion of households which had availed of these programs at the time of the listing, which was from July 1 to October 8, 1982.

Residents in the study area who availed of government programs ranged from a low of 30.6 percent in Barangay 011-217 both of Tondo to a high of 92.2 percent in Barangay 286, San Nicolas. On the average, the actual utilization of government services in the study area was 67.6 percent a little more than two-thirds of the population. However, during the interview of the selected households, there was a big shift from non-availment to actual usage of these government services. Table 16 shows the comparison of actual use during the listing and at the time of interview.

The sudden increase in the utilization of

government services during the interview which started in December 1982, and completed in March 1983 may be due to the increased awareness of these types of services acquired during the listing operation. The questions asked during the listing operation may have triggered many of the households to use the services they may not even be aware of before. On the other hand, in some instances, the respondents may not have understood the questions, thus the responses were

Table 15 Total Households Listed in the Study Area by Utilization of Government Programs by Barangay

Barangay	Households Total	Listed "Yes"	% Yes to Total
All Barangays	5983	4044	67.6
Barangay 112, Tondo	627	255	40.7
Barangay 011, Tondo	421	129	30.6
Barangay 286, San Nicolas	269	248	92.2
Barangay 224, Tondo	146	120	82.2
Barangay 012, Tondo	347	306	88.2
Barangay 106, Tondo	299	105	35.1
Barangay 567, Sampaloc	404	241	59.7
Barangay 113, Tondo	824	759	92.1
Barangay 590, Sampaloc	506	447	88.3
Barangay 123, Tondo	529	426	80.5
Barangay 077, Tondo	209	162	77.5
Barangay 036, Tondo	135	219	65.4
Barangay 028, Tondo	481	419	87.1
Barangay 231, Tondo	393	149	37.9

less reflective of the actual situation. While almost all barangays reported an increase in availment of government services, Barangay 036 registered a decrease mainly due to the big non-response of 33.3 percent among the "Yes" samples.

It could then be said that access to government programs in the study area, which is representative of the lowest 5 percent among barangays in Metro Manila based on average income of households, is within the range of from 67.6 percent to 84.7 percent on the average. The high rate of utilization of such services could be indicative of the plight of the residents. This finding is contrary to the finding of Alvarez-Layo in their study where poverty was equated to minimal access to services and facilities at the macro-level.

Table 16 Comparison of Availment of Government Services During the Listing Operation and Household Interview

Barangay	& % Points		Increase/ Decrease (2) - (1)
	Availing During Listing (1)	Availing During Actual Interview (2)	
All Households	67.6	84.7	17.1
Barangay 112	40.7	83.9	43.2
011	30.6	80.3	49.7
286	92.6	98.9	6.7
224	82.2	85.7	3.5
012	88.2	92.3	4.1
106	35.1	70.1	35.0
567	59.7	81.2	21.5
118	92.1	88.5	3.6
590	88.3	98.3	10.0
123	80.5	85.7	6.2
077	77.5	87.2	9.7
217	30.6	68.9	38.3
036	65.4	61.5	(3.9)
028	87.1	100.0	12.9
231	37.9	80.9	43.0

Awareness and Utilization of Programs: Sample Households

Table 17 summarizes the extent of aware-

ness, utilization and felt need for each of the programs. It is immediately apparent in the table that in many of the programs, the proportion of the sample households who were aware of the programs is significantly greater than those who actually availed of the programs, whether in the past or during the time of the interviews. There is also a high proportion of those who felt a need for the service and this was true for most of the programs.

The table also indicates that: a) food and nutrition programs and medical services including consultation and free medicines, have been availed of by a comparatively higher percentage than the other programs and this seems to be consistent with what the respondents said about health being a major problem among many families; b) scholarship programs have been availed of by only a few in spite of the respondents' realization that education is a good investment for future economic uplift; c) similarly, income generating projects have been availed of by only a few in spite of the respondents' expressed problem of insufficient income; d) the presence of day care centers in many of the barangays seems not to have attracted many households; and e) very few have availed of housing programs in spite of existing housing problems for many of the households.

Problems Met. Those who availed of the services were asked what problems they met, and the problems enumerated included: queueing, unapproachable service personnel, distance of service center, absence of service personnel, unexpected fees, and lack of patronage.

Queueing, or not being attended to immediately, was a problem especially in the KADIWA Centers, where food stuffs are sold at lower-than-market prices, and in medical centers where consultations and medicines are given out free. At the KADIWA Centers, people have to line up to be able to buy fresh meat and vegetables, line up again to have these weighed, line up once more at the cashier's for payment, and finally line up for inspection of the receipts and the goods by the guard before they could go out of the building. Aside from this, people felt discouraged by the distance of the KADIWA Centers which entailed transportation

Table 17 Awareness, Utilization and Felt Need for Programs

<i>Program/Service</i>	<i>Awareness of Program</i>		<i>Currently Availing</i>		<i>Availed of in the Past</i>		<i>Feels Need for Program</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
1. Food and Nutrition								
a. Kadiwa	999	97.8	374	36.6	413	40.4	1011	99.0
b. Operation Timbang	757	74.1	123	12.0	365	35.7	949	92.9
c. Nutrition Education	685	67.1	77	7.5	229	22.4	951	93.1
d. Feeding Program	692	67.7	87	8.5	244	23.8	847	92.7
e. Day Care Services	960	43.0	55	5.3	114	11.1	933	91.3
2. Health								
a. Free Consultation	996	97.5	581	56.9	475	46.5	1018	99.7
b. Free Medicine	988	96.7	508	49.7	465	45.5	1017	99.6
c. Medical Services	905	88.6	503	49.2	418	40.9	1010	98.
d. Dental Services	948	92.8	127	12.4	633	61.9	966	94.
e. Referral Services	267	26.1	25	2.4	99	9.6	898	87.
3. Education and Manpower Development								
a. Study Now Pay Later Plan	343	33.5	—	—	1	.09	959	93.
b. State Scholarship Program	218	21.3	—	—	0	—	950	93.
c. Kabataang Barangay	258	25.2	3	.29	1	.09	966	94.
d. Pangulo Scholarship	91	8.9	1	.09	0	—	950	93.
e. MECS Philam Life	125	12.5	0	—	0	—	939	91
f. Skills Training	328	32.2	6	.58	66	6.4	946	92
4. Employment								
a. Income Generating Projects	200	—	5	.48	4	.39	926	90.6
b. Job Placement	165	—	1	.09	6	.58	930	91.1
5. Housing								
a. Biglang Bahay	890	—	18	1.7	54	5.2	984	96.
b. Tondo Foreshore	666	—	51	4.9	21	2.0	945	92.
c. BLISS	882	—	2	.19	2	.19	920	90.

money. A few also complained of "irritable service personnel."

In the case of medical programs, the most common complaint was the lack of medicines or the absence of the doctor, and in cases where both medicines and doctors were available, the practice of queueing and the length of time it took before a patient could be attended to. Many also complained of unexpected fees, since they said there were times when they were asked to pay for the medicines and/or the services. Unapproachable service personnel was also a complaint in relation to these programs.

Queueing and unapproachable service personnel appeared to be common complaints about those programs which were availed of by a higher percentage of respondents. A few also stated lack of patrons as a problem in these programs, perhaps because it is common practice that clients who know people in the agency tend to be given priority over those who don't.

The other problems enumerated earlier were mentioned by only a few. In spite of these problems, however, there was general satisfaction expressed for the programs availed of. Very few expressed dissatisfaction, and this sentiment was caused largely by the problems they met while availing of the services.

Reasons for Non-Utilization of Programs. Those who had not availed of any program at all were asked why they had not done so. The major reasons given were the following:

a) Limited finances

This was especially true of the KADIWA, and the housing programs and the Day Care Centers. The simple reason that people have not availed of these programs in spite of an expressed need for them is that people cannot afford them. In the case of the Day Care Centers, mothers said that they were being charged for the food their children ate in the center.

b) Absence of service program in the locality

Not all of the programs were available in all the barangays. Distance, time and money involved in going to other areas for the service prevented the poor from availing of the program.

c) Insufficient knowledge about require-

ments and procedures

Again, this reason was common in the case of those who did not avail of the housing programs. People did not know how to go through the process of applying for housing and they had the mistaken idea that the Bagong Lipunan Improvement of Sites and Services (BLISS) projects particularly were only for government employees and so they thought they did not qualify to stay in one. Not knowing how to apply and the thought that they did not qualify also prevented others from availing of the scholarship and employment programs.

d) Lack of patrons

Not knowing anybody who would sponsor their request tended to be another common reason for people not to avail of housing, employment, and scholarship programs, although a few also cited this reason for the other programs. In some cases, people knew somebody whom they thought would be able to help them, but they felt embarrassed to approach him for help.

e) Delay in the dispensing of service

This is perhaps a result of poor service given to those who availed of the programs. The reason "service was not immediately dispensed" was given with reference particularly to the more popularly utilized programs: health and nutrition and medical services, even by those who have not yet availed of the programs. They must have heard of this from those who had actually gone through the experience. This reason however, was less often cited in other programs.

f) Red tape

The reason "they require many things and the procedures are long" was given with particular reference to the BLISS housing program, the Tondo Foreshore Project, and the scholarship programs. This reason was not given for non-utilization of all other programs.

g) Lack of time

The highest frequency of this reason being given for non-utilization was with

reference to the skills-training program, since people had to go to the training centers, to avail of it. The frequency was also relatively high for the housing programs, where "red tape" was also given as a major reason, and for the food and nutrition programs, where "queueing" was a common complaint. Mothers also gave "lack of time" as reason for their non-utilization of Day Care Centers. Mothers who avail of this service usually formed themselves into some kind of association through which money is collected from members each day to defray expenses for next day's food for the children. Mothers are also asked to buy the ingredients and prepare the food.

h) No need for service

This reason for non-utilization of various programs was cited in varying frequency with reference to particular programs. In some cases, there were really no children in the family young enough to take advantage of the food and nutrition programs, for instance. In other cases, however, it was not possible to know whether they had no need for the program.

The respondents, however, did have alternatives to the services being offered through the programs. Instead of going to the KADIWA for instance, they went to a nearer market where they paid less for transportation, and where they had their "sukis" who gave them discounts from time to time. Of course, the "carinderia" which sold cheap cooked food offered an alternative to having to go to the market at all. Others, whose needs were quite few, just depended on the "sari-sari" stores in the area where they could even purchase some food items on credit. Instead of going to the service clinics, some preferred to nurse their sick at home, or in more serious cases of illness, preferred to consult the doctors at a public hospital where they paid token fees. For nutrition and supplemental food, particularly for their children, the respondents turned to alternative services such as the Don Bosco School, the parish church, the New Era (Iglesia ni Kristo) School and missionaries that from time

to time offer bread or nutribun and milk. The alternative sources of skills training that the respondents patronized were the Guzman Institute of Electronics, Samson Technical and Fashion School, Amang Rodriguez Vocational School and the Rajah Soliman School all of which offer vocational and technical courses at very low fees. For job placement aid, the respondents on their own initiative, turned to the employment bureaus of the Ministry of Labor and Employment which are located in strategic places all over the country. Their alternative source of medical assistance including free medicines, eyeglasses, crutches and even wheelchairs was the public service TV program "Kapwa Ko, Mahal Ko". Finally, there were also the priests and nuns in the area to whom they could go for various kinds of assistance.

Conclusions and Recommendations

One insight derived from this study is that when poor people get to know about government programs, they avail of them. Between the initial listing of households and the subsequent interview of sample households, there were many households who were recategorized from "never availed" to "availing" of services and programs. This points to a need to inform the target beneficiaries about various programs, who are entitled to them, and how to avail of them.

Understandably, a few government service agencies, because they know that they cannot possibly cope with the demand for their services should they make the programs widely known, have chosen to just wait for referrals and walk-in clients instead of going out and reaching to their clients. Fear of not being able to cope with the demand, however, is not sufficient reason to withhold information. It is quite possible that people who get to learn about the programs and who are able to gather enough courage to approach the agencies themselves may be the better off among the poor, and not the poorer ones whom the agencies really want to reach in the first place.

The data also indicate that even in cases where programs are known to the people, their knowledge is sometimes insufficient. Thus, they

are also unable to avail of the services intended for them.

The problems cited by the respondents and which are confirmed by the physical squalor in the area, also indicate that the place, admittedly where many of the poor are concentrated in Manila, has not been sufficiently reached by the many programs listed in the inventory. In spite of the basic needs approach of the government, the poor have not been sufficiently extended the very basic needs of water, garbage disposal, drainage system or even toilets. The absence of these facilities and utilities could render futile whatever health programs are available in the area.

There seems to be a need, therefore, to prioritize the services being extended to the poor and to make sure that the services are sufficient to make an impact on the whole community. Even if there were garbage collection, for instance, if the collection periods were too few and far between, garbage would remain a problem. Similarly, even if water were available if the amount is grossly insufficient, sanitation would still be a problem. To be sure, the respondents have expressed general satisfaction over the results of the program which they availed of. These programs, however, have short-term effects, and these, perhaps, are not enough. Programs with long-term effects, which would really contribute to the self-reliance of their beneficiaries are required.

Although the people have indicated self-reliance in dealing with family problems, they have somehow tended to rely on others, mostly on the government, for the solution of community problems. At the same time, they have also shown a high degree of resignation to and non-action about these problems. This attitude however, could have been developed by the poor because for so long, and after so many studies had been conducted in the area, conditions have remained essentially the same.

That is not saying, however, that the people have become hopelessly fatalistic; they still believe, to a large extent, that they can direct their lives. After all, they have — within the limits of their resources and their imagination — tried to cope with poverty and the conditions attendant to being poor. This dependence on

the government is perhaps justified, not only in terms of the basic needs required in their community but also in terms of equipping them so that they may get themselves out of the rut of poverty. Poverty is a cycle. One is poor, and therefore cannot afford higher education, and without good education one cannot get good employment; and with limited capacity for employment or for investing in income generating ventures, one remains poor. The high rate of inflation, of course, has only served to aggravate the problems for the poor. The cycle has to be broken, and to do this they look up to the government to make their place more livable, and to provide education and job opportunities. Although they have made adjustments to the kind of life they live, the poor actually want a better life and are willing to work for it, given the opportunity.

The government's appreciation of their condition is perhaps best indicated by the several programs intended for them as well as policy statements indicating resolve to uplift their welfare. These programs have proved inadequate, not only in what they intend to provide and in how they are implemented⁵ but also in the manner by which service is dispensed. Not only are the clients made to wait, but in many cases service personnel were also rude. The data do not indicate how long the clients have been made to wait nor how badly they have been treated, but apparently these have been enough reason to discourage some from going back and others from even attempting to avail of the service. Apparently, there is some kind of accounting going on in the minds of the poor. Even if they need the service being given out free if it takes too much of their time, if it is not reliable (due to absences of service personnel, lack of medicines, etc.), if some expense is involved, or if they have to suffer humiliation, then they look for alternatives.

There really is a need to review the programs in terms of whether or not these programs actually contribute to the uplift of the poor and if they do, to what extent. A decision will

⁵These are discussed in a different section of the report submitted to the IDRC.

also have to be made whether to spread out the benefits of the program as thinly as possible so as to benefit, no matter how insufficiently, the largest possible number — or to concentrate and re-channel the resources to some priority areas, priority projects, or priority sectors of the poor.

A list of minimum needs can conceivably be prepared, followed by an effort to supply these minimum requirements to all areas occupied by the poor. This could include water supply, a waste disposal system, garbage collection and disposal, and drainage. The residents can even be mobilized for these tasks if a system and a technology suited for them can be found.

There is also a need for the various programs to be packaged together so that they do not duplicate, and so that complementary programs, such as skills training and placement, can be put together for increased effectiveness.

Some kind of information program is also required so that the target beneficiaries will be made to know what programs are available, who are qualified to avail of such programs, and how to avail of the benefits from such programs. Of course, service centers also need to be located as closely as possible to their target groups.

The data also indicate the need to train service workers if only to make them more service-oriented and more sensitive to the

psychological needs of their clients, especially the poor.

It is entirely possible, however, that the service workers' undesirable manners were a result of pressure of work. This will have to be determined, and if work pressure is found to be contributory to this attitude, review and simplification of procedures could perhaps be adopted. This would benefit not only the workers but also the clients.

A system of priorities with respect to the beneficiaries could also help ease pressures. A system of determining the relative standing of each poor household in relation to the other poor could be devised following the system used in this study.

All of these recommendations, however, would require a pooling of resources and manpower, as well as a more systematic approach to the problem of poverty. In short, what is required is a plan designed specifically for the uplift of the poor, and which will allow for monitoring and evaluation of the effects of the program. Where the objective is the improved welfare of the poor, the measure of effectiveness of any program will no longer just be how many people were serviced (as is true in many reports), but also how many communities have been adequately supplied with the minimum requirements and how many people actually improved their socio-economic situation.

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