PHILIPPINES

MANILA

Size of the country	*300 000 km²*
Population	*80,3 M*
Population density	*267,6 inhab/km²*
Population growth rate (1993 – 1999)	*2,2%*
Part of urban population	*58%*
Life expectancy at birth	*69*
Infant mortality (per 1000 live birth)	*32*
Access to improved water sources (% of population)	*83*
Ethnic groups, their percentages in the population	*Malaysian + minorities*
Official languages	*English, Tagalog*
Religions	*Christian : 88 %, Islam : 4 %*
Gross domestic product	*78 billion USD*
Gdp per capita	*1 020 USD*
Inflation	*5,4 %*
Gdp growth rate	*4 %*
Gdp repartition in different sectors	*Agriculture: 17,7 %, Industry: 30,3 % (manufacturing: 21,5 %), Services: 52 %.*
Unemployment rate	*13 % (1998)*
Illiteracy (% of population age 15+)	*5 %*
Tourism	*2 M visitors (1996)*
Population of Manila	*11 M*

URBAN GROWTH IN THE PHILIPPINES: POLICY ISSUES AND PROBLEMS

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Introduction

This paper is divided into three sections. The first section briefly documents the trends in urban population growth in the country and subsequently highlights the challenge posed by such growth in terms of development and environmental problems associated with the phenomenon. The second section discusses the policy responses of the Philippine government, both in terms of influencing population distribution and settlement patterns, and in terms of " managing " the consequences of urban growth. In the final section, we shall identify various issues and problems in the implementation of policy, as well as possible areas for policy reform.

The Context: Philippine Urbanization Experience

Urban Growth Trends

One of the significant phenomena that have characterized the process of development in the Philippines has been the explosive and unabated growth of urban areas. At the beginning of the post-war period in 1948, close to 5.2 million Filipinos were found residing in urban areas. Over a 22-year period, this number more than doubled, increasing to 11.7 million in 1970. By 1990, the urban population totaled 28.6 million, or well over 40 percent of the country's population. It has been projected that close to 37 million Filipinos will reside in urban areas by the turn of the century[1]. According to a UNDP report, the Philippines ranks third among Southeast Asian countries in terms of the proportion of population living in urban areas, next only to Singapore and Malaysia. It ranks second to Indonesia in terms of the absolute size of urban populations (see Table 1).

Especially noteworthy is the fact that urban growth rates in the Philippines have further

accelerated in recent years, even as total population growth as a whole has declined. From a high post-war peak of about 3.2 percent annually, total population growth rates have declined to 2.8 percent in l980, and further dropped to 2.3 percent in 1990. Conversely, the growth rate of the urban population has been gradually increasing from an average of 3.8 percent in the 1948-1960 period to 4.3 percent in the 1970s, and to a high of 4.8 percent in the 1980-1990 period[2].

Urban growth was particularly rapid in the large urban centers of the country, especially in Metro Manila. The post-war 1948 population of Metro Manila was recorded at 1.6 million, out of the country's total population of 19 million. Growing rapidly into a primate metropolis, Metro Manila's population reached four million in 1970, 5.9 million in 1980, about eight million in 1990, and 9.1 million in 1995. The population of the metropolis has been projected to increase to more than ten million in 2000.

Table 1. ASEAN Urbanization

Country	Urban population as a percentage of total population			Annual growth rate of urban population (percentage)
	1960	1992	2000*	1992-2000
Brunei Darussalam		58		
Indonesia	15	30	40	4.4
Malaysia	25	45	51	3.9
Philippines	30	44	49	3.6
Singapore	98	100	100	1.0
Thailand	13	23	29	4.0

*Source: UNDP, Human Development Report, 1994. * projected*

Metro Manila is of course the National Capital Region (NCR) and the seat of the country's political and economic life. It is composed of eight cities and nine municipalities and covers a land area of 636 square kilometers. This is roughly 0.2 percent of the country's 3 million square kilometers. Its population of 8.6 million in 1995, however, accounted for 13 percent of the national population. This translates into a high population density of 14,308 people per square kilometer, three times that of the city-state of Singapore and 60 times the national average.

Beyond the problems associated with urban growth which will be documented in the section that follows, the primacy of Metro Manila or the NCR has been seen by many as a major stumbling block to the more " balanced " development of the country as a whole. Indeed, Metro Manila predominates in almost every dimension of socio-economic well being in the Philippines.

It is the center of politics, culture, trade and services, as well as of commerce and industry.

Evidence presented in Tables 2 and 3 shows that the disparities between the NCR and the other regions of the country in terms of their respective share of the Gross Regional Domestic Product (GRDP), both in absolute and per capita terms, are wide. Over a five-year period from 1995 to 1999, the GRDP for Metro Manila constituted well over 30 percent of the national total. Basically the same pattern emerges when the incidence of poverty across regions is compared. In 1990, the incidence of poverty in the country as a whole was close to 50 percent, as against a much lower figure of 30 percent for the NCR. It is also noteworthy that over time the disparities do not seem to be narrowing. Likewise, industrial firms and other business establishments have tended to maximize income by locating in Metro Manila and nearby urban areas[3]. Available data show that, in 1995, more than 50 percent of the total gross added value in manufacturing originated from Metro Manila.

Table 2. Gross Regional Domestic Product by Region at Current Prices (pesos) 1995 – 1999

Region	1995	1996	1997	1998	1999
Philippines	1,905,953,203	2,171,912,875	2,426,742,767	2,678,187,309	2,996,371,289
NCR Metro Manila	623,939,285	717,589,855	827,616,432	920,523,923	1,027,522,166
CAR Cordillera	38,452,694	43,261,744	52,209,851	60,048,188	70,633,550
I-Ilocos	58,809,535	68,670,644	79,224,583	91,076,909	103,122,030
II-Cagayan Valley	40,374,410	45,532,563	52,573,570	55,210,929	67,363,521
III-Central Luzon	159,939,189	182,007,317	202,295,090	207,494,669	238,245,586
IV-Southern Tagalog	273,577,646	307,566,444	337,571,786	375,830,602	416,133,455
V-Bicol	55,884,813	62,669,453	72,316,817	80,748,671	87,414,676
VI-Western Visayas	132,111,554	153,012,084	158,971,046	173,676,995	197,628,023
VII-Central Visayas	121,438,468	140,543,545	158,892,511	176,516,701	200,343,241
VIII-Eastern Visayas	47,854,065	55,642,722	65,693,457	71,637,434	81,845,884
IX-Western Mindanao	52,904,036	56,636,234	62,096,996	67,914,318	74,249,478
X-Northern Mindanao	97,681,595	110,107,420	101,225,791	107,045,246	115,711,700
XI-Southern Mindanao	129,205,311	146,720,561	129,668,734	149,334,959	164,468,594
XII-Central Mindanao	54,787,933	61,619,958	67,174,197	72,297,467	79,612,277
ARMM Muslim Mindanao	18,990,674	20,332,331	24,154,697	29,757,500	30,846,572
XIII-Caraga			30,057,209	39,072,798	41,230,534

Source: Philippine Statistical Yearbook, Manila: Economic and Social Statistics Office, National Statistical Coordination Board, 1999)

Table 3. Per Capita Gross Regional Domestic Product at Current Prices (pesos)
1995 – 1999

Region	1995	1996	1997	1998	1999
Philippines	27.777	31.653	33.004	35.636	39.024
NCR Metro Manila	65.997	75.903	87.255	95.204	104.285
CAR Cordillera	30.644	34.476	37.453	42.110	48.446
I - Ilocos	15.460	18.053	18.935	21.380	23.783
II - Cagayan Valley	15.920	17.954	18.538	19.051	22.766
III - Central Luzon	23.071	26.254	27.027	27.148	30.536
IV - Southern Tagalog	27.514	30.933	33.031	35.862	38.743
VBicol	12.920	14.489	15.462	16.925	17.972
VI - Western Visayas	22.869	26.488	24.804	26.576	29.665
VII - Central Visayas	24.217	28.027	28.858	31.406	34.940
VIII - Eastern Visayas	14.213	16.526	17.793	18.982	21.226
IX - Western Mindanao	18.930	20.266	20.393	21.753	23.203
X - Northern Mindanao	39.336	44.340	37.353	38.547	40.672
XI - Southern Mindanao	28.063	31.867	25.923	29.093	31.238
XII - Central Mindanao	23.217	26.112	26.720	28.055	30.156
ARMM Muslim Mindanao	9.397	10.061	11.045	13.338	13.559
XIII - Caraga	-		16.067	17.459	17.981

Source: Philippine Statistical Yearbook, Manila: Economic and Social Statistics Office, National Statistical Coordination Board, 1999)

Urban Growth Problems

At the same time, however, problems have emerged in relation to the explosive population growth of large urban centers. Many of these problems have now reached alarming proportions and pose a serious challenge to scholars and policymakers alike.

These problems are readily evident in Metro Manila. The physical decay and deterioration of the inner core is easily visible. Large sections of the inner core of Metro Manila have population densities of close to 30,000 per square kilometer and are now experiencing critical problems of congestion and overcrowding, along with the health hazards that are associated with such conditions[4].

The manifestation of urban environmental problems in the NCR is also obvious. These environmental problems are reflected in such phenomena as the proliferation of slums and squatter settlements, traffic congestion, flooding, water and air pollution, and uncollected solid wastes. In recent years, it has been estimated that about 38 percent of NCR residents (almost four out of every ten residents of Metro Manila) live in slums and squatter colonies. According to similar data, slums and squatter settlements in Metro Manila alone occupy close to 800 hectares of land, of which about 60 percent is government property. What is really alarming about slums and squatter settlements is that they tend to exacerbate other urban environmental problems such as

flooding, water pollution, drainage problems, and, consequently, unhealthy living conditions. Other environmental problems in the NCR are just as alarming and serious. Flooding, which is both frequent and destructive, occurs in areas that amount to nearly 5,000 hectares in the metropolitan area and directly affects the life of almost three million people. All four major rivers in the NCR are heavily polluted and have long been declared " biologically dead, " by the Environmental Management Bureau (EMB), except for the upstream portion of the Marikina River[5].

Similarly, air pollution levels have reached alarming proportions. The metropolis now has excessive concentrations of airborne particles. Monitoring activities have revealed that carbon monoxide has become a serious problem in many parts of the metropolitan area, and that some districts are feeling the impact of dangerous amounts of toxic heavy metals. In terms of solid-waste management, close to 5,000 tons of garbage is generated daily in the metropolis, of which only 3,500 tons are collected. The balance is presumably dumped in *esteros* (creeks) and canals or simply left in the streets, causing considerable health hazards. The recent disaster in Payatas, Quezon City (where a mountain of garbage collapsed and buried close to 300 individuals) is a grim reminder that the garbage disposal problem has reached crisis proportion in the metropolis. The planned closure of a disposal site by the end of the year (2000) will leave metropolis with no clear alternative in dealing with its massive garbage disposal problem.

The Policy Response

Two strategies in dealing with the problems associated with urban growth and the imbalance between Metro Manila and the rural areas are evident in the country's current development efforts. The first strategy is geared toward improving the management and governance of urban areas. The second is aimed at sustaining the momentum toward spatial decentralization and the dispersal of economic activities among smaller urban places and in the countryside.

A crucial policy point, in this connection, is the role that the national government should take at the macro-economic level with respect to the second strategy, i.e., in determining the location and development of growth centers and corridors. Briefly stated, the national government should have control of the overall spatial decentralization of the country. Central public policy should set up effective networks of urban centers and corridors with a view to strengthening the economic and spatial relationships among them. On the other hand, a grass-roots approach to the management and governance of urban areas should also be adopted. In other words, local government units should be in control of the internal affairs of urban places. In particular, they should have sufficient autonomy in the fiscal and administrative affairs of local areas so that they can manage urban change effectively.

Urban Management and Governance

The need to cope with worsening problems associated with urban growth must receive serious consideration in the light of current projections on urbanization in the years to come. The provision for urban infrastructure, housing and basic services has to keep pace with population increase in urban areas. In this

connection, studies have revealed that the provision for such services has lagged behind the rapid pace of urban growth.

There are several reasons for this state of affairs. The first has to do with the fact that the capacity for urban governance at local levels is weak, especially in the area of planning and fiscal management. This is evident in the lack of appreciation among local government officials for the importance of the planning process, poor enforcement of land-use plans and zoning regulations, inadequate financial systems and procedures, and generally poor administration of local government functions and services[6]. More disturbing is the fact that the overwhelming majority of local governments have not formulated land-use plans and zoning ordinances as required by law.

Beyond weak urban governance capabilities, local government units are hampered in the same way by lagging revenues. Although the Local Government Code has expanded their revenue base, local sources of revenue continue to constitute a very small proportion of the total income of local governments. This problem clearly reflects the persistence of the " dependency syndrome " that has been nurtured by the long period of highly centralized government. There is also an apparent " substitution effect " related to the more generous provisions of the Internal Revenue Allotment (IRA) to local governments. They are no longer taking the initiative to raise additional revenues because they benefit from more substantial transfers of revenue from the national government under the Local Government Code[7]. This, in turn, has hampered the ability of local government units to provide basic urban services.

Moreover, some problems of urban growth cannot be effectively dealt with by local governments acting independently. These problems transcend existing political boundaries and are constantly worsened by the increasing size of the " spillover " population. Along with the benefits that could be derived from economies of scale, the need to cope with area-wide problems provides the rationale for metropolitan arrangements and other forms of cooperation among local governments units. Current metropolitan institutional arrangements in the Philippines (such as the Metropolitan Manila Development Authority) are generally weak. That is, they have not been provided with sufficient powers and financial resources to cope with such metro-wide problems as traffic congestion, waste management and flooding.

Urban Growth Dispersal

Programs and Policies that Influence Dispersal

To address the problem of imbalance and economic concentration, the Philippine government has adopted a number of plans and programs aimed at promoting a more decentralized spatial development and, to some extent, at correcting the socio-economic disparities among regions and the high concentration of population in large urban centers in the country, especially in Metro Manila. The main philosophy behind the programs is based on the assumption that the ultimate solution to the urban crisis lies in a more sustained effort in rural development.

Other scholars have observed that there already exist various categories of programs and policies in the country that are sufficiently sensitive to the trends of internal migration[8]. Illustrative examples of these programs and policies are listed in Table 4 under four main categories.

These are programs and policies that:

- encourage people to move to certain areas;
- discourage people from moving to, or staying in, certain areas;
- encourage people to stay where they are; and
- cope with problems arising from internal migration.

An analysis of the programs listed in Table 4 would easily reveal a rural bias. With the programs and activities that encourage people to

Table 4. Major Categories of Programs that Influence Population Distribution*

Programs	1	2	3	4	Main Agencies Involved
1. Resettlement and Relocation	X	X		X	National Housing Authority, Public Estates Authority Bases Conversion Development Authority Local Government Units
2. Industrial Estates and Growth Centers	X				Philippine Economic Zone Authority National Economic and Developpement Authority Board of Investment
3. Highways and Infrastructure Development	X				Department of Public Highways Local Government Units
4. Natural Resource Conservation, Reforestation		X			Department of Environment and Natural Resources Department of Agriculture
5. Decentralization and Local Autonomy		X			Department of Interior and Local Government Local Government Units
6. Agrarian Reform and Related Agricultural Programs		X	X		Department of Agrarian Reform Department of Agriculture
7. Urban Land Tenure and Reform Programs	X	X	X	X	Housing and Urban Development Coordinating Council Presidential Commission for Urban Poor Housing and Land Use Regulatory Board
8. Sites and Services Schemes for Squatters	X		X	X	National Housing Authority Home Development Mutual Fund Presidential Commission for Urban Poor Local Government Units
9. Utilities and Urban Services				X	Metro Manila Development Authority Local Government Units
10. Rural Development Programs	X		X		Department of Interior and Local Government Department of Agriculture Local Government Units

**Adapted from Aprodicio Laquian, "The Need for a National Urban Strategy in the Philippines" Philippine Planning Journal. Quezon City: U.P. Press. 1972. - Legend for Program Categories:*
1: Programs that encourage people to move to certain areas. 2: Programs that discourage people from moving to, or staying in, certain areas. 3: Programs that encourage people to stay where they are. 4: Programs that cope with problems arising from internal migration.

move to certain areas or stay where they are, the preferred place is the rural area. A " keep them on the farm " philosophy is apparent in the Comprehensive Agricultural Land Reform Program (CARP), as well as related agricultural credit and rural development programs. On the other hand, people are generally discouraged from moving to or staying in large urban centers, especially the poorer segments of society which flock to slums and squatter communities.

The programs and policies listed in Table 4 often have unintended effects[9]. Although many of these programs have been avowedly designed to curtail rural-urban migration, improvements in the lot of people in rural areas seem to encourage more migration towards urban areas as production efficiencies release marginal labor, or relatively successful rural residents yearn for something better in large urban centers. Increased agricultural productivity may also enhance rural-urban migration. Instead of keeping the people on the farm, the rice and road programs of the government may earn the farmer his transportation fare to travel through better roads leading to urban areas.

Aside from the unintended effects, the rural development thrust of the programs and policies listed in Table 4 is often hampered by a lack of coordination. These activities are carried out by numerous government agencies acting independently of one another. Thus, gains in one particular set of activities are offset by mistakes in another. Indeed, overlapping of functions, duplication of efforts, and " passing the buck " are common in various government operations. These problems have, for instance, been observed to be characteristic of such program areas as housing, agricultural land reform, poverty relief and infrastructure development.

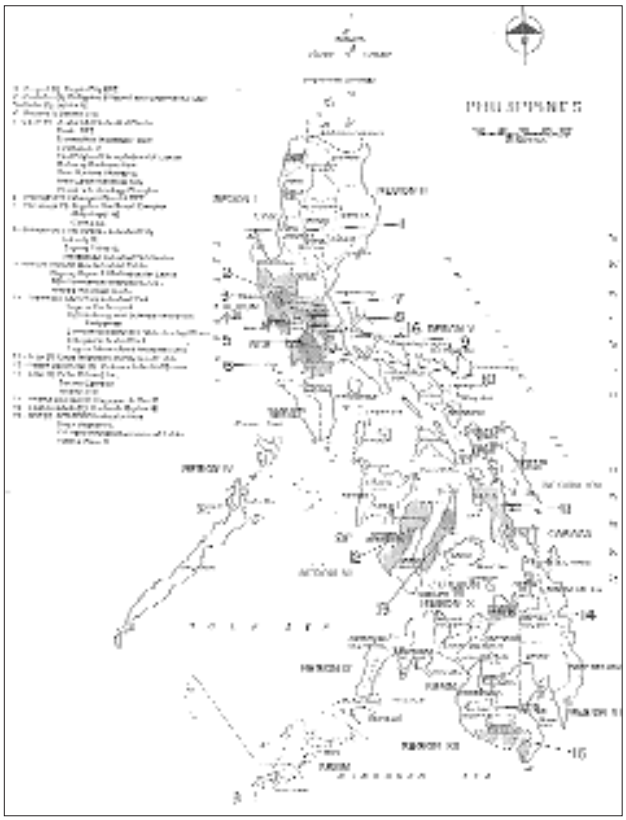
Regional Growth Centers

It is in this context that in the 1970s, the government took a major initiative explicitly designed to achieve a more " balanced " spatial development. It was to be achieved through a policy of dispersal of economic activities with the establishment of *Regional Growth Centers*. The strategy for growth dispersal was meant to *complement* rather than *supplement* urban governance and management strategies.

Historically, industrialization in the Philippines started in the 1950s and, except for some reorientation in its focus, this goal has been actively pursued for the past decades. During its early phase, industrialization was based on import substitution. This policy was characterized by the importation of component parts/raw materials and capital-based technology. Such a scheme had undesirable effects, including the non-utilization of indigenous raw materials and a low capacity to absorb surplus manpower. This policy also tended to be biased against agriculture-based industries, and consequently aggravated the imbalance between urban and rural areas. Being capital and import based, these industries settled in urban centers, especially in the National Capital Region.

In reaction to the adverse effects of the import substitution policy, the government turned to an export-led industrialization program. Through this new strategy, the market was broadened beyond the domestic market with its low purchasing power. The strategy was likewise expected to improve the country's foreign exchange earnings to counter the depletion of its international reserves brought about by import substitution. This approach, however, failed to fully achieve its objectives. The emphasis on exported manufactured products, capital-intensive technology and imported raw materials resulted in the neglect of the countryside. Furthermore, exports were in component forms which had a lower added value than finished products[10].

Consequently, industrialization policies started to pay more attention to the countryside with the four-year Philippine Development



Map 1: Location of Industrial Estates

Plan of 1974-1977. As noted by Manalo, a major objective of the plan was to promote small and medium-scale industries in smaller urban areas so as to generate non-farm employment opportunities. This official pronouncement led to the adoption of the industrial dispersal policy, which was to be carried out through the establishment of industrial estates (IEs) and export processing zones (EPZs) in selected growth centers of the country. The regional growth center strategy was further pursued by the Aquino administration with the designation of Regional Industrial Centers (RICs), later renamed the Regional Agro-Industrial Centers (RAICs) in all regions of the country. In addition, a number of special economic zones were likewise identified. These growth centers and economic zones are usually located in small to medium-sized urban areas of the country.

The selected growth centers were envisioned as " counter-magnets " to the large urban concentrations in the country. The " growth centers " strategy had obvious roots in the " growth pole " theory. As originally formulated by Perroux, growth poles are a cluster of firms or industries which are " propulsive " in nature, i.e., they have the capacity for generating and transmitting growth to other parts of the country[11]. Whether this has actually occurred in the Philippine context is an altogether different question.

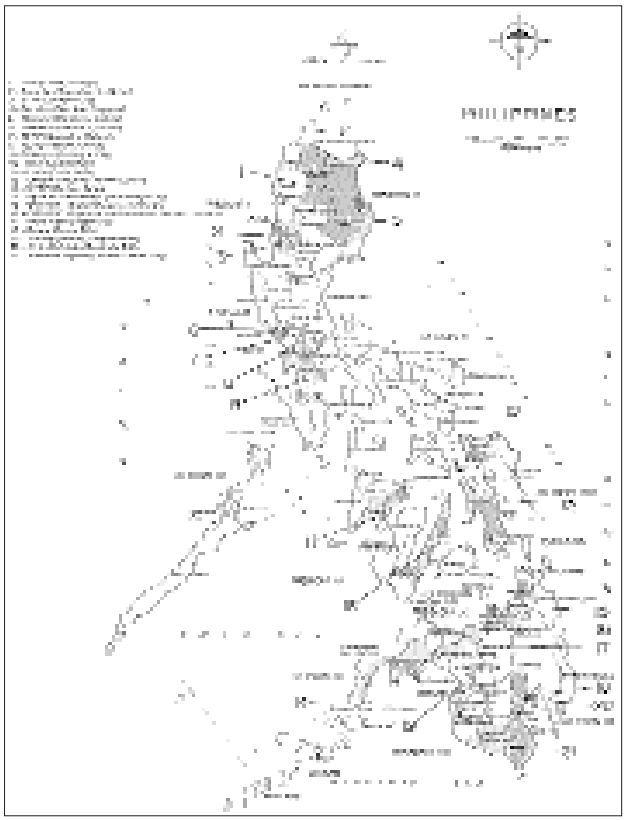
As currently implemented, there exist several variants of the regional " growth centers " strategy. Although there are no clear defining characteristics of each variant, the main features of the more prominent types are as follows[12].

a. *Industrial Estate* is the generic term used to refer to a tract of land developed for the use of a group of industries according to a comprehensive plan. It is provided with roads and infrastructure support and utilities, with or without pre-built factories and common service facilities, and falls under a unified and continuous management. An export processing zone, namely a customs-controlled, duty-free enclave, is considered to be a special type of industrial estate. The location of industrial estates in the Philippines is shown in Map 1.
b. *The Regional Agro-Industrial Center (RAIC)* which officially includes the Export Processing Zones (EPZs) in the country. Initially referred to as Regional Industrial Centers, the RAICs have been envisioned as the nuclei of industrialization and development in each of the country's regions, destined to become the convergence point for public and private investments. At the same time, they have also been designed to trigger rural industrialization and economic expansion. As a location-

specific strategy, it focuses on one location in each of the fourteen (14) regions of the country and provides for the infrastructure needed by industries to operate on a competitive basis (see Map 2).

c. *The Growth Corridor or Quadrangle* which usually covers neighboring areas (municipalities, provinces or regions) linked together through the collaboration and cooperation of local governments. The integration of these areas allows them to share their comparative advantages/strengths with one another, thereby ensuring the optimum utilization of resources and the development of the corridor and its radiation areas, as well as the integration of the targeted areas into a single economic unit.

d. *The Economic Zones (ECOZONES)* are a somewhat smaller, but more formal variant of the growth network concept. As envisioned, ECOZONES are industrial production areas strategically located in the countryside, and are aimed at hastening the development of urban centers and rural areas around them. Foreign investments, as well as private sector and local government initiatives are to be encouraged in the establishment of the ECOZONES to enhance their role as prime movers of the local economy.



Map 2: Regional Agro-Industrial Centers

On the positive side, the main contribution of the regional growth centers, and especially of the export processing zones and special economic zones, can be assessed in terms of value of exports. In 1998, the exports generated by the companies located in the economic zones amounted to US$11billion in 1998, a 26.5 percent rise from 8.7 billion in the previous year. Data from the PEZA revealed that most of the exports came from the special zones or from those that were owned by the private sector. These special zones contributed around US$7 billion, while the government-owned EPZs contributed about US$4 billion.

Yet many problems have held back the implementation of the regional growth centers strategy. These problems have, in a large measure, reduced the impact of this strategy on spatial decentralization and urban growth dispersal.

Issues and Problems[13]

A Limited Contribution to Industrial Dispersal

The objective of dispersing industrial activity to other parts of the country appears to have been partially achieved. Currently, there are 21 RAICs, 48 export processing zones, eight urban growth corridors, and a number of officially approved special economic zones scattered in the 15 regions of the country. It should be stressed, however, that many of these industrial estates and economic zones are not fully operational at the time of writing of this article. For some designated industrial estates, even the feasibility studies are yet to be completed.

Moreover, there is clear evidence that the distribution of industrial estates is biased in favor of Luzon and the Metro Manila area. Of the 21 identified RAICs in the country, ten are located in Luzon, three are in the Visayas, and eight in Mindanao. The bias towards Luzon and the area around Metro Manila is clearly discernible. Of the total of 12,069 hectares devoted to the RAIC program, nearly half (48 percent), or close to 6,000 hectares is in Luzon. More than one third (38 percent) or over 4,600 hectares is in Mindanao. The remaining 14 percent, or a little over 1,500 hectares, are in the Visayas. Finally, the larger export processing zones and special economic zones are all located close to Metro Manila. They include, among others, the CALABARZON, the special economic zones of Subic and Clark, and the Bataan Export Processing Zone.

Slow Progress in Implementation

Progress in the implementation of the regional growth centers program has been very slow. This can be attributed in large measure to the meager resources that the government has made available for this purpose and to the consequent delays in land development and the supply of the infrastructure support needed for the selected industrial sites. In the case of the RAIC program, for instance, only seven of the 21 RAICs identified are in operation more than ten years after the formal launching of the program. In fact, only one additional RAIC has become operational since 1986.

The expansion of existing growth centers and industrial estates had likewise been slow. Large tracts of idle and under-utilized land have been reported in many growth centers. In general, occupancy rates in many industrial sites are very low. In 1990, for instance, the average occupancy rates for industrial estates and EPZs in the country were well below 50 percent. Even more disturbing is the fact that some of the located firms have shut down or are no longer operational. The cases of business firms that have closed down in the PHIVEDEC industrial site are not an isolated phenomenon. In the CALABARZON area, for instance, only 41 of the 98 registered agriculture-based companies have been reported to be operational[14]. Many of these firms have either shut down or have otherwise failed to get a business license.

A Small Contribution to Employment

In 1996, total employment for the EPZs has been recorded at 152,250. No sufficient data are available for the RAICs. When viewed in the context of the magnitude of land resources devoted to industrial estates and export processing zones, the regional growth centers program has not contributed substantially to the generation of new jobs. Although the target of 200 employees per hectare of industrial land can be seen as an indicator arbitrarily set by the Board of Investments (BOI), the figure for most industrial estates and regional growth centers in the country falls considerably below this target.

For the regular EPZs in the country, average generated employment is about 50 persons per hectare. For the special EPZs, the figure is about eight persons per hectare. In some industrial estates in the country, the average is even much lower: 1.6 persons per hectare at the PHIVIDEC Industrial Estate, and six persons per hectare at the Batangas Bay Corridor. At the Laguna Technopark, average employment is about 51 persons per hectare. It should be noted that at least two EPZs have either exceeded or come close to the BOI target. These are the Mactan EPZ, with an average employment of 231 persons per hectare, and the Cavite EPZ, with 171 persons per hectare.

Land Conversion and the Displacement of Families

The establishment of industrial estates and special economic zones often entails the conversion of agricultural land to non-agricultural and industrial use. This problem has been especially critical for the PHIVIDEC Industrial Estate where displaced farmers have petitioned for the reconversion of some 800 hectares in the estate to agricultural use. The broader issue, however, is the contention by many scholars that the land conversion brought about by the establishment of industrial estates may reduce the capacity of the agricultural sector to meet the future requirements of food supply. Prime agricultural lands are usually situated in alluvial plains with very good infrastructure. These are also ideal prime lands for industrial use. RAICs alone cover over 12,000 hectares of land. Other economic zones cover an additional 6,000 hectares, large portions of which are potentially agricultural lands open to irrigation.

Some scholars have noted that the current state of conversion is critical[15]. If left unregulated, the projected net agricultural land left will not be sufficient to guarantee the requirements of the country's food security. It has also been observed that massive land conversion could result in the degradation of the environment (e.g., pollution of the coastal waters and solid waste disposal problems). Another critical problem related to the establishment of industrial centers is the displacement of farmers and their dependents, who are deprived of their major source of livelihood in the process and move to the cities.

Relatively Weak Backward and Forward Linkages

Regional growth centers have been designed to perform a " growth pole " function and to trigger growth in the rural areas. The evidence currently available suggests that industrial estates and growth centers have weak backward and forward linkages with the rural economy. In the Batangas Bay area, the main sources of raw materials come mostly outside the corridor area, and more than half of the located firms import raw materials from other countries in Asia, the Middle East and Europe. The same holds true for PHIVIDEC Industrial Estate in Misamis Oriental (PIE-MO) where ores and steel are imported from Japan, Australia Brazil and Canada. Similarly, steel and automotive parts in the Laguna Technopark are imported from Japan, Korea, Thailand, Singapore and Taiwan. For these same industrial sites, a substantial share of the finished products is marketed internationally.

The pattern of international linkages is especially true for EPZs where imported raw materials are preferred over local materials in the production of goods. The usual reason cited for this preference is that imported materials are of better quality. On the other hand, finished products are usually luxury items (rather than mass consumption goods) which are more responsive to external, rather than to internal market demands. This import-export orientation confines growth within the industrial estate, and has little impact on the growth of the local economy.

Ineffective Financial Incentives

One of the government's major policy tools for achieving its industrial dispersal objectives is the financial incentive available to prospective firms in areas outside Metro Manila. These fiscal incentives are, in many ways, the main mechanism for promoting EPZs, special economic zones and other less-developed areas outside the NCR. Many studies, however, have found these incentives to be ineffective and generally insufficient in counteracting the attraction of Metro Manila in terms of economies of scale and agglomeration[16]. In fact, over 40 percent of BOI-approved investment projects in 1997 were located in the Metro Manila area. Moreover, the availability of financial incentives (e.g., tax holidays and exemptions) is not a critical factor in the location decisions of industrial establishments[17]. More important are such considerations as proximity to markets and source of raw materials, availability of labor, and infrastructure support (e.g., communication and transport systems, utilities, etc.).

The results of other studies similarly underscore the greater importance of location factors and infrastructure support (as compared with fiscal incentives) in the location choices of business firms and industrial establishments[18]. Indeed, the envisioned provision of full and integrated infrastructure support for many industrial sites has hardly been addressed. The Philippine industrial estate development program could certainly learn lessons from the experience of such countries as Singapore and Korea where fast track and integrated infrastructure development have been the key to the success of industrial estates.

Offsetting the Effects of Macro-economic Policies

As previously noted, the ultimate objective of the regional growth centers and the industrial dispersal policy is to trigger development in the rural areas and correct the socio-economic imbalance between Metro Manila and the rest of the country. Although the infrastructure for such a policy has been partially put in place, the socio-economic disparities among regions (and especially between Metro Manila and the rest of the country) do not seem to be decreasing.

Beyond the problems encountered in the implementation of the rural industrialization program, this pattern can be attributed in large part to the offsetting effects of the macro-economic policies of the Philippine Government. Many scholars have observed that most of the macro-economic policies of the government are not supportive of rural industrialization objectives and, in the process, have " subverted " the efforts aimed at industrial dispersal. Trade policies, for instance, have been noted for a strong bias against agricultural and export-oriented, labor-intensive industries in favor of import-substituting industries producing finished products[19]. When placed in the context of the overall economic structure of the various regions of the country, the overall effect of such trade policies is to penalize the less developed rural regions of the country.

Credit and loan policies have also largely run counter to the industrial dispersal and rural development policy. Studies have shown that there is a wide gap between the goals of the credit policy (which is to enhance rural industrialization), and the actual flow of loan funds. Data on loans approved by the Development Bank of the Philippines (DBP) show that an overwhelming proportion of loans had gone to Metro Manila. Moreover, incentives for industrial dispersal themselves appear to have generally failed to compensate for the attraction of " agglomeration economies " in the large urban areas in the country[20]. This is evidenced by the low occupancy rates of existing industrial estates in the country, especially those outside Luzon and the Metro Manila area[21]. With the possible exception of the Mactan growth corridor, occupancy rates are very low for the majority of industrial estates

outside the immediate vicinity of Metro Manila.

These are just a few examples of national macro-economic policies that have run counter to the objectives of rural industrialization. It is worth noting that international factors have affected the country's rural industrialization program as well. For instance, the series of oil crises in the 1970s and 1980s has retarded the growth of regions because of its adverse effects on domestic costs, trade balances, and the prices of consumer goods[22]. These international factors have obviously combined with the government's macro-economic policies to undermine the impact of the policies aimed at dispersing development to the rural regions of the country.

Conclusion

The main objective of this paper is to assess the impact of the urban growth dispersal strategy on spatial and economic decentralization in the Philippines. A major conclusion is that this strategy had limited impact because of numerous problems in conceptualizing and implementing the related policies.

Policy reforms must be introduced to address these problems. They could include the following:

To hasten the implementation of the regional growth center and industrial estate program, the provision of full and integrated infrastructure support for existing modern and industrial centers must be accelerated. The lack of such support has been a major reason for the poor level of attraction of urban industrial sites in the country, especially when compared to other industrial centers in Asia. In a period of scarce resources, the development of additional industrial centers by the government should probably not be encouraged. More attention should be paid to encouraging the private sector to invest in industrial estate development in areas outside Metro Manila.

At lower levels, measures to ensure the greater involvement of local governments units in the affairs of the industrial centers (especially industrial growth corridors that cut across the boundaries of local governments units) must likewise be taken. The participation of the concerned governments must be encouraged in such matters as the promotion of benefits for the regional growth centers, the provision of local incentives for prospective firms, the construction of offsite infrastructure, and the monitoring of the effects of growth centers on the environment.

Greater attention must be given to land-use conversion issues in the selection of sites for industrial centers. Land-use conversion has to be rationalized on the basis of considerations of equity in accessing land, efficiency of farm operations, environmental impact and sustainable development. Specific considerations must include food security, the balance between agriculture and industry, and the issue of private gain versus common good. In the long-term, national land use legislation must be passed and implemented to serve as a rational framework for decisions on land-use conversion.

Beyond the need to address the implementation problems as outlined above, a major theme in this study is that of the counter-effects of some macro-economic policies of the government on the objectives of industrial dispersal policies[23]. These include, among others, trade policies and fiscal policies as well as loan and credit policies which tend to enhance the

attractiveness of large urban centers as venues for economic activities vis-a-vis the rural areas of the country. Thus, if the national leadership is really committed to dispersing development to the rural areas, it must support institutional reforms and development efforts in the countryside and at the same time gradually eliminate macro-economic policies that are biased against the less developed regions of the country.

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