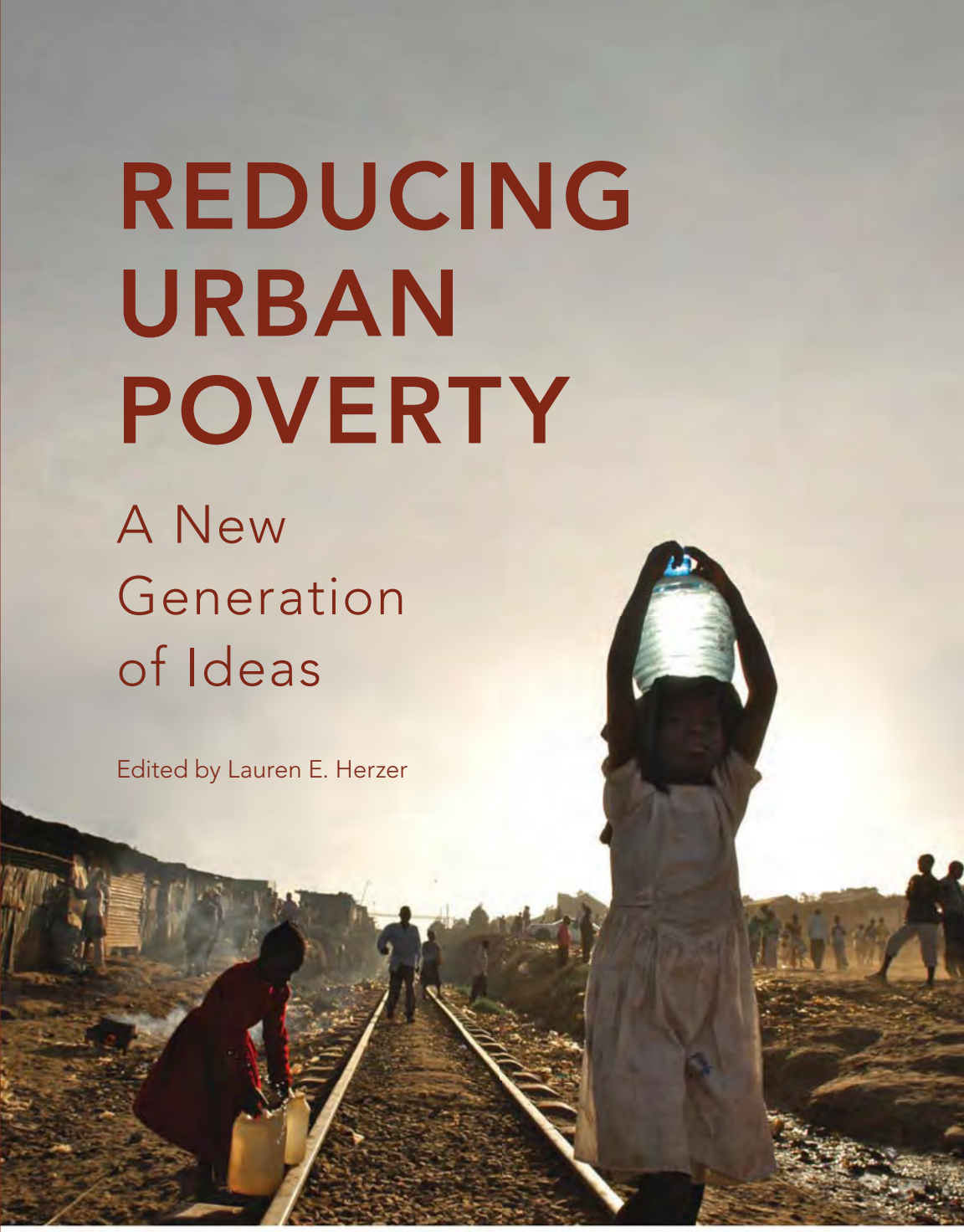
REDUCING URBAN POVERTY

A New Generation of Ideas

Edited by Lauren E. Herzer



Woodrow Wilson International Center for Scholars

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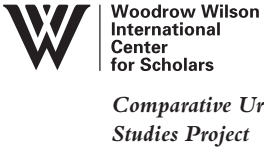

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Introduction

In 2008 the global population reached a remarkable turning point; for the first time in history, more than half of the world's people were living in cities. Moving forward into the 21st century, the world faces an unprecedented urban expansion with projections for the global urban population to reach nearly 5 billion by the year 2030.[1] Virtually all of this growth will occur in the developing world where cities gain an average of 5 million residents every month,[2] overwhelming ecosystems and placing tremendous pressure on the capacity of local governments to provide necessary infrastructure and services. Failure to incorporate urban priorities into the global development agenda carries serious implications for human security, global security, and environmental sustainability.

Recognizing a need to develop and strengthen urban-focused practitioner and policy-making ties with academia, and disseminate evidence-based development programming, the Woodrow Wilson Center's Comparative Urban Studies Project, USAID's Urban Programs Team, the International Housing Coalition, the World Bank, and Cities Alliance teamed up to co-sponsor an academic paper competition for graduate students studying urban issues. The first competition took place in the months leading up to the 5th World Urban Forum, held in Rio de Janeiro in March 2010.

This publication marks the second annual academic paper competition. "Reducing Urban Poverty" was chosen as the theme with each author focusing on one of three topics: Land Markets & Security of Tenure; Health; and, Livelihoods. A panel of urban experts representing the sponsoring institutions reviewed 70 submitted abstracts, from which 16 were invited to

1 U.N.F.P.A., *State of World Population*, 2007 (New York: United Nations Population Fund, 2007).

2 U.N. HABITAT, *State of the World's Cities 2008/2009; Harmonious Cities* (Sterling, VA: Earthscan, 2008), p. 15.

write full length papers. Of these, six were selected for this publication. We congratulate the graduate students who participated in this competition for their contribution to our understanding of the complex relationship between urbanization and poverty.

These papers highlight the new research and innovative thinking of the next generation of urban planners, practitioners, and policy-makers. It is our hope that by infusing the dialogue on these issues between the academic and policy worlds with fresh perspectives, we will foster new and innovative strategies to reduce global urban poverty.

Adaptive Strategies for Policy Implementation in Urban Contexts: Lessons from Bolivia's Zero Malnutrition Program

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Department of City and Regional Planning, Cornell University

ABSTRACT

This paper argues that decisionmakers need operational guidance about how to implement health policies in rapidly urbanizing developing contexts. Taking Bolivia's Zero Malnutrition Program as a point of departure, the author conducted a comparative case study of health centers in three diverse cities, collecting data through participant observation, document review, focus groups and interviews. Findings highlight the unique issues urban-based health staff confront, including populations in transition, inequitable planning, and unmanageable workloads. Emerging strategies suggest that more progress could be made if health policy models like Zero Malnutrition's accounted for such systemic constraints, while delegating more authority for localities to innovate.

INTRODUCTION

I argue in this paper that decisionmakers need operational guidance about how to implement health policies in rapidly urbanizing developing con-

texts, where challenges are distinct from rural areas.[1] I look specifically at one of the most ambitious efforts to scale up nutrition interventions—Bolivia's Zero Malnutrition (ZM) Program. ZM targets rural municipalities, despite the fact that Bolivia's cities have the highest absolute number of malnourished children. Such an oversight could prevent ZM from making a significant reduction in malnutrition on a national scale. In light of a renewed effort to carry out major global initiatives to reduce undernutrition (Bezanson and Isenman 2010) and "conflicting signals" about the best strategies to speed progress (Morris et al. 2008), it is vital to supplement our knowledge of implementation and the nutrition policy process (Leroy et al. 2007; Pelletier 2008; Shekar 2008; Pridmore and Carr-Hill 2009), especially in understudied urban environments.

BACKGROUND

Since its start in 2007, ZM has focused on 52 Phase I and 114 Phase II rural municipalities, which the World Food Program identified as most vulnerable to food insecurity (CONAN 2006). Most health-based ZM interventions have been launched nationally—therefore, in urban areas by default. Priority rural municipalities, however, have received additional support from the national ZM office and the international aid community. The majority of these municipalities now have Integrated Nutrition Unit (UNI) staffs to facilitate ZM interventions within the health sector, coordinators to establish municipal food and nutrition councils, nutrition-based equipment and materials, and a range of multisectoral projects in water, sanitation, education, and agriculture.

ZM administrators have placed emphasis on these municipalities based on the argument that a higher *percentage* of children are malnourished in rural areas—estimated at 32.5 percent compared with 12.8 percent of children under five in urban areas (Coa and Ochoa 2008). Yet, based on *absolute* numbers of projected urban populations (INE 2010), of all children who are malnourished

1 This paper forms part of my dissertation research, approved by Cornell University's Institutional Review Board. I obtained oral consent from all research participants for interviews, focus groups, and observations.

in Bolivia, at least 43.7 percent live in cities.[2] Despite the lower priority ascribed to urban areas, a small number of nongovernmental organizations (NGOs), department-level (regional) ZM actors, and national ZM administrators have attempted to carry out activities to strengthen nutrition actions in several of Bolivia's cities. These actions have focused on ZM's major health-sector interventions and other Ministry of Health (MOH) initiatives that complement ZM. In addition to establishing a small number of UNIs, these actions include:

- Advocating that mayors provide free complementary food—Nutribebe—for all children between six months and two years, in part funded through a hydrocarbon tax mayors can choose to use for Nutribebe, education, and other specified activities;
- Improving the distribution of micronutrients for both prevention and treatment (Vitamin A, Zinc, protein-rich PlumpyNut, iron-rich Chispitas, etc.);
- Training health staff in clinic- and community-based AIEPI-Nut,[3] which includes growth monitoring (children's height and weight) and promotion (exclusive breastfeeding until six months, appropriate introduction of complementary foods after six months, etc.);
- Coordinating with "Bono" doctors who have been hired by the MOH to carry out a cash transfer program for women, conditioned on the completion of regular health check-ups during pregnancy and until children are two; and
- Collaborating with community health promoters and authorities in support of SAFCI (Family, Community, and Intercultural Health), an MOH initiative intended to shift the health sector toward a community-based, preventive, public health model.

2 This number was calculated by assuming that of 10.4 million Bolivians, 66.4 percent now live in urban areas, which translates into 865,109 children under five. If 12.8 percent of these children are chronically malnourished, this translates into a total of 110,734, compared with 32.5 percent of the 437,766 children living in rural areas, or 142,274 (INE 2010; Coa and Ochoa 2008). Chronic malnutrition was defined as height-for-age, Z score < –2 among children under five years of age, using updated growth chart standards established by the World Health Organization and National Center for Health Statistics.

3 This is a nutrition-focused version of what is known as the Integrated Management of Childhood Illnesses (IMCI), a model intended to change health clinic practices to a preventive and community-based approach.

THEORY AND QUESTION

Management, planning and policy science theories suggest that the effective implementation of public policies depends on the degree of "fit" between a program's strategies and structures and its external environment (Blau and Scott 1962; Miles and Snow 1978; Ketchen et al. 1996; Walker et al. 2010). Such research has shown that the most common programmatic model—expert-based planning, centralized decisionmaking, and predetermined, universal interventions—tends to work in "stable" environments. Such stability implies that strong administrative controls can be deployed effectively throughout the policy system, the causes of a problem and the effects of solutions are clear and uncontested, and external factors can be controlled (Mazmanian and Sabatier 1983; Westley et al. 2007; Brunner and Lynch 2010; Meier et al. 2010). These types of policy environments, however, may be quite rare and vary not just by program but also by rural or urban setting. To inform practice, I ask three interrelated questions in this paper: What challenges do urban contexts present for the ZM model? How appropriate is the ZM program model for urban contexts? And what strategies are emerging that offer a way forward?

METHODS

To answer these questions, I conducted a comparative case study of government health centers in three diverse urban settings: the largest informal city, El Alto; the poorest highland city, Potosi; and the fastest-growing lowland city, Santa Cruz (table 1). Key informants helped identify eight centers for the study: those that are the most active in implementing health-sector ZM interventions and are located in peri-urban neighborhoods where malnutrition rates are highest.

Data collection focused on the challenges that ZM staff have faced in implementing nutrition interventions, strategies to adapt national policies to unique urban realities, and systemwide political, institutional, and capacity constraints or strengths. I conducted *participant observation* of local, departmental, and national ZM meetings and workshops; *document review* of ZM

Table 1. Demographic Characteristics of Urban Sites and Health Centers Included

City	Estimated Population (INE 2010)	Location	Chronic Malnutrition*	Percentage Living in Poverty (INE 2010)	Average Annual Growth Rate, 1950–2001**	Health Centers in Study
El Alto	953,300	Highlands, next to capital La Paz	12.6 to 28 percent	66.9 percent	3.4 percent	2
Potosi	154,700	Highlands	17.7 to 61 percent	56.3 percent	2.2 percent	3
Santa Cruz	1,616,100	Lowlands	4.1 to 7.7 percent	19.8 percent	6.7 percent	3

**Chronic malnutrition rates for children under two vary widely depending on the source, including 2009 National Health Information System (SNIS) and 2010 Bono Juana Azurduy data, as well as recent surveys conducted in El Alto (Andean Rural Health 2011) and Potosi (Mamani 2011).*
***Sources: INE 2010; Urquiola et al. 2000.*

program reports and studies; *focus groups* with program recipients[4]; and *semi-structured interviews* with eighty-nine actors from NGOs, departmental or citywide health offices (SEDES), health network offices, health centers, and neighborhood civic groups (table 2), as well as five national MOH staff.

FINDINGS

Although ZM implementation faces challenges in every context, this study suggests that urban environments present particular issues with populations in transition, inequitable planning, and an overstretched workforce. Because of these unique challenges, ZM's centralized, output-oriented, and parallel program model tends to further complicate the implementation of

4 This included three groups from El Alto, three in Potosi and two in Santa Cruz, each of which involved an average of ten mothers of children under two.

Table 2. Study Groups and Participants at Department and Local Levels

City	NGOs	SEDES Staff	Health Network Staff	Health Center Staff*	Civic Group Leaders**
El Alto	3	3	2	16	12
Potosi	1	4	3	10	3
Santa Cruz	4	4	3	16	5
Total	8	11	8	42	20

**Perspectives of an additional 15 social workers and 13 local health leaders from Potosi are also included in this paper, based on a workshop to assess interest, capacity, and nutrition-based actions occurring at different health centers.*
***Local leaders included presidents of neighborhood councils, elected community health authorities, and community health promoters.*

nutrition interventions in urban contexts. In response, a number of ideas and strategies have emerged, focused on building unique community relations, creating a culture of learning, and restructuring local health systems.

Challenges

Three of the distinct challenges operational staff face in carrying out ZM in an urban context are interrelated. The continual population growth within peri-urban regions frustrates the ability of health planners to stay abreast of the needs of staff attempting to reduce malnutrition in these environments. This means that staff workloads remain unmanageable, while community members who seek attention become increasingly frustrated by their lack of access to resources.

Populations in Transition

Due to rapid migration to urban areas during the last decade, more than 66 percent of Bolivians now live in cities (INE 2010). In two recent sur-

veys, 33 percent of families in Potosi and more than 60 percent of families in two neighboring peri-urban areas of El Alto identified themselves as migrants (table 3). Santa Cruz, furthermore, has captured the greatest volume of internal migration over recent decades (Mazurek 2007). Such urban growth presents staff with a remarkable mix of challenges unique to peri-urban contexts:[5] a blend of cultures and customs along with rapid diet changes, great variation in livelihoods and living conditions, frequent "abandonment" of children, less trust, unplanned communities, and constant movement. As one doctor who splits her time between two centers in Potosi described the situation:

> In the city center, families are more informed—their level of education is much higher. They don't have as many children. Here, they have 5 or 8 children out of the 11 they gave birth to, and they keep having children. At the other (health) center, I have absolutely no problems—mothers come to all our meetings and check-ups without fail. And it's noticeable in the level of malnutrition—here we have 18 malnourished children out of a population of 4,500 while we have only 8 in a population of 15,000 at the other center! Socioeconomics is a major difference between the two. Here, most are migrants, in search of work. They work in the informal economy—selling juices and so on. When there are strikes, they don't work and they have nothing to eat. In the other neighborhood, they have much more formal and secure work.

As this doctor described, migration creates neighborhoods with a rapidly shifting mix of cultures, education, and socioeconomic backgrounds. In Potosi, this diversity is evident even among families from the same geographic department. In El Alto and Santa Cruz, families move from across Bolivia, often bringing back new customs they learned while working in Argentina or Spain. One staff member in El Alto observed how "when they're in the rural area, they hold onto their customs much more strongly.

5 This is in addition to other causes of malnutrition that many actors said are common throughout Bolivia, such as large families and little spacing between births, adolescent or single mothers, poor nutrition during pregnancy, low levels of education or nutrition awareness, and spousal abuse.

Here, because there's a clash of cultures, they try to change their customs, maybe because they think they're improving their lives. Each family here has their own world."

Caregivers, staff members, and local leaders describe how a family's diet also changes more quickly in urban environments because of a lack of time to devote to cooking, less ability to consume self-produced crops as food prices rise, and a greater availability of calorie-rich but nutrient-poor fast foods such as fried chicken and burgers. One Santa Cruz social worker found in her household survey that diets among migrants change dramatically during their first year in the city.

Health staff further explained how employment in poorer, peri-urban situations can also restrict exclusive breastfeeding and complicate appropriate introduction of complementary foods. Especially when incomes do not cover basic expenses, many families work continuously, largely in informal or highly unstable sectors (table 3), and thus are forced to leave children with relatives, neighbors, unlicensed day care centers, and frequently—siblings who can be as young as seven years old. As one local leader described the situation, "Without (parents) being by their side, their children do not eat."

Inadequate diets are also compounded by living conditions that place children at risk of becoming ill more often, contributing to and exacerbated by malnutrition. In the Potosi and El Alto sites, up to 50 percent of families share a single room for housing, up to 13 percent have no access to water in their homes, and as many 19 percent do not even have a basic latrine (table 3).

Interviewees additionally described how the mobility of urban residents is a key variable in the delivery of programs like ZM. Families not only move frequently within the city to new rental units but also back and forth to their rural communities or between towns and internationally in search of work. One doctor in Potosi described how "many have their '*turna*' during the planting season in their communities. Or in Uyuni, every three months they designate someone to shepherd the llamas. It's a constant movement, rural-urban, urban-rural. They have to." In Santa Cruz, too, one doctor described how "many families have recently arrived. Others go to the rural area for seasonal farm labor for two months at a time. Many also rent and move around a lot—it's very difficult to find them." The fast growth of peri-urban neighborhoods also means that many streets have no

Table 3. Population Characteristics for Potosi and Neighborhoods of District 8 in El Alto

Characteristic	Potosi*	El Alto** Neighborhood 1	El Alto** Neighborhood 2
Family identified as migrant	33 percent	60 percent	62 percent
One-room housing	33 percent	53 percent	52 percent
No access to water	4 percent	6 percent	13 percent
No bathroom or latrine	10 percent	13 percent	19 percent
Mothers who work full time	33 percent	54 percent	32 percent
Top job of fathers	Miner—26 percent	Chauffer—20 percent	Chauffer—23 percent

*Sources: *Mamani 2011; **Andean Rural Health 2011.*

names or house numbers, adding to the difficulty of doing home visits, as one staff member described:

> In the rural area, families are more permanent. Here, they move a lot. Economic activity is a huge influence. One day they can be there and another they won't because of fairs, events, their job. It also takes much longer to do home visits. It's much closer here, but you still have to walk a long time until you find someone home. In the rural area, I wasted less time. Here, frequently, I can go an entire day and not find anyone.

Finally, in large part because there is so much movement in and out of neighborhoods, staff members repeatedly explained how difficult it can be to gain people's trust. Staff, local leaders, and mothers alike describe how recent migrants become "more suspicious" and "closed" once in the city without extensive family or support systems, tend to be "afraid" to go to the health center, or may not even know a center exists in their neighborhood. These issues are essential to take into consideration while planning for a dynamic population such as this.

Inequitable Planning

In addition to the unique population they work with, staff at all levels of ZM described a form of program planning they see as "inequitable" at best,

and "discriminatory" at worst, because the distribution of health-system and ZM resources does not address gaps in health care and nutrition-based program coverage, variations in populations served, and existing capacity.

Most recently, ZM actors have begun to identify a major gap in ZM program coverage in urban areas due to the large presence—and isolation from the 'public' health system—of establishments available only to public employees covered by state health insurance and those able to access private (often NGO-run) care. On a national level, approximately 12 percent of the population uses private health centers while state health insurance covers another 28 percent (Ledo and Soria 2011). These rates are even higher in urban areas (Marceira 2002; Barriga et al. 2011; Vaca et al. 2011). By law, these centers are obligated to apply MOH policies and programs, but local and national MOH staff interviewed for this study equally blame each other for failing to monitor compliance, provide up-to-date training or ensure adequate supplies such as micronutrients or Nutribebe. As one manager from a regional SEDES office expressed it, "We'll never reach ZM goals because of this, and when we recently told ZM administrators, they told us they had no idea (that this gap in coverage was occurring)."

National MOH staff members and local authorities also described a long-standing problem with the distribution of infrastructure, materials and staff throughout the health system, an issue the 2005 minister of health admitted was "inequitable" (El Diario 2005). This problematic planning is reflected in wide variations between departments: Health centers in the department of Santa Cruz bear the largest load—an average population of 5,087 per health center—while centers in the departments of Chuquisaca, Potosi and Pando cover populations less than 2,000 (INE 2009). The comparison between cities is even more pronounced: while Santa Cruz health centers serve populations close to 10,000 (INE 2007; Hinojosa et al 2009), enough centers operate in the city of Sucre (from private, public and state health insurance sectors), that each is responsible for an average of only 2,872 residents (Aramayo et al 2007a and 2007b). Finally, such uneven allocation is also evident in population to staff ratios: in the department of Potosi, for instance, the ratio is 12,349 to 1 in the city of Potosi, but in rural areas only 1,676 to 1, on average, and as small as 18 to 1 (INE 2005; Aramayo 2007c).

Furthermore, ZM and MOH staff appear to have ignored these existing, uneven population ratios and other capacity indicators when allocating

staff for ZM or other new health programs (e.g., one Integrated Nutrition Unit or UNI, per municipality or one Bono doctor for every center). The urban health network in Potosi operated for nearly three years with only one nutritionist, for instance, while rural, priority ZM municipalities have also received one and often up to four ZM staff. Even within the city, a Bono doctor described how in her program, "I think they must (allocate staff) randomly, but it doesn't make sense to have *one* doctor for 4,000 and also *one* doctor for a population of 15,000. No matter how hard I try, I just can't complete all my work with a population like that—it has to be more equitable. It doesn't allow you do to real public health." A Santa Cruz SEDES administrator additionally explained how, "In the rural area, there might be 100 children under five. Here in the city, at one health center[6] alone, there are 14,000! That's why we decided to focus on the urban area, and pushed this idea at the national level, but they only created 3 UNIs." Local ZM staff additionally complained that supervisors often distribute shipments of ZM materials equally—such as educational resources for nutrition promotion, or balances and height-measuring devices—leaving many rural areas with an oversupply of materials and equipment while urban sites have far too little.

An Overstretched Workforce

Such inequitable resource distribution leaves primary-level health center staff overwhelmed and unable to integrate new programs like ZM into their work schedules. As one Health network administrator explained, "When you don't have enough hospitals, patients with emergencies come here and oversaturate the health staff. So it's incredibly difficult for primary level heath centers to actually do the prevention and promotion work they are intended to do." A recent health-sector analysis in Santa Cruz, for instance, showed highly variable capacity across the East and South Health Networks (Barriga et al. 2011; Vaca et al. 2011). In the East Network, one center alone serves 22 percent of the population, while six other centers together cover 25 percent. For ZM, the implication is that centers with the largest population have the lowest micronutrient coverage, while the smallest centers have the best coverage.

6 This number was corroborated using vaccination SNIS 2010 data of children under five for one of the centers visited for this study in the East Health Network.

These studies also showed great variation in staff capacity[7] to implement MOH maternal and child health interventions (which includes nutrition growth monitoring and promotion—AIEPI-Nut). Of 21 public health centers located in the East and South Health Networks, 6 are unable to adequately serve up to a third of the population attending their centers; 2 of these centers have populations that are more than double the capacity they can withstand. Meanwhile, five centers are working close to half their capacity (ibid). This analysis is even more alarming considering that public health staff in fact manage numerous programs aside from ZM or maternal and child health interventions, including tuberculosis, breast cancer screening, dengue, chagas (in Santa Cruz); reproductive health; adolescent programs; and eldercare programs—in addition to emergencies.

Local health staff across the three cities admitted that they are so "saturated" with patients they revert to focusing on emergencies and a "curative" focus, too often sidelining or only nominally applying nutrition promotion and preventive strategies. One SEDES administrator estimates that in her city, only 41 percent of staff complete growth monitoring and nutrition promotion (AIEPI-Nut), despite the fact that 85 percent of staff members have training in these areas. As one nutritionist commented,

> Of twenty doctors, two are interested and think a preventative approach is important. Because they're so saturated, they focus on pathologies. They see programs like AIEPI as a waste of time, especially when there aren't supplements to give to a mother. We've had incredible fights with them in meetings, them blaming us, "Don't tell me what to do until you bring me micronutrients." It's been very difficult. They don't like AIEPI because it's a process and they don't think it's going to have an impact. "Many children have no money," they say, so they think they can do nothing to improve their nutrition.

In another city, a ZM administrator estimates that 95 percent of staff members are now applying growth monitoring and nutrition promotion,

7 This capacity analysis considered the number of hours staff work, the number of staff at each center, the population of children under five and pregnant women assisting their center, the number of visits each child and expecting mother should have each year, and the minimum minutes (15 minutes) that staff members should allot for each visit.

but staff members admitted that the *quality* of this attention often suffers because of staffing constraints. Data by an area nutrition rehabilitation center, for instance, showed that of 748 children referred to them in 2011, 29 percent had been incorrectly identified by area health centers as being malnourished, suggesting that a high percentage of children may also be regularly misclassified as 'normal' who are actually experiencing malnutrition. Doctors interviewed admit to not being able to monitor interns, who are often assigned the task of weighing and measuring children. One nurse also lamented how limited staffing prevents them from doing home visits or health campaigns in the community, and weakens their ability to offer effective nutrition counseling in the clinic as well:

> When the MOH launches a new program, we don't have the capacity. I work alone in the afternoons. I weigh, measure, give vaccinations.… It can be difficult to ensure that I also offer counseling—it has to be quick, and often parents don't understand me. In nine years, the situation hasn't changed. The population has doubled, but the work falls on one person still.… We aren't seeing the increase in staff to reach this population.… It's total chaos.

A vicious circle develops in this situation, as families grow frustrated with long waits and abrupt interactions that only stresses doctors further. As many mothers expressed it, "The center offers poor service. Doctors that don't perform well should be replaced. They should be trained to give better service, to work with us better. It seems they do the job only for the money, because they're paid, not because they want to." One nutritionist also described how,

> in the rural area, families might come in the morning and at the end of the day after they were done working on their farm. You have time to talk, it's more relaxing. But in the urban area, they start lining up at 4 a.m. and the center is always full. Mothers are demanding attention, they're in a hurry because they need to get to work. I think personalized (nutrition) counseling and attention really suffers because it's stressful. Fifteen minutes is little time to explain everything.

Particularly in Santa Cruz, a number of staff described how tension with patients has grown lately: "Now that the government favors indigenous groups, they come and demand. They've become abusive—'I'm going to turn you in,' they say. 'Why is it taking so long? Why are there no medicines?', they ask. They get angry and don't accept that we are attending to emergencies. Today, everything can become an official complaint. It used to not be that way."

The Appropriateness of the ZM Model

In this context, a number of ZM program model characteristics further aggravate the challenges urban staff face. Staff and many community health authorities view ZM as having a largely centralized decisionmaking structure, interventions that have been designed by experts and that are expected to be universally applied, an output-oriented focus that does not asses or address weak administrative controls, and a parallel program model that tries to control external factors while only creating more inefficiencies.

Centralized and Universal

Recent logic modeling workshops, to help define the next five-year plan for ZM, have begun to reshape how some staff and local authorities view ZM—as less centralized and predetermined: "This workshop was key", one participant explained, "before, they used to pass us what they had designed from above. That's why they had to adjust plans so many times, because they didn't ask us our opinions." But the belief still remains among most staff that "we can't make adjustments—we have orders and we have to complete them. ZM, SAFCI—these are national programs, there is no room for adjustment or for adaptation." National administrators themselves admitted in the 2010 – 2015 *Institutional Strategic Plan* that the MOH has a "vertical" and "centralized" structure "that may explain bottlenecks and procedural delays" (Dupuy 2010). Many are still waiting for ZM and MOH offices to respect and support greater discretion so that they can respond to their unique operational realities, as one doctor noted:

> I hope they listen to us more, that they improve communication and take us into consideration. ZM is still hierarchical. SEDES has never called us for a meeting to ask us what ideas we have. We want to present ideas, but we don't have access. It's very bureaucratic. Maybe they

> don't pay much attention to us because we're young—we have no power, they don't accept us. I guess that's why.

Output-Oriented

Staff also expressed frustration that ZM monitors local sites based on "numbers," such as micronutrient coverage rates, number of UNI staff, or malnutrition rates, while failing to address the many logistical, political, and capacity constraints that prevent them from following-through or ensuring that nutrition actions will be effective. Like their rural counterparts, these urban sites have continuously faced problems acquiring and distributing micronutrients—some for six months to a year at a time—because of administrative and supply issues. In the case of the complementary food Nutribebe, ZM staff continue to see a lack of political commitment among mayors to purchase the product. Two recent surveys conducted in Potosi and El Alto showed that between 48 and 68 percent of mothers had never received Chispitas or Nutribebe (Mamani 2011; Andean Rural Health 2011). In addition to these issues with acquisition, numerous staff and mothers continue to express doubt about the appropriateness of certain micronutrients based on taste and feasibility. As one doctor noted:

> The MOH measures our malnutrition rates, our coverage rates, but they don't listen to us and help us with problems we've identified.… So what do we do? They require us to distribute certain types of micronutrients, yet don't listen to the operational problems we've observed.… ZM administrators also don't want to hear about problems—I think they think only about infrastructure, equipment, the number of staff, but not operational issues or results.

A Parallel System

Finally, many see ZM and other complementary programs as acting in "parallel" to the existing health system. From local to national levels, ZM actors describe how UNI nutritionists, Bono doctors running the conditional cash transfer program, coordinators hired to establish community-based nutrition surveillance systems, and Mobile SAFCI Brigades collecting socioeconomic data for family clinic histories have

had separate funding, different supervisors, unique training programs, and often parallel information systems. SEDES supervisors, health network managers, and health center directors indicated that they have no formal authority over these staff members unless they can negotiate for such an arrangement. Repeatedly, health staff described how many of these additional—sorely needed staff—have acted as "islands" or how the valuable data they collect, including child-specific malnutrition data, nutrition surveys, and SAFCI family clinic histories, "goes directly to the national level—we've never seen it."

Equally problematic are situations where other health staff come to rely on UNI or Bono doctors to "do nutrition," especially when contracts repeatedly get delayed. At the time of the writing of this paper—June 2011—the majority of staff from more than 200 UNIs had still not returned to work since December 2010, an especially difficult situation in urban areas where so much skepticism already exists about ZM. UNI staff in Santa Cruz explained how:

> The national office keeps telling us "two more weeks, two more weeks," but now they've even stopped saying that. This is such a setback. We had so many ideas, even our first budget from the Mayor's Office, the Health Network, and SEDES. We had plans with NGOs to do micronutrient studies, and had established so many relationships with local health staff, finally convincing them nutrition and prevention work was critical, and that this program isn't like all the others—that we're not just a short-term project.

Additionally, health staff expected to carry out nutrition promotion and micronutrient distribution face a situation where "everyone has their separate programs—all wanting each to be a priority. Yet it's only one person at the local level that's implementing all of them—the same person." One health network administrator described how this requires centers to turn in twenty reports each moth, in addition to twenty-four reports every three months, and weekly vaccination data during campaigns. This can result in as much as 40 percent of staff time devoted to paperwork and other administrative tasks, as one NGO discovered in a time allocation study (Llanque 2011). The combination of mounting programs and the constant demand in urban centers explains why staff feel they can devote little qual-

ity time to their patients, especially around issues of prevention, as one center director explained in detail:

> We're duplicating our work—the receptionist enters all our paperwork. There are prescription receipts, a lab form, clinical history file, a form for AIEPI-Nut Clinico, four separate notebooks for different groups, a separate receipt for Nutribebe because it's considered a "program."… And each time, we have to copy basic information like their name, identity card number, etc., sometimes up to six times. We need 30 minutes for all this in addition to counseling, though the norm says 15 minutes. Recently, we went to a "psychosocial" workshop to learn about a new program in early stimulation. Doing this on top of what we already do would take an entire hour—that's why we don't do it, or we fill out forms quickly. We'd need a person strictly dedicated to this.… Wednesday they passed onto us yet another program, for renal failure. Now we have to do a lab exam for anyone with diabetes, obesity or malnutrition, which means a completely different clinical history, forms, etc. In one program alone, we have 7 forms to fill out. Tuberculosis patients have an entirely different clinical history and their own follow-up protocol. Every month, I spend between the 1st and the 5th just filling out forms, to turn in my repots. Apart from this, the mayor in 2006 created his own health insurance—called Su-Municipal. Supposedly the Mayor's Office will pay centers 6 Bs. per patient so that their visit is entirely free. But it means that we had to start filling out forms for that program as well—but it's just archived—we've never received a dime. So these reports—for what? They make us work, fill out forms, for nothing!

This convergence of multiple programs creates a situation where staff admit making mistakes, or simply not carrying out many of the required steps or programs. And as long as health staff continue to view ZM as "temporary" or "parallel," it will remain a low priority among the many programs and emergencies that compete for their attention.

Emerging Strategies

Finding themselves in this situation, most staff in this study felt they were at an impasse—with detailed knowledge about what limits their ability to

improve their work and ideas of what could be done, but without the power to apply them. Too many see ZM as "just a dream, impossible." Yet many strategies are emerging that offer a way forward, even if some still remain in the form of ideas about how to strengthen community ties, create a culture of learning and reshape the current health system.

Strengthening Community Ties

Many local staff are developing innovative ways of building stronger relations with their local communities as they realize "we can't do this alone." Whereas most are attempting to establish or work more closely with existing neighborhood councils, community health authorities, and promoters—as called for by recent MOH programs—others are also trying more creative approaches. One center is discussing the idea of working with corner storeowners to keep track of new neighbors, malnutrition cases, and deaths. Another center formed a "social council" of local mothers to plan informal events to strengthen community ties by allowing health staff and mothers to interact outside of the clinic setting. One doctor would also like a traveling pharmacy to help build trust during home visits, to demonstrate that health staff members want to help the entire family, not just "scold" parents about their child. At another center, nutrition workers look for "alliances" within the family, and have found that siblings as young as seven can act as the mother's "memory," reminding and encouraging her to apply certain nutrition practices.

Creating a Culture of Learning

Other ideas revolve around efforts to improve staff understanding of local populations and of their own implementation weaknesses. Many have carried out or designed one-time nutrition surveys, operational studies of the impact of particular micronutrients, and home visit protocols. At least two sites working with NGOs have also initiated meetings for staff to regularly review and exchange ideas to improve the quality of their nutrition counseling, growth monitoring, and home visit practices. Staff at one of these sites have also received diverse trainings in negotiation, communication, leadership, Andean cosmovision, interculturalism, psychology, and more, which they believe has improved their ability to identify and address more nuanced determinants of child malnutrition. Similarly, one SEDES administrator suggested that the "Healthy Municipality" model could be applied

to the city; a "Healthy Neighborhood" program might require staff to live with peri-urban families to learn about their livelihoods and daily struggles.

Restructuring Local Health Systems

Finally, several plans and debates are emerging about how to restructure Bolivia's health system to improve nutrition-focused outcomes. At the national level, MOH and ZM officials have begun signing agreements with hospitals serving state employees to improve their application of nutrition policies and programs, such as micronutrient distribution. In Santa Cruz, the health sector capacity analysis appears to have convinced health authorities to improve staff capacity and close gaps in nutrition program coverage, by redistributing health centers to a fifth health network and renegotiating contracts with NGO-run health centers. In Potosi, SEDES is piloting a "rapid response" approach, where a team of consultants divide centers and begin working closely with one or two center staff members to identify children with malnutrition, conduct monthly home visits, start treatments, and regularly review individual growth monitoring data. National MOH staff note that they have also begun working closely with at least two cities to encourage each health center to develop nutrition action plans.

One critical debate about broader health system changes relates to the "single system" that MOH decision-makers are pushing to integrate what they have called a "fragmented" health sector (Dupuy 2010). Steps are under way to create a single information system (MOH 2010), single insurance system, and single health model (SAFCI) (Crespo et al. 2010). As one NGO manager explained, however, some health policy actors are concerned that certain aspects of health—like nutrition—could be diluted or forgotten if health interventions are approached in an integrated manner. Indeed, at least two SEDES administrators noted how their supervisor silences their ideas about how to strengthen specific components of ZM (e.g., AIEPI-Nut or micronutrient coverage) because she does not believe that investing time and resources in one specific area supports an "integrated" approach—though she in turn has no answer for how to operationalize the concept of an "integrated" ZM program. Based on their experience, staff members of the Santa Cruz Nutrition Rehabilitation Center shared the idea that ZM should focus on building certain strengths, particularly more specialized nutrition rehabilitation centers in urban settings:

> External consultants recommended that ZM focus on integrating actions in primary health centers, but they don't see that centers don't have the staff, that they lack equipment, even infrastructure. How are they going to treat malnutrition if they don't have sufficient support or are so saturated by patient demand? When UNIs find a malnourished child, the idea is that they should send them to the hospitals, but hospitals don't have enough beds. The Children's Hospital, for example, has 80 beds but needs to admit 100 or 200 children. They can't keep a child for much time either—it's very expensive to use that bed just to feed a child until their diarrhea is cured. On the other hand, here, we can admit a child for a longer period, and we can teach mothers much more than the hospital can, so that they don't return two or three times. We also learn what's going on in their homes through our visits. Every capital city should have a nutrition rehabilitation center, something simple like what we have, accessible to the poor, with precise equipment, and with a focus on teaching mothers.

CONCLUSION

The findings discussed above suggest that Bolivia's cities are far from the stable environments necessary to smoothly apply national ZM and related health directives as they are intended. Not only do many determinants of chronic malnutrition appear unique to these urban sites, but populations also are literally in constant movement, making it difficult to understand the causes and solutions of child malnutrition at any one moment. Too many local authorities, mothers, and health staff members are also skeptical of ZM's choice of interventions, particularly in these urban sites where so many have felt overlooked by national administrators. Furthermore, asking staff to make nutrition actions a priority, and to comply with national directives, appears unrealistic in the face of extreme capacity constraints and the ever-increasing, confusing accumulation of competing programs, structures, and health models.

Even as ZM and MOH authorities make slow progress on a variety of these issues—apparent, for instance, in recent participatory logic modeling workshops, training sessions in results-based management, and meetings

to streamline the health information system—these initial efforts still leave wanting other concerns to which urban staff appear especially sensitive but that have program-wide implications. For instance, the emerging results-based management model and improved health information system may only continue to promote a focus on "countable" things as indicators of implementation, rather than the quality or sustainability of ZM actions. Logic modeling workshops also appeared to give insufficient attention to system-level constraints, especially horizontal fragmentation and legacies of inequitable planning.

Furthermore, the latter issue raises an inherently ethical dilema with which ZM and MOH authorities must grapple—the principle of allocating resources based on highest prevalence versus highest absolute numbers. A prevalence-based allocation might be justified on the basis of efficiency (a greater proportion of those reached need the services), historical inequities (though there is a need to recognize that many migrants in urban areas have suffered that same legacy), and capacity to implement (the higher ratio of staff to population favors better implementation in rural areas). This logic only makes sense, however, if malnutrition is spread evenly across urban contexts, if malnutrition primarily affects more affluent urban populations, and if no unique strategies exist to improve the capacity of the urban health sector to improve urban nutrition outcomes. This study suggests the contrary and proposes that peri-urban neighborhoods could be critical, targeted sites of action, though this needs further investigation.

Finally, the emerging ideas and strategies captured in these urban sites demonstrate that more rapid progress could be made if the ZM model accounted for environmental constraints and differences. This might be accomplished if ZM could institutionalize opportunities for staff members to describe their situation to higher-level authorities and delegate more explicit authority for localities to innovate.

Beyond Bolivia, these findings offer important lessons about critical factors to consider when operationalizing at-scale preventive health programs in other rapidly urbanizing developing contexts. As this paper emphasizes, policy actors can no longer assume that "the cities must be fine," as higher-level ZM actors have sometimes told operational staff members dedicated to making the particular health challenges of urban populations more visible.

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Can Dynamic Water Governance in Laos Sustain Momentum? Public-Private Partnerships and the Mobilization of Local Entrepreneurs for Water Supply

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ABSTRACT

In 2004 the Laotian government began experimenting with the provision of concessions under public-private partnerships aimed at mobilizing domestic capital. This paper illustrates the importance of dynamic governance in the adoption of innovative frameworks to address the lack of safe water and the tortuous road to creating policies in areas ignored by national laws. In-depth semi-structured interviews revealed that existing and future projects are threatened by underdeveloped legal, institutional, and regulatory frameworks. Findings on the challenges that must be overcome can be used by low- and middle-income countries interested in pursuing alternative frameworks for the construction of water supply infrastructure.

Water is a strategic sector increasingly gaining notoriety on the Laotian government's agenda. As Laos and similar countries struggle to finance networked infrastructure projects in order to meet the United Nations' Millennium Development Goals and national objectives, stakeholders ranging from local communities to international organizations have sought to diversify the portfolio of options available to them to meet demands for improved water. The ability to look beyond

traditional models and to adapt the regulatory, legal, and institutional frameworks to accommodate new approaches to water supply expansion is mostly the result of dynamic governance. One such alternative model is public-private partnerships (PPP), which emerged with great notoriety in the 1990s as an alternative to traditional state-owned enterprises.

Water-sector PPPs bring together private investors, public authorities, and civil society in order to provide an alternate model of financing, management, and operation of water infrastructure and services. The commitment and support of government actors is a necessary condition for the adoption of PPP, community-based projects, and any other alternative strategy that may advance the expansion of safe water provision. Although characteristics commonly associated with an enabling environment for PPP, such as a vibrant private sector and well-defined contractual laws, were absent in this socialist country, the Lao government's dynamic approach to addressing urban water supply issues has helped the sector prosper since the inception of its first project in 2006.

Dynamic governance refers to the ability of governments to "think ahead, think again, and think across" (Chen and Neo 2007). In short, dynamism in governance requires actors to "think ahead" by having foresight vis-à-vis future developments that should shape today's agenda, to "think again" by reviewing existing policies and programs to identify room for improvement, and to "think across" to learn from the experience of others and adapt it to the local context. This paper argues that the government of Laos has been able to exercise dynamic governance in its approach to improving and expanding potable water coverage and that thanks to this dynamism alternate models such as PPP have been able to emerge despite the absence of many enabling conditions. Although the government's efforts have already shown some positive results, the ability to continue to see improvements is reliant on the government's ability to "think again."

This study begins with a brief background on Laos describing the context in which the country's developments are taking place. This section is followed by a description of water-sector developments during different periods from 1999 to the present. Within this section, the government's efforts to adopt PPP are illustrated and the main achievements of the program are detailed. Subsequently, the challenges that must be overcome to ensure that the improvements achieved in the sector are sustainable and can be scaled up are explored. The paper concludes with an analysis of the existing legal,

regulatory, and institutional frameworks, highlighting recommendations to improve water supply governance.

THE CONTEXT

Laos is a landlocked country bordering Thailand, Cambodia, Vietnam, China, and Myanmar. The one-party state has been ruled by the Lao People's Revolutionary Party since 1975 (CIA 2011). Executive power is vested in the president, who acts as chief of state, and the prime minister, who is head of government (CIA 2011). Legislation is issued by the unicameral National Assembly, while ultimate judicial power rests with the People's Supreme Court (CIA 2011). Gross domestic product (GDP) per capita in 2008 was $893 ($2,165, at purchasing power parity), and the poverty rate was approximately 36 percent (Epprecht et al. 2008, 21). The country is heavily reliant on foreign assistance and concessional loans: "In 2010, donor-funded programs accounted for approximately 8.5 percent of GDP and 90 percent of the government's capital budget" (U.S. Department of State 2011).

According to World Bank statistics, only 57 percent of Laos' population has access to improved drinking water, considerably below the 89 percent access found in developing East Asia and Pacific countries and slightly below the 61 percent access found in other least developed countries (World Bank 2011). Current life expectancy is sixty-five years, and infant mortality stands at 59 per 1,000 children (World Bank 2011). It is estimated that 25 percent of the population has no access to formal health care and 23 percent is undernourished (World Bank 2011). Of the country's 6.3 million people, only 27 percent live in urban centers (World Bank 2011). (The Lao government defines urban centers as areas that have at least 2,000 inhabitants and a population density of 30 persons per hectare.) Growing urbanization trends make improving access to basic services such as water a priority.

1999: SETTING THE AGENDA FOR IMPROVED WATER POLICIES

The socioeconomic implications of low water coverage in urban and peri-urban areas have been increasingly gaining notoriety on the government's

agenda. The first major step toward improving water policies was the adoption in 1999 of Prime Ministerial Decree No. 37 (Lao People's Democratic Republic 1999). Before 1999, urban water supply management and operation was coordinated by Nam Papa Lao, the country's sole water utility. Provincial branches of Nam Papa reported to the office in the capital, Vientiane, and all decisionmaking took place at the central level. The 1999 policy reform brought two major changes: the decentralization of the water supply sector, and the creation of a water regulatory agency. Authority over water-sector operation and decisionmaking were devolved to the provincial level as part of wider efforts to decentralize power and improve accountability (Graham Jackson, interview by the author, February 23, 2011). Provincial water utilities were to be supported by the newly formed Water Supply Authority (WASA), an agency whose initial mandate was to provide technical support to the newly formed water utilities. International agencies such as the Asian Development Bank (ADB) played an important role in providing guidance and support for these changes (Jackson interview). The prime minister's decision to "think ahead" required significant government support and political capital and became crucial in setting in motion new developments in the country's water sector.

2000–2004: POLICY REFORM AND REGULATORY DEVELOPMENT

The years immediately following the 1999 decision saw the emergence of policies aimed at filling the regulatory, legal, and institutional gaps that became apparent in the newly decentralized water sector's configuration. WASA expanded beyond a technical advisory role by incorporating greater regulatory responsibilities in its mandate, such as the setting of performance targets for water utilities, giving the agency responsibility for validating supplier's licenses, assessing the financial performance of the utilities, and tasking it with determining the appropriate tariff for each Nam Papa State Enterprise to charge (Avrillier 2011, 29). Although legal and regulatory frameworks sought to catch up with emerging needs, the institutional capacity of WASA was not fully developed, leading to a disconnect between what was on paper and the actual work being carried out. It must be noted that WASA's institutional capacity shortcomings—many of which persist today—are due to lacks of financial and human resources and not

to incompetence from those associated with the agency, as field interviews revealed. For example, the regulator currently lacks the funding and staff necessary to conduct audits of the financial and operation reports being submitted by the Nam Papa State Enterprises, leading to opportunities for self-reporting bias.

During this period, WASA was tasked with creating policies in areas previously ignored by national laws. The agency was successful in the elaboration of guidelines to be used by all provincial water utilities such as the Regulatory Accounting Guidelines and the Tariff Determination Guidelines, both issued in 2004 (Somvan Mongphachan, interview by the author, February 23, 2011). The active evaluation of water supply policies led the government to realize that it was imperative to adapt its ownership and regulatory policies in order to meet improved water goals. The sector had already undergone major changes, shifting from just one public water utility in 1999 to eighteen provincial public utilities by 2004; however, the public sector's monopoly over water supply needed to be reconsidered.

2004: THE END OF THE PUBLIC-SECTOR MONOPOLY

Although state-owned enterprises continue to dominate the water supply landscape in Laos today, the water sector has experienced significant changes since the adoption in 2004 of the Prime Ministerial Decree No. 42 (Lao People's Democratic Republic 2004). This decision sought to promote the participation of the domestic private sector in the provision of water services through the development of small and medium-sized water enterprises. These efforts became the first attempt by the government of Laos to involve the private sector in the provision of public services. The idea was to mobilize domestic investors with deep ties to the community, experience running a business, and philanthropic objectives. In the words of a senior staff member of the French nongovernmental organization GRET, "The objective was to leverage the investors experience and desire to contribute to the community" (Frederic Naulet, interview by the author, June 3, 2010). According to a member of the Ministry of Public Works and Transports, "their knowledge of local dynamics and deep ties to the community gave initial investors confidence to be pioneers" (Dr. Somphone Dethoudom, interview by the author, June 4, 2010).

Innovatively, and unlike most PPP efforts, the Lao PPP program did not seek to attract foreign investors or large domestic players; instead, it targeted local entrepreneurs, encouraging them to participate in the construction of water supply infrastructure under a twenty-five-year concession. The PPP program was conceived after a government delegation's visit to a PPP project being carried out in neighboring Cambodia by GRET, a professional cooperation organization (Naulet interview). The Lao government partnered with GRET to adapt the project to the local context—an effort that would require legal and regulatory developments in areas ignored by national laws. The government was effectively "thinking across," as evidenced by the adoption of its first PPP program: MIREP.

The Birth of MIREP

The introduction of small-scale piped water supply networks through Mini Réseaux d'Eau Potable (MIREP) began in 2004 as an attempt to decrease reliance on foreign aid by mobilizing domestic capital and entrepreneurship (Martin Lemenager, interview by the author, May 24, 2010). MIREP projects sought to incorporate social values into an efficient water system technically designed and adapted to each specific locality's needs. The alliance between the public and private sectors was framed under build-operate-transfer (BOT) concessions (as opposed to build-operate-own-transfer or build-own-operate) given the country's laws limiting private ownership of infrastructure designed for public service provision. Under BOT contracts, the concessionaire finances, builds, and operates a piped water network in a select small urban center of population between 2,000 and 5,000 people. Ownership of the project is transferred to the district at the end of the twenty-five-year concession period. Once a contract is signed between the provincial governor and the concessionaire, regulation is carried out in accordance with the contract's provisions.

MIREP involves multiple stakeholders: the national, provincial, and district governments; GRET; WASA; the community; the concessionaire, which acts as an investor; and the operator of the water supply network, which is appointed by the concessionaire. The government has found PPP projects suitable, given that they attract capital (and a different kind of know-how) currently unavailable at the state level, thus helping provide communities with access to basic services (Dethoudom interview). Entrepreneurs have become interested in the project not only because of

the economic returns they will reap in the medium term but also because of the high social standing and good reputation associated with the project (Lemenager interview). Donors and international agencies associated with the program—such as UN-Habitat, the French Ministry of Foreign Affairs, and SEDIF—appreciate the business-state cooperation that has emerged from MIREP as well as the use of targeted output-based aid and the opportunity to teach hygiene best practices to the communities involved (Avi Sarkar, interview by the author, May 27, 2010).

A MIREP project begins with government actors proposing a site for the construction of the small piped network; and based on the site's characteristics, technical options are identified. Socioeconomic assessments are carried out, and the results are provided to WaSRO (today's version of WASA), which prepares the bidding and contract documents. Concessionaires awarded the contract usually rely on personal and family savings to finance a large part of the network (41–63 percent of the total capital investment), with the remaining funds procured through loans (12–16 percent), connection fees (15–26 percent), and grants (14–34 percent) (GRET 2009, 7). The grants are provided by GRET as output-based aid through five different stages of the project, ranging from the arrival onsite of the necessary construction materials to the connection to the network of all poor households (GRET 2009, 8).

The first MIREP project became operational in April 2006, and since then seven more projects have been implemented. MIREP has had many successes, the most important of which has been the mobilization of approximately $1.2 million in financing toward the provision of safe drinking water to approximately 30,000 people previously without coverage (GRET 2009, 9). Results have stemmed from a process of constant communication and consultation with all stakeholders. Three accomplishments stand out and deserve careful consideration: (1) the introduction of competition for the market, (2) the swift implementation of the projects, and (3) the reduction of investment costs.

Competition for the Market

Members of the Ministry of Public Works and Transports and GRET still remember the complexity of mobilizing investors in the early stages of the project (consultation workshop on PPP regulation in water supply, interviews by the author, June 2, 2010). MIREP struggled, given local in-

vestors' fears of entering into a business that was still nascent, with rules and procedures being drawn in real time. In the words of one interviewee, "The private sector was afraid of engaging with the government, making it difficult to find private investors"(name omitted to protect the interviewee's identity). Finding an investor for the pilot in the town of Tha Heua (Vientiane Province) took serious work by members of the different levels of government and GRET; however, from that point onward, interest in MIREP gained traction among investors to the point where later calls for expressions of interest have received up to ten bids from qualified investors.

The interest that MIREP has generated has resulted in the introduction of competition for the market, whereby potential service providers are short-listed based on investment capacity, business experience, and stated motivation for engaging in the project. The final decision is then made based on a set of stated technical criteria and the lowest level of subsidy requested. Competition for the market has been able to address financial viability without sacrificing social objectives. An important aspect to note is that GRET provides concessionaires with support and training in billing, accounting, and other managerial and operational skills, while the district, through the Provincial Nam Papa, provides technical assistance. The availability of support at no cost is an incentive for investors reluctant to enter the market due to inexperience.

Swift Project Implementation

MIREP projects are divided into three phases—the first of which is the implementation of feasibility studies; followed by service provider selection and project design and, last, construction and operation of the small piped water network (Avrillier 2011, 103). Between eighteen and twenty-four months pass between the moment a project site is identified and the time the network becomes operational. This short timeline requires active work, including good communication and coordination between all stakeholders to address in a timely manner any issue that may emerge, from difficulties in obtaining licenses to procuring material to mobilizing households to connect to the network. A good example of the need for commitment by all stakeholders to prompt project implementation can be found in the water network built in Houay Khoun (Bolikhamxay Province), which became operational just nine months after construction began. The project faced land tenure issues upon realization by the local government and the

Table 1. Total Investment Cost of Projects Being Implemented in Laos

ASPECT	PROJECT			
	MIREP	NCRWSSSP	MEK-WATSAN	Mekong River Project
Main sponsor	GRET	Asian Development Bank	UN-Habitat	Asian Development Bank
Investment strategy	PPP	Public sector	Public sector	Public and PPP
Total investment cost (dollars per capita)	54	122	80	101
Total investment cost (dollars per household)*	308	695	456	576

**Based on 5.7 capita/household, which is the MIREP average.*
Source: GRET, MIREP financing policy review, 2009, 2.

concessionaire that the plot of land selected for the construction of the water tank belonged to four different owners and not to the state, as was initially thought. The district authorities moved to resolve this dispute promptly, contributing to keeping the project on track to meet its timeline.

Reducing Investment Costs

A significant achievement of MIREP has been reduced per capita investment costs compared with other projects being carried out in Laos, as can be seen in table 1. Multiple elements must be kept in mind when assessing these figures. First, management and operation of MIREP networks is believed to benefit from the experience and know-how of private operators, leading to increased efficiency (GRET 2009, 21). Second, MIREP projects have lower capital costs given that their infrastructure is designed for a shorter life span (fifteen to twenty years versus twenty-five years for ADB projects) (GRET 2009, 21). Last, MIREP is designed for low water consumption (71 liters per capita per day), while other projects are designed to meet greater demand (e.g., the ADB aims to meet demand of 150 liters per

capita per day) (GRET 2009, 21). Lower water consumption design leads to lower investment costs per capita. With these observations in mind, it is remarkable that the project has been able to extend potable water coverage to households at two-thirds the investment cost of the next best project.

Other ongoing partnership efforts to strengthen the sector include international cooperation through UN-Habitat's community-based approach under the Mekong Water and Sanitation initiative (MEK-WATSAN) and the ADB's Northern and Central Region Water Supply and Sanitation Sector Project (NCRWSSSP).

2004–PRESENT: POLICY CONSOLIDATION AND INSTITUTIONAL DEVELOPMENT

An example of the dynamic review and development of water policies taking place after 2004 is Prime Ministerial Decree No. 191 (Lao People's Democratic Republic 2005). This 2005 decree further strengthened WASA by widening its mandate to include oversight over all water service providers, thus giving it jurisdiction over private water suppliers. In 2008, WASA was restructured into two new entities, WSRC and WaSRO (Water Supply Regulatory Committee/Office), with the objective of giving the agency greater autonomy and independence from political influence. WSRC was established to supervise its new secretariat, WaSRO, which became the new regulatory body.

The most recent step toward improving the institutional framework for water provision is the 2009 Water Supply Law approved by the National Assembly (Lao People's Democratic Republic 2009). The new water supply law attempts to consolidate existing water policies into one document incorporating a comprehensive approach to water infrastructure provision and, to a smaller extent, sanitation. This piece of legislation officially opens the door for joint ventures and foreign private investment (Lao People's Democratic Republic 2009, 13), with the latter constituting a significant shift in government policy. Interviews with government officials revealed that the government was focusing on domestic private investment and ignoring foreign participation in projects because of legal limitations. The new law, combined with recent expressions of interest from Vietnamese and other foreign investors, may open the door for increased access to

diverse capital sources. Another major change is the introduction of build-operate-own-transfer and build-own-operate investment strategies, as well as explicit references to the rights and obligations of concessionaires (Lao People's Democratic Republic 2009, 14–15). The law makes an attempt to elaborate on how private-sector participation can take place; however, questions such as how the regulation of PPP should be carried out are not formally addressed.

Although the reach of the Water Supply Law will not be fully known until the law's implementation decree is issued, the government seems to have become cognizant of gaps that previously prevented many parties from participating in the sector. In terms of institutional capacity, the government seems cognizant that in practice the regulator is unable to effectively monitor the utilities (both private and public) and to validate their performance mainly due to financial and staff constraints—hence the interest in having PPPs regulated by contract and not through agency. Despite its advances, the water supply law fails to define in clear terms the roles of the different agencies involved in the water sector and to put forward a concise approach to tackling issues such as monitoring of water supply quality (Lao People's Democratic Republic 2009, 11).

THE NEED FOR CONTINUED GOVERNANCE MOMENTUM

In just one decade, the water sector in Laos went from being highly centralized and underdeveloped to becoming a more dynamic sector open to experimentation and change. The previous quiltlike set of laws, policies, and regulations has slowly but steadily been replaced by more consolidated legislation and increased awareness of the importance of strengthening regulation. Although these advancements and the government's commitment to making them happen are encouraging, there are challenges that must be overcome in order to ensure that the improvements achieved in the sector are sustainable and can be scaled up to meet the needs of all urban centers currently lacking access to safe water. An analysis of the Laotian water sector reveals some of the challenges undermining the government's initiatives that warrant careful consideration. Three of these key issues are identified in this section.

High Transaction Costs

Transaction costs arise from the time and money spent gathering and processing information in an effort to anticipate contingencies and prevent opportunistic behavior from others (Gomez-Ibañez 2003, 20). In other words, information is costly yet necessary for the establishment of a partnership between the government and an investor.

The expansion of the water supply in Laos is contingent on the government addressing the high transaction costs currently present—an issue that is presently overlooked, given that most of these costs are being absorbed by the third sector (more specifically, GRET). Reducing transaction costs is an important consideration if PPP is to be scaled up without international donors being available to absorb the high transaction costs for all intended projects. Transaction costs in Laos can be divided into two categories: costs associated with feasibility studies, consultations, and setting up the concession; and costs associated with contracts.

The first category encompasses many time-consuming processes that add to transaction costs—such as preliminary surveys designed to identify poor households to target for subsidies; setting up the bidding process (which includes the cost of training government staff on bidding procedures); setting up the mechanisms for grants, concessionaire selection, organizing, and carrying out tariff negotiations; preparing the loan guarantee plan to be presented to commercial banks; and consultations, which have at times taken longer than expected. Some of these transactions are intrinsic to each process of setting up a new service provider and cannot be reformed to provide a significant reduction in transaction costs, however, most of these processes could be streamlined to reduce time and money spent. For example, poor households worthy of subsidies could be identified from existing government records rather than by carrying out a survey and validating its results. This assumes that government records are kept up to date and are more or less accurate, however, if that is not the case, then this step is unavoidable and must be carried out despite its costs as having truthful records is important to ensure that output-based aid is adequate and targets the right recipients. The bidding process should be standardized through tender documents that follow an existing template, whereas the team in charge of selecting the bidders should have a core made up by members from the national level (e.g., from WaSRO), thus ensuring continuity of procedures and reducing the costs associated with training

government staff at the provincial level on processes they will probably not use again. The fact that government staff turnover is very high in Laos further strengthens this argument. Grant disbursement mechanisms should also be streamlined because these are likely to have only small changes from one concession to another.

The most promising area for transaction cost reduction is contracts. Current costs are high due to the presence of multiple concessionaires, each with a different contract. Consideration must be given to the costs incurred in drafting, negotiating, monitoring, and enforcing contracts with unique characteristics. To scale up PPPs, a standardized contract that allows for more efficient negotiation within limited parameters can lead effective monitoring and enforcing mechanisms. It is difficult to monitor contracts and establish comparisons for the effects of benchmarking if each concession is under a distinct set of agreements. Furthermore, conflict settlement becomes more costly because parties to the arbitration must become familiar with distinct contract provisions—adding a layer to an already costly process. A reduction in transaction costs must be strongly considered given that as these costs decrease, small and medium-sized enterprises flourish, as supported by New Institutional Economic theory (Coase 1937; Williamson 2000).

Credible Commitment

Issues of credible commitment emerge from the fact that private ownership, and in particular PPPs, are still very new in Laos. Private participation in the provision of public services has only existed for five years and in a context where public ownership, management, and operation of utilities had been the norm. The protection of private ownership rights is desirable because it leads to investment incentives; however, uncertainty as to the future protection of those rights creates credibility issues that dampen the potential for increased private investment. Concessionaires find themselves vulnerable to the state reneging on its commitment to tax rates or worse, declaring the contract null. These risks are not unique to Laos (Gomez-Ibañez 2003) but are important in the local context given the socialist leanings of the government and the lack of historical evidence of government commitment other than the last five years of PPP operations.

A more troubling risk, and one where historical evidence does exist, is that of the government authorizing tariffs that do not allow full cost recov-

ery. Interviews with government agencies and a Nam Papa operator revealed that when it comes to tariffs and financial viability, the dominant paradigm is one where the government sees water utility losses as normal and is highly suspicious of utilities generating a profit (Khampheuy Vongsakhamphoui, interview by the author, February 28, 2011). Most Nam Papa state enterprises do not fully recover costs and attempts to raise tariffs to reverse this course are often unsuccessful. Illustration of the sensitivity of tariffs in Laos is found in Nam Papa Nakhonluang's attempt to increase tariffs in April 2009. The rise, combined with its poor communication to the public, led to vociferous complains by the capital city's residents and a spike in nonrevenue water and unpaid bills. In August 2009, tariffs were decreased to levels slightly above the prevalent April rates—sending the utility's finances back to red. The ability to charge the appropriate tariffs is considerably important in PPP projects such as MIREP were investment costs are only recovered after fourteen years.

Information Asymmetry

As mentioned above, WaSRO's ability to monitor water utilities is limited due to financial and human resources shortages; however, regulation by contract requires that a third party (not necessarily a regulatory agency) monitor services to ensure that they are being provided in accordance with the contact's specifications. MIREP project data are currently self-reported by the operators, and no monitoring mechanism is in place, which creates information asymmetry between the networks and the district authorities tasked with monitoring and enforcing the contracts. Although there is no reason to question the reliability of the data being collected by the operators at project sites, good practice calls for a third party to verify it to ensure accountability. According to the contracts, both the district and WaSRO have the power to audit the concessionaires, but the former lacks staff with the training necessary to carry out the responsibility and the latter's limitations have already been discussed. Furthermore, high turnover in district staff means that familiarity with projects and contract monitoring are quickly lost. Information asymmetry must be considered not only in light of the financial implications it may have during tariff renegotiations or tax-break extension requests but also for dispute resolution with regard to service complaints.

IMPROVING THE EXISTING FRAMEWORKS

In light of these challenges, the government must "think again" to ensure that its institutions and legislation keep pace with the "innovation" taking place on the ground. Those seeking to make changes in policy and processes should be especially mindful of the need to further develop the existing legal, regulatory, and institutional frameworks to ensure the long-term viability of PPPs in Laos. These findings can also be used by low- and middle-income countries interested in pursuing alternative frameworks for the construction of water supply infrastructure.

Legal

The country's legal framework can be characterized as weak, with contract law being very generic. This legal context is problematic in cases where contract incompleteness may require renegotiations. An example of such a drawback is Prime Ministerial Decree No. 191 (Lao People's Democratic Republic 2005), which made no distinction between public and private water suppliers, leaving the door open for regulatory inconsistencies between national laws and the private contracts adopted with the concessionaires. The Water Supply Law (Lao People's Democratic Republic 2009) partially addresses this issue by distinguishing between private and public service providers; however, it fails to provide guidance on monitoring and arbitration procedures for PPPs.

Monitoring and arbitration under MIREP contacts may give rise to further inconsistencies in the future as legislation is strengthened, giving rise to conflicts between contract and national law. The absence of streamed and standardized guidelines for licensing, monitoring, and evaluation can lead to opportunism due to the lack of clear rules. For example, current policies require that concessionaires separately obtain an investment license, a construction license, a business license, and a concession certificate. Not only is this process discouraging for entrepreneurs; it also presents multiple opportunities for corruption if the issuance of a license or certificate gets held up.

Recommendations for the country's legal framework are as follows:

1. Strengthen the legal framework by standardizing the contracts used in PPPs—a step that can also help reduce transaction costs. Furthermore, the Ministry of Public Works and Transports should

design a process that streamlines the issuance of the licenses mentioned above. Conflicts between national and contract law can be minimized by ensuring that PPP contracts have special provisions for dealing with potential clashes. These provisions must, above all, protect the concessionaires against the government reneging on its commitment to tax rates, tariffs, contract length, and the like.

2. Include in the implementation decree for the Water Supply Law a clear set of guidelines giving the province (as opposed to the district) ultimate responsibility for contract monitoring and giving the district responsibility for arbitration. WaSRO's experience could be leveraged to help the provinces and to ensure the agency's independence and guidance to add a layer of legitimacy to the process. WaSRO could appoint a member of its staff to help train a member of the provincial staff to be the government's "eyes and ears" on monitoring day-to-day utility operations. This provincial staff member can act as a liaison between the public and the utility. Given its proximity, the district is better suited to help in prompt conflict resolution; however, this requires that at least one member of the staff be familiar with the contract and its provisions to ensure that the resolution is fair and in accordance with what is in the contract.

Regulation

Current regulation guidelines focus on state-owned enterprises, failing to outline a strategy for the regulation of PPPs. The current PPP regulatory framework is fragmented as each provider has its own contract outlining monitoring criteria. The absence of strong monitoring capacity is evidenced in that the contract monitoring is currently being performed by the French NGO GRET rather than by the government. Although the district is mandated with discharging these duties, GRET has had to intervene given that all the districts where projects are in place exhibit weak institutional capacity. This leads to potential problems because GRET does not have the authority to mandate compliance with the contacts—and there are currently no compliance mechanisms in place. As mentioned in a regulation review meeting held in Vientiane on June 2, 2010, "Operators will professionalize, regulation must follow" (Paul Avrillier, consultation workshop on PPP regulation in water supply).

Recommendations for the country's regulatory framework are as follows:

1. Develop a standardized approach to monitoring and regulating PPPs. This will be easier once a standardized contract is in place. WaSRO could have one member of its team dedicated to maintaining the government's relation with private water operators through the provincial authorities. The regulator could also disseminate a clear set of guidelines on water quality and client service evaluation criteria so that the utilities are aware of what is being evaluated and how.

2. Reduce information asymmetry by having provincial authorities validate the information provided by water operators. Audits can take place as part of regular monitoring activities.

Institutional

Institutions are defined as "the formal and informal rules that govern the ways in which individuals and organizations interact with each other. Thus institutions include a nation's constitution, laws, and political system as well as its more informal customs or social conventions" (Gomez-Ibañez 2003, 48). Many legal and regulatory policies in Laos, though adequate on paper, are being inadequately operationalized, as illustrated above. An example of this is the monitoring of contracts at the district level. Although there is nothing intrinsically wrong with the district being charged with performing these responsibilities, the inadequate institutional capacity at the district levels has led to subprime contract monitoring. Devolution of authority to the provinces—which is the main reason why the district is in charge of monitoring PPP contracts—requires that provincial and district staff members be provided with the professional support necessary to "learn the ropes" and not just with authority. Technical and professional support have unfortunately lagged, and thus we find that the district is unable to effectively carry out its obligations.

Another important institutional consideration is social pressure toward the concessionaire. An advantage of utilities that emerge under community and PPP frameworks is that their embedment in a local context leads to certain level of accountability toward neighbors and the community. This can be a double-edged sword, as was revealed during a consultation workshop held in Vientiane in June 2010. A concessionaire shared with those in

attendance the social pressure exerted by the community, which was asking him to expand the water network to areas that were not included in the original plan. Issues like these and others such as pressure to keep tariffs low can seriously compromise a utility's ability to be financially viable and thus discourage potential concessionaires from entering the field.

Recommendations for the country's institutional framework are as follows:

1. Greater consideration must be given to the ability of agencies at the national, provincial, and district levels to carry out responsibilities. The success of laws and regulations depends to a great extent on the ability of individuals to carry out their responsibilities. The international community could help the government of Laos by aiding its development of institutional capacity, especially at the province level, given the push for devolution. Provincial staffers could in turn help increase capacity at the district level.

2. Social pressures must be carefully monitored to ensure that they do not lead to undesirable outcomes. The public's involvement is desirable, but compromises must be reached to ensure that the partnership between the concessionaire and its customers is sustainable. As part of its conflict resolution duty, the district should be prepared to intervene to help all parties reach an agreement that is mutually beneficial. This requires strengthening institutional capacity at the district level.

CONCLUSION

Water policies do not come in a "one size fits all." Challenges to the expansion of water network infrastructure go beyond access to financing, requiring careful consideration of the interaction of legal, regulatory, and institutional frameworks. Mobilizing domestic entrepreneurship to reduce reliance on foreign aid requires political support from government players, the potential restructuring of government agencies, and new legislation to set the path forward—not to mention finding entrepreneurs. The collaborative effort of governments, nongovernmental organizations, entrepreneurs,

and communities displayed in Laos serves as an example of the regulatory, business perception, and community-level challenges that must be and can be successfully overcome. MIREP has received wide attention, including study tours organized by the South-East Asia Water Utilities Network, but there are doubts as to whether the program can be rolled out to bigger cities and to other provinces given the challenges, such as high transaction costs, information asymmetry, and credible commitment. There is no reason to believe that expanding the PPP approach in Laos is not possible; it does, however, require the government to continue exercising dynamic governance—particularly by "thinking again" about its current policies.

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The State and Urban Food Insecurity in Post-apartheid Johannesburg

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ABSTRACT

While urban food insecurity has increased in the Global South, it has been overlooked among academics, policymakers, and urban managers. To fill this research gap, this paper analyzes the South African state's approach to urban food security in Johannesburg as a case study. Through an analysis of governmental policy documents and in-depth interviews with government and civil society administrators, this paper suggests that Johannesburg's urban food security policy has been limited by the state's uncoordinated approach, ineffective funding institutions, uneven access to financial resources, disconnectedness from on-the-ground realities, lack of urban-focused food security policy, and corrupt electioneering.

Urban food insecurity has increased worldwide as urbanization has contributed to the rise of poverty in cities. Quantitative indicators reveal that a record 300 million urban residents were food insecure in 2010; as of 2050, urban food insecurity is projected to be greater in number than rural food insecurity (Crush and Frayne 2010a). Of particular importance, much of this rapid urbanization is occurring in regions where institutional capacity is constrained by extreme social challenges, such as persistent poverty in informal settlements, high social service demand levels, rapid in migration, and the debilitating effects of HIV/AIDS (Crush and Frayne 2010b).

In Greater Johannesburg,[1] approximately 2 million people are food insecure, with 15 percent rated as moderately food insecure and 27 percent severely food insecure. Problematic food choices have resulted in numerous negative health outcomes for Gauteng[2] children, including stunted growth (20 percent), underweight (9 percent), obesity (6 percent), and wasting (1 percent) (Hendricks, Eleyi, and Bourneii 2000), in addition to health problems, such as diabetes and heart disease later in life. For the 31 percent of Gauteng residents with HIV in 2006, the ramification of poor diet can be severe, as antiretroviral medicines are only effective in conjunction with a healthy diet and adequate nutritional intake (Department of Health, Gauteng Province 2008).

Yet, these markers of urban food insecurity tend to be overlooked among academics, policymakers, and urban managers. Very often, national food security policies overemphasize rural food insecurity, and urban managers tend to focus on other urban crises, even though they are often interrelated with food insecurity. Additionally, urban food insecurity fails to garner significant political traction, unless natural disasters or severe price fluctuations "scale up" hunger from the individual or household scale to the city or national scale (Maxwell 1999). This has been evidenced by the worldwide protests against food prices in 2007–8, as acute food insecurity caused significant social unrest, including deadly riots and political instability. Because urban residents are dependent on purchasing food to meet nutritional needs, the contemporary food insecurity crisis is a particularly urban crisis.

To fill these research gaps, this paper analyzes the South African state's approach to urban food security in Johannesburg as a case study. Two questions are posed: First, what governmental food security programs exist in Johannesburg, and how effective have these programs been in their implementation and overall approach? Second, what do these governmental programs indicate about the South African state's approach to urban food security more broadly, including potential limitations in its approach? To answer these research questions, I analyzed key governmental policy

1 Greater Johannesburg is defined as the Witwatersrand, inclusive of the Johannesburg metropolitan municipality, Ekurhuleni metropolitan municipality, and West Rand municipality.

2 Johannesburg's province of Gauteng is 95 percent urban.

documents and conducted extensive interviews with key administrators in government and civil society organizations (CSOs).

Given that South Africa is relatively economically advanced, with a well-developed safety net compared with its Southern African neighbors and other lower-income countries across the world, its discourse and governmental policy often have significant influence regionally and internationally. Therefore, the success or failure of South Africa's approach to poverty reduction and urban food security has profound implications for the legitimacy of similar food security interventions elsewhere. Moreover, because the recent global food price crisis is directly connected to broader debates regarding the energy crisis and global climate change, it is vital for scholars to understand the dynamics of urban food security policy in lower-income countries.

After delineating Johannesburg's urban food security policy, this paper describes the size and scope of its food security programs and identifies the limitations in urban food security policy. On the one hand, it is true that the South African state has guaranteed the right to food in the Constitution (Republic of South Africa 1996) and has spent significant resources on food programs. On the other hand, this paper suggests that the state's approach to urban food insecurity has been limited by its lack of urban food policy, uncoordinated approach, corrupt electioneering, disconnectedness from on-the-ground realities, ineffective funding institutions, and uneven access to financial resources. In addition, even though the national government has pledged to give CSOs the autonomy and resources to function effectively, the data suggest that central state policies shape access to funding, program priorities, and relations with government and CSOs.

THE STATE AND FOOD SECURITY: THE JOHANNESBURG MODEL

Beginning in 1996, the South African state devolved and decentralized aspects of economic growth and poverty alleviation to local government and

nongovernmental organization (NGO) actors.[3] Food security policy also transformed to reflect these broader shifts toward multiscalar and multisectoral governance models. Following the development of numerous food security initiatives and working policy documents,[4] the South African state developed the Integrated Food Security Strategy (IFSS) for South Africa in 2002, the foundational piece of legislation for food security policy.

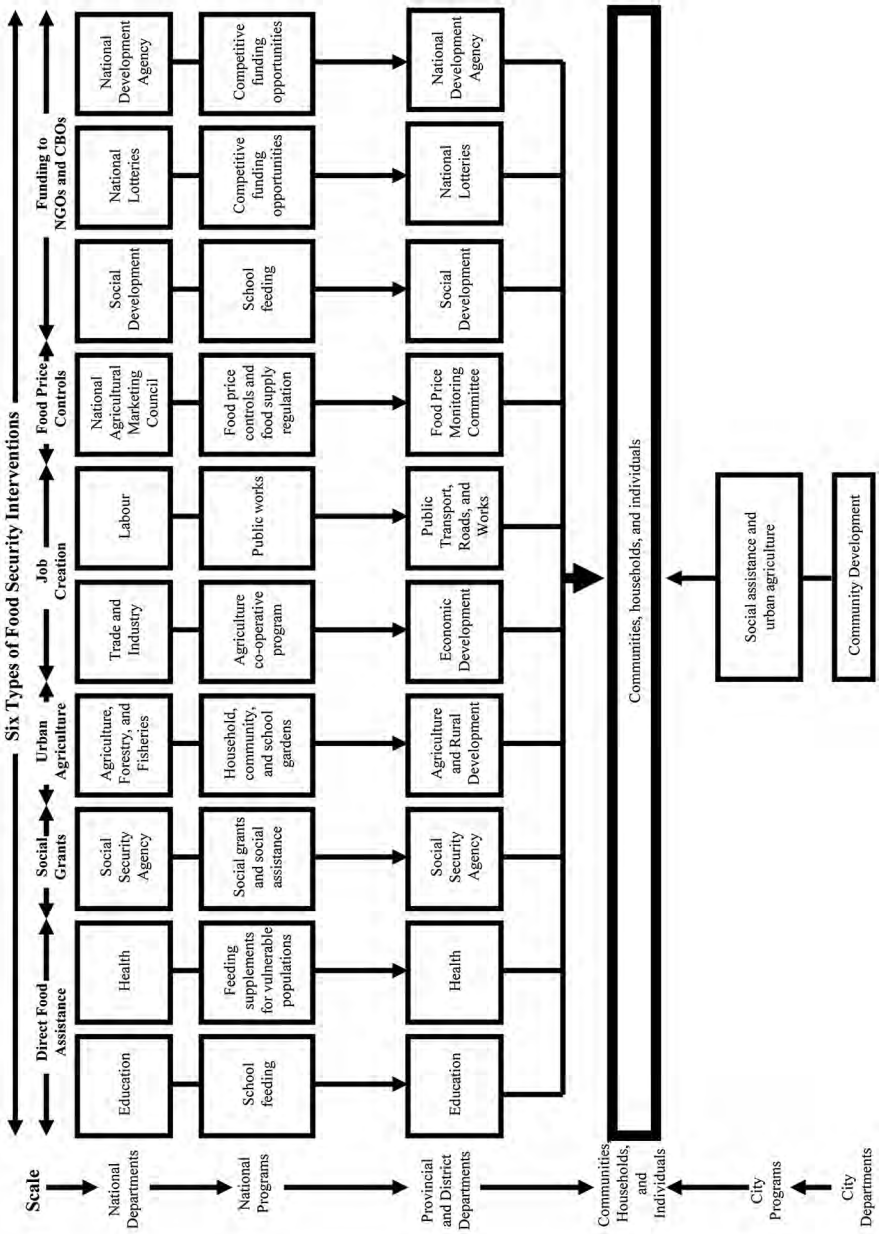
The IFSS's five goals have been to increase access to productive resources for growing food, enhance income and job opportunities for purchasing food, ensure safe and nutritious food, provide short-term or medium-term food relief for the disabled and poor, and institutionalize a food security monitoring system (Department of Agriculture, Forestry, and Fisheries, South Africa 2002). The broad mission of the IFSS has been to clarify the government's position on food security and streamline already existing food security programs into a more efficient framework through "public-private civil society partnerships and focus on household food security without overlooking national food security" (Department of Agriculture, Forestry, and Fisheries, South Africa 2002, 6). Central to the IFSS has been the development of the Social Cluster, which has facilitated cross-department collaboration on "social issues" such as food insecurity. In theory, the IFSS has promoted an approach that is comprehensive and integrated; however, urban food security policy has been sprawling and uncoordinated. As of 2010, there are at least ten governmental departments with operational food security programs (figure 1).

National departments set food security policy and provincial Gauteng and district-level branches of these departments located in Johannesburg

3 This process of devolution and decentralization was facilitated through the passage of the 1996 Growth Employment and Redistribution, 1998 White Paper on Local Government, and 2000 Municipal Systems Act. Through these pieces of legislation, the national South African government legislated local economic development and integrated development planning, which promotes economic growth and poverty alleviation, emphasizes local control and flexibility, and incorporates government, private, and NGO actors (Rogerson 2004). On the one hand, devolution of powers to local institutions could be viewed as empowering; on the other hand, the central government's primary motivations for devolution and decentralization of particular powers have been to increase South Africa competitiveness in the global economy and reduce the expenditures of the national government (Bond 2000).

4 These include the Reconstruction and Development Programme of 1994 and 1997 Food Security Working Group discussion document.

Figure 1. 2010 Governmental Food Security Programs in Johannesburg



implement these policies. Although these latter local governmental departments can make changes to aspects of policy, the core elements of the national policies must remain the same. City departments, such as the Johannesburg Department of Community Development, also have food security programs; however, they typically work independently of the top-down national- to provincial- to district-level governmental structure. These multiple sets of programs have created a complicated matrix of food security programs, which has often produced confusion, inefficiency, and duplication.

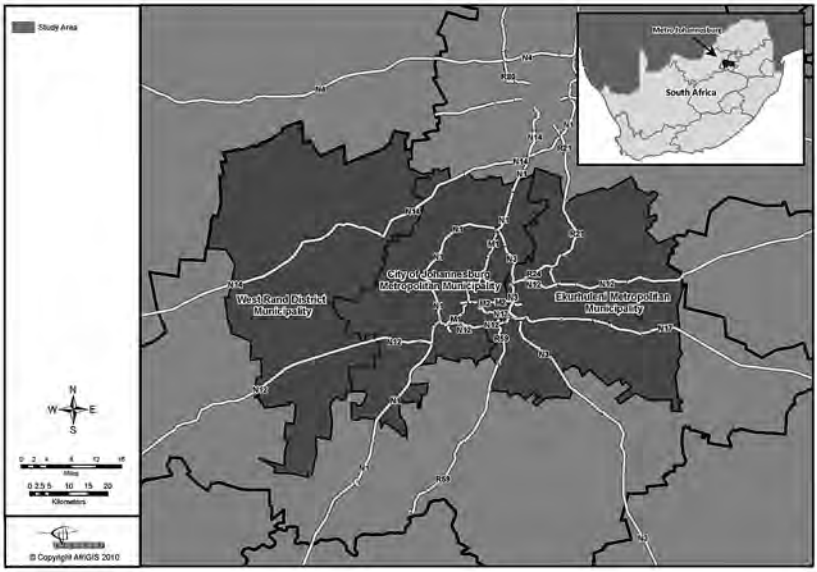
METHODS

Several methods were used to analyze Johannesburg's food organizations, policies, and resource flows in the study area (figure 2). To begin, an analysis of core policy documents traced the creation of new legal and institutional structures that reflected ideological shifts on food security policy. Next, the South African budget was assessed to determine the size and scope of governmental support for food security in each department. Also, approximately thirty interviews were conducted with national, provincial, and city-level governmental administrators from March to July 2009 to identify the impetus for emergent state policies and strategies for management of state-CSO relations.[5] Last, approximately thirty informal interviews were completed with managers, administrators, and fieldworkers working at food security CSOs in Johannesburg in August 2008 and from March to July 2009.[6]

5 Interviews revolved around governmental policy, state-CSO relationships, and perspectives on food security. Although standard protocol guided each interview, question format was open and exploratory. All interviews cited in same manner: (Interviewee role, institution, date). As multiple interviews were completed on same day, many interviews have same interview date. Interviews were edited for grammatical clarity when necessary. Also, I attended numerous government meetings in Johannesburg March–July 2009 which focused on developing a food security policy for Johannesburg.

6 Interview questions revolved around funding structure, relationships with government and other CSOs, and challenges faced by the organization. See note 5 for citation style.

Figure 2. Johannesburg Metropolitan Area: Study Area



GOVERNMENTAL FOOD SECURITY PROGRAMS FOR JOHANNESBURG

In Johannesburg, ten departments operate six program types, including direct food assistance, social grants, urban agriculture, job creation, food price monitoring, and funding support for CSOs (table 1).[7]

Program Type 1: Direct Food Assistance

The government provides food directly to those who are food insecure. Through the Department of Health, the Integrated Nutrition Programme provides food supplements to vulnerable populations for three months to two years. Eligible groups include those with debilitating diseases, such as HIV/AIDS, young children, and pregnant women (Department of Health, South Africa 2009). Additionally, the Department of Education's National School Nutrition Programme provides a combination of free school

7 Gauteng provincial data for the 2007–8 fiscal year have been used, unless otherwise noted.

Table 1. Food Security Governmental Spending by Type, 2007–8

Program Type	Amount (Rand)	Amount (Dollars)	Percentage
Direct Food Assistance	R130,000,000	$20,214,316	1.70%
Social Grants	R7,905,785,256	$1,082,804,445	90.87%
Urban Agriculture	R172,500,000	$21,562,500	1.81%
Job Creation	R209,434,000	$26,179,250	2.20%
Food Price Controls	R17,000,000	$2,328,767	0.20%
Funding to NGOs and CBOs	R291,143,046	$38,495,042	3.23%
TOTAL	R8,725,862,302	$1,191,584,320	100.00%

*Sources: *Mamani 2011; **Andean Rural Health 2011.*

lunches and breakfast to eligible primary and secondary schoolchildren (Department of Education, South Africa 2009).

Program Type 2: Social Grants

There are also numerous programs that provide money to purchase food. Most of these are "social grants" operated through the South Africa Social Security Agency (SASSA), an independent agency that reports to the South Africa Department of Social Development (DSD). Social grants are provided to the elderly, war veterans, the disabled, those caring for vulnerable children (foster care, child dependency, and child support), and recipients of grant in aid (in-home full time care) (SASSA 2009). While social grants have remained at least 90 percent of total social development spending on food security programs, the number of beneficiaries and actual amount of social grant expenditures has swelled significantly recently (table 2).

These increases have developed from an increased awareness of social grants within communities and the persistence of poverty and high unemployment. In 2008–9, Gauteng had a total of 1.5 million people, or 15 percent of the population, receiving social grants, with most receiving Child Support Grants, Old Age Grants, or Disability Grants (DSD 2009). Thus, in contrast to those who characterize the South African state as neoliberal (Bond 2000), governmental social grants have been an important force in poverty reduction.

Table 2. Social Grants in Gauteng Province, 2001–8

Year	Gauteng (Thousands of Beneficiaries)	Gauteng (Millions of Rand)	Guateng (Millions of Dollars)
2007/2008	1,450	R7,868	$1,078
2006/2007	1,406	R6,747	$1,088
2005/2006	1,319	R6,130	$989
2004/2005	1,166	R5,411	$859
2003/2004	977	R4,454	$564
2002/2003	702	R3,206	$281
2001/2002	517	R2,336	$288

However, there have been many valid critiques focusing on social grants' inadequate size or eligibility restrictions. According to Van Aardt[8] (2006) and Rudolph and others[9] (2009), none of the social grants provided enough money to pay for basic needs; therefore, it is likely that many of those who receive social grants also remain food insecure or unable meet basic needs. Critics have also argued that social grants fail to include those who are unemployed or extremely poor, as social grants only include specific vulnerable populations. The powerful labor lobbying Congress of South African Trade Unions has advocated strongly for a basic income grant that would cover all those not eligible under current social grant programs (Letsoalo 2008). In the current climate of fiscal tightening and neoliberal rhetoric of reducing welfare rolls, this

8 According to Van Aardt (2006), the average household income in Gauteng is R131,563, or $18,795. For those in the lowest income group, the basic support needs consumed 54 percent of their income, or R18,512 ($2,645) per year or R1,543 ($220) per month. This was with an exchange rate of R1 to $7.0 in June 2006.

9 A 2009 study corroborates these findings that basic needs cost R2,517, or $360, per month (Rudolph et al. 2009), well above the benefit given in social grants. See note 8 for the exchange rate.

push toward the basic income grant is unlikely.[10]

Program Type 3: Urban Agriculture

Urban agriculture has been promoted as a way to achieve food security in South African cities, and recently, government funding has been spent to achieve sustainable urban food gardens. In Gauteng, these programs have included the Household Food Security Programme, Homestead Food Garden Project, and School Garden Programme, which promote urban agriculture in households, communities, and schools (administrator, Gauteng Department of Agriculture and Rural Development, GDARD, June 8, 2009).

Yet urban agriculture still remains small when put in broader perspective. As of 2009, only 9 percent of Johannesburg's residents utilized urban agriculture as a primary or secondary means of subsistence, due to lacks of land, social stigma, and inadequate gardening skills (Rudolph et al. 2009). Furthermore, interviews with governmental administrators reveal that the failure rate of GDARD's food garden projects has been more than 95 percent (administrator, City of Johannesburg, May 6, 2009). According to interviewees, GDARD's gardening project administrators gave potential urban farmers a "starter pack" with gardening tools and seeds without adequate training or upkeep (administrator, City of Johannesburg, May 6, 2009). Therefore, it was not surprising when many urban gardens failed within eighteen months.

This study not only limited the implementation of GDARD programs but also minimized the public perception of urban agriculture as a food security intervention (manager, food security NGO, August 7, 2008). Problematically, GDARD was given the responsibility to coordinate the IFSS at a provincial level, but as Ruysenaar (2009) and Drimie and Ruysenaar (2010) highlight, GDARD lacked the institutional capacity to coordinate food security interventions or implement the mandates of IFSS. Even so, GDARD continues to promote the "success" of its food gardening

10 Other important programs which provide funding to purchase food include the Social Relief of Distress, the Expanded Social Package, and the Vulnerable Household Support Programme. These programs provide money directly to eligible recipients, for the purchase of food for a limited amount of time. Even though these programs help the food insecure, they have been critiqued for their limited implementation, inefficient service delivery, and corruption. Also, policymakers have debated whether a food stamp program should be formulated, a discussion which continues to persist.

interventions and to develop new urban agriculture programs, such as the Letsema/Ilima urban agriculture program, which was a response to the most recent food security crisis in 2008 (administrator, GDARD, Gauteng, June 8, 2009).[11]

Program Type 4: Job Creation

Since 2004, the South African government has promoted job creation programs as a way to reduce food insecurity in South Africa. Most prominently, the Department of Public Works has developed an Expanded Public Works Programme to employ people on government projects and by effect, reduce food insecurity (Department of Public Works, South Africa 2009). Through public works programs, millions of urban South Africans have been paid a living wage to purchase food. In addition, the Department of Trade and Industry has developed a program called the Cooperative Development Policy for South Africa (Department of Trade and Industry 2009). This initiative has facilitated growth of small farming cooperatives in Gauteng.

Program Type 5: Food Price Monitoring

The South African government also intervenes in the market to monitor food prices and ensure that the national food supply is sufficient. Since 2003, the National Agricultural Marketing Council has monitored food prices, including the imposition of large fines on food companies found guilty of conspiring to fix food prices. However, the viability of the price monitoring has been questioned as prices for staple food products continued to rise sharply between 1997 and 1998. These tensions increased rapidly during 2008, leading to food price protests throughout South Africa (Letsoalo 2008). Although it is important to discipline unlawful food price fixers, it does not actually confront the more fundamental problem: market-led food price increases that inhibit poor consumers from achieving food security.

11 In conjunction with city administrators and community leaders, the City of Johannesburg's Department of Community Development has been developing a comprehensive food security plan based on urban agriculture. As part of this plan, approximately seven training centers would be developed over the next few years as a way to ensure long-term viability of urban agriculture projects (Administrator, City of Johannesburg, April 1, 2009). While this comprehensive plan could have positive results, it is unclear whether the City of Johannesburg will fully fund this vision.

Program Type 6: Funding for CSOs

The South African government provides funding to CSOs to conduct food security programs. Particular governmental department have direct contracts with specific CSOs. Also, para-state institutions, including the National Lotteries and the National Development Agency (NDA), provide funding to CSOs through competitive application processes. In line with the Nonprofit Organisations Act of 1997, CSOs must register with the government to be eligible for government funding, while the Taxation Laws Amendment of 2000 forces registration as a way for CSOs to acquire tax exemption status (DSD 2009). Through the DSD's Non-Profit Directorate, CSOs can register with the government by completing a form detailing basic CSO information (administrator, DSD, April 3, 2009).

Whereas the registration process should be easy, one recent study revealed that 49 percent of nonprofits found the process of becoming tax exempt either difficult or very difficult (Camay and Gordon 2001). For people who speak minority languages, live in rural areas, and only have a poor education, maneuvering through the new government bureaucracy can be quite intimidating. Other disincentives to register include mandatory record keeping, slow approval processing, and the possibilities for regular inspections and audits (Camay and Gordon 2001; Swilling, Russell, and Habib 2002). According to government data, no more than 800 of the 6,449 registered social welfare and food security CSOs in Johannesburg have received funding from government or para-statals.[12] This represents only 12 percent of registered CSOs, not to mention the hundreds or thousands of unregistered CSOs ineligible for government funding. This is problematic, given that the National Lotteries and the NDA were designed to provide CSOs with funding.

Quantitative data from a survey of managers of CSOs managers in the food security sector support these claims, as government funding of food security organizations makes up only 15 percent of total funding as compared with 42 percent for CSOs at large (Swilling, Russell, and Habib 2002). Furthermore, survey results of the food security sector

12 During the 2008–9 fiscal year, 988 out of 1,905 applications for CSO registration in all sectors in the Johannesburg metropolitan area were approved, a dismal 52 percent (Department of Social Development, South Africa, 2009). All data are estimates made from South Africa's Department of Social Development's Non-Profit Database.

revealed that 91 percent of managers pointed to a "lack of government funding" as a major problem and more managers ranked a "lack of government financial support" as the their number one institutional problem than any other reason. As discussed below, inadequate financial support was further exacerbated by the National Lotteries and NDA's ineffective and uneven funding practices.

LIMITATIONS ON GOVERNMENTAL FOOD SECURITY INTERVENTIONS

An Uncoordinated Approach to Food Security

The most basic problem with South African governmental food security programs has been a lack of departmental coordination. Whereas the IFSS and the Social Cluster were developed as ways to streamline food security interventions, more than ten departments have programs related to food security. This makes for an inefficient, confusing, and ineffective food security policy:

> The problem is basically that there is a policy black hole lurking in the South African government space around issues of food security.… (None of the) programs have been particularly successful in strategically addressing the problem of food security. (administrator, City of Johannesburg, April 1, 2009)

Each department maintains "interdepartmental blinkers" (fieldworker, food security NGO, April 13, 2009) as a way to focus on their mission and maintain their institutional space. Whereas the IFFS and Social Cluster were supposed to integrate programs, interdepartmental competition remains, because each department holds onto the money associated with its program:

> (Administrators) put up these great big walls to protect…their territory (which is their) budget allocation.… The more money you are allocated as a state organ, the more important you are. (administrator, SASSA, Gauteng, April 29, 2009)

This power struggle over the budget has resulted in "silos" where departments fail to link up with other departments, often duplicating services and wasting money.

> Each government department or agency has a welfare program.… (But) they don't come together in any way. Each has a process of its own and a means of distributing and implementing in complete silos.… Everybody's addressing poverty but nobody is doing it together.… You don't see this huge allocation toward poverty alleviation, because it is broken into these little pieces. (administrator, SASSA, Gauteng, April 29, 2009)

Most important, this spreading of money to different departments reduces the impact that programs could have if they were to be consolidated and repackaged in a comprehensive way.

Ineffective Funding Institutions and Uneven Access to Financial Resources

Interviews with CSO staff members have also pointed to the ineffectiveness of government funding and uneven access to financial resources. Most of these negative comments have focused on the National Lotteries and the NDA for their extremely laborious and slow funding procedures and inability to carry through on expected contracts.

> (The NDA) demanded that we did things over and above what the contract specified. And, some of the money we still haven't received. We are not really happy with them. (manager, food security NGO, March 12, 2009)

Furthermore, the National Lotteries had been suspended for mismanagement, while the NDA Agency has been audited for its questionable funding practices. For many CSOs, slow or ineffective funding increases institutional instability and can slow down food security projects:

> We have had delays in terms of getting the grant.… When money is delayed, it means the project is coming to a standstill. (manager, food security NGO, August 8, 2008)

In addition to general incompetency from the National Lotteries and the NDA, many CSOs lack the human resources to apply for funding, including grant writing experience and writing skills.

> Proposals are quite time consuming—you can't send a blanket proposal. You need to know to how to talk to certain people (to make the proposal appropriate for that audience). (manager, food security NGO, May 13, 2009)

Although larger, well-resourced CSOs with more skilled staff tend to have better opportunities to look for public and private funding, smaller, poorer CSOs with less skilled staff tend to struggle to find adequate and sustainable funding sources, thus polarizing the funding environment that much more (Swilling, Russell, and Habib 2002).

Disconnectedness from "On- the-Ground Realities"

An additional weakness of the South African government's approach to urban food security has been the national government's disconnectedness from "on-the-ground" realities. As noted above, the national government develops policy, which the provincial- and district-level offices then implement. Often, as in the case of the IFSS and the South African Constitution, the objectives of the legislation are often well meaning and even progressive; however, interviews of governmental administrators have revealed that national-level policymakers tend to be disconnected from the day-to-day experiences of those who actually confront food insecurity:

> [Government policies] are so far divorced from reality and what is practical.… [The government] pushes these policies down [to the provinces] which are far from what is reality. (administrator, SASSA, Gauteng, April 29, 2009)

The high failure rate of the GDARD's urban garden projects is a good example. While policymakers recognized the value of urban agriculture, they did not have the knowledge of on-the-ground realities to recognize that it was destined to fail.

> [Government] gives people a pitch fork and seeds and tells them to be a farmer [with just a few hours of training]. There is a difference between growing tomatoes in backyard gardens and doing micro farming. Due to high failure rates, people throw things at councilors when they are told to grow their own food rather than receive food parcels. (administrator, City of Johannesburg, May 6, 2009)

Part of the problem is that governmental administrators do not realize that many urban residents associate growing one's own food with rural areas. For many, urban agriculture is stigmatized as backward, unmodern, and unurban. Many people come to the city precisely because Johannesburg is a modern, cosmopolitan city. Although these perspectives may reflect people's complex negotiation with ideas of modernity, it tends to be glossed over by many administrators when making policy (administrator, City of Johannesburg, April 1, 2009).

Additionally, the extension officers, who are assigned to train potential urban farmers, often have a background in white-owned large agrobusiness farms (manager, food security NGO, August 7, 2008), while knowing little about the training needs of small-scale urban farmers.

A Lack of an Urban-Focused Food Security Policy

The South African government's approach to food security has also been severely limited by its disproportionate focus on rural food insecurity at the expense of urban food insecurity, as supported by interviews of governmental administrators:

> [Many government administrators think] poverty is a rural phenomenon. This is something I fight in workshops all the time. I have shown statistics, but it is not a message that has gone through (to government).… Many of the poorest [and food insecure] live in cities and more [each day]… because much of it is about affordability. (administrator, City of Johannesburg, May 6, 2009)

About 2 million Johannesburg residents are food insecure (Rudolph et al. 2009); yet urban food insecurity tends to be overlooked among academics, policymakers, and urban managers. National policies continue to emphasize rural food insecurity, and urban managers tend to focus on other urban crisis, even though they are often interrelate with food insecurity:

> I have to combat a historically inaccurate and presently deeply inaccurate perception that poverty in South Africa is actually a rural problem.… Some of very poorest people are in the city, and some of the people living in the most vulnerable and most desperate circumstance live in urban areas. [This] means that we… need a proper urban [food security policy]. (administrator, City of Johannesburg, April 1, 2009)

Urban food insecurity also differs from rural food insecurity in important ways and therefore should receive unique analytical and political attention (Crush and Frayne 2010a, 2010b). Differences include urban food insecurity's relationship to purchasing power and income from the secondary labor market, importance of street vending, disproportionate burden on women, links to nontraditional household structures, and uneven food access in urban areas due to the geography of informal settlements. Additionally, the rural/urban divide is quite fluid, as people's circular migration patterns do not adhere to strict urban rural boundaries. This includes rural residents who come to cities to sell their goods, buy products and access services, and gain employment, and urbanites who go to rural areas to access cheaper foods, natural resources, and new markets.

Corruption, Electioneering, and State Penetration

Informal interviews with CSOs have also revealed many unethical actions by the South African state, including rewarding contracts based on preexisting personal relationships and local ward councilors blocking access to land for urban agriculture unless they received financial kickbacks. Most prominently, the South African central state used governmental food programs as a way to garner votes in well-publicized scandal (figure 3).

In November 2008, the ruling African National Congress (ANC) appropriated R500.0 million, or $49.5 million, nationally and R62.0 million, or $6.1 million, for Johannesburg's Gauteng Province, to SASSA's Social Relief of Distress program, a temporary stop-gap measure to offset the waiting period before other long-term SASSA social grants start (administrator, SASSA, Gauteng, April 29, 2009).[13] Although the ANC had mandated that these funds were to be used before the April 2009 national elections, the

13 The monetary amounts in this sentence were with an exchange rate of 1R to $10.1 in November 2008.

Figure 3. African National Congress Food Parcel Political Cartoon

Source: The Star, *March 10, 2009.*

eligibility criteria and the subsequent paperwork were left unspecified. This led to chaos, because SASSA's administrative offices were unable to process the increased demand levels, especially during the weeks of the Christmas and New Year's holidays. In this way, the provincial government was left to implement an impossible mandate to increase access to the Social Relief of Distress program without necessary human resources or realistic eligibility guidelines. Ultimately, this not only led to frustrated local governmental staff and impatient food recipients but also allowed almost anyone to receive food aid who wanted it, given that SASSA was unable to actually determine who was eligible:

> Food vouchers (were) going all over the place… (without a clear) targeted basis that I could understand.… (The government) said, "Identify who is food insecure and we will just give them food vouchers." (administrator, City of Johannesburg, April 1, 2009)

> They want an immediate… political response and that instant gratification of making you happy today. (They) just need you happy today so you can vote. (administrator, SASSA, Gauteng, April 29, 2009)

In these ways, the 2009 food parcel scandal should be understood as a combination of unethical electioneering and general governmental mismanagement. Though this scandal is not clear evidence of a reconsolidation of central state power, it does point to a possible co-optation of the ANC over the executive state apparatus. In particular, government administrators have acknowledged that food price crises (of 2001–2 and 2007–8) provided an opportunity for the South African state to expand and strengthen its food security policy:

> [With sustained] high food prices, [this] led government to organize and [consolidate] food security policy and led to the adoption of [key food security initiatives]. (administrator, Department of Agriculture, April 30, 2009)

Although this push for increased governmental food security policy was at least partially motivated by altruistic reasons, the SASSA food parcel crisis of 2009 does suggest that food price crises may be utilized by the South African state as a way to reconsolidate its power.

Moreover, there are some signs that the South African central state has been increasing its penetration into the operations of CSOs, as some CSOs have been pressured to change their operations as a result of government funding:

> [Government] will say you are great and we will fund you, but this is what we will fund. Not what you asked for, but this. So, you can have money which helps you to continue to function but you've got to do this job which is not part of your mission. (manager, food security NGO, June 3, 2009)

While government funding of CSOs in the food security sector remains only 15 percent, state penetration can still be problematic because it has the potential to steer CSOs away from government funding as a way to remain independent of state influence. In this way, CSOs may lose out

on potential government funding opportunities. Additionally, some CSO leaders worry that the state-CSO partnership has never been real, as the South African state has always wanted to maintain control over service delivery, even if it could not actually meet demand levels:

> What we [have] learned over the years is [that] the government wants to be seen as the delivering organization.… You do not get support if you come in with a program that was sort of out to [do] them.… They want [to] learn what you are doing and do it themselves. (administrator, food security NGO, August 8, 2008)

Although these anecdotal interview data do not confirm the state's penetration into the daily operations of CSOs in the food security sector, they do point to potentially problematic state-CSO relations, which could evolve if CSO concerns are not interrogated more closely. Thus, even though the national government has pledged to give CSOs the autonomy and resources to function effectively, it is not clear what role the central state actually wants CSOs to play.

CONCLUSION: THE SOUTH AFRICAN STATE AND URBAN FOOD SECURITY

This paper has analyzed the size, scope, and effectiveness of South African governmental urban food security policy as a way to identify limitations in its approach and delineate new state–civil society connections emerging in post-apartheid South Africa. While the South African central state has developed numerous food security interventions, this paper suggests that they tend to be uncoordinated, disconnected from "on-the-ground realities," and lack an urban focus. Additionally, even though the national government has pledged to give CSOs the autonomy and resources to function effectively, data in this paper suggest that central state policies tend to be insufficient, funding institutions tend to be ineffective, and access to funding is often uneven. In all, these forces could increase CSO sector polarization and exacerbate institutional instability, as governmental ineffectiveness and resource unavailability could decrease their ability to operate effectively or force them to close operations altogether.

Moreover, these forces may limit the potential for reducing Johannesburg's food insecurity levels.

To some extent these findings are not surprising, given that many government bureaucracies struggle with a lack of coordination, inefficiency, and a disconnectedness from communities. Additionally, the failure to prioritize urban food security as a policy initiative is a common problem among lower-income countries (Crush and Frayne 2010a). Yet the food parcel scandal of 2009 and anecdotal evidence from CSO managers suggest that it is especially critical for future research to examine how, if at all, food price crises are utilized as a way for the state to legitimize state food programs or reconsolidate power more broadly. Though the evidence in this paper is only suggestive of such claims, future research should maintain a keen eye on the development of such trends.

One certainty, however, is the fact that the national government remains the central institutional service provider in the area of food security and social welfare in South Africa. Although many important local food security efforts have evolved in South Africa—such as diversification of income-generating strategies, production of urban agriculture, and development of cooperatives for food—local responses tend to be shaped by the state, because the central state remains central in determining the context in which local efforts will form (Bond 2006; Greenberg 2006). In some cases, oppositional efforts contest national government policy on issues related to urban food security; however, these incipient social movements tend to be relatively small or tend to be part of "pro-poor" movements that are broader than food movements only (Ballard et al. 2006; Bond 2006; Greenberg 2006). Additionally, even though CSOs play a major role in communities, they are small in impact when compared with the role of government, particularly social grants. Yet even with increased government spending, urban food insecurity continues to persist in South African cities (Crush and Frayne 2010a, 2010b).

To adequately address these theoretical and empirical uncertainties, future research needs to analyze the ways that urban food security policy evolves in the future. Though the data in this study reveal that the South African government remains a central institutional service provider in the area of urban food security, more research needs to be conducted to investigate how the state intersects with the multitude of local food security efforts in South Africa. For example, it is not well understood how state urban

food security policies intersect with the informal livelihood strategies of those in Johannesburg's informal settlements and townships.

More broadly, future research should focus on analyzing the complex multiscalar and multisectoral institutional roles that government, the private sector, and CSOs play in procuring food security in low-income communities within Johannesburg and other cities of the Global South. In particular, scholars should identify the place-specific ways that local communities contest and negotiate state policies, because it is important, yet not well understood, how urban food security policies can be more effective in households and communities in Johannesburg and other rapidly urbanizing contexts throughout the world. In these ways, scholars can clarify how important sociospatial trends operate and produce policy-relevant research that increases the capacity, efficiency, and equity of service delivery and basic quality of life for those living in rapidly urbanizing contexts of the Global South.

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The Importance of Tenure Security in Home Improvement in Squatter Settlements: Evidence from Lahore

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ABSTRACT

This paper explores the link between housing improvement and tenure legalization through interviews and field observations in a squatter settlement in Lahore. It synthesizes evidence to determine how kinds of tenure security affect home improvement. The findings illustrate that residents in the selected squatter settlement continue to improve homes regardless of their legal tenure status based on their needs and savings. They place importance on political activism and the role of their neighborhood leader to achieve neighborhood upgrading, and they do not necessarily find the benefits attached to obtaining a property title commensurate with the cost of obtaining it.

THEORETICAL BACKGROUND

The sites and services projects propagated by international aid organizations and developing countries' governments in the 1970s and 1980s have gradually been replaced by upgrading projects whereby improvement and consolidation of slum housing occurs in situ. The central line of argument for squatter settlement upgrading projects or government regularization plans is that slum dwellers prefer to consolidate their existing housing through self-help rather than through an institutionalized government strategy of

clearance and redevelopment (Mukhija 2001). It is a commonly held belief that the key variable in achieving squatter settlement improvement through self-help is tenure security. Development agencies and governments funding upgrading projects argue that squatters are reluctant to make dwelling improvements unless they are confident that they will not be evicted from the land (Ward 1982). Because in situ slum and squatter settlement improvement occurs when households improve their housing incrementally, and because house improvement represents a commitment to home and place, incremental improvements to housing occur more frequently where occupancy rights and/or tenure are secure or there is an expectation that a regularization of tenure will occur in the near future (Harms 1982; Harvey and Ward 1984, Harris 1998; de Soto 2000).

Furthermore, aside from residents improving homes through self-help, institutional interventions under upgrading projects—such as the installation of basic services, for example, electricity, water and gas; the installation of sewerage disposal mechanisms; and the construction of paved roads and streets—are likely to be more successful if residents have land titles (Ward 1982). Other benefits of squatter settlement titling projects also include opportunities to earn physical capital through increased land values and improved access to credit markets (Atuahene 2004). One of the more powerful arguments for tenure regularization has been put forward by Hernando de Soto (2000), who stresses the importance of land titling in unleashing dead capital from "defective" resources, because unless the rights to possessions are properly documented, assets such as housing cannot be converted to capital and their equity can never be realized.

De Soto's most compelling argument for land titling, which international aid agencies have bought into diligently, is that providing legal titles allows the house to be utilized as an economic and social concept and not just as shelter. Legal representation allows the house to become *property*—something that has economic value and can be "used as collateral for a loan; as equity exchanged for investment; as an address for collecting debts, rates, and taxes; as a locus point for the identification of individuals for commercial, judicial, or civic purposes; and as a liable terminal for receiving public utility services, such as energy, water, sewage, telephone and cable" (de Soto 2000, 47).

In short, governments in the developing world are propagating the formalization of informal housing because it seems that tenure security is

contingent on property rights manifested through legal titles. It stands to reason, then, that granting a legal title would provide the necessary security to squatter settlement residents and encourage investment in better housing and neighborhoods.

Some researchers, however, have pointed out that land titling and house consolidation or improvement in the squatter settlement are not as intrinsically linked as is propagated by governments and some development agencies (Garr 1996; Razzaz 1993; Gilbert 2002). They suggest that tenure security is more a function of perception than strict legal categorization. Residents perceived a security of tenure that has emerged through an incremental assertion of the right to occupy land, and with the passage of time this occupation of land has been imbued with a gradual recognition of a few basic components of legal landownership, "most notably the right to remain on the land" (Garr 1996, p. 1927).

A number of circumstances—such as the installation of infrastructure (paving of roads, laying pipes for water and sewage); an absence of punitive government actions; proactive actions, such as carrying out census surveys in the squatter settlements; the issuance of national identity cards based on residential addresses in the squatter settlement; overt police action to mitigate conflict inside the squatter settlement; and the commencing of tax collection—consolidate residents' perceptions of tenure security.

Alan Gilbert (2002), in response to Hernando de Soto's argument on land titling, suggests that the security of tenure does not require a legal deed, as has been propagated by the neoliberal, market-driven strategies of the World Bank. The perceived security of tenure is more critical in unleashing investment in houses because for the settlement residents, their security of tenure is based on a perception of the probability of eviction and not on a land title. It is the nature of government, the location of the squatter settlement, the predominant use of land, types of previous ownership, the backing of a powerful political patron, and the availability of public services that influence tenure security.

Studies from places like Lima, Copacabana, Bogotá, and Cairo show that the illegality of tenure has not been a barrier to investment in house improvement (Payne 2000; Gilbert 2002). In these instances, it appears that informal sources of property rights confer the same benefits as legal titles. Isolating the effects of legal titles on house improvement has not been easy, and studies that show a positive correlation between granting legal

titles and the level of investment in houses are based on integrated upgrading projects where legal titles, services, infrastructure, credit, and building material were bundled together. Certain studies have even supported a reverse causality; that is, it is housing consolidation and investment that contributes to secure tenure. The less secure the title, the more occupants invest in land, up to a point where the eviction of squatter settlements becomes economically unfeasible for the authorities (Razzaz 1993).

RESEARCH METHOD

Keeping in view the diverging theories that dominate the squatter settlement improvement discussion, this paper aims to understand how tenure legalization is linked to housing improvement in a squatter settlement in Lahore. It employs a qualitative method of inquiry to explore the perception of tenure security held by squatter settlement residents and the dynamics that influence this perception.

The case selected to address this paper's questions is the squatter settlement of Shamaspura, which is located in the northwestern part of Lahore. Its selection was based upon the variation found in tenure security within the settlement, where some households have legal titles, some do not have titles but have formal access to basic services, and some have neither the title nor formal access to all basic services. This case selection allows the researcher to understand how different kinds of tenure security—whether achieved through formal land titles, informal paperwork, or occupation of land over an extended time—affect home improvement among squatter settlement residents. Interviews were conducted with twenty-five residents as well as the neighborhood leader. Interviewees were selected randomly.

The government of the country embarked on a property titling drive in the mid-1980s on the behest of the prime minister who, for various political reasons, wanted to give property rights to squatters residing on state land. Since then, government agencies, such as the Lahore Development Authority and the Katchi Abadi Directorate, have carried out surveys, prepared lists of squatter settlements on state land, and initiated the tenure legalization process in the city.

SHAMASPURA

Shamaspura is situated in the densely populated northwestern part of Lahore known as Shahdara. The region houses both formal and informal small businesses, commercial activities, and housing. The squatter settlement is bounded by the Ravi River on the north, a railway line on the east, a newly constructed limited access roadway called the Ring Road on the south, and the Old Ravi Bridge on the west. Because it is now completely enclosed on all sides by natural and urban boundaries, Shamaspura can no longer expand horizontally, but its residents continue to build upward, adding more stories to accommodate their expanding families.

Shamaspura was conceived in late 1970s when rural migrants set up home on the banks of the River Ravi on land that was under the ownership of the Department of Forestry and Pakistan Railways. The initial residents built makeshift homes, or *jhugis,* made of tarpaulin, mud, and thatch on soft, wet soil that could not support built structures. Over the years, these homes have been consolidated into more permanent structures through incremental improvements. Almost a hundred households were displaced during the construction of the Ring Road in 2008, and today there are approximately one hundred households in Shamaspura.

The physical layout of the settlement consists of one main street and several narrow, convoluted passageways. Most of the homes are made of brick and mud with thatched or straw roofs. Although a sewerage system is in place, it is in dilapidated condition and overflows frequently onto the semipaved passageways. According to the residents, the neighborhood leader along with some of the more activist residents come together to collect funds and "fix" sewage problems as they arise.

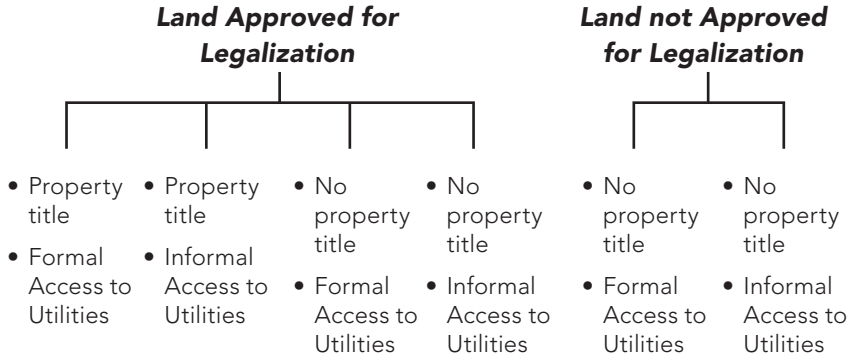
Field observations and interview questions reveal living conditions and household income levels that indicate the residents belong to the very low socioeconomic level. Most of the residents are fruit and vegetable vendors and daily-wage laborers. Shamaspura's proximity to the Sabzi Mandi—the biggest wholesale fruit and vegetable market in the city—allows most residents to practice vending without traveling large distances for buying or selling. There are households of various income levels, ranging between Rs. 5,000 to 20,000 per month, and household sizes range from six to twenty-five people. The majority of the residents are of Punjabi ethnicity and consider themselves residents of Lahore.

In 2004, a process of tenure legalization was initiated by the provincial government in Shamaspura whereby the squatter settlement was surveyed and documented and land was transferred from the Department of Forestry and Railways to the Lahore Development Authority (LDA). A No Objection Certificate (NOC) was also granted to the settlement. The NOC ensures that the process of issuing titles to residents can now take place once a fee of Rs. 157 per marla (about 30 square yards) is paid by the resident.

FINDINGS

Interviews with residents and field observations in Shamaspua have revealed important findings. First, land tenure in Shamaspura exists on a continuum, and various kinds of tenure security exist within the same squatter settlement. Some residents have property titles and others do not; some residents have access to publicly supplied water and electricity services, and some have obtained basic services through informal means; and though most of the settlement has been given the NOC, a portion of the settlement adjacent to the Old Ravi Bridge with at least ten households has not been given the NOC. Figure 1 is a diagrammatic representation of this continuum.

Figure 1. Tenure security continuum in Shamaspura.



Regardless of their legal tenure status or their position on the continuum, residents are not reluctant to make improvements to their homes or surroundings. They improve their homes individually through private investment and also come together collectively as a neighborhood to pool funds to upgrade sewerage services. Those that do not have a property title do not wait to acquire one before making improvements to their homes. Their perception of tenure security is strong and is built around several factors that influence their decisionmaking about housing construction and improvement.

One of these factors is the initiation of the government's Katchi Abadi legalization program. Even before the NOC was granted to Shamaspura, residents had knowledge of the squatter settlement's legalization policy adopted by the provincial government in the early 1990s. That knowledge, along with visits from government teams conducting surveys and collecting data in the early 2000s, strengthened their perception of tenure security. The local revenue officer, or *patwari*, played an important role in disseminating information about government policies on squatter settlement evictions and the legalization of tenure, and his visits to the settlement added to the residents' perception of government recognition of their settlement and houses.

Another important factor that has influenced residents' perception of tenure security is their ability to formulate relations with local elected officials and members of the provincial assembly, who sometimes look upon squatter settlements as voter banks. According to interviewees, the provision of electric, water, and sewer services in Shamaspura, one of at least four squatter settlements in the area, over the last fifteen years has occurred through the political patronage of the *naib nazim* (akin to the deputy mayor) of the area. Whereas accessing basic services such as electricity and water provided by the government increases the sense of security for squatter settlement residents, political patronage lends a layer of legitimacy to the entire process. Because Shamaspura residents' access to public utility services has occurred through political channels rather than through informal ones—such as bribing utility company employees, as is often the case with squatter settlements—its residents' perception of tenure security also rests on the political patronage afforded to them by elected officials.

Also closely linked to the influence of political patronage is the presence of a de facto neighborhood leader in the settlement, Mohammad Rasheed, who was among the very first people who settled in Shamaspura and has extensive knowledge of the area, its residents, and their problems. He is

also politically active and works for a political party during the election season. Together with three other residents, he has formed a neighborhood committee that tries to solve issues such as sewage runoffs through self-help mechanisms. It also lobbies local elected officials for the provision of natural gas and NOC in areas within Shamaspura that have not received them.

Mohammad Rasheed's political activism has effected residents' perception of tenure security. They look upon him as the settlement's caretaker and trust him to take care of their property titling procedures and deal with the *patwari* or LDA officials. According to some of the residents, he garners enough influence with public officials that he would not "let anything happen" to them.

Another important factor effecting the tenure security perception for the residents is the number of households in Shamaspura. Even though the number has decreased after the construction of the Ring Road, some residents cite their large number as the reason public officials pay attention to their problems and do not force eviction. Their perception is that the authorities cannot easily raze a settlement of a hundred households without creating a political furor.

Even though the regularization program in Shamaspura allows its residents to approach the LDA to obtain property titles at low fees, many of them are unwilling to do so. The majority of the residents cannot read or write and are hesitant to deal with paperwork they do not understand. The red tape involved with obtaining a formal property title also usually takes many working days that residents cannot afford to spend away from their work. Hence, they rely on *patwaris* to take care of the paperwork and deal with LDA officials. Ultimately, they end up paying the *patwari* and, sometimes, the LDA official exorbitant fees to get a property title, ranging from Rs. 15,000 to Rs. 30,000, sometimes going as high as Rs. 50,000.

Given these conditions, the residents find the process of obtaining a property title unaffordable. The only viable benefit they see in obtaining a title is the monetary compensation they might receive from the government in case of an eviction. Some residents also see a title as a means of securing their house as an inheritance for their children. However, all the residents interviewed thought that the benefits associated with titles are not worth the money and time spent in obtaining them. Most important, they do not think a title will increase their security against eviction because their experience with the Ring Road's construction and eviction of some residents with titles tells them that "the government will do whatever it wants whenever it wants to whoever it wants."

CONCLUSION

Considerable attention has been paid to tenure legalization as a strategy to upgrade informal settlements. Yet the perception of tenure security held by settlement residents has not been explored in all its circumstantial complexities. This study of Shamaspura highlights the dynamics that influence perceptions of tenure security and their influence on home improvement. It has been shown that residents continue to improve their homes based on their needs and savings regardless of their legal tenure status. They place importance on political activism and the role of their neighborhood leader to achieve neighborhood upgrading, and they do not find the benefits attached to a property title worth the cost of obtaining it. Policymakers should take into account the experience of settlements like Shamaspura that have undergone regularization and formulate a more flexible tenure regularization system that includes residents' preference for a simpler process of tenure recognition and bookkeeping, and prevents bribery.

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Where Do the Poor Live in Transitional Beijing? New Evidence Based on a Large-Scale Individual Survey in 2009

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ABSTRACT

Employing a large-scale individual survey and aggregated census data from Beijing, this paper makes a first attempt to empirically measure the city's residential location choice patterns disaggregated by market forces (i.e., tenure) and socialist institutional forces (i.e., hukou). The results provide new insights that whereas some individual characteristics, such as income and tenure, have similar effects on stratifying location choices among the wealthy and poor as in the developed market economies, factors characterizing the institutional forces such as hukou still play significant roles in determining residential segregation patterns. These findings reveal the unique residential sorting mechanisms within this transitional housing market.

As Beijing's urban population grew by 41 percent, to 16 million, between 1993 and 2009 (National Statistics Bureau of China 2010), understanding how people locate themselves geographically in this booming city is important. Given the spatial form it takes, residential

location choice disaggregated by tenure and *hukou*[1] is one of the most significant and visible aspects of social inequality in transitional Beijing. Despite the importance of this insight, empirical studies that use census datasets with demographic information have mainly enhanced our knowledge of the income differences in responses to Tiebout's fiscal sorting and Alonso's spatial sorting theories.[2] Direct tests of residential location choice have been less common (Wu 2004; Wang and Li 2004; Zheng, Fu, and Liu 2006). There are two underlying reasons: first, although urban housing reform was launched in the late 1980s, significant changes did not happen until the late 1990s; and second, there have been little systematic data on household survey with more detailed personal attributes and the related geocoding neighborhood characteristics information. This paper is motivated by the desire to pose the above question empirically through a series of discrete choice models that can shed light on the modes and stratifications of residential location choices disaggregated by residents' socioeconomic characteristics in a megacity of China. At a minimum, this study offers implications for policymakers seeking to view the presence of differential residential patterns within a framework of wider urban poverty contexts.

The context that I seek to describe is the Beijing urbanized area, which during the past two decades has experienced very dramatic changes in its housing market, moving from a subsidized public housing provisional system toward a market-oriented housing allocation system (Zheng and Kahn 2008). Before housing market reform, housing was treated as a nonmarket value good, provided by governments and employers (*danwei*), and its allocation was based on institutional factors in terms of resident's political

1 The housing registration system (hukou), like the passport, defines the extent to which a person can get access to the social welfare benefits in China (Huang and Clark 2002; Zheng, Fu, and Liu 2006; Logan, Zhang, and Xu 2010), which segregates urban residents into two major groups: permanent residents with the host city's hukou, and migrants who live or work in the host city but do not the host city's hukou.

2 In market economies, residential location choice is found associated with local public goods, social interactions, and other neighborhood effects within the urban space (Tiebout 1956; Alonso 1964; McFadden 1978; Anas 1982; Quigley 1985; Mieszkowski and Mills 1993; Rapaport 1997; Nechyba and Strauss 1998; Cheshire and Sheppard 2004; Gibbons and Machin 2005; Bayer, Ferreira, and McMillan 2007; Boustan 2007; Glaeser, Kahn, and Rappaport 2008; Cheshire 2008; Ellen and O'Regan 2010; Ioannides and Topa 2010; Abe 2011).

status, working age, and family size (Huang and Clark 2002). Aiming at ending this socialist housing system, housing market reform was first tried experimentally in 1988, and was further reinforced in 1998. Since then, housing has been treated as a commodity with different market values according to its quality and location. Local households, which used to have no chance to choose their housing in the socialist era, now have the freedom to make housing choices in terms of tenure, dwelling size, and location. However, as markets begin to function well, socialist institution factors, such as *hukou*, continue to play essential roles in housing consumption (Wu 2002; Huang 2004; Huang and Jiang 2009). Thus the residential location choice patterns for different groups of residents—especially those poor, migrants, and tenants—are rather complex and deserve scrutiny.

To this end, this paper develops a framework to empirically measure whether and to what extent households' residential location choice patterns can be reflected in variations of place and people's characteristics in transitional Beijing. It differs from other studies in that it embeds the institutional factors with respect to *hukou* and housing sources in personal characteristics; and it provides a foundation for determining socioeconomic factors and location-specific factors in residential location choices. At its heart, a set of conditional logit models are established, in which both of place-level and resident-level characteristics can be explicitly taken into account. To achieve that, this paper takes advantage of rich micro-level data sets that contain detailed personal sociodemographical characteristics and location-specific characteristics.

The second section of this paper gives an overview of the methodology (which is explained in detail in the appendix). The third section presents estimation results. The fourth section concludes.

AN OVERVIEW OF THE METHODOLOGY

The paper's basic methodology is a conditional logit model of residential location choice, which is estimated using unique micro-level data sets in the urbanized part of the Beijing metropolitan area. As the capital city of China, Beijing is a historical but fast-growing world city. After thirty years of economic transitions, and especially housing and labor market liberalizations,

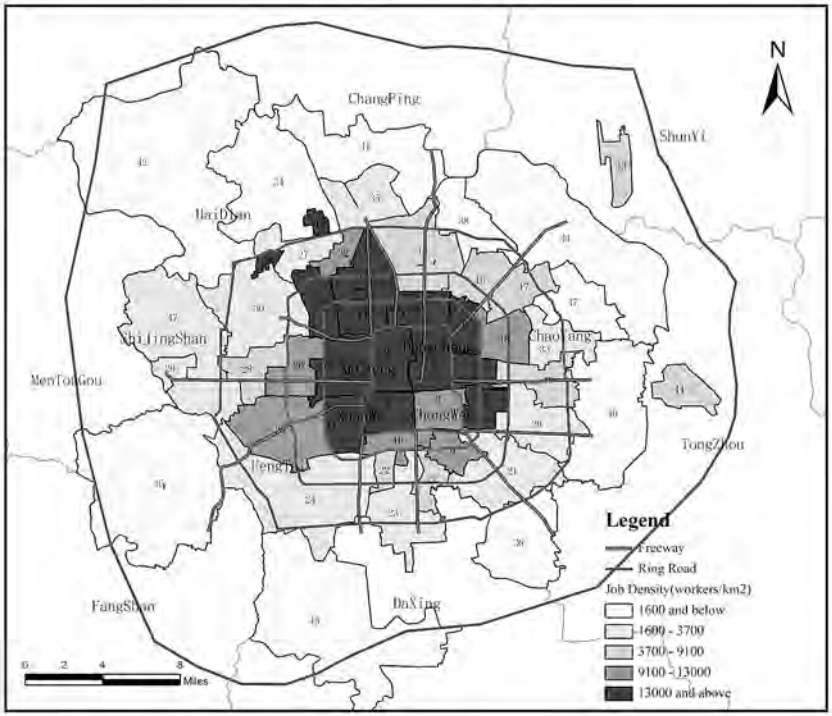
the city has seen a boom in housing consumption.[3] Following the convention, this study focuses on four inner city districts (Dongcheng, Xicheng, Xuanwu, Chongwen) and four nearby suburban districts (Chaoyang, Fengtai, Shijingshan, Haidian) in Beijing, given that other districts are generally less developed rural areas. It covers 130 streets (jiedao). The jiedao is the fundamental census unit in urban China.

This study relies upon a specially merged data set of individual-level survey data, aggregated census data, and geocoded local public goods data. The primary data set is made up of large-scale household survey data gathered in Beijing during July and September 2009.[4] The key advantage of these sample data is that they cover the whole urbanized area of Beijing with a broad range of socioeconomic information on households with respect to income, education level, age, family size, and commuting time, as well as location-matched records, such as where each resident lives and works. Here I focus on those respondents who have made housing location choices since the 1998 housing reform, and I select those who are between eighteen and sixty years of age. This is due to the fact that since the 1998 housing reform, urban households have been fully mobile and thus can make location choices based on their budgets. Also, people under age eighteen may still have to go to school or be too young to face the location choice in urban China, whereas residents older than sixty refer to those retired people who may choose their residential location due to other determinants such as pension level that go beyond the predictions of the location choice models in this research. Meanwhile, this analysis requires a group of choice set whose boundaries remain fixed. Following the strategy proposed by Zheng, Peiser, and Zhang (2009) to define the basic geographical unit, I combine

3 The overall level of housing consumption in Beijing has improved significantly, from less than 4 m2 space per capita in the 1950s to about 30 m2 in 2010 (Beijing Statistical Bureau 2011).

4 The sampling method of this micro-dataset was designed scientifically and carefully implemented by researchers from the Institute of Geographic Sciences and Natural Resources Research at the Chinese Academy of Science. The 2000 population census reported the resident distribution over the 130 jiedaos. This survey determined the number of observations in each jiedao, proportional to its population. Within each jiedao, different levels of neighborhoods were randomly selected, and residents in those neighborhoods are interviewed on a random basis.

Figure 1. The Spatial Distribution of Job Density in Beijing



two or three adjacent *jiedao* into a zone,[5] and then forty-six zones are created, which constitute the location choice set (figure 1). Although zone areas may have certain heterogeneous characteristics within them, they still share both local sociodemographic characteristics and environments,[6] and each zone is sufficiently large to include a number of survey respondents. After excluding uncompleted and inauthentic questionnaires, the final sample size is 3,481, which means that each zone has approximately 75 observations. For further details on the methodology, again, see the appendix, including appendix tables 1 through 3.

EMPIRICAL RESULTS

In reporting the results, I have two main objectives. First, I focus on examining the relative influences of the place-level characteristics versus resident-level characteristics on determining residential location choices. Second, I go further and examine the residential location choice patterns disaggregated by *hukou* and tenure. Appendix tables 2 and 3 document the estimated coefficients for the place-level and resident-level characteristics in the location choice models; again, all the details about the models and variables to which I allude here in the text are described in detail in the appendix and in these appendix tables.

The estimated coefficients document how patterns of residential location choices vary when relating to resident-level characteristics. Based on the results in model (1), I find new evidence that an increase in household income has the negative and significant influences on the odds of a household

5 Compared with other undeveloped areas near the sixth ring road, two spatial isolated zones (no. 43 and no. 44) are included because both of them have relative high job and population density levels. The no. 43 zone is unique because of the Beijing International Airport and its industrial park located here. The no. 44 zone is the most important well-functioning edge town (tongzhou) within the sixth ring road, where the relative lower land and housing prices attract firms and people to locate there.

6 The variations of sociodemographic characteristics such as population density within each zone are much smaller than across zones. Admittedly, the size of zones is too large and hinders the precise of modeling estimation results. Yet in reality, research on this issue has been limited by the lack of more specific geographical unit data in China. Keeping this limitation in mind, this study can be seen as the best possible effort to do currently.

choosing a zone with closer distance away from the CBD (*DCBD*), longer average commuting time to work (*COMM*), and a higher median housing price level (*HPRICE*), However, the change of income in households has no statistically significant influence on the odds of choosing that zone with higher local public goods density, indicating that the income elasticity for local pubic goods is very limited in Beijing. Another interesting finding is that an increase in a household's commuting time has a significant impact on the odds of choosing that zone with a lower median housing price level. This negative sign associated with housing price indicates that a 10 percent increase in a household's commuting time (*TRATIME*) is predicted to increase the odds of a household choosing a given zone with 1 percent less in median housing price level (*HPRICE*) in Beijing.

In model (2), I estimate the impacts of residents' education attachment and family structure on their location choices. I find that highly educated residents have significant and positive preferences in choosing a residential zone with a higher average resident-education level, whereas families with preschool children do not significantly pay attention to this attribute. Specifically, increasing the education level of an individual (*EDU*) by 10 percent will increase the choice odds of a zone with larger proportion of high resident-education level (*AVGEDU*) by a factor of 1.101 (10.1 percent), and the odds of a family with school-aged children choosing the zone with higher average resident-education level is negative but not significant. I also find that families with more labor-intensive full-time workers tend to choose a residential location away from the CBD, whereas the proximity to the CBD and job accessibility level of a zone exerts no significant influence on the location choice of families with more skill-intensive full-time workers. This result further reflects the fact that highly skilled families can easily get access to jobs, and therefore, their location choices are not constrained by the distance to the CBD and job accessibility.

In model (3), I examine whether and to what extent differential housing sources influence households' residential locations. The estimated results here are normalized on the market's housing residents, which is the most important housing source for the entire housing market. As expected, I find that the median housing price level of a residential zone (*HPRICE*) has a negative and significant effect on the odds of a household choosing the affordable housing in that place, whereas it has a positive and significant effect on the odds of a household choosing the work unit (*danwei*) housing

in a given place. As for both affordable housing and company housing, an increase in the distance away from the CBD has negative and significant influences on the odds of a household choosing a residential zone. Similarly, the public transportation density level has also negative and significant effects on households that choose to live in affordable housing and work unit housing types. This is because that all the affordable housing units in Beijing are located in remote suburban areas with few job opportunities and large amounts of housing stock, leading to so-called bedroom locations. Thus, people who choose to live in such neighborhoods usually face long commuting distances to compensate for saving on housing costs. Consequently, they have a strong demand for better access to public transportation in their residential locations. Households living in work unit housing often choose to commute by public transportation modes or even by bicycle, mainly because their workplaces are usually located near their residences.

Having concluded that the results obtained from the above-described interaction analysis of location choices of households are satisfactory, a further step is to estimate the heterogeneous residential location choice patterns with regard to *hukou* and tenure differences (i.e., tenant-migrant, tenant-nonmigrant, homeowner-migrant, homeowner-nonmigrant). I report the estimates in appendix table 3 and set the group of tenant-migrants as the basic comparing benchmark for other three groups. Model (4) estimates the impact of location-specific attributes on different resident groups. Of particular importance, I find that an increase in the proximity to the CBD (*DCBD*) has a significant but differential impact on the resident groups of tenant-migrants, tenant-nonmigrants, and homeowner-nonmigrants, where the estimated coefficients equal –0.053, 0.012, and 0.056, respectively. This indicates that tenants and migrants have the stronger preference to locate relative closer to the city center, compared with homeowners and nonmigrants. I also find that changes of the job accessibility have a significant and negative impact on the location choice odds of the two migrant resident groups. There are several ways to explain this interesting phenomenon. First, it should be recognized that migrant residents are usually new arrivals in the host city and strongly need to find a job. Therefore, migrants usually prefer to rent or buy their houses near high-job-density areas for better job accessibility. Another explanation is that while the elite migrant families live in gated wealthy communities, poor migrant families rent houses in crowded "migrant villages" to save on housing costs and other aspects of living maintenance (Wu 2009).

In model (5), I explore whether the local housing price and housing supply have differential effects on the odds of choosing among different resident groups. The significant and positive sign associated with the housing supply size of the homeowner-migrant resident group indicates that an increase in the total size of housing project supply in a residential zone will attract additional migrants to buy their housing in that given place. When comparing the estimated coefficients of the housing price (*HPRICE*) variables, it is evident that homeowner-migrant residents have the most significant preference on choosing a zone with relatively high median housing prices, and only the tenant-migrant residents tend to prefer to locate in the low median housing price residential zones. Strikingly, this finding is compatible with the observed facts for residential segregation in Beijing. In addition, as a proxy variable for poverty concentration, the proportion of residents who rent public housing (*PRENTPUB*) in a residential zone is found to have a differential influence among the four resident groups. The significant coefficient sign of the homeowner-migrant residents implies that they are far more likely to avoid buying houses in a residential zone with a higher public housing rent ratio, probably because these residential places usually have inconvenient public services, higher crime rates, and stronger social interactions among original residents.

CONCLUSION

In this paper, I provide a framework for understanding how residential location choice modes and stratifications can be reflected in the variations of people and place characteristics using a case study of Beijing. The unique and transforming nature of the Chinese housing market makes this a worthwhile research topic.

The results document the importance of market mechanisms in contributing to residential location choices in transitional Beijing, where most of the place-level characteristics and individual socioeconomic factors are found to be significant determinants of household choice. In particular, I find that institutional forces are still playing a crucial role in stratifying households' location choices. For example, residents living in affordable housing attach greater importance to com-

muting convenience than residents living in other housing types. The price signal from the housing market is not effective in determining the location choice behaviors of households living in work unit housing, because they can get heavy housing subsidies from their work units. The differential residential location choice patterns with respect to *hukou* and tenure also show such dual mechanisms, whereby tenants and migrants are more likely to live adjacent to high-job-density areas than owners and nonmigrants. The fundamental results of this research support prior expectations, and suggest that the poor residents' residential location choice patterns are not only associated with the market mechanisms but are also related to the socialist institutional forces within this transitional housing system.

This analysis, however, is subject to several important limitations. The first limitation arises from the defects in the data sets. This study cannot take into account the estimated changes of local public goods allocations over time that might have significant effects on households' residential location choice processes. For instance, massive investments in public transportation infrastructure in metropolitan areas are sure to alter the location choices of households, but this study was unable to examine such specific effects without observed data. In addition, although this study seeks a delineation of geographical units that has a reasonable degree of homogeneity within the zone characteristics of each location, the zone size employed in this study is relatively large. A final tough issue is how to capture the spatial dependence effects generated by the boundary gaps between the residential zones and the real catchment areas of local public goods and services (Bayoh, Irwin, and Haab 2006). By keeping these limitations in mind, this empirical study can be viewed as giving the results of the best possible efforts to examine the localized forces of residential location choices in a transitional housing market, where reliable micro-level data are usually difficult to obtain. Future studies are encouraged to corroborate the robustness of this research.

APPENDIX: FURTHER DETAILS OF THE METHODOLOGY

The local sociodemographic characteristics are collected from several data sources. First, I calculate the job accessibility indicator[7] based on the 2004 City Employment Census data. Figure 1 above shows that Beijing's job density distribution is still generally monocentric. Second, the 2005 city population 1 percent Census data give the demographic information for each zone, including the median per capita resident education level, the proportion of families whose per living area are below 12 square meters, and the proportion of residents who rent old public housing. In addition, to reflect the average characteristic of the local housing market, I have collected housing transaction data from the Beijing Housing Authority, and calculated the median value of housing price and supply size for each zone between 2005 and 2009. In particular, this study does not use the data information of projects that had entered the market before 2005 because the prices of those housing projects were largely influenced by the immature land market[8] and the thin market transaction volume at that time (Zheng and Kahn 2008). The mean sale price is about RMB 14,030 per square meter ($1 = RMB 6.5), with an average unit size of 94,457 square meters. This study also gathers the geocoded data on local public goods such as sub-

7 Job accessibility here is measured by the weighted job density (W_JDEN) based on the following equation:

$$W_JDEN_i = \sum_j JDEN_j \, x e^{-\left(\frac{dis_{ij}}{d}\right)}$$

Where W_JDEN_i is the weighted sum of job density at zone *i*, $JDEN_j$ is the job density of zone *j*. dis_{ij} represents the distance between zone *I*, and *j*. *d* is the distance decay parameter over the geographical area, which is created to examine spread effects of the distance on the explanatory variables. The parameter value that provides the best fitting would be eventually selected. Rather than attempting to define more complex estimate equations, this weighted job density is still a relevant measurement for job accessibility (Ong and Blumenberg 1998; Zheng, Peiser, and Zhang 2009).

8 Before 2005, developers usually obtained the land parcels through negotiations with the government, which means that the market transactions were not transparent and effective due to the drawbacks of the land reform policy. As a result, the price signal is not applicable for the housing and land property value during this period.

way stations, bus stops, primary and middle schools,[9] crime rates,[10] parks and green spaces, and hospitals from relevant government documents and reports. In particular, like most Chinese cities, Beijing's local public goods and services are financed by the central government and the Beijing municipal government.[11] Households in Beijing still do not have to pay a residential property tax. Therefore, the external effects of local public goods in Beijing are expected to be more visible than in cities with property taxes (Gyourko, Kahn, and Tracy 1999).

The modeling analysis is based on the discrete choice model developed by McFadden (1978), and modified for the purpose of this study. Housing is a complex commodity due to its spatial immobility and heterogeneity. The fact that each house is unique in its physical structure and location-specific characters implies that housing choices are determined by multidimensional factors in terms of the choice of tenure, dwelling types, and zone locations. In addition, there are differences between households' motivation and final decisions for choosing their residential locations. However, research on establishing the full choice model relating to different choice dimensions and their joint effects can be hindered partly because of the limitations of data sets and partly because of the complex interaction relationships among different housing decisions (Yates and Mackay 2006). This present study focuses on the determinants of residential location choices by putting other choice dimensions aside.

Urban households are assumed to make maximizing-utility residential location choices by weighing the costs and the benefits of incentives related to both place-level features and resident-level factors. Let J equal the choice set of discrete locations with j elements, and let U equal the total utility set. Therefore, if resident i chooses to live in zone j to maximize their utilities,

9 In urban China, the school quality is first classified into two categories: grade A and ordinary local schools. The grade A schools are usually nominated by the municipal government with the best teachers and education resources rather than ordinary schools.

10 Crime rates for the number of violent crimes taking place per person 2005 in each zone are obtained from the Beijing Public Security and Safety Bureau.

11 These public goods were built long ago under the centrally planned economy and seldom change their locations after they are built. Therefore, one advantage of studying local public goods' external effects is that the location of many local public goods (e.g., schools, parks) is exogenously determined in Beijing as well as other Chinese cities.

the random utility model formulation of U_{ij} can be expressed as

$$U_{ij} = V_{ij} + \varepsilon_{ij}$$

Where U_{ij} =Max $[U_{i1}, U_{i2}, \ldots, U_{ij}]$, V_{ij} is the structural component or determinant of utility for resident *i* in zone *j*, and e_{ij} are the random components, representing the unobserved features of this zone The odds of a resident *i* choosing zone *j* can be expressed as

$$\text{Prob}\left(Y_i = j\right) = \frac{e^{\mathbf{z}'_{ij}\boldsymbol{\beta}}}{\sum_{j=1}^{J} e^{\mathbf{z}'_{ij}\boldsymbol{\beta}}}$$

Where the vector Z_{ij}={X_{ij}, W_i}is the important deterministic for the above random utility model formulation. Specifically, X_{ij} is the feature set of the zone, whereby each zone comprises a unique bundle of local public goods and other zone characteristics. W_i is the attribute set of each resident, which remains fixed over space. It includes the residents' socioeconomic factors. Appendix table 1 presents the descriptive statistics for these variables. Also see appendix tables 2 and 3, whose findings are explained in the text above.

Appendix Table 1. Description of Statistical Analysis Variables

Variable	Characteristic	Mean	Standard Deviation	No. of Observations
	Place-level characteristics			
DCBD	The straightforward distance from each zone to the CBD (kilometers, km)	10.938	6.648	46
W_JDEN	Weighted numbers of job opportunities in each zone	2.371	2.319	46
BUSDEN	Numbers of bus stops per km^2 in each zone	4.126	3.050	46
SUBDEN	Numbers of subway stops per km^2 in each zone	2.792	2.643	46
PARKDEN	Sum sizes of parks per km^2 in each zone	0.795	1.354	46
SCHOOLDEN	Numbers of grade-A elementary and middle school per km^2 in each zone	2.614	2.929	46
HOSPDEN	Numbers of 3-star hospitals per km^2 in each zone	2.095	2.842	46
CRIME	Average crime rate in each zone (numbers of crimes/person)	3.164	3.860	
COMMUTE	Average commuting time to work of labors in each zone (minutes)	34.233	7.917	46
HPRICE	Median price per square meter of the market housing units in each zone from 2005 to 2009 (RMB 1,000 yuan / m^2)	16.454	6.918	46
HSUPPLY	Total housing supply size in each zone from 2005 to 2009 (10,000 m^2)	151.88	110.39	46
PRENTPUB	Proportion of residents who rent public houses (%)	0.317	0.150	46
PPERLIV12	Proportion of households whose per living area below 12 m^2 (%)	0.143	0.097	46
AVGEDU	Median per capita resident education level in each zone:1=junior or lower;2=high school;3=university;4=post graduate	0.924	0.647	46

Variable	Characteristic	Mean	Standard Deviation	No. of Observations
	Individual-level characteristics			
INCOME	Monthly household wage of the respondent's family (RMB 1,000 yuan):1 = 30 and less; 2 = 30–50; 3 = 50–100; 4 = 100–150; 5 = 150–200; 6 = 200 and above	2.86	1.084	3481
MIGRATE	Binary: having no official residential certificate (hukou) in Beijing	8.54%		296
NMIGRATE	Binary: having official residential certificate (hukou)in Beijing	91.46%		3185
TRATIME	Individuals' traveling time from home to workplace (minutes)	35.39	21.19	3481
OCCUP_ LABOR	Binary: jobs in manufacturing industry and low-skilled service industries	32.20%		1121
OCCUP_SKILL	Binary: jobs in the industries of information technology, finance and insurance, law, consulting and real estate, research and education	46.31%		1612
EDU	Highest education level: 1 = primary school and lower; 2 = high school; 3 = undergraduate; 4 = graduate and above	2.813	0.615	3481
FULLTIME	Number of fulltime workers in the household	2.078	0.614	3481
PRESCHOOL	Households with at least one preschool child	7.90%		275
MARKT	Binary: house buy from the commodity market	57.48%		2001
AFFORDABLE	Binary: house buy from the commodity market with subsidy and low price	19.99%		696
COMPANY	Binary: house buy from work units with subsidy and low price	22.53%		784
HOMEOWNER	Binary: household buy houses from the market or work units	81.45%		2836
TENANT	Binary: household rent houses from the market or work units	18.55%		645

Appendix Table 2. Estimated Results of Interaction Terms of Resident-Specific and Zone-Specific Variables

Variable	Model(1)			Model(2)			Model(3)		
	Coefficient	**Odds Ratio**	**Z-statistic**	**Coefficient**	**Odds Ratio**	**Z-statistic**	**Coefficient**	**Odds Ratio**	**Z-statistic**
DCBD	0.104***	1.110	5.85	0.03***	1.031	3.07	0.057***	1.060	7.05
W_JDEN	–0.038*	0.963	–1.83	–0.037*	0.955	–1.83	–0.036*	0.964	–1.79
BUSDEN	0.086*	1.090	1.95	0.045*	1.046	1.9	0.056**	1.059	2.33
SUBDEN	0.001	1.001	0.03	0.008	1.009	0.42	0.011	1.011	0.53
PARKDEN	0.025	1.025	0.49	0.045**	1.043	2.34	0.046**	1.048	2.38
SCHOOLDEN	0.121**	1.128	2.31	0.087**	1.092	2.34	0.085**	1.089	2.26
HOSPDEN	0.061***	1.062	4.15	0.06***	1.062	4.14	0.06***	1.062	4.13
HPRICE	0.620**	1.859	1.97	–0.308**	0.735	–2.41	–0.321**	0.725	–2.19
HSUPPLY	0.003***	1.003	5.48	0.002***	1.002	8.23	0.002***	1.002	8.26
COMMUTE	0.010	1.010	0.89	–0.011***	0.988	–2.86	–0.015***	0.985	–3.34
PRENTPUB	0.644**	1.904	2.51	0.633**	1.884	2.47	0.647**	1.910	2.53
PPERLIV12	–0.777	0.460	–1.02	–0.733**	0.480	–2.18	–0.714**	0.490	–2.12
AVGEDU	0.114*	1.120	1.76	–0.159	0.853	–0.99	0.113*	1.121	1.77
CRIME	–0.003	0.997	–0.49	–0.003	0.997	–0.46	–0.004	0.996	–0.59
INCOME*DCBD	–0.021***	0.979	–3.67						
INCOME*COMMUTE	–0.007**	0.993	–2.13						
INCOME*HOUSPRI	–0.199**	0.820	–2.08						
INCOME*PARKDEN	0.007	1.007	0.44						
INCOME*SCHOOLDEN	–0.011	0.989	–0.89						

Variable	Model(1)			Model(2)			Model(3)		
INCOME*BUSDEN	–0.014	0.986	–1.11						
INCOME*SUBDEN	0.002	1.002	0.16						
TRATIME*HPRICE	–0.010***	0.990	–3.98						
TRATIME*HSUPPLY	0.003	1.000	–0.37						
EDU*AVGEDU				0.0958*	1.101	1.84			
PRESCHOOL*AVGEDU				–0.004	0.995	–0.18			
FULLTIME*OCCUP_LABOR*W_JDEN				0.007	1.008	0.54			
FULLTIME*OCCUP_LABOR*DCBD				0.011**	1.012	2.44			
FULLTIME*OCCUP_SKILL*W_JDEN				0.004	1.004	0.33			
FULLTIME*OCCUP_SKILL*DCBD				0.005	1.005	1.09			
AFFORD*HPRICE							–0.384*	0.681	–1.75
AFFORD*BUSDEN							–0.061**	0.941	–2.11
AFFORD*DCBD							–0.048***	0.953	–3.27
DANWEI*HPRICE							0.35*	1.420	1.75
DANWEI*BUSDEN							0.015*	1.016	1.75
DANWEI*DCBD							–0.029*	0.971	–2.31
Pseudo R2	0.0238			0.0237			0.0261		
Log likelihood	–8,810.2653			–8,810.9041			–8,789.2272		
Prob > chi2	0			0			0		

Appendix Table 3. Estimated Results for Segregated Resident Groups

Variable	Model (4)			Model (5)		
	Coefficient	Odds Ratio	Z-statistic	Coefficient	Odds Ratio	Z-statistic
DCBD	–0.053*	0.948	–1.73	0.043***	1.045	6.1
W_JDEN	–0.037*	0.964	–1.8	–0.037*	0.964	–1.8
HOSPDEN	0.061***	1.063	4.2	0.059***	1.061	4.09
HOUSPRI	–0.303**	0.738	–2.37	–0.696**	0.498	–2.18
HSUPPLY	0.002***	1.002	8.2	0.0002	1.000	0.22
PRENTPUB	0.628**	1.875	2.45	1.25	3.506	1.52
TENANT*NMIGRATE* DCBD	0.065*	1.068	1.89			
HOMEOWNER*MIGRATE* DCBD	0.064	1.067	1.49			
HOMEOWNER*NMIGRATE* DCBD	0.109***	1.115	3.51			
TENANT*NMIGRATE* W_JDEN	–0.049	0.951	–0.52			
HOMEOWNER*MIGRATE* W_JDEN	–0.214*	0.806	–1.69			
HOMEOWNER*NMIGRATE* W_JDEN	–0.108	0.898	–1.25			
TENANT*NMIGRATE* HPRICE				0.754**	2.127	2.17
HOMEOWNER*MIGRATE* HPRICE				0.961**	2.615	2.09
HOMEOWNER*NMIGRATE* HPRICE				0.305	1.357	0.98
TENANT*NMIGRATE* HSUPPLY				0.001	1.001	1.15
HOMEOWNER*MIGRATE* HSUPPLY				0.001	1.001	0.78
HOMEOWNER*NMIGRATE* HSUPPLY				0.002**	1.002	2.2
TENANT*NMIGRATE* PRENTPUB				–0.446	0.640	–0.47
HOMEOWNER*MIGRATE* PRENTPUB				–2.93**	0.053	–2.15
HOMEOWNER*NMIGRATE* PRENTPUB				–0.59	0.554	–0.71
Pseudo R2	0.0258			0.0263		
Log likelihood	–8,791.9533			–8,787.3961		
Prob > chi2	0			0		

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Human Security and Microfinance: How Microfinance Can Do More

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ABSTRACT

Would a human security framework be more effective in multidimensional poverty reduction than the conventional approach to microcredit? This paper explores whether the drawbacks to microcredit can be improved upon by applying a human security framework. It examines how such a framework would make microfinance programs more effective by realigning objectives, improving program development, and enhancing the evaluation mechanism for microfinance. By critically examining microcredit financial institutions serving urban poor people in developing countries—such as ProMujer, FINCA International, and ACCIÓN International—the paper concludes by proposing that a human security approach to microfinance is a more effective and sustainable strategy for fighting poverty.

Until recently, microcredit appeared to be a powerful and effective tool for poverty reduction (Morduch and Haley 2002, 6; Emerson and McGough 2010, 1). The microcredit[1] sector has grown radically during the past two decades, and in 2006 the Nobel Peace Prize

1 For the purposes of this paper, microcredit is defined as "the provision of financial services, primarily savings and credit, to poor households that do not have access to formal financial institutions" (McGuire and Conroy 2000, 90). Throughout the paper, the terms "microcredit" and "microfinance" are used interchangeably.

was awarded to Grameen Bank, a major microcredit financial institution[2] (MFI). By giving small loans and providing financial education to conventionally "unbankable" communities, microcredit aims to reduce poverty by providing capital for entrepreneurial projects. With the capital to pursue income-generating businesses, microcredit clients see an increase in income and income gaps are smoothed (Morduch and Haley 2002, 10).

Table 1. Microfinance Institutions Analyzed

Organization	Target Clients	Urban Areas Served	Web Site
ACCIÓN International	Men and women, both rural and urban poor	Numerous cities across Latin America, Asia and Africa	www.accion.org
Compartamos, Mexico	Primarily women (98 percent)	Mexico City	www.compartamos.com
FINCA International	"Poorest of the poor"; both men and women	Quito, San Salvador, Kabul, Managua, and other cities across Latin America, Africa, Eurasia, and the Greater Middle East	www.finca.org
Pro Mujer	Economically and socially disadvantaged Latin American women	La Paz, Cochabamba, Managua, Mexico City	www.promujer.org

Recent events surrounding MFIs have brought into question the methodology, tools, and conceptualization of microcredit. In November 2010, the *New York Times* carried a story headlined "India Microcredit Faces Collapse from Defaults," highlighting the low repayment rate of poor borrowers and the controversial profits made by MFIs from poor borrowers (Polgreen and Bajaj 2010). In addition to the risk of negative externalities

2 A microfinance institution (MFI) is an organization that provides financial services to the poor. Although the organization can be in the form of a nonprofit, a number of organizations transformed themselves into formal financial institutions in order to access and on-lend client savings, thus enhancing their outreach. For more on the definition of an MFI, see www.cgap.org.

following loans to poor borrowers, recent events surrounding the forced departure of Muhammad Yunus, the founder of Grameen Bank, have further unraveled the microcredit industry.[3] Microcredit, once described by the journalist Nicholas Kristof as "the most visible innovation in anti-poverty policy in the last half century," may be losing its allure (Kristof 2009). Although some evidence shows the positive impact of microfinance on poverty reduction, there is less evidence to support its positive impact on other human development areas, such as health, food, and education (Morduch and Haley 2002, 10).

Conventional microcredit programs identify the root cause of poverty to be a *lack of access* to financial resources, such as loans for capital, and address this issue by providing small loans and financial and/or business education. These tools increase economic security, providing a means of income generation and increasing financial or business knowledge. Yet poverty is multidimensional and consists of more than economic insecurity. Microfinance, as a tool for poverty alleviation, neglects a number of the dimensions of poverty. Further, it is difficult to assess the impact of a pure microfinance intervention because of the interconnectedness of security dimensions.

The following analysis explores whether the drawbacks to a conventional approach to microcredit can be improved upon by applying a human security (HS) framework to microcredit programs. I argue that an HS approach to microfinance would address the seven dimensions of security, enhancing the impact of microfinance by simultaneously addressing the multidimensional aspects of poverty. I critically examine prominent MFIs that serve urban poor people in developing countries, such as ACCIÓN International, Pro Mujer, and FINCA International. A list of the MFIs analyzed and a brief description of their activity is available in table 1 (above).

Would an HS framework be more effective in multidimensional poverty reduction than the conventional approach to microcredit? To answer this question, I test four hypotheses. Hypothesis I states that an HS conceptualization of microcredit is more effective in poverty reduction because it integrates a multidimensional concept of human poverty into the program's

3 See "Yunus Disputes Grameen Sacking," http://www.bbc.co.uk/news/world-middle-east-12619580; and "A Letter Addressed to Grameen Bank Members from Nobel Laureate Professor Muhammad Yunus," http://www.grameen-info.org/index.php?option=com_content&task=view&id=1043&Itemid=0.

objectives. Hypothesis II states that a human security approach to microcredit is more effective because individuals will be seen as subjects with agency rather than clients. Hypothesis III claims that an HS approach to microcredit is more effective because it leads to improved program development and implementation. Finally, Hypothesis IV claims that an HS approach incorporates a comprehensive impact evaluation, which in turn improves the effectiveness of the microcredit program.

The paper is structured as follows: First, I briefly introduce the concept of HS and how it will be used as a framework for analysis. Second, I set forth the definitions of poverty and effectiveness to be applied throughout the paper. Then I turn to the four hypothesis to explore whether applying an HS approach to microfinance will be more effective in reducing urban poverty.

FRAMEWORK FOR ANALYSIS

The Human Security Approach

HS is a new approach to security that alters the traditional concept of state security by looking at security from the level of the individual. Although no formal definition of HS exists, the overarching concept can be summarized as "the necessity to protect vital freedoms by building on people's strengths and aspirations and protecting them from critical and pervasive threats and situations" (Tadjbakhsh 2007, 28). HS incorporates the concept of development (increased opportunity and choice) and the concept that what is gained today will not be taken away tomorrow. The HS approach promotes people-centered and preventive policies and programs, and it broadens the traditional concept of security to include seven dimensions of an individual's security. For the purposes of this analysis, microcredit programs will be examined through the seven dimensions of HS, listed in table 2, which describes threats to individuals in each dimension, as set forth by the United Nations Development Program (Tadjbakhsh and Kubo 2010). In this table, the third column to the right describes how microfinance has the potential to affect this security area; however, conventional microfinance programs typically do not measure their impact in these security dimensions. The exception is economic security, as microfinance tools work to have a direct impact on this security dimension.

Table 2. The Seven Dimensions of Human Security

Security Dimension	Description of Threats	Potential Influence of Microfinance on Security
Economic	Persistent poverty Unemployment	Income, employment
Personal	Domestic violence Child labor	Reduce domestic violence
Community	Discrimination	Sense of empowerment
Health	Infectious disease Malnutrition	Nutrition, use of contraceptives
Food	Hunger Famine	Ability to provide for family
Political	Political repression	Civic involvement
Environment	Pollution Resource depletion	Water and waste management

Definition of Terms: Poverty and Effectiveness

The research question incorporates the concept of multidimensional poverty, expanding the traditional definition of poverty beyond measures of income. Poverty is a complex set of deprivations and reflects failures in many dimensions of human life, such as hunger, unemployment, homelessness, and powerlessness (Fukuda-Parr 2006, 7). Adopting the multidimensional definition of poverty is aligned with the HS approach, given that the HS framework recognizes the interconnectedness of threats to human dignity.

This paper also aims to determine whether an HS framework improves the effectiveness of microcredit. For the purposes of this paper, effectiveness is defined as whether a program is achieving its objectives and outcomes. Effectiveness, in this sense, goes beyond whether a program can be implemented and beyond whether an MFI fund is sustainable. It incorporates the idea of community buy-in and legitimacy as well as whether a program has a long-term, sustainable impact on poverty reduction. Overall, a program is deemed effective if it positively affects all areas of human poverty (as shown through the seven HS dimensions).

HOW WILL HUMAN SECURITY IMPROVE THE EFFECTIVENESS OF MICROCREDIT?

Hypothesis I: Improving Program Objectives

This section shows that a human security approach to microcredit would be more effective in poverty reduction because a multidimensional concept of human poverty would be adopted into the mission of the program. Conventional approaches to microcredit do not incorporate the intersectoral aspect of poverty into the mission; many microcredit programs only have the objective to improve income-related poverty. First the drawbacks to the conventional approach are analyzed, and then the added value of an HS framework is discussed.

To gain insight into a typical approach to microfinance, the mission statements of three large MFIs are examined in table 3.[4]

Microfinance is a means to improve income-related poverty. This focus on income-related poverty can be seen through FINCA International's mission, which is "to provide financial services to the world's lowest income entrepreneurs so they can create jobs, build assets and improve their standard of living" (FINCA 2010). By focusing only on the impact of increasing income through microfinance, organizations such as FINCA are only addressing part of the issue. Providing a low-income entrepreneur with access to capital may lead to employment and increases in monthly income; however, the impact on the individual's health, personal, food, or political security is neglected. Further, an organization with a mission to "provide 6 million people with access to microfinance by 2011"—such as the mission of ACCIÓN International—does not provide the organization with the foundation to create a program that will evaluate the impact on various areas of an individual's life. ACCIÓN International may reach the objective of providing 6 million people with access to microfinance, but how does this mission ensure that microloans are going toward reducing an individual's poverty? How can an organization determine whether its microfinance program is improving an individual's life based on the seven dimensions of security? Mission statements that focus on program expansion and improving only access—such as those of conventional programs like ACCIÓN International, Compartamos, and FINCA—do not take into account the

4 See table 1 for more information on each MFI.

Table 3. Human Security Analyses of Three Large MFIs' Missions

Organization	Program Mission	Human Security Analysis
ACCIÓN International	"Our current objective is to help provide 6 million people with access to microfinance by 2011."	Only focuses on outreach. No mention on individual impact or poverty alleviation.
Compartamos, Mexico	"Generate development opportunities by giving access to financial services offering them to people in the lower economic segments"	"Development opportunities" is too vague; do not clearly state the desired impact on the individual.
FINCA International	"Provide financial services to the world's lowest income entrepreneurs so they can create jobs, build assets and improve their standard of living." Vision: "Be a global microfinance network collectively serving more low-income entrepreneurs than any other MFI while operating on commercial principles of performance and sustainability."	Narrow focus on economic security (jobs, assets, standard of living). Vision is focused on outreach only. Sustainability likely refers to loan fund, rather than a sustainable impact on the individual.

impact on the individual and the impact on other security areas aside from economic security.

A weakness of the three mission statements is that the "access to finance" problem is not evaluated at different levels, leading to a narrow mission statement that focuses on *organizational expansion* rather than multidimensional poverty alleviation. Although an MFI may only have the capacity to address economic security, it is still important that the MFI take into account its own impact on *all* security dimensions. Adopting an HS framework would add value by broadening objectives, reanalyzing the problem of economic insecurity, and, consequently, influencing how a program evaluates progress.

First, an HS approach will dictate that an organization's objectives are broadened to look beyond financial access provision. HS instinctively recognizes that threats to a person's livelihood are intersectoral and interconnected. Hence, economic security cannot be addressed as a stand-alone issue, and providing financial access will have an impact on more than

economic security. Threats to human security include economic, political, personal, health, and community threats; furthermore, each dimension of security can (positively or negatively) affect another. Human security recognizes this potential "domino effect" on insecurities (Tadjbakhsh and Chenoy 2007, 16). Therefore, an HS approach requires that an organization decrease economic insecurity without jeopardizing other securities. To do this, aspects of economic insecurity should be analyzed within the larger context of an individual's security. The impact on each of the seven dimensions of security set forth in table 2 should be analyzed to ensure that the organization is doing no harm. For example, implementing a microloan program can, in some cases, raise the opportunity cost of schooling, which in turn reduces the educational opportunities of the household (Emerson and McGough 2010, 2).

One MFI that incorporates different security dimensions into its mission is Pro Mujer, which seeks to "provide Latin America's poor women with the means to build livelihoods for themselves and futures for their families through microfinance, business training, and health care support" (Pro Mujer 2010). In addition, Pro Mujer helps women build their self-esteem and links women to community resources. This mission feeds into the organization's programming choices as it pursues a three-pronged approach to poverty alleviation by addressing economic security (microfinance), health security, and community security (empowerment). Pro Mujer, therefore, is an example of how an MFI can broaden its mission without necessarily weakening its capacity.

Second, an HS approach adds value to microfinance programs because it demands that the *cause* of poverty be redefined. Currently, the problem of economic insecurity is deemed as a "lack of access to finance." Hence, MFI missions focus on providing access to finance to low-income entrepreneurs. Adopting an HS framework requires that the problem be analyzed not only within the broader context but also within the localized context. As HS focuses on the individual, the causes of economic insecurity must be evaluated on global, regional, national, and community levels. The root causes of economic insecurity may differ from community to community, and the global cause may not be a "lack of access to finance." Other structural problems leading to economic insecurity—such as social or political barriers—would then be exposed through an HS analysis of the seven dimensions of security.

Hypothesis I shows how an HS framework broadens MFI objectives to ensure that interventions recognize the interconnectedness of the seven security dimensions and adopt a multidimensional definition of poverty. With a focus on the individual, on interconnected threats, and on a multilevel problem analysis, HS will improve the *impact* of microfinance on the individual, making the program more effective in poverty alleviation.

Hypothesis II: Recognizing Clients' Agency

An HS approach to programming incorporates the principle that individuals have agency. HS requires a recognition of individual's vulnerabilities and capacity for affecting change (Tadjbakhsh and Chenoy 2007, 13). Therefore, the individual is not only a passive recipient but also an actor in the system who can, given the capacity, enact change on his or her own behalf and on behalf of others. Currently, MFIs see low-income persons as *clients* and fail to fully recognize their clients' agency and capacity in affecting change. Seeing low-income entrepreneurs as clients has a number of implications as it leads to targeted outreach, increased default rates, and financial stress, and it also desensitizes the relationship between the MFI and the community. What is more, the client approach works against the concept of sustainable intervention. The adoption of an HS approach would therefore be more effective in poverty reduction because it recognizes and develops an individual's capacity leading to a sustainable, long-term impact.

Many large MFIs see low-income entrepreneurs as clients who should be targeted for small loans. This can be seen through the MFI's mission—as seen in Hypothesis I—which shows that the primary focus of the MFI is to expand the number of loans, rather than having an impact on an individual's life. Viewing low-income persons as loan clients also separates the individual from program development and implementation. Looking at ACCIÓN USA's Web site, for example, the lending methodology is described as follows: "Our loan consultants work with borrowers one-on-one to assess their credit and business situation and determine the loan size that best meets their needs" (ACCIÓN USA 2010). There is no mention of how community members are involved in the development of ACCIÓN USA's programming. Interestingly, ACCIÓN International[5] is working toward protecting individual clients through its Beyond Codes initiative at the

5 The umbrella organization over ACCIÓN USA.

Center for Financial Inclusion. This research project inquires "how to operationalize consumer protection codes inside MFIs." It aims to help MFIs "establish pro-consumer credentials" (Center for Financial Inclusion 2010). However, this initiative does not go far enough to truly bring the client into the programming process; individuals are still seen as "consumers" of the microloan product.

The mentality of serving a microloan client needs to be reassessed as it reinforces the separation between program development and the individual and it feeds back into the organization's mission to expand loan outreach. Individuals become numbers on a spreadsheet of loans, rather than success stories. When individuals are seen as clients, this also influences how an organization handles the default process. If MFI staff members are working toward dispersing loans and achieving a sustainable loan fund, when a client begins to default on the loan, the focus will again be on the loan fund rather than the individual. MFI Web sites rarely detail the loan default process. Inquiries were sent to ACCIÓN USA and FINCA International asking about their loan default processes, but no responses were received. Based on the author's personal experience,[6] when a low-income client defaults on a microloan, the process is similar to that of a consumer bank. The client is held to the loan contract, and if the loan is not restructured, the client can face legal action in which their personal property can be seized to pay the loan balance. Although this process is rarely pursued to the extent of legal action, the possibility of incurring more financial distress through the microfinance process is very real. The seriousness of this can be seen in recent reports that in India women micro borrowers were committing suicide due to financial stress (Rajshekhar 2010). When low-income or very poor individuals are viewed as clients who boost the MFIs loan portfolio, there is a greater risk that the long-term impact of the MFI will not be poverty alleviation but rather the increased economic *insecurity* of the individual.

An HS framework encourages programs to see individuals as subjects with agency rather than "loan holders." Applying the HS framework to microfinance would therefore be more effective in poverty reduction because

6 From July through August 2010, the author worked at a nonprofit organization that had a microenterprise department, which dispersed microloans for refugee and immigrant women in a major U.S. city.

programs would work to empower individuals, leading to a positive, sustainable impact in the various domains of poverty.

The HS approach requires that organizations work with communities to identify specific needs and existing capacities of individuals. Although this is done to some extent, because MFIs are obviously recognizing the individual's entrepreneurial capacity, it needs to be institutionalized and taken further. The individual's capacity likely extends beyond the ability to start a business. An HS approach requires that an organization first perform an assessment of the individual's capacity and then work to develop agency through comprehensive education. An assessment of capacities examines what exists that could prevent vulnerabilities if properly used or developed (Tadjbakhsh and Kubo 2010). For example, ACCIÓN International, FINCA International, and Compartamos Mexico only pair microloans with business or financial education. Further, in some cases—such as that of Compartamos Mexico—loans are not conditional on financial training. For example, Compartamos' "Entrepreneur Course" is given on a voluntary basis (Compartamos 2011). Focusing on empowering an individual in order to strengthen their ability to address threats in the long term in turn entails that the individual's agency is developed and that an MFI's impact on poverty alleviation can be sustainable.

One example of how this idea can be implemented is the SMART Campaign, which is a global effort to unite microfinance leaders around a common goal: to keep clients as the driving force of the industry (SMART Campaign 2010). The campaign encourages MFIs to implement "Client Protection Principles" into their operations, which help "build strong, lasting relationships with clients, increase client retention, and reduce financial risk" (SMART Campaign 2010). The underlying principle of putting clients first is an important step toward an HS approach; however, more can be done to integrate the principles of agency and empowerment into MFI tools. According to the Commission on Human Security, "People's ability to act on their own behalf or behalf of others is one key to human security" (CHS 2003, 132). Empowerment is essential in order to attain *sustainable* security—individuals should be able to cope with and to overcome possible insecurities (CHS 2003, 8). Human security, therefore, promotes long-term security by enhancing an individual's ability to respond to possible threats.

Hypothesis III: Incorporating the Human Security Principles into Programming

Adopting an HS framework will make microfinance more effective in poverty reduction because the principles of HS will lead to better programming. Current trends in microfinance show that organizations are concentrating on sustainable loan funds and expanding outreach, which lead to programs that apply limited tools (microloans + financial education) and lack high-quality referrals, context-specific problem analysis, and individual focus. Further, the interconnected nature of threats means that it is difficult to isolate the impact of microfinance, given that an intervention often contributes (positively or negatively) to a number of human insecurities (Morduch and Haley 2002, 8).

As stated above, an MFI's mission and values shape the tools it uses in interventions. Large MFIs like ACCIÓN and FINCA International only provide microloans and financial education, which tools are not substantial in affecting all seven HS components. Table 4 shows the tools used by four major MFIs. As shown in the table, MFIs primarily only provide financial services and business training, although business training is often *not* a prerequisite for obtaining a loan. Pro Mujer, however, uses multidimensional tools: loans, empowerment and business training, health care support, and integrated referrals. Limited microfinance programs, which only give small loans paired with financial education, are not as effective in poverty reduction because such programs overlook the opportunity to develop the capacity of communities, which would result if programs were truly focused on individual development and addressed context-specific vulnerabilities. Wright notes the huge opportunity for additional services embedded in the microcredit process: "It is worth pointing out that the client groups that meet regularly at the same place and time, offer a tremendous opportunity for health (and indeed most other forms of) outreach and extension work" (Wright 2000, as cited by Morduch and Haley 2001, 105).

Morduch and Haley (2002, 8), in *Analysis of the Effects of Microfinance on Poverty Reduction*, state: "It is clear from the evidence that there are strong potential synergies between microfinance and the provision of basic social services for clients. The benefits derived from microfinance, basic education, and primary health care are interconnected, and programs have found that the impact of each can increase when they are delivered together." An HS approach to microfinance recognizes the synergies between services and

Table 4. Comparison of Microfinance Program Tools

Organization	Microfinance Program Tools
ACCIÓN International	Small loans for business or credit building Financial education Partnership referral (business resources)
Compartamos (Mexico)	Small loans for business/to improve home Life insurance Secondary tool: financial education
Pro Mujer	Group loans and savings promotion Business development training Health care support and training Empowerment training Support networks
FINCA International	Small group loans ("village banking") Business training, varies from country to country. Some countries offer classes in bookkeeping, accounting, or basic business practices. There is no formalized, network-wide training curriculum.

programs would be people centered, interconnected, context specific, multidimensional, and prevention focused. Each of the five HS principles has the potential to positively influence MFI programming.

People Centered

A people-centered approach entails disaggregating populations and involving local participation through all phases of programming. A sense of ownership should be encouraged, and programs should work to empower communities, involving them in a needs and capacities assessment (Tadjbakhsh and Kubo 2010). This principle can directly influence how an MFI relates to the target population as it encourages a closer relationship between programming and the community. Clients will be disaggregated as structural causes of poverty are collectively explored.

Interconnected

The principle of interconnected programming requires a preliminary analysis of the intersectoral (reaching all seven security components) threats facing the population. Following this analysis, programs will work to address more than one security area. Further, the interconnected principle

demands a thorough analysis of the positive and negative externalities of a microfinance program (Tadjbakhsh and Kubo 2010). Morduch and Haley's (2002) *Analysis of the Effects of Microfinance on Poverty Reduction* rates microfinance against other development tools and interventions in terms of reducing poverty. The authors compare the evidence of poverty reduction by microfinance compared to health, education, family planning, water, nutrition, and other social welfare programs. This compilation of research is an important step in adopting an HS framework for microfinance. One study, for example, found that 86 percent of microfinance clients who faced an economic crisis were dealing with crises related to illness (Matin 1998, cited by Morduch and Haley 2002, 104). The principle of interconnected threats, therefore, would prompt an organization to analyze the effect of lending to a low-income entrepreneur from different security perspectives: What is the possible impact on health, food, or personal security?

Context Specific

Promoting microfinance as a panacea for poverty neglects local situations, in which different structural obstacles may exist, causing vulnerabilities and security threats. A context-specific approach ensures that the program creates links to existing institutions and policies and further encourages local involvement (Tadjbakhsh and Kubo 2010).

Multidimensional

The principle of multidimensionality promotes multiagency, multisectoral solutions based on partnerships (Tadjbakhsh and Kubo 2010). By applying this principle, MFIs would provide high-quality community referrals that extend beyond business and banking partners.

Prevention Focused

A prevention-focused approach identifies and strengthens capacities in order to implement long-term solutions that address structural root causes (Tadjbakhsh and Kubo 2010). This principle begets programs that address structural gaps in security. From a microfinance perspective, an integral shift would occur to encourage sustainability in impact, rather than sustainability in funding.

The five principles of HS expand the tools of MFIs to incorporate intersectoral and multidimensional approaches to poverty alleviation.

Meaningful partnerships with other organizations are encouraged and increase the capacity of the MFI. Finally, the principles refocus microfinance programs on the individual and ensure that programs are context specific. Taken as a whole, the five HS principles lead to more effective programming as individual, interconnected vulnerabilities are addressed and long-term sustainability refers to the program's impact, rather than funding.

Hypothesis IV: Evaluating Impact, Rather Than Outcomes

An accurate evaluation of a program's impact is necessary to ensure that an organization is meeting the goals of its mission. The evaluation of the "progress" of an MFI typically does not involve an evaluation of the program's impact on poverty alleviation; rather, MFIs look at outputs to determine their progress.[7] Outputs are quantitative, tangible measurements that look only at the activities an MFI has performed (Tadjbakhsh and Kubo 2010). Evaluating MFIs' performance through outputs poses a number of problems, which are explored below. Adopting an HS framework would incorporate a comprehensive impact assessment that focuses on outcomes, not outputs.

MFIs typically measure progress through outputs, such as the number of loans dispersed, portfolio size, default rate, and number of financial literacy trainings. For example, on Pro Mujer's Web site, the "Measuring Our Progress" section contains a table detailing four such outputs—number of clients, number of communal banks, gross loan portfolio, client savings—for each of the five countries where Pro Mujer works (figure 1).

The evidence provided shows that major MFIs—FINCA and Pro Mujer—do not pursue veritable impact assessments to determine how their programs reduce their clients' poverty levels. Displaying outputs on the Web site under titles relating to impact or progress leads the reader to assume that the MFI sees poverty alleviation as secondary to the health of the loan portfolio. Relying on loan data feeds back into the MFI's definition of sustainability—the MFI pursues loan fund sustainability, rather than microenterprise sustainability. Finally, as shown through the FINCA Annual

7 Although the author recognizes that the MFI may use other methods to determine their progress against poverty, the principal source for research is the MFI's Web site. If a true impact analysis is not available on the Web site, the MFI sends the message that the available public data are the primary measurement of its progress.

Figure 1. Pro Mujer's "Measuring Our Progress"

Argentina	2007	2008	2009	2010
Number of Clients	5,758	7,534	9,446	11,011
Number of Communal Banks	247	363	486	648
Gross Loan Portfolio	$669,000	$1,043,000	$1,606,000	$2,429,000
Client Savings	$325,000	$502,000	$137,000	N/A
Bolivia	**2007**	**2008**	**2009**	**2010**
Number of Clients	99,561	103,230	80,618	90,695
Number of Communal Banks	5,425	5,779	5,751	7,383
Gross Loan Portfolio	$21,403,000	$28,012,000	$28,034,000	$34,183,000
Client Savings	$7,555,000	$10,486,000	$8,652,000	$11,023,000

Source: Excerpt from Web site (Pro Mujer 2011).

Report, the impact of microfinance on areas outside income and employment is limited and the causal links are difficult to substantiate.

An HS framework would be more effective in poverty reduction because it would modify an MFI's definition of "progress." Progress would relate to the impact on the individual and the seven components of security, rather than the growth of the organization's outreach. HS, with its primary focus on the individual, requires that a microfinance program move beyond outputs to impact assessment, which evaluates the long-term impact and the sustainability of impact on the individual. Further, an HS impact assessment evaluates the multisectoral impact of a program. This would allow the MFI to explore the positive and negative externalities of the microfinance program, expanding the analysis beyond economic security. Data from an impact assessment help an MFI determine whether its mission and objectives are being achieved and reinforce the need for cooperation across actors and for an in-depth knowledge of the community. An MFI must be aware of other interventions to determine the impact of microfinance versus the impact of other poverty alleviation programs. Further, an MFI can only determine the impact of microfinance by obtaining the perception

Figure 2. Excerpt from FINCA International's 2009 Annual Report

Country	Village Banking Groups	Total Clients	Average Loan Size	Amount Lent in 2009
Ecuador	5,267	53,334	$704	$78,717,447
El Salvador	974	8,357	$397	$7,870,378
Guatemala	3,785	22,202	$314	$12,412,244
Haiti	1,285	12,396	$320	$5,835,613
Honduras	1,462	10,081	$453	$11,136,029
Mexico	9,006	118,419	$419	$149,465,640
Nicaragua	2,185	19,528	$288	$11,201,246
Total	23,964	244,317	$452	$276,638,596

of the target client, which requires a close and trusted relationship with the community. The impact assessment is therefore participatory, which in turn requires a sense of local ownership that feeds into program sustainability.

CONCLUSION

An HS framework refocuses the MFI's mission, objectives, tools, programming and evaluation method to ensure that programs are developed and implemented with the individual—and not the loan fund—as the referent object. HS requires that clients are seen as subjects with agency, encouraging the integration of empowerment into the microfinance toolbox. Conventional microcredit programs fail to integrate a multidimensional definition of poverty into program objectives, which leads to a narrow scope that only has an impact on an individual's economic insecurities. The HS approach involves a number of mutually reinforcing aspects that create feedback effects to ensure that programs are centered on the individual. An effective microfinance program must not only improve an individual's life without increasing vulnerabilities but must also be empowering so the intervention has a definitive life span.

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