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Sustaining Development in Brazil's Informal Settlements: Linking Policy, Theory, and Action A Case Study of Vila Velha

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Sustaining Development in Brazil's Informal Settlements: Linking Policy, Theory, and

Action

A Case Study of Vila Velha

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Abstract

This paper examines the relationships between informal settlements, the natural environment, and state policy through a study of Vila Velha, a neighborhood located on the periphery of the northeastern metropolis of Fortaleza, Brazil. Vila Velha poses a unique challenge in local governmental efforts to implement sustainable urban policies: its expansion into the margins of the local Ceará River, where human settlements are illegal, prevents the community from receiving government services such as potable water or waste management. While the local government has created plans to remove these inhabitants from the area, no tangible action has been taken in the approximately ten years that this community has existed. This research project uses eight formal interviews with Vila Velha's inhabitants, NGO employees, and government officials, as well as a week of participant observation in Vila Velha, to examine Vila Velha's past and present along with the underlying rationales of both local inhabitants and government officials. It finds that, while federal Brazilian legislation has founded itself in inclusive, sustainable urban policies, local governments must take the initiative in implementing these policies through consistent communication with *all* of their constituents, and cannot use environmental policy to justify a lack of attention paid to its citizens. This paper concludes that, in the case of informal settlements such as what currently exists in Vila Velha, local governments must make use of long-term policies to remove citizens from environmentally risky areas, as well as faster actions that will decrease environmental harm in the short-term. In order to experience development that is sustainable both socially and ecologically, these policy changes must be paired with systemic changes in how the local government applies urban development policy and how it interacts with its citizens.

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Thank you to my advisor, Professor Leila Passos, for referring me to relevant local literature and providing assistance formulating interview questions; to Leonardo Borralho for sharing his extensive expertise regarding Vila Velha with me, and for making available reports and dissertations he wrote on Vila Velha.; and to the rest of SEMA's staff for the numerous interviews that helped clarify that governmental perspective on this issue.

Finally, a huge thank you to everyone I met, interviewed, lived with, and learned from in Vila Velha. A special thank you to Paulo, his wife, Celia, and their children for welcoming me into their home and treating me like a member of their family. Paulo's knowledge of the history of the area of research and connections within the community was invaluable to this research. I spoke to so many residents of Vila Velha who said they were "forgotten" – but I will never forget them.

Abbreviations & Clarifications

APP: *área de preservação permanente*; area of permanent preservation

APA: *área de proteção ambiental*; environmentally protected area

SEMA: *Secretaria do Meio Ambiente*; Secretary of the Environment (the environmental agency that governs the state of Ceara, where Fortaleza is located)

Vila Velha: While the neighborhood of Vila Velha extends through the map below, the references this paper makes to Vila Velha will be particularly concerning the “lowest” part of Vila Velha III – the part of the neighborhood located on the edge of the neighborhood, surrounded by mangroves, lining the Ceará River, and without government services. Unless otherwise noted, any reference to Vila Velha will be to this area in particular.

Maps and Images

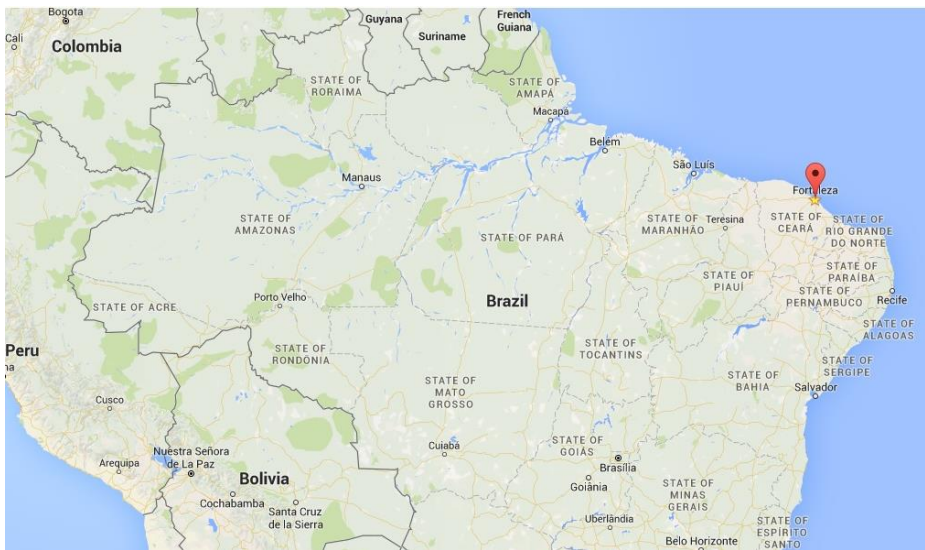


Figure 1.1 Fortaleza is the capital of the state of Ceara, in Northeastern Brazil.
Source: Google Maps



Figure 1.2 The city of Fortaleza is split into 119 neighborhoods in five districts of the city. Vila Velha is located on the far western edge of the city, next to the Ceara River.
 Source: <http://www.ceara.com.br/fortaleza/mapadefortaleza.htm>



Figure 1.3 2010 Aerial Photo of Vila Velha. Source: Coordenadoria de Desenvolvimento Urbano – COURB/SEUMA, 2014. 2014



Figure 1.4 The area of study, with houses built surrounding the Ceara River and its mangroves. Source: Relatório Técnico, SEMACE, 2014

Introduction

Background

Fortaleza, the fifth largest city in Brazil, is the capital of the Northeastern Brazilian state of Ceará. With an estimated population of 2,591,188 people (IBGE, 2015), the city has experienced the high rates of population growth and urbanization that many cities in Latin America and across the developing world have witnessed in the past half-century. While Fortaleza became a city in 1823, one year after Brazilian independence, its urban growth intensified in the 1950s, when the oligarchical *latifundio* landholding system paired with near-constant droughts in the dry interior of Ceará made rural-urban migration necessary for thousands of Brazilian farmers (Borralho, 2012). In the 1950s, approximately 75% of the state of Ceará was rural; by 2010, this proportion had reversed, with 75% of Ceará's population living in urban areas – the largest urban area, by far, being Fortaleza (Borralho, 2012).

Yet for all of this urban growth, scholars in Ceará have questioned the efficacy of Fortaleza's urban planning (Borralho, 2012; Muniz, 2006). In 2010, Fortaleza experienced the sixth-largest housing deficit in Brazil of 95,000 units (Fundação Joao Pinheiro, 2013); this lack of housing options has pushed many Brazilians into urban peripheries and environmentally sensitive areas not fit for human habitation. Across Brazil, 13 million citizens were found to be missing at least one basic component of urban infrastructure (water, electric energy, sewage, or garbage collection) 2010 (Fundação Joao Pinheiro, 2013): this study will focus on just a few hundred of those living without such services.

Vila Velha is a neighborhood located on the very western edge of Fortaleza, stretching to the margins of the Ceará River. The government initiated the creation of Vila Velha in the late 1950s, when local state and municipal administrations began building six

housing projects under the name “Vila Velha” (Borrvalho, 2014). What is now widely recognized as the neighborhood of Vila Velha, however, is the last of the six projects, which was not built until the early 1990s. This project was different from the preceding five because the local government created it specifically for low-income rather than middle-income citizens in what is called a *mutirão* system: the citizens do the hard labor that goes into building the community, but the government provides funds for technical professionals and building materials (Borrvalho, 2014; Barbosa, 2009).

The neighborhood of Vila Velha is separated into four sections: Vila Velha I was created in 1992, II in 1993, III in 1996, and IV in 2000 (Borrvalho, 2012). Vila Velha I and II are small housing projects, each only taking up a few streets, but Vila Velha III exploded in size and in populations (Field Journal, Interviews, Paulo; Observations, Nov 5). Beginning with the creation of Vila Velha III and the spike in population in the area, illegal settlements began to crop up, growing outward from the government-sanctioned housing projects toward the floodplains of the Ceará River (Borrvalho, 2012; Field Journal, Interviews, Paulo).

From the community build on this edge of the Ceará River came a new collection of challenges for Vila Velha’s inhabitants. While the installations of Vila Velha were not only government-approved but, to some extent, government-funded, the neighborhood’s growth could only legally go so far. Because of its location in the estuary of the Ceará River, nearly all of Vila Velha is situated within the APA, *área de proteção ambiental*, or environmentally protected area, of the Ceara River Estuary. This in and of itself does not break any laws: local environmental legislation allows the occupation of APAs, though there are restrictions placed on private development in these areas (Field Journal, Interviews, Artur Bruno). The problem for Vila Velha’s residents came when Vila Velha III made its way to the margins of the Ceará River and its surrounding mangroves. In Brazilian environmental legislation, lagoons, lakes, rivers, and their buffer zones are considered APPs, *áreas de preservação permanente*, or

areas of permanent preservation. It is against the law to inhabit an APP or to develop it in any way. Because inhabitation is illegal, the local government has refused to provide government services, including running water, paved roads, and trash pickup, to this sector of Vila Velha. As one advisor from Ceará's environmental agency, SEMA, said in an interview, "If the state grants services, it is being negligent as an environmental crime. Because it is an environmental crime for you to occupy an area of permanent preservation" (Field Journal, Interviews, Tania, Nov 11).

Is it fair for the government to continue withholding basic services guaranteed under the Brazilian Constitution? Is it the responsibility of the individuals living in this part of Vila Velha to find somewhere else to live? What are the repercussions of these clashes for the field of sustainable development, which claims to value both environmental protection and human rights, and how can the theory behind sustainable development respond to these challenges? The following review will ground this study and the questions it raises in a theoretical framework centered in these three subjects: citizen, state, and theory.

Theoretical Framework

The Citizens

What drives a person to live in an informal settlement on the side of a mountain or the edge of a river? Brazil's last fifty years of rapid development and population growth have led to intense urbanization, without the infrastructure or resources to support it (Muniz, 2006). The resulting urban sprawl, combined with a housing deficit and prohibitively high housing costs, has pushed Brazil's lower class into the peripheries of urban centers (Fernandes, 2007). These peripheries tend to converge with environmental landmarks: take, for example, the famous hills that define Rio de Janeiro's *favelas*. These areas are not typically suitable for

inhabitation, being more susceptible to a range of natural disasters and more geographically difficult to connect to local government services – when the government is willing to provide them at all (Fernandes, 2007; Torres, Alves, & Aparecida de Oliveira, 2007).

These regions on the urban periphery have come to be known as “peri-urban”: while they are not rural, they are not fully urbanized and lack the infrastructure, services, and access expected in a major city in a middle-income country. As the following research will show, this lack of services may exist for a variety of reasons, ranging from lack of government resources and/or will to concerns about further degrading the natural environment in question. Literature on the subject of peri-urbanity does not define the term concretely, but it does reflect the general concept of peri-urbanity as a condition of settlements, often informal, located on the periphery of urban centers yet frequently reliant on nearby environmental resources (Torres et al., 2007). For this reason, peri-urban areas are often found in environmentally protected areas, often on the outskirts of major cities (Gondim, 2012).

The individuals moving to these areas are usually either rural migrants, escaping drought or poverty in the interior of the country, or migrants from another part of the same city, pulled to the area by lower costs of living (Meyerson, Merino, & Durand, 2007; Muniz, 2006). Migrants often view these peri-urban, environmentally risky areas as the only alternative to skyrocketing housing prices and costs of rent closer to city centers (Torres et al., 2007; Gondim, 2012; Fernandes, 2007). Thus, rather than representing comfort and stability as it does in higher-income, western countries, suburban sprawl accommodates low-income citizens who have nowhere else to go. At the same time, those already least enfranchised in society are also experiencing the most severe environmental consequences of living in these areas, “increasing the vulnerability of those who have been impacted [...] through their physical exposure to environmental changes” (Abakerli, 2001). Impoverished residents who often find themselves living in these areas “are the first to be affected by the

degradation of the environment, not only through their exposure to environmental hazards and vectors of contagious diseases, but also because their places of residence are less protected in terms of facilities and or/construction patters that could avoid such hazards” (Torres et al., 2007).

The relationship between inhabitants of these informal settlements and the natural environment is a complicated one. Those living in informal settlements without government services inevitably affect the environment simply by building their homes there. Yet, at least one study conducted in three *favelas* of Rio de Janeiro found that “Brazilians residing in the urban periphery link their own local environmental concerns to more global considerations, and that concern for and activism on environmental issues is positively related to wider community involvement” (Jacobs, 2002). The study found that slum-dwellers exhibited high environmental concern for and awareness of both local problems (eg: lack of suitable drinking water) and global issues (eg: global warming). In comparison with the Europeans surveyed, this group of Brazilians exhibited more concern about environmental issues, showing in this case that wealth had no bearing on environmental concern. Beyond concern alone, the survey found high levels of engagement, recording that 30% of people had participated in community activities to address environmental issues. On the other hand, only 10% of those surveyed had communicated with local government officials about the environmental issues in their community, illustrating a significantly lower level of political involvement. In order to understand why this is, it is necessary to consider the Brazilian government’s historical treatment of informal settlements.

The State

Two concepts are particularly helpful in understanding the Brazilian government’s relationship with urbanity, the natural environment, and the informal settlements that connect these settings. The first is that of the ‘right to the city’, an idea first proposed by the

philosopher Henri Lefebvre in the 1960s. The right to the city ideology proposes that all of the citizens of a city should have access to urban decision-making processes and to urban spaces themselves. It is framed as an ideology of radical democracy and inclusiveness with two central concepts: the right of urban residents to participation – giving city-dwellers an integral role in political decision-making processes – and to appropriation, which provides equal access to urban public spaces (Purcell, 2002). This concept has been integral to the Brazilian government's urban policymaking since the creation of Brazil's 1988 Constitution (Pindell, 2006; Fernandes, 2007).

The key Brazilian legislation that makes use of right to the city thinking is the City Statute, which was ratified in 2001 after ten years of negotiations over how to implement Articles 182 and 183 of the Federal Constitution, which discuss urban policy in Brazil. The City Statute requires every city larger than 20,000 people to develop a master plan; implements a policy called *usucapião*, which allows for popular repossession of unused private lands; and allows for squatters on public lands to gain rights to occupy said land. In addition:

The legislation establishes sixteen general guidelines for developing 'the social function of the city and of urban property.' These guidelines include, among others, the 'right to sustainable cities,' the promotion of community participation in the creation and monitoring of development projects, and emphasis on effective planning of urban areas, and the 'regularization of land ownership and urbanization of areas occupied by low income populations'" (Pindell, 2006, p. 454).

By emphasizing community participation in the development process and increasing urban land access through regularization, the City Statute intentionally made use of right to the city-type thinking. Thus, in theory, the City Statute has tried to replace Brazil's history of exclusionary urban development, in which a small class of society dominated landholdings

through land speculation, family properties, and state coordination, with Lefebvre's "right to habitation and right to participation" for all of Brazil's citizens, including those living in urban informal settlements (Fernandes, 2007, 211).

The second concept that helps explain Brazil's relationship with urbanity focuses on understanding Brazilian implementation of urban policy, not only in progressive 'right to the city' policies, but in practical on-the-ground actions. Land-planning in Brazil has been fraught with complications. Even scholars that praise the Brazilian government's attempts to institute 'right to the city'-type measures also recognize their lack of success in practice, especially on the local/municipal level, where progressive national policies may struggle to trickle down to the actual citizens they ought to benefit (Fernandes, 2007). Take, for example, the federal requirement that all cities have master plans. These plans should, in theory, account for community access and participation while also being followed by appropriate municipal and state officials. In practice, Brazilian master plans, as well as environmental plans such as the "plano diretor" required for environmentally protected areas, have often neither been closely followed either due to a lack of understanding on the part of those expected to carry out such plans and/or due to lack of infrastructure and funding (Muniz, 2006; Penha, 1992).

Master plans are not the only piece of urban legislation that have looked better in theory than in practice. The government has historically used environmental legislation, for example, with questionable motives. According to Abakerli, the creation of environmentally protected areas (APAs) skyrocketed in the 1960s and during Brazil's military dictatorship as a means of gaining loan approval from international organizations like the World Bank, as well as to promote military interests in occupying frontier regions – which also happened to be environmentally sensitive areas (2001). This meant that environmental protection may not have been the only reason for creating protected areas. However, even if these

environmentally protected areas had been created with the purest of intentions, they have not been found to be effective in curbing environmental degradation. As one example, Torres et al. found that in Sao Paulo, “environmental legislation is unable to control land occupation, population growth and forest loss” (2007).

One theory for why environmental policy in Brazil’s urban centers has been so unsuccessful is that the "naturalist" attitude still used in much of Brazilian environmental legislation is unrealistic; more environmental destruction ensues because the legislation in place cannot adapt to on-the-ground conditions (Abakerli, 2001; Fernandes, 2007). The on-the-ground conditions include, for example, the peri-urban favelas that have grown in the environmentally protected areas of Fortaleza, stoked by increasing property prices and growing scarcity of land (Gondim, 2012).

The Theory

The challenges the Brazilian government has faced in implementing what could potentially be some of the most democratic, inclusive urban policies in the world raises larger questions about the ability of broad-based international policies to translate into on-the-ground local action. More specifically, how can sustainable development, taken by its most popular definition of “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Report, 1987), address these conflicts, if it can at all? Brazil’s environmentally protected areas grew in popularity due to international development agencies such as the World Bank, and Brazil’s urban and environmental policies, including the City Statute, are embedded in ideals of sustainable development. The core question of this research – of the relationship between individuals in informal settlements and the environment they inhabit – is a question of sustainable development as well.

The concept of sustainable development has gained increasing traction in recent months after the United Nations in September adopted the Sustainable Development Goals, or SDGs, an agenda to replace the Millennium Development Goals expiring in 2015. The adoption of seventeen wide-reaching goals, ranging from eliminating poverty to combatting climate change, has reiterated the significance of sustainable development on a global platform. However, the specific sub-topics nestled within each of these goals emphasizes the importance of making sustainable development applicable on a local level first, in order to grow outwards towards global goals.

With these considerations in mind, scholars have for years called into question the capability of sustainable development to respond to the challenges of integrating poverty reduction and environmental protection. Robinson, for example, cites concerns from scholars who fear that the term “sustainable development” is too vague, that the phrase itself promotes contradictory goals (eg: claiming to be ‘sustainable’ nominally, but pursuing a typical growth-based agenda in practice), and that the concept is “likely to foster delusions” about the limits of growth, “sustainable” or not (2004). The paradox that seems to be inherent in discussing sustainable development is a prevailing theme in critical sustainable development literature as well. In order for sustainable development to be logically coherent, argues Daly, a significant distinction must be made between the concept of growth and the concept of development:

By long habit the word growth is in the minds of many people synonymous with increase in wealth. These people say that we must have growth because only if we become wealthier will we be able to afford the cost of environmental protection. That all problems are easier to solve if we are truly wealthier is not in dispute. What is in dispute is whether growth, at the current margin, is really making us wealthier. As

growth in the physical dimensions of the human economy pushes beyond the optimal scale relative to the biosphere it in fact makes us poorer.” (1999).

A different field of thought, called “post-development,” criticizes not only the ability of international (and sustainable) development to achieve its stated goals, but the goals themselves. Those in the post-sustainable development camp claim that sustainable development is just another tactic used by the Western hegemony, which constructs ideas of who is and is not “developed” and then places principles created in the “developed” world onto the “developing,” with little concern for the input of those being affected. Morse writes,

SD [...] is seen by post-developmentalists at best as simply yet another example of Western hegemony (Nustad, 2001) and at worst as a cruel deception: nice sounding words and ideals, but in fact nothing more than business as usual given that ‘progress’ equates to consumerism, industrialization and inevitable pollution (Escobar, 1996; Rahnema and Bawtree, 1997; Banerjee, 2003). They see the promotion of SD as the response of some countries to their failure to protect their environment and legacy to future generations, but it is being promulgated by them to other countries that were not part of the problem in the first place.” (343).

This is scathing criticism for a movement that claims to be dedicated to eradicating poverty and environmental destruction – but which instead, critics argue, does more harm than good by reinforcing hegemonic structures without addressing the power imbalance that maintains the patriarchy of development.

What do all of these challenges mean for the sustainable development movement? Some of the problems are rhetorical rather than ideological. For example, Robinson contends that the vagueness of the phrase sustainable development actually allows for more groups to both identify with the movement and discuss its meaning in a constructive way (2004). Regarding concerns that sustainable development itself may be headed in the wrong

direction, he explains that sustainability may not be the solution to the world's social and environmental problems, but it can act as a means of discussion and a way to actively debate environmental and social approaches to development questions (Robertson, 2004).

In considering how to address the challenges that face the sustainable development movement, one common thread is the push to make sustainable development more participatory; to go beyond the obligatory community visit and actually rely on the input of the individuals living in the area in order to spur discussion and improve policy (Robertson, 2004; Morse, 2008). One way to do this is to better integrate right to the city-based methodologies into development policy-making, on the global and local level. This means including inclusive language in legislation, like Brazil has done, but also consistently carrying out these promises on the local level. The Brazilian government has already demonstrated its commitment to this ideology, but local politicians and policy-makers must also be fully committed in order to repair the long history of strained relations between Brazilian citizens and their government.

With this theoretical structure in mind, this research project aims to understand the Brazilian government's ability to implement inclusive, environmentally sensitive urban policies through a case study of the community of Vila Velha.

Methods

This research was completed over a three-week period in Fortaleza, Brazil. In order to gain a wide variety of perspectives on the problem presented, three formal interviews were conducted with representatives of the state-run environmental agency, SEMA (Secretaria do Meio Ambiente; Secretary of the Environment) and five formal interviews were conducted with individuals connected to Vila Velha, four of whom are citizens of the area of study and two of whom work in a local NGO situated in this location (one person both lives in the area and works in the NGO). Along with the eight formal interviews conducted, this research also relies on direct/participant observation and the conversations that arose from a week spent living in Vila Velha. The individuals formerly interviewed are as follows:

1. Leonardo Borrvalho, SEMA's Articulator for COBIO, the Coordination of Biodiversity
2. Oelito Brandao, President of EMAUS Amor and Justica and former resident of Pirambu, a neighborhood bordering Vila Velha* (Oelito is also the Program Assistant for the study abroad program that sponsored this research)
3. Tania, SEMA Advisor* (name changed in accordance with subject request)
4. Artur Bruno, Environmental Secretary for the State of Ceará
5. Joane, inhabitant of Vila Velha
6. Maria, inhabitant of Vila Velha
7. Maria Simone, inhabitant of Vila Velha
8. Paulo Benicio: employee of EMAUS Vila Velha and inhabitant of Vila Velha

Interviews were conducted in various locales depending on the subject; this included the homes of those interviewed in Vila Velha and different government offices affiliated with SEMA. Interview subjects were chosen based on a snowball method. Contact made in both SEMA's offices and in Vila Velha depended on one individual who then introduced me to other relevant interview subjects. I conducted all but one (that with Oelito) interview in Portuguese, recorded all interviews with a Sony recorder, and promptly transcribed them in Portuguese, translating the quotes from this research into English. I made daily observations in a field journal located on my computer.

The most significant shortcoming of the collected data is the lack of interview material from the municipal government regarding the status of Vila Velha. Nearly three weeks were spent attempting to schedule an appointment with an individual from the municipal government; despite repeated phone calls and office visits, it was not possible to secure an interview. The amount of time spent collecting data also necessarily limited the number of people interviewed: in no way can the perspectives of those interviewed in Vila Velha, for example, be assumed to be the only opinion of the entire community. Formal interviews combined with informal conversations and participant observation back up the claims made in this research, but much more time would be needed to fairly represent every opinion towards these issues in this community. A second round of interviews in Vila Velha that were supposed to take place in the third week of research were unfortunately canceled due to internal community changes and an inability of my contact in the community to accompany me.

Results

The results of this research are separated into four sections, loosely based on the same topics as the literature review: citizen, environment, and state:

Chapter I: Contextualizing Vila Velha

Chapter II: Understanding the Environment

Chapter III: Understanding the Government

Chapter IV: Recommendations

I. CONTEXTUALIZING VILA VELHA

It is impossible to understand the dilemma that Vila Velha faces without first becoming acquainted with the people living there and the challenges they face. In a theoretical framework that emphasizes the importance of grassroots participation in development choices, not devoting space to local voices would border on hypocrisy. While the interactions of Vila Velha's citizens with both the natural environment and with the government are of specific relevance to this study, understanding the general conditions of Vila Velha and both the joys and challenges inherent in this community provides important context in understanding daily life in this community.

The lower part of Vila Velha has existed for about 10 years, though the exact date depends on whom you ask¹. Before Vila Velha, a salt marsh extended through the area: those who lived in nearby communities remember playing on the mountains of salt by the Ceara

¹ In interviews with government officials, nobody could say how long the community had existed. In one part of an interview with Paulo, he said he had lived in Vila Velha for 14 years; in another, he said ten or twelve. Joane said she had lived in the area for ten years, "since the invasion." Oelito said that the NGO EMAUS has existed in the area for "almost 11 years." (Field Journal, Interviews, Paulo; Moraodres; Oelito; Tania).

River and spending days near the river (Field Journal, Interviews, Oelito & Leonardo). Back before the area was occupied, there was very little pollution and a variety of flora and fauna were present: “the river was alive” (Field Journal, Interviews, Oelito).

When the company that stored and manufactured these salts closed in 1997, those living in the surrounding area saw an opportunity to occupy the land (Field Journal, Interviews, Paulo; Field Journal, Interviews, Leonardo). “The families began [to arrive]: parents and children and grandchildren [...] Each one occupies a *pedaço* [a piece of land], a space, making *barracos* [shacks] of wood [...] We didn’t have energy [...] We didn’t have water [...]” (Field Journal, Interviews, Paulo). Many of those living in this particular area of Vila Velha came from other low-income areas of Fortaleza; some also had family that had migrated from the interior of Ceara (Field Journal, Interviews, Moradores). They identified the ability to own their own property, even if in an environmentally risky area, as a significant motivation to live in Vila Velha. In other areas of the city, they explained, rent and cost of living was much higher, and these costs were prohibitive (Field Journal, Interviews, Moradores).

In the following years, violence and crime became a reality of life in Vila Velha, largely due to drug-related gang violence (Field Journal, Observations, Nov 4 – 7; Interviews, Paulo). It is hard to say how much crime this particular part of Vila Velha experiences: if the local government does not recognize the area’s existence, it is unlikely that any government officials are actively recording events of the area or taking frequent censuses. With this in mind, the entire neighborhood of Vila Velha (including parts I, II, III, and IV) had 31 homicides per 100,000 residents in 2012 – higher than Brazil’s average of 25.2² (IPECE, 2012).

² For context, the rate in the United States is 3.8.

Individual stories paint this violence in a different light than statistics. Take, for example, the story of Paulo Benicio, who lived in the upper part of Vila Velha III before moving to the lower part when the town began to expand outward. Paulo Benicio arrived in Vila Velha when he was eleven years old and has lived there for 23 years; he has lived in the lower part since its inception about 10 years ago. In this time, both his father and brother were shot and killed by stray bullets, eight months apart, on opposite sides of the same corner of a street in Vila Velha III. In the following years, Paulo's family "fell apart" as his other two brothers became involved with a local drug trafficking gang, "with other young people who did not want to live a life of peace. They had a sense of revolt due to the loss of my father and of my brother... They began to be involved in the world of crime" (Field Journal, Interviews, Paulo).

Because of this, another one of Paulo's brothers was shot and killed in Vila Velha III, which caused his other brother, who was already a major drug trafficker in the community, to begin a new war with the gang who had killed his brother. "There was a lot of blood spilled after this. But what shook us so much after all of this was that this brother created a still greater feeling of revolt, of pain... He ended up doing worse things still, taking lives, and he grew as a trafficker..."

"My brother fights in this war, killing, marginalizing; and I fight for peace, I fight for life, and I fight along with this community to rescue young people, I fight with Movimento EMAUS [the nonprofit located within Vila Velha] to create a way of keeping young people off of the street." Children in Vila Velha, Paulo explained, "already know things meant for adults [...] Because they live, day to day, in conversations, hearing things that are not [for children] to hear... Seeing things that are not [for children] to see. And if we don't do something [...] if we wait for the government to resolve this kind of thing... it won't happen" (Field Journal, Interviews, Paulo).

Paulo's wife explained that the threat of gang violence has prevented some children in the neighborhood from attending school, out of fear of walking there alone. Even in the schools, kids from neighboring gangs fight so much that police cars sit outside of the local school (Field Journal, Observations, Nov 6). A few years ago, a string of kidnappings made many parents afraid to let their kids go to school; Paulo's wife said that these threats are the reason many are years behind in school. "Whenever they [her daughters] go to school," she said, "I am afraid until they return" (Field Journal, Observations, Nov 4).

In my week living in Vila Velha, nearly everyone I spoke to identified the violence in the community as a major concern (Field Journal, Observations, Nov 4-8). One way the community has mobilized to address these concerns is through Movimento EMAUS, an international NGO devoted to "combatting the causes of poverty and misery." In its Vila Velha base, where Paulo works, EMAUS provides local employment opportunities, sells donated goods to raise money for social projects, and runs a small after-school program to keep younger children off the streets and provide help with their homework. This is the fight for peace that Paulo speaks of.

Despite the obvious challenges of living in Vila Velha, those living in Vila Velha express a sense of pride in their community (Field Journal, Interviews, Paulo & Moradores). Despite the violence and crime, neighbors still mingle; laughing and watching their children play on the streets. At times, the neighborhood feels like a small town in a rural part of Brazil. Yet it is located in a major coastal city, and acutely experiences the challenges that urbanization has brought, especially high crime, poverty, and inequality.

II. UNDERSTANDING THE ENVIRONMENT

The lowest part of Vila Velha III is easily distinguishable from the surrounding area. Anyone who walks along the roads of Vila Velha III, lined with duplexes, grocery stores, and other symbols of typical urban life in Fortaleza, will eventually reach a point where the road comes to an abrupt stop, and the apartment buildings and supermarkets give way to concrete shacks dotting a dirt road. Where the paved road stops and the buses do not run, the part of Vila Velha without government services begins. If one continues walking down the community's dirt roads, the small homes will trail off and only the Ceará River and the mangroves that extend behind the river will remain. In the area closest to Vila Velha, the river itself hardly looks like a river at all, due to the constant droughts in Fortaleza and the trash that has piled up on its shores without any sort of trash pickup in the area. The mangroves, however, seem to stretch on forever, a sea of green only a kilometer or so beyond Vila Velha (Field Journal, Observations, Nov 4 -8).

Those who live in Vila Velha have a complicated relationship with their environment. Interview subjects discussed the difficulties of living on the edge of a river: while Fortaleza is located in a very dry area of Brazil, when it does rain the dirt roads and small houses fill with water (Field Journal, Interviews, Moradores). While the residents of the area know the risks of flooding – one government representative recounted a story of watching someone build a house while the margin of the river was flooded. Clearly, the residents must knowingly bear the risks due to a lack of other options (Field Journal, Interviews, Moradores & Leonardo). Frequent mosquito infestations due to the area's proximity to the river creates additional risk, while the community's location on the very edge of the city makes it difficult to access employment and educational opportunities (Field Journal, Interviews, Moradores; Observations, Nov 4). On the other hand, many residents also rely on the nearby mangroves for their livelihoods: one man I met took me to his backyard where he had buckets and

buckets full of crabs and other crustaceans that he sells to a variety of restaurants. He proudly explained to me that his crabs can be found in the restaurants in the wealthiest areas of the center of Fortaleza (Field Journal, Observations, Nov 7).

While residents feel the effects of the natural environment, they also influence the area, and the environmental destruction in Vila Velha is evident. Without any trash pickup or other forms of waste management, Vila Velha's residents throw out their trash on the margins of the river: so much trash exists in some part that it is impossible to see the river underneath. In some areas, residents intentionally fill the river with debris to prevent it from flooding (Field Journal, Interviews, Leonardo). A lack of sanitation services means this environmentally protected area is the dumping ground for human waste. The government does not provide services because they argue that doing so would "break environmental law" (Field Journal, Interviews, Tania) and it would "regularize" the community and attract more migrants (Field Journal, Interviews, Leonardo). Those living in Vila Velha are aware of this situation: "We try [to talk to the government] [...] When we say something about this part, they say, 'but it's a preserve area, it's an environmental area.'" (Field Journal, Interviews, Paulo). Yet in the meantime, the natural environment continues to suffer.

Vila Velha's residents also understand, to some extent, the impact that their inhabitation has on the surrounding environment. In Paulo's words, "We have to live with, unfortunately, the environmental mess. [...] I say for myself, for others, we are contributing to the destruction of the environment, of nature" (Field Journal, Interviews). Another local, Maria Simone, explained that she agrees it is important to preserve the environment, but they "do not have another way of living" (Field Journal, Interviews, Moradores).

Even government officials did not know how the residents of Vila Velha could better preserve the environment in their current situation. While SEMA articulator Leonardo Borralho suggested in a report on the area that the local government provide trash pickup in

the area, he explained in our interview that without this service there are few alternatives for Vila Velha's residents – aside from throwing their waste in the river (Field Journal, Interviews, Leonardo; Dissertation).

III. UNDERSTANDING THE GOVERNMENT

Understanding what basic services Vila Velha does and does not have can be complicated, since Vila Velha's residents have succeeded in procuring some services illegally. The roads are not paved, there is no bus service, and there are no streetlights. There is no running, potable water, trash pickup, or sewage system (Field Journal, Observations, Nov 4-8). The community has been able to procure energy service from a private company, and they take water secretly from the upper part of Vila Velha III (Field Journal, Interviews, Paulo).

While the government does not want to provide services to the area, they have had plans to remove Vila Velha's residents from the margins of the river (Field Journal, Interviews, Artur Bruno). Leonardo Borrvalho, who has done years of research on Vila Velha and its location in an environmental risk area both for his master's dissertation and for the state government, has presented reports on this area to the federal department of Civil Defense, which is in charge of natural disaster prevention and response. These reports have emphasized the dire environmental and human situation in Vila Velha and recommended relocating the citizens of Vila Velha to another part of the city (Borrvalho, 2012; SEMA, 2014).

Those within Vila Velha noted that the government has proposed this to them in the past – that they have registered their homes for relocated before, that the government has outlined a plan to place them in public housing and pay out those who would prefer to live somewhere else – but that nothing has ever resulted (Field Journal, Interviews, Paulo &

Moradores). Thus, they know speak about being moved in resigned terms, saying they would leave if given the option, but that the government continues to forget them. What will happen in the meantime? Borrvalho noted that these government-led relocation processes are “very slow,” especially because after making a decision about the fate of the area, whichever government agency that is given responsibility will contest the decision, arguing that they do not have the money or resources to carry out a relocation (Field Journal, Interviews, Leonardo). Thus, relocation processes begin, investigations are carried out, but those living in Vila Velha never see any results.

Those living in Vila Velha express few reservations about leaving the area (Field Journal, Interviews, Moradores). In Paulo’s words, “It is an enriching project for both sides. The community wins, everyone wins. But what is important is that the community is going to gain a dignified living; we fight for that, in a peaceful way [...] I don’t know how long it will take, but for me it will be worth it” (Field Journal, Interviews, Paulo). Residents’ frustration comes from the government’s lack of follow-through. One resident, Maria, said, “The government does nothing for us [...] They have to move us from this risk area” (Field Journal, Interviews, Moradores). This lack of action contributes to popular sentiment that the government has forgotten the people there. “What happens? [...] We are forgotten by the authorities” (Field Journal, Interviews, Paulo).

The responsibility of relocating the inhabitants of Vila Velha falls largely on the municipal government, rather than the state officials that I interviewed (Field Journal, Interviews, Tania & Artur Bruno). Thus, it is hard to say why this relocation has never taken place, since in a month of research it was impossible to schedule a meeting with a relevant city government official. The state government officials I spoke to were willing to admit to the fact that the area has been forgotten, saying that Vila Velha “is very abandoned. It is not taken care of. There is much disrespect in relation to the environment, the occupation of the

mangroves, and such” (Field Journal, Interviews, Artur Bruno). Yet the only current plan for this particular area, on the state level, is to ask the person in charge of monitoring this area to pay closer attention (Field Journal, Interviews, Artur Bruno).

Those living in Vila Velha say the only “government service” they receive is the police cars that make rounds through the neighborhood (Field Journal, Interviews, Oelito), and that the only time they see politicians is during elections, when they come asking for votes, “saying that they are going to fight, that they are going to do something. And when they win, unfortunately they turn their backs. [It was] just for the vote, just political” (Field Journal, Interviews, Paulo). In Paulo’s words, “They lost control of the situation.” Now, to remove everyone from this community, ten years after its creation and after hundreds of families inhabited the area, will be a much greater feat.

Aside from the clear lack of government services, those living in Vila Velha describe themselves as neglected by the government in other ways. While there is a health clinic in Vila Velha III, Paulo says that they try not to cover the lower area where he and his family live (Field Journal, Interviews). He and his wife both spoke of discrimination that they felt living in the lower part of Vila Velha III. She said that it is harder for those in the farthest areas of Vila Velha to get jobs because it is “excluded” (Field Journal, Observations, Nov 4). Another example is the police: “When the police come to the neighborhood, they don’t arrive in a community like this in the same way they arrive in one farther in front [such as the upper area of Vila Velha III]. There, they knock on the door; they ask if they can enter [...] Here, they just enter [...] They want to enter, it’s over and done” (Field Journal, Interviews, Paulo). The added sense of discrimination, paired with the belief that the government does not care about this community, simply adds to the sense of exclusion Vila Velha’s residents have (Field Journal, Interview, Moradores).

Nobody I spoke to witnessed any changes in their community's relationship with the government in the years they had lived in the area, and all had negative views of this relationship: ranging from "bad" to (Field Journal, Interviews, Paulo & Moradores). In explaining this discrimination, Paulo said, "Our rights are equal. If over there is Vila Velha III, here as well is Vila Velha III. So the rights should be equal because, everywhere, we pay taxes [...] So I think that in this part, the governmental leaders, our municipal government, fall short." (Field Journal, Interviews, Paulo). In the words of another local, Joane, "Everything here, this area is hidden. Here, nobody knows: the municipal government, nobody knows that this is here. Here is the mangroves. You see that the water goes from there to here [...] We are in the middle of the ocean [...] waiting for the government to take us from here" (Field Journal, Interviews, Moradores).

While local government officials do know that this area exists, the fact that residents think they are completely excluded from the normal political process could be cause for alarm. Yet local government officials do recognize, at least to some extent, the problems existing in the community, although they were more willing to deflect blame to other government agencies or discuss the challenges of monitoring the area, rather than explain their plans to improve the situation (Field Journal, Interviews, Tania & Artur Bruno). On one hand, politicians such as SEMA Secretary Artur Bruno struggle to maintain environmentally protected areas: "We have a lot of difficulty because it [the APA of the Ceará River] is an enormous areas, an area of thousands of hectares, and here we don't have the ability to monitor daily everything that happens in that area" (Field Journal, Interviews). Yet in our interview, he explained that the local government had plans to improve their monitoring process in the next year, saying they are trying to organize themselves better, and distinguish what can and cannot be done in the APA, what exactly is protected, how to protect the area better, and how to give the area more attention. Yet for the APP within this APA, where Vila

Velha is located, Artur Bruno said, “I recognize that, historically, it is an area where our management has much to be desired. We are trying to change this” (Field Journal, Interviews).

Fortaleza’s government is hesitant to extend services to communities such as Vila Velha for a few reasons. First, they argue that it would be an “environmental crime” to do so (Field Journal, Interviews, Tania). Second, they fear that providing government services would regularize the community, thus encouraging more people to inhabit it. Take Linda Gondim’s case study of Pau Fininho, a favela located in an environmentally protected area due to its placement near the Lagoa do Meireles (Meireles Lagoon) on the outskirts of Miereles, Fortaleza. A legal battle ensued around 2008 when the local government attempted to relocate Pau Fininho’s inhabitants, because once other people found out that the inhabitants of Pau Fininho would be relocated and housed, hundreds of families moved into the area in order to claim these benefits and inclusion in the program. Eventually, the local government used the Lagoa do Meireles’s status as an environmentally protected area as one of the key reasons to remove all of Pau Fininho’s inhabitants.

However, even after this relocation and eviction took place, other individuals have simply moved to less environmentally secure areas, such as Meireles’s nearby sand dunes. Because of this, Gondim writes, “Consequently, the occupation of areas improper for habitation, including those in environmentally protected areas, will continue to grow, if the government does not substantially alter the framework of land ownership in Fortaleza.”

In environmentally protected areas such as the APP of the Ceara River, where informal settlements such as Vila Velha are illegal, the local government says that their goal is to remove settlers rather than further regularize their community. But writers such as Gondim have found that more significant alteration in land ownership must exist to prevent further urban sprawl into environmentally protected areas.

The relationship between the local government and EMAUS, Vila Velha's local NGO is negative as well. In Paulo's words, "The government, the municipal government, does not want to help a lot of the time. They want financials. If it is going to generate income... During elections, [they say] 'What beautiful work you do [at EMAUS]; I am going to help,' but it doesn't happen. It's just talk" (Field Journal, Interviews). Because EMAUS built a small school in Vila Velha, they were fined by the municipal government for building something in an environmentally protected area (Field Journal, Interviews, Oelito). "Instead of providing another space in the city – houses with good infrastructure—to remove those families, and put a fence in the area, saying 'this area is protected, no people can occupy'... No. They pretend they are not seeing that people are occupying the area. But they still fine EMAUS for that, because EMAUS was the only juridical person that they can attack, that they can fine. And until today it is open. EMAUS still has to respond, I don't know, last time we checked it was more than 22,000 reais" (Field Journal, Interviews, Oelito). These conflicts further harm relations between the community and the government and reduce public perception of the government in the area.

IV. RECOMMENDATIONS

How can the theory and practice of Brazil's urban policies adapt to circumstances such as that taking place in Vila Velha? Incorporating 'right to the city'-type policies in local actions – and not just federal legislation— would be one place to start. As Pindell writes, "What the right to the city means in Brazil must be determined over time. However, some broad themes are clear: increased citizen involvement in planning cities, planning cities so that all citizens have access to its resources and possibilities, legislative and constitutional support for efforts to achieve this access, and an international movement from which to draw political support" (452).

In the case of Vila Velha, this would mean improving the levels of political participation in the area, beginning with increased, consistent communication between the local government and these citizens – as well as between the separate governmental agencies in charge of administering the individuals and the natural environment. The fact that the residents of Vila Velha are occupying an area illegally does not mean they are no longer residents of Fortaleza or citizens of Brazil. Their government still has an obligation to ensure their human rights as outlined in Brazil’s Constitution. In turn, the fact that this settlement is “irregular” does not take away from the fact that there are hundreds of people living in the area, and that they have been doing so for years. In order to better integrate local opinions into decision-making processes in these environmentally sensitive, occupied areas, the state government could include local leaders in their “advisory board” (“*conselho gestor*”) that helps to manage and administer environmentally protected areas. Currently, no one could say if the local community was involved in this process or if they had communicated with the government about the environmental status of their community: these are basic aspects of community involvement that could remove the sense of exclusion and isolation of Vila Velha’s residents (Field Journal, Interviews, Artur Bruno & Tania & Leonardo). This contradiction between heightened environmental awareness and very low political participation seems to be common in Brazil’s informal settlements: Jacobs found the same case in the three *favelas* of Rio.

The length of time that Vila Velha has occupied this area on the Ceará River calls attention to the importance of the local government considering both short- and long-term solutions to the situation. It seems that the government has proposed long-term solutions, ie removing the people from the area, but they also need to be able to respond to the problem on a daily basis. This is where communication with the community, providing the residents with a voice in the political and environmental decisions being made, and working with local

social movements such as EMAUS (rather than working against it, by exacting fines) would all improve daily conditions in the area.

Educating residents about the environment could also improve citizen-government and citizen-environment interactions. This education could be as simple as, for example, explaining to locals in a town forum or through a pamphlet, what the difference is between an APA and an APP. In my conversations with Vila Velha's residences, no one said they were not receiving government services because they were located on the margin of a river, which is an APP. Instead, they believe they are not receiving services because they are located near the mangroves and the larger APA which encompasses this APP. This may seem like a small difference, but understanding where is legal to live and where is not is no small thing. Inhabiting an APA *is* legal; thus, clarifying this to locals and making it more clear in the future where it is legal to live and where it is not legal to live could begin to improve relationships at the least, and possibly discourage further habitation.

Everyone – from SEMA specialists to Vila Velha's inhabitants – recognize that the best solution for this community is to remove them from the area (Field Journal, Interviews, All). Yet without continued communication with the government, local residents are skeptical about the possibility of change. One government official noted that “it is a challenge” to communicate these things to people who “don't have the knowledge” about environmental protected (Field Journal, Interviews, Tania). Yet those living in Vila Velha do not have this knowledge because of a lack of communication. One of the key tasks of Ceará's state environmental agency is environmental education, and another is building partnerships with the community. These tasks must extend into the most environmentally risky parts of the city.

While local government officials are quick to recognize how slow the process of, say, removing hundreds of people from an environmentally protected area is, they seem less willing to consider interim solutions. Every day, for example, the Ceará River becomes more

polluted as those living in Vila Velha continue to throw their waste in the area. Refusing to provide trash pickup and/or waste management has not prevented people from living in the area, but it has made the river much dirtier. Thus, the government's goal of not providing government services in order to protect the environment has instead hurt the environment even more. In the current situation, neither party is gaining. At least providing services such as sanitation and trash pickup would likely not significantly increase the amount of migration to the area, while also improving environmental quality and quality of life.

In the long-term, the state and municipal government must consider solutions such as affordable housing and more streamlined environmental monitoring to prevent these problems from taking place in the future and to remove the symptoms of peri-urbanization currently plaguing Fortaleza. Affordable housing projects such as *Minha Casa Minha Vida* must be expanded for those living in informal settlements such as Vila Velha, in order to avoid future movements into environmentally protected areas after a single relocation is completed.

The case of Vila Velha does not prove that government should not try to implement sustainable development policies such as environmentally protected areas. However, it does show the harm to both society and the natural environment when such policies are implemented without communication with the residents building informal settlements in the area. Now, ten years after this part of Vila Velha began to expand, the environment and the people living there are suffering. These are not problems that can be solved by sustainable development theory or by federal government policy alone. Local government officials must be able to take responsibility for informal settlements like this and engage in the hard task of relocation.

However, sustainable development theory can emphasize the importance of true inclusion by ensuring the consideration of complicated cases like this when it proposes the

implementation of environmental protections such as APAs and APPs. By exhibiting awareness of these “forgotten” communities on the global level, local governments can feel the pressure to act. As it stands, Vila Velha’s citizens are not receiving rights guaranteed to them under the Brazilian Constitution. This is not a question of the natural environment vs human inhabitation. It is a question of government priorities.

Conclusion

Brazilian legislation has all of the tools to apply inclusive policy on the local level, from a progressive City Statute and Constitution to requirements for including citizens in the urban planning process. The question now is how to make sustainable development and urban planning theories applicable in cases such as Vila Velha. As this study has found, development can only be sustained if local communities are aware and in favor of what is taking place. Without political participation and consistent communication, peripheral communities will not only sense isolation and exclusion from the political process, but they will continue to grow without any other options.

Gaining local voices in the political process will give residents the ‘right to the city’ that Brazilian legislation heralds, and by using a grassroots rather than top-down approach to instituting environmental protection and urban planning, sustainable development will be able to progress without the issues pointed out by post-developmentalists and other critics of the theory. As Paulo noted in his interview, the question of housing is one of “dignity.” Brazilian citizens ought to be able to live with dignity, as should the natural environment they inhabit. Inclusive urban policy is the best way to ensure this democratization: the sustainable

development movement must prioritize these concerns and not only rely on vague federal laws that local governments do not apply in practice.

Integrating the voices of the most marginalized members of society into urban and environmental policy will not be an easy task. Yet heightened global and national awareness of the conditions of communities like these can pressure local governments to prioritize policies that value the rights of these citizens just as much as any other individual. Only through this sort of inclusion can we ensure that sustainable development is sustainable for everyone.

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