CONLESTE
REGIONAL PLANNING IN RIO DE JANEIRO, BRAZIL

Urban Planning Studio
Columbia University
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This report details the work of a Spring 2011 Advanced Urban Planning Studio at Columbia University. Running between January – May 2011, students examined the challenges of regional planning for the inter-municipal Consortium of Leste Fluminense (CONLESTE) in response to Petrobras’ Rio de Janeiro Petrochemical Complex (Comperj). Comperj is a mega-development project whose physical size and projected economic and social impacts are unprecedented in the region and in Latin America as a whole.

The studio course included collaboration with the multiple stakeholders active in the project, including national, state and municipal government actors, Petrobras and other members of the private sector as well as international organizations and academic institutions. The studio’s engagement in the project joined the work of these actors, most of whom have been involved since the announcement of Comperj in 2006.

This report offers recommendations to the different stakeholders for improving collaboration in regional planning for the re-shaping of space and socio-economic dynamics in the region in manners that leverage Comperj as a catalyst to bring about greater environmental sustainability, social equity, and regional prosperity.

STUDENTS
Heather Anderson
Caroline Bauer
Josie Baum
Alioune Dia
Megan Marini
Lauren Racusin
Vanessa Smith
Jeffrey Yuen

CONTRIBUTORS
Clara Irazábal - Professor
Jesse M. Keenan
Alejandro de Castro Mazarro
Thomas Bassett
Fernanda Sanchez
Regina Bienenstein
Fernanda Aranha
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INTRODUCTION

The work of the Spring 2011 Planning Studio course was focused on the challenges of regional planning for the Consortium of Leste Fluminense (CONLESTE). CONLESTE municipalities are located in the Leste Fluminense (eastern) region of Rio de Janeiro state, Brazil. The consortium formed around issues of water access in 2002, and in 2006 experienced renewed interest after the partially state-owned oil corporation Petrobras announced the construction of the Rio de Janeiro Petrochemical Complex (Comperj) in Itaborai, a municipality in the region. When completed in 2016, Comperj will be the largest refinery in Latin America and is unprecedented in size of investment and scale of activities. Petrobras expects Comperj to generate over 200,000 direct and indirect jobs and transform the historically marginalized region where it is sited into one of Brazil’s principal production centers. News of Comperj has spurred significant migration of job seekers from other Brazilian regions into this one. City officials in the region expect this population and commercial development boom to come in typical patterns of “petroleum urbanization”—fast, chaotic, and inequitable—which will strain the already weak existing infrastructure and increase the significant housing deficit in the CONLESTE municipalities.

At the beginning of the students’ semester-long engagement with CONLESTE in Spring 2011, the consortium, which acted as the Studio client, specifically requested that the Studio examine how CONLESTE can better plan for housing and sanitation issues for the region. In attention to our client’s request, the Studio worked extensively on matters related to housing and sanitation issues for the region. However, it became evident that in order to make progress on those areas, CONLESTE itself would have to be strengthened as an institution. Therefore, students focused the studio on analyzing CONLESTE’s potential and current weaknesses to ultimately propose ways in which the institution could be strengthened. The Studio also contributed to the stakeholders’ ongoing analytical and planning efforts by exploring questions such as: What are the current and projected social and spatial impacts of Comperj on the municipalities and the region? Who benefits and loses in these scenarios and how are equity matters factored into planning and development? What are the challenges and opportunities of creating and implementing regional plans that consider the impacts of Comperj? And in what ways can the efforts of CONLESTE’s planning for Comperj serve as a case study for effective regional responses to mega-development projects?

Using these goals and questions as a framework, we developed a series of institutional, political, and economic recommendations for CONLESTE and the member municipalities. These recommendations were developed as a result of intensive socio-spatial study of as well as a two-week trip to the region. The recommendations are designed to improve collaboration in regional planning in order to leverage Comperj’s potential as an instrument to promote regional prosperity, environmental sustainability, and social equity in Leste Fluminense. In our work, we collaborated with multi-scalar public and private institutions with long-term involvement multiple aspects of the project, including Universidade Federal Fluminense (UFF), UN HABITAT Regional Office for Latin America and the Caribbean (UN HABITAT), and Petrobras.

CONLESTE

CONLESTE is a collaborative regional decision-making institution for municipalities that will be affected by Comperj. The consortium is dynamic; membership has grown from 11 municipalities to 15 since 2007. Currently, The group is defining the scope and scale of their work to address the projected impacts of Comperj on the region. As an institution, CONLESTE’s structure is defined by three councils:

1. DELIBERATIVE COUNCIL
Contains the mayors of the municipalities.

2. CONSULTATIVE COUNCIL
Contains members of civil society, public institutions, Petrobras, UN HABITAT-ROLAC, Brazilian National Development Bank (BNDES), Federation of Industries of Rio de Janeiro State (FIRJAN), Federal Savings Bank (CEF) and neighborhood associations.

3. DIRECTORATE AND REPRESENTATIVES
Composed of municipal departmental secretaries.

One of the member mayors is elected President of CONLESTE every two years. The President appoints a General Director. Both oversee the work of the councils. The process of elections is a source of conflict within CONLESTE. Political tensions in the process have caused municipalities to disengage with CONLESTE. Additionally, Inter-municipal boundaries create additional conflicts. Municipalities do not always agree on which topics should be addressed. Though CONLESTE is an inter-municipal consortium, the work and communication within the group occurs primarily between mayors, with minor involvement from municipal secretaries. This effectively excludes city government departments, whose work is relevant and vital to the efforts of CONLESTE. Member municipalities are also on differing scales of fiscal and technical capacity, population density and development. As a new consortium, CONLESTE struggles with its own institutional capacity

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1 Studio Professor Clara Irazábal and Assistant Alejandro de Castro had already been in consultation with CONLESTE representatives and other actors for more than 2 years in preparation of this Studio.

2 As of this writing, this council is not active.
deficits, as the bulk of their operating budget consists of government transfers. Federal programs and pledged funds from Petrobras represent the current unutilized major sources of funding available to CONLESTE for regionally directed improvements.

BRAZIL TODAY

Brazil is the largest country in South America with vast amounts of natural resources and a unique national character. For much of modern history, Brazil has been characterized as the “Sleeping Giant” poised on the brink of arriving on the global economic stage but held back by economic instability and severe social stratification. However, with the recent discovery of oil reserves equaling millions of barrels, the award of both the 2014 World Cup and the 2016 Olympics (among other important international events), an up to 5% annual growth rate and strong leadership, Brazil has arguably shifted from its past of military dictatorship, inflation, boom-and-bust cycles, and unstable regimes into a new era of global power. Importantly, this transition brings a new shift in relations between property capital and civil society. Goldman Sachs recently announced Brazil’s economy as on par with Russia, India, and China. Dubbed the BRIC group, these countries are rapidly developing and entering into a new era of international influence. In 2011, office rental prices in Rio de Janeiro were the fourth highest globally and exceeded those in midtown Manhattan (Packard, 2011). These spaces share the city with hundreds of informal settlements. Often, precarious housing is adjacent to luxury condo complexes, illustrating the pervasive issue of income and spatial inequality prevalent in Brazil. Human Development Index scores of neighborhoods in Rio de Janeiro span the range of those between Sweden and Serbia (Instituto Brasileiro de Geografia e Estatística, 2010). Taking advantage of the positive political and economic conditions of the country, this would be a crucial time to address social ills before they become more deeply entrenched.

PETROBRAS AND COMPETRJ

Petrobras is a publicly-traded Brazilian oil company specializing in the exploration, production, refining, selling and transportation of oil, natural gas and their by-products. It is also a world leader in the development of advanced technology for deep-water and ultra-deep water oil production. Petrobras is the largest company in Latin America and the sixth largest oil company in the world, with a market value higher than Microsoft and whose operations span 27 countries. The company’s historical evolution goes hand in hand with the discovery of oil in Brazil. President Getulio Vargas announced the creation of Petrobras in 1953 to perform activities of research, exploration, development and production of oil and gas in Brazil. At that time, the country was involved in an import-substitution industrialization program, and was looking for a way to decrease reliance on oil imports. The company was also charged with the role of implementing and regulating national oil policy. Petrobras held a monopoly in the Brazilian oil industry between 1953 and 1997 due to the protectionist policies in place, as well as its role as a governor of the industry. Today, the government owns 56% of the company’s shares.

This opening up of the oil industry in Brazil led to its expansion of exploration of oil and participation in other oil markets. During the past ten years, the company doubled its oil production and increased its oil reserves by 75%. In 2006, President Luiz Inácio Lula da Silva announced that Brazil was now self-sufficient in oil production, but not refining activities. This period led Petrobras to its strong
global position today and its efforts in expanding programs of corporate social responsibility. Brazil is still dependent on importing processed oil since the country’s capacity for processing the domestically produced heavy crude oil is low. Petrobras is now focusing on expanding its refining capacity to reduce the dependency on imported processed oil and increase the autonomy of the Brazilian oil industry. In 2006, Petrobras announced the Comperj project, a major investment in oil refining for Petrobras and Brazil. This petrochemical complex will be the largest in Brazil, covering a land area of 45 million square meters (the equivalent of roughly 6,000 North American football fields) costing US$8.4 billion and 8 years to complete (2008-2016). The goal is to increase domestic production of processed heavy oil and derivatives by approximately 165,000 barrels a day, reducing the country’s reliance on imported processed oil. The anticipated annual revenue from the activities at the complex is US$5.8 billion.

The complex is located in the municipality of Itaborai, one of CONLESTE’s municipalities. This location was chosen because of its proximity to regional transportation infrastructure connecting the plant to docking terminals as well as for the development opportunities in the historically marginalized region.

Photo 1: Oil rig in the Guanabara Bay (All photos by Jeffery Yuen).
METHODOLOGY

We conducted our studio work during Columbia University’s 2011 Spring Semester, from January 2011 to May 2011. We collaborated with members of UFF, UN-Habitat ROLAC, Petrobras, and CONLESTE. Our work was segmented into three phases, each described at length below.

SCOPE AND ANALYSIS OF PROBLEM

To understand the complex issues and developmental challenges of CONLESTE, it was necessary to first understand the socio-political and historic context within Brazil and the Leste Fluminense region. This was accomplished through literature review and analyses focused on Brazilian history, Brazilian housing policies and programs, case studies of large industrial projects in Brazil, and studies of housing and infrastructural conditions in Leste Fluminense. In addition, weekly guest speakers presented their expertise on issues that pertained to the studio. Through this collaborative participation we gained insight into the monitoring of Comperj’s spurred development through the Millennium Development Goals, the role of Petrobras in Brazilian society, Brazilian strategies for planning affordable housing, and the contemporary context of real estate development in the state of Rio de Janeiro, among other pertinent issues. This information was synthesized into the mid-term presentation: CONLESTE, Realizing the Potential of Regional Planning in Leste Fluminense, completed in preparation for field research in Brazil.

FIELD RESEARCH

Building upon the first phase of research, we continued extensive dialogues with members of UN-HABITAT ROLAC, CONLESTE, and UFF in Rio de Janeiro, from March 15th to March 25th. We also worked in tandem with urban planning and architecture students from UFF. The main goal was to jointly debate and propose solutions for the development of CONLESTE.

Field research was approached in five steps:
1. Initial Presentations of Rio de Janeiro’s current socio-economic conditions, recent trends of Leste Fluminense’s urban development, and planning initiatives in the state of Rio de Janeiro. These presentations set the context for the proceeding and the various entities involved in the region’s planning.

2. Site Visits were conducted in the project areas in four municipalities: Niterói, São Gonçalo, Maricá, and Itaboraí. There was also a site visit to one of Petrobras’ existing oil refineries in the state of Rio de Janeiro, Reduc. These visits gave us a deeper understanding of the regional urban context and the issues that surround economic variance, social disparities, and environmental degradation.

3. Information Exchanges with various entities provided us with knowledge of urban planning and urban design practices and proposals for the affected areas. Discussions were held with university professors and students, UN-Habitat officials, municipal urban planning officials, local NGOs, community members, employees of Petrobras, and the General Director of CONLESTE.

4. Brainstorming of strategic proposals to improve institutional strength and planning practices in Niterói, São Gonçalo, Maricá, and Itaboraí was conducted during a three-day workshop with the professors and students of UFF, UN-Habitat ROLAC, and members of CONLESTE and the Secretary of Regional Development (Secretaria de Desenvolvimento Regional). Divided in three groups, we focused on improving housing, transportation, and sanitation infrastructure.

5. Presentations of Policy Directives, held after the three-day workshop. These presentations served as potential proposals to promote equitable and viable development for affected sites within CONLESTE.

The trip to Brazil gave us a more holistic view of the obstacles and barriers that CONLESTE and the region faced. Through these transnational dialogues we were given feedback on our work up to mid March, and were provided indispensable information and understanding of the region to continue making progress in our work.

RECOMMENDATIONS AND POLICY PROPOSALS

Upon our return to New York, we refined our analyses of the studied sites to propose improvements upon urban policies, programs, and plans. The end goal was to promote more equitable and sustainable development of the region, while bolstering CONLESTE’s power as a regional body. We maintained partnerships and dialogues with the above actors to refine the work and, ultimately, to present a list of policy recommendations to our client, CONLESTE. We prepared and delivered our final presentation to Columbia University’s Urban Planning Program on April 21, 2011.

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3 Guest speakers included both experts in Brazil (via Skype) and in person in New York City.
In addition to the previously described CONLESTE and Petrobras, the studio collaborated with four major stakeholders on this project that are detailed below.

**UN HABITAT-ROLAC**

UN HABITAT-ROLAC (Regional Office for Latin America and the Caribbean) has a formal relationship with Petrobras and Universidade Federal Fluminense (UFF). The main objective of this partnership is to monitor the UN Millennium Development Goals (MDGs) in the region to learn about the impacts of Comperj. A strong focus of the MDGs is on poverty reduction, health, gender equality, education, and environmental sustainability. Central to Comperj are MDGs 7 and 9, which focus on environmental sustainability and accelerating local development while reducing inequality respectively. The indicators for the MDGs were developed in an extensive participatory process in the region, and thus provide a consensual framework from which to monitor and guide the effects of Comperj.

**UNIVERSIDADE FEDERAL FLUMINENSE (UFF)**

In 2007, University Federal Fluminense became involved in analyzing the effects of Comperj developments through the solicitation of UN HABITAT-ROLAC. The public university is federally and has a commitment to equitable social development in the region. Furthermore, multidisciplinary professionals and researchers at UFF provide expertise in the varied focus areas covered by the MDGs. UFF is currently monitoring the MDGs alongside UN HABITAT-ROLAC to evaluate three questions: 1. What changes are occurring in CONLESTE in relation to housing and the environment? 2. How are these changes linked, directly or indirectly, to Comperj? 3. What innovations are being realized in terms of institutional corporation, emergence of new organizations and new scales of planning to manage conflicting effects of urbanization?

Additionally, UFF is working with three CONLESTE municipalities to develop their housing plans in anticipation of Comperj’s operational impact.

**STATE GOVERNMENT**

In 2006, Rio de Janeiro State (RJS) founded Comperj Forum as an institutional platform to discuss, plan, and implement public policies regarding Comperj. However, this body has proven to be somewhat ineffective. The full extent of the role of the state government as it relates to Comperj is still unclear, though it has created some channels for municipal funding. It administers funds for the Growth Acceleration Plan (PAC) that supports infrastructure projects in municipalities. The state is also embarking on a Solid-Waste Management Research and Plan in collaboration with the National Development Bank of Brazil (BNDES). Finally, the state’s Ministry of Environment is participating in the Agenda 21 initiative led by Petrobras. It is also starting several initiatives indirectly related to Comperj, such as the Arco Metropolitano Regional Plan, which is a developmental plan within the municipalities containing the new highway linking the largest port in RJS to Comperj.

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4 For more on the process required to establish Goal 9, see the “Policies and Political Structure” section of this report.

*Photo 2: Professor Clara Irazábal with representatives from UN HABITAT-ROLAC, UFF and CONLESTE.*
COMPERJ FORUM

The purpose of Comperj forum is to facilitate democratic discussions regarding Comperj. Its aim is to encourage coordinated communication among stakeholders and to minimize the inequities that exist at a regional and state level. Ideally, Comperj forum should help plan and implement projects related to 8 key areas: Housing, Infrastructure, Water, Education, Environmental Sustainability, Economic Development, Social Policy and Public Safety.

Comperj Forum was created in 2006 when Comperj was announced; however, members have met infrequently since its founding. The Forum consists of state representatives (including the Governor of Rio de Janeiro State) and the technical-managerial group (Grupo Técnico-Gestor, GTG). Organizations represented in the GTG include publicly-owned banks (Caixa, BNDES, Banco do Brasil), Petrobras and CONLESTE. Structurally, the Forum is to meet monthly to keep abreast of issues in the region, yet members have found this difficult to coordinate.

Councils and committees are expected to implement items discussed at each meeting, yet participants complain of political fragmentation hindering this process. There is no evaluation or monitoring mechanism to ensure that this happens. Members complain about the inefficiency of the Forum, citing examples such as representatives returning to their sectors and passing the ideas off as their own. This is not only frustrating, it also diminishes the strength and legitimacy of Comperj Forum. Moreover, there is a lack of incentives amongst the representatives to actively participate in the meetings and abide by their decisions. In this way, political fragmentation presents a large barrier to development. Lilian Yuresевич, representative of the state government in the GTG, voiced this issue stating that “there aren’t different hierarchical levels within Comperj Forum, but different egos” (Personal Communication, March 24, 2011).
Though CONLESTE was founded in 2002 on issues of water quality in the region, the group expanded and redefined itself upon the announcement of Comperj in 2006. Due to the dynamic state of membership in CONLESTE, this study examines CONLESTE as the following 11 member municipalities: Cachoeiras de Macacu, Casimiro de Abreu, Guapimirim, Itaborai, Maricá, Magé, Niterói, Rio Bonito, São Gonçalo, Silva Jardim, and Tanguá (see Map 1). These municipalities comprised CONLESTE at the beginning of this study and will henceforth be referenced as the ‘CONLESTE region’. Currently, CONLESTE has grown to include Araruama and Teresópolis with the potential for adding municipalities in the near future.

The CONLESTE region spans an area of 1,884 square miles (Instituto Brasileiro de Geografia e Estatística, 2010), which approximately the size of the state of Delaware or six times larger than New York City. Situated within Leste Fluminense, the CONLESTE region has historically been politically and economically marginalized and given its secondary status to neighboring Rio de Janeiro City. The region’s tenuous position was exacerbated in the 1960s when the nation’s capital city was moved from Rio de Janeiro to Brasilia. As the prominence of Rio de Janeiro weakened on a national scale, so too did the livelihoods of those living within Leste Fluminense.

In 2010 the CONLESTE region had a population of 2.3 million people, largely concentrated in the urbanized core of São Gonçalo and Niterói. The regional population has grown at a higher rate than the national rate in the past decade, at 14.2% and 11.2% respectively. (Instituto Brasileiro de Geografia e Estatística, 2010). Contradicting the boom in population, the region has experienced a lower rate of economic growth than both the state and the nation. GDP per capita has increased in the region by 12.6% from 2000-2008, compared to 27.1% for the state and 25.3% for the nation (Amaral et al., 2010). In 2008, GDP per capita for the CONLESTE region stood at US$6,865, far lower than the state’s at US$12,853 and the nation’s at US$9,259 (Ibid.). The CONLESTE region has seen significant improvements in Human Development Index (HDI), a more nuanced metric of wellbeing that considers health, education and living standards. In 1991, the region sported an average HDI of 0.68 (Instituto Brasileiro de Geografia e Estatística, 2010), comparable to the national score of 0.70. By 2000, the CONLESTE region and the national average improved to 0.77. The HDI of Rio de Janeiro State is consistently higher than both the CONLESTE region and the national average due to the influence of Rio de Janeiro City. Rio de Janeiro State saw an improvement of HDI from 0.75 in 1991 to 0.81 in 2000.

Map 3: CONLESTE region with orange dots representing the informal settlements throughout the region.
Housing

Improvements in HDI belie ongoing problems in basic housing provision. The region has long suffered from a chronic shortfall of housing supply with concomitant expansion of the informal housing sector. Today the area officially contains some 233 informal settlements, housing over 63,000 families (Amaral et al., 2010). This official number is likely to be much lower than the actual reality on the ground. According to a recent study by the Ministry of Cities (2011), the CONLESTE region has a current housing deficit of 49,486 units and an additional 77,657 subnormal and precarious units. The entire regional housing stock is currently comprised of 578,469 units. However, by 2023, housing unit demand is projected to double to 1,026,835 units (see Annex 1). The size and speed of Comperj-related growth is expected to exacerbate the growing housing deficit and increase social and spatial inequalities unless effective regional action can be realized.

More than just a physical structure, housing should be understood as a bundle of rights including access to the essential infrastructure and services that accompany full citizenship. In Brazil, there is a strong legal foundation for such a progressive approach to housing. The ‘right to housing’ is guaranteed by the 1988 Brazilian Federal Constitution and is reinforced in the 2001 City Statute with its call for the ‘social function of property’. From this perspective, the proliferation of precarious settlements is troubling, represents an unrealized set of habitation rights, and raises concerns over social, spatial and environmental equity.

While the process of informality has been appreciated as an expression of adaptability and resilience, such practices in the housing sector are fundamentally responses to inadequate and tenuous habitation conditions. Our Studio was concerned with the conditions that produce informality as it relates to patterns of incomplete urbanization and its detrimental impacts on residents. The continued deficit of housing, especially below market rate housing, has fuelled the growth of informal settlements. These settlements often lack sufficient basic infrastructure provisions, including water, roads, sewage, and solid waste collection, resulting in unsanitary conditions and increased health risks. In the CONLESTE municipalities, water service only reaches 52% of the population, while the sewage network serves a mere 22% of residents and over 262,000 households in the region suffer from deficient infrastructure (Amaral et al., 2010). In some municipalities, like Itaboraí, there is no sewage system and raw sewage flows directly through regional water bodies and into the Guanabara Bay. Beyond infrastructure, the tenuous legal status of informal settlements is also problematic for regular public service delivery and official residency recognition. Discrimination based on formal residency requirements is frequent and limit access to employment, education, and financial opportunities. The locations of informal settlements lack proper infrastructure to promote adequate mobility and accessibility. In this context transportation infrastructure needs to go beyond merely supporting industrial modes of production. Rather it should be integrated into economic, environmental, and housing policy and focus on maximizing use value for residents.

The market has proven unable or unwilling to supply housing below a certain price point, a situation that is worsening given the increasing strains of demand. Speculation in land markets has resulted in chaotic and sprawling patterns of urbanization. Some parcels with full access to urban infrastructure are left vacant while informal settlements are pushed into marginalized, underserviced areas. The market logic of land allocation often pushes informal settlements to precarious and environmentally sensitive areas. This phenomenon is highlighted at Morro do Bumba, a small informal settlement in Niterói. Morro do Bumba was built on an uncapped landfill where steep slopes and unstable soils combined to create extremely hazardous urbanization conditions. In April 2010, heavy rains triggered a series of landslides that destroyed 60 homes and killed 200 people (Brooks, 2010). The situation gets worse by the day as rate of growth in the region has outpaced the rates of improvement of infrastructure.

![Figure 1: Current and projected housing deficit for CONLESTE region. (Source: See Annex 1).](image)
MUNICIPAL OVERVIEW

While the CONLESTE region generally suffers from a number of pressing issues, particularly in housing and infrastructure, there are a great variety of conditions and patterns found between municipalities. The 11 municipalities exhibit sharp differences in social, economic and environmental conditions that need to be considered in both local and regional plans. In an effort to better understand the variety of conditions and priorities found in the CONLESTE region, we selected a group of 4 municipalities for further exploration—Itaboraí, São Gonçalo, Niterói and Maricá. Focusing on the differing regional conditions illuminated the most salient challenges facing CONLESTE.

SÃO GONÇALO
2010 Population: 999,901
GDP Per Capita (US$): $4,477
Area: 95 Square Miles
HDI Rank: 1014 (of 5507)

São Gonçalo began as a suburb of Niterói, and became its own municipality in 1929. Since the 1940s, manufacturing and industrial works have been the backbone of the city’s economy, earning it the nickname of Manchester Fluminense. São Gonçalo’s position on Guanabara Bay presented an advantage to these industries. São Gonçalo is the now second most populous city in the Rio de Janeiro State, with nearly 1 million residents resulting in a dense, highly urbanized landscape. Despite the high density, São Gonçalo continues growing and had the highest rate of informal housing growth from 2000-2008 in the region (Amaral et al., 2010). The city is struggling to maintain its share of industrial firms, just as service industries are gaining a presence. São Gonçalo is also considered to be a bedroom community for Niterói and Rio de Janeiro and suffers from ongoing issues of deficient sanitation and sewage delivery. The current administration is very concerned with the public profile of the city and is actively working to build a more positive perception among citizens and firms. For São Gonçalo, the impacts that Petrobras represents go beyond Comperj. In 2009, the Integration Center, a training and education center developed in conjunction with Comperj, opened in the city. Also, São Gonçalo is in negotiations with Petrobras to be the site of a new port.

ITABORAÍ
2010 Population: 218,090
GDP Per Capita (US$): $4,062
Area: 166 Square Miles
HDI Rank: 2248 (of 5507)

The Comperj complex is located in the municipality of Itaboraí. This relatively poor city was once a major agricultural producer, first of sugar cane and later oranges. By the 1930s, agriculture shifted to other regions and the city has been in economic decline since. The opening of the Rio-Niterói Bridge in 1974 accelerated the urbanization process in Itaboraí and transformed the town into a bedroom community to the cities of Niterói and Rio de Janeiro. The former orange plantations were rapidly converted into scattered housing developments that lack urban infrastructure, creating serious social and environmental issues. Until recently, Itaboraí has had few employment industries with most residents commuting to Niterói or Rio de Janeiro for formal employment. However, the construction of the Comperj complex could reshape this regional dynamic.

5 All statistics in this section are from the Instituto Brasileiro de Geografia e Estatística, 2010.
**NITERÓI**

2010 Population: 487,327  
GDP Per Capita (US$): $10,385  
Area: 54 Square Miles  
HDI Rank: 3 (of 5507)

Niterói served as the capital of Rio de Janeiro State from 1830s-1975. Due to its administrative role and port location, Niterói grew into an important shipping and manufacturing hub. Niterói enjoys good infrastructure due to its legacy as a state capital. Basic sanitation metrics are the best in the metropolitan region and according to the Inter-American Development Bank (2006), Niterói is one of the best-structured and best run municipalities in the country with a long history of urban planning dating back to the 1940s. The proposal to form CONLESTE actually came from the municipality of Niterói with the idea that the sharing of information and resources could help development in the whole region. Niterói has vested interest in the success of regional development: It has a large number of informal settlements, and if other municipalities in the region get better equipped to respond to the growing developmental pressures due to Comperj within their own municipalities, Niterói would be better equipped to control and serve its own development. Today Niterói’s economy is based on the service and commercial sector that employs many residents from neighboring municipalities. It also serves as a bedroom community for Rio de Janeiro. Every day over 200,000 people commute between Rio and Niterói via bridge and ferry. Tourism also plays a significant role in the local economy, with its proximity to Rio de Janeiro (towards which it offers splendid views), its beaches, and the works of renowned architect Oscar Niemeyer playing important roles. One of Rio’s most recognizable images is Niemeyer’s Niterói Contemporary Art Museum.

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**MARICÁ**

2010 Population: 127,519  
GDP Per Capita (US$): $4,270  
Area: 140 Square Miles  
HDI Rank: 917 (of 5507)

Maricá is a small coastal fishing town located in the picturesque Lakes District, about an hour east of Rio de Janeiro City proper. The natural beauty of its lagoons and beaches has recently attracted considerable international investment and the city has branded itself as a domestic and international tourist destination. This strategy has produced very rapid growth in the past decade. Despite the increasing development of resorts, condos, and second homes, most of the municipality is relatively poor and still lacks basic water and sewage infrastructure. Further, the pressures of growth have oftentimes been in conflict with the environmentally sensitive wetlands and beaches that define the region. In Maricá, the challenges of balancing development and environmental sustainability are very pressing and apparent.
COMPARATIVE ANALYSIS

The differences between these four municipalities highlight the diverse conditions and anticipated impacts resulting from Comerj-driven development. For example, the regional population is very unevenly distributed, with São Gonçalo accounting for 40% of the regional population at 999,901 (Instituto Brasileiro de Geografia e Estatística, 2010). Niterói, the next largest municipality, is half the size of São Gonçalo, at 487,327 people. Together, the four focus municipalities account for 80% of the regional population. Population density is also highly skewed with far higher densities occurring in Niterói and São Gonçalo. They have respective densities of 9,419 and 10,442 people per square mile (Instituto Brasileiro de Geografia e Estatística, 2010). These densities are comparable to Miami, Florida and 10 times denser than both the CONLESTE regional average of 1,225 and the state average of 946 people per square mile. While there are much higher densities of people in Niterói and São Gonçalo, it is Maricá, the recent tourism hub, that has seen the highest rate of population growth over the past decade. From 2000 to 2010, Maricá experienced a 66.2% growth in population, far higher than the 14.2% population growth rate of the region (Instituto Brasileiro de Geografia e Estatística, 2010). This is partially attributed to its low base population of 76,737 in 2000. It is interesting to note the relatively low growth rates in Niterói and São Gonçalo at 6.1% and 12.2% respectively, due to the fact that they are already highly dense and urbanized.

There is also great economic variation between municipalities. As expected the GDP per capita is relatively high in Niterói at US$10,385 compared to the regional average of US$6,865 (Instituto Brasileiro de Geografia e Estatística, 2010). Itaboraí, where Comerj is located, has one of the lowest GDP per capita in the region at US$4,062. These figures are all below the Rio de Janeiro State average of US$12,853. The upper tier of CONLESTE municipalities, such as Niterói, is comparable to the national average GDP per capita of US$9,259 (Amaral et al., 2010). One obvious regional outlier is Casimiro de Abreu, with a GDP per capita of US$25,890 (Instituto Brasileiro de Geografia e Estatística, 2010). In this municipality, high-end development and vast oil royalties have bolstered GDP numbers. Related to GDP per capita is the incidence of poverty. There is a large regional variation between Niterói, with a 13% incidence of poverty, and Itaboraí where 59% of the population lives in poverty (Instituto Brasileiro de Geografia e Estatística, 2010). The regional average sits at 41.9% while the state average is 32.44% (Instituto Brasileiro de Geografia e Estatística, 2010). The region also exhibits a very wide range of HDI scores. On one hand, Niterói enjoys the third highest HDI score out of the 5,507 municipalities in the entire nation, while Itaboraí is ranked 2,248 (Instituto Brasileiro de Geografia e Estatística, 2010).

Employment opportunities are highly concentrated with 76% of the formal jobs being located in Niterói and São Gonçalo, with surrounding municipalities largely acting as bedroom communities. Many smaller municipalities are working to increase their share of formal job opportunities. Compared to the rest of the region, Niterói has a high municipal budget that supports its highly advanced governance system. Niterói’s annual budget of US$579,000,000 is 3.5 times greater than the regional mean budget of US$161,000,000 and nearly 25 times greater than the annual budget of the municipality of Cachoeiras de Macacu at US$23,000,000 (Instituto Brasileiro de Geografia e Estatística, 2010).
LAND USE PATTERNS

Reflecting its share of the regional population, São Gonçalo accounts for 40% of the housing stock in the CONLESTE region. In total, the four case study municipalities combine for 80% of the existing housing supply. The informal housing sector is similarly skewed, and predominantly clusters around northern Niterói and São Gonçalo. Niterói has the highest number of informal settlements with 108 of the 233 regional favelas (Amaral et al., 2010). Further, there are variations in the housing markets within each municipality. For example, more than 25% of the formal housing in Maricá is occasional use housing compared to the regional average of 5.6% (Instituto Brasileiro de Geografia e Estatística, 2010). This figure reflects the considerable role of tourism and second homes in the Maricá economy. This pattern is projected to significantly increase with the completion of Comperj.

Water service delivery is very diverse in the region. Niterói enjoys excellent water access, as 84% of formal housing units have access to water networks. Other municipalities have far lower rates such as Maricá with 15% water provision, while the regional average sits at merely 52% (Amaral et al., 2010). Sewer provision is even more inequitably distributed. Niterói has a very high rate at nearly 85%, while São Gonçalo, Maricá, and Itaborai are at 4%, 2%, and 0% respectively (Amaral et al., 2010). Several municipalities in the region, such as Itaborai, do not have any separate sewer network. In these municipalities, raw sewage flows through drainage systems and is dumped directly into regional water bodies.

Given the sharp differences in economic, environmental and social conditions, municipalities have developed differing agendas and political priorities that must be considered. In São Gonçalo, recent efforts to build civic pride and reposition the city in a more positive light will have regional implications. According to local stakeholders, São Gonçalo hopes to capture a large share of regional high-end development that will cater to Comperj managers and executives. However, other municipalities such as Niterói and Maricá are also in a position to capitalize on luxury development. The diversity of municipal political positions is also seen within the CONLESTE executive council structure. In the most recent council election, the mayor of São Gonçalo was anticipating to secure the CONLESTE presidency, and thus have greater access and visibility vis-à-vis Petrobras and higher levels of government. However, the smaller, rural municipalities formed an oppositional coalition and elected the mayor of Tangua instead. As a result, São Gonçalo’s representatives have not been as willing to engage in regional discussions since.

Figure 2: CONLESTE region poverty incidence by percentage of population.
(Source: Instituto Brasileiro de Geografia e Estatística)

Figure 3: CONLESTE region population by municipalities between 1910 - 2010
(Source: Instituto Brasileiro de Geografia e Estatística)
POLICIES & POLITICAL STRUCTURE

INTERNATIONAL SCALE

The size and scope of Comperj continues to generate global interest and investment. As a result, many of the institutions active in the process of planning for Comperj have an international presence. Petrobras is one of the most financially and politically influential stakeholders in the project. The partially state owned has many foreign investors, compelling experts to predict Petrobras to surpass ExxonMobil in the near future (Seeking Alpha, 2011). Colloquially referred to as the “second state,” Petrobras utilizes its large investment base to be both an economic as well as social developer for Brazil. The company shapes projects and channels resources for these efforts through partnerships with other major multilateral institutions, in particular the UN and affiliated UN HABITAT-ROLAC. These partnerships have resulted in three major initiatives directly and indirectly related to Comperj; The UN Global Compact, Agenda 21 Comperj and the Monitoring Millennium Development Goals and Establishment of Millennium Development Goal 9: Accelerate Local Development and Reduce Inequality in the CONLESTE Region. The opportunities and limitations of the efforts on the international scale are important facets of the operating landscape addressing the regional impacts of Comperj.

UN Global Compact. The UN Global Compact is “a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption” (UN Global Compact, 2011). The Compact operates as a voluntary commitment for businesses, which participate by signing the agreement and producing annual “Communications on Progress” on each of the ten principals. Petrobras signed the Compact in 2003, formalizing its commitment to globally articulated principals of economic development that is both sustainable and equitable. Much of the focus of the Compact is on proper reporting practices. Combined with heightened public awareness and demand for corporate social responsibility practices, Petrobras’ commitment to the Compact has primarily materialized in publications detailing the company’s annual carbon reduction and charitable giving. Extensive reporting requirements hold Petrobras accountable for its commitment to social responsibility by requiring communication on the progress of social initiatives undertaken by the company. Specific examples include the PROVER Social Empowerment program, which promotes sustainable development through job training for local residents. By training locals to fill the jobs created by a new Petrobras refinery, PROVER aims to mitigate migration flows and boost the economy of the area. Petrobras expects to train over 30,000 COLESTE residents to work at Comperj in the recently constructed Regional Integration and Training Center in São Gonçalo. Importantly, because

the Compact only enforces reporting on the ten principals, it does little to incentivize the development of innovative programs addressing specific problems in which the principles are situated.

Comperj’s Agenda 21. The Agenda 21 program emerged as a result of the United Nations Conference on Environment and Development held in Rio in 1992. The framework includes 21 principles detailing sustainability, economic efficiency, social justice, and conservation criteria in the process of sustainable development. Agenda 21 creates a common language for states, corporations, and civil society to work together for the sustainable and equitable development of their regions and cities. The program both defines goals and addresses implementation via coordination on the global, regional, and local scales. A key facet of Agenda 21 is the establishment of partnerships for sustainable development. In partnership with the Ministries of Environment at the national and state level, Petrobras is using the Agenda 21 process and principals as tools for ensuring that the local development in each CONLESTE municipality is well planned, sustainable, and equitable.

The first step of the process was the creation of Local Agenda 21 Forums in each municipality. Each forum is comprised of members from the public, private, nonprofit, and community sectors. The forums provide a platform to dialogue on how to develop their city sustainably. To May 2011, 13,000 citizens had participated in the process through 360 meetings and over 30 workshops. Each CONLESTE municipality has produced a participatory budget, community diagnosis, and rudimentary plan addressing the anticipated impacts of Comperj. Agenda 21 has only been completed in São Gonçalo; the other municipalities are expected to be completed in Summer 2011. Once finished, the cities are handed a copy of a document with solutions to the identified issues, but there is no methodology in place for how to proceed with the actions.

Monitoring Millennium Development Goals and Establishment of Goal 9. The Millennium Development Goals (MDGs), adopted by the UN in 2000, address the dimensions of poverty and their effects on people’s lives. They focus on poverty reduction, health, gender equality, education, and environmental sustainability. The MDGs were primarily created with consideration of the African rural context, hence the need to expand the MDGs to include conditions and indicators that are relevant to the urban context and geographic areas beyond Africa. In the interest of mitigating potential negative impacts in CONLESTE region, Petrobras contracted UN HABITAT-ROLAC and UFF in 2008 to monitor the progress of the MDGs within the region during the construction of Comperj. This effort began as a means of preventing a repeat of the negative impacts
on the city of Macaé after the construction of a Petrobras refinery in town. The city experienced rapid and haphazard development resulting in the crowding and detriment of the municipality and surrounding region. As this debacle tarnished Petrobras’ reputation, the company entered the current initiative to prevent this outcome with Comperj. UN HABITAT-ROLAC partnered with UFF to jointly carry out the research and reporting efforts in recognition of the federally funded university’s commitment to community service and expertise in the areas of urban research and development. This partnership is currently still underway and producing substantial knowledge about the region. For example, researchers collected data on the amount, distribution, and condition patterns of informal settlements throughout the entire region. Their efforts filled this and other voids in the socioeconomic and land use data available in each municipality.

In a groundbreaking effort, the partnership between the three institutions created a ninth MDG goal explicitly focused on the projected impacts of Comperj. UFF and UN HABITAT-ROLAC solicited the world headquarters of the UNDP in Nairobi for the establishment of this goal, which was granted. This represents a major development in the evolution of the MDGs. The aim of Goal 9 is to ‘Accelerate Local Development and Reduce Inequality in the CONLESTE Region’. Among its 12 objectives, the most important issues of MDG 9 for the region are to monitor regional economic growth, job and labor markets, production specialization, development of local industries, entrepreneurship, energy supply, healthcare systems, indicators of regional violence, and municipalities’ fiscal condition. In addition to Goal 9, UFF and UN HABITAT are focused on monitoring issues related to Goal 7: ‘Ensure Environmental Sustainability’. The target of this goal is to integrate the principles of sustainable development into country policies and programs, while reversing the loss of environmental resources. By 2012, they want to have reduced the number of homes without access to public water and sewer systems by 20%. The last target of Goal 7 is to improve the quality of life for inhabitants of informal settlements living in the CONLESTE Municipalities at least 10% by 2012.

Adopting the MDGs as framework has it strengths and weaknesses. The knowledge and data generated from this process contributes to comprehensive master plans (planos diretores) and legitimizes project-based funding, both of which lead to well-managed development. Access to monetary funds is increased for local activities conducted by NGOs and communities that address MDG goals. The setting of targets and indicators provides a framework for accountability. As a result, specific disparities and forms of marginalization can be addressed and an integrated

Photo 8: Industrial site abutting a faela outside Maricá.
framework for development through the inter-relationships between goals is provided. However, implementation may be a difficult task as global, national, and sub-national concerns must be linked via the same set of goals. As a result communication between the various actors may be arduous and may lack transparency. Moreover, monitoring efforts will be the responsibility of member municipalities after Concrej opens. Given the current weak state of technical capacity of most municipal governments within CONLESTE, this valuable form of data collection could be terminated or be unequally performed at a time when it is critically needed.

NATIONAL TOOLS

Brazil has been recently noted for its progressive approach to planning. Its national policies, as well as the City Statute (discussed in the municipal level section below), have been heavily informed by the concept of the Right to the City. The Right to the City is the belief that all citizens have the fundamental right to sustainable cities, including adequate housing and sanitation, and should enjoy the benefits of urbanization. Thereby, Brazilian planning policy expands housing as a bundle of rights from merely physical infrastructure to include social justice and equity as integral dimensions, deepening CONLESTE’s responsibility to address housing issues in the area.

The contemporary Brazilian political structure is based on a federal system with decentralized policies that engender home rule at the level of the municipality, which serves as a stark contrast to the highly centralized government control of the military dictatorship from 1964–1984. The end of the regime spurred the adoption of the 1988 Constitution, which democratized the power structure and devolved the majority of the power to the municipalities. However, in practice, the various levels of government are highly fragmented, making coordination amongst the different entities difficult. As a whole, federal, state, and municipal governments share the responsibility of promoting programs for the construction of housing and the improvement of infrastructure and basic sanitation conditions throughout Brazil. The authority to implement these improvements is mainly relegated to municipalities. However, as stated above, there exists a great disparity in the technical capacity and ability of each municipality to successfully address and respond to its specific bundle of housing needs.

National Housing and Financial Institutions. According to the 1988 Constitution, the federal government is to institute guidelines for urban development, including those for housing and basic sanitation. In 2003, the Ministry of Cities was created as a government body responsible for formulating and coordinating national policies in the areas of housing, sanitation, urban mobility, and transportation. It brings the federal government’s concerns for Brazilian cities to the forefront, while emphasizing participatory urban policy. The Ministry of Cities articulated the framework for housing initiatives under the National Housing Policy (NHP) in 2005 to ensure citizens access to dignified housing through integrated urban development. Within the National Housing Policy is the long-term National Housing Plan (PlanHab) articulated in 2007 and based on principles of transparency, decentralization, and participatory planning. Its primary goal is likewise to promote universal access to housing. PlanHab also seeks to promote institutional strengthening among the various levels of government. The financing necessary to implement housing programs is generally disseminated through either Caixa, which is the primary public savings and loan agency in Brazil, or the Brazilian Development Bank (BNDES), which focuses on funding for infrastructure projects.

National Housing Programs. There are numerous programs available at the national level for local housing and infrastructure projects. However, the programs tend to be small-scale and are implemented on a project-by-project basis with specific focuses, such as My Home, My Life (Minha Casa, Minha Vida), which uses private developers to construct affordable housing with a focus on favela upgrading. Another example includes the Housing Subsidy Program (PSH), which targets a rural, very poor population for housing initiatives and the oft mentioned Accelerated Growth Program (PAC I/II), a funding program for comprehensive infrastructure projects.

These initiatives represent the wide array of funding and program opportunities that are available to municipalities. A weakness with all of them is that they are constrained by bureaucracy and the technical capacity of the local level to implement them. In fact, according to the National Housing Secretariat of the Ministry of Cities, there is sufficient financing available for housing programs, but it has not been extensively utilized up-to-date (Phaneuf, 2011: para 3). This was further exemplified in a recent article from the Rio Times, which said, “In the state of Rio de Janeiro, out of 237 PAC projects, only two had been completed, which is less than one percent”—further revealing the need to build the technical competence of municipalities to implement the programs at the local level (Phaneuf, 2011: para 6).

STATE TOOLS

In terms of housing provision, the state mainly acts as an administrative, coordinating body that views municipalities as part of a larger planning and development framework. As a result, the state largely serves as an intermediary to disseminate funds from the federal level or other financing agents to the municipalities.

REGIONAL TOOLS

Brazilian regional policy has been limited by the role of municipalities within a system of strong home rule. Since their inception, Brazilian municipalities have enjoyed a high degree of autonomy especially during periods of democratic rule. Many municipalities were originated in the colonial period and actually predate the federation. In the 1930s the movimento municipalista social movement called for the reconstitution of the federal nation as an alliance of municipalities without any state level institutions. Even today, the process of creating a new municipality starts from
the bottom-up with citizens electing to emancipate to form a new entity (Spink, 2005). Since the beginning of the 20th century, and especially since the 1950s, Brazil experienced a major shift in population consolidation. Under the growth-fueled watch of the military dictatorship, economic organization was restructured around the process of industrialization and the policy of import substitution. Such reorganization triggered spatial transformations manifest in massive rural to urban migrations and explosive growth in metropolitan conurbations. This concentration and centralization of the means of production and the means of consumption took the form of the enormous and complex spatial unit known as metropolitan areas (Castells, 1983). Metropolitanization in Brazil was made possible by “massive migration, unbalanced regional growth, spatial mismatching between existing physical stock and need for housing and facilities” (Fernandes, 1992: 23). The impetus for the creation of metropolitan regions came during the 1960s-70s as explosive urban population growth was met with limited institutional capacity to manage the growing needs for the city-regions. The problem of intense inter-municipal competition was compounded by intraregional inequality.

**Metropolitan Regions Under the Dictatorship.** The legal origination of the Metropolitan Region comes from Article 157 of the 1967 Constitution with the goal of “promoting urban planning and the provision of common services of metropolitan interest.” In 1975, Complementary law no. 20 created Rio de Janeiro’s Metropolitan Region. The power to create metropolitan regions was vested exclusively in the president and cooperation was mandatory on the part of the municipalities (Fernandes, 1992; Spink, 2005). Such authoritative control broke from the long tradition of municipal autonomy. The administration of these regions was controlled by two entities, a Deliberative Council and a Consultative Council, both of which were controlled by the governor and had almost no municipal representation. The municipalities, who had no choice opt-out of regional membership, had a minor voice in matters. Further, the metropolitan regions were completely dominated by the military dictatorship, frequently serving as a conduit for authoritarian and centralized federal power. Metropolitan Regions were strategically chosen as, “national security areas” where free elections were forbidden. Rather, mayors and governors in these areas were hand-placed by the military regime and effectively served as federal outposts of power (Souza, 2005). Financial support was provided through the federal government to fund the projects that were of interest to the dictatorship with little input from metropolitan agencies or the affected municipalities. This is partly due to the unclear definition of what constituted ‘common services’, and the definition was conveniently extended to meet the ends of the military rule. Metropolitan regions were merely acting puppets for the military regime and came to be inextricably associated with the military’s drive for centralized power, authoritarian rule, and social exclusion (Fernandes, 1992). Given these circumstances, the metropolitan regions served to exacerbate problems of intergovernmental conflict at the sub-national level at remain somewhat stigmatized due to their connection to the dictatorship era.

**Case Study: Metropolitan Regions**

The Metropolitan Region of Salvador in the state of Bahia provides a relevant case study for oil-driven regional action. In metropolitan regions, there are no mechanisms of fiscal equalization among municipalities. Salvador, the region’s core municipality with over 2,000,000 inhabitants, has a per capita revenue ten times lower than that of one of the region’s smallest municipality, São Francisco do Conde, with a population of around 24,000. The reason for this discrepancy is that São Francisco do Conde is home to an oil refinery, from which the bulk of its revenue is accrued. Salvador has the burden of providing services and infrastructure for the majority of the region’s population. Such discrepancy in municipal finances is directly relevant in the Comperj setting.

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6 The 1967 Constitutions also declared that “the Union, through a Complementary Law, will be able to establish Metropolitan Regions which, aiming at the accomplishment of common services, are composed of municipalities that constitute the same socio-economic community, regardless of their administrative links”. The same constitution also ensures the role of the municipality as a “formal political governmental level with conditions of administrative and financial autonomy.” In 1973, Complementary Law no.14 officially created the Metropolitan Regions of São Paulo, Curitiba, Fortaleza, Salvador, Belém, Recife, Belo Horizonte, and Porto Alegre.
region was still acknowledged, no mechanism for inter-
municipal fiscal equalizing was provided. Incentives 
for intergovernmental cooperation are crucial for metro 
governance but this issue was not part of the urban 
reform (Souza, 2005). While this wasn’t quite the end 
for the metropolitan region, it left them with very few 
resources to achieve any meaningful action.

**Metropolitan Regions Today.** Throughout the 1990s, 
metropolitan regions existed in an institutional, 
administrative, political and fiscal vacuum. Federal 
Sources of funding dried up due to fiscal austerity. 
Lacking mechanisms for intergovernmental cooperation 
and redistribution, metropolitan issues were either 
ignored or handled at the state and municipal scales 
(Souza, 2005). Recently, however, metropolitan regions 
have re-emerged into the discourse as globalization pressures have exacerbated regional problems (Pires, 2010). Today there are 26 metro regions and problems at the metropolitan scale are more salient than ever. “The housing deficit presents itself as the most incisive challenge of the urban crisis in the country’s metropolis with 78% of favela inhabitants living inside 11 of these regions” (Pires, 2010: 174). There is tentative academic interest in a return to regional planning, but the popular agenda is more focused on issues of local community decision-making such as community councils and participatory budgeting (Souza, 2005).

**The Regional Alternative: Public Consortiums.** Since 
the 1988 Constitution, federal and the state government 
have tended to avoid metropolitan issues and passed 
responsibility onto municipalities in hopes that they 
can reach some kind of collaborative agreement 
(Pires, 2010). Public consortiums grew out of this need for intermunicipal coordination and economies of scale. They are very simple, low-commitment and flexible agreements. Their creation is ‘bottom-up’ and spontaneous, with municipalities held together simply by common interest rather than a bureaucratic framework. “They exist because they work and the moment they stop working, they stop existing” (Spink, 2005: 11). However, the highly competitive nature of federalist politics makes inter-municipal consortiums tenuous relationships (Souza, 2005). About 50% of 5,561 Brazilian municipalities participate in at least one public consortium. These consortiums cover a broad range of issues: 1,969 are related to health, 669 to equipment, 241 to education, 64 to housing, 161 to sewer, 87 to water, 216 to solid waste and 88 to data processing. Public consortiums offer an alternative to metropolitan regions and are more sensitive to the particularities of the Brazilian municipal legal structure. However, they are not without their challenges. One of the major barriers to public consortiums is the political will for cooperation. There tends to be a lack of local leadership to start consortiums and share in decision-making power. Often, competing municipalities engage in what is perceived as a zero-sum power game. There is currently a lack of proper incentives and disincentives to encourage the formation of consortiums. Further, consortiums tend
to have very low fiscal capacity and weak institutional recognition in the greater political framework. A final barrier to public consortiums is the lack of clear avenues for citizen engagement. Consortiums tend to be vehicles for coordination across municipal governments and often lack direct citizen voice. Presumably, such citizen action would be channeled through municipal governments (e.g., municipal master plans are required to be participatory) but the current reality is disconnected from this ideal structure. Despite such constraints, public consortiums have proven moderately effective for intermunicipal coordination and with large potential, especially when compared to the failures of metropolitan regions.

**MUNICIPAL TOOLS**

As noted earlier, the Federal Constitution of 1988 
devolved the responsibility of urban policy to municipalities. Consequently in 2001, the City Statute was federally enacted
to help bolster the instruments by which municipalities could improve the quality of life for all urban residents, while stressing the need to actively engage local citizens in planning. As an overarching goal of the City Statute, municipalities need to ensure the social function of property, requiring a balance between development pressures and social and environmental justice. The Statute also stresses the need for planning to actively engage local citizens through a participatory process. The Statute requires that all cities over 20,000 residents complete a master plan (plano diretor) and to update it at least every 10 years. Each local master plan must reflect a given municipality's desired development strategy that addresses local challenges and goals. The master plan is the main instrument through which municipal planning can direct urban development policies at the local level and ensure the balancing of interests. It also qualifies municipalities for funding for housing and infrastructure programs that is available at the national level. Different municipalities, however, have had different capacities, priorities, and methodologies for formulating these master plans. While progressive in many respects, the 1988 Constitution and the 2001 City Statute have unintentionally encouraged the formation of a fragmented patchwork of mismatching municipal master plans—when they exist—with few provisions for coordination of land uses or macro-scale visioning.

The City Statute articulates an inventory of actions that municipalities can use within their master plans to ensure fair access to housing and infrastructure, while promoting social and economic growth. Notably these tools must be specified within the local master plan in order to be employed. Among them, a few stand out as particularly relevant for municipalities to utilize:

- **Special Social Interest Zones (ZEIS)** are the most important tool that the master plan can enact with the objective to safeguard the right to housing. The zones establish special land use standards in order to allocate for social housing provisions, favela upgrading processes, and land regularization procedures. In order to promote low-income housing, ZEIS can restrict high-income real estate projects. They also encourage vacant areas to be converted into social housing.

- **Compulsory Parcelling, Building, or Use;** is a means to oblige owners to use underutilized, abandoned, or vacant land for public purposes primarily to reduce land speculation.

- **Usucapião,** Sometimes referred to as urban adverse possession rights for urban property, usucapião establishes the process by which residents of informal housing can gain legal ownership of their land and/or dwelling. Any person or collective community who has lived in their property (of up to 250 square meters) for 5 years can gain full possession rights. Additionally, the City Statute enables free legal counsel within attaining usucapião through the judicial system for better, more equitable access to tenure regularization.

Collectively, these instruments can be used as powerful options for municipalities to inhibit development pressures and land speculation, while protecting residents' access to land for housing. Additionally, they can be utilized to beneficially direct development and promote social housing. The tools represent a significant opportunity to CONLESTE from the municipal level.

As the strongest level of government with the most autonomy, municipalities have the ability to mobilize community resources. Municipalities are also the most familiar with local needs and issues, which they can vocalize to CONLESTE when addressing the region, and then municipalities can garner community support for CONLESTE's initiatives. Innovative planning legislation at the local level, such as ZEIS, usucapião, and compulsory parceling can be used by CONLESTE to promote access to housing and land for low-income people as well as to channel development within a regional framework. CONLESTE can serve to offset the weaknesses and disparate needs of municipalities through its collective, coordinated strength. Along with the enormous power given to the municipalities, they have a plethora of responsibilities to execute at the local level. Not every municipality is able to respond to them equally, lacking resources, technical capacity, and personnel. Additionally, each municipality is faced with its own set of pressing, divergent urban issues, such as informal settlements, over-development and inadequate infrastructure.

Photo 9: The juxtaposition of old and new architecture is a hallmark of Rio de Janeiro’s physical landscape.
ANALYSIS & DIAGNOSIS

POLITICAL SYSTEM OVERVIEW
Confronting Comperj solicits a coordinated regional approach to prepare for and ensure sustainable and equitable management of the anticipated impacts. But currently, the Brazilian political structure bypasses a regional scale of governance, raising the question as to where CONLESTE can situate itself within the existing political and institutional network to best achieve its vision. To understand this issue in context, it is important to recognize the Brazilian governmental structure as a decentralized system of power in which federal policy engenders home rule at the level of the municipality. This system tends to bypass the state and regional scales, neglecting opportunities for larger-scale coordination and inter-municipal cooperation. Although responsibility was relegated to the local level, control of funding programs was not. Within the municipal level, there exists a hierarchy of plans, which, if implemented effectively, should help allocate funding and development to identified areas. The master plan (plano diretor) is the main planning tool, which all cities with a population over 20,000 are required to have. This plan informs all specified subset plans, such as the housing plan (plano de habitação) and sanitation plans (plano de saneamento), both of which are optional.

The weak technical capacity of many municipalities and lapses of communication between actors have lead to a general duplication of efforts and ultimately, wasted time and resources. In response to these issues, several national funding lines were created to promote local housing and infrastructure. Specifically, Minha Casa, Minha Vida (MCMV), an initiative begot by Caixa, the largest publicly owned bank in Latin America. MCMV uses private developers to construct social housing and also provides subsidized mortgages to private homeowners. Another program with the intention of increasing services to low-income Brazilians is the Accelerated Growth Program (PAC), which concentrates on large-scale infrastructure development projects. However, these programs are issued on a project-by-project basis with extremely specific aims. Municipalities are responsible for completing applications for funding from these programs, whilst few have the technical capacity, staff, or information needed to complete such tasks, which is an obvious barrier to access funding for development initiatives. Thus far, these programs have had limited success in the delivery of housing and development.

A recent article published in O Fluminense, quotes a Petrobras official as saying, “of the 341 projects of [PAC] in the region, 101 were suspended by the Ministry of Cities or by federal banks for lack of documentation” (Onofre, 2011: para. 4). This alludes to the poor implementation capacity at the municipal level to administer programs, but more broadly to complex political dynamics and power relations. Up until 2010, the programs didn’t require municipalities to have specialized plans in place, which diminished the incentive for municipalities to develop or enact such plans. In order to address the issues inherent in this system, there are now deadlines in place for municipalities to complete housing and infrastructure plans in order to be eligible for funding. This adds another layer of complexity for municipalities that don’t have the technical capacity to complete the plans within this time frame, and can eventually increase inter-municipal inequities. Oftentimes the resulting intra-municipal systems contain various plans that are disconnected and development occurs uninformed by the intentions or specifications of the plans.

Photo 10: Commuters waiting for the Rio - Niterói ferry.
COMPERJ POLITICAL LANDSCAPE

A myriad of stakeholders with varied lines of communication with other actors currently exist within the operating landscape of Comperj. As evident Figure 6, players are engaged within multiple levels (insert megan’s chart). Their complex interactions with programs and plans, which will be detailed within this section, result in a fragmented and quite complicated network. This diagram helps to understand and synthesize the connections between the actors, programs, and outcomes. By overlaying this map with the current policies, programs, and projects in place, we were able to obtain a holistic understanding of how these tools unfold in reality. From this, we identified two general areas that a strengthened CONLESTE can address: a lack of coordination and weak technical capacity.

LACK OF COORDINATION

Political Fragmentation. The absence of coordination between municipalities has presented two issues at the regional scale, political fragmentation and duplication of efforts. Observing the regional arena, it is evident that the municipalities within Conleste are in collaboration with entities at various scales. But it is unclear as to whether they are in collaboration with each other. However, after interviews with public officials and analysis of formal contracts and agreements we can see that there are virtually no formal direct lines of communication linking the municipalities, suggesting that the discourse at this level is almost non-existent. For instance, there have been several attempts at the municipal level to prepare for the development of Comperj, discernable from the varied housing and infrastructure-related planning processes, plans, and projects owned by each city. But while formulating these plans/projects, municipalities have not made initiatives to consult neighboring municipalities, indicating that the municipalities aren’t thinking and acting regionally yet. This fragmentation has inhibited municipalities from coordinating key plans that should be addressed on a regional scale. It is also notable that the housing plans, many of which are still in development, have no clear connection to each other. However, the development of social housing will spans municipal borders and has been pinpointed to occur along transportation routes. As housing is an issue that transcends
municipal boundaries, these needs should accordingly be coordinated, or at least addressed, at a larger scale. Additionally, Itaboraí and Maricá are developing disparate sanitation plans that also share no connection. Regional coordination of infrastructure can minimize costs and environmental impacts of infrastructure provision, yet these plans constrain the delivery of this service to the municipal level. This system is not only inefficient and more costly, but also spurs competition between the municipalities for funding for these initiatives when they should be collaborating and synchronizing efforts.

**DUPLICATION OF EFFORTS**

These lapses in communication, at both municipal and regional levels, have led to another issue amongst the Comperj stakeholders, duplication. A general overlap in planning efforts has been spurred by the involvement of independent and external actors. Subsequently, several municipalities own different plans that ultimately strive towards the same ends of improvement in the provision of housing and sanitation but that bear no relationship to each other. These dual processes occur in isolation of each other, often leading to similar results but waste time and resources. For instance, Petrobras launched a local Agenda 21 initiative, with backing from major actors in each Conleste municipality to articulate community visions. Embedded within this process is the identification of key social, physical, and environmental issues to suggest solutions and potential actions for addressing these issues. The local Agenda 21s were the products of extensive community outreach and contain valuable information that could have served as input for local and regional planning, but have no connection to the multiple existing municipal level plans. Even though the municipalities were revisiting their local master plans to account for Comperj concurrent to the development of the local Agenda 21s, the revisions didn’t incorporate the Agenda 21 input. Municipalities could coordinate with Petrobras to share resources and cut down on the time and money spent on this process. A formal venue of communication would be ideal to enable these processes to inform each other. To address these issues of overlap, Comperj Forum was developed as an attempt at a venue enabling roundtable discussion amongst stakeholders with varying influence and roles related to the mega project. But, this platform has proved to be ineffective in promoting collaboration or information sharing because of the inherent voluntary structure. According to Petrobras officials, this is due to the lack of political will from the majority of the members to participate. This entity also lacks presence of academic institutions or community groups at the monthly meetings.

Photo 11: Rio de Janeiro at night.
WEAK TECHNICAL CAPACITY

Although some programs exist to provide funding for housing and infrastructure projects, the municipal attempts to effectively utilize these resources have been hindered by their lack of trained staff or workforce to formulate plans and projects. Without plans and projects, municipalities cannot opt for funding. For example, Petrobras contracted UFF and UN HABITAT to monitor progress on the Millennium Development Goals within each municipality in 2006. This extensive data collection fills in gaps necessary for understanding existing conditions in the region and areas vulnerable to the rapid development instigated by Comperj. The data from this effort would also be helpful in the formulation of development plans. Although UFF and UN HABITAT have shared this data with CONLESTE since the beginning of the partnership, a lack of coordination and capacity to process the data has created barriers for some municipalities to incorporate this data into their plans. Along the same lines, Niterói and Itaborai have completed their master plans but these plans have not been put into action. Agenda 21 has been recently completed in São Gonçalo, but the gap between completion and implementation of the recommendations highlights the absence of methodology, technical capacity, and funding for enacting the solutions generated from the extensive participatory study.

Additionally, there is a general disconnect between plans that are “in process” and the projects that are being built. The fragmentation of plans is such that development mainly occurs separately from formalized plans. This disconnect has led to haphazard, opportunistic development and poor understanding of priority areas. If plans have been made, they are not implemented. Meanwhile, projects are happening uninformed by plans. For example, Maricá does not have a master plan in place and just recently began developing a housing plan, but they have already received funding for and implemented housing projects, indicating that this development is occurring in isolation of a plan and potentially in contradiction to it.

These political and institutional flaws dictate the need for a regional coordinating body to facilitate the planning process. CONLESTE has been recognized as the institution with the most potential to fulfill this role. But CONLESTE is extremely weak and disconnected from its institutional landscape. Even after five years since the creation of this consortium, all connections remain informal. Most notable is the absence of connections to Petrobras and the state. As it stands currently, CONLESTE holds a weak and informal voice to lobby with the state or federal governments for the policy reforms needed. Yet, all funding programs for the region are handled through the federal or state levels. Without this fundamental power, CONLESTE remains very powerless to channel development or negotiate with municipalities.

This analysis can be embodied by the words of Regina Bienenstein, professor at UFF, who described Brazilian policy as “sheets in the wind,” referring to the poor implementation of the progressive policies and programs to which the country is committed. CONLESTE offers the potential to address this core issue by both strengthening municipalities to better actualize projects in a systematic manner, and coordinate development at a regional level to ensure equitable distribution of opportunities and costs.
RECOMMENDATIONS
TO STRENGTHEN CONLESTE

Our research evolved into a comprehensive set of recommendations for CONLESTE to adequately address the projected impacts of Comperj. The recommendations are designed to be implemented in three phases. The first is designed to bolster CONLESTE’s institutional capacity. The second phase provides suggestions for CONLESTE to utilize this new strength as a leader in the implementation of housing and infrastructure projects for the region. Finally, the third phase targets ways in which CONLESTE can transform itself into a self-sustaining organization—meaning they are mainly focused on the establishment of independent funding sources for CONLESTE. The phasing of these recommendations is for time and resource management purposes, yet there is some overlap between each group. Figure 7 illustrates the recommendations in their entirety and their intended relationship to one another.
PHASE 1

1. ROTATING PRESIDENCY
Issues addressed: Lack of communication and political will amongst CONLESTE’s voting board, intermunicipal political tensions, varying political agendas.

Currently, CONLESTE is overseen and managed by its Deliberative Council, the highest body of the Consortium. This council is composed of 11 mayors. They meet twice a year or when extraordinary situations arise. Members elect the President and Vice President of the Deliberative Council. The purpose of this council is to:

- Discuss issues of the region
- Plan and implement initiatives and programs to promote urban development and improve social, economic and environmental issues
- Promote integration of activities, programs and projects developed by non-governmental bodies, government agencies and private companies
- Promote improved quality of life for the resident population
- Plan and support rural and urban development
- Manage public agencies, financial institutions for the sustained development of the region.

The activities of the Deliberative Council are discontinuous and not all of the mayors are active members (Amaral et al., 2010). To improve negotiations and coordination within the Consortium, there must be an accountable and cohesive political body. The creation of a Presidency Council will help alleviate such tensions and promote distributive powers amongst the group. Fashioned after the European Union’s Presidency Council, CONLESTE’s council would consist of three seats. This presidential triage would consist of previous, current, and future presidents. The three successive presidencies will set a common agenda led by the current “head” president, which will continue the work of the previous presidential head. It will then be furthered by the future presidential head. The council would guide the political agenda of the Deliberative Council, facilitate compromise, and administer council agendas. This system will promote collaboration rather than competition within the council and will allow previous presidents to pass their experience to new council members. Ideally, political transitions will be made smoother and decision-making will be more effective.

2. ABSORB COMPERJ FORUM
Issues addressed: Project funding and implementation, public participation, lack of political capital vis-à-vis the state and Petrobras.

Comperj Forum was created by the State of Rio de Janeiro to provide a venue for discussions about Comperj involving actors at different scales of government. Its membership includes BNDES, Caixa, Petrobras, the Ministry of Cities, and various state departments. During our visit to Rio, one municipal employee of Niterói described CONLESTE as the body that identifies issues and decides how to address them, while Comperj Forum is the vehicle to facilitate funding of projects to address those issues. However, Comperj Forum has not been an effective body, and CONLESTE has not been able to access it opportunities for funding and dialogue with national, state, and local actors. Comperj Forum is cited as ineffective on two grounds: 1. Too many dominant voices, and 2. As a state-organized forum, the emphasis has been on providing the space for discussion, without the institutionalized means to follow through with the decisions made.

CONLESTE would avoid these issues by establishing a routine meeting schedule and structure, in addition to asserting leadership roles in meetings through the hierarchy of councils and voting powers. CONLESTE can access opportunities of networking with various stakeholders through its own structure. The Advisory Council of CONLESTE includes representatives of public and private organizations, such as Petrobras, the UN, BNDES, and FIRJAN; some of the actors involved in Comperj Forum. Advisory Council members can be incentivized to attend the meetings through advisory voting power and opportunities for development. CONLESTE meetings embody an opportunity for members to affect land use decisions, improve communication and deliberation, and leverage political capital. In order to take advantage of these opportunities, CONLESTE must set and follow through with monthly full member meetings. The meetings should allow for discussion from participating members, but must be structured. Different agenda topic sessions must be timed. CONLESTE can use meetings with its full member body as a venue for discussions and funding channels, similar to what Comperj Forum aimed to create. This combined structure allows for the enhanced productivity of both groups, which now serve somewhat redundant purposes. The benefits of combining the two groups span the following categories:

1. Project Funding and Implementation

CONLESTE’s Advisory Council includes funding...
sources like BNDES. The opportunities for project-fund matching through CONLESTE meetings would be both indirect (communication between CONLESTE and funding sources will be strengthened) and direct (specific projects discussed at meetings may be eligible for funding). Funding applications for regional projects would become streamlined. CONLESTE can actively work toward public-private partnerships through the private members of its Advisory Council. This can help to overcome the barriers implementation that many projects face. CONLESTE’s Executive Council has the authority to add members to the Advisory Council, which it can wield to include local developers.

II. Affirm Public Participation at the Regional Level
Public participation at the regional scale is difficult to structure and ensure. The Advisory Council includes neighborhood association representatives. By enforcing a routine meeting schedule, CONLESTE can institute a robust and reliable venue for public participation, allowing community feedback into the regional discussion of issues to promote sustainable and equitable development.

III. Establish State Relations
Although no state departments are currently members, CONLESTE can utilize its Advisory Council as a means of political legitimation through securing state membership. Not only would this strengthen CONLESTE, it would also build a relationship that could foster project funding. Brazilian municipalities currently do not have the revenue base that is proportionate to the amount of responsibility they carry since devolution of power in 1988. Rio de Janeiro State, however, has revenue to allocate towards improvements that CONLESTE’s meetings could help distribute.

IV. Establish a Position of Leverage with Petrobras
Currently, CONLESTE and Petrobras have minimal communication with each other. CONLESTE has the opportunity to gain political capital through a relationship with the state that could pressure Petrobras into participating in a discussion with CONLESTE. This would strengthen the company’s accountability to the regional communities, which is currently tenuous, and secure a role for the region in Petrobras’ decision-making.

3. CREATE A CORE STAFF WITHIN CONLESTE
Issues addressed: Lack of workforce to plan regionally, communication barriers between municipalities, political motivations for not moving forward, access to data.

As a response to Comperj, CONLESTE defined the 11, previously mentioned, priority areas for the consortium to address. Though they are well thought-out, progress on the 11 issues for CONLESTE are to be accomplished by municipal employees who already have a full-time workload in municipal functions. This internal structure of planning is not sustainable. Once funding is secured to support CONLESTE, a core staff should be created. This staff would be employed, not elected. This is an important means for shielding CONLESTE from political change. The hiring of staff should be completed through examination of pertinent technical skill or capability for learning such skills, not through political appointment. Hiring of core staff employees could also involve the advising of non-politically affiliated partners, such as UFF, to further de-politicize the core staff. These efforts are also necessary to prevent corruption within these positions. Creating a core staff for CONLESTE fosters opportunities for the following three goals:

I. Developing Regional Databases
The core staff would include data technicians who would be responsible for systematizing the regional data collected through different sources. These employees would pursue verification of existing data, updates and collection of new data, and creation, maintenance, and management of databases. In Leste Fluminense currently, different actors are collecting data for different purposes, such as the state for its Arco Metropolitano Plan, individual municipalities for their own master plans, UN Habitat-ROLAC and UFF for monitoring MDGs, and Petrobras for Agenda 21. It is imperative to gather those data, make them compatible with each other, and analyze them side-by-side to inform strategies for improvements. For example, current drainage channels and road infrastructure need to be compared in order to move forward with further road planning, and the community’s feedback needs to be understood in order to set planning objectives. Identifying the gaps in the information will also convey where the next efforts of data collection need to be performed. Regional access to data would be key to mitigate political resistance to change within the region. With expanded access to data and data analysis, municipalities can be pressured to participate in planning for improvements and can be held accountable for action or inaction.

II. Intergovernmental Liaisons
CONLESTE’s core staff would also bridge the communication gaps between CONLESTE and municipal
employees. During our visit, it became clear that although a municipality may be active in CONLESTE, employees involved in planning within the municipality are often not aware of CONLESTE’s actions. In order for the regional and municipal master plans to be aligned and efforts on both levels to be effective, this communication is imperative. This would ensure that efforts are not duplicated. Effective plan implementation hinges on this communication.

III. Staff Responsibility for Coordinating Priority Efforts

Municipal employees of the region cannot sustain the additional workload of CONLESTE functions. The coordination of efforts toward CONLESTE’s focus areas should be shifted away from municipal assignments to CONLESTE’s core staff. One employee per focus area should be responsible for implementation oversight. An additional staff position of Technical Director would be responsible for project management in the implementation phase. This will often involve coordinating efforts of the member municipal departmental secretaries. Since so much of these 11 positions would entail cross-municipal work, these employees would naturally also provide much of the intergovernmental liaison function.

4. MAINTAIN RELATIONSHIPS WITH ACADEMIC INSTITUTIONS

Issues addressed: Incomplete data for analysis of conditions, lack of experience in interpreting data, lack of workforce to harness regional planning, inexperience in regional planning.

Partnerships with UN Habitat-ROLAC and UFF have resulted in a massive amount of data collection, analysis, and visual representation facilitated to municipalities and CONLESTE. It has also established a regional dialogue. CONLESTE also actively pursues an understanding of international approaches to regional issues and planning. These efforts are illustrated by relationships with the Weitz Center in Israel, Columbia University in the U.S., and plans for an exploration of planning policies in Sweden. These relationships provide opportunities for capacity sharing and understanding regional approaches that would further help define and enable CONLESTE’s planning strategies. They need to be nurtured to support an ongoing discussion about regional planning.

5. REGIONAL TAX SHARING

Issues addressed: Capacity building, municipal funding, lack of workforce to plan regionally, communication barriers between municipalities, political motivations for not moving forward, access to data.

CONLESTE should be the platform for the creation of a progressive regional tax-sharing fund to bring about efficiency and equity benefits for the region. Fiscal disparity between local governments can lead to competitive politics, which are counterproductive to the welfare of the region (Pammer and Dustin, 1993). From an efficiency perspective, a tax-sharing program would decrease the fiscal incentives for municipalities to subsidize businesses to locate in their city. Municipalities currently have great incentive to encourage business growth. For example, a new industrial plant brings additional revenues to the host municipality, while the cost of such growth such as roads and health and safety services spills over into neighboring communities. To combat these inefficient incentives, a regional tax-share program would decrease intermunicipal competition and avoid the race-to-the-bottom-situation (Luce, 1997). It also would encourage regional business growth rather than intraregional shifting of business (Pammer and Dustin, 1993).

The sharing of taxes can also address equity concerns. Currently, each municipality has an incentive to encourage (through policy) high-end residential development. As the benefits of such actions—increased property value—accrue to the existing residents of the municipality, the costs of such policy are borne by those low-income families who are unable to locate in these developments or nearby due to the high costs of housing. These ‘externalities’ are often ignored. Further, every municipality has the same set of incentives resulting in the regional underproduction of low-income and moderate-income housing. A regional tax-share fund would decrease the incentives of high-end development and could be combined with a distributive mechanism that incentivizes the production and maintenance of low and moderate income housing. Precedent for regional tax-sharing has been implemented in Minneapolis-St. Paul, USA since 1971. This study proposes an expanded version that considers both business and property tax.

Starting from a benchmark year of 2012, each municipality in CONLESTE region would contribute 40% of the increase in its commercial-industrial and residential property tax base into a regional pool. The funds would then be allocated in three ways. First, a portion of revenues could be used to support the daily operations of CONLESTE by providing a consistent and self-sustaining funding stream. The remaining funds should be redistributed to municipalities in two ways. 50% of the funds should be allocated based on the participatory budgeting of regional councils. These councils are vehicles for direct citizen engagement in regional decision-making. The 50% remaining funds should be redistributed to municipalities based on a formula that considers 1) total market value of property/capita; 2) capacity to raise revenue; and 3) expenditure needs. Such progressive redistributive metrics will ensure that funding will flow from high capacity/low need areas to low capacity/high need areas.

6. INTERNATIONAL SEED GRANTS

Issues addressed: external funding opportunities, establish CONLESTE’s core staff.

Brazil has had a history of reaching out to international partners. These international partnerships have been received with mixed reviews. Nevertheless, if CONLESTE is to legitimize itself as a key player within Brazil’s political and developmental landscapes, it is imperative to obtain the necessary resources to advance its agenda. CONLESTE needs to demonstrate that it is efficient with the time and money given by its members,
the public, and relevant institutions (Bailey, 1999). Achieving overall effectiveness depends on improving staff and management systems; ultimately, this will develop institutional competence (Bailey, 1999). CONLESTE should seek strong economic and financial ties with international organizations, specifically with organizations that provide seed money or grants. Rather than working with the ‘usual suspects’ of the World Bank and International Monetary Fund, which have a tainted record in the region, CONLESTE should explore funding opportunities with the following Latin American organizations that are involved in advancing new regional institutions and promoting processes of equitable development in the area: Banco del Sur and the Bolivarian Alternative for the Americas (ALBA). Both can help CONLESTE with projects to improve basic infrastructure and combat asymmetries and inequalities while developing the region.

**Banco Del Sur.** Banco del Sur stemmed from South America’s growing financial strength and serves as one of Latin America’s main efforts to promote and advance development projects (Landsburg, 2009). This bank strives to centralize the savings of its member countries to promote regional development (Strautman, 2008). By promoting regional economic unity, while reducing ‘capital flight’, Banco del Sur functions as a regional development bank and a regional central bank (Marshall, 2009). As a regional development bank, under its proposed scheme, it acts as a center to distribute pooled regional funds. In this manner, intraregional infrastructure projects are funded through national development or state-owned commercial banks that perform a portion of a project in the corresponding country (Marshall, 2009). Joseph Stiglitz, former economist of the World Bank, states that Banco del Sur is a useful alternative to other international lending banks and will benefit Latin American development and lending (Carroll, 2007).

**ALBA.** The Bolivarian Alternative for the Americas aims to create new regional public enterprises, formed through agreements by national state enterprises and joint state collaborations to support social projects as well as multilateral cooperation agreements among its members (Janicke, 2008; Bendana, 2008). ALBA’s vision of a broader Latin American and Caribbean process of transformation and integration represents the first attempt at regional integration based on new visions of social welfare and equity, rather than trade liberalization (Harris and Azzi, 2006). ALBA’s emphasis on public ownership, domestic orientation, political solidarity, and social mobilization demonstrate how a state can promote regional institutions and provide a framework to achieve political goals via collective action. To this point, however, ALBA still faces gaps in its ability to finance specific projects and institutions. ALBA remains dependent on the decisions of participating countries presidents, social advisory councils maintain a marginal role in decision making, and critics state that ALBA’s top down approach does not leave room for participatory discussion on how ALBA should implement its projects (Landsburg, 2009).

### PHASE 2

#### 7. MUNICIPAL STAFFING

**Issues addressed:** Capacity building, municipal funding, lack of workforce to plan regionally, communication barriers between municipalities, political motivations for not moving forward, access to data.

The first thing that a strengthened CONLESTE should do is identify gaps in staffing at each municipality. This would be done using the model developed by the studio of 12 core staff members and departments for CONLESTE. CONLESTE could then coordinate an application to receive PMAT (Program for the Modernization of Municipality Management) funding to pay for the initial hiring and training of these new municipality staff members where required. PMAT is a funding source from BNDES specifically for tax administration, modernization, and management of basic social sectors. In this context, CONLESTE would secure such funding to bolster the individual municipality capacity, which is an imperative first step to regional coordination and collaboration.

#### 8. REGIONAL COUNCILS

**Issues addressed:** Capacity building, municipal funding, lack of workforce to plan regionally, communication barriers between municipalities, political motivations for not moving forward, access to data, knowledge sharing.

Once CONLESTE has bolstered capacity across the region, its role would become that of coordinator and regional spokesperson. When we visited Niterói's planning office, they expressed the desire to work with the other municipalities, but were frustrated at the lack of a communication structure that they could follow to start a regional dialogue. This condition informs our next recommendation. CONLESTE should then instigate a meeting structure for intermunicipal coordination and collaboration.

The CONLESTE secretaries of the priority areas would coordinate with the matching secretaries from each municipality into councils, such as a housing council and a sanitation council. All CONLESTE staff members would attend these meetings to allow for all of the 11 focus areas to be considered in the discussions. There would need to be community representation within these councils. There are currently strong city councils, which provide a good precedent for community inclusion of in such institutions. These include both municipal secretaries and civil society in the form of elected community leaders. We are recommending that within these city councils, community leaders would be elected to represent the community in each of the regional councils. The individual municipal secretaries and community leaders would bring community concerns to the discussion. This process in itself will be building capacity at the community level, strengthening civil society and its involvement in the regional decision making process.

Horizontal communication across issues is also important. CONLESTE coordinators would debrief with the other coordinators highlighting the various important action
points of the council meetings. It would be the coordinators’ role, in partnership with the CONLESTE Technical Director to incorporate any other CONLESTE staff into council discussions when necessary to allow for broader discussion. For example, the Housing Coordinator may invite the Water Coordinator to his or her council meeting to address their common concerns.

As a result, the CONLESTE regional council structure can also act as a forum for managing and prioritizing regional projects. At the moment there are many disparate projects across the region requiring funding to be implemented. Through the proposed councils, CONLESTE can combine these projects into prioritized coordinated proposals that can be taken to the state and federal governments to secure funding. This process can be aided by the incorporation of the Comperj Forum players within CONLESTE, which enables direct discussions with the funding sources such as BNDES and CAIXA, and the players from the private sector, streamlining the process for the municipalities.

There are two key funding sources that CONLESTE can apply for with their proposals: PAC and MCMV. PAC is the Accelerated Growth Program specifically used for infrastructure development projects. This funding comes from BNDES. MCMV is the My Home My Life program, which is funding from Caixa to deliver social housing projects, through private developers. By prioritizing and consolidating projects into regional proposals, CONLESTE can streamline funding applications and leverage its relationships to funding sources to aid implementation.

**PHASE 3**

9. PROPERTY TAX REFORM

Issues addressed: municipal funding, access to data, knowledge sharing.

The Brazilian property tax IPTU, Imposto sobre a Propriedade Predial e Territorial Urbana, is a direct tax paid to a municipality based on an estimation of fair market value. While the property tax is the internationally preferred tool for financing urban infrastructure and services, it has seen limited effectiveness in the Brazilian context (De Cesare, 2010). In more than half of Brazilian municipalities, IPTU revenues accounts for less than US$5 per capita (Domingos, 2011). A major source of lost revenue and tax injustice is the use of outdated land appraisals for IPTU. IPTU reform is an important step for increasing social equity, municipal autonomy and strengthening the fiscal condition of CONLESTE municipalities. Historically, much of the revenue potential of IPTU was lost due to the failure of local governments to implement the tax in an efficient manner. Complicating the issue was the legislative process needed to update property tax valuations. Municipal law was required each time the property valuations were updated, and each law was accompanied by an ever-increasing set of loopholes and exemptions (Domingos, 2011). As a result of this chaotic political process, IPTU gradually lost prominence to the ISS, Imposto Sobre Serviços, as the primary municipal revenue generator. The ISS is an indirect tax on services that tends to be regressive.

The accelerated growth of the Brazilian economy has increased urban land prices in many municipalities. Resultant expansion in the real estate markets highlighted the widening disparity between the IPTU tax potential and realized revenue. Compounding the issue was loss of alternate sources of revenues due to the 2008 global economic decline. In December 2009, the Ministry of Cities published a new law Resolution Act No. 511 that provided municipalities with a standard instrument on which to base their property tax valuations. The Resolution Act asserts that property assessment is a technical process to be carried out according to guidelines from the Brazilian Technical Standards Association, ABNT, to reflect fair market value. Given this new tool, some municipalities have enacted tax reform measures with resulting in a more progressive tax system, increasing justice and municipal autonomy (Domingos, 2011).

Given the explosive
growth that is occurring in the CONLESTE region, municipalities should initiate the process of property assessment reform immediately. Updating the assessments of properties to reflect current values will increase revenues to municipalities, and decrease the role of speculation (De Cesare, 2010). Further, a reformed tax tool could utilize tax incentives for socially beneficial actions such as citizen participation in social, health, education, and economic development programs (Domingos, 2011). IPTU tax reform would also be beneficial to the private real estate sector. Political opposition could be minimized by emphasizing the general benefits to all stakeholders.

A precedent case in Belo Horizonte found that IPTU tax reform was able to realize an 18% increase in tax revenue in the first year. This impressive gain only represents 50% of the increased assessments, the result of a phased implementation plan (Domingos, 2011). Such impressive increases should not be expected in the CONLESTE municipalities as Belo Horizonte employs a more complete and advanced system for tracking property. Many smaller municipalities, like the ones in CONLESTE, lack adequate cadastral maps to even begin IPTU reform. Thus, the first step should be to update and complete such maps.

The process of evaluating the market value of a property based on visible characteristics requires a high level of skill and training (Dillinger, 1989). However, a major problem in the CONLESTE region is the lack of technical capacity to carry out such complex tasks on a large scale. In such a context, a simplified form of mass valuations based on a few easily identified characteristics can be used to minimize the requirements of technical skill and evaluator discretion. A simplified yet comprehensive cadastral map will greatly benefit the private and public sector.

The reform process needs to be democratic and collective, and will take time to communicate with communities. A public information campaign should be pursued to communicate the benefits and drawbacks of tax reform to avoid misunderstandings and public resistance. It will be important to make the redistributive and equity driven benefits of reform concrete and visible to the public. Municipalities should consider designating a press agent to deal with inevitable criticism and a technical advisor who understands the nuances of tax law (Domingos, 2011). Such reforms will improve the municipality’s ability to generate revenue, increase tax equity, and leverage equitable development patterns. However, such reform must be institutionalized to ensure regular property assessment updates based on technical ABNT standards.

Informal settlement residents should also be included to the property tax rolls. Tenure regularization offers the ability to collect tax revenue while increasing formalization and security of tenure for residents. However, property taxes need to be properly phased to protect informal residents from sudden changes and unreasonable financial burden. Failure to do so would increase informality, spatial and economic inequities, and potentially displace already vulnerable citizens.

10. IMPACT FEES

Issues addressed: Regional funding, housing provision, regional infrastructure, economic development.

Impact fees are a second funding source that would capture the increased economic development spurred by CONLESTE to deliver public projects such as sewer and water systems, electricity infrastructure, and social housing. This further reduces the reliance on external funding and provides an alternative source of infrastructure revenue that does not rely on the property tax. It more efficiently internalizes the costs of development by shifting the burden of associated off-site infrastructure onto the property developer (Ihlenfeldt and Shaughnessy, 2002). Such fees decrease the financial burden of new development for existing residents. Impact fees can also approximate user fees and thus represents a more equitable financing scheme than property tax based financing. Such fees associated with new development can be used to finance a wide range of infrastructure and public services such as roads, parks, and education facilities (Bunnell, 1993).

Impact fees exist in Leste Fluminense, but they are poorly administered and extracted, and they are done within, not across, municipalities. They are triggered by certain project types, but there is often weak political will to levy the fees as individual municipalities want to promote development in their cities. The real estate market dominates,

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7 Fluctuations in property tax assessment create uneven and chaotic land use patterns that disrupt locational efficiency. Uneven property tax assessments also contribute to general uncertainty in land title a major issue in the Brazilian real estate market. Given this uncertainty, land title insurance becomes a difficult process that adds time and cost to real estate transactions.
especially in the State of Rio de Janeiro where development is so rapid. The state has been referred to as the 'state of exceptions' (Vainer, 2010), where development is promoted over all other considerations, making 'exceptions' the rule. The solution to this is to incentivize the municipalities to effectively levy these fees, and using the revenue to deliver the necessary projects that mitigate the impacts of the developments in question. Our recommendation is that CONLESTE could incentivize the municipalities to effectively administer impact fees through a disincentive to the non-conforming municipalities in the form of exclusion from the redistributed tax revenue.

With the new staffing structures and coordination across the municipalities, over time it would be expected that there will be more data available along with staffing capacity to accurately calculate impact fees that may cross borders. This improvement in efficiency of an existing tool will promote infrastructure development in a regionally planned way. With the anticipated development impacts of Comperj, the efficient administration of impact fees could have a profound impact on the region's ability to deliver the key services that it currently cannot. An innovative expansion of the use of impact fees in the region could be to use them to provide affordable housing alongside MCMV funding. A feasible new use of the fee would be to offset any new demands on the existing housing stock produced by the arrival of new companies.

11. OIL ROYALTY REFORM
Issues addressed: Regional funding, municipal funding.

CONLESTE should lobby the federal government to reform the system for oil royalty allocation to include regional bodies. Under the current system, 40% of oil revenues currently go to Brazil’s federal government and 45% to the producing states. The remaining 15% is divided between the non-producing states and municipalities (Barrionuevo, 2010a). The oil royalty was conceived to achieve two goals. First, it serves to compensate federative entities that suffer environmental damage. Second, royalties are intended for investments in infrastructure, to support social costs such as health, education, security and transport. (Fiatikoski, 2010).

Rio’s leaders cite the additional function of oil royalties in balancing out its relatively small share of federal tax transfers, which are targeted more heavily to the poorer north-eastern states (The Americas: Raining on Rio’s parade; oil policy in Brazil, 2010).

Given the goals of the oil royalty program, there is a cogent case to be made for a regional allocation of royalty funds. First, the impacts resulting from the processing and transportation of oil products tend to be regional in scale. Negative impacts do not stop at the boundary of municipal jurisdictions. Further, investments in infrastructure, environment remediation, and public goods should be coordinated at a regional level to maximize efficiency. Additionally, a case can be made that regional allocation of public goods and infrastructure tends to oversupply in low-demand areas and undersupply in high-demand areas leading to an inefficient outcome.

The oil royalty program is currently under national scrutiny. The Ibsen Amendment proposes 52.5% of royalties to be distributed among all of Brazil’s 26
states and the Federal District, 40% to go to the federal government, and the oil producing states and cities that currently receive 30% will get the other 7.5% (Tinar, 2010). The lower house approved the proposal 369-72 but has been held up by presidential veto (Barrionuevo, 2010b). The studio recommends that CONLESTE take a strong stance in opposition to the Ibsen Amendment responsible for these reforms. Given the purported goals of the oil royalty program—mitigating externalities and investing in infrastructure and human capital—a wider distribution to all municipalities would not be efficient. “Some point out that it is local regions, not the entire Federation, that bears the brunt of associated management as well as the environmental costs of oil production and therefore deserve to keep the income” (Economic Intelligence Unit, 2010). Further, changes should be phased over time to prevent economic upheaval in local governments that are heavily dependent on royalty revenues. In Rio de Janeiro State, the Ibsen Amendment will decrease royalties from around $4.1 billion a year to just $130m” (The Americas: Raining on Rio’s parade; oil policy in Brazil, 2010). The Ibsen Amendment can only be justified on the grounds of national redistribution of income. However, redistribution is not an explicit goal of the oil royalty program as conceived by the Brazilian National Agency of Petroleum.

The oil-royalty issue is particularly salient as the massive pre-salt oil reserves are beginning to be extracted. Petrobras is reported to have plans to invest $224 billion within the next four years to the development of pre-salt oil fields offshore, which are believed to hold over 50 billion barrels of high-quality crude oil (Tinar, 2010). It should be acknowledged that oil-royalties are not without their inherent problems. Some research has found evidence of the so-called ‘resource curse’, where high resource dependence tends to negatively impact economic growth or diversification (Postali, 2009).
CONCLUSIONS

Evident in the recommendations and their phasing, CONLESTE’s means of action include:

Planning: Using an understanding of regional conditions to plan toward equitably and sustainable development.

Policy-Making: Coordinating municipal agendas and plans through a unified policy.

Projects: Facilitating specific project funding and implementation to address developmental issues.

Our recommended strategic plans are set up in phases in order to move CONLESTE from addressing issues toward equitably and sustainable regional planning. CONLESTE has created a framework for a regional plan. Objectives, targets, specific projects, and a corresponding projected budget will be, or already are enumerated for each of the 11 focus areas. CONLESTE has already identified areas that it recognizes need specific regional plans: transportation, infrastructure, water resources, tourism, and modernization of municipal and regional management. For the other focus areas, including housing, CONLESTE can continue to align municipal policy, support a discourse of solutions across municipal boundaries, and pursue project funding and implementation.

Concentrating on planning, policy-making, and projects would require enduring work. They necessitate monitoring and evaluation, and continuing updating. A Regional Master Plan formatted as a policy document has the advantage of flexibility to facilitate planning as an ongoing process. We have identified that CONLESTE can have a critical role in mitigating the impacts of Comperj, and addressing issues within the region. We envision CONLESTE as moving beyond a reactive role, toward the empowered function of planning. Our recommendations aim to strengthen CONLESTE so that it sustainably and equitably affects change in the region.
BIBLIOGRAPHY


* Município não contemplado pelo Estudo “Assentamentos Precários no Brasil Urbano”.
** Estimado por metodologia que oferece apenas a ordem de grandeza e não o total preciso em números absolutos de domicílios, uma vez que o déficit destes municípios não foi calculado pela Fundação João Pinheiro.
*** Demanda Futura Por Moradias, desconsiderada a implantação do COMPERJ.
ANNEX 2: MIDTERM STUDIO PRESENTATION

CONLESTE
Realizing the Potential of Regional Planning in Rio de Janeiro

Urban Planning Studio
Columbia University
Spring 2011
Rio de Janeiro Studio

Instructor:
Clara Izuel
Teaching Assistant:
Jorge Colin

Collaborators:
Massimo Mazzucelli
Alejandro de Castro
Thomas Bassett

Students:
Heather Anderson,
Goulaine Benay, John Bowers, Alexandria Dial, Megan Marlisi, Lauren Racusin,
Vanessa Smith, Jeff Yuen

BRAZIL

Rio de Janeiro, RJ

New York, NY
ANNEX 2: MIDTERM STUDIO PRESENTATION

RIO DE JANEIRO

CONLESTE

11 municipalities of CONLESTE

Rio de Janeiro city

Rio de Janeiro
ANNEX 2: MIDTERM STUDIO PRESENTATION

CONLESTE Municipalities

CONLESTE Municipalities Comperj
Environmental
Social
Economic
Physical

PROJECT OVERVIEW

Brazil Overview
Comperj
Petrobras
CONLESTE
Planning Issues
Brazil: Sleeping Giant

Oil reserves equaling millions of barrels

2014 World Cup

2016 Olympics
LAND RENTS OF WORLD CITIES (US$/sq.ft/year)

- Rank 2011
  1. New York
  2. London
  3. Tokyo
  4. Shanghai
  5. Hong Kong
  6. Mumbai
  7. Moscow
  8. Paris
  9. Mumbai
  10. Moscow

from #13 in 2010 to #4 in 2011 - a 47% rental uplift

"Housing deficit is one of the greatest problems in Brazil."
- Inouye, 2002

90% of shortage affects low-income families

7.9 million unit deficit nationwide

Gated complex of shanty-oversized in Pacaembu, Sao Paulo, Brazil
Petroleum urbanization
Over 200,000 direct and indirect jobs
The size of 6,000 football fields

Potential Problems
Rapid urbanization straining existing infrastructure
Increased informal settlements & density
Regional disconnects and greater social inequality
Degradation of environment & increased land speculation
**ANNEX 2: MIDTERM STUDIO PRESENTATION**

**Comperj**

Potential Benefits

- Promotion of institutional capacity
- Creation of new jobs
- Increased HDI
- Poverty reduction through equal access to jobs, credit and training
- Increased environmental sensitivity and management

**Petrobras**

Majority state owned

- US$ 295 billion market value
- 6th largest oil company in the world
How can CONLESTE work with Petrobras and other stakeholders to maximize the benefits and minimize the problems Comperj will bring to the CONLESTE municipalities?
ANNEX 2: MIDTERM STUDIO PRESENTATION

CONLESTE challenges

- New consortium
- Institutional capacity deficits
- Constrained funding

Case Study Municipalities

1. Differing conditions
2. Time and information constraints
3. Enriched understanding for improved communication

[Map showing Sao Goncalo, Itaborai, Niteroi, Marica, and Atlantic Ocean]
Case Study Municipalities

Diverse conditions

Diverse priorities

Itaboraí

Population: 218,090

GDP per Capita (US$): 4,062

Area: 166 square miles

HDI Rank: 2,248
(out of the 5,507 municipalities in Brazil)
ANNEX 2: MIDTERM STUDIO PRESENTATION

São Gonçalo

Population: 999,901
GDP per Capita (US$): 4,477
Area: 95 square miles
HDI Rank: 1,014
(out of the 5,507 municipalities in Brazil)

Niterói

Population: 487,327
GDP per Capita (US$): 10,385
Area: 54 square miles
HDI Rank: 3
(out of the 5,507 municipalities in Brazil)
ANNEX 2: MIDTERM STUDIO PRESENTATION

Maricá

Population: 127,519
GDP per Capita (US$): 4,270
Area: 140 square miles
HDI Rank: 917
(out of the 5,507 municipalities in Brazil)

Population Indicators
ANNEX 2: MIDTERM Studio Presentation

Population Growth Rate (2000-2010)

- Average Rio State
- Average CONLESTE

Source: IBGE 2010

Social/Economic Indicators
ANNEX 2: MIDTERM STUDIO PRESENTATION

US$ GDP Per Capita

Source: IBGE 2008

Poverty Incidence (%)

Source: IBGE 2008
ANNEX 2: MIDTERM STUDIO PRESENTATION

Formal Employment

Source: IBGE 2008

Municipal Budgets (2008)

Source: IBGE 2008
ANNEX 2: MIDTERM STUDIO PRESENTATION

Land Use Patterns

Formal Housing Units

Source: IBGE 2008
ANNEX 2: MIDTERM STUDY PRESENTATION

% Occasional Use Housing

CONLESTE Region
Urbanized Areas and Informal Settlements
ANNEX 2: MIDTERM STUDY PRESENTATION

% of Urban Units with Access to Water Networks

Source: Contractors and Local Governments 2010

% of Urban Units with Access to Sewer Networks

Source: Contractors and Local Governments 2010
ANNEX 2: MIDTERM STUDIO PRESENTATION

Summary of Municipal Conditions

Itaborai
- Low Gini
- Few Jobs
- Low HDI
- Low Water
- Low Sewer
- High Poverty

São Gonçalo
- High Population
- Housing Units
- Density
- Moderate Jobs
- High Water
- Informal Settlements
- Low Sewer

Niterói
- High GDP
- High Tourism
- High Water
- High Sewer
- High Gini

Maricá
- High Growth
- High Tourism
- Occasional Use Housing
- Few Businesses
- Small Budget
- Low Sewer
- Low Water

Community Visioning
Municipal Specific Issues

Niterói
- Housing
- Scientific Infra.
- Maritime Infra.
- Safety
- Tourism
- Maternal Health
- Environment Infra.
- Local Agenda 21
- Municipal Councils

São Gonçalo
- Transport
- Road Infra.
- Shuttle Stations
- Sewage Coverage
- Tourism
- Hospital Network
- Public Health
- Sustainability
- Water Mgmt.
- Forestry Mgmt.
- Education
- Public Libraries

Maricá
- Rural Housing
- Transportation
- Alt. Energy
- Sanitation
- Local Culture
- Health Services
- Organic Food
- Sustainability
- Env. Protection
- Sports Activities
- Education
- Inclusiveness
- Food Sovereignty

Itaborai
- Housing
- Infrastructure
- Mass Transk
- Sanitation
- Employment
- Health
- Nurseries
- Clear Water
- Planning
- Education
- Civil Society
- Transparency
- Democracy

Major Shared Issues
- Housing
- Infrastructure
- Participation

Source: Annex 21
The Challenge Facing CONLESTE

Allow for autonomy of municipal visioning while ensuring that regional impacts are addressed.

Diverse Conditions

Diverse Priorities

Tourism  Maritime Infrastructure  Maternal Health  Local Agenda 21

Sewage Coverage  Forestry Management  Public Health  Tourism

Food Sovereignty  Health Services  Rural Housing  Education

Planning  Housing  Infrastructure  Housing

The Challenge facing CONLESTE

Housing  Infrastructure
ANNEX 2: MIDTERM STUDIO PRESENTATION

International

National

Regional

Municipal

International Stakeholders
- Brazilian Ministry of the Environment
- Petrobras
- Ministry of Environment for Rio de Janeiro
- UN Habitat
- Universidade de Federal Fluminense

National Stakeholders
- Brazilian Development Bank (BNDES)
- Caixa
- Ministry of Cities

Regional Stakeholders
- CONLESTE
- BNDES
- Comperj Forum
- Ministry of Cities
- Petrobras
- State of Rio de Janeiro
- Universidade Federal Fluminense (UFF)
- Universidade Federal do Rio de Janeiro (UFRJ)
- Universidade Federal Rural do Rio de Janeiro (UFRJ)
- UN Habitat

Municipal Stakeholders
- CONLESTE
- 11 CONLESTE municipalities
ANNEX 2: MIDTERM STUDIO PRESENTATION

International

UN Global Compact | Voluntary initiative for businesses to commit to ten principles of social and environmental responsibility

Agenda 21 | Comprehensive blueprint for sustainable development on the global, national and local scale with the focus on community participation

Millennium Development Goals (MDGs) | Set of nine human development goals set by the United Nations
ANNEX 2: MIDTERM STUDIO PRESENTATION

Goal 7
Ensure environmental sustainability

Goal 9
Accelerating local development and reducing inequality in the region

International

Opportunities
- Framework to monitor/guide Comperj impacts
- Emphasizes community participation
- Increases access to funding for local initiatives

Barriers
- Difficult to implement (inter-scalar)
- Arduous communication between actors
- Weak guidelines for accountability
ANNEX 2: MIDTERM STUDIO PRESENTATION

National

Institutes guidelines for urban development

A government body responsible for formulating and coordinating national policies

The framework for housing initiatives

"To ensure the population, especially low income, access to dignified housing, based on the concept of integrated urban development, aiming to guarantee the 'right to the city.'"

Long-term plan based on principles of transparency, decentralization, and participatory planning

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</thead>
<tbody>
<tr>
<td>Constitution</td>
<td>Ministry of Cities</td>
<td>National Housing Policy (NHP)</td>
<td>National Housing Plan (PlanHab)</td>
<td>FINANCING</td>
<td>Brazilian Development Bank (BNDES)</td>
</tr>
</tbody>
</table>
ANNEX 2: MIDTERM STUDIO PRESENTATION

Housing Programs

My home, My Life

Housing Subsidy Program (PSH)

Accelerated Growth Program (PACI/PAC II)

National

Opportunities

Variety of funding and program options

Helps provide social housing

Barriers

Narrow focus

Small-scale/project by project basis

Constrained by bureaucracy & technical capacity
Public consortia rise in popularity as a means to resolve regional issues.

Public consortium CONLESTE formally convenes to address Comperj.

State created Comperj Forum as a regional consortium.
Public Consortia

**Opportunities**
- Preserve municipal autonomy & address regional components
- Allow municipalities to pool funds & human resources
- Collaboration with private sector
- Vertical integration with state/federal entities

**Barriers**
- Lack of incentive for municipalities to share resources
- Limited citizen participation
- Reliant on technical capacity of member municipalities

**Municipal**
2001 City Statute ensure social function of property
  provides tools for municipalities

Master Plan

social
environmental
community
involvement
development

social
environmental
community
involvement
development

Master Plan Major Tools

Usucapiao
(urban adverse possession rights)

Special Social Interest Zones
(ZEIS)

Compulsory Parceling
Municipalities

Opportunities
- Ability to mobilize community resources
- Most familiar with local needs
- Can incite support in planning process
- Promote access to housing for low-income and channel development

Barriers
- Unable to respond to all responsibilities equally
- Disparate resources, capacity, and personnel
- Disproportionate amounts of urban issues

Vision for CONLESTE

1. A regional platform that realizes the right to habitation and equitably distributes the impacts of development.

2. A vehicle for a participatory process that builds capacity for collaboration and citizen engagement at the regional and municipal levels.
**Strengthening the Institutional Capacity of CONLESTE: Hypotheses**

**Inter-Municipal Cooperation:**
sharing capacity and resources, and incentives for collaboration

- individual municipality
- individual municipality
- individual municipality
- individual municipality
- individual municipality

= CONLESTE

**Strengthening the Institutional Capacity of CONLESTE: Hypotheses**

**Inter-Municipal Cooperation:**
sharing capacity and resources, and incentives for collaboration

**Increase Fiscal Stability**

- member municipalities
- tax revenues
- coordination

= CONLESTE
ANNEX 2: MIDTERM STUDIO PRESENTATION

Strengthening the Institutional Capacity of CONLESTE: Hypotheses

- Inter-Municipal Cooperation: sharing capacity and resources, and incentives for collaboration
- Increase Fiscal Stability
- Integration of Actors

Improving Housing and Infrastructure Hypotheses

- Regional Master Plan

CONLESTE
The ultimate goal is for CONLESTE to realize its full potential as a working body that strengthens the process of collaborative governance and delivers solutions to regional problems.
ANNEX 3: FINAL STUDIO PRESENTATION

CONLESTE
REGIONAL PLANNING IN RIO DE JANEIRO, BRASIL

STUDENTS:
Heather Anderson
Caroline Bauer
Josie Baum
Alleune DIA
INSTRUCTOR: Clara Irazabal

TA: Jorge Ubeda Coim

CONTRIBUTORS: Jesse M. Keenan, Alejandro de Castro, Thomas Bassett
Fernanda Sanchez, Regina Bienensold, Fernanda Azanka

CLIENT: CONLESTE
CONSORTIUM OF MUNICIPALITIES
ANNEX 3: FINAL STUDIO PRESENTATION

CONLESTE REGION

CONLESTE REGION + COMPERJ

[Map of the region with labeled cities and districts, showing the areas covered by CONLESTE and COMPERJ.]

Rio de Janeiro City  Atlantic Ocean

Cachoeiras de Macacu
Guapimirim
Magé
São Gonçalo
Itaborai
Tanguá
Sítio Itenópolis
Barra de Maricá
Casimiro de Abreu
Silva Jardim
Rio Bonito
Niterói
Maricá
Cachoeiras de Macacu
Guapimirim
Magé
São Gonçalo
Itaborai
Tanguá
Sítio Itenópolis
Barra de Maricá
Casimiro de Abreu
Silva Jardim
Rio Bonito
Niterói
Maricá

Atlantic Ocean
ANNEX 3: FINAL STUDIO PRESENTATION

PETROBRAS

6th Largest Oil Company in the World

$295 Billion Market Value

COMPERJ

$20 Billion Investment
6,000 Football Fields
212,000 New Jobs
CONLESTE
11 FOCUS PRIORITIES

Health Integration
Education Integration
Urban & Regional Mobility
Housing
Sanitation: Water, Sewer, Solid Waste
Water Resources
Conservation
Economic Development
Tourism
Technical Capacity
Safety

HOUSING RIGHTS
ANNEX 3: FINAL STUDIO PRESENTATION

CURRENT CONDITIONS
ANNEX 3: FINAL STUDIO PRESENTATION

CONLESTE REGION
FOCUS MUNICIPALITIES

CONLESTE REGION
POPULATION
(1910-2010)

Source: IBGE (2008)
ANNEX 3: FINAL STUDIO PRESENTATION

CONSTE REGION POPULATION DENSITY
PERSONS PER SQUARE MILE

Source: IBGE 2008

CONSTE REGION POPULATION GROWTH RATE
2000-2010

Source: IBGE 2010
CONLESTE REGION
POVERTY INCIDENCE (%)

Source: IBGE 2008

HDI RANK
3 of 5,507
NITERÓI

2,248 of 5,507
ITABORAI

Source: IBGE 2008
ANNEX 3: FINAL STUDIO PRESENTATION

233 FAVELAS ACROSS THE REGION

Source: UFF 2010

63,000 FAMILIES LIVING IN FAVELAS

Source: UFF 2010
ANNEX 3: FINAL STUDIO PRESENTATION

26% HOUSING OF OCCASIONAL USE

MARICA

Source: IBGE 2008

262,000 HOUSEHOLDS WITH DEFICIENT INFRASTRUCTURE

Source: FEEMA-COMPERI RIO A
ANNEX 3: FINAL STUDIO PRESENTATION

52% WATER PROVISION

22% SEWAGE PROVISION
ANNEX 3: FINAL STUDIO PRESENTATION

85% SEWAGE PROVISION
NITERÓI

PROJECTED CONDITIONS
PETROLEUM URBANIZATION

212,000 NEW JOBS!
ANNEX 3: FINAL STUDIO PRESENTATION

1. Fewer Jobs Materialize
2. Economic Restructuring
3. Construction Job Loss
4. Lack of Job Skills

CONLESTE REGION HOUSING NEED & DEFICIT
(BASED ON THE 2000 CENSUS)

- Housing Units in Region: 578,469
- Housing Unit Deficit in Region: 49,466
- Projected Housing Unit Demand 2003-2023: 1,026,835

Source: Ministry of Cities, 2011
ANNEX 3: FINAL STUDIO PRESENTATION

HOUSING

INFRASTRUCTURE

REGIONAL VISION
ANNEX 3: FINAL STUDIO PRESENTATION

REGIONAL REALITY
POVERTY
INFORMALITY
INEQUALITY

CONLESTE

REGIONAL VISION
SUSTAINABLE
& MANAGED
DEVELOPMENT

REGIONAL REALITY

CONLESTE

REGIONAL VISION

DIAGNOSIS
OF EXISTING
POLICY

1 2 3
ANNEX 3: FINAL STUDIO PRESENTATION

Diagram of Brazilian Political Structure:
- Federal
- State
- Region
- Municipality
- Housing
- Infrastructure

Diagram of Brazilian Municipal Structure (Ideal):
- Municipality
- Plans:
  - Plano Diretor (Master Plan)
  - Plano Habitação (Housing Plan)
- Projects:
  - Plano Diretor
  - Plano Habitação
  - Sanitation Plan
  - Community Input
ANNEX 3: FINAL STUDIO PRESENTATION

DIAGNOSIS
BRAZILIAN MUNICIPAL STRUCTURE

MUNICIPALITY

IDEAL

MCMV
MINHA CASA, MINHA VIDA

PAC
Program for Accelerated Growth

PLANS

Plano Diretor
Community Input

Plano Habitação
Sanitation Plan

PROJECTS

MCMV
PAC

REACTIVITY

MUNICIPALITY

Plano Habitação
Community Input
Plano Diretor
Plano Saneamento
ANNEX 3: FINAL STUDIO PRESENTATION
ANNEX 3: FINAL STUDIO PRESENTATION
ANNEX 3: FINAL STUDIO PRESENTATION

No communication between municipalities
ANNEX 3: FINAL STUDIO PRESENTATION
ANNEX 3: FINAL STUDIO PRESENTATION
ANNEX 3: FINAL STUDIO PRESENTATION

DIAGNOSIS
2. WEAK CAPACITY

MUNICIPAL
2. WEAK CAPACITY
- LACK OF IMPLEMENTATION
- UNPLANNED PROJECTS
ANNEX 3: FINAL STUDIO PRESENTATION

"OF THE 341 PROJECTS IN THE GROWTH ACCELERATION PROGRAM IN THE REGION, 101 WERE SUSPENDED BY THE MINISTRY OF CITIES OR BY FEDERAL BANKS FOR LACK OF DOCUMENTATION"

- O FLUMINENSE APRIL 2011

ANNEX 3: FINAL STUDIO PRESENTATION

16 RECOMMENDATIONS IN 3 PHASES

PHASE 1
STRENGTHEN CONLESTE

PHASE 2
MUNICIPAL CAPACITY

PHASE 3
SELF-SUSTAINING

REGIONAL REALITY

PHASE 1
STRENGTHEN CONLESTE

REGIONAL VISION

CONLESTE
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1

ROTATING PRESIDENCY

- President
- Deliberative Council

PHASE 1

ROTATING PRESIDENCY

- Deliberative Council
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
ABSORB COMPERJ FORUM

COMPERJ FORUM

PETROBRAS
CAIXA
FEDERAL GOVT
STATE RJ
BRAZILIAN DEVELOPMENT BANK
UN-HABITAT

PHASE 1
ABSORB COMPERJ FORUM

CONLESTE
COMPERJ FORUM

PETROBRAS
CAIXA
FEDERAL GOVT
BRAZILIAN DEVELOPMENT BANK
STATE RJ
UN-HABITAT
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
MAINTAIN INTERNATIONAL & ACADEMIC RELATIONSHIPS

LACK OF EXPERIENCE IN INTERPRETING DATA

LACK OF TRAINED STAFF

INEXPERIENCE IN REGIONAL PLANNING

PHASE 1
MAINTAIN INTERNATIONAL & ACADEMIC RELATIONSHIPS

UN-HABITAT

UFF
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
MAINTAIN INTERNATIONAL & ACADEMIC RELATIONSHIPS

PHASE 1
APPLY FOR SEED FUNDS

INTER AMERICAN DEVELOPMENT BANK
MULTILATERAL INVESTMENT FUND
SOCIAL ENTREPRENEURSHIP

EUROPEAN COMMISSION’S EUROPEAID
URBAN POLICY COORDINATION PROGRAM
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
REGIONAL TAX SHARING FUND
EXTERNALITIES

MUNICIPALITY

PHASE 1
REGIONAL TAX SHARING FUND
COLLECTION

BASE YEAR
2012

40% OF INCREASE
BUSINESS TAX
PROPERTY TAX

REGIONAL FUND
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
REGIONAL TAX SHARING FUND
DISTRIBUTION

FUNDS
CONLESTE

REGIONAL FUND

REDISTRIBUTION
EXPENDITURE NEEDS
REVENUE CAPACITY
TOTAL PROPERTY VALUE

PHASE 1
HIRE CORE STAFF

ALSO
UNPAID CONLESTE EMPLOYEE
FULL TIME MUNICIPAL EMPLOYEE
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 1
HIRE CORE STAFF

REGIONAL PLANNING
TECHNICAL COORDINATOR

GENERAL STAFF:
1. HEALTH INTEGRATION
2. EDUCATION INTEGRATION
3. URBAN & REGIONAL MOBILITY
4. HOUSING
5. SANITATION
6. WASTE
7. WATER RESOURCES
8. ECONOMIC DEVELOPMENT
9. TOURISM
10. TECHNICAL CAPACITY
11. SAFETY

REGIONAL REALITY
CONLESTE
REGIONAL VISION

PHASE
BUILD MUNICIPAL CAPACITY AND COORDINATION

1
2
3
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 2
IDENTIFY GAPS IN MUNICIPAL STAFF

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE

MUNICIPAL
CITY COUNCIL

COMMUNITY
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE

CONLESTE

HOUSING COORDINATOR

50% = COMMUNITY LEADERS & CIVIL SOCIETY
(ELECTED FROM CITY COUNCILS)

50% = MUNICIPAL HOUSING SECRETARIES

REGIONAL HOUSING COUNCIL

COMMUNITY

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE

CONLESTE

HEALTH
MOBILITY
WATER
HOUSING
TOURISM
SAFETY

EDUCATION
SANITATION
CONSERVATION
ECONOMIC
MODERNIZATION

HORIZONTAL COMMUNICATION
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 2
ESTABLISH COMMUNICATION STRUCTURE

CONLESTE

TECHNICAL COORDINATOR

HEALTH  MOBILITY  WATER  HOUSING  TOURISM  SAFETY

EDUCATION  SANITATION  CONSERVATION  ECONOMIC  TECHNICAL

PHASE 2
CONSOLIDATE FUNDING PROPOSALS

DISPARATE PROJECTS
ANNEX 3: FINAL STUDIO PRESENTATION
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 3
REFORM MUNICIPAL PROPERTY TAX

1. INCREASE MUNICIPAL TAX REVENUE
2. INCREASE TAX REVENUE TO CONLESTE
3. INCREASE TAX EQUITY
   MORE PROGRESSIVE TAX
   NEEDS-BASED DISCOUNTS
   EQUITABLE RE-DISTRIBUTION
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 3
ENFORCE IMPACT FEES

CITY CORE

NEW DEVELOPMENT

EXISTING INFRASTRUCTURE

NEW INFRASTRUCTURE

IMPACT FEES —$—

PHASE 3
ENFORCE IMPACT FEES

STATUS: ALREADY IN EXISTENCE IN BRAZIL BUT RARELY IMPLEMENTED

PROBLEM: LACK OF POLITICAL WILL & REAL ESTATE PRESSURE

RECOMMENDATION: INCENTIVIZE MUNICIPALITIES TO LEVY IMPACT FEES
ANNEX 3: FINAL STUDIO PRESENTATION

PHASE 3
ENFORCE IMPACT FEES

INFRASTRUCTURE IMPROVEMENTS

PHASE 3
ENFORCE IMPACT FEES

INFRASTRUCTURE IMPROVEMENTS & SOCIAL HOUSING
ANNEX 3: FINAL STUDIO PRESENTATION

RECOMMENDATIONS & PHASING

1. ESTABLISH ROTATING PRESIDENCY
2. ABSORB COMPERU FORUM
3. MAINTAIN INTERNATIONAL & ACADEMIC RELATIONSHIPS
4. APPLY FOR SEED GRANT FUNDING
5. ESTABLISH REGIONAL TAX SHARING FUND
6. HIRE 12 CORE STAFF MEMBERS
7. ONGOING DATA COLLECTION
8. IDENTIFY STAFFING NEEDS OF EACH MUNICIPALITY
9. COORDINATE PMAT TO FUND POSITIONS
10. ESTABLISH COMMUNICATION PROTOCOLS WITH MUNICIPALITIES
11. COORDINATE COUNCILS FOR EACH PRIORITY AREA
12. FUNNEL MCMV & PAC APPLICATIONS FOR REGIONAL IMPLEMENTATION
13. MUNICIPAL PROPERTY TAX REFORM
14. ENFORCE IMPACT FEES

ACHIEVE THE VISION THROUGH HOLISTIC REGIONAL PLANNING

1. COMMUNICATION & DIALOGUE
2. POLICY ALIGNMENT
3. PLANNING IN SECTORS THAT CROSS BOUNDARIES

NOW
MANAGE PRESSING ISSUES
COMPERU OPENS
CREATE SELF-SUSTAINING FRAMEWORK
FUTURE
ANNEX 3: FINAL STUDIO PRESENTATION

CONLESTE

REGIONAL POLICY & ACTION FRAMEWORK

REGIONAL VISION
ANNEX 3: FINAL STUDIO PRESENTATION