



GOVERNANCE OF INCLUSIVE TRANSIT-ORIENTED DEVELOPMENT IN BRAZIL

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EXECUTIVE SUMMARY

Transit-oriented development (TOD) is a sustainable urban development solution that has been successful in creating mixed-use, dense, walkable communities with access to high-quality transport. In Europe, North America, and parts of Asia, the TOD planning mechanism has been successfully designed and financed by public and private actors at the neighborhood, station, and corridor level to decrease congestion and sprawl, emphasize mass transit, and increase accessibility to jobs and other services. Areas of the global South, in particular Brazil, have also sought to adopt TOD planning methods in their own cities to confront issues of urban sprawl, congestion, and inefficiency, with limited success.

TOD does not automatically equate to better livability and quality of life for citizens. Development near transit can lead—and has led—to displacement of low-income households and mixed-income neighborhoods, resulting in inequality and exclusion. Developing TOD in an inclusive manner can help to mitigate some of these potential negative outcomes. An inclusive TOD ensures that current and future community members have a meaningful role in defining their needs and setting out the objectives for the design and implementation process of TOD. Inclusive design, finance, and governance mechanisms can reduce the potential for citizen and livelihood displacement and can encourage the equitable outcome of an ethnically and socioeconomically diverse TOD.

This paper seeks to understand how to build an inclusive TOD by incorporating governance principles of clear

CONTENTS

Executive Summary.....	1
Introduction.....	2
Governance Principles in Inclusive Transit-Oriented Development.....	4
Capacity-to-Act Mapping in Inclusive Transit-Oriented Development.....	8
Activities to Achieve Inclusive Transit-Oriented Development.....	22
Concluding Remarks.....	25
Annex.....	26
Acronyms and Abbreviations.....	30
References.....	32
Endnotes.....	35

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Suggested Citation: Lane, B.G. 2017. "Governance in Inclusive Transit-Oriented Development in Brazil." Working Paper. Washington, DC: World Resources Institute. Accessible at <http://www.wri.org/publication/governance-inclusive-TOD>.

institutional arrangements, policy alignment, public participation, and transparency and accountability into the implementation of TOD. Using these established governance principles, the paper analyzes potential challenges to inclusive TOD in three Brazilian urban redevelopment cases: Água Branca in São Paulo, Distrito C in Porto Alegre, and Porto Maravilha in Rio de Janeiro. Although these cities have not yet opted to pursue inclusive TOD, understanding the institutions and actors in place in each can help to shed light on the role of governance in inclusive TOD.

Building on fieldwork in the three case study cities, the paper applies a new “capacity-to-act” mapping methodology to sketch out the governance landscape—including institutions and actors—as it relates to inclusive TOD. The mapping exercise identified three broad findings concerning the governance of arrangements in each case study: (a) a high level of complexity in institutional relationships; (b) legally mandated but poorly implemented participatory processes; and (c) the need for a central actor with sufficient capacity to act.

Building on a desk review of governance principles and the capacity-to-act findings from the cases, the paper proposes activities that cities can undertake to pursue inclusive TOD in the future. Urban planners and practitioners, local government officials, and local community members can engage in these activities to better understand the inclusive TOD process, and to inform and influence the process and outcome for their cities.

1 INTRODUCTION TO INCLUSIVE TRANSIT-ORIENTED DEVELOPMENT

Transit-oriented development (TOD) is a sustainable urban development strategy for creating mixed-use, dense urban neighborhoods, station areas, and transportation corridors with access to services, jobs, and other amenities within a walkable distance, serviced by high-quality mass transport. TOD is a technical planning mechanism to control sprawl and increase sustainable transport use (Liu and L’Hostis 2014) built around Calthorpe’s (1995) and Certero’s (1998) principles of “density, diversity, and design.” It can be undertaken at multiple scales—neighborhood level, station level, or corridor/regional level. TOD requires multiple sectors to collaborate (land use, housing, transport, finance, urban development) and its success depends on support from different actors

(public, private, and community). This high degree of coordination makes it a difficult undertaking for many cities. TOD has been tried throughout the world—North America, Europe, parts of Asia (Hong Kong and Singapore), and Latin America (Curitiba, Brazil)—with varying degrees of success.

Importantly, TOD does not automatically equate to better livability and quality of life for all; new development near transit may displace low-income households and mixed-income neighborhoods (Mu and de Jong 2012), typically through increases in property values and rising cost burdens (Hersey and Spotts 2015a). Failure to acknowledge the need for inclusion in the planning and implementation of TOD, among other urban redevelopment processes, can lead to negative outcomes for community members.

Inclusive TOD addresses these concerns by ensuring that “the existing community has been involved in a meaningful way throughout the development process, prioritizes project goals/outcomes that meet the community’s stated needs, and mitigates the forces of displacement (and sometimes gentrification) through design, finance, and governance mechanisms in order to retain a diverse ethnic and socioeconomic community (WRI 2016).” The development and planning processes conducted by public and private stakeholders for inclusive TOD should be open and transparent. Decision-making processes should make information accessible to the public and use meaningful public participation processes in all stages of the project to achieve a periodic consensus, ensuring citizen empowerment and involvement.

Inclusive TOD attempts to deliver the economic, social, and transport benefits of TOD to all residents. Maximizing benefit and minimizing harm to low-income communities has not been the prime focus of TOD in the past. As Certero and Dai (2014) state, TOD has primarily been a mobility investment, not a city-shaping one. Moving to city shaping and inclusive transit oriented development requires a holistic vision of the transit system, the city, and regional development patterns, as well as an informed understanding of transport, housing, basic services, and livelihood needs of citizens, incorporating neighborhood, station, and corridor-level planning. Looking at urban form holistically and integrating social diversity into urban redevelopment plans can help reduce the likelihood of gentrification (Salat and Ollivier 2016).

The literature shows that successful implementation of inclusive TOD has so far been limited to select project areas in the United States—such as in Atlanta with the TransFormation Alliance and in Denver with Mile High Connects (Hersey and Spotts 2015b). Systematic adoption of inclusive principles for TOD across a transit corridor, city, or region, with reduced gentrification and displacement, has been limited. Nevertheless, good governance has been recognized as a vital element if future TOD is to be inclusive. As Liu and L’Hostis (2014) state, “there is still a wide gap between theory and practice, even in countries known for strong planning ... governance is often identified as the main barrier to converting strategic planning objectives into effective action.”

The role of governance in inclusive TOD

Inclusive TOD is achieved through interrelated and integrated processes and tools in three areas: (1) design, including the technical components of land use, urban design, and zoning that can make up a TOD project (Institute for Transportation and Development Policy 2015); (2) finance, including the structuring and management of financial and other assets, such as land, that enable the financing of a TOD project; and (3) governance.

Moving TOD toward inclusiveness requires the prioritization and implementation of governance principles such as clear institutional arrangements, policy alignment, public participation, and transparency and accountability. (This paper does not consider aspects of power such as political leadership and hierarchy in institutions.)

- *Clear institutional arrangements* refer to relations among public actors (and occasionally private or public/private partnerships) and their relative autonomy in policy, planning, and funding.
- *Policy alignment* refers to the interrelatedness and appropriate orientation of various public policies that guide and direct certain sectors (for TOD: housing, transport, urban development, land use, and finance) and scales of governance (vertical alignment across national, state, local levels). How these policies relate and interact is essential to the

success and sustainability of inclusive TOD because its objective is a broad holistic vision of urban development.

- *Public participation* refers to the opportunities open to citizens (such as voting, public hearings) to have a role in the governing and decision-making processes in their neighborhood development process, their city, and beyond.
- *Transparency and accountability* refers to the ability of citizens and civil society organizations to access information about key aspects of urban development and their capacity to hold public and private institutions responsible for actions taken.

The implementation of inclusive TOD is typically challenged by cost-minimization principles and the high cost of “place-based amenities” such as affordable housing (Cervero and Dai 2014; Carlton and Fleissig 2014). Increasing participation and decreasing displacement also can be expensive and time-consuming. For these reasons, there are few known successful and inclusive TODs and few known examples of good governance in inclusive TOD. However, there is growing recognition of the importance of incorporating good governance principles into the creation of TOD and inclusive TOD, as well as the need to incorporate these principles into broader urban redevelopment (Mu and de Jong 2012; Liu and L’Hostis 2014).

In the next section, this paper considers the role of the governance principles listed above in inclusive TOD, based on a literature review and a set of TOD cases. It then uses “capacity-to-act maps” to evaluate the current governance landscape in three cities in Brazil—Rio de Janeiro, São Paulo, and Porto Alegre.

Although these cities have not pursued inclusive TOD to date, their urban development institutions and actors offer insights into the role of governance in any future inclusive TOD initiatives. Based on the mapping exercise, the paper presents activities that urban planners and other stakeholders can use to achieve more inclusive transit-oriented development. Last, the paper suggests ways to better incorporate urban governance into TOD design, planning, and implementation.

2 GOVERNANCE PRINCIPLES IN INCLUSIVE TRANSIT-ORIENTED DEVELOPMENT

This section presents the results of desk research on the application of governance principles in inclusive TOD and the constraints that are evident in practice. The analysis is based on a review of eight TOD cases (see Box 1) and the literature. The discussion focuses on the governance principles in inclusive TOD presented above: clear institutional arrangements, policy alignment, public participation, and transparency and accountability.

2.1 Clear Institutional Arrangements

Institutional arrangements refer to the relationships between actors—public, private, mixed (public-private), and community—and the implications of these relationships for actors’ responsibility and capacity-to-act within the sphere of TOD. Three issues related to institutional arrangements are particularly relevant to inclusive TOD: a common goal and vision, external actors and decentralization, and institutional capacity.

Common Goal(s)

Essential to the implementation of inclusive TOD is a commitment to a common future and a shared objective (or objectives) conceived by multiple actors—public, private, and community. TOD implementation and planning work across multiple scales of government (municipal, state, regional, and national) and across sectoral silos; clear objectives that can be pursued by public institutions and actors at all levels can benefit the implementation of inclusive TOD.

Inclusive TOD is well-matched to the goals of sustainable urban development, as it supports the “achievement of ... regional economic growth, enhanced mobility and access, efficient municipal and transportation network operations, improved public health, and decreased cost of living” (Hersey and Spotts 2015b). An agreement to encourage mixed-use, pedestrian-friendly environments around transit stations enables dialogue and communication between different actors at different levels, which is central to success (Hess and Lombardi 2004; Liu and L’Hostis 2014). With agreement on common goals, institutional alignment is possible within existing policy, strategies, plans, and guidelines.

Box 1 | Cases Reviewed

- Bogotá, Colombia
- Dalian, China
- Delhi, India
- London, England
- Lille, France
- Quito, Ecuador
- Region Scania, Sweden
- Saint-Denis, France

In Lille, France, a shared local regeneration policy and intermunicipal development charter—with “a shared assessment of the situation, common strategic goals, new instruments to set up (a global spatial vision, a new public urban development agency, etc.)”—were essential to regional urban redevelopment (Lecroart 2009).

Decentralization

Even with shared objectives across public institutions, institutional constraints can impact the ability of many local institutions to act on TOD. As Carlton and Fleissig (2014) state, “TOD projects are heavily impacted by upstream decisions made by stakeholders who may have acted decades earlier,” creating infrastructure such as highways and private real estate developments such as low-density housing projects. This works against the pursuit of mixed-use, mixed income, dense TODs.

Managing these upstream decisions and decision makers can be difficult for local actors. Many local actors—such as a mayor, a council member, or the head of the municipal housing authority—are limited by national and state regulations that impact their fiscal and functional autonomy. They may also lack political power, since many local actors belong to political parties that differ from state or national political parties (particularly in Brazil). Specifically, decentralization of service provision to the lowest feasible level has led to a division of responsibilities and funding mandates, making it difficult for local actors to manage cross-cutting sectoral policies such as TOD (Stead 2008). With differing objectives, resources, rules,

regulations, and stakeholders, it is difficult to coordinate, even though success is contingent on coordination (Hersey and Spotts 2015b). Lack of clarity or undefined rules for coordination and guidance can create additional barriers to the creation of TOD. Transparency of roles, spending, and accountability of all relevant stakeholders to agreed-upon objectives can help with the successful implementation of inclusive TOD.

Institutional Capacity

Weak institutional capacity impedes the implementation of TOD and inclusive TOD. Even with common goals, low levels of technical capacity to implement TOD can lead to limited resources and a failure to implement (Cervero and Dai 2014). Additional institutional factors, such as poor interagency coordination, limited TOD experience, and weak political influence can further exacerbate low levels of capacity to work on TOD (Cervero and Dai 2014). Because transit-oriented development is cross-sectoral, a diverse range of specific capacities are needed to develop them. Beyond traditional land-use and transport planning, TOD requires higher institutional capacity than is required for greenfield development, owing to the added complexity of coordination among private and public actors for land, transport, and housing. Such capacity is rarely found among staff of public institutions (Rodriguez and Vergel 2013).

2.2 Policy Alignment

Policy alignment across sectors and across scales of government, combined with clearly defined institutional arrangements, can work successfully to create inclusive TOD (Hersey and Spotts 2015b). Finding synergies in policy alignments for TOD requires both cross-sectoral integration and alignment of incentives.

Cross-Sectoral Integration

Without cross-sectoral integration, transport, housing, and land-use policies are developed in isolation. When these sectoral policies are simply aggregated in an attempt at TOD, the nuances of the synergies and trade-offs between sectors are lost (Hersey and Spotts 2015b). Wood and Brooks (2009) highlight the “need to facilitate the coming together of interdisciplinary actors—from public, private, and nonprofit sectors—to share best practices and research, and to identify and prioritize opportunities that will support the level of coordination

and strategic alignment required in an era of scarce resources.” This is especially the case for TOD and urban redevelopment.

In the Lille development, new planning tools were developed—such as “DIVAT” (zones for valorizing transport corridors) and “Contrat d’Axe” (corridor contracts)—in order to attempt to codify and define intersectoral policies for transport and urban development (Liu and L’Hostis 2014). Recognizing the need to coordinate between sectors but also the need for sensitivity to local context, these two mechanisms worked to engage and integrate institutions and stakeholders that typically did not coordinate.

Effective city governance in terms of coordination, system integration, and proactive or strategic urban planning can help TOD succeed and is crucial when goals cut across sectors, as is the case with sustainable development goals (Mu and de Jong 2012). In Dalian, China, there was a recognition that “good governance is ... critical ... because a weak and fragmented administrative system, or one that does not have a strong and smart vision on urban development, can never produce TOD,” let alone an inclusive TOD (Mu and de Jong 2012). This holds true in Bogotá, Colombia, as well, where lack of early efforts to coordinate and prioritize integration has led to investments that have not materialized into anything beyond mobility projects (Rodriguez and Vergel 2013; Suzuki et al. 2015). Hess and Lombardi (2004) have found that in infill TOD, where transit agencies and local governments work to coordinate TOD policies, TOD commitment is strong; but in cities where interagency communication is either limited or combative, there is little chance that TOD will succeed. Coordination and integration across sectors and actors that have numerous and different goals represent a challenge, but they are essential to the success of inclusive TOD (Hersey and Spotts 2015b).

Incentive Alignment

Cross-sectoral integration can be facilitated and encouraged by aligning various incentives for collaboration among the different actors involved in the coordination and implementation of inclusive TOD. Policy and funding silos are currently “a significant barrier to building more transit, focusing growth around transit, and ensuring that TOD benefits all” (Belzer

and Poticha 2009). Incentives can include holistic performance measurement, which looks at cross-sectoral goals such as prioritizing and rewarding the development of well-located, transit-accessible affordable housing. Well-located housing requires coordinating the work of transport, housing, and urban development institutions, rather than prioritizing and rewarding the development of affordable housing, regardless of its location and access to transport. This prioritization of “affordable” over “well-located” has occurred in national home-building programs such as Minha Casa, Minha Vida in Brazil, and INFONAVIT in Mexico.

The decision criteria, timeline, and interests of various public stakeholders (not to mention private and civil society actors) are typically very different and can create little to no incentive for collaboration (Carlton and Fleissig 2014). This lack of alignment can result in “suboptimal leveraging of land, resources and money” (Belzer and Poticha 2009), which, in turn, might lead to delayed or poorly implemented TOD. Discussions among municipal or regional actors around bottom-line objectives, such as greenhouse gas emission reduction, or access to certain public services, can help align incentives, particularly individual sectoral objectives (Stead 2008).

Access to information among actors, and transparency in negotiations and competition, is essential to achieving aligned incentives. Public sector agencies, with different goals and objectives, may tend to have little incentive to collaborate or share resources. Bringing openness and transparency to the decision-making process can help agencies to collaborate and work together, moving beyond territoriality and institutional silos. In the case of Region Scania in Sweden, the initial urban development strategy failed due to poor incentive alignment across municipalities, with municipalities working independently, rather than jointly, toward a regional plan. The current strategy has brought more success in implementing TOD because it is “based on various means of governance: it provides information to frame the understanding of the region, models for how to study or calculate the potential of TOD, and good examples and forums for dialogue and collaboration with the municipalities, since it is primarily through local planning that the vision can be realized” (Qviström 2014). Aligning institutional and sectoral incentives to work across sectors and across jurisdictions is one way to achieve more inclusive TOD.

2.3 Public Participation

A core goal of inclusive TOD is improved quality of life for current and future residents. However, much of TOD planning and implementation relies on action by public and private institutions with little public participation, beyond the election of public officials, and little accountability of public and private actors to community members. Emphasizing increased public participation can positively affect the inclusiveness of TOD through the consideration of beneficiaries’ different needs and inputs. As suggested by Wood and Brooks (2009), an ongoing multistakeholder dialogue and investment is necessary in order to support a TOD that is responsive to local needs. Citizens are essential in the development process of TOD because they are able to “perceive and experience policies in a more holistic manner and are more critical of exclusively sectoral policies” than public agencies and private actors that may think along sectoral lines (Stead 2008). Including community groups early in the TOD process can serve as a conflict-mitigation measure and may “increase the likelihood that the end result is sustainable” as a long-term durable outcome (Wood 2009). Working with stakeholder groups can help to combat the potential for not-in-my-backyard opposition. A public input process, using consultation hearings or community designed charrettes,¹ that integrates peoples’ concerns into the plans, policies, and processes that create TOD in a community can go a long way toward inclusive TOD success (Carlton and Fleissig 2014).

In both Bogotá, Colombia, and Quito, Ecuador, “lower income communities organized to manage positive and negative effects of land development and the BRT investment in their vicinity” (Rodriguez and Vergel 2013). This community-led engagement brought new issues to the forefront in recognition that the plans were incomplete and needed complementary actions to avoid urban decay and increase accessibility. Community participation can also help to identify areas of cultural or ecological significance that citizens would like to prioritize.

Many individuals and organizations may be unable to engage in the technical “details such as floor-area ratio and walkability metrics,” which can further exacerbate the “barrier to the broad community support necessary for successful” inclusive TOD (Hersey and Spotts 2015b). With technical design processes for TOD, the development of a plan for public participation can empower the

community to engage and understand the proposed changes and developments. In the TOD process in Saint-Denis in Paris, a participatory legal framework supported consensus building through open debate involving different levels and processes, including neighborhood consultative councils, municipal councils, local authorities trust building, stakeholder involvement and public participation through open forums, and an ongoing community approach (Lecroart 2009). Without this level of public participation, the TOD process could have been subject to greater controversy and public discontent. The inclusion of stakeholders early in the process improved “the ability of transit to catalyze positive change for communities and protect against some of the undesirable effects of disruption” (Living Cities 2009).

Although public participation and stakeholder engagement are important in the pursuit of a more inclusive TOD, under some circumstances, they can lead to less than ideal outcomes. In particular, stakeholder engagement should be at the right scale. If engagement is too narrow, limited to homeowners around the proposed TOD, only a privileged few will be empowered to the detriment of the broader community. If engagement is too broad, it can overlook legitimate community concerns. Additional concerns arise when vested interests engage in participatory processes and co-opt them. These risks are inherent in many participatory processes. Resources should be made available to support participation in large urban renewal processes such as TOD. Awareness of these issues and active engagement in practices to mitigate their downsides can enhance public participation and in turn, the inclusive TOD outcome.

2.4 Transparency and Accountability

Private and public actors tend to drive TOD, with the private sector leading the actual design, construction, and management of commercial and residential spaces, and the public sector providing transit service, regulations, policy, and typically finance. The large role of the private sector often reinforces an imbalance in how citizens engage in TOD. Citizens typically have few effective ways to hold the private sector accountable beyond legal action for poor design or construction of developments or the gentrification of a neighborhood that results in displacement of lower-income households. Affordable housing quotas and percentages may be obligated in

urban redevelopment, through inclusionary or incentive zoning practices or density bonuses, but the affordable housing requirement can be negotiated away, delayed, or not enforced, and the mandatory requirements are typically insufficient to meet demand (Hersey and Spotts 2015b; Lovells et al. 2014).

In London, the redevelopment plan for the 2012 summer Olympics—centered around the extensively renovated and expanded Stratford rail station—is one globally recognized project that has not delivered on its promised legacy outcomes of affordable housing. The project appears to have favored greater economic activity and quicker construction, the trade-off being lower percentages of affordable housing and a higher minimum income threshold required to qualify for the available housing (Bernstock 2014; Donovan 2014). The Delhi Commonwealth Games village, built for the 2010 Commonwealth Games, is another example of affordable housing promises made by private and public actors that ultimately resulted in displacement of current residents, increased public expenditures through a public bailout of the private developer, and luxury apartments instead of hostels (Mishra et al. 2010).

Inclusive TOD can be more expensive and less financially viable for private and public actors. Therefore, some are produced “at the expense of lower income groups being marginalized and isolated” through displacement or increased costs. Essential public services, such as schools or public spaces, can be underdeveloped because of their expense (Rodriguez and Vergel 2013). For inclusive TOD to work, the legal and regulatory structures governing redevelopment should attempt to align the rights, responsibilities, and incentives to achieve the most socially optimal outcome—not just the best market outcome. Citizens may seek to reserve the right and capacity to hold the public and private sectors accountable for determining the best use of public resources and land. Community-benefits agreements—legally binding commitments among planners, developers, and citizens—have occasionally been used in the United States to outline necessary projects and benefits “that offset negative externalities” of certain urban redevelopment. These agreements may provide a means for increased transparency and accountability (Hersey and Spotts 2015b).

Transit-oriented development takes place over a much longer time horizon than the municipal election cycle, making it hard for the public sector to coordinate long-term visions and objectives (Ramírez and Rosas 2013). The political will and commitment of the public sector to develop long-term, inclusive solutions to urban development needs is vital to the success of inclusive TOD and to cities more broadly. The manner in which citizens engage with elected officials and their policies will determine the extent to which they can hold the government accountable for poor TOD decisions. However, because of heavy private sector engagement, there is also a need to enhance public participation, accountability, and transparency within private involvement in TOD development, where better practices and feasible solutions are necessary.

3 CAPACITY-TO-ACT MAPPING IN INCLUSIVE TRANSIT-ORIENTED DEVELOPMENT

3.1 Presentation of the Process

This section reviews the applicability of the governance issues discussed above to three cities in Brazil and identifies potential barriers to the implementation of inclusive transit-oriented development at those sites. Integrated land use and high-capacity transport planning in Curitiba, Brazil, resulted in some of the first transit-oriented developments in the 1970s; since then, however, there have been very few implemented TOD cases in Brazil. Given this limitation, the three cases reviewed here are urban redevelopment projects with the potential to develop into inclusive transit-oriented development. The case studies are Distrito C in Porto Alegre, a community-driven revitalization project; Água Branca in São Paulo, a government-led urban consortium project that was master planned; and Porto Maravilha in Rio de Janeiro, a public-private partnership redevelopment of an old port (see Figure 2).

Information for each case was gathered through desk review and fieldwork by a project team² in the three neighborhoods, conducted over three months in 2015. Reviews of policy, regulations, media, and research literature contributed to a deeper understanding of each case. Project team members interviewed public officials and community members at each project site. In-depth discussions of the project's findings and outcomes are in a separate report (WRI Brasil Sustainable Cities forthcoming).

Figure 2 | Map of Case Study Locations in Brazil



3.2 Introduction to Capacity-to-Act

In order to systematically understand, analyze, and diagnose governance issues in the three cases, the project team developed a “capacity-to-act” mapping method that shed light on the clear institutional arrangements, policy alignment, public participation, and transparency and accountability in the three cities. Capacity-to-act refers to the various roles, responsibilities, and actions that an actor or a multitude of actors can take to affect a particular issue and influence outcomes. According to the World Bank, “a city’s capacity to act ... depends on levers beyond its control, such as the cooperation of national or state governments, thus requiring city leadership to occur at many levels, including the regional” (Cities Alliance n.d.). The capacity-to-act map looks at the roles, capacities, and relationships among the many actors involved in the planning and implementation of inclusive TOD. The maps build on three relational diagrams from the literature that offer a practical method to map and understand the relationships among various actors and sectors, and their particular roles and capacity in creating and achieving an anticipated outcome. Specifically, the capacity-to-act maps build on the OECD institutional mapping model, Lefevre’s (2008) decision-making process map, and LSE Cities’ (2014) governance structures. A description and illustration of each is provided in the annex.

The Capacity-to-Act Map

The capacity-to-act map used in this paper is multi-scale, multi-actor, multi-sectoral, and multi-action-oriented (see pp. 13, 16, and 20 for the maps.) The map itself is placed in a frame that represents the scales and sectors, with the columns covering the different sectors associated with transit-oriented development, notably housing, transport, urban development, and finance (and the Olympics for Rio de Janeiro). The map is divided into four quadrants, with each quadrant representing a different governance scale: the federal, the state and metropolitan, the municipality, and the neighborhood. The actors (see Figure 3) are portrayed through rectangles with different shading placed in each of these quadrants and columns, representing public, private, community, and mixed actors. If an actor has jurisdiction across multiple sectors, that shape is shown across those columns in which the actor has the capacity to act. Finally, the capacity-to-act map looks at some of the actions these actors can take and relationships they have with others. This is represented through colored arrows with eight different actions: (1) funding (black), (2) voting (red), (3) participation or representation (orange), (4) regulation or policy (yellow), (5) concessions (gray), (6) management (green), (7) coordination (blue), and (8) approval or oversight (purple). These actions were selected through a review of the three relational diagrams described in the annex and through the fieldwork in the three cases; they are not meant to be exhaustive.

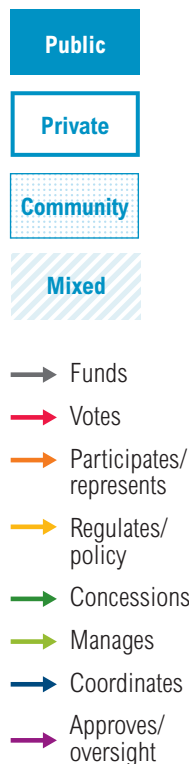
The capacity-to-act map graphically represents the complexity of the governance of a multi-sectoral, multi-scale urban development project. The map highlights information about barriers and opportunities to help guide or alter the future implementation of inclusive transit-oriented development. The creation and use of this map can help to diagnose issue areas in institutional arrangements, policy alignment, public participation, and transparency and accountability. It also delineates weak or strong capacity-to-act for certain key stakeholders, such as community members, in the creation of inclusive transit-oriented development.

3.3 Discussion of Cases

Introduction to Urban Redevelopment and Transit-Oriented Development in Brazil

Between 1950 and 2000, the urban share of Brazil’s population grew from 44 percent to 81 percent (Filardo 2013). Responding to decades of automobile-oriented, unequal urbanization, the country became an early world leader in sustainable urban development and participatory governance. The city of Curitiba was a sustainable transport pioneer in the 1970s, developing housing and commercial areas around bus rapid transit corridors. Cervero states that Curitiba “arguably remain(s) the best global example of BRT TOD” (Cervero and Dai 2014). With dedicated, visionary city leadership under then-Mayor Jaime Lerner, the city committed the bus rapid transit (BRT) work to improve not only mobility but also to “shape urban growth in a more sustainable transit-oriented format” (Cervero and Dai 2014). At the local level, officials shaped zoning, tax policies, land assembly, and infrastructure investments toward TOD and targeted significant urban development investments to BRT corridors. Since this work in Curitiba, Brazil has seen a growth in bus rapid transit development in other cities, but the adoption of TOD has been considerably slower (Cervero and Dai 2014). There has been, however, recognition of the need to coordinate certain services, such as mobility, across municipal boundaries. A metropolitan law has been introduced in Brazil, the Statute of the

Figure 3 | Capacity-to-Act Map Legend



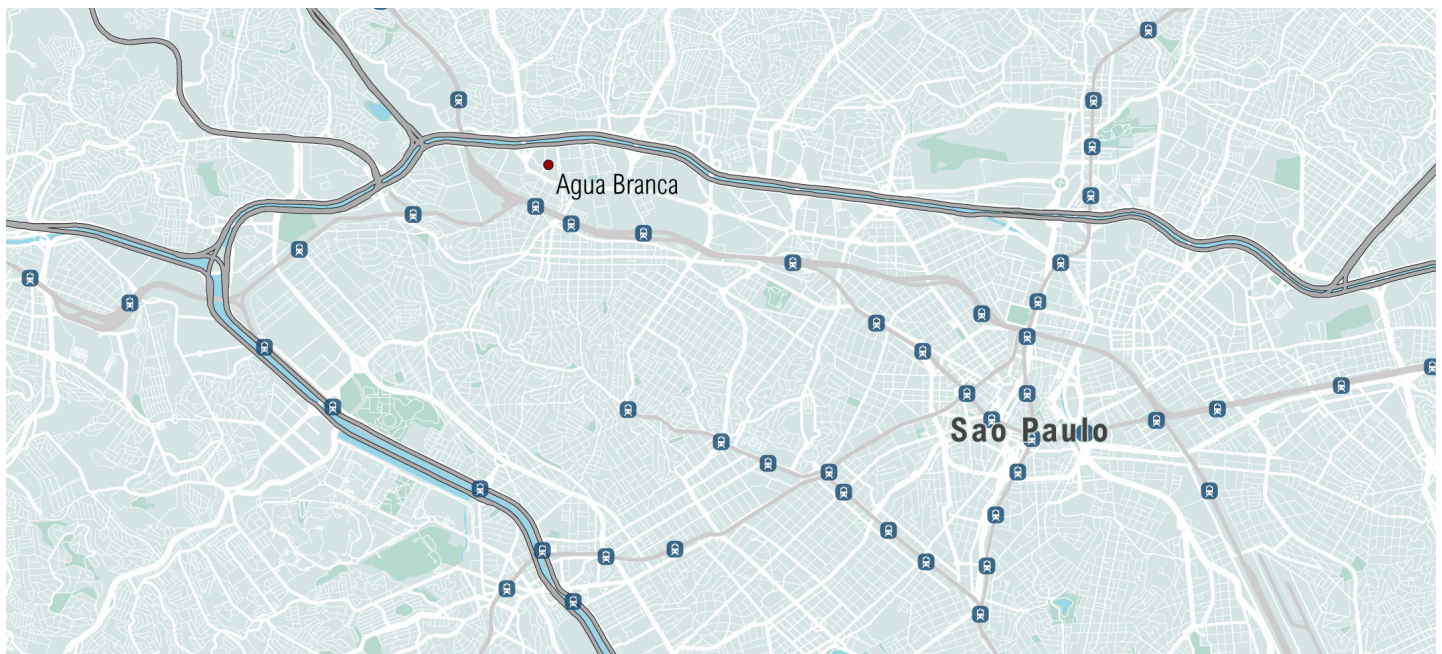
Metropolis, which encourages municipalities to work to find the right governance institutional arrangements for each metropolitan region (World Bank 2015).

Commitments to participation and sustainable urban development were enshrined in the Brazil Federal Constitution through the City Statute of Brazil, the most important national policy and organizing framework for urban development. Passed as Law No. 10.257 of 2001, the City Statute empowers citizens to engage in the way their city develops—around urban development, land use, occupation, and citizen participation, while requiring urban actors (public and private) to prioritize social value and function, and use value over exchange value (Fernandes 2007; Polis Inclusive 2011). The statute passed into law following a decade of discussions, negotiations, and debate, incorporating social movements, environmental movements, NGOs, municipalities, and state and federal institutions. The law holistically approaches the urban context at the national level while prioritizing citizens and social functions, pulling together previously disparate attempts at urban development programs (Carvalho et al. 2010).

The City Statute precipitated the creation of the Ministry of Cities in 2003. The ministry has the primary responsibility to help “states and municipalities to consolidate a new urban development model embracing housing, sanitation and urban transport” (Carvalho et al. 2010). The statute also created acceptance and recognition of new tenure titles and highlighted the social function of property, also known as “the Right to the City.”

The impact of the City Statute in Brazil has varied due to implementation issues and vested interests; on occasion, judges have ignored the statute and its principles in their rulings (Fernandes 2007; Carvalho and Rossback 2010). Mechanisms for enforcement of the legal framework are limited, which inhibits the success of the City Statute in Brazil (UN Habitat, CAF, and Avina Foundation 2014). As urbanized Brazil looks to develop inclusively and sustainably, the City Statute is a powerful first step toward these goals. Nevertheless, implementation and enforcement of the participatory and sustainable framework in specific projects such as urban redevelopment and transit-oriented development remains a concern.

Figure 4 | **Água Branca in São Paulo**



Água Branca in São Paulo

BACKGROUND

Located in São Paulo, the capital city of São Paulo State, Água Branca is a former industrial site of approximately 500 hectares made up of three neighborhoods—Água Branca, Perdizes, and Barra Funda—that are currently under redevelopment. Due to the proximity to the river and large infrastructure such as roads, warehouses, and rail, the area is spatially fragmented. The remnants of industrial infrastructure, large impermeable areas, and the nearby river have led to flooding issues. The site is low density and well-situated close to the Barra Funda transport station, which includes metro, bus, and intercity rail transport.³

In 1990, the city of São Paulo pioneered urban development mechanisms by introducing, through its legislature, an instrument known as Urban Operations (UO), of which Água Branca is one of the first. A UO is “a structural transformation instrument for a part of the city, promoted through a partnership between public authorities and private developers,” set up in order to incentivize private investment to produce desired urban transformation (Sandroni 2010). UOs are more efficient and coordinated than typical bureaucratic processes and can make alterations in the use of land, occupation requirements, building codes, and other aspects of development in negotiations with private developers (Biderman et al. 2006). Through UOs, the city is able to issue and sell certificates for additional construction potential (CEPACs) to developers, who can then build more densely.

Água Branca became a UO in 1995 (through Municipal Law n. 11.7774/95) and has seen multiple revisions of its urban redevelopment plans since then, with the most recent approved in 2013. The goals of the 2013 urban redevelopment plan for Água Branca are to “improve mobility, promote diversity and social integration, promote mixed use and higher densities, order and value urban landscape, promote environmental and infrastructure improvements, and assure (economic) viability” (Queiroz 2014). Because of financial recessions, an initial lack of private sector interest in the underdeveloped area, and other issues, the UO has experienced varied success in attracting development to

the area (World Bank 2007). Interest and construction picked up when the recession ended in 2005, leading to speculation and an increase in costs in the neighborhood (Sandroni 2010). However, with the new financial and political crisis in Brazil, the ultimate success of the urban redevelopment of Água Branca remains uncertain.

Observations from the Água Branca Capacity-to-Act Map

POLICY ALIGNMENT AT THE FEDERAL LEVEL

At the federal level, the diversity of actors is evident, as are the sectoral responsibilities of each of the actors. While coordination across sectors at the federal level is assumed to occur, there is no one clear actor responsible for pursuing integration across sectors. This is a clear example of lack of policy alignment. There is a lack of coordination between key elements of transit-oriented development, particularly housing and transport. Representative of this lack of coordination is the Minha Casa Minha Vida federal social housing program, which has situated much development outside cities in areas far from transport, demonstrating issues with incentive alignment toward inclusive TOD (Embarq Brasil 2015). The lack of coordination between MCMV and the Cities Ministry at the federal level has created isolated, distant neighborhoods, instead of investment in compact, connected, and coordinated urban redevelopment in areas such as Água Branca.

INSTITUTIONAL ARRANGEMENTS AT THE STATE AND METROPOLITAN LEVEL

The need for metropolitan coordination as an institutional arrangement is evident at the state and metropolitan levels in the capacity-to-act map. Transportation has many actors at the metropolitan scale, both public and mixed public-private, who are working to provide adequate regional service to the large metropolitan area of São Paulo. However, many of these actors are in competition with each other and they do not necessarily coordinate to provide the greatest coverage and quality of service. They also tend not to coordinate with the housing sector, which is imperative for transit-oriented development. Additionally, citizens at the community level have limited opportunities to participate or hold to account the transport actors at the metropolitan level.

TRANSPARENCY AND ACCOUNTABILITY AT THE MUNICIPAL LEVEL

At the municipal level, there are multiple mixed or public-private partnership actors, who have significant capacity to act, in particular through approval and oversight of the work conducted by the Urban Operation of Água Branca. Field interviewees expressed concerns about the role of public-private partnerships or mixed companies at the municipal level and the ability of actors to hold these partnerships or companies accountable to the agreed-upon objectives (WRI Brasil Sustainable Cities forthcoming). One such objective is that the UO is expected to commit at least 10 percent of resources expended to housing for low-income families. In spite of this objective, in Água Branca (as of 2014) no resources had been committed to the creation of affordable housing (Santoro 2014). There is a clear need for improved oversight, through transparency, accountability, and capacity-to-act for citizens to co-create inclusive redevelopment of their community.

PUBLIC PARTICIPATION AT THE NEIGHBORHOOD LEVEL

Participation at the community level is limited to voting for federal, state, and municipal officials, and for representatives in the management group for the Urban Operation of Água Branca. This management group, as in Porto Maravilha (discussed below), is made up of both community representatives and private actors. There are clearly concerns as to whether Urban Operations such as the one in Água Branca prioritize private real estate operations without pursuing other needs in urban redevelopment, such as TOD, affordable housing, public space, health, and education (Neto and Moreira 2012; Gonçalves 2011). Accordingly, the make-up of the management group, the Grupo do Gestão OUCAB, is a potential avenue for greater participation of the community in the decisions of the neighborhoods within the Água Branca Urban Operation development, potentially through community actors such as Movimento Água Branca.

Preliminary Conclusions

The capacity-to-act map for São Paulo highlights some key areas of interest for the development of inclusive transit-oriented development in Água Branca. These preliminary conclusions could help guide future implementation of aspects of inclusive TOD in Água Branca, if the city chooses to prioritize inclusive TOD as part of its urban redevelopment strategy.

- Increased coordination and dialogue between transportation and housing actors at the metropolitan level could help with cross-sectoral integration while ensuring adequate capacity to act for citizens beyond typical voting feedback, which can get lost at the metropolitan level.
- At the municipal level, while the Urban Operation has a significant role to play in the redevelopment of Água Branca, the role citizens can play in the deliberations and decisions of the UO is constrained by the prevalence of private actors on the Grupo do Gestão OUCAB. Therefore, elevating the role of citizens in the Grupo do Gestão could enhance public participation and citizen engagement, support accountability, and create better, more inclusive outcomes in the UO.
- Movimento Água Branca, a prominent community group identified in field interviews, is currently involved only nominally in the urban redevelopment process. The group represents a potential partner for stakeholders in developing a future inclusive TOD strategy or implementation of social interest housing.

Figure 5 | Capacity-to-Act Map for São Paulo

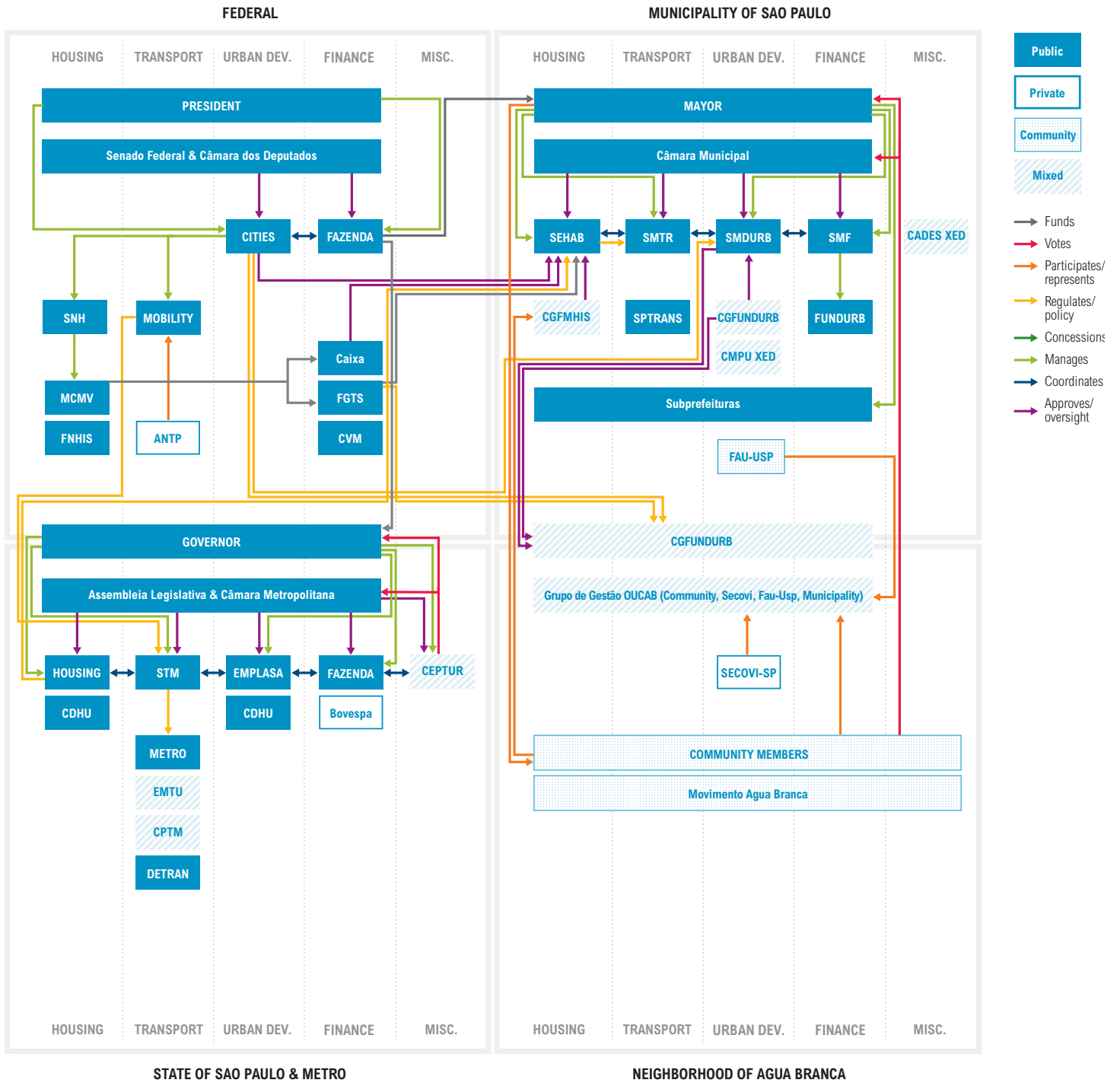
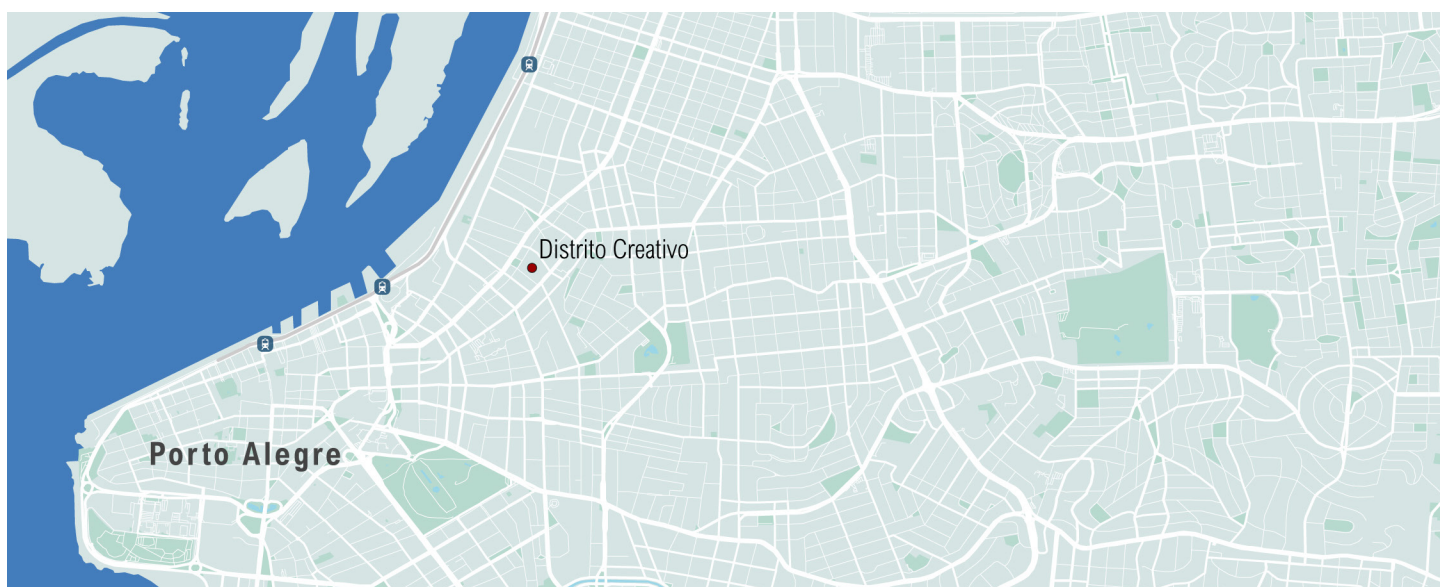


Figure 6 | **Distrito C in Porto Alegre**



Distrito C in Porto Alegre

BACKGROUND

Distrito C, or the Creative District, is an area in Porto Alegre that was created in 2013 by a community organization called URBS NOVA, a “social innovation agency” that looks to solve social programs with effective, sustainable, and just solutions leading to outcomes that support the community, not individuals (United Cities and Local Governments 2014). Seeking to create and preserve a space in the city for “participation, experimentation, collective creation, and innovation,” URBS NOVA has worked with local artists and creative entrepreneurs to recognize and increase the social and economic impact of collective community action.¹

As part of the 4th District administrative region of Porto Alegre, Distrito C is made up of multiple neighborhoods such as Floresta, with close proximity to the historic center of Porto Alegre, and the upscale neighborhoods of Independência and Moinhos de Vento.² Multiple 4th District urban renewal projects are underway with various partners, including the 100 Resilient Cities program, the City Entrance Integrated Program, and local participatory budgeting processes (Miron and Formoso 2010; Scruggs 2014; Koonings 2004). The area has access to the central business areas of Porto Alegre and has high-quality transit accessibility via multiple bus lines, the Farrapos Avenue subway station, and two large avenues.

The neighborhoods that make up Distrito C are economically depressed because of the loss of key industries and have faced problems with poor security (a joint responsibility of federal, state, and municipal actors), abandoned houses, congestion, and drug use issues (WRI Brasil Sustainable Cities forthcoming). In response, URBS NOVA has focused on maximizing creative and entrepreneurial activities, hoping to urbanize the neighborhood, increase economic prosperity, and improve the quality of life for residents (WRI Brasil Sustainable Cities forthcoming). Specific objectives of URBS NOVA and Distrito C are valuing and promoting cultural diversity; promoting urban revitalization; bringing greater quality of life for residents, entrepreneurs, and visitors; and supporting the actions of neighborhood organizations with social purposes.³ Working with entrepreneurs, residents, and municipal government officials, URBS NOVA has been active in the urban public space looking to improve sanitation, increase garbage collections, increase mobility through local cycle routes and pedestrian improvements, and protect national heritage, among other activities.

Observations from the Distrito C Capacity-to-Act Map

POLICY ALIGNMENT AT THE STATE AND METROPOLITAN LEVEL

The metropolitan region of Porto Alegre, in the State of Rio Grande do Sul, has a well-established metropolitan

governance structure that covers thirty-four municipalities. The metropolitan government supports cross-sectoral integration and incentivizes policy alignment in the region.⁴ The State Foundation of Metropolitan and Regional Planning (METROPLAN) is responsible for preparing and coordinating plans, programs, and projects related to urban and regional development of the metropolitan region. METROPLAN is expected to promote integrated development among the municipalities and across certain sectors, such as transport and regional development, thus supporting the integration and alignment of policies and plans across some of the sectors important in TOD. However, because the region represents a large and diversified economy and a wide range of municipal needs, there is a question of whether and how the particular urban needs of Porto Alegre are represented in the planning and implementation of projects under METROPLAN (Metropolis Initiatives 2014).

PUBLIC PARTICIPATION AT THE MUNICIPAL LEVEL

Porto Alegre has an extensive participatory history, having pioneered participatory budgeting in 1989, whereby citizens determine the percentage of the municipal allocation of funds to be spent on public works (Koonings 2004). Civic participation is a cultural element of Porto Alegre and plays a large role in the implementation of Distrito C work. However, there is limited involvement on the part of the municipality in the neighborhood revitalization, as shown in the capacity-to-act map. Weaknesses identified in field interviews are the lack of mobilization of the local government to meet the security and basic service needs in the area, and limited planning for future improvements (WRI Brasil Sustainable Cities forthcoming). The City of Porto Alegre is currently studying a possible revitalization project; however, no information was available at the time of our fieldwork. The municipality could look to engage more deeply with the community actors leading the revitalization of this neighborhood, respecting the Right to the City while supporting and engaging in new ways of community-led urban redevelopment.

ACCOUNTABILITY AT THE NEIGHBORHOOD LEVEL

As a community-driven urban redevelopment initiative, Distrito C has high levels of informal community input and involvement in the activities necessary to shape the neighborhood. This is demonstrated by the many community actors represented in the neighborhood quadrant of the capacity-to-act map. While acting collectively to create a better neighborhood, these

actors do not necessarily have adequate institutional capacity to become involved with negotiating large-scale public improvements or to hold private or public actors accountable. Therefore, moving beyond informal participation methods, formalizing the role of the community, and seeking out a political public commitment to act from the municipal actors will be important steps in the creation of inclusive urban redevelopment in Distrito C in Porto Alegre. As Jorge Piqué, one of the founders of URBS NOVA, states: “The revitalization of private enterprises or public space is accelerated if the government creates mechanisms and incentives to meet these demands” (WRI Brasil Sustainable Cities forthcoming).

Preliminary Conclusions

The capacity-to-act map for Porto Alegre highlights some key areas of interest for the development of inclusive transit-oriented development in Distrito C. These preliminary conclusions could help guide future engagement in Distrito C should Porto Alegre choose to prioritize inclusive TOD as part of its urban redevelopment strategy.

- URBS NOVA is a powerful champion for urban revitalization of the 4th District, yet has limited capacity-to-act in transit-oriented development. A well-organized civil society organization, URBS NOVA is constrained by its limited funds, small size, and weak institutional capacity. Working in tandem with the municipal government can increase URBS NOVA’s capacity to act in the best interest of the community and local entrepreneurs in the pursuit of more inclusive urban development.
- METROPLAN is a well-established metropolitan institution that currently works to integrate regional development across sectors. It is well-positioned to act as a potential TOD champion, supporting the development of a TOD strategy and working with actors at multiple scales of governance to advance toward inclusive TOD.
- With significant community support for sustainable urban redevelopment, the municipality could capitalize on the neighborhood mobilization to help co-produce inclusive urban development with the community through an extensive participatory process. This is currently occurring regarding the issue of resilience in the neighborhood.

Figure 7 | Capacity-to-Act Map for Porto Alegre

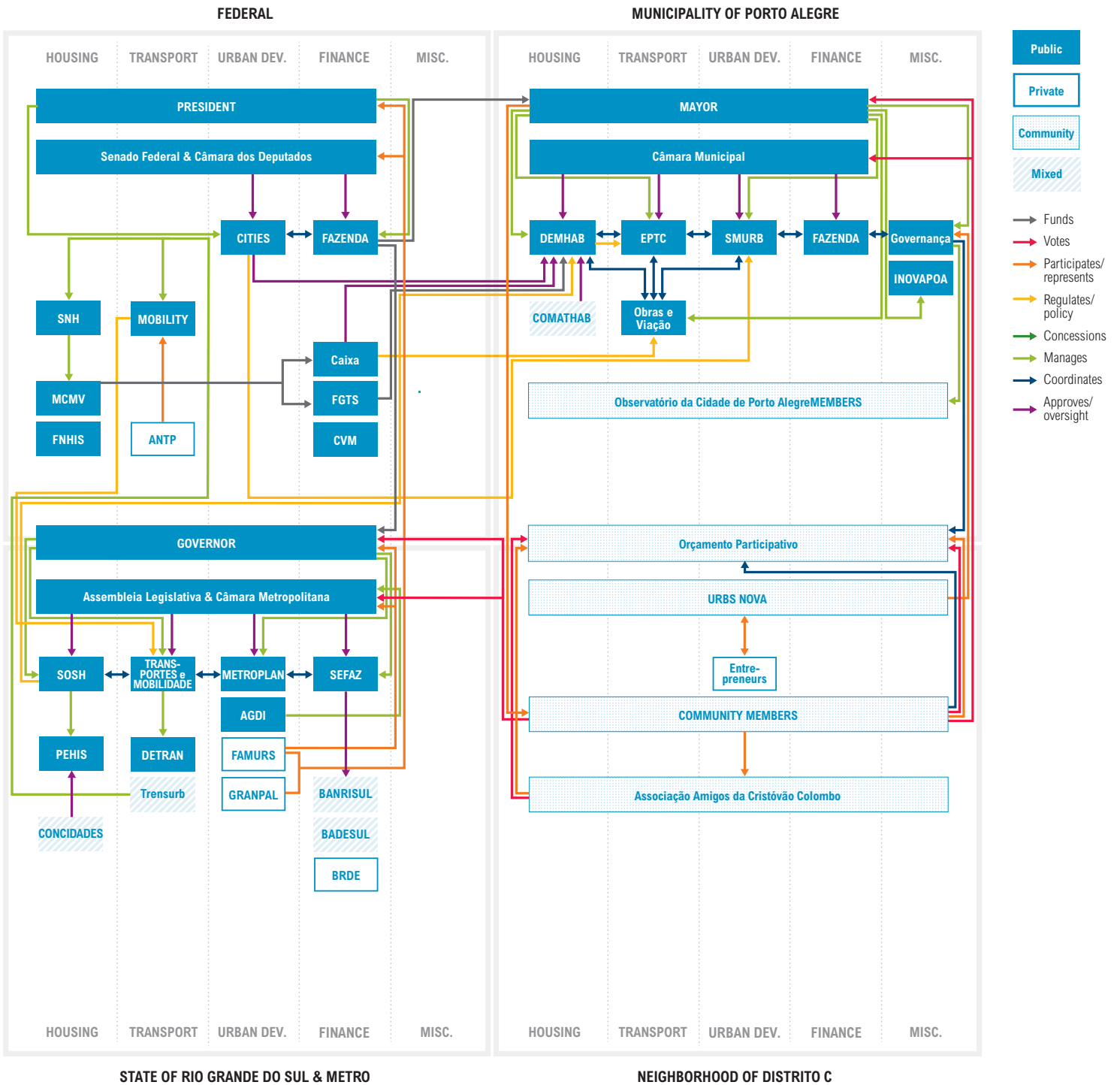


Figure 8 | Porto Maravilha in Rio de Janeiro



Porto Maravilha in Rio de Janeiro

BACKGROUND

Porto Maravilha is an urban redevelopment project of around 5 square kilometers located in the city center at the post-industrial site of the old harbor of Rio de Janeiro. The site is made up of “devalued housing and industrial buildings” and the area is under redevelopment into “upscale office and residential towers, turning the old port area into a world-class mixed-use living, working, and entertainment district” (Sánchez and Broudehoux 2013). The area under redevelopment is home to the neighborhoods of Saúde, Gamboa, Santo Cristo, and Morro da Providência, a settlement of around 25,000 residents that the local government has worked to reclaim from criminal activities through a police pacification unit (Bolich et al. 2012; de La Rocque and Shelton-Zumpano 2014; Sánchez and Broudehoux 2013). Porto Maravilha is close to multiple transport nodes, such as regional rail, bus, and subway. Recently, a light rail system was privately developed and is expected to link the neighborhood to Rio Centro and the airport.

Led by the municipal government, redevelopment in the port region began in 2009 with the formation of the Operação Urbana Consorciada da Região do Porto (Urban Operation of the Port Region) through the Municipal Law 101/2009 (Rio de Janeiro’s City Hall and Keyassociados 2011). The goal of this redevelopment,

as defined by Rio’s City Hall, is to encourage economic development in the region, through physical revitalization of the neighborhood and waterfront, at an estimated cost of around \$3.4 billion (Rio de Janeiro’s City Hall and Keyassociados 2011; de La Rocque and Shelton-Zumpano 2014). Underpinning the urban redevelopment is the sale of certificates of additional construction potential (CEPACs), of which 3 percent are supposed to be allocated to local social development and heritage preservation (de La Rocque and Shelton-Zumpano 2014). Additionally, the area was originally slated to play a role in the 2016 Olympics in Rio de Janeiro, and there were threats of expropriation of houses for infrastructure projects (dos Santos and dos Santos 2014; Sánchez and Broudehoux 2013).

Led by private developers and public-private partnership interests, the regeneration of Porto Maravilha “has been criticized for promoting gentrification and social exclusion due to private property speculation” and pursuing private benefits with public spending (Sánchez and Broudehoux 2013). But the project has also been acclaimed for transforming underutilized well-located land and assets. The number of families removed or under threat of removal by the City of Rio de Janeiro for the Porto Maravilha project is estimated at around 935 (World Cup and the Olympics Popular Committee of Rio de Janeiro 2015).

Observations from the Porto Maravilha Capacity-to-Act Map

POLICY ALIGNMENT AT THE FEDERAL LEVEL

At the federal level, there are many actors with different roles, responsibilities, and incentives who interact in complex ways with the development of Porto Maravilha. Multiple actors with significant capacity-to-act on TOD decisions and different incentives are apparent in the finance sector. Caixa, a federal bank, has played a large role in financial backing for the project. Caixa, through the Fundo de Garantia por Tempo de Serviço (FGTS) or the “Unemployment Severance Indemnity Fund,” purchased all the certificates of additional construction potential (CEPACs) for \$2 billion when the Porto Maravilha UO auctioned them off in 2011 (Bolich et al. 2012; Sánchez and Broudehoux 2013). This federal-level ministry, Caixa, is therefore in control of the development rights, destined to be sold to private developers, for the entire Porto Maravilha neighborhood redevelopment, and has as an incentive (the profit and mark-up of these CEPACs) to ensure repayment of the upfront cost. The CEPACs for Porto Maravilha enable developers to exceed the current height limit of six stories and build up to fifty stories. CEPACs have been criticized “as a form of financialization of real estate speculation,” where future land value is sold to private developers upfront. Because of the high price per square meter that is necessary for developer profit margins, it becomes difficult for working class residents to access newly constructed housing, making inclusive urban redevelopment unlikely (Sánchez and Broudehoux 2013). However, CEPACs can also be viewed as an innovative financial instrument that supports urban development in resource-constrained cities. In-depth research on the financial instruments in TOD in Brazil is available in a WRI working paper (Massen et al. forthcoming).

TRANSPARENCY AND ACCOUNTABILITY AT THE OLYMPICS

A key actor in the transit-oriented development of Rio de Janeiro is the Olympic Committee. Funded by a mix of private and public money and controlled by predominately unelected officials, the Olympics played a large role in the redevelopment of Rio de Janeiro. The city had planned to construct minor Olympic projects in Porto Maravilha, such as a technical operations center. The pressure of the Olympics bid and use of the Olympic Legacy as a driver for redevelopment led to creation of a public-private partnership between the municipal government and the Porto Novo consortium, a private contractor. Approval of

the consortium was adopted in haste, without adequate time for public input and consultation, as required by law (Sánchez and Broudehoux 2013). The selection of a single contractor, Porto Novo consortium, to be fully responsible for “the realization of public works, and the maintenance and provision of public services for an entire urban district...was largely unprecedented.” (Sánchez and Broudehoux 2013). The Mayor, Eduardo Paes, has spoken of the importance of citizens in the Olympics: “Hosting the Olympics is an opportunity to add value to the city’s brand, improving services and attracting global attention and visitors. It’s also a creative way to address big problems by improving infrastructure, increasing quality of life, and reducing inequality. More than a celebration of sports, Rio 2016 will enhance returns for the city’s most important shareholders: its citizens.” (The Economist 2016). However, in the redevelopment of the city fueled by the Olympics, there are few participatory or accountability mechanisms for communities to engage and play a role in the development of their neighborhood.

INSTITUTIONAL ARRANGEMENTS AT THE STATE AND METROPOLITAN LEVEL

At the state level, there is a coordination issue—a Brazilian law has forced metropolitan plans into action and yet state actors remain key regulators of regional transport operators (World Bank 2015). How institutional coordination might occur, such as through the creation of a metropolitan agency, is a key question. The metropolitan region and state play key roles in transport, with regulatory capacity over many mixed and private companies at the regional and metropolitan levels. However, these same metropolitan and state actors have little capacity to act and have played minimal roles in housing and urban development issues, which are integral to the inclusive implementation of TOD.

TRANSPARENCY AND ACCOUNTABILITY AT THE MUNICIPAL LEVEL

The Urban Development Company of the Port Region (CDURP) is a key actor at the municipal level and is also relevant at the neighborhood scale. CDURP is a mixed-actor entity, supported by city, state, and federal actors, in control of urban redevelopment in the Porto Maravilha area. With oversight by the Municipal Department of Urbanism, CDURP controls and manages the private concession that is developing the neighborhood, called the Concessionária Porto Novo Consortium. The consortium

is made up of the three largest Brazilian engineering and construction firms—Norberto Odebrecht Brasil, Carioca Christiani-Nielsen Engenharia, and OAS Ltd. Along with CDURP, these private and mixed actors show significant capacity to act in the urban redevelopment process (Sánchez and Broudehoux 2013). As of 2016, all three members of the consortium were under investigation as part of the PETROBRAS corruption scandal in Brazil (Administrative Council for Economic Defense 2016). CDURP is tasked with managing the tension between increasing economic competitiveness of the redevelopment area, while also increasing the quality of life for residents in the neighborhoods of Saúde, Gamboa, and Santo Cristo (de La Rocque and Shelton-Zumpano 2014). To the detriment of the residents, they have mostly been excluded from the development of plans to spend public resources and use public lands for large property redevelopment (dos Santos and dos Santos 2014).

PUBLIC PARTICIPATION AT THE NEIGHBORHOOD LEVEL

An important concern for inclusive transit-oriented development is meaningful participation of current community members throughout the planning, implementation, and delivery phases of any development, and preservation of their opportunities and rights to livelihoods, housing, and accessibility. With many actors invested in the Porto Maravilha neighborhood, it is clear that, despite the robust participatory legal framework in Brazil, the community currently plays a limited role in the development. Participation is limited to voting and representation. Because of the dominance of many private developers, public space to hold these actors directly accountable for decisions is very limited. The Conselho Consultivo do Porto Maravilha (Consultative Council), a deliberative organization that consists of nine members from the city council and nine members from civil society, has limited capacity to act, with no specific role in the design process as controlled by CDURP. In addition, civil society is broadly defined and incorporates representatives from the Real Estate Market Company Directors Association (ADEMI) and the Institute of Brazilian Architects (IAB). Fieldwork found significant concern with the participatory process in this council (WRI Brasil Sustainable Cities forthcoming). As stated by de La Rocque and Shelton-Zumpano (2014), “the Porto Maravilha regeneration in Rio de Janeiro has been criticized for promoting gentrification and social exclusion due to private property

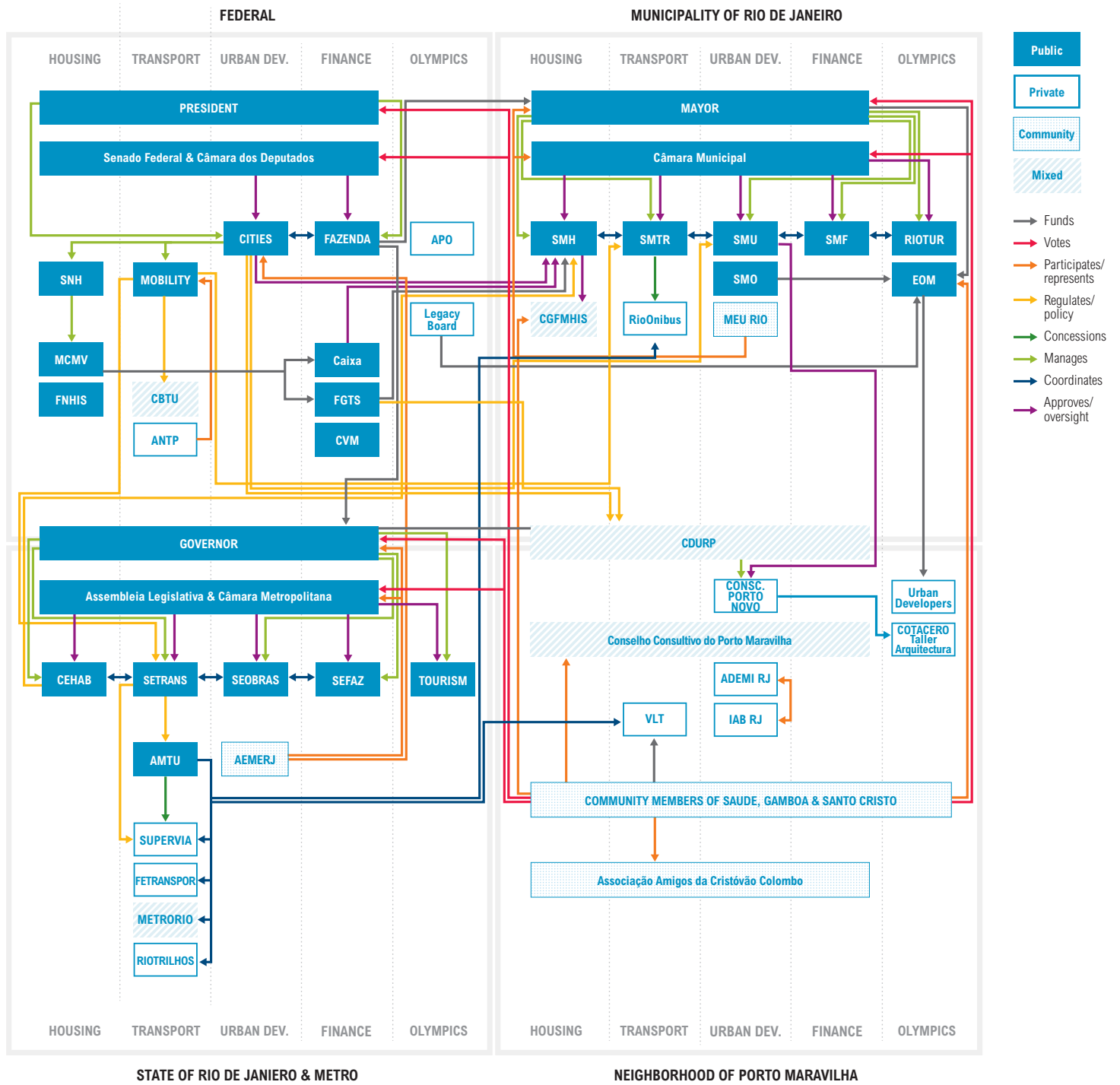
speculation.” With citizens’ capacity to act limited to voting and insignificant representation on the consultative council for Porto Maravilha, there is currently little opportunity for inclusive urban redevelopment processes or outcomes.

Preliminary Conclusions

The capacity-to-act model for Rio de Janeiro highlights some key areas of interest for the development of inclusive TOD in Porto Maravilha. These preliminary conclusions could help guide future engagement in Porto Maravilha should the city choose to emphasize inclusive TOD as part of its urban redevelopment strategy.

- The make-up of the consultative council currently includes private interests, specifically actors with incentives to support private development; it could be restructured to make it more participatory and inclusive of the community. Restructuring of the Porto Maravilha Consultative Council could ensure adequate inclusion of affected members of the community, in particular those families who are in danger of displacement.
- The role of the Olympics in reshaping the city has been well-observed. The Olympics have led to a predominance of private, international actors in Porto Maravilha with significant capacity to act in the neighborhood and city. Emphasizing citizens’ access to hold these actors accountable and make them responsive to citizens’ feedback, needs, and concerns could support current and future inclusive urban redevelopment.
- While the social-use value of land and urban development is recognized and enshrined in the City Statute of Brazil, the Right to the City and the prioritization of the social value of land has been difficult to implement within urban operations such as CDURP, particularly in those urban operations where CEPACs are used. Reviewing and analyzing these barriers to the Right to the City and the role of CEPACs could help urban operations to create more inclusive transit-oriented developments.

Figure 9 | Capacity-to-Act Map for Rio de Janeiro



3.4 Review of the Capacity-to-Act Mapping Method Findings

The process of developing the capacity-to-act maps for each case study city revealed findings regarding governance opportunities and challenges that could be relevant if the cities decide to pursue inclusive TOD. While some of the findings are specific to the individual sites of Água Branca, Distrito C, and Porto Maravilha, others are common to all three cases. Three key findings emerged from the case studies. In each case study, the governance arrangements that would be most critical if the cities decide to pursue inclusive TOD were (a) a high level of complexity in institutional relationships; (b) legally mandated but poorly implemented participatory processes; and (c) a central actor with limited capacity to act.

High Level of Complexity in Institutional Relationships

The capacity-to-act maps (Figures 5, 7, and 9) are complex figures illustrating multiple actors, scales, sectors, and roles. These maps, while extensive, are not exhaustive and represent only the perceived pertinent actors as identified during our fieldwork. The capacity-to-act maps provide a systematic method for displaying complex relationships, and are a useful analytical tool that can be used to refine our understanding of complex relationships among actors, and guide TOD strategy development or implementation in the future. The figures show the variety of actors that need to collaborate across sectors, including urban development, housing, finance, and transport. They also show which actors have the capacity to act in which sectors. Many public actors have remit on specific sectors, as in the Ministry of Mobility or the Ministry of Housing at the federal level, and have to navigate multiple other ministries in order to collaborate at the multi-sectoral urban development process of TOD. As displayed in each of the three maps, the complexity of existing governance arrangements in the sectors necessary to create inclusive TOD might be implicated in any future inclusive TOD initiatives. With this complexity comes the risk of lack of integration across the scales of governance as well as across sectors. The pursuit of inclusive TOD would benefit from cross-sectoral integration and policy alignment.

Legally Mandated but Poorly Implemented Participatory Processes

As shown by the capacity-to-act maps, the roles for community actors appear to be relatively limited: representation on consultative councils, voting for public officials, and input into social housing plans. Supportive participatory processes such as those required by the City Statute exist in Brazil; however, given the number of private and public-private actors involved in the transit-oriented development process, citizens have had limited capacity to act when it comes to shaping a more inclusive process and outcome of TOD and urban redevelopment. Many citizens are included in the design phase through consultative councils of Urban Operations (as in Porto Maravilha) or through participatory budgeting (as in Distrito C). But with limited opportunities to hold the private developers accountable under the current governance landscape in these cities, implementation and follow-through on inclusive TOD would likely be limited. Where cities and communities are seeking to implement TOD, increasing the incentives and funding for participatory processes (such as participatory planning workshops, consultative hearings, etc.) and strengthening the role that citizens play can improve the chance of success.

Central Actor with Limited Capacity to Act

Each capacity-to-act map, based on our fieldwork interviews, revealed a central actor where most action was localized, supported by key stakeholders. For example, CDURP is a key player in the redevelopment of Porto Maravilha; however, the main economic force behind the process is Caixa as the holder of the CEPACs necessary to define how the neighborhood will develop. In Distrito C, URBS NOVA has been the driving force behind the redevelopment of the district, but is unable to pursue larger urban redevelopment projects in the neighborhood without the backing and leadership of the municipality. Both URBS NOVA and CDURP work across the sectors that are relevant to TOD and have attempted to align their policies and practices toward more inclusive urban development.

Empowering central actors to pursue inclusive TOD could help in its success. Central actors can work toward policy alignment, and help with cross-sectoral integration and incentive alignment. Each actor has different levels of power, resources, and ability to create an enabling environment for inclusive TOD. The role of central actors is defined by their capacity to act, the strength of the actions they control, and the nature of their interactions with others. These factors together determine the ability of a central actor to achieve inclusive TOD. The role of central actors and the barriers to greater action they face can be identified by the capacity-to-act maps. The empowerment of these actors, or the enhancement of their capacity to act, can help in implementing inclusive TOD.

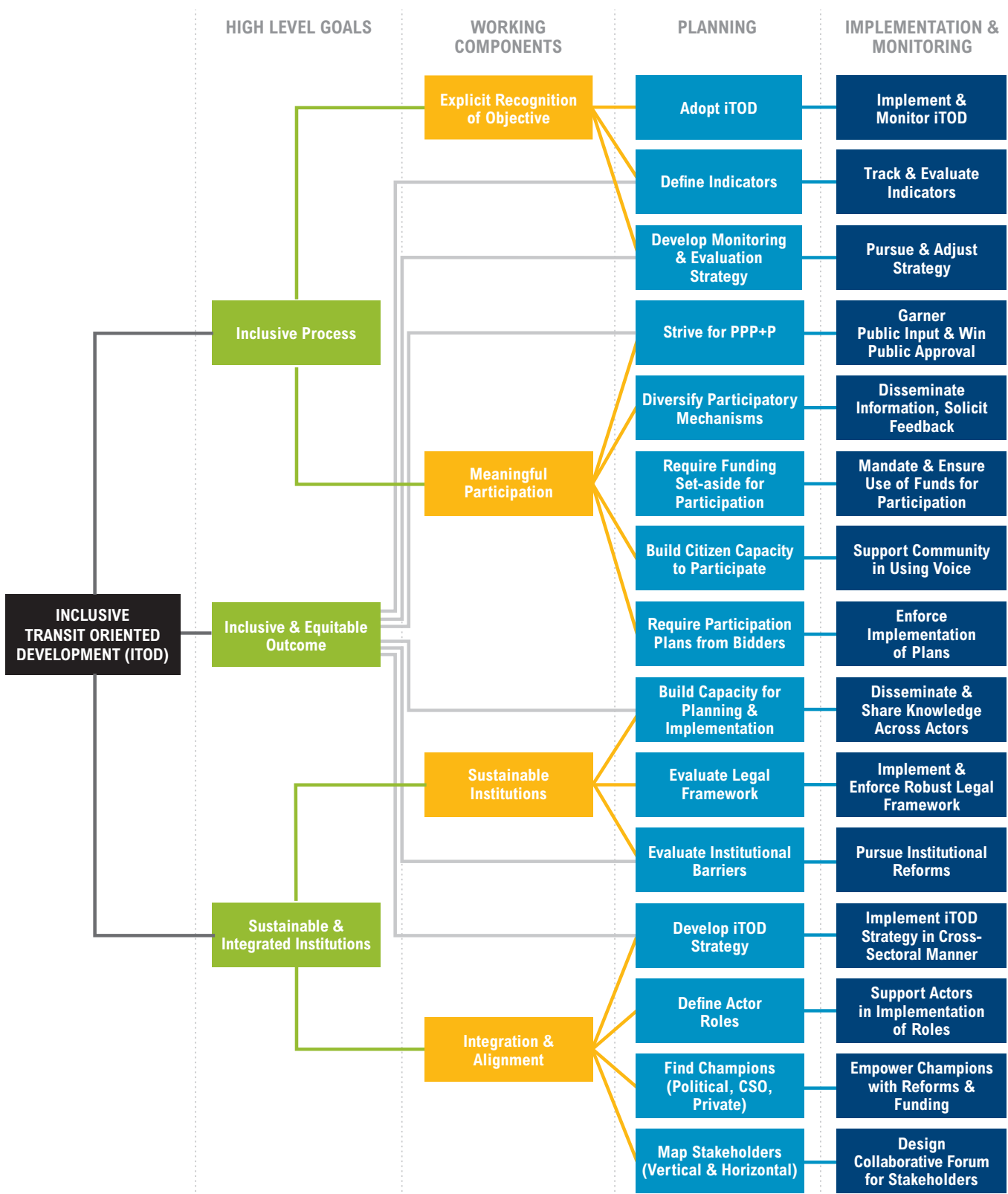
The capacity-to-act maps highlight governance issues around inclusive TOD and urban redevelopment more broadly. This mapping method portrays the complexity of relationships among actors and suggests potential barriers to a more inclusive process and outcome. It provides the start of an analysis. The next possible course of action for TOD planners and urban development practitioners could be to engage with the specific actors within the capacity-to-act framework regarding the need for better governance practices for inclusive TOD, and the integration of governance principles into the design and financing of urban redevelopment in these cities.

4 ACTIVITIES TO ACHIEVE INCLUSIVE TRANSIT-ORIENTED DEVELOPMENT

This section identifies potential activities for supporting governance in inclusive transit-oriented development and urban redevelopment. The suggested activities are based on the desk review of governance principles in inclusive TOD and observations from the three Brazilian cases. They are intended to support stakeholders looking to develop inclusive TOD as they consider and implement governance principles into the design, financing, development process, and outcomes of development projects.

Figure 10 shows potential activities to achieve inclusive TOD, broken down into four categories: high-level goals, working components, planning, and implementation and monitoring. The high-level goals focus not just on the process but also on the outcome: they cover inclusive processes, inclusive and equitable outcomes, and sustainable and integrated institutions. Derived from the governance principles of transparency and accountability, public participation, institutional capacity, and clear institutional alignment, the working components are actions to take within the principles. The four key working components of governance identified as necessary for the successful pursuit of inclusive TOD are as follows: (1) explicit recognition of the objective; (2) meaningful participation; (3) sustainable institutions; and (4) integration and alignment.

Figure 10 | **Activities Tree to Achieve Inclusive Transit-Oriented Development**



Under each of these components there are specific planning, implementation, and monitoring activities that can be undertaken to achieve not only inclusive TOD but also a sustainable approach to this type of inclusive urban development. The activities are not prioritized or presented in a hierarchical way. Rather, they are presented as a suite of options for working toward an inclusive TOD process and outcome. It is important to take them into account and link them to the design and finance elements of TOD. Additionally, the suggested implementation and monitoring activities can act as an accountability mechanism for many of the planning activities.

4.1 Explicit Recognition of Objective

Inclusive TOD elements such as affordable and mixed-income housing are “theoretically recognized as an essential component for effective TOD,” but without “targeted policy measures to preserve existing affordable housing or incentives to build new affordable housing” the end result can be exclusion (Mu and de Jong 2012). Cities wishing to develop inclusive TOD should pursue a clear definition of what inclusive TOD means, develop indicators for monitoring progress toward this objective, and agree on a method for monitoring, evaluating, and correcting course throughout the planning and implementation stages. Understanding what this looks like in practice is a necessary next step in pursuing inclusive TOD, through pilot testing TOD strategy development, for example. Recognizing that different actors will have different objectives, adequate public participation processes are essential to arrive at the objectives.

4.2 Meaningful Participation

Within inclusive TOD planning and implementation, there are a host of actors who can contribute to the redevelopment process. Actors such as “public agencies, elected officials, transit agencies, regional metropolitan organizations, urban renewal authorities, housing authorities, nonprofit organizations and service providers, neighborhood organizations and community activists, community development corporations, foundations, developers, and lenders” are all important stakeholders in the success and sustainability of inclusive TOD (Blair 2009). Based on our knowledge of the literature and on-the-ground projects, there is, as yet, no clear formula for how these actors can best interact to create TOD. However, some good practices have been discussed earlier in this paper. In the pursuit of inclusive TOD, stakeholders, particularly civil society, need to be

included in a meaningful way in the process; not only for consultation but also for collaborative production (co-production) and decision making. The Brazilian participatory legal framework and the culture of participation in Porto Alegre is an important foundation for meaningful participation in an inclusive TOD process and outcome. However, as seen in all three Brazilian cases, even with a strong participatory legal framework, meaningful participation is limited in complex TOD and urban redevelopment processes. According to Wood (2009), public and community groups are “keys to ensuring that social equity is achieved in TOD.” Pursuing a fruitful partnership between the public actors, the private actors, and the people actors can help create inclusive TOD. However, there are significant barriers to participation. There is a need to require a commitment to participatory processes from private developers (during a public procurement process), build citizens’ capacity to participate, set aside funding for participation, and move beyond typical ineffective participatory mechanisms.

4.3 Integration and Alignment

Carlton and Fleissig (2014) recognize that “TOD projects have ambitious goals, are complex to execute, and face many more obstacles than traditional urban development.” Adding inclusiveness as a goal for TOD only further complicates the process with obstacles such as “high standards regarding placemaking, the provision of specific land uses, high density development, mixed-use buildings, and more” (Carlton and Fleissig 2014). The added, but necessary, complication of inclusive TOD, must be managed in a manner that cuts across sectors and aligns incentives and work flows. The development of a TOD strategy can help to achieve cross-sectoral alignment, through an inclusive, cross-silo, participatory approach. Throughout the strategy development process, stakeholders will be defined, roles assigned, capacity-to-act aligned, and a clear objective and process developed. Additionally, multiple inclusive TOD champions can achieve the implementation of this strategy while pursuing cross-sectoral alignment. A political champion, civil society champions, and even, as recommended by Living Cities (2009), a TOD strategy coordinator or manager, can provide the impetus behind inclusive TOD, whether at the neighborhood, city, regional, or federal level. This can be seen in the Distrito C development, where URBS NOVA has acted as the civil society champion for more inclusive and sustainable urban development in Porto Alegre. As Rodriquez and Vergel (2013) state, this is a necessary

change: “A more holistic attempt at urban revitalization and regeneration is required. This involves moving away from the atomistic development process that yields little benefit to the city, to one in which developers, landowners, and society gain.”

4.4 Sustainable Institutions

TOD is a long-term process and represents a long-term investment in urban redevelopment—one that must span election cycles and short-term politics. The sustainability or durability of any TOD strategy is contingent on the institutionalization of the process and its objectives. Wood and Brooks (2009) state that “mission-driven advocates” are one necessary component of this process, in order “to navigate the political, regulatory, and cultural maze to achieve its goals.” In order to enable institutionalization, the capacity and autonomy of local governments must be a priority (Rodríguez and Vergel 2013). Building local capacity to plan, finance, and implement inclusive TOD is essential. This capacity can be built in institutions (public officials, civil servants) and in civil society, with these actors working collectively or separately. As mentioned earlier, while public involvement may “extend predevelopment efforts, it can also mitigate political risk and enhance relationships with public agencies. Early inclusion of community groups may increase the likelihood that the end result is sustainable” (Wood 2009). In addition to capacity building, there is a need to pursue policy and financial reforms in order to overcome institutional barriers that may work against good TOD implementation. The Statute of the Metropolis in Brazil, currently being implemented in all major metropolitan regions in Brazil, offers an opportunity to align incentives and objectives across currently disparate institutions and sectors.

5 CONCLUDING REMARKS

Inclusive transit-oriented development—at the neighborhood, station, and corridor level—provides opportunities for communities and cities to develop in a more inclusive and sustainable way. Recognizing the need for compact, dense, mixed-use, mixed-income neighborhoods and cities, TOD has successfully transformed cities in the United States, Europe, and Asia. Cities in other countries such as Brazil are moving toward this kind of sustainable urban redevelopment, while also confronting the “lock-in” legacies of highway infrastructure and poorly located suburban or affordable

housing developments. However, TOD can be exclusive in its implementation and design process, prioritizing the needs of private developers or select citizens, or in its outcome, leading to the displacement of current residents and the gentrification of neighborhoods. The implementation of inclusive TOD requires attention not only to good design and finance but also good governance, involving institutional arrangements, policy alignment, public participation, and transparency and accountability. Integrating good governance principles into the TOD process can help create a more inclusive process and outcome.

While few examples of good practices exist for governance of inclusive TOD, particularly in the global South, desk research has highlighted important governance principles of TOD and built a foundation for investigating the capacity to act of TOD actors as a method of aligning and developing incentives, responsibilities, and participatory processes to support more inclusive urban redevelopment. Working through these concepts in the context of three urban redevelopment cases in Brazil, using the capacity-to-act mapping method, we have highlighted the complexities involved in achieving inclusive TOD. While these cases are not typical of transit-oriented development, they have certain elements of TOD (such as access to high quality transport, high density development, and mixed use); offer potential opportunities to achieve inclusive TOD in the future; and represent significant public investment in transforming an urban space through transport, housing, and other infrastructure improvements. These elements can in turn become inclusive TOD. Based on these findings, we have presented specific activities as potential means to achieve better governance practices in pursuit of inclusive TOD.

Actors committed to achieving inclusive TOD may seek to pursue the suggested activities in the urban redevelopment process in Porto Alegre, Rio de Janeiro, São Paulo, and to inspire partners and other stakeholders in these and other cities and countries to follow suit. Expensive city- and neighborhood-shaping transportation and housing investments ought to be coordinated and developed through a participatory, inclusive process in order to ensure inclusive urban redevelopment that supports current and future residents (Hersey and Spotts 2015b).

ANNEX

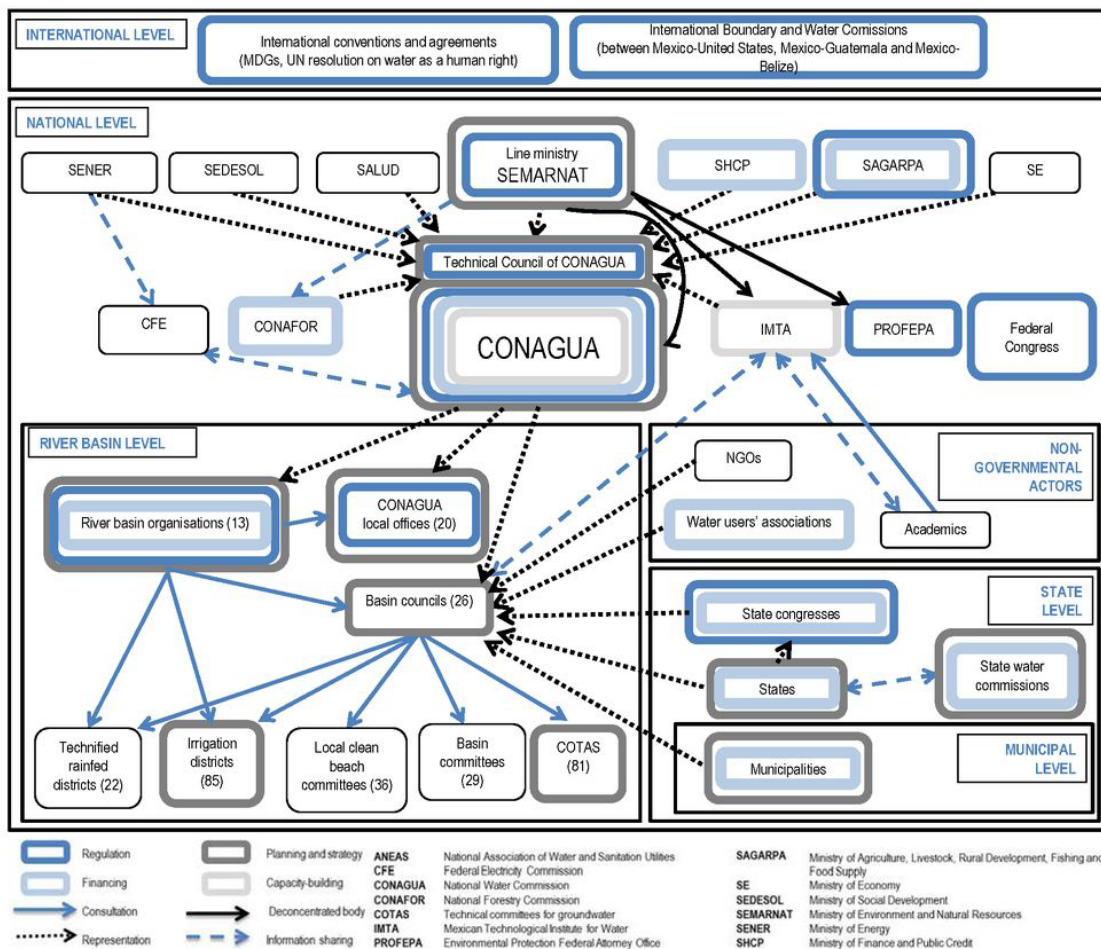
Relational Diagrams Underpinning Our Research

The capacity-to-act maps build on three relational diagrams from the literature that offer a practical method to clearly map and understand the relationships between various actors and sectors and their particular roles and capacity in creating and achieving an anticipated outcome. Specifically, the capacity-to-act maps build on the OECD institutional mapping model (OECD 2013), Benoît Lefevre’s decision-making process map (Lefevre 2008), and LSE Cities’ governance structures (LSE Cities 2014).

The first diagram is used by OECD for institutional mapping of roles and responsibilities for water resources

management (see Figure A1). Figure A1, based on the Net-Map,⁸ presents a graphical representation of stakeholders’ relationships in order to identify issues and the actors who might be best positioned to address them. The arrows represent four main relational actions: consultation, representation, deconcentrated body, and information sharing. The blue and grey rectangular outlines represent primary actions taken by those actors, namely: regulation, financing, planning and strategy, and capacity building. The institutional mapping represents “who does what” and areas where there may be challenges related to institutional and jurisdictional fragmentation, and pinpoints areas for improvement in the water governance field.

Figure A1 | Institutional Mapping of Roles and Responsibilities for Water Resources Management in Mexico

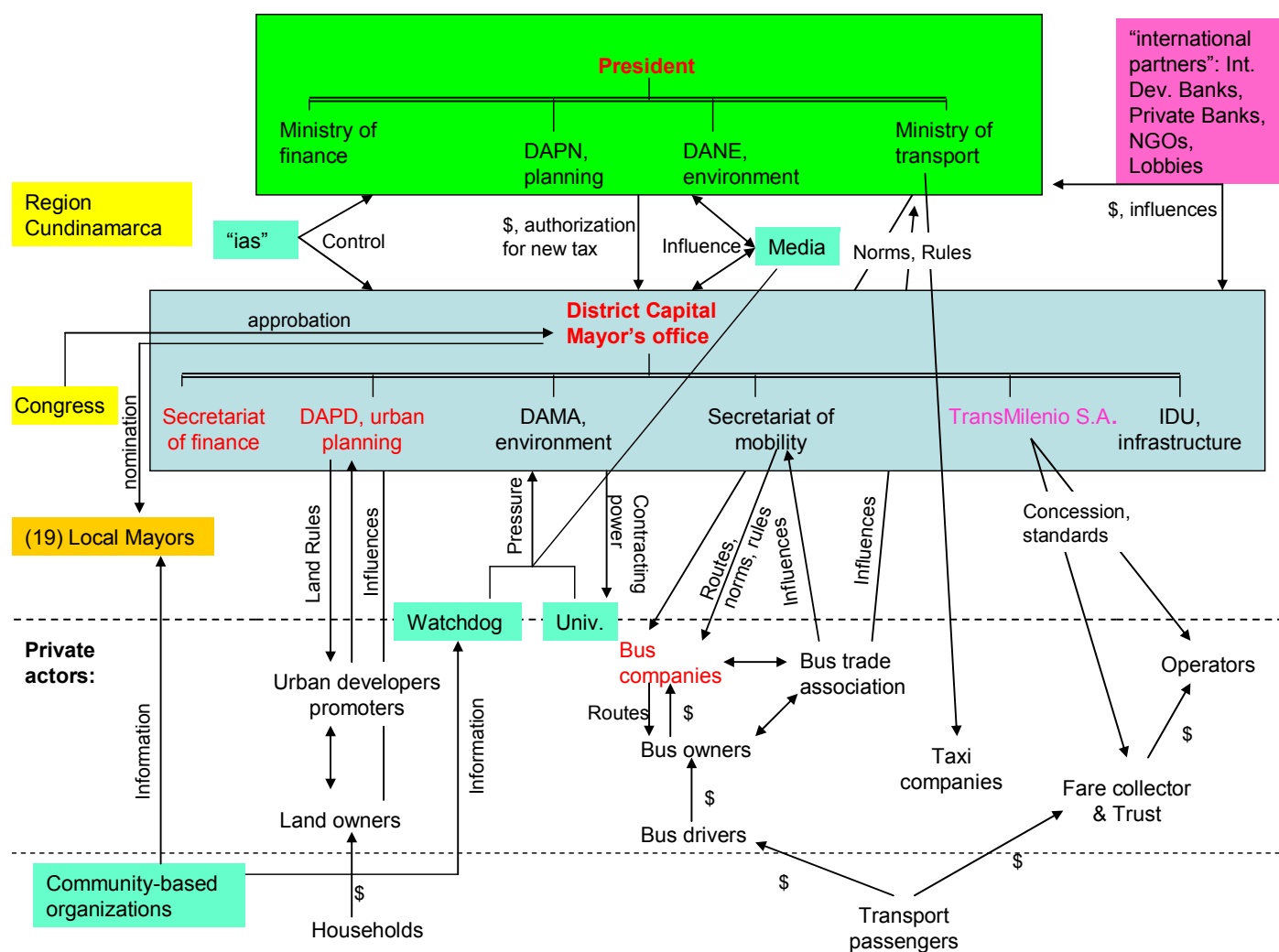


Source: OECD, 2013.

The second diagram (Figure A2) was created by Benoît Lefevre in order to understand the organizational arrangements and the formal and informal relationships that control the decision-making process for transportation in Bogotá. Introducing the term “capacity to act,” Lefevre looks at the nature and strength of this capacity and situates it in the relationship structure that governs the city. His work highlights the capacity to act

of the actors and their relationships with each other, and helps to reveal the dominant stakeholders and their power in relation to others. Through the understanding of power and dominance of certain actors, Lefevre develops a deeper understanding of how Bogotá moved from the development of a subway to the development of a bus rapid transit system.

Figure A2 | **Transportation Sector Decision-Making Process in Bogotá, Colombia**

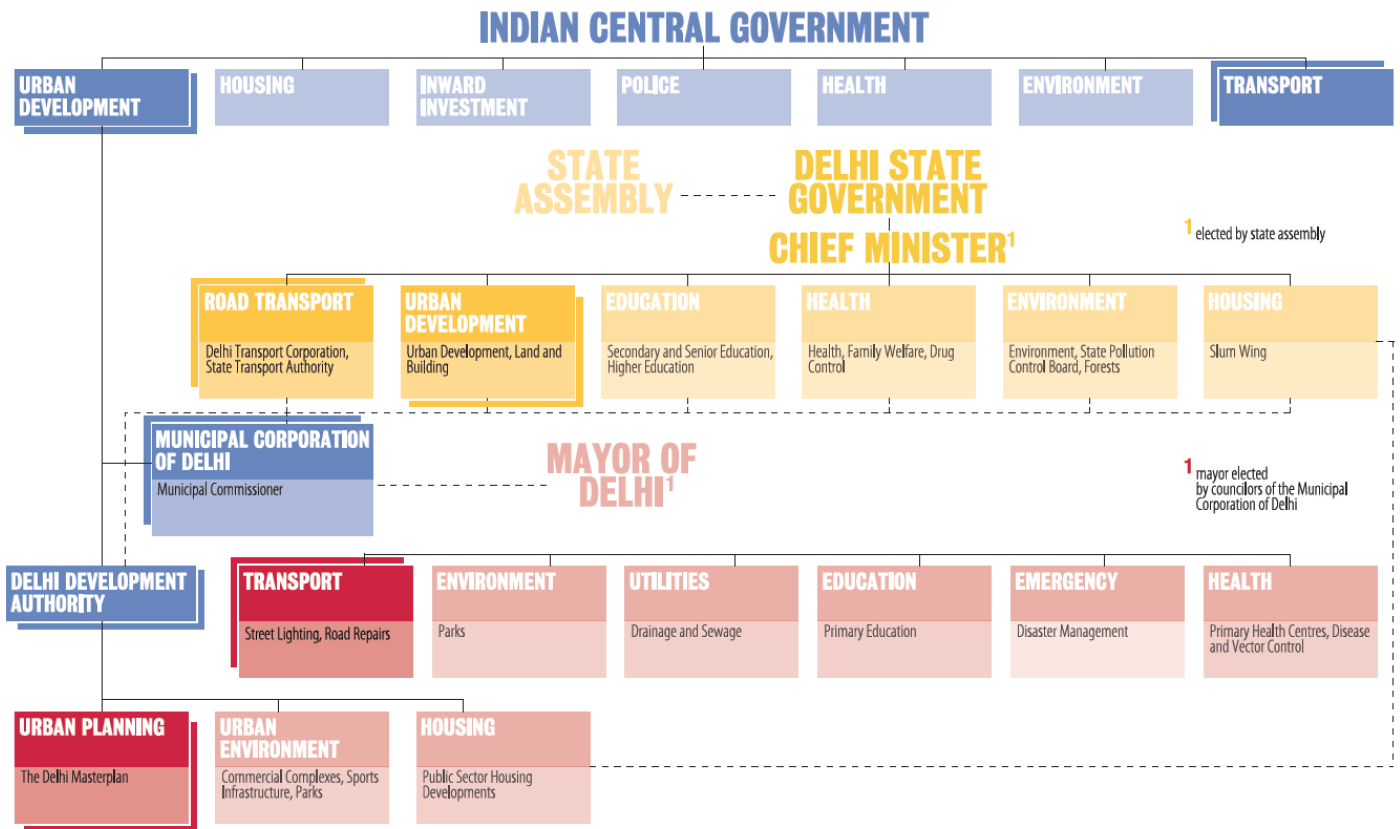


Source: Lefevre, 2008.

The final influence on the capacity-to-act model comes from LSE Cities' work on governance structures (Figures A3 and A4) involved in the functions of city government, or "city-making." Both Figure A3 and Figure A4 map stakeholders across different scales of governance, much the same as the OECD and Lefevre diagrams. However,

the LSE Cities analysis adds in the complexity of multiple sectors and attempts to represent the differing roles of each government stakeholder across these sectors. Missing from these sectors are the non-state actors that are represented in Lefevre and OECD models, namely, citizens, private companies, and others.

Figure A3 | **Integrated City Making Chart of New Delhi, India**



Source: LSE Cities, 2008.

Figure A4 | **Governance Structure of New Delhi, India**

GOVERNANCE STRUCTURE

ECONOMY	ENVIRONMENT & PLANNING	INFRASTRUCTURE & TRANSPORT	EDUCATION & CULTURE	HEALTH & SOCIAL SERVICES	SECURITY	OTHER
INDIAN CENTRAL GOVERNMENT 26 of 51 Departments						
COMMERCE & INDUSTRY	ENVIRONMENT & FORESTS	ROAD TRANSPORT & HIGHWAYS	EDUCATION	HEALTH & FAMILY WELFARE	HOME AFFAIRS	FINANCE
CORPORATE AFFAIRS	AGRICULTURE	RAILWAYS	CULTURE	CHILD DEVELOP. & WOMEN	DEFENCE	EXTERNAL AFFAIRS
LABOUR EMPLOYMENT	WATER RESOURCES	SCIENCE & TECHNOLOGY	YOUTH AFFAIRS & SPORT	SOCIAL JUSTICE & EMPOWERMENT		
PETROLEUM & NATIONAL GAS	EARTH SCIENCES	DRINKING WATER & SANITATION	HUMAN RESOURCE DEVELOPMENT	MINORITY AFFAIRS		
	URBAN DEVELOPMENT	POWER				
DELHI STATE (NCT) GOVERNMENT 27 of 39 Departments & 2 centrally supervised bodies						
ECONOMICS & STATISTICS	DELHI DEVELOPMENT AUTHORITY	TRANSPORT SERVICES	HIGHER EDUCATION	HEALTH & FAMILY WELFARE	DELHI POLICE	FINANCE & PLANNING
INDUSTRIES	ENVIRONMENT	LAND & BUILDING	ART, CULTURE & LANGUAGES	FOOD, CIVIL SUPPLIES & CONSUMERS	HOME	REVENUE
TOURISM	FOREST & WILDLIFE	PUBLIC WORKS	TRAINING & TECHNICAL EDUCATION	WELFARE OF MINORITIES	IRRIGATION & FLOOD CONTROL	ADMINISTRATIVE REFORMS
TRADE & TAXES	URBAN DEVELOPMENT			CHILD DEVELOP. & WOMEN		ELECTION
	DEVELOPMENT			SOCIAL WELFARE		LAW, JUSTICE & LEGISLATIVE AFFAIRS
4 MUNICIPAL CORPORATIONS						
	ENVIRONMENT	TRANSPORT UTILITIES	EDUCATION	HEALTH	EMERGENCY	

Source: LSE Cities, 2014.

ACRONYMS AND ABBREVIATIONS

ADEMI-RJ	Associação de Dirigentes de Empresas do Mercado Imobiliário (Real Estate Market Company Directors' Association)	CONCIDADES	Conselho Estadual das Cidades (State Council of Cities in Rio Grande do Sul)
AEMERJ	Associação Estadual de Municípios do Rio de Janeiro (State Association of Municipalities of Rio de Janeiro)	CVM	Comissão de Valores Mobiliários (Securities and Exchange Commission)
AMTU	Associação Matogrossense dos Transportadores (Mato Grosso Association of Transporters)	DEM HAB	Departamento Municipal de Habitação (Municipal Department of Housing of Porto Alegre)
ANTP	Associação Nacional de Transportes Públicos (National Association of Public Transport)	DETRAN	Departamento de Trânsito do Estado (State Department of Transit)
APO	Autoridade Pública Olímpica (Olympic Public Authority)	EMDURB	Empresa Municipal de Desenvolvimento Urbano de São Paulo (Municipal Urban Development Company of São Paulo)
BADESUL	BADESUL Desenvolvimento S.A. – Agência de Fomento (BADESUL Development Agency)	EMPLASA	Empresa Paulista de Planejamento Metropolitano S.A. (Metropolitan Planning Company of São Paulo)
BANRISUL	Banco do Estado do Rio Grande do Sul (State Bank of Rio Grande do Sul)	EMTU	Empresa Metropolitana de Transportes Urbanos de São Paulo (Metropolitan Urban Transport Company)
BOVESPA	Bolsa de Valores de São Paulo (Stock Exchange of São Paulo)	EOM	Empresa Olímpica Municipal (Municipal Olympic Company)
BRDE	Banco Regional de Desenvolvimento do Extremo Sul (“Far South” Regional Development Bank)	EPTC	Empresa Pública de Transporte e Circulação (Public Transportation and Traffic Company of Porto Alegre)
BRT	Bus Rapid Transit	FAMURS	Federação das Associações de Municípios do Rio Grande do Sul (Rio Grande do Sul Regional Association of Municipalities)
CADES	Conselho Municipal do Meio Ambiente e Desenvolvimento Sustentável (Municipal Council of the Environment and Sustainable Development)	FAZENDA	Ministro da Fazenda (Ministry of Finance)
CBTU	Companhia Brasileira de Trens Urbanos (Brazilian Urban Rail Company)	FAU-USP	Faculdade de Arquitetura e Urbanismo da Universidade de São Paulo (Faculty of Architecture and Urbanism at the University of São Paulo)
CDHU	Companhia de Desenvolvimento Habitacional e Urbano (Housing and Urban Development Company)	FETRANSPOR	Federação das Empresas de Transportes de Passageiros do Estado do Rio de Janeiro (Federation of Passenger Transport Companies of Rio de Janeiro)
CDURP	Companhia de Desenvolvimento Urbano da Região do Porto do Rio de Janeiro (Urban Development Company of the Port Region of Rio de Janeiro)	FGTS	Fundo de Garantia do Tempo de Serviço (Unemployment Severance Indemnity Fund)
CEHAB	Companhia Estadual de Habitação do Rio de Janeiro (State Housing Company of Rio de Janeiro)	FNHIS	Fundo Nacional de Habitação de Interesse Social (National Fund for Social Housing)
CEPAC	Certificados de Potencial Adicional de Construção (Certificate of Additional Construction Potential)	FUNDURB	Fundo de Desenvolvimento Urbano (Urban Development Fund of São Paulo)
CGFMHIS	Conselho Gestor do Fundo Municipal de Habitação de Interesse Social (Management Council Municipal Fund for Social Housing)	GRANPAL	Associação dos Municípios da Região Metropolitana de Porto Alegre (Association of Municipalities of the Porto Alegre Metropolitan Region)
CMPU	Conselho Municipal de Política Urbana (Municipal Council of Urban Policy)		
COMATHAB	Comissão de Urbanização Transportes e Habitação (Urbanization, Transport, and Housing Commission of Porto Alegre)		

IAB-RJ	Instituto de Arquitetos do Brasil – Departamento Rio de Janeiro (Institute of Brazilian Architects – Rio de Janeiro Department)	SMURB	Secretaria Municipal de Urbanismo (Municipal Department of Urbanism)
INOVAPOA	Secretaria de Inovação e Tecnologia (Ministry of Innovation and Technology)	SNH	Secretaria Nacional de Habitação (National Ministry of Housing)
MCMV	Minha Casa Minha Vida (My House, My Life – Popular Housing Program)	SOSH	Secretário de Obras, Saneamento e Habitação do Estado do Rio Grande do Sul (Ministry of Public Works, Sanitation, and Housing of the State of Rio Grande do Sul)
METRO	Metropolitano de São Paulo (Metropolitan Transit System of São Paulo)	SP-Urbanismo	São Paulo Urbanismo (São Paulo Municipal Department of Urbanism)
METROPLAN	Fundação Estadual de Planejamento Metropolitano e Regional (State Foundation of Metropolitan and Regional Planning of Rio Grande do Sul)	STM	Secretaria dos Transportes Metropolitanos do Estado de São Paulo (Metropolitan Transport Department of the State of São Paulo)
METRORIO	MetroRio (Metropolitan Transit System of Rio de Janeiro)	SUPERVIA	Trens Urbanos do Estado do Rio de Janeiro (Urban Rail System of the State of Rio de Janeiro)
OUCAB	Operação Urbana Consorciada (Urban Operation Consortium)	Trensurb	Empresa de Trens Urbanos de Porto Alegre S.A. (Urban Train Company of Porto Alegre)
PEHIS	Plano de Habitação de Interesse Social (Social Housing Plan)	UO	Operação Urbana (Urban Operation)
RIOTRILHOS	Companhia de Transportes sobre Trilhos do Estado do Rio de Janeiro (Rail Transport Company of the State of Rio de Janeiro)	URBS NOVA	Empresa/Agência de Design Social (Company/Agency of Social Design of Porto Alegre)
RIOTUR	Empresa de Turismo do Município do Rio de Janeiro (Municipal Company of Tourism of Rio de Janeiro)	VLT Carioca	Concessionária do Veículo Leve sobre Trilhos do Rio de Janeiro (Light Rail Concession Holder of Rio de Janeiro)
SECOVI-SP	Sindicato de Habitação (Housing Union)		
SEFAZ	Secretaria da Fazenda (State Ministry of Finance)		
SEHAB	Secretaria Municipal de Habitação (Municipal Ministry of Housing of São Paulo)		
SEOBRAS	Secretaria de Estado de Obras (State Ministry of Public Works)		
SETRANS	Secretaria de Estado de Transportes (State Ministry of Transport)		
SETUR	Secretaria de Turismo do Estado de São Paulo (Tourism Ministry of the State of São Paulo)		
SMF	Secretaria Municipal de Finanças (Municipal Department of Finance)		
SMH	Secretaria Municipal de Habitação (Municipal Department of Housing)		
SMTR	Secretaria Municipal de Transportes (Municipal Department of Transport)		
SMU	Secretaria Municipal de Urbanismo (Municipal Department of Urbanism)		

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ENDNOTES

1. Charrettes are planning sessions where stakeholders such as citizens, planners, and others work together to collaborate on ideas and plans for development problems.
2. Fieldwork was conducted by a project team and led by Arlei Weide. Other team members included Henrique Evers, Brittany Giroux Lane, and Daniely Votto.
3. http://www.prefeitura.sp.gov.br/cidade/secretarias/relacoes_internacionais/noticias/?p=9363
4. "Polo Distrito C." <https://distritocriativo.wordpress.com/>
5. "Polo Distrito C." <https://distritocriativo.wordpress.com/>
6. "Polo Distrito C." <https://distritocriativo.wordpress.com/>
7. "A Metroplan." http://www.metroplan.rs.gov.br/conteudo/1598/?A_Metroplan
8. "How Net-Map Works." <https://netmap.wordpress.com/about/>.

ACKNOWLEDGMENTS

Thank you to the WRI Brasil Sustainable Cities team, particularly Henrique Evers and Arlei Weide (consultant), for their support and leadership in managing the fieldwork on which this paper is based. The author would also like to thank WRI internal reviewers Bharath Jairaj, Robin King, Anne Maassen, Mariana Orloff, Mark Robinson, and Daniely Votto for their time and valuable contributions. Finally, special thanks to external reviewers Rodrigo Corradi (Prefeitura de Porto Alegre), Clare Healy (C40), and Michael Spotts (Enterprise Community Partners), as well as Emily Schabaker and Emily Matthews for their insights.

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ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

Our Challenge

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Livable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

Our Vision

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

Our Approach

COUNT IT

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

CHANGE IT

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

SCALE IT

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.



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