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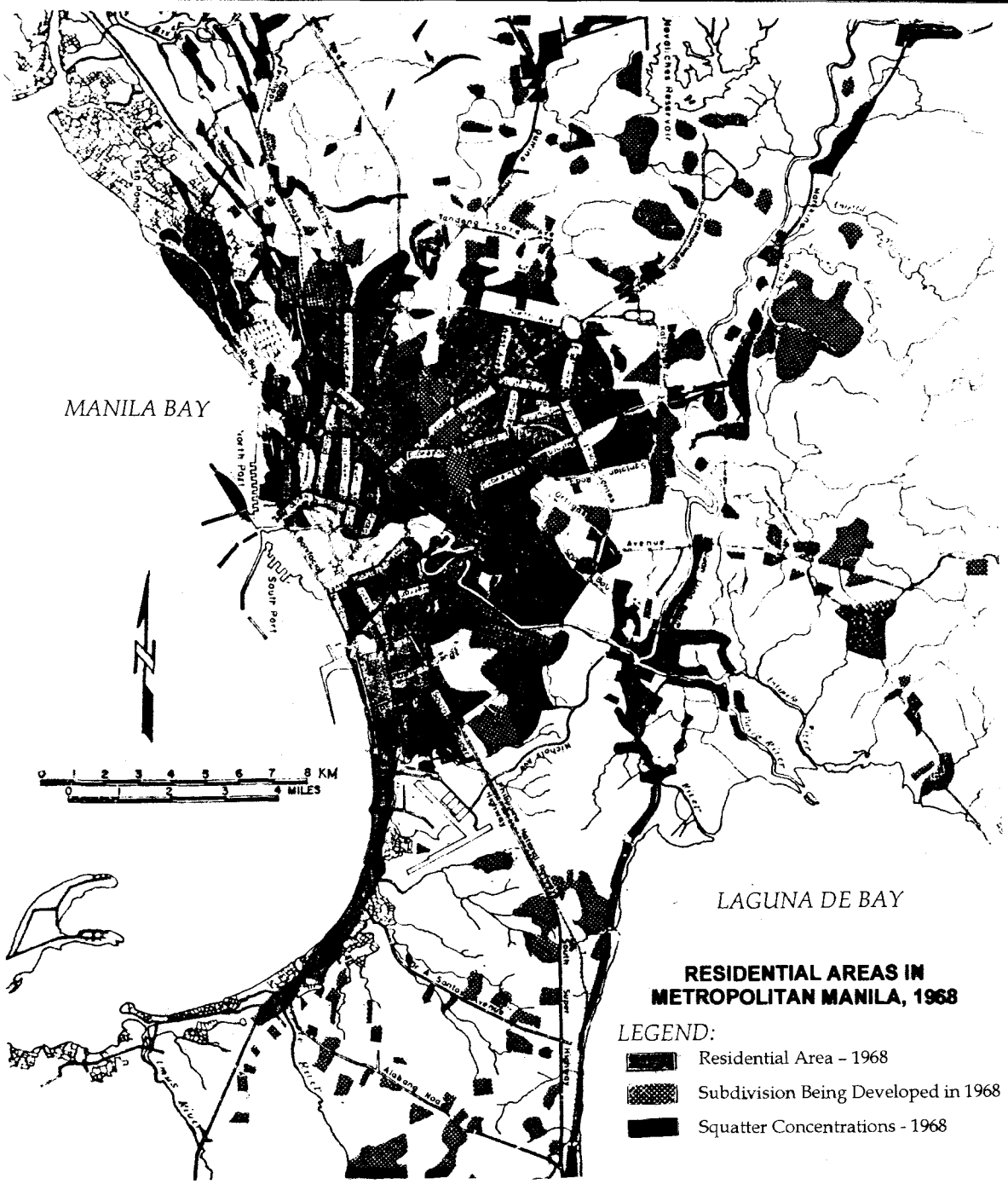

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TABLE OF CONTENTS

THE ROLE OF INFRASTRUCTURE IN URBAN, RURAL, AND REGIONAL DEVELOPMENT: A Survey of Literature

Sophremiano B. Antipolo

INTRODUCTION: SETTING OUT THE ISSUES

It has been argued that the "economizing behavior" and "economizing setting" are the two key elements that are central in the process of development. The former refers to the human factor: the capacity, ability or willingness to change, while the latter refers to the physical, socio-cultural and institutional factors within which the "economizing behavior" has to operate. One of the important components of the "economizing setting" of urban, rural, and regional development is infrastructure.

That infrastructure plays an important role in development is generally well recognized, but the concept is so vaguely understood that our knowledge of the relationships between infrastructure investment and the development process is at best inferential.

Wharton (1967) argues that without a certain minimum of infrastructure investment, little rural, urban, and regional development can take place. This does not mean, however, that the provision of some package of infrastructure will ensure development. But we do know that, given certain conditions, the development of particular types of infrastructure will stimulate development, although we may not know precisely what the conditions are and what the required level is. Directly productive activities --such as agriculture, manufacturing and mining -- cannot progress very far without the support of infrastructure facilities.

The important issue is not how to resolve the chicken-egg question or how to determine the causality between two factors --i.e., infrastructure and development --but to determine what kind of infrastructure investment policy should be adopted. Answers to this question will be attempted in this paper. Accordingly, this paper will answer the following three (3) basic sets of questions:

1. What is infrastructure?

2. What is the role of infrastructure in spatial development? More specifically, what is the relationship between infrastructure and the socio-economic characteristics of urban and rural areas and their capacity to attract productive investments?

3. What are the effects or impacts of infrastructure upon urban, rural-agricultural, and regional development?

INFRASTRUCTURE: DEFINITION AND ROLE

Definition

Although there is a large body of literature on the subject of infrastructure, there has never been any precise definition (Johnson, 1965). Different people have used it in different contexts, and there is considerable variation in the degree of theoretical and empirical attention given to the various aspects of infrastructure. The term "infrastructure" has been used interchangeably with "overhead capital". The following summary by Wharton (1967) indicates how much variation in implied definition and context exists on the use of the concept of infrastructure.

> *Lewis (1955) appears to include public utilities, docks, water supply, and electricity. Higgins (1959) includes transport, public utilities, schools, and hospitals. Hirschman (1959) lists: law and order, education, public health,*

transportation, communications, power, water supply, irrigation, drainage.

Hirschman's definition is believed to be more useful from an analytical standpoint because it goes beyond the mere listing of components of social overhead capital. He distinguishes between a "wide" definition (includes all those listed above) and a "narrow" definition (limited to transportation and power only). Hirschman contends that transportation and power are the "hard core" of the concept of social overhead capital, thus emphasizing the importance of the two factors as preconditions for economic development.

Other definitions of some of the components listed above have been made. Youngson (1964), however, argues that the whole idea of trying to define social overhead capital is "nonsense" because the important issue is not so much whether or not infrastructure can be defined; rather, it is the fact that investment in infrastructure is a *sine qua non* for development. Youngson's argument implies that our concern should not be so much with the definition of the concept as with determining its relationship with development. However, in order to understand the relationship, one needs an operational definition that specifies the parameter of the concept. Since one of the objectives is to determine the extent to which infrastructure plays a role in the development of rural, urban, and regional development in terms of growth and potential to attract new industries, there is a need to develop a definition that can denote the different features of infrastructure. One such definition is that developed by Stanford Research Institute (SRI) in its study of the costs of urban infrastructure for industry as related to city size (SRI, 1968). According to the SRI study, infrastructure is divided into physical and social.

Physical infrastructure includes the ...facilities directly supporting industrial production and distribution: electric power, road and rail transport, telephone communications, water supply, and sewerage and industrial waste disposal. Basic requirements of housing, schooling, and hospital and health services for urban industrial employees and their families, together with the residential share of refuse disposal, police and fire protection services are covered in social infrastructure.

The definition is operational and appropriate. It is operational in the sense that it distinguishes between facilities that directly support productive activities and those that provide indirect support. Such distinctions are important in identifying priorities among types of services that should be provided. Since provision of infrastructure is costly and long-term in its effects, infrastructure investment priorities should be set depending upon whether the national (or regional) objective is to promote only directly productive activities or to provide different types of social services as well.

Role of Infrastructure in Spatial Development

The role that infrastructure investment plays in the development of settlements arises from two (2) major factors: (a) infrastructure is a "basis" for urban and rural development; and (b) through the adoption of a strategic investment policy, infrastructure can be used to influence both the characteristics and growth patterns of urban and rural areas.

Infrastructure as a Basis for Development

Hirschman (1979) has articulated that investment in infrastructure is a 'basis' for the functioning of any type of activity on which an urban area sustains itself. He argues that no primary, secondary or tertiary activities can take place without the provision of basic services, which he refers to as social overhead capital (SOC). The same point is emphasized by Wingo (1976). He contends that investment in infrastructure has an important role in the urbanization process because development of various elements of infrastructure provides urban areas a "uniquely productive environment". The environment creates a favorable condition not only for attracting private investment in industries and other types of activities, but also for recruiting persons with different backgrounds and skills, the convergence of which sets in motion the self-sustaining dynamics of urbanization.

Advocates of the balanced growth theory present the same notion in a slightly different perspective when they argue that the right "bundle of investments" must be at the right place at the right time if investments are to have any impact on development. Through the "big push" theory, they illustrate the significance that a bundle of investments can have on the development of urban and rural areas (Bahrgava, 1966).

Within the context of the stages of development, investment in infrastructure is believed to have a catalytic effect, particularly during the pre-industrial stage (Rosenstein-Rodan, 1967). Rodan identifies the implicit theory behind investment in infrastructure. On the supply side, by creating a minimum level of social overhead capital, directly productive investment can take place. On the demand side, by creating additional employment and income through investment in the social overhead capital activities, effective demand is raised in the area since additional workers employed in the construction of social overhead capital will spend their wages on additional goods. This increase in effective demand should create additional markets in an area in which, due to the absence of demand, productive investment in industrial establishment appeared doomed to failure.

Rosenstein-Rodan's rationalization of the importance of infrastructure, however, is based on the basic premise that such an investment will create a spontaneous public investment in directly productive activities. But such an argument may be valid only in the case of developed countries or regions, where the economy depends on outputs from primary products (agriculture and mining), and where most potentially rich areas are faced with severe locational disadvantages and are almost isolated from the national economy. Investment in infrastructure is a must because it is the 'basis' upon which any local resources can be developed. It is an absolute prerequisite for any type of development program.

According to Johnson (1967), the effects of a lack of infrastructure facilities refer to more than economic results. He pointed out that the lack of roads is the greatest handicap to a productive economy, because physical isolation means not only an inability to sell products and to buy necessary consumer goods, but involves an intellectual separation of the roadless villages from currents of thought and action in urban areas and from information and ideas in those rural areas that are in better contact with towns and cities.

Investment in infrastructure, according to Steele (1971), is an absolute necessity in less developed countries' efforts to move into industrialization. Mountjoy (1967) also emphasizes this point. He contends that advances in manufacturing by means of successful new promotions and the expansion of existing industry from workshop to factory character will depend essentially upon prior or parallel expansion of infrastructure and utilities.

Infrastructure as a Policy Tool

According to Emmanuel (1973), countries pursuing regional development policies generally use two main instruments to secure policy objectives. The first refers to the financial incentives (loans, grants, tax reliefs, etc.), which bear directly on the balance sheet of firms. The second includes the development of infrastructure in areas in which a special regional promotion effort is required. Although there is significant interdependence between the two (financial and non-financial incentives), there are substantial differences that result from blending on the level of development of a particular country. Often, maintaining the balance between financial and non-financial incentives is the major problem. Thus, in the case of developed countries, infrastructure may be comparatively adequate and the problem may be how to provide firms with other financial incentives to relocate or bring in new industries. On the other hand, in the case of the less developed countries, the major problem is the deficiency of infrastructure, and other financial incentives would have no effect until infrastructure deficiencies are remedied.

Dyckman and Irvine (1973) believe that investment in infrastructure is one of the important measures that can serve to coordinate national, regional, and local policies and thus help to develop well-integrated national urban systems. Richardson (1972) shares the same idea and maintains that decisions on the location of infrastructure might be regarded as the unifying theme in the coordination of the

national and urban policy. Richardson, however, notes that since infrastructure decisions are taken at different levels of government, successful realization of the national urban goals depends on the compatibility of the regional and national goals.

Since the bulk of the infrastructure investment is publicly undertaken, the potential for accommodating investment to public policy is high and, thus, investment in infrastructure is still a potent force as a policy instrument (Salama, 1974).

EFFECT / IMPACT OF INFRASTRUCTURE: A SURVEY OF EVIDENCE

Effects on Urban Spatial Development

Although it is accepted that investment in infrastructure is a 'basis' for the functioning of any type of activity and is also an important policy instrument for managing the development of urban areas, there is, as yet, uncertainty on the extent to which it determines the growth and characteristics of the urban areas, on one hand, and the location of industries, on the other. This section attempts to examine whether any such relationship exists.

Using regression and correlation analysis models, Wubneh (1976) tested and confirmed the following hypotheses:

- There is a positive relationship between infrastructure, market size and industrial location. A corollary hypothesis to this is: The potential industrial absorptive capacity of an urban area is positively associated with the availability of its infrastructure services.
- The size and socio-economic characteristics of urban areas are positively related to the investment in infrastructure facilities.
- There is a significant positive correlation among (i) spatial organization, measured in terms of inter-urban traffic flow to determine interaction, (ii) development of urban areas, measured in terms of number of industries in each urban area and potential industrial absorptive capacity, and (iii) development of infrastructure facilities.

Wubneh's findings indicate that market and infrastructure are positively associated with the locational pattern of industries and also that infrastructure is positively related to the potential industrial absorptive capacity of urban areas. The regression equations give a reasonably adequate statistical explanation of the spatial variation of industries. The pattern of location of industries is basically an outcome of a cumulative result of locational decisions undertaken by firms over a long period of time. The significant relationship between market, infrastructure and distribution patterns of industries reflects the importance of these factors (infrastructure and market) in influencing the locational decisions of firms. A corollary to this analysis is the significance of the complementarity of infrastructure facilities. The availability of water, power, or roads alone may not make a significant difference. It is the presence of a combination of the various elements of infrastructure that makes a difference in attracting industries or generating development in a region.

The testing of the hypothesis on the size and characteristics of urban areas shows the existing differences in the type of infrastructure facilities between large and small urban areas. Physical infrastructure is positively associated with the size and socio-economic characteristics of the large urban areas. Physical infrastructure is an important factor in supporting productive activities directly and, thus, the large urban areas that have the physical infrastructure advantages maintain a favorable climate for attracting new industries. On the other hand, the small and medium-sized urban areas, although they have relatively 'better' educational and health services (social infrastructure) as a result of their being important administrative centers, lack: (a) physical infrastructure to directly support productive activities; and (b) the economic dynamism to initiate growth. Therefore, their potential to attract industries is limited.

The abovementioned findings imply that if small and medium-size cities are to play a role in attracting more productive activities, then physical, alongside social infrastructure must be provided. In sum, it is necessary to point out that the dimension of space should be considered as one of the factors that determines the web of interrelationships among economic activities. Particularly in the less developed countries, such considerations are significant because, as Johnson (1967) puts it, it is the poor and often faulty spatial structuring that has strangled the development efforts of most developing countries.

Effects on Agricultural Output and Investment

In a study by Binswanger et al. (1989), an attempt was made to determine the impact of infrastructure and financial institutions on agricultural output and investment. The study sought to quantify the interrelationships among the investment decisions of government, financial institutions and farmers and their effects on agricultural investments and output.

Using econometric techniques, the study defined the dependent variables to include the following:

- Aggregate Crop Output - the index of 20 major crops
- Agricultural Investments - represented by private investments in draft animals, milk animals, small stock (sheep and goats), tractors, and irrigation pumps.

The independent variables included:

- Government Infrastructure - consisting of primary schools, government irrigation, rural electrification, regulated rural markets, and total road length. (Note: Regulated rural markets do not include all rural markets but only those where government provides market infrastructure and regulates all trade via a supervised auction system).
- Financial Institutions - represented only by the rural branches of commercial banks. (This limitation stems from the absence of data on other forms of rural financial intermediaries).

The salient findings of Binswanger's study are outlined below:

- *Impact of Financial Institutions*. For the first time, Binswanger's research presents results on the effects of the expansion of financial intermediation of agricultural investments and output. It was found that the expansion of the commercial banks into the rural areas had a considerable effect on fertilizer consumption and on fixed private investment. It also affects agricultural output by 1.4 percent. The effects of bank expansion upon the dependent variables are noted as follows: It increased fertilizer demand by 22 percent, investment levels in tractors by 18 percent, and investment in pumps and milk animals by 46 percent. Its effect upon aggregate crop output was 2 percent.
- *Impact on Infrastructure*. In addition to estimating the impact of banks, the study also showed that commercial banks prefer to locate in well-watered (irrigated) areas where agricultural risks are relatively low and avoid areas characterized by high risks of drought and floods. Moreover, bank expansion is greatly facilitated by government investments in roads and regulated markets, which enhance liquidity positions of farmers and reduce transaction costs of both banks and farmers. As bank expansion raises investments and output, better geographic coverage of the banking system can, in favorable environments, help offset the effects of higher interest rates.

  The analysis of government's own additional investment in irrigation suggests positive and statistically significant impact upon bank expansion, private investment, and aggregate crop output.
- *Improved Road Investment*. This has been shown to enhance agricultural output with an elasticity of about 0.25 (i.e., it increases agricultural output by 25%). The study found that, on the average, improved road investment directly contributed 8 percent to the growth of agricultural output and 10

percent to the growth of fertilizer use. It was also established that improved road investment contributed to bank expansion.

- *Electrification* has a clear impact on investment in fixed capital, especially on pumps where it contributed an increase of 30 percent to investment levels. Via these investments, electrification increased output by 2 percent.

- *Primary Education* has added 7 percent to crop output. This is considered large as it was found to be statistically significant. This has come about primarily via a nearly 30 percent increment to fertilizer demand.

Effects on Agricultural and Regional Development

Wanmali's (1988) study entitled: "Provision and Use of Rural Infrastructure in the Growth of the Regional Economy" was placed within the growing field of interest in rural infrastructure and its impact on agricultural development in the Third World. At the outset, Wanmali argued against the usual definition of infrastructure to mean just "hard infrastructure" (i.e., roads, telecommunications, electrification, and irrigation). He contended that this definition tended to provide only a partial picture. He stressed that there are other elements of infrastructure that are equally important such as the national, regional, and local government agencies involved in development planning and administration. He called this "institutional infrastructure".

Wanmali pointed out that various services such as transport (bus and trucks), finance (credit and banking), animal husbandry, and input distribution (seeds, fertilizers, pesticides, and agricultural and rural produce) are also necessary for the development of agriculture. He called these the "soft infrastructure". The distribution systems of these services have strong economic as well as spatial features and depending upon their patterns of availability, these can improve or hinder access to the rural population and the prospects for agricultural development.

He also noted that previous research at the International Food Policy Research Institute (IFPR) in Washington, D.C. has shown that investment in hard infrastructure such as irrigation systems and roads, when coupled with simultaneous investment in soft infrastructure of the type mentioned earlier, has facilitated an effective use of irrigation for intensive agricultural development which, in turn, has led to a rapid increase in regional growth.

Wanmali pointed out that infrastructure and people are located in towns and villages. Accessibility to them can vary depending upon where any specific settlement is located in a wider settlement system. Towns are seen as providing better access than villages. Thus, locating services properly over a region becomes a crucial factor in improving their accessibility to the farming population. Making these available in distant towns is not of much help locally. There are further properties of access which are worth noting. In the geographic studies on spatial impact of development, it is recognized that in any development effort, there exists decay some distance away from the center and towards the periphery. The analysis of such center-periphery relationships, particularly involving infrastructure and people is, in fact, becoming a centerpiece in all current literature on regional planning in the Third World.

The salient findings of Wanmali's study are summarized below:

1) *Input Demand Regression*. Regression models were developed to help explain the effects of agricultural infrastructure and distance upon the patterns of fertilizer and credit use.

   The dependent variable was measured in terms of: (a) quantity of N-P-L fertilizer used, and (b) the amount of credit received for farming purposes. Four independent variables were included, namely: (a) proportion of cultivated area under high yielding varieties (HYV); (b) total cultivated area; (c) index of agricultural infrastructure use; and, (d) distance.

From the estimated regression coefficients, it was found that:

- the proportion of HYV had strong impact on the quantity of fertilizer used. The coefficients were positive and significant. However, these variables did not have a significant relationship with the amount of credit received;
- the total cultivated area was a critical factor in determining both fertilizer and credit received;
- the index of agricultural infrastructure was significant only for the use of N-fertilizer and credit demand;
- as expected, an increase in the distance to credit facilities had a negative effect on the amount of credit used.

In order to capture the pure effect of access to rural infrastructure on household demand for fertilizer, it was assumed that all households in the study region have access to rural infrastructure similar to the most developed areas. In this case, the study indicated that the household demand for N-fertilizer would increase by almost 260 percent in the study region.

2) *Gross Output Value and Gross Revenue Regression*. It was also hypothesized that agricultural infrastructure will have an impact on the gross output value for the farm. The independent variables included: total cultivated area, proportion of cultivated area under HYV, proportion of cultivated area that is irrigated, quantities of N-P-K fertilizer used, and index of agricultural infrastructure.

The regression coefficients indicate that of all the independent variables, only the proportion of area that was irrigated had a significant impact on the gross output value.

One final regression model was run relating gross revenue per unit area with only one independent variable -- the index of agricultural infrastructure. The estimated regression coefficient was positive and significant, indicating that if the overall use pattern for agro-services improved, gross revenue per unit area for the farmers would increase.

The aforecited results of the analysis imply the significant role of accessibility in the household use of services. It was also seen that the extent of output of, or return from agriculture is influenced by access to a package of infrastructure services related to agriculture which were defined earlier as "soft infrastructure".

Effect on Rural Development

A study by Ahmed and Hossain (1988) entitled "Infrastructure and Development of the Rural Economy of Bangladesh" focuses on rural roads as the centerpiece of infrastructure. To this was added a number of elements like institutional facilities of markets, educational services, financial services, etc. The study shows immense bearing of rural infrastructure on rural development in the context of Bangladesh and the developing countries.

The study generates a comprehensive picture of the effects of development of rural infrastructure on product and factor markets, social development, agricultural production, household income, consumption pattern and savings and investment propensities in rural households.

The findings are summarized below:

- *Effects on Rural Markets and Social Development*. Development of infrastructure was found to have a positive effect on marketing of agricultural products. Households in developed villages obtain a larger proportion of their basic food needs from the market. About 34 percent of rice consumed by the sample households in developed villages were purchased compared to 29 percent for underdeveloped villages. The significantly positive relationship of marketing of paddy rice with infrastructure development was also confirmed by the regression analysis.

Institutional credit was observed to cover only a small fraction of rural households (14%) and credit requirements (25%); non-institutional sources are still the dominant conduits for rural credit. While access to institutional credit is relatively biased in favor of large landowning groups, borrowers from landless and small landowning classes dominate non-institutional credit. The interest rates in non-institutional markets are about 10 times higher than institutional markets. However, with infrastructure development, it was found that access to institutional credit improved almost seven-fold, but mainly for landowning households. But infrastructure development was found to transform non-institutional supply systems from one dominated by both moneylender and "friends/relatives" to a system composed largely of moneylenders. Growth of mercantile practices in the credit market is hastened by infrastructure development. The analysis of the utilization of institutional credit reveals a few facets of demand for rural credit. Most institutional credits are used for supplementary working capital in business and current inputs in agriculture. The demand for credit to finance working capital in business is sharply enhanced by infrastructure development.

In terms of social development, infrastructure was not found to have a significant impact on literacy, which was affected more by the size of the landholding of the household. The development of infrastructure, however, had a significant impact on conditions of health and acceptance of family planning practices. Adoption of family planning practices in developed areas was more than twice the rate in underdeveloped villages.

Effects on Agricultural Production. Infrastructure affects agricultural production through prices, diffusion of technology and the use of inputs. A multivariate regression technique was used to isolate the effect of infrastructure on these variables, after taking into account the effect of other exogenous factors. It was found that the price of the major output, paddy rice, did not differ much across the village at different levels of infrastructure, but the price of fertilizer was 14 percent lower and that of labor was 12 percent higher in villages with developed infrastructure facilities.

The differences in the adoption of the new technology and prices were incorporated in the input demand functions to estimate the effect on the use of fertilizer and labor. The results suggest little impact on the use of labor, but 92 percent more use of fertilizer in the developed villages. The estimate of the production function suggests that the above effects on input demand would increase production in the developed villages in the range of 7 to 18 percent. In addition, the developed villages produced about 24 percent more than the underdeveloped villages due to more efficient use of the inputs. The analysis suggests the positive crop production effect of infrastructure in the range of 31 to 42 percent.

Effects on Employment. Infrastructure affects the labor market basically through changing the composition of employment. The development of infrastructure generates opportunities for non-farm employment where labor is less arduous, and productivity is higher. Households, which have necessary capital and skills, substitute agricultural labor for non-agricultural, creating more opportunities for wage employment in agriculture for the remaining households. The shift of labor from agriculture increases the productivity of labor, while the shift from self-employment to wage employment increases the duration of employment for the poor, who have been forced to take up very low productive self-employment in non-agricultural activities. The increase in the demand for hired labor puts an upward pressure on the wage rate and hence increases the wage earnings for the same amount of labor. Thus, the development of infrastructure does not substantially affect total employment but the changes in the composition of employment which it

induces, lead to an increase in labor productivity and wage rate and therefore total wage earnings.

- *Effects on Household Income and Poverty.* The analysis of income from crop production, livestock and fisheries, wages, and business and industries indicates that infrastructure development contributes tremendously to increase household income. Income from crop production increased by 24 percent and income from livestock and fisheries increased by about 78 percent due to infrastructure development. Wage income almost doubled. What is more significant was the distribution of income arising from infrastructure development. Income of landless and small farmers increased more from crops, wages, livestock and fisheries, than the income of large landowners.

  The implication of the development of rural infrastructure for alleviation of poverty is, by far, the most revealing result. The conventional view that development of rural infrastructure is likely to aggravate poverty was found to be baseless. Contrary to this view, the results indicate substantial impact of infrastructure development on rural poverty alleviation through increased agricultural and wage income for landless and small landowning households. The conventional view suffers from the inability to see the linkage effects of rural infrastructure that indirectly influence income generating activities of the poor in the society.

- *Effects on Consumption Pattern.* The study brought out a number of very important implications of infrastructure development on household expenditure. This was done through the estimation of detailed commodity-wide income consumption relations between developed and underdeveloped villages. The mechanism of inter-industry linkage and implication of consumption expenditures were highlighted. It appears that infrastructure development leads to a reduction in the share of food expenditure and increases the share of non-food expenditure. The average share of food was 74.5 percent in the developed households and 80.9 percent in the infrastructure underdeveloped group.

  The substantial difference in the marginal propensities of consumption between households located in developed and underdeveloped areas imply that infrastructure development induces larger increases in demand for non-cereal food and non-food consumer goods and services. The effects on the overall inter-industry production, employment and income linkages are bound to be substantial. This is likely to be so because infrastructure development enhances income from various sources. This income, when spent on a larger proportion of non-cereal food, non-food, and services, generates additional employment and income in the economy during the subsequent rounds of activities. Infrastructure development clearly diminishes the propensity of consumption of cereals and thereby changes the structure of demand suitable for a diversified agriculture.

  The study also found that infrastructure development increases the speed of diffusion of agricultural technology, reduces the cost of marketing and improves the operation of the product market. The positive influence of these changes implies a greater degree of supply response in infrastructure developed areas.

- *Effects on Savings-Investment Behavior.* It was estimated that the average savings rate was 14 percent, which was slightly higher in developed than in underdeveloped areas. Gross investment per household was about 14 percent larger in developed than underdeveloped villages. The effect of infrastructure was direct through its effect on income and via income to savings. Estimates of marginal propensity of savings varied from 34 to 40 percent.

CONCLUSIONS AND POLICY RECOMMENDATIONS

The review of empirical evidence in the preceding sections clearly pointed out that, indeed, infrastructure has a role in spatial development through its capacity to provide a 'basis' to attract industries. Policy makers should note, however, that the relationship between infrastructure and spatial development is not unidirectional; rather, it is reciprocal. Without some basic infrastructure services, no meaningful development can take place. On the other hand, the availability of infrastructure alone does not guarantee development; a region or spatial planning unit must have the potential for development and the supply of infrastructure should be in response to effective demand for it. In other words, unless the lack of infrastructure is a significant obstacle, the remedy of the deficiency will not bring about the desired changes.

Infrastructure is a "bundle of services" and, as such, policies should stress complimentarity in infrastructure project packaging. Empirical analysis reveals that the supply of infrastructure has to be on a collective rather than individual basis: availability of water, power, or roads alone will not make a dent in stimulating rural, urban, and regional development. There must be a "big push" that attempts to provide a combination of services and at the same time maintain the tenuous balance between infrastructure needs and development.

The testing of hypothesis on the size and characteristics of urban areas reveals that physical infrastructure (such as roads, electricity, etc.) is positively related to the size of urban areas. Physical infrastructure is an important factor in supporting productive activities directly and, therefore, the large urban areas that have physical infrastructure advantages maintain a favorable climate for attracting industries. The policy implication here is that in order to promote widespread development; small and intermediate cities that are potential centers for growth and development must be strengthened by providing the right package of infrastructure investments.

Econometric studies on the impact of infrastructure and financial institutions on agricultural output and investment reveal that government expenditure on physical infrastructure influences the private production and investment decisions in agriculture and, therefore, are considered essential ingredients of increased agricultural productivity. Government investments (both physical and human) can directly increase agricultural output by shifting the production frontier as in the case of irrigation. Government investment also increases the rate of return to private agricultural investment and, thereby, leads to greater investment and output. Policy makers must, therefore, recognize that by increasing the viability and profitability of financial intermediaries, infrastructure can facilitate the emergence and growth of financial institutions that increase access to working and investment capital or reduce the costs of borrowing for longer-term investment.

Other econometric studies have demonstrated the important role of access in the household use of services. It was also seen that the extent of, or return from agriculture is influenced by access to a package of infrastructure services related to agriculture.

The study on infrastructure and rural development has established that infrastructure development (especially roads) has the following favorable effects: (a) positive effect on marketing agricultural products; (b) improved access to institutional credit; (c) positive impact on agricultural production; and, (d) reduction in the share of food expenditures and increase in the share of non-food expenditures which have substantial effect on the overall inter-industry production, employment, and income linkages, i.e., infrastructure development enhances income from various sources and this income, when spent in larger proportions on non-cereal, non-food items and services, will generate additional employment and income in the economy during the subsequent rounds of activities.

Indeed, physical, social, and institutional infrastructure are indispensable instruments in urban, rural-agricultural, and regional development, and easing infrastructure bottlenecks will enhance rural-urban, as well as, farm and non-farm linkages.

REFERENCES

Ahmed, Raissuddin and Hossain Mahabub (1988) Infrastructure and the Development of the Rural Economy of Bangladesh. Washington, DC, USA: International Food Policy Research Institute (IFPRI).

Bahrgava,. Ravindra (1966) "Balanced Thought and Economic Growth" in Economic Growth and Cultural Change. Vol. 14, No.2.

Binswager, Hans et al. (1989) "How Infrastructure and Financial Institutions Affect Agricultural Outputs and Investment", Working Paper No. 163, Washington, DC, USA: The World Bank.

Dyckman, John and J. Irvine (1973). "Using Investment Criteria to Guide Urbanization." Paper presented at the Ninth Anniversary of the Brazilian Bank, Rio de Janeiro, August 1973.

Emmanuel, E. (1973) Issues in Regional Policies, Paris: Organization of Economic Cooperation and Development (OECD).

Higgins, Benjamin (1959) Economic Development. Norton, New York, New York, USA.

Hirschman, Albert (1979) The Strategy of Economic Development. New Haven, CT, USA: Yale University Press.

Johnson, Edgar (1965) Market Towns and Spatial Development. New Delhi: National Council of Applied Economic Research.

Lewis, Arthur (1955) The Theory of Economic Growth. New York, New York, USA: Allen and Unwin.

Mountjoy, Alan (1967) Industrialization and Underdeveloped Countries. New Delhi: Applied Economic Research.

Richardson, Harry (1972) "Optimality in City Size, System of Cities and Urban Policy: The Skeptics View" in Urban Studies. Volume 9, February 1972.

Rosentein-Rodan, Paul (1969) "How to Industrialize an Underdeveloped Area" in Regional Economic Planning Techniques of Analysis for Less Developed Areas. Edited by Walter Isard and J. Cumberland. New York: Praeger.

Salama, Ovida (1974) Planning and Human Values. Cambridge, Massachusetts, USA: Apt and Associates.

Stanford Research Institute (1968) Costs of Urban Infrastructure for Industry as Related to City Size in Developing Countries. Menlo Park, CA, USA: Stanford Research Institute.

Steele, David (1971) "Regional Planning and Infrastructure Investment Based on Experiences from Turkey" in Urban Studies. Volume 8.

Wanmali, Sudhir (1988) Provision and Use of Rural Infrastructure in the Growth of the Regional Economy. Washington, DC, USA: International Food Policy Research Institute.

Wharton, Clifton (1967) "The Infrastructure for Agricultural Growth" in Agricultural Development and Economic Growth. Edited by H.M. Southworth and B. Johnson. Cornell University Press, Ithaca, New York, USA.

Wingo, London (1969) "Latin American Urbanization: Plan or Process?" in Shaping an Urbanization Future. Edited by Bernard Frieden and W. Nash. Cambridge, MA, USA: The MIT Press.

Wubneh, Mulatu (1976) "Spatial Dynamics and Infrastructure Investment: An Analysis of the Effects of Infrastructure on the Development of Urban Areas". Doctoral Thesis, Florida State University.

Youngson, A.J. (1967) Overhead Capital: A Study in Development Economics, Edinburgh University Press.

THE URBAN LAND NEXUS THEORY AND THE SPATIAL STRUCTURING OF METROPOLITAN MANILA[1]

Ernesto M. Serote

INTRODUCTION

The aim of this paper is to try out a Western model on a Third World material, specifically, to apply the urban land nexus theory in the analysis of urban development in the Philippines. The implicit assumption is that although Western and Third World societies are different, there remain in the latter continuities of Western cultural elements owing to past colonial experience and present neo-colonial relationships. Due to this contact between colonized and colonizing cultures in Third World societies, the latter societies are necessarily more complex than the former. To understand them more fully therefore requires the use of more complicated models than what are currently available in the literature.

The basic assumption of this paper is that existing theories of urban development, particularly those which are based on Western societies, can only partly explain the urban development process in Third World countries. The value of this study lies in its being able to identify not only those phenomena in Third World urban development which Western models can apprehend but also those that they cannot explain. The latter are more important in that they serve as material for the elaboration of a new model that is more evocative of, and responsive to the historical specifities and cultural diversities of Third World societies. The formulation of a new model reflective of realities in Third World urban development is an ongoing project of this writer.

The urban land nexus theory was picked out from a field of several others as the conceptual and analytical framework for this study. Attributed to Allen J. Scott and his associate Choukrey T. Roweis (Dear and Scott, eds. 1981, 123-157), the urban land nexus theory belongs to the body of theories of, or rather, to a peculiar perspective in theorizing on urban development associated with the historical materialists. The choice of Scott's urban land nexus theory is by no means an indication of its qualitative standing among other theories. It is simply due to the explicit spatial focus of this theory which strongly appeals to a land use planner like the writer.

The paper contains five major parts. It starts with an exposition of the theory itself. The second and third parts report on the application of the theory in analyzing the spatial structuring of Metropolitan Manila. These are followed by a critique of the theory and evaluation of its applicability in the particular case of Metropolitan Manila. The paper concludes with a beginning: the start of explorations into the need for, and the possible configuration of a new model that will aid in understanding fully the urban development processes in Third World societies. In a manner of speaking, the whole exercise represents that stage in a fishing expedition where one is just putting out to sea rather than coming ashore with the catch.

THE URBAN LAND NEXUS THEORY

The urban land use nexus theory is a descriptive model that seeks to explain the phenomenon of contemporary urban land development which is characterized by two contrasting processes: the process of spontaneous urbanization and the process of deliberate urban intervention (Roweis and

[1] *This article is an abridged version of the author's dissertation which he submitted to the University of Sussex, England in partial fulfillment of the requirements for the degree of Master of Arts in Urban and Regional Studies in 1988.*

Scott in Dear and Scott, eds. 1981; Scott, 1980). It is abstract phenomenon that materializes in the form of land with structural and infrastructural artifacts built over it by human labor and used in various ways. It is, moreover, a phenomenon that is socially produced in a complex dynamic that is reducible to two principal phases: 1) private firms and households which develop, exchange, and utilize urban land in accordance with their own private motives and benefit-cost calculations, and 2) the State which provides elaborate networks of material infrastructures that underpin the general processes of production and reproduction in accordance with political calculations and social costs and benefits. The combined outcome of the activities and interactions between these two phases in the urban land development process is the urban land nexus as a 'finished used value' or a 'composite system of differential locational advantages' (Scott, 1980, 136).

The urban land nexus then, is the combined effect of the aggregate actions of many individual firms and households and the political intervention of the State. Historically and analytically, according to Scott, private actions take precedence over State intervention. But every intervention measure taken by the State creates new dislocations and invites a new round of private actions necessary to adjust to the changed configuration of differential locational advantages which, in turn, create a new set of dysfunctions that justify State intervention, and so on.

Analytically, the urban land nexus consists of three elements or 'moments' as Scott calls them, namely, the private component, the public component, and the private-public interface.

1) The private component. In a capitalist society, the structuring of the urban land nexus can be explained in terms of the constant search for profits by capital as well as the insistent desire of labor to live in environments that enhance reproduction and sustain the exchange value of labor power. This requires, on one hand, efficient, fully serviced production space and on the other hand, a secure residential space for the reproduction of labor power. These requirements are often in conflict with each other. In the process of satisfying these requirements through the appropriation, exchange, and utilization of urban lands, certain irrationalities and dislocations inevitably rise, despite claims to the contrary by neo-classical equilibrium theorists.

   Neoclassical equilibrium theorists claim that the urban land market is an autoregulating mechanism, an efficient allocator of land units among competing users, a maximizer of collective benefits, and a rational sorter and arranger of land uses. Scott takes exception to these assertions. He observes that although land is privately appropriated, exchanged, and utilized, it is not produced nor consumed in discrete packages like any other consumer item. This means that the intrinsic use value of urban land, namely, the differential locational advantages that it has acquired, cannot be attributed to individual capitalists alone but to State or collective action as well (Roweis and Scott, in Dear and Scott, eds. 1981, 142-143). Moreover, although the private component dominates the urban land development process, the outcomes of its actions are beyond its full control. They are 'replete with locational inter-dependencies that consistently evade the integrative logic of the market' (Scott, 1980, 139). The paradox of privately dominated urban land development is that in the process of private appropriation, exchange, and utilization of urban land to satisfy the basic foundations of viable capitalism -- namely, an efficient production space and a pleasant consumption space -- those very foundations tend to be undermined. Scott concludes that it is only with the intervention of the State that the capitalist city is held back from chaos and disarray.

2) The public component. The rationale for State intervention in the urban land nexus derives from the 'self-destructive logic of capitalist society as it mediated through urban space' (Scott, 1980, 170). Through the instruments of urban planning such as land use zoning, building and subdivision regulations, health and environmental laws, new towns development, urban renewal, public transport and utilities provi-

sion, and the like, the State seeks to mitigate the deleterious social effects and failures arising from the contradictory behavior of private firms and households in urban space. By these instruments, the State also seeks to steer urban society towards collectively rational choices consistent with the capitalist social and property relations.

The last phrase underscored is important in that it defines the limitations and constraints to what urban planning in a capitalist society can really accomplish. According to Scott, the State does not have the mandate to reform fundamental social and property relations in capitalist society within which it is embedded. In like manner, urban planning, which is a mere instrument of the State, can effect urban change and reform only to the degree that it serves the very purpose of capitalism and is able to break the inner contradictions of capitalist urbanization without, however, changing the social formations that cause those contradictions. By this, Scott rejects the idealist view of the State as some kind of superman who acts as an indefatigable watchman and keeper of the public interest and who can be relied upon at all times to set things right whenever breakdowns or failures occur. Scott points out the reality in practice that whereas collective intervention in the urban land nexus is preceded by some specific dissonance, breakdown or market failure, not all dissonance, breakdown or market failure is automatically followed by collective information. Scott asserts that the State will intervene only when the irrationalities and dislocations of the urban land nexus begin to undermine the viability of capitalist society as a whole, and, in particular, the functional effectiveness of commodity production and the reproduction of labor power in urban space (Scott, 1980, 171).

Herein lies the paradox of urban planning as a mode of State intervention in the urban land nexus. In its desire to resolve urban problems, the State seeks policies that promise maximum effectiveness but at the same time ensure minimum disruption of existing social and property relations. These policies are, of necessity, reactive and merely palliative in nature, treating only the symptoms and neglecting the basic causes of urban predicaments. It is precisely because of these limitations on its power that the State often becomes part of the problem rather than a solution.

3) The private-public interface. The dynamics of the contradictory yet mutually interdependent imperatives of the private and public components are what Scott calls the 'double dialectic' of the urban land nexus. It pushes the urban land nexus forward in an evolutionary spiral that manifests itself in the changing form and character of the urban space. Scott describes the private-public dialectic as it moves through time thus:

> The urban land nexus is...*reproduced through time in a complex process involving successions of mutually dependent, but eternally problematical, private and public decisions. Private action gives rise to a persistent tendency to dislocation and conflict in the urban land nexus. The State unceasingly attempts to rectify this situation while itself producing further turbulence in the urban land nexus by shifting around the whole system of differential locational advantages (and concomitantly altering the expectations and rewards that different classes, strata and social fractions seek to procure from urban life). This then sparks off further spontaneous readjustments in the configuration of the urban space* (Scott, 1980, 173).

STRUCTURING OF THE PRODUCTION SPACE

Using the urban land nexus theory as the analytical framework, we seek to explain the spatial structuring of Metropolitan Manila. The following questions will underlie the discussion:

1) What social classes are involved in urban land development in the Philippines? What problems arise out of the activities and land use decisions of these different social classes?

2) How does the State react to the dysfunctions and dislocations arising from

decisions by the different social classes in the urban land nexus? What are the constraints to the power of the State in dealing with land-contingent urban problems? What problems and issues are likewise created by State intervention in the urban land development process?

Analysis of the production space focuses on the pattern of distribution of manufacturing, office and commercial establishments over the metropolitan area. The concentration of manufacturing industries in the Manila metropolitan area did not happen until after the Second World War, although the advantages of Manila as a preferred industrial location over other urban centers of the country had been in place since the Spanish regime. As the primate city of the Philippines, Manila shares with its counterparts in the Southeast Asian region the very conditions that contribute to primacy. Reed (1972) cites five of these characteristics, namely: 1) Their natural locational advantage of tidewater sites where transportation systems serving extensive agricultural hinterlands could be readily linked to international maritime networks; 2) Their preeminent role as administrative centers within the framework of their respective colonial powers; 3) The great diversity of their economic functions, housing the head offices of banks, shipping firms, insurance companies and other commercial agencies of Western countries as well as serving as warehousing and processing centers for goods shipped to and from Europe; 4) Their marked ethnic diversity; and, 5) Their role as the foremost beacons of Western education and culture in their respective hinterlands.

Post-independence industrial development is usually divided into three phases (Pernia et al., 1983): the import-substitution phase (1948-1960), the transition phase or period of decontrol (1961-1968), and the regional awareness period (1970s onwards). The spatial impact of these three phases can be summarized as follows: a high concentration of industrial activity in the National Capital Region (NCR) during the import-substitution phase; a slackening of industrial activity in the NCR with a corresponding expansion in the metropolitan periphery during the transition phase; and an industrial decentralization during the regional awareness period.

The concentration of manufacturing in the NCR during the first phase can be attributed to the type of industries that were developed and the built-in locational advantage of Manila. The very rationale behind import substitution is to produce local goods of comparable quality with imported ones. Naturally, this calls for the adoption of capital-intensive technology and hence, the importation of capital goods and raw materials and the use of skilled manpower. These requirements favor location in Manila because of the presence of the international port and allied services like financial and insurance firms, easy access to the national government bureaucracy, and the availability of high-level technical manpower.

The transition phase saw a spill over of manufacturing to the metropolitan periphery (Central Luzon to the north and Southern Tagalog to the south). The *a priori* explanation for this trend was that the cost of land and business taxes in the NCR were escalating, and that the diseconomies of central city location, like general deterioration in the environment, were starting to be felt. A possible explanation could also be the technological changes in the manufacturing process which seek low-density horizontal lay-outs and hence, require more land expansion (Scott 1980, Chapter 6). However, no studies along this line have yet been undertaken.

During the 1970s onwards the share of activity of the Frontier Regions, such as northern Mindanao, (Figure 1) has grown. There is also a corresponding slowing down of this activity in the NCR. On the whole, Metro Manila still holds the lead in over-all industrial activity, but this does not tell us anything about how the production space is structured within the metropolis. We shall now look into the pattern of distribution of industry within the metropolitan area.

1) Industrial land use in Metropolitan Manila. Areas of high industrial concentration include: the port area and along the Pasig River in the city of Manila; at the confluence of major radial and orbital highways in the cities of Caloocan and Quezon and the towns of Malabon and Valenzuela; along the main radial road to the south in the towns of Makati, Parañaque, Taguig, and Muntinlupa; and along both sides of

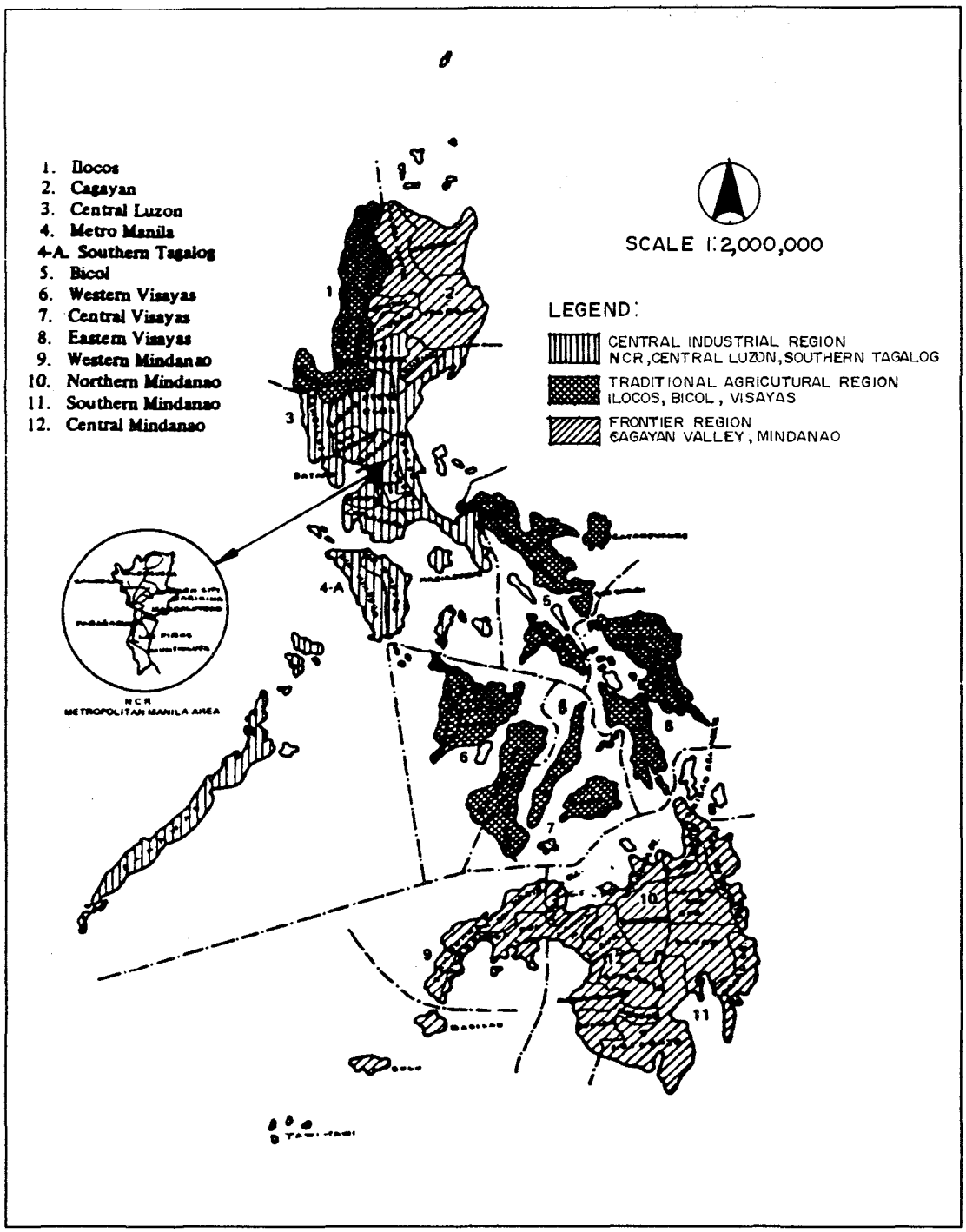

Figure 1

THE 13 ADMINISTRATIVE REGIONS OF THE PHILIPPINES AND ITS BROAD INDUSTRIAL REGIONS

(Source: Pernia, et.al. 1983)

the Pasig River and its major tributary, the Marikina River, occupying portions of the towns of Pasig, Mandaluyong, and Marikina (Figure 2).

According to Luna's study (Philippine Geographical Journal Vol.8 Nos.3 and 4), most of the manufacturing firms that were established prior to 1945 and between 1945 and 1955 were located in the metropolitan core city of Manila. Within the city of Manila, the locational pattern observed by Luna showed a concentration of large (500 or more workers) and medium-size (50-499 workers) industries near the port area and along the Pasig River. These factories were for the processing of bulky raw materials such as steel, concrete products, lumber, plywood and veneer products, as well as for the assembly of imported parts like motor vehicles and those using imported heavy machinery like printing presses. Another pattern that Luna observed was the clustering of small-size firms in or around the traditional commercial district of Quiapo. These firms, like clothing and apparel manufacturing, jewelry and furniture making, shoe factories and other craft leather, catered to the local market. According to Luna, these firms were attached to these sites in the CBD because of the almost unlimited availability of cheap labor from the nearby slums of Tondo.

The suburban drift of manufacturing, Luna continues, took place from 1955 onwards. This he attributes to four factors which have made Manila an increasingly undesirable location: 1) inadequate space for expansion; 2) traffic congestion; 3) increasing land and property values and taxes; and, 4) restricted operations of noxious industries (Luna, 1964, 64-65). Luna also took cognizance of the emergence at about the same period of the planned industrial estates developed by the large estate developers (See the next section for a detailed description of the activities of these developers.).

One or more significant finding of Luna is that large firms tended to seek suburban locations more than the small ones did. He attributes this to the fact that large firms can afford to relocate their manufacturing plants in the more spacious suburbs but retain their sales and display offices in the CBD. Small firms do not have the capability for such spatial division of labor.

It is clear from the observed clustering pattern that the locational decision of large firms was influenced by the availability of facilities for bulk transport and access to the ports of Manila. Firms locating by the riverside benefit from cheap transport by barge up and down the Pasig River with its mouth right on the north harbor (for inter-island transport) and the south harbor (for ocean-going voyage). An additional fringe benefit of riverfront location is the free use of cooling water from the river which also receives their industrial wastes. Firms that do not enjoy the 'luxury' of riverside location, such as those in private industrial estates, nevertheless have easy access to the ports via high-capacity arterial roads and the Philippine National Railways that converge in the ports of Manila.

This locational pattern observed from a small-scale view is, however, deceptive. The truth is that there are hundreds of other industries scattered all over the place, many of them interspersed with residential areas (Figure 3). This will be described in conjunction with the consumption space in subsequent sections.

2) Office and commercial land uses. The tertiary or service sector of the urban economy is a major user of urban land and takes up a sizeable portion of the production space. Compared to industrial land use, it is more land-efficient because it is capable of high-intensity utilization. The high-rise buildings that pierce Metro Manila's skyline are invariably occupied by offices, hotels, banks, and corporate headquarters of large businesses. Retail establishments are also an important component of the tertiary sector of the production space.

The pattern of concentration of commercial and service activities in Metro Manila takes two forms: nodal and linear (Figure 4). It may be recalled in another article (Serote, 1991) that each town established

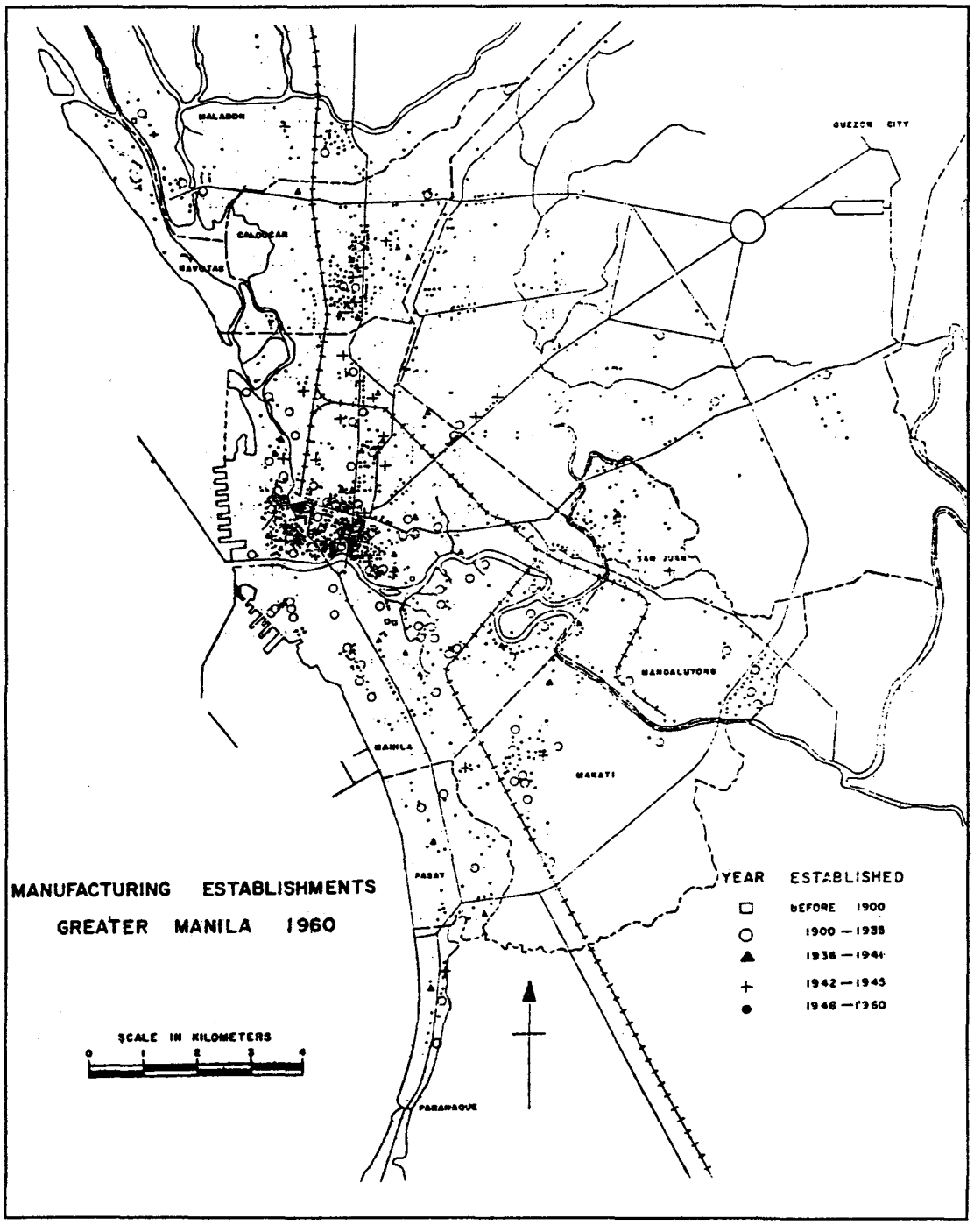

Figure 2

A LARGE-SCALE VIEW REVEALS HUNDREDS OF INDUSTRIES DISPERSED ALL OVER THE METROPOLITAN AREA

(Source: T.W. Luna, Jr.: PGJ Vol. 8 Nos. 3 & 4, 1964)

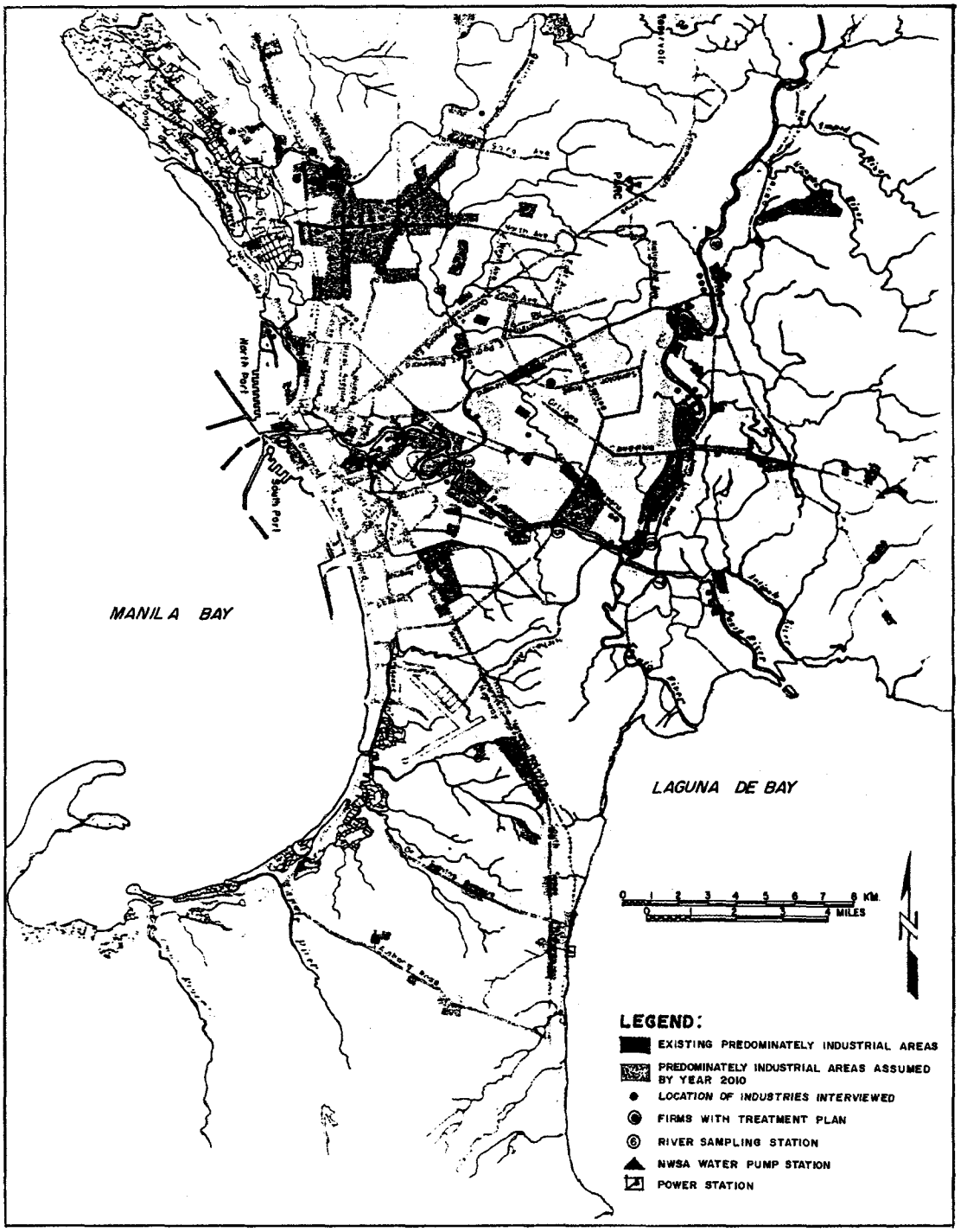

Figure 3

MAJOR CONCENTRATION OF INDUSTRIES IN METROPOLITAN MANILA

(Source: Philippine Planning Journal Vol. II No. 2)

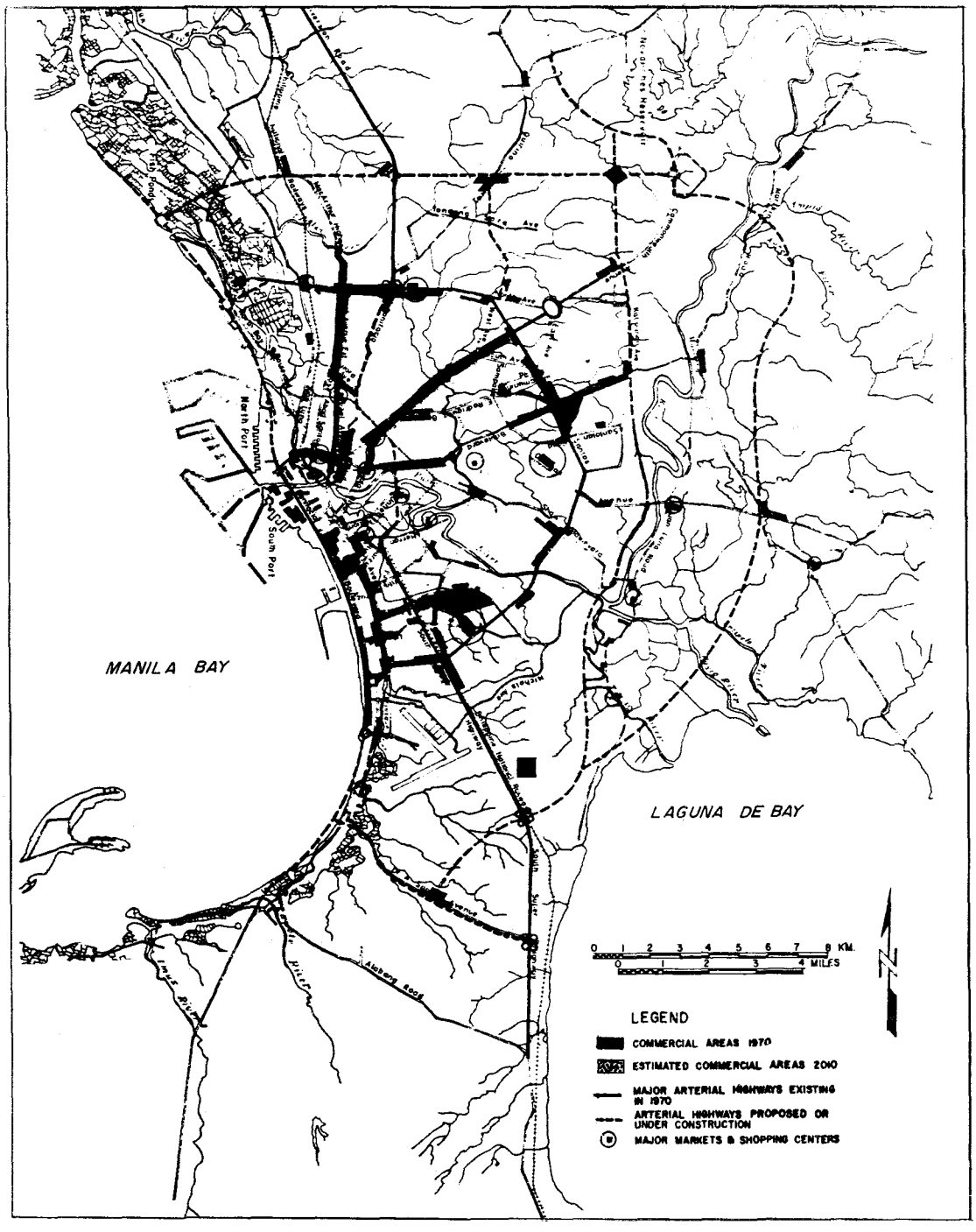

Figure 4

LOCATIONAL PATTERN OF COMMERCIAL AND SERVICE ACTIVITIES IN METROPOLITAN MANILA

(Source: Philippine Planning Journal Vol. II No. 2)

by the Spaniards had an urban center (poblacion) and rural hinterlands (barrios). The poblacion serves, among others, as the service center of the town. Because each component town and city of Metropolitan Manila started as a Spanish town -- except Quezon City, which was created as the new national capital in 1939 -- each one has a poblacion that still serves its original function as the central business district (CBD) for its hinterlands, even after the incorporation of Metro Manila in 1975.

The traditional regional CBD is the Quiapo district in the city of Manila. Now there are alternative CBDs, which were established by the large real estate developers, namely: the Araneta Center in Cubao, Quezon City; Greenhills in San Juan; and the Makati Commercial Complex. A fourth center north of Manila, which is not developed by any single developer, is the Monumento Area in Caloocan City. All these centers lie along the orbital road Epifanio delos Santos Avenue or EDSA. Because of the shortage of parking space in the Quiapo CBD, this traditional center has lost much of its patronage among car-owning shoppers.

The other pattern exhibited by the service sector is linear, following the main thoroughfares. Commercial uses can locate along high-capacity, high-speed major roads in Metro Manila where the most common mode of mass transit is the jeepney. The jeepney is a product of Filipino ingenuity. Small and highly maneuverable, this unique mode of urban transport can be stopped at almost any point along the road making every street frontage equally accessible. At the same time, jeepneys render Metro Manila's traffic an utter chaos.

The service sector is also highly dispersed. Many tertiary activities are ambulant and mobile or otherwise interspersed with residential areas. These are the activities, which earlier research had called the informal sector or perhaps they form part of what Santos calls the lower circuit of the urban economy (Santos, 1979). These activities may actually form part of a larger economic system, 'rent capitalism,' the existence of which in the urban economy was detected by Fegan (1981). This point will be picked up by another section.

3. Private capitalists. So far we have seen the spatial and location patterns as evidences of the decisions and actions of capitalists. But who are these capitalists?

   It appears from the spatial pattern of industrial location that there are two types of capitalists in operation in the Philippines. One type consists of the large industrialists who also own the large financial, commercial and service establishments. They are very small in number. Doherty (n.d.) has identified only 89 individuals and families who own or control the 47 groups that in turn control all large businesses in the country. As investors, they are said to be conservative and are well represented in Congress so that they are able to direct the course of Philippine industrialization policy toward import-substitution and a well-protected market. Hiding under the banner of economic nationalism, they have continually thwarted attempts by contending groups to adopt an open market policy and export-oriented strategy (Snow, 1983; Estanislao, 1986; Villegas, 1986). Their claim to nationalism, however, is belied by the fact that they are nothing more than 'assemblers and repackers' of American and European brands (Constantino and Constantino, 1978, 230). An import-substitution strategy, as earlier discussed, favored the use of imported capital equipment and raw materials. It is easy to see therefore, that these large industries tended to locate in areas accessible to the ports.

   The other type of capitalists are members of the urban middle class. These are the salaried bureaucrats and self-employed professionals who also run small businesses and industries. These small capitalists do not really have much choice about where to locate their businesses. Because land rent can eat up a considerable portion of their capital investments, they save on land rent by using their own residential premises as production space as well. These are often unreported and undetected and therefore not subject to

regulation by the State. This writer has strong suspicions that these capitalists, who are normally classified under the now well-worn term 'informal sector,' are in fact part of 'rent capitalism'.

4. Private capital and the State. We have seen that private capital responds to the State industrialization policy of import-substitution by concentrating their investments in Metro Manila. The location of firms within the metropolitan area, however, was not subject to government regulation prior to the 1970s. Consequently, private firms sought sites according to their own perception of what makes for profitable location. Riverside locations turned out to be the early favorite because of the opportunities the river offered for cheap bulk transport, free cooling water, and as receiver of industrial wastes. The most serious problem that riverside location has brought about is heavy pollution of the Pasig River and its tributaries, including the inland lake, Laguna de Bay. The extent of pollution of the river is described by Uichanco (1971, 84) thus:

> Recent surveys have shown that Pasig River is a dead or dying river... *The surface of its murky water glistens with oil spills discharged by boats and industrial plants. The river is constantly charged with a rich load of organic and chemical pollutants from dwellings and hundreds of factories flanking either bank. The effect of this mess has begun to be felt not only in Greater Manila area but also farther up, on Laguna de Bay...*

To this problem the State has responded with the creation of the National Water and Air Pollution Control Commission in the 1960s to monitor pollution levels and institute corrective measures. The Commission was staffed with highly competent technicians and scientists but its vast coverage and limited budget had prevented it from performing its task effectively (Uichanco, 1971, 88). In 1973, a Presidential directive banning altogether the establishment of new industries or expansion of existing ones within a radius of 50 kilometers from the Manila City Hall came into effect. The impact of this directive on pollution levels or on the location of industries has not yet been empirically assessed.

Another locational pattern of the production space we noted is associated with the private large-estate developments. The master plans of these developers included the provision of industrial estates or the creation of huge commercial complexes. The location of these industrial estates and commercial centers is invariably along major thoroughfares. To this extent it can be said that even large-scale developers respond to initial infrastructure investments by the government. The most perceptible problem arising from this private-public interface is the traffic congestion in Metro Manila's streets. With river transport diminishing in importance, industrial cargo now has to be conveyed by truck between the industrial estates and the ports, thereby clogging up the streets with heavy utility vehicles. Furthermore, the huge commercial complexes attract tremendous volumes of traffic every day. Again, the State responds to this problem by a combination of experimental traffic management schemes such as truck bans on certain hours of the day and construction of transport infrastructures like overpass-underpass complexes and the new elevated light rail transit. But the traffic of Metro Manila remains the most talked-about and intractable problem.

Not the least among the causes of Metro Manila's knotty traffic problem are the activities of the unregulated self-provisioning households. Self-provisioning households tend to undertake production activities within residential areas. Often these production activities spill over into the sidewalks and street curbs obstructing traffic. For example, small-scale garages under or in front of residential houses are often found appropriating their street frontage as their workshops. Also, the linear pattern of commercial concentration is largely the effect of self-provisioning. Households fronting major streets usually convert part of their home lots into commercial or

industrial space ostensibly to save on the land rent they would otherwise pay in the established industrial estates of commercial centers. They do not have to worry about access by their clients because the jeepney, which is itself a bane to traffic enforcers, will convey them there without fail.

There are many more examples of self-provisioning activities with varying impacts on urban land utilization. But it is in this aspect of private action where no State intervention seems to occur or where it does, it is hardly appropriate or adequate.

Thus, we have seen that public sector initiates development especially in the matter of providing infrastructures, utilities, and services. The State is also seen as the initiator of industrial policy but one sector of private capital has had a strong hand in the formulation and perpetuation of such policy. There is every reason to believe that under new circumstances, other sectors would be in a position to redirect policy their own way. The policy having been laid, private capital responds to it, but the spatial impact of this private-public interface can better be appreciated at the regional rather than the urban scale.

Regarding regulation of industrial location within the urban area, however, the State has not been successful because of too much centralization of political power. Local governments, under whose jurisdiction urban planning is supposed to lie, are generally powerless.

STRUCTURING OF THE CONSUMPTION SPACE

In this section, only one component of the consumption space will be discussed – housing. Residential use is the largest single category of land use embracing perhaps 80 percent of the total built-up area of the metropolis (Figure 5).

Much of the city of Manila was developed by pioneering American developers. They also started the trend toward suburban expansion. The demand for suburban residences initially came from the elite who were beginning to find their Manila quarters too crowded. In the early 1930s, the first high-income subdivision in the suburbs was built in an area called 'New Manila,' formerly part of San Juan town but now part of Quezon City. The location was quite a distance from the urban edge at the time. In this enclave far removed from the crowding and noise of the central city, the politicians, business leaders, landed elite from the provinces, and the foreigners then residing in Manila took residence in elegance and style.

The post-war decades saw a massive influx of new migrants from the provinces. Reconstruction of Manila necessarily involved resubdividing the original lots into smaller parcels to accommodate the new arrivals. This has given added impetus to suburbanization.

The provision of housing is literally everybody's business, what with about 85 percent of all households nationwide providing for their own housing (NEDA, 1986, 242). In Metropolitan Manila, the proportion of self-provisioning households may be smaller than the national figure because it is here that real estate developers of all types, sizes and motivations operate and proliferate.

We now turn our attention to the activities of these developers. For want of a more appropriate system of categorization we shall use the formal-informal dichotomy, loosely defined, to describe the activities of private land developers in Metro Manila.

1. Formal sector developers. The formal sector accounts for a larger land area but smaller output because of the application of planning standards, subdivision and building regulations, and observance of zoning and environmental standards.

   Belonging to this sector are the big landowners that converted into real estate development corporations, an assortment of speculative builders and realtors, and private institutions.

   These large developers sold serviced lots but retained control and enforcement powers over building standards through deed restrictions and covenants. They

allocated commercial areas and leased them to big establishments which in turn built their own structures according to stipulated design and height standards. These commercial areas have now become the alternative regional CBDs (discussed in the previous section). They also provided industrial estates which they leased to firms that built their own plants. The type of industries that were allowed to locate in these private industrial estates was restricted to non-pollutive ones. Recreational facilities for the well-off like golf courses, polo fields, and race courses complemented the elitist character of their land development.

Speculative developers and real estate brokers are another segment of the formal development sector that have emerged recently. Often in combination with banks, insurance firms and commercial houses diversifying their investment portfolios, these developers purchase and consolidate vacant lots in inner-city areas, rebuild commercial buildings in city centers, and acquire and subdivide greenfield sites. Their target clientele are the middle to lower-middle income families. Residential developments they undertake are varied. One type involves development of greenfield sites wherein the buyers build their own houses, subject to government

Makati: An Illustration

As an illustrative example, we take a snapshot of the richest, most modern town in the country today which was developed by the Zobel-Ayala family, the town of Makati. This Spanish industrialist family had the foresight to buy up large areas of swampy wasteland by the southern border of Manila long before the pressure of suburban expansion was felt. When the right time came, they transformed the area into a modern town that is the pride of the country today.

The Ayalas first subdivided the low-lying areas and sold them to low income families. They reserved the higher ground with an area of more than 800 hectares for building the new city. The 25-year master plan was prepared and strictly implemented. The primary purpose of the Makati development was to attract affluent families, foreign capitalists, business tycoons, and industrial titans to reside there.

In 1948, the groundwork was laid for the most stylish subdivision in the country they named Forbes Park, after a former American Governor-General of the Philippines. Initial response was reportedly cold and lots had to be sold at a loss. But the Ayala planners persisted in their belief that if they could only attract some influential and wealthy families, the rest would follow in no time. True enough, after Forbes Park lots had been sold out, droves of the fashionable rich wanted to reside in Makati. To accommodate their demand, eight more exclusive subdivisions had to be opened in quick succession within a period of ten years or so.

To lure the business community further, the Makati developers allocated a strip along the main thoroughfare, Ayala Avenue, for the construction of office tower blocks. The Ayala Corporations built a sample high-rise structure and soon large corporations were trying to outdo one another in putting up their own tower blocks. Then the developers opened a large commercial complex and an industrial estate for non-pollutive industries. Because the residential lots have all been sold out and the demand for residential space continues to rise, some commercial areas have been converted into high rise condominiums. Now, to businessmen, foreign legations, and just about anyone who can afford the cost, Makati is the place to be.

regulations. Another type is mass construction of house-and-lot packages for resale to owner-occupiers. Still another type is the construction of high-rise condominiums in inner-city areas for sale or lease to young professionals and businessmen.

Private speculative developers are also in the business of providing commercial spaces at a scale smaller than those of the large developers. They redevelop city center blocks or develop free-standing retail complexes in the suburbs. They do not develop industrial estates. As a rule they do not provide public open spaces, but present subdivision regulations (Presidential Decree 957) require that amenity or open space is a built-in feature of the subdivision plan.

Non-governmental institutions also undertake limited land development. Many religious orders have retained part of their landholdings which they now utilize for expansion of their schools, seminaries, orphanages, and similar charitable institutions. Some charitable organizations also undertake low-cost housing developments for the urban poor usually in the urban fringe areas where cheap land may still be found.

2. Informal sector developers. Informal housing comes in the form of owner-built dwellings over owned or leased land for own use or for rent to other households; housing constructed by numerous small landowners and unregistered contractors; and makeshift accommodation of squatters.

Self-provided housing on small owned or rented lots through in-filling of vacant areas outside of the formal subdivisions constitute a considerable portion of the consumption space in the city. A typical small lot owner probably acquired his lot through years of hard work and forced savings. The lot is rather small but big enough for a two- or three- bedroom house for a family of six members. Building construction is incremental, spread over a period of years. A component or two is added or replaced each year depending on the family's savings. Borrowing is seldom resorted to because most of them are not qualified to take out loans from government or private financial schemes. Building standards and subdivision regulations are often violated. The size and shape of the house are constantly changing according to the owner's flight of fancy or availability of funds.

To such type of homeowners, the home is not just for residential purposes. It can be a production space as well. Some family members are probably employed elsewhere but the family is engaged in some kind of production activity just the same – a variety store, an automobile repair shop, and countless other pursuits performed in the home that bring in additional family income – all ostensibly without the knowledge of, or regulation by the State.

A good example of this family enterprise is observed in Manila's university belt. In an area of about three to five square kilometers in Sampaloc district, nearly a dozen colleges and universities with a combined student population of close to half a million are huddled together in compact inner-city campuses. Because their premises are so small, none of these universities run facilities for student accommodation. Student housing is provided by the surrounding residents. Due to the enormous demand for bed space, nearly every household in the area shares rooms with students. To maximize their tax-free earnings, the landlords often scrimp on necessary investments like better lighting and ventilation or more sanitary facilities. This situation has been going on for years and yet the pitiful plight of student roomers has not caught the attention of the authorities.

The other type of informal sector housing is the squatter settlement (see Figure 5). The manner of construction of squatter housing is similar to that of owner-provided housing. It is done incrementally, although the materials used are relatively cheap due to the ever-present possibility of demolition. The production activities conducted in a squatter's home are also similar to those in owner-built homes, depending on the amount of space available.

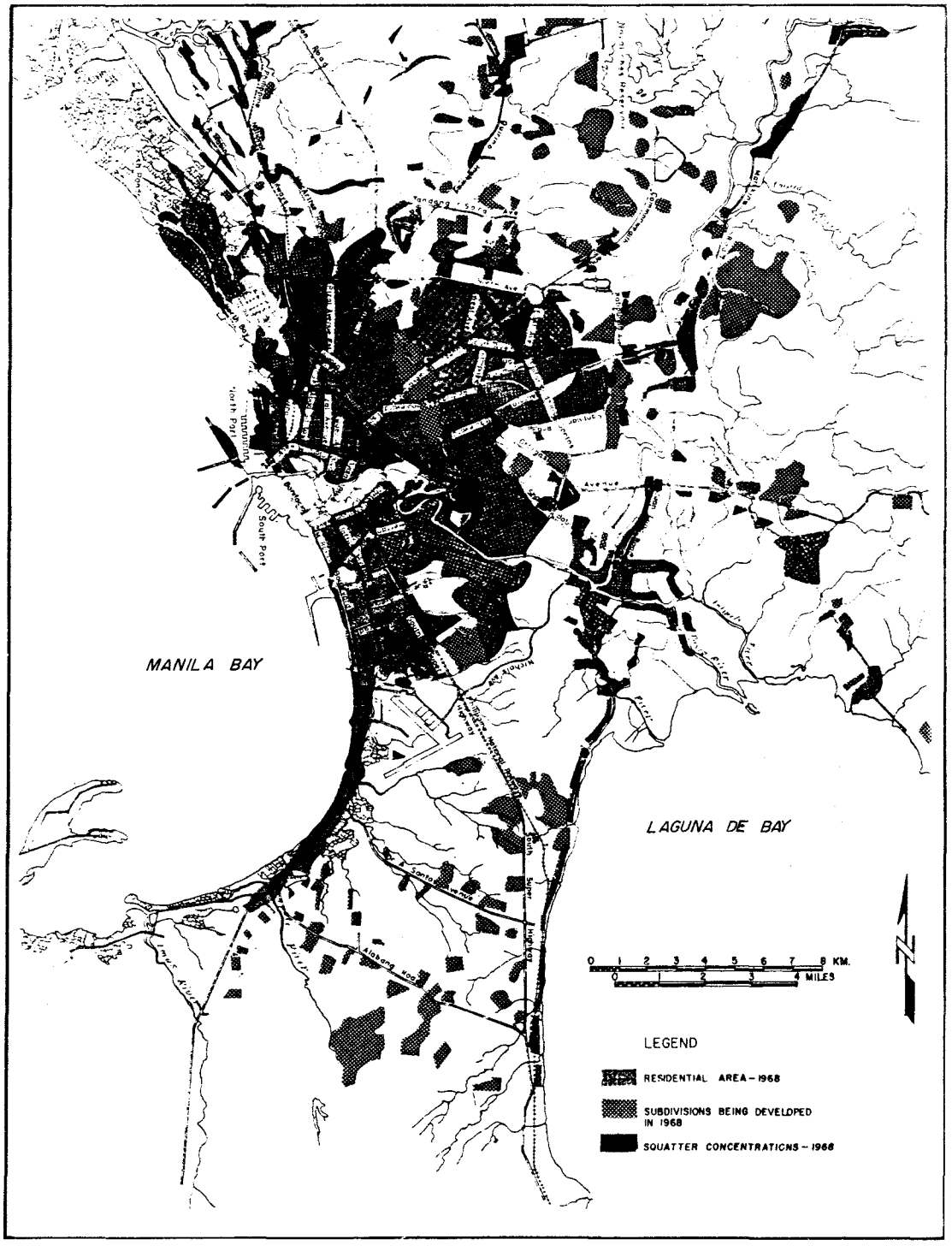

Figure 5

RESIDENTIAL AREAS IN METROPOLITAN MANILA, 1968

(Source: Philippine Planning Journal Vol. II No. 2)

The building of squatter settlements takes at least two patterns. One type involves individual families erecting their own shacks on any available land – newly reclaimed land, dried up river beds, private vacant lots, idle government property, corners of public parks, river banks, and even middle islands of wide streets. The other pattern involves bigger groups of families invading public lands or private lands of undetermined ownership and subdividing and renting them out among themselves and to other squatter families. The settlers are later organized under the leadership of the 'developers,' first, for the purpose of fighting off any attempts to eject them or driving away any other claimants. Then, having stabilized their occupation, they push for legitimization of their claim by government authorities.

The locational preference of squatters is not much dictated by proximity to the production areas, as by the availability of open space to occupy. Because their means of livelihood allows them to be ambulant and mobile, their place of residence becomes of little consequence.

3. Government housing programs. Although housing has largely been the concern of the private sector, the Philippine government has of late been increasing its participation in housing provision. Considering the magnitude of the housing need and the usually selective target clientele of private developers, the State can really ill afford to do less.

   The central planning agency of the government, the National Economic and Development Authority (NEDA), estimates the housing need in Metro Manila to be around 576,000 dwelling units representing 17 percent of total housing need up to the year 1992 (NEDA, 1986, 245). Out of this housing need the government has targeted to provide less than two-fifths (38.9%) and expects the private sector to provide 55 percent for the period 1987-92.

   The State housing program consists of three components: housing finance, housing production, and housing regulation (NEDA, 1986, 240-242). The State housing finance system integrates savings, secondary mortgage trading, and credit insurance. It consolidates these funds and channels substantial outlays for long-term mortgage funds, thereby enabling low-income families to have access to housing finance.

   Government housing production involves not only direct housing construction, but also sites and services development and upgrading, fabrication and stockpiling of construction materials, and standardization of construction technology. The lead agency for housing provision is the National Housing Authority. Its main functions include the development of serviced lots for resale to low-income families, on-site upgrading of slum homelots, development of squatter resettlement sites, and construction of economic housing in joint venture with private developers. The now-defunct Ministry of Human Settlements used to undertake research and development of standardized housing components and building design and construction techniques to avoid waste and bring down total construction cost. A special law (BP 220) was also enacted in 1982 lowering subdivision standards and building regulations to further reduce construction cost of low-income housing.

   The Human Settlements Regulatory Commission (now Housing and Land Use Regulatory Board) regulates urban land and housing through the following functions: approval of subdivision, townhouse and condominium projects; regulating the real estate development business; implementation of the urban land reform law through control of developments in identified areas for priority development (APDs); and, assistance to local authorities in town planning and zoning administration.

4. Households and the State. We noted how structuring of the consumption space was largely on account of the activities of the private developers and self-help builders and that government participation has not been all that substantial. The profit motive of private developers, however, requires that their target clientele come from those

who can afford to pay, thereby excluding majority of those who need housing in the first place. Moreover, their high-class planning standards had the double-barreled effect of consuming so much land per person and prematurely pushing up land values in the suburbs making land all the more inaccessible to a far greater segment of the urban population. Even earlier government housing programs contributed to this inequitable distribution of urban land resources. Nominally targeting 'low-income' families, earlier government housing programs did not really reach those who were most in need. Government sold houses and lots like any other private developer, reaching only those households who had the ability to pay. This explains the preponderance of self-provisioning households and squatter families.

Government response to private actions in the consumption space has varied with time and according to the specific social classes. To the big landowners who have their own master plans to implement, the government assumes a hands-off policy. To slum dwellers, on the other hand, its earlier approach was slum clearance but now it has been changed to on-site upgrading or renewal. Squatters who used to be harassed with eviction threats and relocation to far-away resettlement sites are now receiving more sympathetic and humane treatment, at least by official pronouncements. To the large proportion of the population who are self-provisioning however, there is official acquiescence and neglect.

Even the provision of infrastructures and utilities, which has the potential to shape the direction and intensity of development, is not being used effectively by the State. Settlements can literally sprout overnight in any place and then the State is expected to come in with a package of services. Often, it does.

One serious problem created by these private practices, exacerbated by the disproportionate allocation of lands to high income classes and further abetted by State acquiescence, is the loss of vital open space. Metro Manila is literally choking itself with practically every available space being built over. As though this was not a serious enough problem, the State has promulgated a penalty tax on idle lands (PD 464). It is true, the subdivision law (PD 957) requires that open space is built into the subdivision plan, but the law seems toothless in the face of rampant clandestine subdivisions and self-provisioning households.

Another serious problem associated with unplanned spontaneous settlements is that often the houses are too close to sources of nuisance or environmental hazards like factories, garbage dumps, hospitals for contagious diseases, or along river banks because they are the only unbuilt areas left. In the late 1970s, the State started to enforce zoning regulations, but in the case of Metro Manila, zoning is a bit too late.

Thus, the structuring of the consumption space in Metro Manila reflects a social structure based on consumption relations. Those who can well afford it can choose to live in luxurious villas while those who have nothing but the will to survive can build their own shacks in the most unlikely places. In between these extremes is an infinite variety of housing accommodations, access to which is invariably according to one's ability to pay. This makes social and spatial mobility theoretically an open possibility for everybody. That is why slum dwellers reportedly regard their status as temporary, a way station towards better things to come (see Laquian, 1968). It is doubtful, however, whether the residential enclaves of the old rich would ever change hands or that any upstarts would be welcome in such neighborhoods. But an indication of the increasing demand for exclusive, high-class accommodation is the 'New Makati' that the Ayala Corporation is building some 20 kilometers to the south of Makati. This is reminiscent of the 'New Manila' of a half a century ago.

CRITIQUE OF THE URBAN LAND NEXUS THEORY

In this section, we look back to the urban land nexus theory to determine whether it can adequately explain the processes described in the previous two sections. We first identify those phenomena that seem to fit the analytical categories of the theory. Then we consider the observed phenomena that the theory cannot explain and try to find out the reason or reasons why it can not. Sometimes, the reasons are known; in other cases the reasons are not yet known. In the latter case we venture to make tentative explanations or speculations, which may later be developed as hypotheses for further investigations.

If the urban land nexus theory were perfectly operative in our study area, we would have found, among other things, that: 1) the private sector, that is, firms and households acting singly or in interaction according to their own logic and benefit-cost calculations, has created certain dysfunctions which are reflected in the pattern of their urban land utilization; 2) the State has reacted to these dislocations through various modes of intervention such as investment in infrastructures, promulgation of corrective policies and enforcement of regulatory measures, but in the process, it has created another set of land-contingent problems; and, 3) the private-public reaction and counter-reaction take place at all times and moves urban development forward.

So far, the discussion tends to indicate the complexity of a Third World city like Metropolitan Manila and that a single model like the urban land nexus theory seems so inadequate to explain the mass of phenomena observed. To be sure, the basic model, namely, that the action and reaction of the private sector and the government moves the urban land nexus (hence, urban development) forward, has been found to be taking place in Metro Manila. The theory is useful generally in explaining developments in the formal organized sector. Also, the basic proposition that the private and public sectors act according to their own benefit-and-cost calculations in response to certain problems, but that often, they fail to address the problem squarely and hence, create more problems, has found ample support in the Metropolitan Manila case. However, there are instances in which the private-public interface just does not happen, as, for example, in the case of the self-provisioning households, which the State treats with acquiescence and neglect, or its hands-off policy with respect to the elitist planning standards of the big land developers.

In short, the theory, when brought down to the ground is faulted in some of its major assumptions.

In the first place, the theory admits of only two contending social classes in capitalist society. This may be true in a highly industrialized capitalist society. But then, there is now emerging in industrialized societies a third social class, which is neither capital nor labor. This new social class is composed of white collar workers – senior administrators, managers, professional and high-level technicians – in both private and public enterprises. This new middle class is reportedly replacing the old middle class of self-employed entrepreneurs as the dominant elite (Dickens, 1988, 4-7).

In late dependent non-industrialized Third World countries like the Philippines, society is structured differently. As a non-industrialized society with a large proportion of self-employed persons and an equally large public bureaucracy, Philippine social structure may be more appropriately analyzed in terms of the consumption and distribution relations, as advocated by Santos (1979), rather than on the basis of production relations, as historical materialists are wont to do.

But even if we attempt to construct the Philippine social structure from production relations using a patchwork of secondary data, we would probably come up with no less than four main social classes: a very small capital class, a growing middle class, a large urban proletariat, and an even larger rural peasantry (Arce and Abad, in Bresnan, ed. 1986; Snow, 1983).

Rural peasantry. The Philippines is still predominantly an agricultural society, observes Snow (1983, 8), with many small farmers producing on a tenancy or share crop basis. Snow, citing World Bank figures, adds that, even as late as 1980, 46 percent of the country's labor force was engaged in agriculture.

Urban proletariat. The long experience of the Filipino workers in agrarian relations has hampered their socialization into the discipline of wage labor. Laquian (1966) observed that the urban proletariat was organized but its leadership was often too engrossed in its own selfish ends to be concerned with general welfare. The lower classes are so torn into warring factions and rivalries as to be able to pose a united front in their common struggle against the upper classes.

Small capital class. Snow goes on to state that much economic power still lies in the hands of rural landlords and plantation owners. A small group of industrialists, on the other hand, dominates industrial development. The relative size and power of this capital class is unmasked in the study by Doherty (n.d.) which traced the interlocking directorates among financial, service, commercial, and manufacturing enterprises. One group, according to Doherty, consists of the new elite who have risen to prominence since the imposition of martial law in 1972. These are known as the Marcos cronies. A second group comes from the pre-martial law traditional elite and have grown considerably under martial law through their political connections. The third group comprises the old traditional elite or oligarchy that managed to hold their own despite occasional harassment from the regime. It is alleged that this old elite is back in the saddle following the ascendancy into power of President Aquino.

The urban middle class. The urban middle class is not the equivalent of the European bourgeoisie. Its membership comes from salaried functionaries in government and private bureaucracies. The higher, more senior fraction of this class probably corresponds to the new middle class in industrialized societies described by Dickens. Members of this class are described by Laquian (1966, 206) as "having benefited from general public education, are able to rationally perceive their world through the mass media and most important of all, they can earn a modest means of livelihood which provides them with some degree of independence from the government and politicians." 'Modest means' and 'independence from the government' may be the key to understanding the phenomenon of self-provisioning described in the previous sections. Because 'modest means' is actually not nearly enough to pay for the family's escalating needs against price inflation, many a household is driven to engage in other activities outside regular employment. Because the government tends to turn a blind eye on such activities, a shadowy economic system develops and thrives, giving rise to a totally different yet parallel set of economic and social relations – rent capitalism.

The first exposition and naming of the concept 'rent capitalism' is attributed to the German historical geographer Hans Bobek. Bobek (1962) claims that rent capitalism emerged as a peculiar economic form of Oriental civilization probably as early as the second millenium B.C. Rent capitalism in the Philippines is said to have been introduced in the country in the 19th century. Its existence or persistence is confirmed by at least two scholars who have investigated the subject and have written their Ph.D. dissertations on it (Marshall McLennan from the University of California, Berkeley, in 1973; and Brian Fegan from Yale University, in 1979). Both scholars focused their investigations of rent capitalism in the rural economy. McLennan found the essence of rent capitalism in the Central Luzon province of Nueva Ecija in the relations between landowner/ creditor and the peasant through which part of the peasant's product was extracted to meet rent and debt claims. For his part, Fegan observed in another Central Luzon barrio in Bulacan province, that the so-called 'cash crop' being exchanged in the world market is actually not produced for sale by peasant-producers but to pay for pre-existing debts. In another article on the same subject, Fegan (1981) detected the existence of rent capitalism in the urban economy, embracing some subsectors of the urban manufacturing and service industries.

How does rent capitalism operate in the urban economy? Here is a description by Fegan (1981, 10):

> Rent capitalism operates under a relationship wherein...*a capitalist provides a piece of land, a capital equipment or prime site in the market place, or money for daily buy-and-sell operations, etc. to a dependent petty entrepreneur. The capitalist then receives a lease rent...a share rent...or interest from the DPE at the end of*

each production of sales run, in the form of either cash or a saleable commodity. But the capitalist does not pay wages, does not bear risk, does not pay for material expended in production except as an advance at interest to the DPE. The DPE manages the operation, drives the pace of his own plus any hired labor, hustles to find sales, receives no wages but must make a "profit" over his costs of rent and interest, materials, land wages paid to others, in order to make any margin for his own existence.

This is the shadowy economic system in which a great number of middle class families are probably engaged, on top of their regular 'modest means of livelihood'. Depending on their command of capital resources they either become rent capitalists (RC) or dependent petty entrepreneurs (DPE). According to Fegan, the relationship between the RC and the DPE is often exploitative but the DPE feels the RC is doing him a favor by providing him a means (or extra means) of livelihood.

Given this complex web of economic and social relations therefore, Scott's concept – and that of the historical materialists generally – of the capital-labor class struggle seems a bit contrived, to say the least.

In the second place, Scott's conception of the role of the State vis-à-vis capital in a capitalist society falls far too short of the reality in the Philippines. Scott conceives of an essentially reactive State and one that is ultimately subservient to capital. This is not true in the Philippines where big business and government are reinforced by the common practice of politicians keeping business 'sidelines' or of successful businessmen turning into politicians.

A former President of the Philippine Chamber of Industries, Dr. Augusto Caesar Espiritu, observes that business in the Philippines is intertwined with the government. Businesses flourish or fail depending on their connections with the government. Espiritu writes (1979, 79):

Business empires were thus made possible with government connections. Politics became a handmaiden of business and many a businessman – legitimate or otherwise – turned to politics partly for the boost that this could give to his business interests.

Other observers concur. For example, economists like Jesus Estanislao and Bernardo Villegas, analyzing the economic crisis at the close of the Marcos years (early 1980s), write that government policies toward business and industry have had selective impacts depending on the latter's access to monopolistic privileges. Estanislao writes (in Bresnan, ed. 1986, 213):

While a few enclaves of business and industry that have access to monopolistic privileges conferred by the public bureaucracy continue to do relatively well, the rest of the economy suffers from insufficient credit by lower than average growth.

Similarly, Villegas blames the poor performance of the economy on the flawed economic policy of 'pampered overprotection' of some favored industrial sectors through tariff, fiscal, and monetary controls which has kept the Philippines closed to international competition (in Bresnan, ed. 1986, 154-155).

A leading authority on Philippine public administration, Dr. Aprodicio Laquian (1966, 208), goes further to say that big business is dominated by politicians – the exact opposite of what obtains in advanced industrial capitalist societies. Businessmen, Laquian observes, contribute to politicians' campaign funds not because they want to maximize power but to buy their independence from government. Laquian believes that the national government has enough resources to attain and maintain power.

Thirdly, even as private business is dominated by the powerful national State, the private sector lords it over in the local area where the local authorities are virtually powerless. Herein lies another aspect of Philippine reality for which the urban land nexus theory cannot account. Scott assumes that political power is uniformly spread through all the levels of the State. In fact, Scott makes no such

distinction between levels and the differential allocation of political power.

The reality in the Philippines is such that political power is highly concentrated in the national State. The tension between the ideal of local autonomy and the centralism tendency runs through the country's political history. But somehow, centralism has always gained the upper hand and local autonomy remains a continuing ideal but otherwise an empty rhetoric. For example, the President still exercises supervision over local officials with power to remove them from office for certain specific offenses. The most effective vehicle the national state uses to control local authorities is the budget. With very limited revenue raising powers, most local governments run on budgets heavily subsidized by the national government and are therefore often unable to undertake significant projects of their own. State housing programs are likewise in the hands of the national government. Even local land use plans and zoning ordinances are prepared by the national government agencies and are implemented by officers 'deputized' by the national government.

According to Laquian (1966, 25-43) centralism has enabled the colonizing powers to weld, as it were, thousands of disparate tribes and independent settlements into one nation. Similarly, a centralist government under a strong President was able to hold the nation together during the early years of independence. Once the fact of nationhood has become so firmly established that it could be taken for granted, the clamor for less centralism and more local autonomy can only be expected as the logical path to true political development.

If the present (1987) Constitution were any indication, it would seem that the advocates of local autonomy have really grown quite strong lately. As to whether this represents the dawning of the age of real local politics in the Philippines is too early to tell.

In summary, we have seen the outlines in broad strokes the operation of the urban land nexus theory in the urban development of Metropolitan Manila. In some important details however, the theory is flawed because it fails to come to grips with the reality that: 1) there are not only two but possibly four contending social classes in the Philippines; 2) the Philippine national State is not subservient to private capital but rather dominates it; and 3) the local state which is supposed to be directly concerned with the urban land nexus is virtually powerless and that urban planning did not emerge as a response by the local state to the dislocations in the urban land nexus but as an extension of the power of the national State.

CONCLUSION

We close this study with no more new ground broken and no more firm foundations established than is necessary to launch us into more explorations. This concluding part therefore, raises more questions and identifies more problems for further investigations.

We have seen the indeterminate character of the economic system of the Philippine which spawns a complex social structure and relationships. We have also seen how inadequate the urban land nexus theory is as an explanatory analytical model for such a complicated social reality. Perhaps, there are useful insights from other theories which could shed light on some of the phenomena that Scott's theory failed to apprehend.

For example, Castells' observations that the production space is structured at the supra-urban level seems to find support in the Philippines (Cooke, 1983). The location of manufacturing industries, at least the large formal ones, is more of a regional problem than urban. The locational behavior of these large firms within the metropolis can also be partly explained in terms of the neoclassical theory of cost minimization and profit maximization.

Regarding the locational behavior of small industries and service firms, Santos (1979) observes that the upper circuit (formal sector) is linked to the wider regional economy, hence the transport orientation of their location. He observes further, that the lower circuit (informal sector) caters only to the local economy hence, they are interspersed with residential areas whence their clientele come.

It would seem, too, that Harvey's concept of circuits of capital (1985) is valuable in

analyzing urban expansion in Metropolitan Manila. In Luna's study (1964) for instance, he found out that many of the firms that moved to the suburbs had their original location in the central city of Manila. But then, Luna's study was done before the advent of multinational corporations (MNC) which started to come in following the enactment of the Investment Incentives Act of 1967. This inflow of foreign investments reached its peak during the martial law years when there was general peace and order and the government launched an aggressive drive to invite foreign investors (Espiritu, 1978, 2-3). One difficulty in using Harvey's concept is that since the decision to invest is made by the multinational corporations in the center of world capital, profits are first repatriated to the center and may or may not be plowed back. The production of the built environment of the city is therefore, left in the hands of individual households, private developers, and the State which has little control over the accumulation of international capital. Short of funds, the State is forced to borrow capital from abroad rather than from the locally accumulated capital. In such a case, the State becomes subservient to international capital and actually loses its autonomy to act as social engineer in its own turf. In a recent article, however, Harvey (in Gregory, D. and J. Urry, 1985, 153-157) developed the concept of 'spatial fix' in which capital and labor surpluses can be switched to other regions and to other countries. When this happens, the home country creates new dependent forms of development on the recipient region or country.

Future research problems

Considering the above premises, there is clearly a need to develop a new model that will help in understanding the complex process of Third World urban development. Toward this end, the holistic approach of the historical materialists may be adopted as a starting point, but consideration must be taken of the peculiar characteristics of Third World societies.

The historical materialist perspective basically assumes that the social structure is a function of the prevailing economic system and that the social and economic relationships are expressed in the way urban space is occupied and utilized, with the intervention of the State. Adopting this basic assumption, we can identify the major elements of our tentative model which include the prevailing economic system, the social formation, the structure of the urban space, and the role of the State. The following are some considerations in setting up the model:

1) On the economic system. The prevailing economic system will undoubtedly exhibit characteristics typical of delayed dependent capitalism rather than those of mature advanced capitalism. This will necessarily take account of the relationship of Third World economies with the international economic system. Special note shall be taken of Santos' claim that not all sectors of the Third World urban economy are linked to the wider economy. In the particular case of the Philippines, what is a fair characterization of the Philippine economy, given the existence of rent capitalism? Initial expositions on the subject by McLennan and Fegan, for example, suggest that the rent capitalist himself is linked to the external economy but that the dependent petty entrepreneurs or commodity producers are not (McLennan and Fegan in McCoy and De Jesus, eds., 1982; Fegan, 1981). If this is so, does the RC gain linkages to the external economy on his own or indirectly through connections with the productive capitalism? Just how are the two capitalisms related? Are they, in fact, two distinct systems or have they amalgamated into one system? How are the two capitalisms related, conceptually and practically, to Santos' two circuits of the urban economy?

2) On the social formation. Alternative analysis of social classes based not only on production but also on distribution and consumption relations, as suggested by Santos, may be tried. Similarly, the social structure in the Philippines needs to be described in greater detail. What, for example, is the social formation under rent capitalism? Under productive capitalism? Or under a combination of the two?

3) On the structuring of urban space. This will take cognizance of the fact that two types of land use patterns occur in Third World cities. One type exhibits patterns typical of the West and the other is characterized by

mixed uses. The land use patterns in Metro Manila are typical of the Third World experience. To what extent is this a reflection of the social formation under the two capitalisms? How are the patterns of clustering, differentiation and mixing of land uses related to the spatial distribution of the different social classes? What tensions and conflicts arise from the juxtaposition of planned, zoned land uses with spontaneous, mixed land uses?

4) On the role of the State. The State in Third World societies generally takes the lead in most aspects of the national life. But this is generally true with the national State. Local states are often weak and powerless and yet it is at the latter level where urban tensions and conflicts are found. How do the local governments generally deal with urban conflicts? In the Philippines, how do policies in all levels affect the two capitalisms? To what extent, conversely, are these policies a reflection of the social formation under the two capitalisms? What are the existing urban policies of the Philippine government? Are these policies quantitatively adequate as a response to particular urban problems? Is the implementation of these policies effective? To what extent are the inadequacies in the implementation of policies a reflection of the social formation under the two capitalisms?

For each of the elements of the model a detailed research design will have to be prepared. But let us leave that to the bigger project.

REFERENCES

Arce, W.F. and R.G. Abad (1986) 'The Social Situation,' Chapter 3 in Crisis in the Philippines, the Marcos Era and Beyond. Edited by Bresnan. Princeton, NJ: Princeton University Press.

Bobek, H. (1962) 'The Main Stages in Socio-Economic Evolution from a Geographic Point of View' in Readings in Cultural Geography. Edited by Wagner, P. and M. Mikesell. Chicago: University of Chicago Press.

Castells, M. (1983) The Urban Question, a Marxist Approach. London: Edward Arnold.

Cooke, P. (1983) Theories of Planning and Spatial Development. London: Hutchinson.

Dear, M. and A.J. Scott (1981) Urbanization and Urban Planning in Capitalist Society. London: Methuen and Co. Ltd.

Dickens, P. (1988) One Nation? Social Change and the Politics of Locality. London: Pluto Press.

Doherty, J.F. (n.d.) A Preliminary Study of the Interlocking Directories among Financial, Commercial, Manufacturing, and Service Enterprises in the Philippines. n.p.

Espiritu, A.C. (1978) 'A Filipino Looks at Multinational Corporations' in Philippine Perspectives on Multinational Corporations. Quezon City: U.P. Law Center, University of the Philippines.

Espiritu, A.C. (1979) Central Planning and the Expansion of Public Enterprise. Philippine Constitution Association and the U.P. Law Center.

Fegan, B. (1981) 'Rent Capitalism in the Philippines,' The Philippines in the Third World Series No. 25. University of the Philippines Third World Studies Center. (Mimeographed)

Fegan, B. (1982) 'The Social History of a Central Luzon Barrio' in Philippine Social History, Global Trade and Local Transformations. Edited by McCoy, A.W. and E.C. De Jesus. Quezon City: Ateneo de Manila University Press.

Harvey D. (1985) 'The Geopolitics of Capitalism' in Social Relations and Spatial Structures. Edited by Gregory, D. and J. Urry. London: Macmillan.

Laquian, A.A. (1966) The City in Nation-Building. Manila: Local Government Center, School of Public Administration, University of the Philippines.

Laquian, A.A. (1968) Slums Are For People. Quezon City: Bustamante Press.

Luna, T.W. Jr. (1964) 'Manufacturing in Greater Manila' in Philippine Geographical Journal Vol. 8 Nos. 3 & 4 (July-December 1964).

McLennan, M.S. (1982) 'Changing Human Ecology on the Central Luzon Plain: Nueva Ecija, 1705-1939' in Philippine Social History, Global Trade and Local Transformations. Edited by McCoy, A.W. and E.C. De Jesus. Quezon City: Ateneo de Manila University Press.

Pernia, E.M. et al. (1983) The Spatial and Urban Dimension of Development in the Philippines. Philippine Institute for Development Studies.

Reed, R.R. (1972) 'The Primate City in Southeast Asia: Conceptual Definitions and Colonial Origins,' Asian Studies Vol. X No. 3 (December 1972).

Roweis C.T. and A.J. Scott (1981) 'The Urban Land Question' in Urbanization and Urban Planning in Capitalist Society. Edited by Dear, M. and A.J. Scott. London: Methuen.

Santos M. (1979) The Shared Space. London: Methuen and Co., Ltd.

Scott, A.J. (1980) The Urban Land Nexus and the State. London: Pion, Ltd.

Snow, R.T. (1983) 'The Bourgeois Opposition to Export-Oriented Industrialization in the Philippines.' The Philippines in the Third World Series No. 39. University of the Philippines Third World Studies Center. (Mimegraphed)

Uichanco, L.B. (1971) 'Should Laguna de Bay and Pasig River be Left to Their Doom?' Philippine Geographical Journal Vol. 15 No. 3 (July-September 1971).

Villegas, B. (1986) 'The Economic Crisis' Chapter 6 in Crisis in the Philippines, The Marcos Era and Beyond. Edited by Bresnan. Princeton, NJ: Princeton University Press.

SLUM AND SQUATTER PROBLEMS IN METROPOLITAN MANILA: AN UPDATE [1]

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BACKGROUND

The Philippines, a thousand-island archipelago with a land area of 300,000 square kilometers, is home to 60 million Filipinos. Although considered predominantly agricultural, 42.9 per cent of its population live in urban areas (HUDCC, 1991). Compared to its Southeast Asian neighbors, it emerges third in the proportion of people located in urban areas, after Singapore and Brunei whose populations are 100 per cent and 76 per cent urban, respectively (Jimenez, 1986).

In the past two decades, urban population in the Philippines has grown at an average rate of 4.13 per cent annually. From a total urban population of 11,677,820 in 1970, it rose to 17,943,897 ten years later. By 1990, urban population had reached 26,245,568 (NSO, 1991).

On the other hand, rural population has been increasing at a much lower average rate of 1.73 per cent annually. Two decades ago, between 1970-1975, the average rate of increase in rural population was higher at 2.30 per cent: from 25,056,666 to 28,024,138. Between 1975-1980, the increase was 1.89 per cent which, in absolute numbers, meant a total of 30,154,563 rural dwellers. In the past decade however, rural population grew from 20,154,563 in 1980 to 35,234,612 in 1990. Broken down into two five-year periods, this reflected a 1.83 per cent increase between 1980-1985 and a 1.73 per cent increase between 1985-1990 (NSO, 1991).

The urbanization pattern in the country has been characterized by an escalating population movement towards urban centers, highlighted by the primacy of Metropolitan Manila. Also known as the National Capital Region or NCR, Metro Manila has, since 1980, exhibited a 100 per cent urbanization level. In descending order, the other regions with the next highest levels of urbanization as of 1990 are Region III (Central Luzon) at 51.8 per cent; Region IV (Southern Tagalog) at 42.8 per cent; Region VII (Central Visayas) at 36.8 per cent; and, Region IX (Western Mindanao) at 38 per cent (NSO, 1991).

While the slum and squatter problem -- which is caused, among others, by unregulated urbanization -- is a national malady, it is magnified several times over in Metropolitan Manila. The squatter population of the Philippines is reported to be the largest among the ASEAN countries. In the Metropolis, it is estimated to be about 33 per cent or 2.4 million of its 7.3 million inhabitants. In 1986, Metropolitan Manila had 1.7 million slum dwellers and squatters with 45 slum colonies occupying 695.5 hectares, 60 per cent of which is government property. The 1990 update of the National Housing Authority shows that 26 per cent of the 1.6 million households of Metro Manila, or about 430,000 families live in squatter settlements (Jimenez, 1986).

The slum and squatter situation is just one of the visible manifestations of the seriousness of the housing problem in the country. The housing problem is, in turn, caused by the confluence of several factors such as poverty, high rate of population increase, absence of a comprehensive approach to urban development, land access problems, inefficient financing system, poor organizational structure and weak local governments. This underscores the complexity of the conflicts and

[1] This was the background paper to a Country Report dealing with a case study on slum and squatting.

aberrations brought about by the slum and squatter problem and the difficulty of finding both short term and, more or less, long term solutions.

Simplistically put, the required solutions will be in the areas of improving the people's socio-economic conditions, reducing population increase and urban migration rates to levels conducive to national development and increasing the options in accessing land for housing purposes. Other equally important improvements will involve streamlining the institutional machinery particularly in the financing aspect, and strengthening the capability of local governments for substantial involvement in housing. Each of these reform measures, however, has its own complex sub-problems that also demand serious remedial measures.

METROPOLITAN MANILA ACCORDING TO THE 1990 NCR PLAN

The following update on Metropolitan Manila highlights the relevant portions of the 1990 Medium Term NCR Development Plan, hereinafter simply referred to as the NCR Plan.

The National Capital Region continues to be the dominant urban region in the country. Consisting of four cities and thirteen municipalities, it is the seat of government and the center of financial, industrial, socio-cultural and educational activities. The Metropolis produces 30 per cent of the country's total output and accounts for about 38 per cent of its investments. Its ports handle about 55 per cent of the country's exports. Approximately 80 per cent of the nation's non-agricultural labor work force reside in this prime urban region.

Growing at the rate of about 2.8 per cent annually in the past 10 years, Metropolitan Manila had, in 1990, an estimated 7.8 million people in approximately 1.6 million households. The average size of a household was 5.0. This population constitutes 13 per cent of the nation's populace, congregating in an area of 638 square kilometers or 0.5 per cent of the country's land area.

While the average annual income of NCR families has improved by about 9.0 per cent (1985 prices) from P57,193.00 in 1985 to P62,323.00 in 1988 ($US 1.00 is equivalent to P21.00), the distribution of wealth has been uneven. The income of the poorest 40 per cent of households in Metro Manila has remained static at about 16.0 per cent of total income from 1985 to 1988. The income of the middle 50^{th} to 60^{th} percentile groups has, however, increased by 6 per cent (from 14.0 per cent to 20.0 per cent of total income) during the same period. In 1988, the poverty threshold or the monthly income required to satisfy 100 per cent of the nutritional requirements and other needs of a family of six was estimated at P4,037.00.

The 1990 NCR Plan projects that up to and until 1994, Metro Manila will continue to experience this unique phenomenon: an infilling of its main urban area and a simultaneous outward expansion in all directions. Largely attributable to private sector initiated development, infilling will, among others, reduce idle land and open spaces in the core and cause the intensification of and/or change in land use patterns.

Notwithstanding the planning efforts of a central metropolitan body (the Metropolitan Manila Commission from 1974 to 1986; recently replaced in January 1990 by the Metropolitan Manila Authority), Metro Manila suffers from a chaotic and inefficient land use pattern which is unwittingly reinforced by its 1981 Metro Zoning Ordinance. This land use configuration is characterized by an increase in the number and density of squatter housing areas, particularly in the inner city and transport corridors; and the development of middle and upper class residential subdivisions in the urban periphery where land is cheaper. There has also been a boom of townhouses and high rise condominiums in the main urban areas for the middle and upper income markets; and, the reprehensible practice of premature conversion of agricultural and fishpond areas to residential and/ or commercial uses.

The NCR Plan reports that this situation in residential development has similarities with industrial and commercial land uses. These last two sectors are characterized by high intensity commercial activities along major transport routes and the emergence of intensifying sub-urban commercial modes at intersections of

major transport routes. These have been in response to the increasing number of residential subdivisions in the suburbs, and the location of new and relocation of existing industries to cheaper sites along major transport routes in the North, East and South of Metro Manila.

The other aspect of urban management which is adversely affected by the unregulated tempo of urbanization is the provision of basic services and utilities in Metro Manila. The efficient and effective delivery of basic urban services, such as housing, water, energy, transportation and communication, environmental management, and peace and order is hampered by a complex of interrelated factors identified in the NCR Plan. Foremost among these is the weak inter- and intra-sectoral coordination of the responsible agencies which affects the performance of the above mentioned functions. The other factors are system inefficiency, outdated laws and lack of appropriate policies.

The task of urban management in Metropolitan Manila was recently vested in the Metropolitan Manila Authority (MMA) which was created through Executive Order No. 392 signed by President Corazon Aquino. Its governing body is the Metropolitan Manila Council consisting of the mayors of the member cities and municipalities, the Secretaries of the Department of Budget and Management and the two infrastructure departments, namely the Department of Transportation and Communication and the Department of Public Works and Highways. The mayors take turns serving as chairman, with each term lasting six months. MMA's main concern is the performance of its Constitutionally- mandated function (Section 11, Article X) of coordinating the basic services in the Metropolis.

There is much that MMA can learn from its predecessor, the Metropolitan Manila Commission. Its experience showed that an integrated planning and development framework by itself does not guarantee the orderly and successful development of the premier urban region. Effective metropolitan governance demands the sustained commitment of the government agencies at all levels and the LGUs constituting the metropolis. It also needs the support of the private sector and the NGOs to implement the Metro Development Plan. Good governance also requires effective planning, financial management, and monitoring evaluation. (MMC Medium Term NCR Development Plan, 1990) Without these, there is little reason for optimism about the future of Metro Manila.

THE NATIONAL HOUSING SITUATION: AN OVERVIEW

The comprehensive overview of the national housing program including the attendant problems thereto, presented in the most recent Medium Term Philippine Development Plan for 1987-1992 of the National Economic and Development Authority, provides an appropriate backdrop to the discussion of the housing situation in Metro Manila and its slum and squatter problems. The Plan characterizes the country's housing problem as a twin problem of quantity and quality. The former arises from the need to build more houses to meet the demands of an increasing population. The latter, on the other hand, is concerned with the need to improve the existing stock of substandard housing of makeshift and light materials.

From a traditionally fragmented approach to the various components of the housing problem, the government has adopted a total systems approach involving housing production, finance and regulation, which it operationalized at the start of the 1980s. This approach has been reinforced during President Aquino's administration. This consists primarily of rationalizing and synchronizing the operation of a network of housing agencies with the specialized functions. These are housing production with focus on social housing by the National Housing Authority (NHA); funds generation by the Home Development Mutual Fund (HDMF); mortgage purchase by the National Home Mortgage Finance Corporation (NHMFC); mortgage guarantee by the Home Insurance and Guarantee Corporation (HIGC); and, regulation by the Housing and Land Use Regulatory Board (HLURB).

A basic component of this total approach is a new housing finance system called Unified Home Lending Program (UHLP) which was launched in 1987 and which was in full operation by 1988. The Program integrated savings, secondary mortgage, trading and credit insu-

rance functions. As of November 1990, some 32,840 beneficiaries had availed of UHLP funds, translated into 276,700 units of assistance from 1987-1989. The average UHLP loan extended for the same period was P116,000, an amount affordable to 39 per cent of the total population and to 54.3 per cent of the NCR region population based on the 1988 Family Income and Expenditures Survey or FIES (NEDA, 1992).

The government's housing production activities aside from direct housing construction include the development of new sites and services and resettlement areas for the relocation of squatters in key urban centers, and joint ventures with the private sector and the local government units. The focus of the production program has been on in-city resettlements to prevent the return of previously resettled families to their old dwellings (NEDA 1990-1992).

In 1988, NHA accounted for 21,230 units comprising almost half (40.85 per cent) of the total 51,971 housing units constructed by the government. The NHMFC accounted for 10,173 units (19.57 per cent) while the rest were provided by the following agencies: HIGC, 9,442 units; HDMF, 1,540 units; SSS, 7,474 units; and, GSIS, 2,112 units (Philippine Yearbook, 1989).

To its traditional housing involvement, the government has added the implementation of the Urban Land Reform Program. Introduced in 1978 by Presidential Decree 1517. Its implementation consisted of the planned development of blighted and depressed areas declared by the President as Areas of Priority Development (APDs) and Urban Land Reform Zones (ULRZ), and the improvement of security of land tenure of legitimate tenants. A recent count showed that there are 271 such areas, almost all of them, located in Metro Manila.

A significant milestone during this period was the enactment in 1982 of a special housing legislation (Batas Pambansa or BP 220) for socialized or low-income housing. This legal issuance made housing more accessible to the lower income earners by exempting economic and socialized housing from the strict application of the standards and technical requirements of the Subdivision Code, the Building Code, and the Fire Code. The BP also authorized the promulgation of more realistic standards for this type of housing, thus lowering housing cost. These standards may vary in each region, province or city, depending on the availability of indigenous materials for building construction and other relevant factors.

The NEDA Philippine Development Plan of 1987-1992 also took special notice of the active involvement of organized private sector groups of realtors and developers in various housing activities, from planning to production, land development, finance and brokerage. The Plan reports that the growth of the housing industry in the period 1981-1985 is reflected in the growth of private construction, 60 per cent of which was in residential construction. While private construction decelerated in 1984 and suffered a 14.7 per cent decline due to the economic crisis experienced by the country, this reduction still constituted the smallest decline among the industry sub-sectors.

Affordability has, and will remain to be a formidable aspect of the housing problem since all statistics point to a common conclusion that housing remains out of reach for a sizeable portion of the population. The average monthly income in the countryside in 1985 ranged from P753 to P11,600 whereas, for the urban areas, the average monthly family income was P2,465. The amount available for housing was estimated on the basis of the current expenditures for housing, rental paid or its equivalent, plus amount saved. This amount available for housing averaged P575 monthly or 23 per cent of the monthly income. This is affordable only for households belonging to the top 50 per cent of families in the income ladder (NEDA, 1987-1992).

Home ownership and security of tenure is another intractable aspect of housing. Ownership of dwelling units is high in rural areas (90 per cent) while in urban areas, only 64 per cent of the households own their dwelling units. Of this, a little more than 50 per cent (63 per cent) also own the land on which their dwelling units are built. The rest are either renters or squatters. The problem of home ownership is more serious in Metro Manila where 58 per cent of the households do not own the house they live in, and 22 per cent of households do not have

tenure over the land on which their houses are built (NEDA, 1987-1992).

The 1980 Census of Housing reported that 65 per cent of the total houses built during the period 1976-1980 were made of light materials, 27 per cent were made of strong materials, and around 7.6 per cent were of makeshift materials. Most houses made of strong materials (59 per cent) were found in the urban areas, while light material housing (81.7 per cent) and makeshift housing (69.7 per cent) were found primarily in the rural areas. Although a high percentage (71.3 per cent as compared to the national average of 37.4 per cent) of households in urban areas have electricity, only a low percentage of these households have water (49.6 per cent) and toilet facilities (44 per cent) (NEDA, 1987-1992).

In brief, the NEDA Plan (1987-1992) has identified the various aspects of housing provision that are in dire need of change and/or reform. These are:

1. The priority and thrust of the private formal sector which is focused on the "guaranteed" markets of a more affluent clientele rather than on the lower income groups;

2. Capability of the target groups, namely the lower income clientele who previously either rented or squatted, to meet the financial requirements of, and their willingness to make the cultural adjustments called for by their new status as homeowners;

3. Ability of the government to sustain and improve the application of its sites and services strategy, which favors the lower income buyers, and the capability of the lot awardees to put together the financial and other resources necessary to construct their own shelters;

4. The effort at community organization and the monitoring of urban construction to prevent and/or remove unsafe structures and arrest the deterioration of the neighborhood into a slum or squatter colony; and,

5. Effective coordination and synchronization of the housing program with other government and private sector projects in providing basic services such as water and drainage access, road construction, electricity supply, etc.

THE SLUM AND SQUATTER PROBLEM IN METROPOLITAN MANILA

The Housing Scenario

The slum and squatter problem in Metro Manila can be better understood when placed within the broad housing scenario in the Metropolis. In a recent study, the housing situation in Metro Manila was broadly described as follows: (Isberto, 1991)

1. The low income housing industry in the Metropolis is an endangered industry because there is hardly any land left for low cost housing in the area. If any, they are very expensive or are used for commercial purposes. Furthermore, inflation has raised the cost of construction materials by 20 per cent and increased interest rates further, thus undermining the viability of the low cost housing industry.

2. Government has financial difficulties in pursuing its mass housing program since low cost housing is considered one of the government's lowest priorities.

3. International funding institutions are moving towards openly supporting the activities of non-government organizations which have proven their efficiency in delivering services to the people.

4. There are more NGOs that are now involved in low-income housing. The big backlog in the housing industry has opened the field to NGOs who see the housing problem as part of the social ills plaguing society. They have taken this on as part of their responsibilities to their members and staff.

The extensive destruction brought about by World War II is the root cause of the housing shortage that Metro Manila and other

urban centers in the country experienced in the 1950s. More than half of the 80 per cent war-damaged buildings in the City of Manila were houses, leaving thousands of Manileños homeless and/or fending for themselves in doubled- or tripled-up housing accommodations (Reforma and Briones, 1983). The postwar period saw Manila and other cities invaded by thousands of migrants from the rural areas who wanted to escape the unrest, the depressed conditions, unemployment and scarcity of economic opportunities therein.

In the two decades after the war (1948-1968), the squatter population in Metro Manila multiplied 33 times, mushrooming from 23,000 to 767,000 persons (Poethig, 1965). Demographic statistics in the 1980s revealed that there were about 1.6 million squatters or slum dwellers in the metropolis constituting 26 per cent of its total population (The Share and Care Apostolate for Poor Settlers, 1983). By 1990, the estimate was that the proportion of squatters to the total NCR population rose to one third.

The seriousness of the squatter problem in Metro Manila may be gleaned from the fact that among all the regions, Metropolitan Manila contains the largest number of squatters and slum dwellers. Statistics from the National Housing Authority in 1985 showed that the percentage of slum dwellers in the urban centers in the country ranged from a low 3.07 per cent of a population of 149,456 (Mandaue City in Region VII) to a high of 66.98 per cent of a population of 63,976 (Jolo in Region XII). In these urban sites, total slum areas also varied from a low of three slum areas in Tuguegarao (population 8,027) to thirty-one slum areas in Cebu City (population 562,391) (Karaos, 1989).

Focusing on Metro Manila, the slum population in 1985 ranged from a low of 7,933 out of a total population of 142,444 (Municipality of San Juan with seven slum colonies) to a high of 600,409 out of a population of 1,765,908 in the City of Manila (with 83 slum colonies). Insofar as the percentage of squatters to total population is concerned, the statistics from Metro Manila present a range of 6 per cent of a population of 142,444 (San Juan) to 33 per cent of a population of 1,377,926 in Quezon City. Overall, in 1985, slum population in Metro Manila reached 1,943,817 out of a total population of 6,942,202 found in 415 slum colonies (Karaos, 1989).

Insofar as squatters are concerned, Metro Manila held the negative distinction of housing 28 per cent of this disadvantaged sector. In the number of slum colonies, the cities/municipalities with the highest number of squatters in 1985 were: Quezon City, 142 colonies; Manila, 83; Pasay City, 36; Makati, 19; and, Marikina, Muntinlupa and Pasig, 17. Insofar as the percentage of squatters to total population was concerned, the top five cities/municipalities were: Quezon City, 33 per cent of 1,377,926; Manila, 31 per cent of 1,765,908; Navotas, 30 per cent of 147,362; Pateros, 28 per cent of 48,347; and, Pasay City, 28 per cent of 331,861 (Karaos, 1989).

Of immediate concern to the government is the fact that a large number of squatters/slum dwellers reside in the so-called danger zones that pose risk to their life and safety. These are the flood-prone banks of waterways, the vicinity of railroad tracks that are still in use, rights-of-way of infrastructure projects, and areas beneath bridges and overpasses. These families have, therefore, been prioritized for relocation under the Metro Manila Squatter Prevention and Resettlement Program (SIR) of the National Housing Authority. As of May 1987, 76,295 families have qualified for relocation under the said program (Ranjo, 1990).

Approaches to Slums and Squatting

The slum and squatter situation in Metro Manila is one urban development problem of the country that has continued to elude satisfactory solutions. This continuing struggle between the government and the squatters and slum dwellers presents an interesting case study in the dynamic interaction between parties with ostensibly conflicting interests. This acquires national significance for the simple reason that the squatters and slum dwellers constitute an increasing percentage of the country's population and threaten to dominate the urban scene.

Relocation

In the early postwar years of their existence, the squatters and slum dwellers of the Metropolis were generally regarded as flagrant

violators, devoid of any respect for the property laws of the land. While the government expressed sympathy for their seeming helplessness, the more influential factor in policy decision was the fact that these urban settlers were "invaders", "lawless elements" and were generally regarded as "eyesores" that had to be controlled. They were labeled as a nuisance to society that had to be removed from prime urban lands to find homes where they could inflict the least harm or damage. "Harm" was conceived in terms of the social, economic, and environmental degradation that resulted from their congested, blighted and unsanitary conditions. Crimes and myriad forms of social and health problems were also traced to these communities. Damage was viewed solely as their impact on the community and its law-abiding citizens, without equal consideration of the impact of this degraded environment in which their residents are trapped. Consequently, the resultant government policy was the rejection, ejection and relocation of the squatters.

This approach reflected an over-simplistic and limited perception of the real nature and magnitude of the problem. Completely ignored were the various aspects of the situation that were not legal in character. This was particularly true with squatting, where the law (P.D. 772) defines a squatter as "Any person who with the use of force, intimidation or threat, or taking advantage of the absence or tolerance of the landowner, succeeds in occupying or possessing the property of the latter against his will for residential, commercial or any other purposes." (Sec. 1) On the other hand, while not legally prohibited (although laws and ordinances on health and sanitation could be used to hold these residents liable for the conditions of their homes and environs), slum was considered as a social condition which, like squatting, is a consequence of poverty. It is this notion of poverty that links the two terms – the congestion, dilapidated buildings, unsanitary surroundings, and poor basic services (Jimenez, 1986).

This early experience of the government with slum dwellers and squatters later brought home some useful lessons resulting in a more comprehensive and humane approach. Thus, decision-makers shifted gears to view the problem also from the perspective of these urban dwellers and the community at large. The government concluded that these slum dwellers and squatters were drawn by the lure of the city, which promised their rescue from poverty through employment opportunities, the possibility of free land, and eventual ownership of the land and homes they occupied (Keyes, 1980). With this, however, came an acknowledgement that while squatting provided the affected settlers an opportunity for a better life, it was regarded as a problem by the government and the general community. Ironically, these latter sectors have not been completely blameless.

There was, also, at this time, a growing recognition that the phenomenon of squatting was a by-product of the "economic imbalance between the city and the countryside and between urban wages and housing costs. It was a result of national development strategies that have virtually ignored the need for an adequate housing stock, an uncontrolled and highly speculative land market, confusion of land titles, coupled with the delay in settling disputes, and lastly, the vote coddling practices of local politicians who have exploited the situation" (Keyes, 1980).

With this new perspective, the government understandably began to explore more practical, humane and realistic solutions than the mere geographical transfer of the "problem" to locations where the urban dwellers would, most likely, replicate the condition of the sites from which they were displaced. From an attitude that vacillated from indifference to tolerance coupled with neglect, to grudging acceptance, the government assumed a more enlightened view. It rose to the call of shared responsibility for the squatters and slum dwellers' conditions because of its lack of a comprehensive approach to housing and inability to solve some of the more serious socio-economic problems resulting in poverty and economic despondency.

Resettlement

Initially, slum clearance and relocation as an approach underwent some improvement from being undertaken on a piecemeal basis to large scale eviction which allowed the transfer of the urban poor to resettlement sites in a more organized manner. The first of these

mass evictions displaced some 15,000 squatter families from downtown Manila, most of whom were residents of the historic inner city of Intramuros. About a third were resettled in Sapang Palay, an area within Bulacan, 40 kilometers north of Manila. Additional relocation sites were later opened from 1968 to 1974 in the south of Manila, namely San Pedro in Laguna, and Carmona and Dasmariñas in Cavite. By the end of 1981, it was reported that at least 46,186 families had been relocated to these four resettlement sites (Jimenez, 1986).

Compared with the first three resettlement sites, the relocation sites in Dasmariñas, Cavite were better planned. They had provisions for wide roads, a hospital, electricity and adequate water. This approach came to be known as the "new town strategy" which underscored the government's responsibility to provide a more livable environment not only for the law-abiding sector of society, but also for those who may not be operating within the ambit of the law. Complementing this approach was the establishment by the National Housing Authority of a network of secondary or emergency resettlement areas dispersed around the cities and considered for "emergency" purposes and therefore temporary in nature (Keyes, 1980).

Much earlier, the government experimented with on-site low income housing to meet the urban squatter problem. Such attempts were made as early as 1934 and again in 1955. Tenement housing was undertaken in a more extensive manner during President Macapagal's term of office from 1961 to 1965. This approach has been severely criticized for its high social and economic costs that went beyond construction expenditures and subsidies. Added costs were maintenance expenses, delinquency in rent payments, and social services needed to facilitate the tenant's adjustment to their new environment. For the tenant, the cost involved was psychological, involving basically reorienting his lifestyle to the new form of living. Many of these tenements also ultimately ended up in the hands of those to whom original rights were sold, or worse, to illegal occupants (Poethig, 1965).

Another experiment undertaken by the government in Metro Manila was the community development strategy. Premised on the fact that squatters were primarily rural people living in cohesive urban communities, it was believed that they would respond to this approach. The community development strategy involved the organization of collective efforts to improve the urban poor's own community. This approach did not meet with much success because it was not able to solve the squatters' insecurity of tenure. To the target beneficiaries, community improvement was only secondary to their main concern – land acquisition (Poethig, 1965).

Sites and Services Approach

As alternative strategies for dealing with slums, squatter areas and other blighted communities, the government adopted the slum improvement program and the upgrading of sites and services. Adopted in the late 1970s, this involved the introduction of roads, community facilities and services, and a complementary socio-economic program for the employment of resident families. The legal authority for this approach (Letters of Instruction 555 and 557 issued by President Marcos) authorized relocation and resettlement only to complement a slum improvement program in the locality and where the squatter families were in areas that were dangerous to public safety or were needed for government infrastructure programs.

The same legal issuances provided the prerequisites for relocation such as accessibility of the site to the work places of affected families and the provision of economic activities in case the resettlement sites are far from the urban core. Those areas were required to be pre-developed, complete with basic community facilities and services. The Tondo Foreshore Dagat-Dagatan Development Project was the government's first attempt at comprehensive slum sites and services upgrading.

Urban Land Reform Act

In 1978, another supposedly "bold step" taken to improve the housing situation was the enactment of Presidential Decree 1517 known as the Urban Land Reform Act. This law acknowledged that land access was a key factor in finding solutions to the housing prob-

lem. It recognized that this problem was more than just an offshoot of poverty and uncontrolled urbanization and its consequences of inefficient delivery of basic services and utilities and environmental degradation. It advocated a synchronized approach to the problem of homelessness among the urban poor through, among others, creative devices for land acquisition such as land exchange or swapping, land assembly, and land banking.

The Urban Land Reform Act was prematurely hailed as the much-awaited solution to the problem of slum dwelling and squatting because its targeted areas for planned development were generally the abode of squatters and slum dwellers. Only after the law had been in operation for quite some time was it realized that it brought more promises than fulfillment. The Act had many deficiencies which prevented it from meeting head-on the intractable problems of the urban poor.

Prior to the passing of this law, it became obvious that the targeted beneficiaries were not necessarily those who were homeless and desperate but those who had no security of tenure in the homes and lots that they occupied. Thus, it provided that within the declared Areas for Priority Development (APDs) or Urban Land Reform Zones (ULRZs), the legitimate tenants who had resided in the land for ten or more years and have built their homes on the lands, and residents who had legally occupied the lands by contract for ten years continuously shall not be dispossessed of their land. Furthermore, they are to be given the right of first refusal to purchase the lot they are occupying. This provision was beneficial only insofar as it provided security of tenure because it prohibited dispossession of the occupants, but it did not solve the issue of granting home ownership. This was because the right of first refusal could only be exercised if and when the owner decides to sell the land. Thus, it required a prior act on the part of the owner before the government could come in to assist the tenant in purchasing the property.

One other constraint in the implementation of the law was that even if the owners had decided to sell their lands and their occupants had decided to exercise their first option, the government may not actually be able to provide the needed financial assistance to the tenants. This led to the formulation of various proposals for amendatory legislation to the Urban Land Reform Act to make it the exact counterpart of the Agrarian Reform Law. The Agrarian Law authorized transfer to the tenants the title of the lands that they tilled. However, there are basic differences between the Urban Land Reform Law and the Agrarian Land Reform which would put in question such proposals. Most of these proposed remedial bills are now pending consideration by Congress. There appears, however to be very slim chance for these bills to pass into laws.

Community Mortgage Program (CMP)

In the late 1980s, President Aquino's administration introduced an innovative concept of low-income home financing to increase the access to housing of the lowest sector of society. Launched in 1988, the Community Mortgage Program (CMP) involved the development of undivided tracts of land occupied by low-income groups by qualified community associations or cooperatives. These lands were made the subject of loans under the United Home Lending Program. The CMP has three stages: the acquisition by the community of the land they occupy; the provision of financing for the horizontal development of the acquired property and the individual's titling of the lands; and, the introduction of home improvement or home construction.

There is optimism on the CMP's success because of the reported wide acceptance by their beneficiaries and the involvement of both the public and private sectors. NEDA's document shows that CMP has exhibited satisfactory performance with a total of 7,208 units of assistance or an accomplishment rate of 117.7 per cent of targets for 1989. The program has also drawn the interest of government organizations and a number of local government units, community-based organizations, and non-governmental organizations (NGOs), indicating a future funding requirement for an additional 50,000 beneficiaries (NEDA, 1990-1992).

Both the CMP and the Unified Home Lending Program have highlighted the urgency to focus on existing programs and projects to upgrade the conditions of the urban poor com-

munity in an orderly manner and to provide them with economic stability. A few years later, the Pro-Poor Program for the urban poor families was launched in 1990, integrating programs that address the priority concerns of the urban poor living in depressed areas. These include land tenure, livelihood, basic services, shelter and social services. Pilot projects have also been initiated in Metro Manila, Cebu and Davao prior to its nationwide implementation (NEDA, 1990-1992).

Complementing the UHLP are provisions of the amended Batas Pambansa 220 which prescribe the minimum standards acceptable for each of the loan package categories of the UHLP. The significance of Batas Pambansa 220 lies in that it recognizes that the high standards of the existing Codes in the country should not be enforced in low-cost housing, and that the need is really for standards which would provide acceptable levels of safety, health and ecological protection. Design standards formulated under BP 220 are concerned with the safety of life, property, and the general public welfare and the provision of the basic needs of human settlements namely: water, movement and circulation, storm drainage, solid and liquid waste disposal, power, park, and playground. The provision of these basic needs is to be based on the actual setting of the project site. Other parameters are the affordability level and location of target markets. The special standards designed for those communities covered under UHLP further broaden the base of the urban poor who could avail of low-cost housing.

Another projected activity of the government is the development of a comprehensive program for squatter settlements. Basically, this will involve providing squatters with land tenure through the intensification of slum upgrading and the development of sites and services projects. The CMP will be expanded through community-based initiatives and the assistance of NGOs and local government units. This will ensure the effective delivery of housing finance under the National Shelter Program (NSP) and increase the accessibility of homeownership to the lowest sector of society. In addition, the development of in-city resettlement sites for squatters occupying priority infrastructure project sites and danger areas will be undertaken.

Changes in the Aquino Administration

Slums and squatting in Metro Manila remain to be some of the toughest problems of the Aquino administration. In the years since the EDSA Revolution of 1986, these assumed very distinct features. These may be attributed to the radically changed political, social and economic environment under the new dispensation. This is characterized by, among others, more conscious awareness of social justice and human rights (Article XIII, Philippine Constitution) and zealous efforts in the observance of the social function of property prescribed by the Philippine Constitution. This is combined with a keen awareness of the severe economic constraints of the poor, which discourages any further reduction of housing stock, no matter how substandard it may be.

"People Power" likewise influenced the developments in the slum and squatting situation in the country. One disturbing manifestation of people power was the large scale invasion of unutilized public property which gave birth to the government's policy of "Tigil Tayuan, Tigil Gibaan" (Stop New Construction and Halt Demolition). Under this policy, squatters occupying the same areas they did before the EDSA Revolution in 1986 were protected against unjust demolition by police and the military. The only exceptions were the squatters residing in endangered sites, sites for urgent government infrastructure projects, or those impeding public access like sidewalks, thus jeopardizing the public good. The problem with this policy was that it was difficult to determine which of these squatters had actually been on the sites prior to the critical cut-off date of February 25, 1986.

Parallel to this, President Aquino adopted a tough stance against professional squatters, particularly those who took advantage of the unsettled conditions after EDSA and "invaded" public and private lands. Among the first areas invaded were Pasig, Quezon City, Manila, Caloocan, Las Piñas, Mandaluyong, Navotas, and Malabon. (New Day, 1986) The occupation of most of these properties appeared to be spontaneous rather than an organized effort. The President ordered the expulsion of these squatters from private properties in response to a resolution made by the city and municipal officers which called for the strengthening of

the implementation of the Anti-Squatting Law (New Day, 1986).

This position however, was tempered by Aquino's leniency toward squatters who had been in their places before February 1986 "for humanitarian reasons" (New Day, 1986). Thus, one of the first tasks of the then Metropolitan Manila Authority (MMA) was to determine who the pre-EDSA squatters were. The Presidential Commission for the Urban Poor (PCUP), which was created in December 1986, also provided valuable assistance to the government in this effort.

Soon after the installation of the Aquino administration, an incisive diagnosis of the squatter problem in Metro Manila was made by the Multisectoral Alliance on Shelter (MAS), an umbrella organization of various shelter-related associations. It identified as one of the primary causes of the squatter problem the absence of appropriate financial infrastructure and regulatory policies which rendered home ownership to the urban poor virtually inaccessible (Business Day, May 1986).

The MAS Report cited that low-cost housing projects were difficult to establish because land development and housing construction standards imposed first class subdivision requirements on all housing projects regardless of intended beneficiaries. Even Batas Pambansa 220, which set liberalized developmental standards for socialized housing projects was found inadequate for lack of appropriate implementing guidelines.

The traditional home financing sources were aiso found inaccessible because the urban poor were not members of either the insurance system or the provident plans of some of the progressive companies (Business Day, May 1986). The MAS Report concluded that "even if the urban poor wanted to acquire homes, none were available" and even if there were, the lack of home financing assistance put housing out of their reach. As a result, squatting has proliferated, being the most convenient alternative.

The MAS Report likewise noted that while housing was accorded by the Marcos administration the status of a major national concern, a program attuned to the needs of the country's poor has never been integrated into the overall national development scheme.

The Private Sector Low Income Housing Association (PRISLIHA), an organization concerned with urban poor issues, also released its own position paper which sought the rationalization of the government housing program. The Paper recommended, among others, the opening of other government financial institutions such as the Social Security System (SSS) and the Government Service Insurance System (GSIS) to housing development by allotting a larger investment from their portfolios to housing loans.

The PRISLIHA Paper also suggested a gradual movement from direct loans to applicants to purchase of housing mortgages to strengthen the secondary mortgage market. The easing of existing stringent standards and procedures, especially with regard to non-acceptance of core houses and inequitably low collateral values by these institutions, was also recommended (Business Day, April 1986). It further proposed the allocation of all government funds for shelter to the medium and low-income families, leaving the commercial financial mechanism to the higher income groups.

Many of the indicated solutions and reform measures in these two private sector reports have influenced and guided the programs and projects of the Aquino administration, particularly those affecting the slum and squatter problem.

EMERGING CONSENSUS

Recent studies and a review of government and private sector activities affecting the slum and squatter problem in Metro Manila reveal the following emerging consensus and policy thrusts:

1. The slum and squatter problem is inextricably bound to population growth in, and high migration to urban centers and therefore requires regulation of both, through a more effective package of incentives and disincentives. The maintenance of natural growth of population and migration levels

conducive to national development should also be pursued aggressively.

2. The problem is too serious and has too far-reaching effects and implications to be made the exclusive concern of the metropolitan government of Manila and its constituent units. It should be resolved within the framework of national development efforts and a comprehensive urban management strategy.

3. The nature, size and complexity of the slum and squatter problem calls for decisive and firm policies for the effective control of the further increase in, and growth of these urban poor communities through pro-poor livelihood and related programs. This should be compatible with upholding the dignity and human rights of the disadvantaged sector and strengthening their resolve to help themselves. The problem also demands a more aggressive, meaningful and sustained cooperation among the government, private and informal sectors.

4. The intrinsic value of the adoption of the housing program as a priority concern of the national, metropolitan and local governments should not be underestimated. This Program should be translated into responsive projects and activities, and a commitment to political, administrative and financial support by the government.

5. There is need to adopt an inter-sectoral approach to the delivery of basic services to synchronize housing projects with the relevant sectors encompassed within the physical and infrastructure support facilities. Preferably, this should involve common or at least shared priorities and timetables.

6. Existing policies and laws affecting squatting should be reviewed to determine the amendments they need, to reconcile them with the new housing approach and strategies of the government.

The slum and squatter problem of Metro Manila is a common concern of a multi-level government which, at present, has varying responsibilities and capabilities. There appears to be enough experience acquired in the past five decades to ensure more realistic and workable solutions that balance the social, economic and cultural factors with the legal and political concerns, including respect for human and property rights. While admittedly, the problem does not have immediate and permanent solutions, Metro Manila officials should now feel more confident to confront the issues in a more decisive manner. However, for the program to attain a reasonable degree of success, lessons born out of experience need to be matched by a strong will from both the government and private sectors and by the sustained efforts of all those concerned.

REFERENCES

Business Day, April 3, 1986, 11.

Business Day, May 1, 1986.

Housing and Urban Development Coordinating Council Policy Studies and Review Group (1991) The Case for Urban Development: Major Issues and Proposals. (Makati, Philippines) Unpublished.

Isberto, Ester Ceniza (1991) Strategy Formulation for Freedom to Build. i-iii.

Jimenez, Pilar Ramos, et al. (1986) Philippine Urban Situation Analysis. Manila: UNICEF, 3, 10-11, 50.

Karaos, Ana Marie (1989) A Preface to Urban Land Reform. Intersect, Vol. 1 No. 2, 3.

Keyes, William J. (1980) Case Study Metro Manila Philippines in Policies Towards Urban Slums. Netherlands: UNESCO.

Metropolitan Manila Commission (1990) Medium Term National Capital Region (NCR) Development Plan 1990-1994. Makati.

National Economic and Development Authority. Medium Term Philippine Development Plan (1987-1992), 240-243.

National Economic and Development Authority (1992) Updates on the Medium Term Philippine Development Plan 1990-1992. Makati, 128-129, 132.

National Statistics Office (1991) quoted from HUDCC's The Case for Urban Development: Major Issues and Proposals, Appendix 1.

New Day, April 27, 1986.

1987 Philippine Constitution.

Philippine Year Book 1989. (1990) Manila: National Statistics Office, 626.

Poethig, Richard. (1969) "An Urban Squatter Policy for Metropolitan Manila" in Solidarity, Vol. 4, Nov., 20-32.

Presidential Decree 772 (1974) Penalizing Squatting and other Similar Acts (Aug. 20, 1975).

Ranjo, Mary Grace B. (1990) Slums and Squatter Areas in Metro Manila: A Situationer. Makati: November 21. (Unpublished Report).

Reforma, Mila and Leonor Briones. (1983) Housing Services in Metro Manila. Manila: U.P. College of Public Administration, 5.

The Share and Care Apostolate for Poor Settlers. (1983) Reason to Hope: A Study for Five Urban Poor Communities in Metro Manila. Manila, 2.

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