# A Catalyst for Change: The Role of City Organizations in the Process of Urban Reform

#### Abstract

A recurrent problem in Brazilian municipalities is local government inability to establish a policy framework conducive to an urban development process of recuperating public spaces, improving public service provision, and enhancing citizenship rights. Too often, in cities both large and small, an array of municipal agencies and commissions, working on an improvised basis, achieves only meager results from public policies implemented to address urban decay, environmental degradation, precarious infrastructure, and inadequacy of public services. Why, then, are municipal governments trapped in this dark hole of ineffective policies? What are the constraints that prevent a harmonious urban development process? To address such questions, this paper analyzes the role of institutional arrangements in urban planning, using as its empirical component the policy framework in place in the city of Curitiba, Brazil. This case is contrasted with the broad context of urban planning practices in Latin America's largest country, with a special focus on the role of a city agency, the IPPUC, in local public policymaking.

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Figure 1



Figure 2

## **CURITIBA: URBAN REFORM**

Selected Programs

### PUBLIC TRANSPORTATION

Routes

Express (dedicated lanes; faster trips)

Inter-District (neighborhood links, without crossing city center)

Feeder (residential areas connecting to transfer terminals)

Conventional (from neighborhoods to city center)

Downtown (circulation in the city center only)

Pro-Park (from city center to each one of the 26 urban parks)

Vehicles

High capacity biarticulated buses (270 passengers) Articulated buses (170 passengers) "Padrão" buses (110 passengers)

#### **Terminals**

25 Transfer terminals (enclosed structures)
268 Tube stations (bus stops, tube-shaped aluminum and glass structures)

#### Relevant Features

Single fare—unlimited bus connections (on a given day) with one ticket only Connect Curitiba with several localities within the metropolitan area 2.2 million passengers daily

#### Public Private Partnership

System operated by private companies System monitored by a public agency

#### ROAD INFRASTRUCTURE

Urban Road System

Restricted lanes dedicated to express buses Linkage roads connecting city center to the periphery Connector streets from the industrial area to main roads Collector streets: all forms of traffic

#### ENVIRONMENTAL MANAGEMENT

**Environmental Education** 

Open University of the Environment Piá Ambiental (environmental awareness in low income areas) Olho D'Água Project (awareness about water condition)

Municipal Urban Parks Program

Extensive arborization initiative Creation of 25 urban parks Natural resources preservation Flood control; land management

Garbage Collection, Treatment, and Disposal

Solid waste recycling (first of its kind in Brazil)

#### **EDUCATION & SOCIAL PROGRAMS**

Faróis do Saber (Lighthouses of Knowledge)

Public libraries in both the city center and outskirts; first public Internet network in Brazil

Ruas da Cidadania (Citizenship Streets)

Administrative decentralization; funded by the Inter-American Development Bank Eight mini-malls of government offices (municipal, state, and federal) for personal documents, licenses, certificates. Units also host sports facilities and classrooms.

#### LOCAL ECONOMIC DEVELOPMENT

Barrações Empresariais (Entrepreneurial Sheds)

Nine business incubators; support for small business; income generation; job creation; urban revitalization

#### Introduction

The physically biased planner plans on the assumption (conviction) that the physical problems of a city can be solved within the framework of physical desiderata: in other words, that physical problems can be adequately stated, solved and remedied according to the physical criteria and expertise ... There is room, then, in the planning thinking for physical principles, i.e., theories of structural inter-relationships of the physical city; but this is only part of the story, for the structural impacts of the plan are only a part of the total impact. This total impact must be conceived as a web of physical, economic and social causes and effects.

David Farbman, A Description, Analysis and Critique of the Master Plan

A somber, yet paradoxical phenomenon is taking place in Latin America's large urban areas: as national governments have enacted rigorous adjustment policies in response to the demands of the global economy, these areas are suffering from an urban malaise—the result of economic crisis, financial instability, cash-strapped public sectors, and cuts in public spending. While cities generally are perceived as places with more and better opportunities for social and material progress, in Latin America, urban life, especially in the large centers, is associated with a growing angst, which is visible in the inadequacy of public services, a poor infrastructure, environmental degradation and violence. Governmental data provided by international development agencies confirm that while traditional indicators of development, like per capita GDP, primary school enrollment, and literacy rates, have improved in these urban centers, citizens' quality of life has been declining.

Thus a puzzling phenomenon seems to be taking place: cities are becoming more developed in terms of industrial and technological structures, but governments cannot cope with the changes brought about by such development. The urban malaise in the developing world corroborates the ideas articulated twenty years ago by John Friedmann (1986) who in his seminal "world city hypothesis," argued that cities' insertion into the global economy would transform urban spaces, for the worse, into areas of what he termed "social crisis." While the weaknesses of national economies also might contribute to the deterioration of urban life, very little attention has been paid to how municipal governments confront the public policy challenges and opportunities posed by urbanization, modernization, and cities' integration into global markets.

The present article represents an effort to fill this gap. Working within the framework of governance and contemporary globalization, I argue that the municipal sphere can be revamped for the better, in that a coherent set of local policies can address the degradation of urban spaces and revitalize cities, as long as city governments can establish a sensible institutional arrangement that is more conducive to adequate public policy outcomes. This article starts with a brief overview of Brazil's urbanization process during the second half of the 20<sup>th</sup> century, followed by a description of the urban planning process in Curitiba, the capital of Paraná, which is located in the South of Brazil, the country's most developed region. The article then proceeds with an analysis of theoretical work on the capabilities of institutional arrangements, and finally it contextualizes the claims with an examination of the role played by Institute of Research and Urban Planning of Curitiba (IPPUC) in the municipal policy framework that the city has followed for more than three decades.

#### **Urbanization in the Brazilian Context**

The urban planning process in Curitiba must be understood in the context of the 1960s, when the military took power in Brazil, and the country's patterns of development started to change drastically. Given its nationalistic ideology and goal of economic modernization, the central government's main strategy was to engender a process of industrialization to reduce the country's dependence on imports,

especially of capital goods and heavy machinery. These government plans greatly affected the agricultural sector and resulted in a rural exodus of enormous proportions that reached a point of no return in the early 1970s, when approximately 13 million people abandoned rural areas for major metropolitan centers (Menezes 1996).

Thus, state capitals became a magnet for rural workers escaping the lack of jobs and economic opportunities in an increasingly mechanized agriculture. However, because no urban government of the time was prepared for such an influx of new residents, large waves of internal migrants overwhelmed the cities' public services, thereby setting the stage for a chaotic urbanization process to which the military powers paid little attention. Indeed, the first National Development Plan (PND I) implemented by the central government in the late 1960s established no clear national urban policy, even though, like any authoritarian regime, Brazil's rulers invested themselves with great powers and inevitably became the main agents of the country's destiny. Nonetheless, despite strict central government control, the federal structure was not completely abandoned. State governors and state capital mayors, appointed by the military regime not democratically elected, were given some leeway in terms of local policies. Their main task, however, and the easiest way to retain power, was to impose public order in their respective jurisdictions, following the military's dictates for a passive civil society free of left-wing agitation, union activism, and any opposition voices.

Against this backdrop of authoritarianism, of changes in the economic structure and unsettling population shifts, city governments in the large metropolitan areas faced major challenges and constraints. On the one hand, the phenomenon of metropolitanization was intensified by the huge rural exodus that the core cities' governments were ill equipped to deal with; on the other, the country lacked a comprehensive national urban development strategy. In addition, the national economic model, based on industrialization and agricultural modernization, presented city officials with a new array of urban problems, felt mostly in the inadequacy of public transportation and housing shortages. This latter triggered a perverse process of illegal land occupation and illegal settlements whose consequences are widely known: living in precarious conditions in filthy shantytowns, not only have city dwellers had to cope with a variety of health problems, but these unhealthy living conditions have in turn produced another set of environmental problems, especially the contamination of water resources and degradation of the urban environment by waste accumulation and the lack of any proper infrastructure and services to dispose of it.

Whereas the implementation of urban reform to deal with these issues, especially in metropolitan areas, has resulted partly from the authoritarian regime undermining local government action and delaying the elaboration and release of a national urban policy, scholars and other professionals have pointed to other factors that can explain Brazil's still chaotic urban development process. In the 1960s, Jorge Wilheim, a renowned Brazilian urban planner instrumental in the urban development process of Curitiba, was very vocal, calling attention to Brazil's ruling class's lack of an urbanistic vision. In several of his writings, Wilheim stressed how scant was Brazil's knowledge of the urbanization process:

We think that, within the limited scope of urban studies in Brazil, any work, even if a mere analysis of an urbanistic problem—if well framed—might contribute to reduce the alienation of our intellectual production and also to increase the knowledge of our reality ... It is unbelievable that in a country with so intense spontaneous urbanization, we never have in our schools studies and examples drawn from this rich experience. To the contrary, we are immersed (and in a way quite static and formal) into the description of European medieval cities. (Wilheim 1965, 25, 26)

The idea of urban planning remained problematic in Brazil even when mid-1980's democratization produced more empowered local governments and raised the opportunity for revamping intergovernmental relations. The 1988 federal constitution mandates a master plan for cities with more than 20,000 residents, yet city planning is in reality not a priority for city halls. Indeed, observing that the majority of Brazilian cities remain without planning programs, architect Flavio Villaça (1995) argued that Brazilian politicians do not believe in master plans and have never wanted them:

In São Paulo, for more than twenty years, the Municipal Department of Planning has elaborated and re-elaborated, done and undone, revised and updated city plans, but no mayor has ever demanded a master plan. Following the general rule, the mayor completes his plan, sends it to the city council at the end of his term, and the successor withdraws the project to make a revision ... São Paulo, likely, will continue with the same routine of the elaboration of a master plan in each administration without approving any. (49)

Jorge Wilheim concurs. In an interview with the *Los Angeles Times* (Rotella 2001), he explained why urban policies in Brazil fail to address the problems they are supposed to solve: "Planning is not popular. It is seen as an imposition that hinders my freedom of growing and getting rich". It was against this dismal backdrop—the lack of a national urban policy and at the same a countrywide chaotic process of urbanization—that, in the 1960s, the city of Curitiba initiated an urban development process that continues to intrigue urban planners and policy makers both in Brazil and abroad.

**Curitiba: The Process of Urban Reform** 

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<sup>&</sup>lt;sup>1</sup> Even though the military regime that began in 1964 did not end until 1985, the late 1970s marked the beginning of a democratic transition that included political amnesty. In 1982, gubernatorial elections were reinstated, and in 1985, mayoral elections took place in state capitals. Moreover, even though only two parties were allowed, legislative elections at federal, state, and city levels were never suspended during military rule. After the military relinquished power in 1985, the national congress elected a civilian president, and since 1989, presidential elections have taken place every four years.

Currently the core city in a growing metropolitan area with 25 municipalities, Curitiba exemplifies the challenges and opportunities posed by rapid urbanization in Latin America. From very humble origins at the time of its founding in 1693,<sup>2</sup> Curitiba evolved during a process of intense urban growth to become a dynamic metropolis. In fact, over the last thirty years, the city has displayed one of the highest rates of population growth in the country, a result attributed to the massive rural exodus outlined above. According to the latest official figures, Curitiba's population is now approaching 1.8 million residents within a metropolitan area of 3.2 million. Admittedly, during the last decade, the growth in the core city has slowed down considerably; however, the metropolitan area continues to exhibit a strong population expansion.<sup>3</sup>

Curitiba's urban transformation began, as in São Paulo, Rio de Janeiro, and Porto Alegre (the other major state capitals in the south-southeast region), in the first half of the twentieth century. In 1941, Mayor Rozaldo Leitão hired French architect Alfred Agache to revamp the city's landscape by enhancing streets and creating boulevards. Agache, arriving in Curitiba with sound urban planning credentials like the creation of Canberra, Australia, envisioned dividing Curitiba into functional sectors: a commercial center, an administrative unit, a university campus, a military compound, and several residential areas. However, when in October 1943, Mayor Alexandre Beltrão received Agache's plan, implementation was delayed, allegedly due to the lack of resources, although Curitiba-based political scientist Dennison Oliveira (1991) also points out that the Agache plan soon fell short in the face of Curitiba's explosive growth.

In the 1950s, the inability of Curitiba's local governments to adopt or adapt Agache's proposals was highly detrimental to the city, which started to grow in a disorderly manner. In 1963, newly elected mayor, Ivo Arzua, based his electoral campaign on a platform of shaping Curitiba's urban growth formulated largely with the input of young professional graduates of the newly created Architecture and Urban Studies program at the Federal University in Curitiba. Indeed, one of Arzua's first initiatives was the establishment of a planning commission whose main focus was the implementation of a consistent land use policy to avoid chaotic growth, together with the development of a series of studies dealing with urban problems such as the eradication of shantytowns and the introduction of new bus lines. Thus, in the 1960s, a conjunction of factors—mayoral interest, professional contributions, and university debates about the city's future—triggered a completely new public discourse in Curitiba that focused on the benefits and disadvantages of urbanization, as well as ways to address current problems and avoid future ones. Thus, the notion of "thinking the city" began to take root.

Nonetheless, funding these urban projects was a major hurdle. According to Oliveira (1991, 225), the governor of Paraná would only agree to make financial resources available if the city government could present an integrated urban planning proposal tying together land use, economic development, and city infrastructure. Arzua took up the challenge and sought out a São Paulo-based architectural firm, Serete—

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<sup>&</sup>lt;sup>2</sup> Even though the official foundation date is March 29, 1693, with the arrival of the first Portuguese settlers, Curitiba became Paraná's capital in 1854. The name Curitiba means "abundance of pines" in Tupi-Guarani, a South American indigenous language.

<sup>&</sup>lt;sup>3</sup> Between 1970 and 1980, population growth in Curitiba alone was 5.34%; while in the 1990s, the expansion was 1.83%.

Society of Studies and Projects (*Sociedade de Estudos e Projetos*), which city hall hired. The architect in charge, urban planner Jorge Wilheim, was concurrently struggling to convince the São Paulo government to adopt his planning proposals. Recalling the events 30 years later, Wilheim suggests that the divergent outcomes can be explained by the fact that "the Curitiba plan did not remain in the drawer".<sup>4</sup>

In retrospect, Arzua's determination and commitment were critical factors in the plan's later implementation. Challenged by the state governor, the mayor mobilized a substantial amount of city hall's human and material resources to assure a comprehensive blueprint that, despite city council opposition, would enhance urban space. In addition, the mayor not only assured local legislators that their approval would be required in matters of urban development, but, above all, he sensed that any potential obstacles could be more easily overcome if society legitimized the proposals. As a result, Arzua opened a public debate on urbanization and urban planning by inviting architects, engineers, sociologists, economists, professors, lawyers, and other professionals to city hall meetings to discuss the city's future. Supported by an intense press coverage, the debates served also as the basis for an educational and public relations campaign that persuaded residents to embrace the plan. Garnering such public support was perhaps one of Arzua's main achievements, as a few years later it proved to be extremely helpful when city government had to seek alliances in order to proceed with the urban development plans.

In 1965, to oversee the planning projects being developed by Serete, city hall established the Institute of Research and Urban Planning of Curitiba (IPPUC), which was at first seen as just another municipal agency devoid of clear objectives. Yet, in fact, this institution became instrumental in local governments' ongoing ability to adhere to the city plan. This major commitment to urban policy, from which IPPUC has never departed in over forty years of existence, has made possible what for others of the nation's city governments has been almost impossible: the transformation of a master plan into a dynamic policy instrument, flexible enough to be adapted to the city's growth and needs. Without IPPUC's constant studies and proposals, the original Curitiba blueprint would most probably have suffered the same fate as other plans designed for other cities. It may have remained in a drawer, as in São Paulo, or its implementation may have failed owing to ill-conceived projects or local public officials' inability or unwillingness to make the plan work according to city dynamics. Thus, not only has the IPPUC contributed to the establishment in Curitiba of an institutional framework that favors urban development, but its reputation, prestige, and image as a respectable government entity engendering ideas for improving myriad aspects of city living—from transportation to recreational areas to housing projects—are by now so pervasive that no city hall candidate can hope for election without a commitment to maintaining and enhancing the urban development process.

As a result, based on the original Serete master plan focus on road infrastructure and key transportation projects, successive city governments, with IPPUC's input, have been able to adopt, incrementally, a comprehensive urban policy that integrates land use with regulated building construction,

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<sup>&</sup>lt;sup>4</sup> Interview, *Gazeta do Povo*, Curitiba's newspaper; "Plano Agache Completa 55 Anos", April 30, 1996.

arterial roads with dedicated bus lanes, a public transportation system that allows for constant expansion, extensive public works to combat floods, and an urban park program that has made Curitiba one of the world's greenest cities with 50 square meters of green areas per inhabitant. In addition, the coalition has developed several waste management projects emphasizing an innovative recycling initiative that both contributes to environmental protection and provides employment opportunities for the poorest segments of the population; an exclusive "industrial city" for factories and shops in the south of Curitiba that was the first in Brazil to impose strict antipollution regulations; low-income housing through self-construction methods, and enhanced medical attention through the implementation in Curitiba of Brazil's first municipal health care program.

Yet curiously, Brazilian thinkers who recognize that the country has for long experienced an urban planning crisis do not see in a master plan any response to urban decay, city mismanagement, and the hardships endured by the population in the face of decrepit infrastructure and precarious public services. Their criticism is based on the notion that master plans conceived in Brazil are mere copies of models developed in the industrialized world and, therefore, they have limited applicability to Brazilian reality. Thus, they stress that urban planning projects are in fact instruments of domination, a tool used by elites to defend their own interests in the city, especially regarding land property and real estate speculation. These same critics observe that this protection of interests has led the upper classes to grant mythical powers to urban planning, as if a technical approach "has the magical power to solve urban problems" (Villaça 1995, 47). Such criticism further asserts that the presentation of master plans as "scientific tools" is simply a disguise, an attempt of the ruling class "to sell" as "apolitical" urban planning proposals that are in reality highly ideological.

Because Curitiba's urban planning model is the only one in the nation that has been in place and evolving for more than three decades, it has become a fertile ground for critique. Thus, whereas American urban experts like Alan Jacobs and Jonas Rabinovitch have praised the city government's approach towards "integrative urban programs," the plan's critics, especially in Brazil, have pointed to what they call the elitist nature of the Curitiba urban planning process, observing that its policies have been implemented in a top-down fashion (Oliveira 1995; Villaça 1995; Garcia 1997). Seldom referred to, however (perhaps because critics have little interest in making it public), is the above-mentioned subjection of the plan to popular consultation prior to city council approval; particularly when, in 1965, Mayor Arzua sought public support and legitimacy through several seminars and workshops under the program Curitiba of Tomorrow (*Curitiba de Amanhã*) in which various social groups participated. Therefore, while it may be argued that the evolution of Curitiba urban development process has not been participatory, neither has it been authoritarian. Indeed, in seminar "Colloque sur l'environment urbain," in Marseille, France, urban

<sup>&</sup>lt;sup>5</sup> Scholar Alan Jacobs, a former San Francisco planning director, has analyzed the Curitiba urban planning process (e.g., Margolis 1992), while Jonas Rabinovitch, former Senior Urban Development Advisor for the United Nations, has written extensively about Curitiba's urban planning process after living for sveral years in the city (see, e.g., Kirdar 1997).

expert Robert Journard (1995) of the French Institute for Transportation stressed that a distinctive characteristic of Curitiba's urban policies is that governments "are able to mobilize the citizenry by engaging them in city projects". <sup>7</sup>

The above observations raise several pertinent questions. First, how were Curitiba's governments able to maintain this urban planning commitment? Similarly, why, despite differences in political party affiliation, have mayors avoided the policy derailment typical of Brazil's local governments by opting, instead, for policy continuity? Lastly, why, in contrast to the majority of the country's weak municipal agencies, subject to the vagaries of local politics and fraught with clientelism, has the IPPUC been continually supported by city hall to become a powerful urban policy institutional tool?

#### Methodological Approach: The State Centered Model and Public Policy

This investigation, which supports a state centered approach both as method and analytical tool, examines the factors that influence governance strategies. Even though the impact of nongovernmental actors on the policy process cannot be disregarded, practical observation suggests that, ultimately, programs and actions are almost always decided and implemented by a small circle of public officials. For purposes of analysis, nongovernmental actors, like the business class and some other society groups, are taken into account less as an influence and more as an indication of (a) governments' ability to deal with them and (b) the ways that government-group interaction determines the path that governments take.

This preference for an analytical framework focused on the state does not overlook the existence and varied levels of influence on government of social groups. For example, Nordlinger (1981), stressing that public officials are individuals that shape "the patterns of societal demands, political resources and alignments" (2) argues in favor of a state centered approach to explain what governments do and do not do. Among other justifications, he points to the usefulness of this focus on the state as main actor in the policy arena for examining polities characterized by virtual nondivergence between government and societal preferences. Nonetheless, such partial or complete absence of divergence does not imply that society and government always have identical interests. On the contrary, they may often be incompatible, but under certain conditions these differences either do not emerge or do not play a significant role in the policy process. Such might be the case for polities in which social groups whose interests collide with those of

<sup>&</sup>lt;sup>6</sup> Despite the country being under military rule, the Curitiba city hall faced no obstacles to promoting several seminars debating the proposed master plan. Thus, its implementation started during authoritarian times, when popular participation in government decision making was nonexistent elsewhere in the country. Since the 1980s, under the democratization process, city policies in Curitiba have followed the same trajectory as in all other cities, beginning with either city hall or municipal agency policy proposals that are later examined by the city council. Generally, citizens can participate in government decision making through their representatives, although in some cities, residents can vote to select budget priorities. In Curitiba, the local association of economists holds annual surveys that consult residents about budget priorities. These results are then sent to city hall.

<sup>&</sup>lt;sup>7</sup> As cited in "Curitiba é destacada no exterior como modelo de desenvolviment", *Diário Popular*, April 1995.

government are unable to express their preferences, either because the groups are not well organized or because of state intimidation. What is more likely in such political systems is a single, powerful, private, politically influential group—for instance, the business class—whose interests in terms of public policies do not differ from those of the state. For instance, Nordlinger conceives situations of nondivergence between state and society as occurring "when private actors hold preferences that converge with those of the state ... or virtually all significant societal actors are indifferent to state preferences" (84).

Such convergence of interests, however, should not be interpreted as absence of conflict. On the contrary, internal disagreements are relatively common within governments because those involved in policy making, having distinct abilities (e.g., career plans, different degrees of professional knowledge, and personal backgrounds and interests) deal differently with opportunities and constraints. In consequence, public officials within the same administration may fail to overcome their differences and agree on what actions to take. Such internal strife has a major impact on government action. Nonetheless, Nordlinger (1981) emphasizes, such a scenario is not the case of a divided society influencing government action, but rather a divided government imposing limitations on its own policies (65). Therefore, the state centered model appears justified.

The state centered approach to studying urban policies has also been validated by Yates (1977), for whom city problems reflect problems in government. Accordingly, urban governance strategies are less a result of a city's characteristics than of public officials' ability to deal with constraints and seize opportunities to shape the policy arena towards more satisfactory responses to urban problems. That said, it is not exaggerated to claim that the state (at either the national or local level) plays a major role in urban life. Thus, in the same way that governments have been singled out as part of the problem, they also may be considered part of the solution.

#### **Analytical Tools: The Policy Framework**

The main underlying assumption of this analysis is that governance strategies are, or are likely to be, more successful in political units (in this case, cities) in which the prevailing institutional framework is conducive to urban development and has policies and programs that evolve and mature. Such a framework does not emerge by chance, but rather its existence is determined by a combination of government attributes and actions at any given moment in history. Sensing the need for change, a governing group assumes a public entrepreneurial stance by making a political commitment to reform, proposing innovative policies, seeking consensus, institutionalizing the policy process, and implementing its plan incrementally.

This sequence of events creates a more harmonious environment in which resistance to the proposed programs is low, so that subsequent governments have less incentive to derail policies that are producing satisfactory outcomes. Such an environment constitutes a critical conjunction of attitudes and practices here considered endogenous characteristics (i.e., emerging from within the government itself), indicating that more successful or less successful governance approaches can be analyzed in terms of

government ability to govern, regardless of the other two main factors widely employed to explain government performance: economic development and social capital.

This analysis draws from several elements of North's (1990) theory of institutional change, which is based on a path-dependence process whose basic principle is that events in the past shape actions and influence choices both today and in the future. North's pursuit of explanations for widely disparate economic performances led him to articulate a theoretical approach in which institutions and organizations interact in a kind of self-reinforcing process that leads to either successful or unsuccessful economic performances. According to North, "both what organizations come into existence and how they evolve are fundamentally influenced by the institutional framework. In turn they influence how the institutional framework evolves...There is an interaction between organization and institutional change, [the former being] a major agent of institutional change" (5).

Prior to the analysis itself, however, certain important observations must be made. First, there exist at least two different types of institutional frameworks, one that is unproductive, and a second that produces an environment conducive to cooperative solutions for complex problems. In fact, North's main objective was to explain why some institutional frameworks induce economic progress and others result in failure. The reason he identified was the interplay between institutions and organizations. Institutions generally constitute a set of rules (e.g., a constitution) that shape human interaction; however, they can also be informal, deriving not from formal rules but from codes of conduct and norms of behavior that influence human activity in family, business, and governments. Both formal and informal institutions, North (1990) suggests, play "an important role in the makeup of the choice set both in the short-run and in the long run evolution of societies" (42). Organizations, groups of "individuals bound by some common purpose to achieve certain objectives" (5), can take the form of a regulatory agency, political party, trade union, city council, or school, among others.

What matters for this study, with its emphasis on informal institutions, is the self-reinforcing nature of the interaction between institutions and organizations. Specifically, the analysis examines the performance of political entrepreneurs who have displayed a commitment to reform and innovation, pursued consensual social support for government programs, and institutionalized the urban development process by backing the creation and strengthening of a critical municipal agency. Grounded in its knowledge and skills, the organization under study has played a crucial role in the continuity of urban development programs, thereby reinforcing an institutional framework in favor of and hospitable to urban improvements. In addition, over the years, the actions of this municipal agency have transformed local politics by harboring within itself a new generation of public officials in their formative years and thus spreading well beyond its borders the notion of urban enhancement and city revitalization. Moreover, during its evolution, the agency has been accumulating more knowledge to which successive governments have adhered, thus avoiding policy derailment. As already emphasized, this scenario represents a striking departure from the common policy environments in other Brazilian cities in which government action based on more personalistic behavior has perpetuated public policies marred by confusion, contradictory

objectives, and no clear commitment to urban development. Such confusing institutional frameworks are also self-reinforcing in that governments remain locked in, incapable of taking a different policy path, which prevents governmental programs from producing results.

By recognizing that government policies are self-reinforcing and therefore hard to change, the path-dependence model explains the variations in institutional frameworks. Most particularly, it helps elucidate why city governments become prisoners of programs that are flawed and unproductive. Yet, since empirical evidence shows some city governments to be capable of changing and embarking on a path of more favorable policies, the question becomes how or under what circumstances are some public officials able to abandon damaging policies while others are not?

This analysis hypothesizes a possibility of changing directions (i.e., moving from unsatisfactory to more appropriate programs) that is determined by the extant institutional framework. To understand the characteristics of the institutional setting of a polity, it draws upon three major assumptions supported by path-dependence theory: (a) that a particular course of action, once introduced, is virtually impossible to reverse; (b) that a given course of action is self-reinforcing; and (c) that patterns of timing and sequence matter—that is, the existence of formative moments, also called "junctures," can lead to divergent paths (Pierson 1999). While for Pierson, these distinct trajectories may be explained by a particular sequence of events or processes, Sewell (1996) asserts that "what happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time" (262–263). Overall, path-dependence scholars continually emphasize the self-reinforcing nature of political and economic processes, stressing that each step along a particular route generates consequences that make the path more attractive for the next round. Such self-reinforcement makes it hard, if not impossible, for governments that are prisoners of unsatisfactory programs to change directions. As Pierson (1999) puts it, "as such effects begin to accumulate, they generate a powerful virtuous (or vicious) cycle of self-reinforcing activity. These are processes where history matters" (6).

In his study of different trajectories on spending policies taken by New York and Chicago city governments after the Great Depression, Woodlief (1998) develops his own interpretation of path-dependence theory. In answer to the question of why, facing a similar crisis, these two city governments followed different fiscal policies, Woodlief again points to the self-reinforcing character of public policy. Interpreted within the path-dependence framework, the tendency of some urban governments to fly in the face of common sense and become irretrievably locked into less favorable policies results from policy environments in which the interests of particular public officials or the rules and norms imposed by them create resistance to change.

How, then, can changes in the trajectory be accounted for? What are the determinants of some governments' ability to escape the "lock-in" suggested by Woodlief? The literature on divergent public policy outcomes in subnational governments within one country has identified certain characteristics that make some governments more likely than others to change the course of events. For example, Schneider and Tesk (1995) point out that public officials who alter existing policies are not larger-than-life figures

but rather individuals capable of carrying out and being committed to a task. Seen as innovators and public entrepreneurs, these individuals do not bring about major revolutions but rather solve more pedestrian basic problems; for example, garbage collection issues that public authorities have ignored for years. The attractiveness of this public entrepreneur model advanced by Schneider and Tesk is that it contemplates the possibility of several public entrepreneurs in a given government working together to address a collective problem. This complex interaction between informal institutions and organizations may lead to the emergence of a given policy framework, as detailed in the following section.

#### The Role of City Organizations: The IPPUC

Previous studies on urban livability conducted in Brazil, Japan, and the United States have stressed the critical role that one particular municipal organization played in Curitiba's well-articulated urban development process. In a country that lacks a planning tradition, where urbanization has taken place haphazardly and arbitrarily, the creation of the IPPUC was a true innovation, and its evolution remains exceptional for Brazil. Unlike many other city agencies that emerged with enthusiasm but died out ignominiously, about four decades after its inception, IPPUC continues to be a force behind the development process of the Paraná capital. Inside the IPPUC, an array of specialists meticulously monitor the city on a daily basis to anticipate solutions and responses before the problems and needs even emerge. Such repetitive examination has resulted in a considerable number of proposals to enhance the urban space: projects are first taken to city hall and then to the respective municipal departments that assess their applicability in a constant process of analysis, testing, and feedback that improves upon IPPUC's original ideas. As a result, urban projects actually fit real problems and needs, and are therefore far more likely to produce adequate outcomes.

Because of the institutional basis provided by IPPUC, successive city governments have been able to escape the traps imposed by rigid master plans whose inflexibility works against their implementation, especially in developing world metropolises where urbanization is rapid and city governments are constrained by national economic adjustment policies, unstable national politics, and frequently erratic national urban policies. As outlined in an earlier section, Curitiba urban policies evolved from an original master plan for road infrastructure and transportation into constant enhancement of mass transit and a series of environmental management programs like flood control, green areas, and waste recycling, always within the broader objective of avoiding the negative consequences of uncontrolled urbanization and improving delivery of public services. This adaptability, according to Wilheim (1965), is the central characteristic of a master plan:

<sup>&</sup>lt;sup>8</sup> See, e.g., Development Bank of Japan (2000); Solutions (2001); Rabinovitch and Hoehn (1995); Oikawa (1993).

A master plan (*plano diretor*) is an action tool that evolves and is improved concomitantly to the development of the live organism we call "city." For the same reason, the plan is not a rigid document. It is constituted by a planning body, by a basic document (the plan per se) which consists of maps and reports, and laws and regulations ... The agency should have financial resources and autonomy, under city hall jurisdiction. (123–124)

The evolution of Curitiba's urban development over the years has had less to do with the implementation of a technical planning model and much more with the existence of a double-knowledge factor within the IPPUC. In addition to having skills according to their respective specializations, IPPUC professionals also have a deep knowledge of the city, which they scrutinize meter by meter. As a result, IPPUC is in control of the urban space. Therefore, for society, the agency's input and output in the field of urban development are substantial and reliable; for governments, IPPUC's contributions are indispensable and binding to the point that showing contempt for IPPUC proposals may become an undesirable political liability.

As detailed earlier, the idea of a Curitiba planning commission originated during the 1960's Arzua administration, as city hall and state government faced a chaotic urban center, totally unprepared for major shifts such as rural to urban area migration and the process of industrialization promoted by the military government for national modernization. As change was imperative for Curitiba's inclusion in the latter, Arzua, known for his progressive stance, came up with his bold idea to revamp the state capital, beginning with an overhaul of its precarious infrastructure. Thus, at a time when Brazilians were fascinated with the new nation's planned capital city, Brasília, Arzua also saw the need of an advisory planning agency to orient urban reform.

The IPPUC harbingers—Jaime Lerner, Lubomir Ficinsky Dunin, Franchette Rischbieter, and Luis Forte Netto—were convinced that, in addition to a new and modern infrastructure, Curitiba in fact needed an ample urban development plan that could integrate a new road system, public transportation, land use regulations, and resources management, a pioneering urban planning vision influenced by the studies on urban evolution conducted by the Economics and Humanism research center, founded by Father Lebret<sup>9</sup>. At that time, in an attempt to escape the rigidities of the Cold War and its manicheist worldview, social critics were already looking for a "third way." According to Brazilian urban scholar Claudino Luiz Menezes (1996), Lebret envisioned a movement that would put "Protestants, Catholics, and communists together to remove the impediments to social development. The way urban societies were organized, at that time, was seen as one of these obstacles, and urban planning was considered an indispensable tool to

<sup>&</sup>lt;sup>9</sup> The Paris-based Economie et Humanisme research center was founded in France in the late 1940s by Dominican priest Louis Joseph Lebret (1897–1966), who supported several similar organizations throughout the world and was one of those who introduced concern for global development, at the personal and social level, into the Catholic Church. According to Vatican documents, Father Lebret was the main source of inspiration for the 1967 papal encyclic *Populorum progressio* ("On the development of peoples").

eliminate those barriers" (73). Menezes' analysis stresses that Lebret's main postulate was the need for action on all levels of community life, action for which an understanding of the reality is imperative. When applied to the urban space, the Lebret doctrine expresses a deep belief in the power of planning, when he suggests that "is not the case of a single model of planning, but all to the contrary, a great variety of models, taking into account, in each case, the specific structures and the particular needs". (Lebret 1962, 89)

When, during the 1950s, Father Lebret lectured in several Brazilian cities, his influence reached Curitiba and manifested itself in the studies by SAGMACS, a state government workshop whose original objective was to analyze Paraná's territorial characteristics. <sup>10</sup> Yet SAGMACS' diagnostics went well beyond Paraná's physical attributes by introducing the "social question" into its analyses of the development process. For Almir Fernandes, a Brazilian engineer who followed the IPPUC evolution,

[o]ne of the factors that enriched the multidisciplinary urban planning process in Curitiba was the work developed by the SAGMACS Economics and Humanism team under the leadership of Father Lebret ... his influence was felt on the ideological, methodological, and professional aspects of the planning process in Curitiba, because many of those who were his students later became members of the government. (Fernandes 1990, 72)

Between 1964 and 1965, the city hall, city council, and planning commission, charged with formulating a logical and feasible urban development plan, spent uncountable hours sorting through proposals. When they finally reached a consensus on the plan's main objectives—that is, a common ground among politicians and planners on their vision for improving city conditions—Arzua agreed to hire Brazil's most prestigious urban planner, Jorge Wilheim, to formulate a set of urban policies for Curitiba. In 1964, a true partnership between Wilheim's firm, Serete, and the planning commission began to produce fruit. For several months, both partners discussed several proposals, which they presented one by one to mayor Arzua. The working sessions culminated with the formulation of the city master plan (*Plano Diretor*), which since then has been the sole urban policy instrument in Curitiba and the source of all city programs. Under constant review by the IPPUC, the master plan has evolved and produced new programs in response to city growth and needs.

The singular, and probably most important, characteristic of the IPPUC is that it very soon escaped the traps of a typical planning commission, defined by Davidoff (1996) as a "non-responsible vestigial institution" (314). Referring to agencies in American cities (although possibly also applicable elsewhere), Davidoff argues that planning commissions fail to produce the expected results because they

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<sup>&</sup>lt;sup>10</sup> Literally, the Society of Graphic and Mechano-Graphic Analyses Applied to Social Systems, SAGMACS, heavily influenced by Lebret's ideas, emerged in the 1960s in several Brazilian cities, São Paulo included, with the goal of providing orientation to future master plans. Only in Curitiba were the SAGMACS proposals transformed into government action.

are independent agencies, working separately from local politics, and thus are never able to gain political support: "the commissions are not responsible directly to the electorate, and the electorate in turn is at best often indifferent to the planning commission" (314).

In contrast, the IPPUC, despite its considerable degree of autonomy in proposing urban policy, works under the control of city hall together with local legislators, a collaboration that has precluded the adoption of programs based on a strictly technical perspective. In this sense, the IPPUC's scope is broader than that of a mere planning agency; having, instead the characteristics of a comprehensive urban development authority. According to Rabinovitch and Hohen (1995), the IPPUC is "a local incubator" of ideas and solutions that emphasize the interplay between planning, analysis, a participatory process, and policy implementation. Thus, the IPPUC structure, which includes the input of a variety of professionals—architects, economists, sociologists, engineers, and public health and housing specialists—has allowed the evolution of an integrated development process by combining public works, environmental management, and industrial and social policies. Unique to Brazil, with its almost nonexistent planning tradition, the IPPUC—in concept and in practice—falls within the category of progressive planning, which urban experts believe is more likely to produce better governance practices. Progressive city planners

... will be concerned with physical planning, economic planning, and social planning. An expanded scope reaching all matters of public concern will not only make planning a more effective administrative tool of local government, it will also bring planning practice closer to the issues of real concern to the citizens. A system of plural city planning probably has much greater chance of operational success when the focus is on live social and economic questions instead of rather esoteric issues relating to physical norms. (Davidoff 1996, 318).

Although few of the original master plan's recommendations were adopted soon after approval, the initial political commitment was critical to the plan's later implementation. Responsible for the idea and a force behind the popular support given the plan, Arzua left office in 1966, soon after the legislation was enacted. It was his successor, mayor Omar Sabbag, who assured the plan's survival by equipping the IPPUC with all the human and material resources needed to make the urban development process a reality. As a result, the IPPUC invested in professional training and, to enhance urban development proposals, equipped itself with relevant documentation—both domestic and foreign: "In addition, the institute was intensively devoted to research and project design, even without having the certainty that they would be implemented in the future" (Oliveira 1991, 229).

While public officials had already given their support to IPPUC, the organization, in its first years, struggled with high levels of suspicion within municipal departments, where some directors clearly demonstrating unwillingness to follow IPPUC directives. Thus, Luis Forte Netto, IPPUC's first president, realized that to be productive, the agency would have to build a brand new working relationship with all other city agencies. With city hall's approval, the IPPUC designed and implemented an educational

campaign to instruct city bureaucrats about the importance of the proposed changes. Under the presidency of Forte Netto, the IPPUC produced its first studies on flooding control and green belt protection and developed a seminal municipal housing policy for Curitiba, the first of its kind in Brazil. It also promoted the first public debate on what would later become one of the city's most acclaimed achievements: the new public transportation system.

In 1968, at the end of his term, Forte Netto recommended as his successor another IPPUC architect, Jaime Lerner, who took office with much enthusiasm for the approved urban development plan. For Lerner and many others inside the IPPUC, urban reform needed to begin with new road and transportation systems because the obsolete public transportation service, as Eloy Kochanny (1991) recalls, was nothing less than a nightmare, requiring commuters to any neighborhood within city limits to pass first through the downtown area. Facing such urban chaos, IPPUC conceived a new transit system, a comprehensive transport network, land use regulations, green area protection, and the urban parks program, thereby soon becoming the heart of the municipal administration. Indeed, it was during Mayor Lerner's first term (1971–1974) that the urban development process in the Paraná capital gained life and a new era began as the IPPUC evolved into a substantive city organization whose performance contributed to an institutional setting that has facilitated governmental action ever since. For Brazilian historian, Dennison Oliveira (1991), Lerner was responsible for an "authentic revolution" in the field of urban planning:

The new mayor had been IPPUC president, was a former member of the planning commission that worked with Serete, and was, therefore, totally identified with the plan implementation. (229)

Influenced by the ideas of Father Lebret, Lerner, with the support of an empowered IPPUC, mobilized all city hall resources to implement the new urban policies, whose main goal was to orient city growth towards a more harmonious development. 11 Based on the urban planning instrument approved by the city council years earlier, Lerner initiated the implementation of several projects to tackle several and urgent needs. Besides overhauling the city public transportation system, the first Lerner administration also developed flooding control policies and an innovative urban park program, invested in downtown renewal, and provided the basis for creating the Curitiba Industrial City (CIC), Brazil's first municipal initiative for local economic development. At first, Lerner's proposals were received with a certain degree of skepticism and even some opposition, yet, as policies began to show results, the idea of urban planning also began to captivate not only Curitiba residents but the entire country. Indeed, by the end of Lerner's first administration in 1974, the Curitiba experience with urban development had reached such visibility that the

<sup>11</sup> According to Curitiba-based journalist Luiz Geraldo Mazza, (1992), not only was the original IPPUC team heavily influenced by Lebret's ideas—which were for them, "like a bible"—but one particular statement by Lebret served as motivation to Curitiba's young urban planners: "Development is continuous and indivisible. It is necessary that all partial developments be integrated. If there is industrial and agricultural development, but without cultural development and sanitation services, then there is no development at all, but rather the possibility of setbacks" (21-23).

federal interior ministry created a governmental commission to investigate the reasons for Curitiba's successes in the field of urban planning (Oliveira 1991).

In the same year, the IPPUC hired economist Euclides Rovani to supervise the implementation of the new public transportation system, which began operations in September. Authorized by city hall to hire mass transit experts, Rovani created a team that produced innovative solutions for a public service in shambles elsewhere in the country. For example, inside the IPPUC was born the idea of dedicated bus lanes. In addition, at a time when no such practice existed within Brazil, the institute created a bus schedule based on the regularity of routes and trips. Moreover, after fieldwork in France under IPPUC auspices, Brazilian public transportation specialist, Carlos Ceneviva, brought to Curitiba, and to Brazil, the concept of a single fare regardless of how many trips a day the passenger makes, a practice that specialists believe is one component of a sound social policy for improving people's access to urban facilities:

...the public transportation system, by allowing several trips with a single fare, provides workers unlimited access to a public service that is one of the main domestic spending items. It is the same thing with the municipal program that exchanges recyclable waste for a bag of vegetables. In this way, the public sector not only saves some resources in garbage collection, but, mainly, it is allowing ample segments of the low-income population to feel like participants in a common project for the city. (Oliveira 1995, 304)

Also new was the proposal for enclosed bus stops, whose adoption in Curitiba made the city unique in the country. Far more significant, however, was the government's singular commitment to putting in place a reliable mode of locomotion, congruent with the status of a metropolis, when, as Rovani recalls, "in the rest of the country nobody was scratching the head, thinking about public transportation; nobody thought that the public sector could make this kind of intervention".

In the 1970s, IPPUC's pioneering work to reduce the number of risky areas in Paraná's capital through flood control programs set the basis for the federal Leman Act, which mandates that human settlements must preserve an area of 15 meters along waterways. Research on flooding control was conducted inside the IPPUC by engineer Nicolau Kluppel, who recalls that that when he began his work, no vision of the importance of preserving rivers and water reservoirs existed in Brazil where the prevalent mentality was the channelization of rivers in hopes of avoiding inundations. In contrast, Kluppel's multidisciplinary team of engineers, architects, and economists developed the innovative strategy of allowing waterways to continue their course and rise in times of heavy rains, which in turn led to new land use regulations preventing construction projects in areas subject to flooding.

As a result, rather than expensive public works, including concrete levee construction along the city's rivers, tracts of land were protected and transformed into green areas, allowing for water absorption of the natural flow of rainwater. Well known for his premise that "urbanization is responsible for flooding and not the rivers," Kuppel argues that it is easier and cheaper for governments to acquire land and

transform it into parks and recreational spaces than to build expensive flood control infrastructures that seldom work. In 1975, this plan was transformed into a municipal law and over time, 25 critical areas in Curitiba were converted into urban parks.

Also during the 1970s, another IPPUC official, architect Luiz Masaru Hayakawa, oversaw the agency's first environmental management projects "long before the green discourse became fashionable in the country" (as quoted in *Memória da Curitiba urbana* 1991, 226). The very first idea, during Lerner's first administration, had been to invest in a massive arborization program. However, as the city became greener, what became even more important was the program's impact in terms of increasing environmental awareness: "Public education regarding environmental protection, garbage disposal and sanitation is the major lesson to be drawn from Curitiba's experience," suggested architect Angel Walter Bernal, in 1971, director of the Curitiba Department of Recreation, and in 1977, organizer in Curitiba of Brazil's first national conference on urban parks and gardens.

Supported by an energetic and creative mayor, the IPPUC staff, anchored in professional knowledge and research, transformed the agency into a laboratory of ideas. Soon, it became known as the Sorbonne of Juvevê, the district in which the institute was born. As a result, all Curitiba urban policies have the IPPUC imprint and have evolved incrementally, as, using urban planning law as a guideline, city governments have enhanced some programs and adapted others to the city's needs. Overall, the IPPUC's original work remains in place and has served as a basis for expansion of the urban development process. A catalyst agent for change, the IPPUC's significance is its centrality in the institutionalization of an urban policy process embraced by successive governments. This broad and durable consensus has benefited both the city and its governments. Indeed, an analysis of public policy outcomes in Curitiba during six administrations (from Lerner in 1971 to Lerner in 1991), asserts that all mayors have followed compatible policies and advanced prior achievements, thereby generating

a flow of interconnected, interactive, evolving solutions—mostly devised and implemented by partnerships among private firms, non-governmental organizations, municipal agencies, community groups, neighborhood associations, and individual citizens. Curitiba is not a top-down mayor dominated city. It encourages entrepreneurial solutions. (Hawken 1999).

#### **Conclusion: Lessons and Challenges**

Even though the innovative and acclaimed public transportation system is the most well-known feature of Curitiba's master plan, the changes brought about by the plan are much more far reaching. For example, the World Resources Institute (1996), in a study of urban problems and sustainable urban solutions, emphasizes that, rather than being a static project, Curitiba's master plan constitutes a set of "simple, flexible and affordable solutions" that can be realized at a local level and adapted to changing

conditions. For example, the implementation of new buses, new routes, and new roads has produced a new mentality among residents about the importance and implications of public mass transit, while the vast public work required to put the new transit system into operation has demanded additional action on the delicate problem of land use. In turn, new housing projects and downtown revitalization have forced local authorities to deal with the flooding problem, ways to attract new investment to the growing city, and the best locations for new business and industries. In conjunction with its new industrial strategy, the municipal government has been forced to think in terms of environmental protection, issuing specific city ordinances for the establishment of factories. As a result, in a project without precedent in Brazil, an urban park program has created several green areas within the city, and the city's waste management system has became one of the most efficient in the nation.

Overall, this master plan has been a watershed for Curitiba, a policy instrument that has revamped the urban space, enhanced the provision of public services, and catapulted Curitiba into the international spotlight for its achievements in urban planning. Before the adoption of this urban strategy, the capital of Paraná state was a lackluster urban center, deprived of economic dynamism and of a reliable urban infrastructure. If, as happened elsewhere in Brazil, it had been left to the whims of uncontrolled growth without a sound package of urban policies, Curitiba would have remained an unorganized urban chaos struggling with serious transit and transportation problems and stranded in the quagmire so characteristic of the urban crisis in Brazil and elsewhere in Latin America. That is, the inability of city governments to commit themselves to urban enhancement and policy reform.

What is distinct and notable in the Curitiba case, then, is that, over the years, public officials' commitment to urban reform has generated an array of city policies that have improved on the 1965 master plan rather than derailing it. Especially important, such governmental commitment has created a critical citizenry focused on urban living improvement. That is, the mostly successful government interventions in an environment marked by policy consistency has led to the involvement in city affairs of architects, engineers, economists, political scientists, journalists, and other professionals who have participated, if not officially, then certainly through public debates and seminars designed to analyze city policies and suggest changes. In this apparently empowering process, the citizenry has been made to feel capable of pressing for and producing change. Ultimately, even if not all urban woes have been solved in Curitiba, and while other problems necessarily arise in a city whose growth rate is one of the fastest in the nation, the city's prevailing mentality that commitment to city policies be a prerequisite for any local government makes it strikingly different from the rest of Brazil.

From a critical viewpoint, because cities are live organisms whose urban dynamism results in new ills as old ones are cured, there is no perfect urban reform. Accordingly, the urban development process set in motion in Curitiba is not without imperfections. For example, it has not altered the reproduction of social inequalities, a bitter reality in any part of Brazil. In addition, Curitiba seems to be the victim of its own success as its governments face increased demands in the wake of population growth; most especially, there is the urgent need in the metropolitan area for public policy coordination between the core city and its

surrounding localities. Nonetheless, in contrast to the empty slogans like "First World City," "Ecological City," "Model City," and other meaningless catchwords used by politicians during electoral cycles, Curitiba and its urban development process is a case from which lessons can be drawn for the study of municipal government capabilities, administrations' ability to achieve policy goals, and ways to enhance governance in a country plagued by ineffective and unresponsive governments at local level. Against this rather negative backdrop, Curitiba governments have, for over more than three decades, demonstrated more capacity and ability to control city policy making and generate effective policies because of a policy framework supported by an organization that may be likened to a reservoir of ideas and knowledge. With its impressive technical capabilities, the IPPUC has not only become influential in both policy and politics but has acted as the incubator of all Curitiba's municipal programs and the cradle of its political leadership.

#### REFERENCES

Davidof, Paul. 1996. Advocacy and pluralism in planning. In *Readings in planning theory*. Ed. Scott Campbell and Susan Feinstein,Oxford: Blackwell Publishers.

Development Bank of Japan. 2000. Curitiba ecocity: Personal reflections on the most livable city in South America. Ed. International Cooperation Activities.

Farbman, David. 1960. A description, analysis and critique of the master plan. University of Pennsylvania,

Fernandes, Almir. 1990. Planejamento urbano em Curitiba: A institutionalização de um processo. In *Memórias da Curitiba urbana*. Curitiba, Brazil: IPPUC.

Friedmann, John. 1986. "The world city hypothesis." Development and Change 7: 69–83.

Hawken, Paul, Armory Lovins, and L. Hunter Lovins. 1999. *Natural capitalism: Creating the next industrial revolution*. Boston: Littlebrown and Co.

Kirdar, Uner. 1997. Cities fit for people. New York: United Nations Publications.

Lebret, Louis. 1962. Manifesto por uma civilização solidária. São Paulo: Duas Cidades Ed.

Margolis, Mac. 1992. City fixer. Christian Science Monitor, 42-50.

Mazza, Luiz Geraldo. 1992. A Sorbonne do meu bairro. In *Memória da Curitiba urbana*. Curitiba: IPPUC.

Memória da Curitiba urbana. 7 vols. 1989–1992. Curitiba, Brazil: IPPUC.

Menezes, Luiz Claudino. 1996. *Desenvolvimento urbano e meio smbiente: A experiência de Curitiba*. Campinas, Brazil: Papirus Ed.

Nordlinger, Eric. 1981. On the autonomy of the democratic state. Cambridge: Harvard University Press.

North, Douglass C. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.

Oikawa, Marcelo. 1993. Os alquimistas urbanos de Curitiba. Folha de Londrina, 18 July, 1993, Brazil.

- Oliveira, Dennison. 1998. Elites econômicas e a produção do espaço urbano. *Revista paranaense de geografia* 3: 7–17.
- . 1991. O campo do planejamento urbano em Curitiba. História: Questões & debates 12: 220-38.
- . 1995. A política do planejamento urbano: O caso de Curitiba. Ph.D. diss., Unicamp, Campinas, Brazil.
- Peyerl, Lourival. 2003. O planejamento `a luz do Censo 2000. Espaço urbano, 10.
- Pierson, Paul. 1999. Increasing returns, path dependence and the study of politics. Center for European Studies, Harvard University.
- Rabinovitch, Jonas, and John Hoehn. 1995. A sustainable urban transportation system: The surface metro in Curitiba, Brazil. Madison: University of Wisconsin.
- Rotella, Sebastian. 2001. Above congested São Paulo, the commute is heavenly. *Los Angeles Times*, 23 June, 2001.
- Schneider Mark, and Paul Teske (with Michael Mintrom). 1995. *Public entrepreneurs*. Princeton: Princeton University Press.
- Sewell, William. 1996. Three temporalities: Toward an eventful sociology." In *The historic turn in human sciences*. Ed. Terrance McDonald.. Ann Arbor: University of Michigan Press.
- Solutions. 2001. Efficient transportation for successful urban planning in Curitiba. *Case studies*. <a href="http://www.solutions-site.org">http://www.solutions-site.org</a>.
- Villaça, Flávio. 1995. A crise do planejamento urbano. São Paulo em perspectiva 9, no. 2: 45–51.
- Wilheim, Jorge. 1982. Projeto São Paulo. 2nd. ed. São Paulo: Paz e Terra Ed.
- . 1969. *Urbanismo no subdesenvolvimento*. Rio de Janeiro: Saga Ed.
- \_\_\_\_\_. 1965. São Paulo Metrópole 65: Subsídios para seu plano diretor. São Paulo: Difusão Européia do Livro Ed.
- Woodlief, Anthony. 1998. The path dependent city. Urban Affairs Review 33, no. 3: 405–37.
- World Resource Institute. 1996. Urban priorities for action. The urban environment. http://www.wri.org.
- Yates, Douglas. 1977. *The ungovernable city: The politics of urban problems and policy-making*. Cambridge: The MIT Press.