

DEVELOPMENT AND MANAGEMENT OF THE METRO MANILA URBAN TRANSPORT SYSTEM

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The development and management of the urban transport system in developing cities are of extreme importance to governments as these directly influence urban functioning and efficiency. A review of Metro Manila's urban transport performance indicates that, in common with other developing cities, the adopted development policies and strategies are increasingly being influenced by the country's main source of technical and capital assistance.

Keywords: Urban Transport, Metro Manila, Philippines,
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1. INTRODUCTION

During the past two decades, various approaches and solutions have been proposed to improve the urban transport efficiency in the developing cities of the world. The experiences in the developed world have served as models to transport authorities in confronting the problems of their fast expanding premier cities. A number of viewpoints have been advanced by transport researchers and experts in defining development policies and in assessing urban transport sector performance. These include: the historical perspective, which tries to explain the development of policies over a period of time; the economic perspective, which uses analytical techniques by comparing the costs and benefits of policy options in recommending the best course of action; and the socio-political perspective, which considers the decision-making process and the mechanisms that influence decisions. Notably, these perspectives

could be combined into a comprehensive framework that takes into account the multitude of factors.

In addressing the topic of development policies for effective management of the urban transport system in a developing country, the basic premise is that the external sources of financing and technology exert a far greater influence in policy formulation and investment programming. The case of Metro Manila is presented to illustrate this conceptual approach and specific implications are identified to guide the transport authorities, aid organizations and governments in refocusing their initiatives with the changing trends and conditions.

2. CONCEPTUAL FRAMEWORK

The development and management of the urban transport system in key cities of developing countries are of extreme importance to governments and aid institutions as these directly influence the urban functioning and efficiency.

With the concentration of people and economic activities, large amounts of resources are

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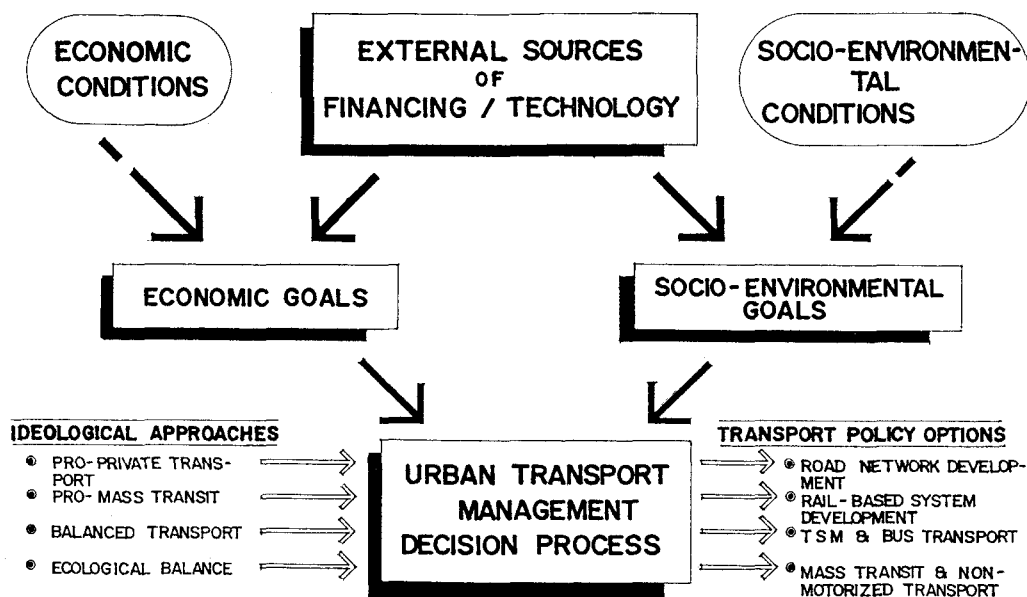
consumed in these cities, and therefore have major impact on the national economy. As the growth patterns of these cities have commonalities with those which occurred in the developed countries, despite the faster pace and more complex urban pressures of population, motorization and employment, the conventional wisdom is for these cities to learn from the experiences of developed countries.

To a greater extent, the urban transport development of these developing cities follow closely the development principles advocated by their respective country's leading trade and aid partners. Urban transport planning in these cities passed through the distinct phases of "comprehensive major land use/transport plans" in the 1970's, to "incremental improvements" and "balanced approach" of the early 1980's, to the present day "total urban management" phase.

The interaction and linkages in the urban transport management decision-making process are shown in Figure 1. Faced with limited resources to fund transport investments, and with the need to introduce proven but imported technologies, the priorities and ideological approaches of the developed world have been translated into the urban transport policies in these developing cities. The changes in policy direction from pro-private car to rail-based systems, to Transportation System Management (TSM) concepts, and to environment-friendly transport systems have influenced the transport investment programs of developing cities.

The examination of the urban transport performance of Metro Manila will illustrate the above conceptual framework. The changing worldwide trends, particularly the changing role of governments, new financing schemes, and the peculiarities of

FIGURE 1 URBAN TRANSPORT MANAGEMENT IN DEVELOPING COUNTRIES



the metropolis are cited for reference to draw meaningful conclusions and to map out the scope for future action.

3. CASE STUDY OF METRO MANILA

Background

Metro Manila, which covers an area of 636 sq. km., is comprised of four cities and 13 municipalities. With 8 million residents, Metro Manila accounts for a third of all urban dwellers or about 13% of the national population. It produces almost a third of the national production output. As the National Capital Region, it is the seat of government and the premier center of business and trade. Despite the decentralization and regional dispersal strategies of the government, Metro Manila exerts a dominant influence on the economy and socio-political activities in the Philippines.

The sheer size of the population and the concentration of economic activities in the metropolis have produced serious challenges in terms of increasing demand for urban services and search for employment opportunities. The inability of Metro Manila to fully absorb the rapid population growth is manifested in urban unemployment, poverty, poor housing, progressively inefficient urban transport system, and environmental degradation.

Sector Performance

Since the end of the war, various efforts have been undertaken by the government to grapple with Metro Manila's development problems. The principal thrust of these undertakings has been towards defining the requirements for expansion and improvement of

infrastructure in the highly urbanized areas. The period up to the 1960's saw the formulation of major transport plans, which attempted to link transport development to city form. However, insufficient consideration has been given to the means by which the required civil works could be financed and implemented. Although some improvements were made, transport and traffic problems have continued to increase much faster than remedial measures have been instituted. The most visible and serious problem has been traffic congestion. Likewise, with the heavy dependence on public transport for most of the populace, the demand for service far exceeded the supply of buses and the ubiquitous jeepneys. The level of service has deteriorated as manifested in the low speeds, long waiting times, frequent transfers, and poor levels of comfort for commuters.

The 1970's saw the emergence of aid agencies with significant urban transport assistance programs, particularly the World Bank and the Government of Japan through its Japan International Cooperation Agency (JICA) and the Overseas Economic Development Fund (OECF). Both have recognized the primacy of Metro Manila and its overall economic importance. Metro Manila has served as a laboratory for efficiency-enhancing, poverty alleviation and growth promotion policies of these funding agencies. Further noting that the achievement of the country's development objectives depend, to a large extent, on the government's ability to generate the resources needed to finance development projects, these aid agencies have been able to impose their respective development policies through their assistance programs. Tables 1a to 1b highlight these policies

TABLE 1a URBAN TRANSPORT STRATEGIES: PROPOSED AND IMPLEMENTED, 1970'S

1970's	JICA/OECF RECOMMENDATIONS	WORLD BANK RECOMMENDATIONS	ACTUAL IMPLEMENTATION
1. Road Network	+ 6 ring roads + 10 radial roads + 6 elevated expressways	+ grade separation + road widening and improvement	o selected road improvement and construction (e.g. EDS C-3, R-1 roads)
2. Public Transport	+ commuter rail lines + 5 subway lines + busways	+ priority lanes + bus/jeepney operation improvement + at-grade LRT system	o priority lane experiments o established Metro Manila Transit Corporation (bus) o started construction of LRT Line No. 1 (Taft-Rizal)
3. Traffic Management		+ signalization + intersection improvement + flow regulations + parking control + cordon pricing	o Traffic Engineering and Management Project (TEAM) Phase I (World Bank) o truck ban o traffic rerouting o Traffic Efficiency Zones
4. Land Use and Other Concerns		+ inter-agency coordination + land use control and restructuring	o creation of Metro Manila Commission and Transport Secretariat o enacted Zoning Ordinance o slum upgrading (World Bank)

TABLE 1b URBAN TRANSPORT STRATEGIES: PROPOSED AND IMPLEMENTED, 1980'S

1980's	JICA/OECF RECOMMENDATIONS	WORLD BANK RECOMMENDATIONS	ACTUAL IMPLEMENTATION
1. Road Network	+ completion of ring and radial network + grade separation	+ upgrading of arterial roads + grade separation + pavement improvement	o selected road improvement (World Bank and OECF) o construction of grade separation structures (OECF)
2. Public Transport	+ bus/jeepney route rationalization + bus fleet modernization + commuter line improvement + modal interchange areas (terminals)	+ bus/jeepney route rationalization + bus fleet modernization + LRT system expansion + transit terminal integration (LRT/PNR/bus)	o selected jeepney rerouting o EDSA bus lanes o Bus Leasing Program (OECF) o operation of LRT Line No. 1 o Commuter Rail Maintenance Depot Project (OECF)
3. Traffic Management	+ Area Traffic Control System + flow regulations + parking control	+ Area Traffic Control System + flow regulations + parking control + improve traffic enforcement	o TEAM Phase II (OECF) o "Intersection Close-Watch" o traffic rerouting o pay parking zones o enforcement coordination
4. Land Use and Other Concerns	+ land use control and restructuring + air pollution control	+ land use control and restructuring + air pollution control	o slum upgrading (World Bank) o Motor Vehicle Inspection System Program (JICA)

TABLE 1c URBAN TRANSPORT STRATEGIES: PROPOSED AND IMPLEMENTED, 1990'S

1990's	JICA/OECF RECOMMENDATIONS	WORLD BANK RECOMMENDATIONS	ACTUAL IMPLEMENTATION
1. Road Network	+ completion of ring and radial network + grade separation + urban expressways	+ upgrading of arterial and secondary roads + grade separation	o ring and radial road construction and improvement projects (OECF) o EDSA grade separation projects (OECF)
2. Public Transport	+ LRT system expansion + bus lanes + bus fleet modernization + commuter line improvement	+ LRT system expansion + bus lanes + bus fleet modernization + commuter line improvement	o LRT Line No. 1 Capacity Expansion and LRT Line No. 2 Construction (OECF) o EDSA bus lanes and bus stop segregation o Bus Installment Purchase Program o South Commuter Line Rehabilitation (OECF)
3. Traffic Management	+ Area Traffic Control System + flow regulations + parking control + improve traffic enforcement	+ Area Traffic Control System + flow regulations + parking control + improve traffic enforcement	o TEAM Phase III (OECF) o UPS installation o traffic corridor flow improvements o pay parking zones o enforcement coordination
4. Land Use and Other Concerns	+ industrial dispersal + air pollution control	+ industrial dispersal + air pollution control + alternative fuel and energy conservation	o CALABARZON (JICA) o Motor Vehicle Inspection System Program (JICA) o Clean Air Program (World Bank/ADB)

and strategies as proposed to transport authorities, and as implemented in Metro Manila.

JICA's first involvement in the Philippines started with the conduct of the Urban Transport Study for Manila Metropolitan Area in 1973, which recommended very large capital expenditures to complete the ring and radial network, mass transit rail lines, and construction of busways. This was followed by a series of studies dealing basically with database generation, transport modelling and feasibility studies of capital projects. From 1972 to the present, the OECF has extended capital assistance to more than 20 urban transport projects, a large number of which involved road improvement and construction. With the substantial increase in its lending level since 1988 and concessional loan terms, the OECF has emerged as the principal source of finance for urban transport improvements in Metro Manila.

Since 1976 under the Manila Urban Development Project, the World Bank has assisted the Philippines to develop policies and programs in the urban transport sector emphasizing low-cost solutions. It funded the conduct of the Metro Manila Transport, Land Use and Development Planning Project (1977), which recommended improvements in the road structure, public transport operations and traffic management. From 1979, the World Bank has expanded its involvement in the sector by adding the concept of low-cost infrastructure support in its slum upgrading programs in Metro Manila. A number of planning, policy and engineering studies were further undertaken to address the serious array of

transport problems in the metropolis. These included: the Metro Manila Urban Transport Strategy Planning Project (1985), the Study of Urban Public Road Transportation Regulation (1988), and the Metro Manila Urban Transport Development Plan Project (1992). To date, the World Bank is actively pursuing with the Asian Development Bank strategic programs to arrest the serious air pollution problems in Metro Manila.

Assessment of Aid Programs

A review of the involvement of Japan and the World Bank in Metro Manila would indicate the constant evolution of their respective development policies. The Japanese assistance is characterized by a four-phase policy pattern, namely: the big plan, incremental improvement, balanced approach and total urban management phases. In the 1970's, despite the oil crisis and the introduction of TSM as a potent tool for urban transport improvement in the United States and other developed countries, Japan has espoused capital expenditures for massive infrastructure projects. This period was marked with its emergence as an industrial country with increasing pressure to find new markets for its transport equipment, primarily road vehicles and rail systems. Moreover, this was the period when the implementation of capital intensive projects were accelerated in Japan. The 1980's indicated that transition to more responsive approaches, particularly the application of TSM measures such as the area traffic control system and demand management techniques both in Japan and to countries it was involved with. Of late, the focus of JICA and OECF assistance has been towards

institutional development, traffic management and environmental improvement, besides road and rail network development.

On the other hand, the World Bank, which draw much from the experiences in the United States, have followed a two-stage policy development. The greatest emphasis in the World Bank assistance in the first phase was the optimum use of road space and improving the standard and viability of public transport, particularly bus systems. The current policy revolves around the urban management issues and new forms of lending, namely: program and sector loans, which are linked to developing strong institutions and appropriate regulatory frameworks. Most of its projects have road construction, traffic engineering, institutional development and environmental improvement components. The World Bank's bias against urban rail mass transit has been changed due to the successes of urban rail systems in a number of developing cities, including Metro Manila. More recently, it has promoted the reassessment of the government's role in public transport enterprises, advocated privatization, and encouraged private-sector financing of infrastructure projects.

4. Conclusions

The problems faced by many developing cities, including Metro Manila, remain enormous. With the economic collapse of the Soviet Union, reforms in former socialist countries, and formation of economic blocs, the flow of external financial assistance will continue to tighten. Competition among developing countries will increase with diminishing levels of assistance. In this regard,

the influence in the development of urban transport policies and strategies of lending partners and aid agencies will be far greater and, if misdirected, will have grave consequences. Governments therefore should channel resources to transport investments and programs that promote economic growth and to activities that cannot be undertaken by either the private sector or by foreign investors. Transport authorities should encourage private sector participation in the provision of transport services and re-define the proper mode of intervention in the development effort.

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