INNOVATIONS FOR SUCCESSFUL SOCIETIES

LAND RIGHTS IN THE TOWNSHIP: BUILDING INCREMENTAL TENURE IN CAPE TOWN, SOUTH AFRICA, 2009 – 2016

SYNOPSIS

In 2009, South Africa's second-most populous metropolitan area, Cape Town, adopted a new strategy to usher the rule of law into shantytowns that had sprung up on its outskirts, on state-owned land. Without legal property rights, most of the residents of those communities were vulnerable to eviction and had access to neither municipal services nor home addresses they could use to obtain cell phone contracts or other basic goods. Lacking both the space to relocate households and the money to build enough new houses, the city partnered with a program called Violence Prevention through Urban Upgrading to pilot an in situ settlement upgrade that allowed people to remain in their homes. Through an incremental tenure approach, the city issued occupancy certificates that recognized residents' rights to remain on the land, that protected against arbitrary eviction, and that laid the groundwork for eventual access to the services enjoyed by city residents living in legal housing. The pilot project focused on Monwabisi Park, a community of about 25,000 on the southeastern edge of Cape Town. Beginning with a full enumeration of land, structures, and occupants, the project helped construct a community register, issue occupancy certificates, and extend electric power throughout the area. By November 2016, the first phase of the project had been completed, and hundreds of residents visited the community registration office every month to update their details. Using their occupancy certificates, residents could obtain cell phones, register their children in schools, receive medication from the health department, and open furniture store accounts. However, the second phase of the project—rezoning and physically upgrading the settlement—stalled in late 2016, as Cape Town officials wrestled with the basic question of how to install water and sewerage infrastructure in situ without moving any households. Even with that pause, though, Monwabisi Park offered important lessons for other cities and countries about how to provide poorer, more-transient citizens greater stability and financial access.

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INTRODUCTION

In 2016, Senza Kula recalled growing up in a self-described "shack" in the township of Khayelitsha, 30 kilometers from Cape Town's central business district. Neither he nor his neighbors had any claim to the land on which they lived—nor protection from being ousted at a moment's notice.

Millions of impoverished South Africans lived under similar circumstances, squatting on government-owned land not authorized for residential occupation. For residents of those so-called informal settlements, the lack of legal recognition was in keeping with lives balanced on the edge of law and order. Violent crime, poverty, unemployment, and lack of basic municipal services made everyday life difficult.[1]

Following the end of apartheid policies, which had denied land ownership to most nonwhites, the national government built 2.8 million homes under South Africa's Reconstruction and Development Program.[2] The eligibility requirements for those greenfield developments were strict, however, and in 2014, two decades after the end of apartheid, 2.3 million poor South Africans remained on the public housing waiting list.[3] The housing shortage persisted—despite a constitutional provision that read, "Everyone has the right to have access to adequate housing" and "the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of this right."[4]

With 35.7% of the population living below the poverty line of 3,500 rand (about US$250) per month,[5] the situation in Cape Town mirrored the national picture. In 2007, 109,000 households—representing about 13% of the city's total population of 3.7 million people—still lived in units classified as makeshift structures. Their dwellings were spread across 204 informal settlements on land not zoned for residential use.[6] According to figures from the country's national statistics agency, Statistics South Africa, the situation was exacerbated because Cape Town's population was growing at a rate of 2.6% per year—an annual increase of about 96,000 people.[7]

Many of the newcomers moved into shacks; shack residents lacked basic services and faced the constant threat of eviction whether by the city government or by local bosses.

As the informal settlements grew, the city ran out of suitable land for permanent housing anywhere close to economic hubs. Located on a peninsula and surrounded by mountains and ocean, Cape Town had no room to grow. Moreover, few informal settlers could participate in the existing housing programs. Some had previously been given subsidized houses and had sold or rented them out and moved back into informal settlements. Others earned more than the subsidy threshold of R3,500 per month (about US$250), or they were international migrants who did not qualify for state assistance.

Noahmaan Hendricks, a civil engineer who served as director of development services and housing in Cape Town's Human Settlements Department, said that by 2009, it had become clear that existing policy wasn't working. "We can't try the same failed solution a thousand times and expect a different result every time. That drove us to look at other philosophies," he said. Hendricks stressed that the most important requirement for a new solution was to think differently about informal settlements and the people who live there. "These settlements are simply the people's solution to the government's failure to deliver, he said. "Normally, we reject the people's solution by saying that informal settlements are unacceptable. Instead, we needed to recognize the settlements and support them as the people's solution."

Hendricks and his colleagues turned to an existing €7.5-million partnership that Cape Town had with the German Federal Ministry for Economic Cooperation and Development and the German Development Bank. Under the auspices of the partnership, called Violence Prevention through Urban Upgrading (VPUU), the municipality proposed a new solution and conducted a pilot to upgrade informal settlements *in situ*—where people already lived.[8] A key part of the initiative was the creation of an occupancy certificate, which would serve as recognition by the

city that residents were allowed to live on the land occupied by the informal settlements. Although the certificate would be short of an outright ownership right, it could offer residents stronger tenure security and stronger protection against arbitrary eviction. It also made residents eligible to receive improved basic municipal services. Gradually, the city could grant stronger legal recognition of residents' interests in the land they lived on, thereby regularizing the tenure of poor residents over time.

THE CHALLENGE

Several circumstances shaped the challenges Hendricks and the VPUU would have to meet in order to put an incremental tenure program into practice. One was simply lack of experience—

worldwide—at applying such a strategy for improving land tenure security. The International Federation of Surveyors, among others, considered that the trend was toward flexible legal formulas for increasing security of tenure and away from the idea that only individual rights on the fee simple (ownership) model were adequate.[9] But few countries had implemented that approach.

The cities of Rio de Janeiro and São Paulo had done something similar in Brazil and could offer a few lessons.[10] They had declared informal settlement areas as special zones with flexible regulations to facilitate slum upgrading.[11] Leaders there stressed the importance of having a committed and flexible city government and of building intra- and extrainstitutional partnerships to make the projects work.[12] South Africa's biggest

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Box 1. Greenfield Development and Deed Registration in South Africa

The principal aim of the traditional greenfield approach to informal settlement upgrading was to ensure that by the end of the process, beneficiaries possessed registered ownership deeds to their formal, state-subsidized houses. The steps involved in a typical greenfield procedure were to (1) identify or purchase suitable vacant land and subdivide it into plots of 125 to 250 square meters, (2) install municipal services, (3) identify residents of a selected informal settlement who were eligible to receive the R140,000 (US$10,500) housing subsidy, (4) construct a house for each beneficiary using the subsidy, (5) relocate people into their new houses, and (6) issue deeds of ownership.

In addition to lack of vacant land suitable for greenfield development in Cape Town, a strict regulatory framework excluded many people who had previously benefited from state-housing assistance and many who could not meet income or citizenship requirements.

Charles Rudman, who was Khayelitsha district manager of the Cape Town Planning and Building Development Department, characterized the prevailing housing subsidy approach as one "of everything or nothing"—either you get a subsidy for a formal house in a greenfield development or you get no housing subsidy at all. To qualify for the subsidy, Rudman said, "the first requirement is a household income of less than R3,500 [then about US$250] per month." But that threshold dated from 1994, when R3,500 was a lot of money. Rudman added that with an average inflation rate of around 6% per year since 1994, "R3,500 was no longer a lot of money in 2016" because even very poor people earned more. Further, the system also excluded anyone who had previously received a housing subsidy.

Relocating families to new housing sites, which was central to the greenfield approach, was also politically fraught and socially destructive. Black South Africans remembered forced removals from government land during the apartheid era and how it had frayed the social fabric of affected communities. But post-apartheid relocations, designed to improve people's lives, often had a similar effect. Consequently, as Kula pointed out, "once people got formal houses in different areas, they would sometimes erect another shack [in their original informal settlement] . . . and rent out or sell the [formal] house. It would become part of the problem."

Box 2. The Deeds Registry

South Africa has an improved deed registration system. A buyer's lawyer is responsible for checking the accuracy and truthfulness of information. Unlike many other deed systems, however, the registrar of deeds performs a quality control function while reviewing current documents for errors when documents are submitted for registration.

A lawyer has to prepare the application for registration and check that the person(s) transferring rights in land and the persons(s) receiving those rights is(are) entitled to dispose of those rights and receive those rights, respectively. The contract of sale has to be in writing; otherwise, it was not a valid contract, and registration will not proceed.

The South African deed system is generally held in high regard by international registration experts. However, it is ill-suited to the needs of the poor because it requires the services of a lawyer to ascertain whether all of a parcel's earlier transactions were valid—a process that involves extensive research, which is expensive.

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city, Johannesburg, had also started to experiment with that approach, though it had made little progress. Within the national context, the Urban Land Markets Southern Africa regional program (Urban LandMark), a Pretoria-based research group funded by the UK Department for International Development, provided a conceptual template for incremental tenure upgrading following a 2007 investigation into how the poor access, hold, and trade land in three South African cities.[13]

A second challenge was that international migrants, who accounted for a large proportion of the people living in informal settlements, were not legally entitled to receive formal state housing support.[14] The awful conditions migrants lived in presented the city with a practical problem. "In communities where foreigners hold power, you won't be able to work with them if you don't give them a carrot. And if you ostracize foreigners, xenophobia follows," said Marco Geretto, senior urban designer in Cape Town's Spatial Planning and Urban Design Department.

The third challenge was to improve tenure security in a way that did not entail moving people to other areas. Monwabisi Park, the area the municipality had chosen for the pilot in 2009, presented a host of difficulties. One of the biggest was that without earthworks and relocation— at least temporarily—it would be hard to install the infrastructure for services. Geographically, the

settlement was located on undulating dune fields less than one kilometer from the ocean and adjacent to the environmentally sensitive Wolfgat Nature Reserve.

FRAMING A RESPONSE

Lauren Royston, an urban land tenure security expert and advocate for incremental upgrading who became a key adviser on the project, stressed that official recognition was the crucial element in the incremental tenure approach. There were normally two ways authorities could recognize the existence of a residential settlement, she said: administratively, through the maintenance of registers of people who occupied the land and through the provision of municipal services, or legally, through the formal zoning and subdividing of land for residential use and registration of formal rights such as ownership in the deeds registry. But in Cape Town, at that time, the government did not recognize most informal settlements in either way.

Hendricks lobbied like-minded thinkers within the municipality to develop a practical solution to the lack of recognition in informal areas. Together with Alastair Graham from the city manager's office and Catherine Stone, director of spatial planning and urban design, he started to develop a plan and reached out to the VPUU as a partner.

Launched in 2005 as a jointly funded development program between the city and the

German government, VPUU's central aim was to "build safe and integrated communities by upgrading the existing settlement from essential service levels to basic service levels without relocations to areas outside the settlement."[15] The VPUU program had already developed a track record in Khayelitsha.

Hendricks said that "even though VPUU's other projects in Khayelitsha focused on physical safety, their philosophy and methodology pertaining to community engagement could be transferred to [tenure security improvement]. We wanted to use the VPUU principle of community-based design for our project." After getting approval from the mayoral committee and Cape Town's mayor at the time, Helen Zille, the city formally contracted VPUU to pilot a new solution predicated on enhancing tenure security for residents of informal settlements where they already lived.

Michael Krause, an urban designer, led the VPUU effort. Krause, who had lived in South Africa since 1995, was director of Sustainable Urban Neighborhood Development, a South African company involved in the field of negotiated development in low-income areas. The company was hired to develop and manage the initiative.

The team assessed the difficulties of working in Monwabisi Park, the location of the pilot project. Situated on the southern outskirts of a larger low-income community called Khayelitsha, Monwabisi Park had appeared on the map in late 1996, when residents from neighboring areas invaded then vacant land owned by the city and provincial government. The area was originally named Endlovini, meaning *to take by force like an elephant*. During its early days, the settlement housed a thousand structures and was often used as a dumping ground for stolen goods.[16] The city later renamed the community Monwabisi Park, a reference to *hope* rather than *force*.

Two decades after it was first settled, the area was the home of approximately 25,000 people living in 6,470 households on 64 hectares of land.[17] Monwabisi Park sprawled across four different parcels: three owned by the City of Cape Town and one owned by the Western Cape provincial government, which meant that the VPUU had to secure buy-in from both government spheres before it could proceed with the project.

Like in many informal settlements, the residents of Monwabisi Park were distant from the city's economic heartland—located 32 kilometers away from Cape Town's central business district—and from enterprises clustered near the airport: 23 kilometers distant. The 2011 census showed that in the Greater Khayelitsha area, of which Monwabisi Park was part, more than 44% of residents either were unemployed or had given up entirely on finding work, whereas 74% of households earned less than the poverty line of $230 per month.[18]

Monwabisi Park's residents lacked any formal documents or rental agreements to serve as evidence of their right to occupy a structure and disagreements among residents often led to violence. A 2014 inquiry into policing in Khayelitsha showed that the region had the highest murder rate in the country, with 62% of people reporting they felt unsafe in their own homes during the day, in part because of pervasive gang warfare.[19]

To explore options, Krause consulted Royston, who was with the Urban LandMark consultancy. Urban LandMark laid out a four-step process to address the lack of official recognition in Monwabisi Park. The first step was to work with residents to identify any property registers the community itself had created, map where people lived, issue occupancy certificates based on community deliberation and consent, and identify any implicit administrative recognition arising from municipal service delivery already in place. The second step involved blanket recognition of the whole area through rezoning. In step three, the municipality would introduce formal tenure options such as leases, enforce building codes on structures, and improve service delivery. At the end of the process, the settlement would become a legally recognized township in a step that would authorize the municipality to award individual or group ownership to all residents who held

occupancy certificates recorded in the community registry.

According to the Urban LandMark consultants, providing residents with either individual or group ownership at the end of the process offered several potential benefits: It made land investment more secure because the government could enforce legal protection of tenure. It offered a recognized address and property claim that helped the poor secure loans. And it promoted the inclusion of previously unrecognized informal settlements as part of the municipality.

The VPUU project team decided to embark on the first step in the process—even without a guarantee that the city would rezone and without agreement that the program would grant stronger tenure security in the future. Mapping of the area and the issuance of occupancy certificates endorsed by the municipality and linked to geospatial data (i.e., the location of an occupant) could help create the basis for administrative recognition. Occupancy certificates would enhance tenure security by making evictions, which required court orders, more difficult. Even though a parcel "would still remain city land, [the certificate is] basically saying you have the right to occupy it," said Katherine Ewing, head of the built environment unit at VPUU whose doctorate focused on spatial occupation of informal households.

A potential pitfall of the proposed system was that the certificates would entrench existing inequalities within Monwabisi Park; in other words, people living on bigger plots of land would be at an advantage compared with people living on smaller plots. The first arrivals would claim larger parcels of land, and later arrivals would have to make do with what they could negotiate. That approach stood in clear contrast to the greenfield approach, which strongly emphasized equity with regard to plot and house sizes.

In addition to strengthening residents' security against eviction, Krause pointed out, possession of official occupancy certificates and an associated logical numbering system "would help, for instance, in disaster risk management or in security agencies' responses to specific calls or in the health department's identification of a person's location for the distribution of drugs, because now you'd have people's identity numbers linked to specific locations that are logical. Even if you don't know the correct address, you would know from the neighborhood number and the lettering where in the settlements the person lives."

Because official proof of address was a requirement for obtaining a cell phone contract in South Africa, the certificates could link people into the country's communication networks by providing evidence of a fixed address without "people's having to pretend they live somewhere else," Krause said. "Some network operators accept the occupancy certificate as proof of address." Krause added that the team hoped the certificates would further enable people to obtain credit at furniture stores and, potentially, even home loans. Finally, occupancy certificates that were endorsed by the city could become "big negotiating tools in the hands of the community when they meet with the mayor or city officials, because it sends a clear message that the occupancy certificates are inclusive tools that define a community" Krause said.

Hendricks conceded that some politicians were initially skeptical about the occupancy certificates. "I was told that I lived in a fantasy world if I thought the city's political leadership would approve a project that would take long to bear fruit," he said. Officials appointed by a new mayor, Patricia de Lille, who assumed office in 2011, initially questioned whether to continue a project her predecessor, Zille, had started, even though both mayors belonged to the Democratic Alliance, the country's major opposition party. The team feared that De Lille would withdraw support. But Zille, the Democratic Alliance's leader, became premier of the Western Cape province in mid 2009 and was eventually able to convince the city's political leadership to buy into the plan, Hendricks added.

Box 3. Johannesburg's Attempt to Regularize Informal Settlements

In early 2008, then mayor of Johannesburg Amos Masondo undertook a site visit to an informal settlement on the outskirts of the city. According to Philip Harrison, head of the Development Planning and Urban Management Department in the City of Johannesburg, Masondo was appalled by the living conditions in the settlement. He instructed city officials to "bring dignity to the poorest citizens of the City of Johannesburg by providing decent housing and eradicating informal settlements by 2014."

Like their colleagues in Cape Town, officials in Johannesburg struggled to keep up with the growth of informal settlements. "The rate of delivery of formal houses is not sufficient to make a significant impact on the existing level of informality. Formal housing schemes [also] generally don't address the historical nonqualifiers, and they lack flexibility," Harrison said. At the time, Johannesburg had 183 informal settlements housing 220,000 people.

Royston said, "The planning department took up the mayor's challenge . . . It was a good coincidence of political will with technical [skills]." Following a visit to Brazil to learn from that country's experience with in situ upgrading of favelas, Harrison's department submitted a report to the mayoral committee in April 2008. The report outlined a new approach to informal settlement upgrading, dubbed *regularization*. The mayoral committee adopted the report on April 25, 2008, and the city set up a high-level Informal Settlements Formalization and Upgrade Steering Committee to coordinate the regularization process.

The planning department's response was to "look at how rezoning . . . could provide enough security for the utilities to invest. That was the key thing: what was needed for development [to take place]," Lauren Royston, who worked on the project as an Urban LandMark technical adviser, pointed out. Through a series of workshops facilitated by Abrahams of Urban LandMark, it emerged that Johannesburg's existing zoning scheme did not have a category for informal-settlement upgrading. As a result, planners worked through the city's legislative process to amend the town's planning scheme. They developed a new zoning category called *transitional residential settlement areas*. Royston emphasized that "What was the important part for tenure security was that they attached conditions that included the issuing of occupancy certificates to people living in these zones." The regulations also stipulated that the state own the land or obtain permission from the landowners to officially recognize informal settlements slated for regularization and that each settlement have access to basic municipal services. At that point, "We thought it had all the right things around the rules," Royston added.

But the project stalled in the implementation phase. By early 2012, "regularization in Jo'burg had lost its institutional momentum," Royston said. In order to regularize an informal settlement, the planning department intended to engage the community in a full enumeration process, followed by the creation of a community register and the issuing of occupancy certificates. Of the city's 183 informal settlements, 20 had been originally earmarked for regularization. But it was in only one settlement—the small community of Happy Valley—that an enumeration took place—by an external service provider contracted by the city. No occupancy certificates were issued under the project.

Royston pointed to lack of a stable institutional home as the main reason the project stalled. "When the project was moved [from the planning department] to housing [in 2012], it lost momentum." Harrison also resigned as head of the planning department in late 2010, and the project's political champion, Mayor Masondo, was replaced by the African National Congress in May 2011. Despite its limited success, "it was quite innovative in trying to . . . bring tenure security into land-use management, which is not how the law usually works here," Royston said. The project provided a precedent to use "special zones . . . to legally declare an informal settlement, thereby legalizing the land use," she added.

On the other side of the country, officials of the Violence Prevention through Urban Upgrading partnership used the Johannesburg experience as a reference point in designing their own approach in Monwabisi Park.

In addition to tensions between politicians, Krause noted, some city officials were initially "not in favor of [the certificates] because they feared the certificates would give occupants legally enforceable ownership rights to land that belonged to the city and would thereby complicate an engineering-led informal settlement upgrading project." Past policy had already assuaged some of those concerns, however. Notably, during the 1990s, local authorities in Cape Town had used a similar system of site allocation cards to regularize tenure in several settlements,[20] so there was a precedent. Further, everyone had already agreed that the Monwabisi occupancy certificates would contain clear language indicating that the city remained the sole landowner. Geretto explained that "the certificates just recognized people's presence on the site. It is a political gesture, a gesture of goodwill. It was all part of the negotiations [between the community, the city, and the VPUU]. The focus was on building trust in the community."

Geretto added that officials also came to view the certificates as a way to "understand who would be a participant in the upgrade . . . The city was concerned that once the project gained momentum, there would be rapid movement into the settlement." And to prevent "those with political or social power from simply pushing out the most-vulnerable inhabitants [in order to benefit from the planned upgrades], the city could use the certificates and registry to fall back on, to ensure a more equitable outcome," Geretto said.

Legal recognition was the other important component of the project. To make the system work, Cape Town would have to rezone the area selected for the pilot. Royston said that Johannesburg, South Africa's biggest city, had tried to "regularize" informal settlements through rezoning a few years earlier, in 2008. A special zone for informal settlements—called a *transitional residential settlement area*—could provide enough security for the local government's utilities departments and the national electricity provider, Eskom, to invest. In order to lay the foundation for legal recognition, "the key thing was creation of the zoning conditions required for development," Royston said. But Cape Town did not yet have a special zoning category for informal settlements earmarked for upgrading.

The project team decided to focus on preparing a municipal rezoning application so that Monwabisi Park could carry out in situ upgrading of service infrastructure. The VPUU would have to submit a formal land-use management application to subdivide and develop the land on which the settlement was to be built. They aimed to develop a proposal whereby no more than 5% of households would be relocated out of the area, and only an additional 4 or 5% of structures would require "alteration."[21]

This part of the plan hit a bump. As part of the process, the team needed data on the topographic and geologic features of the settlement, but the team could not access the data at the time. Because there were as yet no plans for major infrastructure development requiring city approval, however, the team decided it could postpone the rezoning application and instead move forward with enumerating the community and issuing occupancy certificates. This part of the process could begin quickly, although the enumeration survey would take time in the context of Monwabisi Park, which did not have an organized layout or a land parcel numbering system.

GETTING DOWN TO WORK

With Monwabisi Park selected as the pilot site by late 2009, the VPUU project team's initial focus was on establishing a strong working relationship with the community before any of the technical processes could begin. Development of a community action plan would follow, including conducting a full enumeration, assessing eligibility, creating a community registry, and enabling official recognition by expanding service delivery, issuing occupancy certificates, and submitting a rezoning application for the area to attain formal residential status. The rezoning application would be ready for submission to the municipal planning department only by late 2013.

Community Engagement

Kula explained that the first step, taken in mid 2009, was to meet with community stakeholders, explain the purpose of the project and the grounds for selecting Monwabisi Park, and then invite conversation about the idea and how it might be useful. Kula said, "We always preach that we are there as partners and that we need to find ways to work together." Civic groups had emerged as a form of alternative government to the state during the apartheid era. They continued to exist as local political units but with different mandates after the demise of the apartheid system. In Monwabisi Park, the civic groups belonged to the African National Congress (ANC)–aligned South African National Civic Organisation (SANCO).

Following a series of town hall meetings with Monwabisi Park's community-based organizations and elected political leaders, known as *ward councillors*, the VPUU aimed to set up a 16-member Safe Node Area Committee (SNAC) as a vehicle to foster community engagement. The emphasis on *safety* reflected in the title of the group stemmed from the VPUU's general focus on violence prevention. SNAC was an approach the team had used previously in other communities in Khayelitsha. "The process of setting up a representative local leadership group is a conscious and participatory one. We acknowledged the local structures by specifying that 50% of the members of SNAC would be representatives affiliated with existing civic organizations," Krause said.

The project team also had to be sensitive to the often violent power dynamics in the settlement, which included tension between local branch members of the ANC and the Democratic Alliance.[22] Whereas the ANC had governed South Africa at the national level since 1994, the Democratic Alliance had won elections in the Cape Town municipality since 2006. And in order to avoid politicizing the project, people directly representing any political party were not allowed to serve on SNAC.

The other half of the 16-member SNAC would be elected from among representatives of task-based organizations working in the community, such as early childhood development forums, health forums, or other use-groups with existing mandates, Krause said, adding that the 16 representatives were not elected directly by community members but by existing civic and other community-based organizations. "The idea is that whatever happens on SNAC, those [representatives from community-based organizations] would then take the responsibility to filter and report back to their constituencies," Krause said. Monwabisi Park's 16 SNAC representatives were duly elected in August 2009, which was followed by an eight-week leadership training course. Thereafter, the VPUU and SNAC commenced the community planning process.

According to Kula, "The planning starts with a series of consultative workshops in which we ask SNAC to tell us what's going on in your community . . . We ask them: What are the issues? What do you have in this area? What do you know about Monwabisi Park?" One of the key insights revealed during the workshops was the existence of a rudimentary SANCO-maintained community register, which contained a partial database of Monwabisi Park's residents.

To expand the scope of the planning exercise beyond monthly SNAC meetings, the VPUU conducted a community survey in August 2009 that, among other things, opened a conversation on an action plan for improving conditions. The project's first important landmark occurred with formal adoption in February 2010 of a community action plan by then mayor Dan Plato during a public ceremony in Monwabisi Park.

The document laid the foundation for the rezoning proposal that the VPUU planned to submit once the new Cape Town zoning scheme had been adopted. The community action plan consisted of five pages of practical suggestions to improve Monwabisi Park. Residents were concerned primarily about infrastructure delivery such as electricity, toilets, and roads; improved safety and security; and enhancement of economic opportunities.[23] Kula pointed out that "the community action plan is an overview of what communities want. It is also a lobbying tool

whereby we could meet with specific departments within the city to try to get them to include these plans in their budgets." The mayor's endorsement of the plan served as an important signal from the city to the community that the mayoralty was prepared to officially support the upgrading project.

Enumerating Monwabisi Park

Building on the momentum generated through the process of community engagement, the team pivoted to the next phase in May 2011: conducting a full geospatial enumeration of the settlement. The municipality had neither an address, numbering, or registration system for dwellings in Monwabisi Park, but informally, the community itself had created some of the elements.

Ewing explained that "there was this beautiful old Book of Life that looked like something out of Harry Potter." (Harry Potter was a globally popular children's book series set in a wizards school.) The Book of Life was in fact an informal register created in 1996 by the local SANCO branch. New arrivals in Monwabisi Park had to pay R50 (about $3) to SANCO in order to get registered in the book and to occupy a site.

The VPUU also discovered that some residents possessed municipal service cards dating back to 1998, when the city had installed the first rudimentary communal toilets and water connections in the area. Residents referred to them as *WP cards* because they contained the letters *WP* (which stood for *Western Province*), followed by a series of numbers—for example, WP-123. But few of the original recipients still had the cards, and later arrivals never received them. The cards were also "totally not spatial, with no relationship to the physical location of households," Ewing said. "So, for example, mail carriers would have no understanding of how to deliver a letter to that WP number."

The Book of Life's association with a political organization also raised questions about equity and inclusion. "One can assume that if you were affiliated with the organization, the chances were higher that you'd end up in the book," Krause said.

In addition to potentially excluding people not affiliated with SANCO, "it didn't contain any transactions or reflect changes if a shack burned down. It was just a chronological list of names based on when people arrived," he added.

Realizing that the book was political, Ewing said they were very careful to choose the right words to explain what they wanted to do. Instead of framing the planned enumeration process as something totally new, the VPUU team resolved to "update" the existing book, and instead of using the WP cards, they promised residents they would receive new, updated numbers that would be linked to their residential locations and integrated into the municipal system as a service number.

After consulting with SNAC and municipal line departments from March to May 2011, the VPUU settled on shared language to explain the purpose of a community survey: to establish an agreed list of residents currently living in Monwabisi Park and "to record information that is important proof in processes of rights determination."[24] The group then designed the survey instrument and recruited and trained community volunteers. And a full community enumeration got under way in June 2011.

Clearly communicating the purpose of the enumeration was of utmost importance. From the outset, "we emphasized in all of our interactions with the community that the purpose of enumeration is not to advocate for [residents to get] title deeds [and therefore ownership]," Kula stressed. The VPUU made it clear it was not conducting the enumeration in order to build houses or give residents ownership over the land. Instead, the group explained that the goal was to gather information on the settlement so that it could develop a plan for settlement development.

Stage one of the enumeration procedure, from June to August 2011, focused on the geolocation and mapping of all of the 6,470 structures in Monwabisi Park by using handheld GPS devices. The VPUU recruited 30 local volunteers through SNAC to do the fieldwork and compensated them for daily expenses, Kula said. In addition to those SNAC-recruited volunteers, the enumeration team

included VPUU staff, a contracted geographic information system specialist, and university students to train volunteers and oversee the enumeration. The process of physically geo-locating the 6,470 structures lasted from June to August 2011.[25]

The second stage of the enumeration exercise—face-to-face interviews with the head of every household in the settlement—was decidedly more difficult. The aim was to obtain information on the number of people in each household, as well as the household head's name and identity number.

Although the VPUU partnership's ongoing engagement with the community through SNAC meant that staff members had begun to win residents' trust, the group still had to train volunteers to interact effectively with residents during the interviews, which lasted 20 to 30 minutes.

The VPUU split volunteers into teams of four and assigned each member responsibility for one task: One team member spoke with respondents in the household. A second took photographs of the structure and the head of the household. A third captured the household's GPS coordinates, which established a universally recognizable location. And the fourth stuck an interim survey number on the side of the shack upon completion of the interview.[26] According to Kula, "It was a quite intensive process. The questionnaire had four sections: demographic information, services in the household and surrounding area, safety, and the residents' levels of awareness about the VPUU project." In order to paint a comprehensive picture of residents' living conditions in Monwabisi Park, the interview went beyond the types of questions normally required for a housing application.

Krause said, "We ended up doing repetitive rounds of surveys because initially, we weren't convinced of the accuracy of the geolocation data." He added that after the first attempt, "we realized that the training of field-workers had to be improved to ensure that all houses got covered." During the two subsequent rounds, the VPUU also "developed stronger systems and included a map

book that subdivided the settlement into much smaller sections that were easier to manage," Krause said. They also decided to paste stickers on all surveyed houses so as to visualize whether houses had already been surveyed. Only trained community members, under supervision by Khayelitsha-based research group Sikho, conducted surveys. The first round of interviews, conducted from June to October 2011, reached 90% of households in the settlement.

To reach the missing 10%, SNAC and VPUU resolved to extend the surveying process. They intensified their efforts to advertise the enumeration by hosting a number of community meetings across Monwabisi Park's four residential sections and put up posters throughout the settlement. They also divided the volunteers (eight of whom agreed to stay on after the first round of interviews) into two teams. The first team went door-to-door using GPS's to contact missing household heads. The second remained at a permanent VPUU site office in Monwabisi Park to be accessible to residents.

According to a VPUU report published in 2014, following the intensification of advertising efforts, "Residents started visiting the enumeration office in significant numbers to ensure that they were included in the enumeration database. This showed that enumeration was being recognized as an important process by the residents."[27] By May 2012, 97% of households in Monwabisi Park had participated in the enumeration survey. In total, the geolocation and interview process together lasted 11 months, from June 2011 to May 2012.

The existence of the on-site VPUU office enabled residents to easily verify their data. From June to November 2012, residents could visit the office to check their information and request changes when necessary. Once residents had reviewed their information, they received printouts indicating their names, surnames, identity numbers, and the locations of their structures. By November 2012, more than 30% of residents had visited the office to verify their information.[28]

Despite the challenge of reaching every household in the confusing geographic context of

an informal settlement, the enumeration created the first-ever reliable picture of Monwabisi Park's basic spatial and social outlines.[29]

Creating a numbering system and community register

With detailed data on the position of each structure, as well as information about 97% of the settlement's residents, the VPUU next evaluated avenues for pursuing official recognition from the municipality. In late 2012, the project team took the first step toward harnessing such data by creating a new numbering system for Monwabisi Park. "Right from the beginning, one of the intentions behind the enumeration was to use it to create a [plan to install services and infrastructure in the settlement] . . . But we first needed to get a logical numbering system that would let us be flexible in future," Krause said. Whereas in the past, "different institutions would come and put a number on the shacks, we wanted one number per shack to serve all service providers." A single numbering system would reduce the potential for confusion when different organizations supplied services to a community.

To create a visual map of the area, the VPUU entered the enumeration data into a geographic information system. Due to the richness of the global positioning and social survey data collected, the VPUU team could use existing walkways between the shacks to demarcate individual blocks. Krause said, "Working from east to west, what we did was to have 32 superblocks going from one side to the other. Those were further subdivided into 159 neighborhood blocks."

Individual households within each neighborhood block were then assigned a number from 1 to 100. The result "was like a chessboard," Krause said. In the east, "it would start with superblock 1, neighborhood block A, house number 1." The new address simply read 1A-1. By August 2013, VPUU field-workers were stenciling the new addresses onto shacks throughout the area. The result was that for the first time, "people in Monwabisi Park got permanent numbers," Krause said.

With a coherent numbering system in place, the focus shifted to consolidating all of the information into a comprehensive registry that would be accessible to the community. The VPUU printed three physical copies of a map book containing all of Monwabisi Park's registry information: one copy was kept in the on-site office, another was kept in the VPUU's Cape Town head office, and a third was provided for the city's Strategic Development Information and Geographic Information System Department's research hub for sharing with other municipal line departments.

But the new registry was not fully integrated into the city's housing waiting list because the housing list kept track only of city residents who were eligible for housing subsidies. By contrast, the Monwabisi Park data included everyone living in the settlement—even people who did not qualify for subsidies. Krause argued that ideally, "the city could compare the housing list with the Monwabisi list to look for matches, especially because—to our knowledge—the municipality doesn't have a citywide database for people living in informal settlements." In Krause's view, the failure to integrate the data reflected "fear of exposing the city to risk [through acknowledgment of residents who did not qualify for housing subsidies], as well as an unwillingness to potentially give up a bit of power" to the community by endorsing the register. Krause stressed that the Monwabisi Park enumeration data "was some of the most accurate in Cape Town, because it combined per-household GPS data with identity numbers and unique household information."

Krause said that when they submitted the registry to the city, he emphasized that it would soon become outdated. "People are born there, people die, people move, and people marry. We're still struggling with causing the city to understand that it's not a static system, so we have to be very fast and very efficient in keeping it up-to-date." To try to stay on top of changes despite the city's hesitance to fully integrate the data, the on-site VPUU office in Monwabisi Park was converted

into a registry office. The VPUU employed full-time community facilitators to enable residents to continually verify and update their information. When residents moved out of the settlement or when new tenants moved in, they were encouraged to update their details at the site office.

Each month, 20 to 30 people visited the office to update their registry information, Krause said, but many more residents undoubtedly had changes in status that they did not log. Part of the problem was the fact that geographically "there was no ideal location for the registry. We had only one office but should probably have had four: one for each section in the settlement. But that would not have been financially viable," Krause pointed out.

Determining eligibility and issuing official documents

Despite its limitations, by late 2013 the completed community registry provided the project team with an opportunity to take the biggest step to date on the road toward administrative recognition: the issuance of formal occupancy certificates to residents of Monwabisi Park. But before the VPUU could pursue the idea with city officials, it had to define which members of the community would be eligible to receive the certificates.

Based on the city's legal framework, the key requirements for a person to receive an occupancy certificate were to be resident in Monwabisi Park and to have a South African identity number. That meant that non–South African residents were not eligible to receive the documents, but unlike the standard housing subsidy system, the system did not discriminate based on household income or whether residents had previously qualified for state housing assistance.

The community registry remained open so that people could go to a Home Affairs office to get an identity document and then return to apply for a certificate. Although the VPUU could not help people get their identity documents, it could explain how to apply and could provide advice. For that purpose, "we had a community facilitator on site, on the ground," Ewing said.

The team also decided that the occupancy certificates would be issued in the name of the household head. As revealed by the enumeration survey, women headed about 46.2% of the households in Monwabisi Park. And whereas the protocol meant, therefore, that almost half of the occupancy certificates would automatically be issued to women, VPUU ensured that coregistration was also possible for women living in male-headed households by including space to list on the certificate the names and identity numbers of two additional registrants. Ewing emphasized that tenants, who were often transient, weren't entirely excluded from the upgrading process because "they were also included in the community register."

Under the earlier agreement that the VPUU had reached with the city, only residents included in the community register would be eligible to receive certificates. According to Geretto, "Once your name was on the certificate, you had a right to participate in the process, provided that you met the other criteria for housing." The city also printed the following on the occupancy certificates: "Selling, renting, or subletting of the land is unlawful and will not be tolerated. The land is not transferable to relatives, friends, or any other person, as the city remains the only competent authority to exercise the right to authorize any change of occupancy." The city government also required that the dominant use of the dwelling remain residential.

On February 20, 2014, Cape Town executive mayor de Lille officially endorsed the occupancy certificates during a public ceremony in Monwabisi Park. In her speech, she said she regarded "the issuing of tenure certificates [as a] milestone." She explained that the certificates could be used as proof of residence and as an address, thereby "opening the door to financial and other opportunities."[30] Most significantly, she proclaimed, "These certificates provide the assurance to each household in Monwabisi Park that they are an acknowledged part of the upgrading of the area and that the city

acknowledges that Monwabisi Park residents are authorized to reside on city-owned land."[31]

In a major step toward securing administrative recognition of the area, Mayor de Lille handed over 6,470 occupancy certificates—one for every registered household—to the on-site registry office. Executive Director Seth Maqetuka of the municipality's Human Settlements Department signed each one.

By July 2016, the city and the VPUU registry had distributed 85 to 90% of the occupancy certificates, Krause said. "If the certificate wasn't collected, we would visit the house three times and leave a slip under the door asking them to come to the office. But we would issue it only to the registered person." When recipients arrived at the office to collect their certificates, "We made copies of their identity documents and took a photograph of them," Krause said.

Linking the settlement with municipal services

The city's official endorsement of the community register provided an opportunity to expand municipal services in Monwabisi Park. In Cape Town, local and national legislation required the municipality to provide a set of "free basic services" for "indigent households." The Municipal Systems Act of 2000 covered any "municipal service that is necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety or the environment."[32] In Cape Town, households earning less than R2,880—about US$200 per month—qualified for free basic services.[33]

Consequently, the City of Cape Town aimed to provide six kiloliters of free water (located within a distance of 200 meters from the household) per month for impoverished households, 50 kilowatt-hours of electricity for indigent households connected to the national grid, and an 80% subsidy on the monthly operating fee for off-grid systems like solar power. The municipality was also mandated to provide "safe, clean, hygienic, and reliable toilet facilities," and the "most appropriate

level of waste removal service based on site-specific circumstances."[34]

In 2001 and 2002, the municipality installed 30 communal taps along the main road running through Monwabisi Park. In 2006 and 2007, the city also installed 358 communal toilets in Monwabisi Park and provided basic solid-waste-removal services whereby field-workers collected refuse from across the settlement and stored it in containers until trucks came to collect it. In 2011, as part of the new upgrade, the city's Water and Sanitation Department began working with the VPUU on plans to provide a further, 153 standpipes with two taps per pipe.[35]

Electrification remained a pressing need. Although 41% residents made use of informal electrical connections in 2009, the connections were often illegal and unsafe.[36] As a result, in a series of five meetings from March 2011 to March 2012, representatives of the municipality, the national electricity provider (Eskom), the VPUU, and SNAC, as well as other interested community members, assembled to develop a plan that would expand electrification in the settlement by using data from the community register.

While the community register was being created during 2012 and 2013, Eskom undertook a phased electrification process in Monwabisi Park. By the end of three phases of electrification in 2013, "we got 100% coverage," Krause said, stressing the fact that "Eskom electrified on the basis of the enumeration [data]. And it was also a good example for us, because the phased approach meant that we got the community to self-regulate" in terms of deciding which structures would be electrified first, he said.

The community register potentially provided a basis for collecting municipal rates (property taxes) and service fees. However, the fact that the city's indigent policy exempted properties valued at less than R88,000 (US$6,126) meant that people did not have to pay municipal rates. Krause said that if incomes rose in the future, residents could help pay for services. "The fact that there's now one unique number linked to your identity number means we're setting up the system for the city [to

potentially collect municipal rates in the future],” he added.[37]

Assessing and mitigating environmental impacts

By mid 2013, the project's focus had shifted toward formally rezoning Monwabisi Park in preparation for the installation of major infrastructure. Krause said that whereas the earlier challenge had been to find ways to coordinate with the community, the VPUU now had to coordinate with municipal line departments with regard to requirements for submitting the rezoning application. “What was important at that time was that we had an informal settlement working group with senior management all together. They had a mandate to work in selected settlements, including Monwabisi Park.”

One prerequisite for submitting a land-use management application was approval from the provincial environmental affairs department. Janet Bodenstein, head of environmental management frameworks and review in Cape Town's Environmental Resource Management Department, said, “The need for an environmental impact assessment arose primarily from the fact that 13 hectares of critically endangered indigenous vegetation would have to be cleared in the process of developing Monwabisi Park.”

The VPUU planned to use the area of cleared vegetation as a zone that would be transitional to the Wolfgat Nature Reserve and would serve as an emergency access point, a sports field, a road, and a settlement area for the 5% of households that would have to undergo temporary relocation as part of the planned future development.[38]

The VPUU first submitted to the provincial Department of Environmental Affairs and Development Planning a notification of intent to develop the area, said Daleen van Zyl, a project officer in the city's Environmental Resource Management Department. The partnership then launched a public-participation process. “The big thing was that we had to notify every single household on the site,” van Zyl explained. “We got help from the city's Human Settlements Department, which went out over a weekend to drop off letters at every single structure.”

The next step was to process comments about and objections to the proposed rezoning and development of the area. Bodenstein pointed out that the primary objection came from Cape Nature, the provincial government agency that maintained wilderness areas and public nature reserves in the Western Cape. “They were not at all keen on losing 13 hectares of indigenous vegetation.”

Although “it was not an easy process to get them to agree,” van Zyl recalled, Cape Nature eventually acquiesced after the VPUU agreed to accept three conditions: The first was to cordon off the area next to the Wolfgat Nature Reserve before construction so as to prevent people from entering the reserve or just moving there, said Bodenstein.

The second condition involved conducting a search and rescue of local fauna in the affected area before any work took place. “So the biodiversity branch of the Environmental Resource Management Department would go in, have a look at the vegetation, and see whether it could remove some of it and use it in a different nature reserve,” Bodenstein added.

Finally, Bodenstein said, “Cape Nature recognized that benefits would be obtained for the adjacent Wolfgat Nature Reserve from there being a defined boundary between Monwabisi Park and the Reserve in the form of a road that would act as a firebreak as well.” The more-secure boundary would provide a management edge and enable an additional piece of land to become a formal part of the Wolfgat Nature Reserve. It had not been previously proclaimed as part of the reserve largely due to the uncertain boundary with Monwabisi Park. Cape Nature's third condition was that the additional piece of land be added to the reserve.

With those conditions in place, the provincial Department of Environmental Affairs and Development Planning granted environmental authorization for the project on May 27, 2016.

Hitting an Impasse over Zoning and Services

By late 2016, the rezoning effort remained in limbo for a number of reasons. Normally, it would

make little sense to invest in an incremental tenure system without assurances that the city would zone the area for residential use. But when the Urban LandMark workshops took place in 2010 and 2011, Cape Town did not yet have a special zoning category to cover informal settlements earmarked for upgrading. Gemey Abrahams, an Urban LandMark consultant who participated in the workshops, explained that at the time, Cape Town was planning to introduce a new zoning category designed specifically for informal settlements and to be called Single Residential Zone 2, or SR2.

Abrahams described the proposed zoning as "flexible" and designed to "take a settlement from being very informal, with no specific individual plots identified, to more-individualized, single plot rights."[39] The SR2 zone would facilitate upgrading and incremental housing "from an informal settlement to a formal settlement [with] development rules that are not very restrictive," an African Centre for Cities report said.[40]

Although at the time it was unclear when the city council might approve the proposed zoning, the VPUU resolved to wait for adoption and then submit a formal application to rezone Monwabisi Park under the SR2 category. According to Abrahams, "It simply didn't make sense to rezone it under other legislation or the old zoning scheme if new regulations were on the way." The new Cape Town Zoning Scheme, which contained the SR2 provision, was adopted in December 2012.

In the meantime, the project team focused on preparing the application documents that would be needed to rezone Monwabisi Park to SR2. To facilitate the upgrading of service infrastructure in the settlement and thereby subdivide and develop the land on which the settlement was built, the VPUU had to submit a formal land-use management application that included the proposed rezoning plan. The plan called for the land occupied by the settlement to be rezoned to SR2 from "agricultural" and "limited-use" zones, neither of which allowed (1) buildings to be altered or (2) the installation of services.[41] The team aimed to propose that no more than 5% of households be relocated out of the area and that

only 4 to 5% of structures would require "altering."[42]

Because the settlement was spread over four properties—three of them owned by the city and the other owned by the provincial government—the VPUU joined an existing "intergovernmental relations forum on area-based approaches," which included city and provincial officials. Through the forum, the participants drew up a proposal that called for the land taken up by Monwabisi Park to be spun off (subdivided) from the four land parcels and consolidated into two separate properties owned by the City of Cape Town.[43] Because of the extensive consultation process with the community and the detailed planning work required to draw up the plans, the rezoning and subdivision application was submitted to the municipality only in November 2013.

With the rezoning application, the VPUU also requested approval of a comprehensive development plan that had emerged from community-based workshops during 2013, Hendricks said. And at that point, troubles began to arise. Practical considerations stymied the VPUU's proposal to upgrade service infrastructure without significant changes in the tightly sewn patchwork of buildings in Monwabisi Park. The application called for installing roads as well as sanitation, water, and storm-water services to ensure that every household had individual street access, as well as its own water tap, toilet, and electrical connection.[44] But the city's line departments and engineering consultants said doing so without changing the existing layout of houses and other buildings would be extremely difficult and inordinately expensive.

Charles Rudman of the city's Planning and Building Development Department described the problems of installing infrastructure in a "chaotic layout" like Monwabisi Park's. "You have to follow a grid if you want each individual structure to connect to water, for example," he said. "The more we start to bend [pipes] and the more junctions you create, the more potential you have for blockages." Geretto, who was with the city's Spatial Planning and Urban Design Department,

said that estimates on the VPUU's in situ infrastructure-upgrading proposal could cost 30% more than a standard greenfield services installation and would result in additional operational expenditure due to more-onerous maintenance requirements.

Johan Gerber, who headed the city's informal settlements division, was blunt: "When I put on my engineering hat, I cannot see it working. The problem is the definition: If you have to relocate even one household [out of the settlement], then it's no longer in situ. But you cannot ignore commonsense engineering standards just to do an in situ upgrade." Gerber also pointed out that in the existing informal layout of Monwabisi Park, informal property sizes were exceedingly unequal because the biggest lots had been taken by those who came first, and the proposed in situ upgrading would permanently entrench that inequality.

Instead of steadfastly refusing to relocate any residents while installing municipal services, Gerber was in favor of a physical upgrading approach called *reblocking*, which the city had piloted in other, smaller settlements. Under reblocking, dwellings are dismantled and residents relocated into temporary housing so that "we can do earthworks under normal engineering standards," Gerber said. "Reblocking means people accept that they would have to take down their structures while we go in and do the engineering, create an orderly and equal layout, and put in services. And then they move back in and rebuild their structures according to the new layout—preferably with new materials donated by [nongovernmental organizations]."

But Krause argued that to meet the city's requirements for the installation of municipal services following the traditional engineering approach, "you would [need to relocate] 40% of the people [to areas outside Monwabisi Park]. That would undermine the original task, which was to work within the existing footprint with agreed modifications at the edges." If the city decided to take the reblocking approach of relocating residents, leveling and servicing the land, and then moving many of the original residents back, "you

start a completely new argument about plot sizes—outside the context of the original footprint—which is a political argument."

Ewing said that the VPUU had envisioned a cooperative effort by the community and the government. "If we could get legal and administrative recognition together, then we'd have an officially recognized settlement with a community that is willing to be part of the development," she said.

Lack of communication between the VPUU and municipal officials when the project began in 2009 had given rise to the stalemate, Geretto observed. "The municipal planning department didn't immediately have a detailed plan [from the VPUU] because it understandably took them a long time to do things like topographic surveys," he said. The VPUU also had to wait until late 2012 for the city to adopt the new zoning scheme. As a result, "We didn't get into the details of how to install services; we saw the plan for the first time in late 2013," he said. By that time, "the softer, social engagement process had gotten ahead of the harder, rezoning and physical-development-planning process, and the VPUU had already made a commitment to the community" that residents would not be relocated.

By mid 2016, after three years, the rezoning remained stuck. Some predicted the plans would be rejected. Rudman declared: "You can't go into a context like that and say you won't move people at all. That is just as wrong as engineers' dogmatically sticking to standards and not being prepared to innovate. People were not prepared to say, 'Let's make trade-offs.'"

OVERCOMING OBSTACLES

Rezoning was not the only challenge. Periodic community disputes and a threatened land invasion in 2014 required the VPUU and SNAC teams to periodically resolve disputes to protect their gains.

The project team's desire to keep the registry updated meant it had to be prepared to sort out competing claims to land. According to Ewing, certain challenges started to emerge during the verification phase of the enumeration process. "In

some instances, people were assigned the same number." Another challenge involved "intrafamily claims against the same [structure]: the boyfriend would come and take the number, or an unmarried couple with children would break up and both partners would claim the same structure."

The VPUU's solution was to train registry office staff in conflict resolution. Ewing said, "We brought in conflict mediation experts from the University of Cape Town [to train] our team of community representatives and local leaders on-site." Even though such "intrafamily claims are by no means an easy thing," the presence of trained mediators played an important role in preventing the escalation of disputes, Ewing said.

In early 2014, the magnitude of the challenge presented by community disputes intensified. One of the conditions the municipality had attached to the occupancy certificates was that no new residents would be allowed to settle in Monwabisi Park. But in the run-up to the 2014 national elections, a group of 200 homeless people affiliated with the Economic Freedom Fighters (EFF), a newly formed radical political party that advocated land invasions across the country,[45] threatened to launch an invasion of the little remaining vacant land in Monwabisi Park. With the project gaining momentum, the EFF saw an opportunity to force its way into the settlement in order to benefit from the upgrades. "The people were waiting in backyards across the road from Monwabisi. They had drawn lines on open land in the settlement to show where they wanted to erect their structures, and they said: 'Tomorrow we're coming,'" Krause said. The EFF targeted areas at the edge of the settlement to build new structures for people to live in.

The attempted invasion led to tense standoffs between the EFF on one side, and residents, the VPUU, and the city on the other. According to Krause, when the attempted invasion happened, the registry office had already handed out 60% of the occupancy certificates, but "a local highly politicized group" threatened to burn the office and steal and distribute everything that remained. Krause's staff moved not-yet-issued certificates to

individual households so that they were out of harm's way. "We had people literally standing in a closed circle around the office [to protect the documents]," Krause said.

With tensions escalating, the VPUU turned to local SNAC leaders for support. The VPUU mobilized help from SNAC, senior city officials like Human Settlements Department director Maqetuka, and the city's anti-land-invasion unit. "We were on-site every day, and for two or three months we had intensive negotiations [with the invaders]," Krause said, stressing that it was ultimately the community's ownership over the project that enabled them to convince the invaders to back down. "The community leadership didn't drop us. They safeguarded it." The would-be invaders backed down in the face of community opposition.

ASSESSING RESULTS

By mid 2016, the project in Monwabisi Park had yielded significant achievements in the quest to upgrade tenure security in the settlement. The most noteworthy achievement was that 85 to 90% of the 6,470 household heads in Monwabisi Park acquired occupancy certificates under the program. The officially endorsed occupancy certificates amounted to administrative recognition by the city that residents were permitted to stay on the land.

For those households, the certificates had practical utility. In addition to being able to get cell phone contracts, "[Residents] could comply with the legal requirement to provide proof of address," Krause said. "This enabled residents to apply for furniture store accounts." The certificates also enabled the city health department to administer medication more accurately and enabled residents to enroll their children in nursery schools and public schools. "Those are real benefits to the community," Krause said. There was also a psychological aspect to possessing an occupancy certificate. "People are very proud to have one," he added.

The community enumeration was also a key milestone in the initial community engagement phase of the project. Mayor Patricia de Lille

Table 1. Resident interaction with the Community Registration Office
(number of visits to the Monwabisi Park registration office)

Reason for visit	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016
Total visits to the registration office	35 (100%)	24 (100%)	48 (100%)	304 (100%)	1144 (100%)
Update existing household record (*e.g., cell number, address, surname, new household member*)	34 (97%)	7 (29%)	21 (44%)	287 (94%)	1135 (99%)
Register a new household	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Remove an existing household (*i.e., the household moves out of the settlement*)	1 (3%)	10 (42%)	8 (17%)	3 (1%)	0 (0%)
Check personal information on record (*e.g., the resident forgot their ID number*)	0 (0%)	7 (29%)	19 (40%)	14 (5%)	9 (1%)
Obtain a City of Cape Town occupancy certificate (*Monwabisi Park residents only*)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Source: Violence Prevention through Urban Upgrading, Monwabisi Park Community Registration Office

acknowledged during her speech to the community in February 2014 that "this enumeration process is the largest the city has ever undertaken, with 6,470 households, or 25,000 people, interviewed. The enumeration process is absolutely critical because it enables the city and its partners to have an up-to-date, accurate, and locally accepted list of who currently lives in the area and under which conditions."[46]

A follow-up evaluation conducted two years after completion of the enumeration revealed that the registry was still accurate for 97% of the physical structures in the settlement.[47] An important, tangible outcome of the municipality's access to that information was the fact that the entire settlement had become electrified in 2013.

Krause explained that "the register was updated on a regular but voluntary basis." Figures from 2016 revealed that after a slow start, Monwabisi Park's register had experienced a surge of updates by late 2016. In July 2016, only 35 community residents visited the registry office to update their information on the system. But by November, the number had grown to 1,135. In addition to reflecting beneficiaries' trust in the system, for Krause the surge in updates was proof of residents' desire to push the upgrading project forward. It took place at about the time the city was starting to talk to residents about a site-and-service project for roughly 150 families in Monwabisi Park. "So, people came [to the registry] to verify their information in the database [in anticipation of the project]," Krause said. "It is good evidence that, once [upgrading] opportunities are brought into the settlement, community members use the established local [register]. It's a wonderful example of how locally developed and owned systems respond to development opportunities."

City officials also lauded the project team for its ability to engage with the community. In Gerber's view, "The VPUU is simply great with public participation, with building relationships, talking to people, doing surveys and enumeration, and creating a social compact. They are absolutely brilliant with that." Bodenstein agreed: "The social consultation process was very thorough."

While the project was thus making significant headway in terms of administrative recognition, VPUU's attempt to use that recognition to develop

the settlement's infrastructure faced significant obstacles. Even though a detailed rezoning and land-use-management application had been submitted in November 2013, disagreements over the plan's technical engineering aspects as well as the need to relocate people outside the settlement meant that the application ran the risk of rejection. If the two sides became unable to reach a compromise, the project would likely stall before many of the tangible results of official recognition, such as improved infrastructure and service delivery, got secured.

REFLECTIONS

Despite the challenges it faced, Monwabisi Park offered lessons—some positive and some negative—for other cities contemplating incremental tenure upgrading in informal settlements.

On the enumeration process, a 2014 report by Violence Prevention through Urban Upgrading (VPUU) included three lessons. The first was that because of the importance and sensitivity of the information collected, the process should not be rushed; project leaders "should dedicate a significant amount of preparation, especially when applying an innovative methodology and when implementing in a complex urban context." Second, the report highlighted the need for enumeration to be a community-driven process with strong involvement from local leadership structures. And third, the report said that to avoid a situation in which residents become impatient and lose trust in the process, "the community should not be given unrealistic time frames for enumeration to be completed. Experience shows that enumeration is a medium-term process."

Sustaining political support and building high levels of coordination were critical to success. One had to take a very long view to see the benefits of incremental tenure, which by its very nature did not yield the kinds of short-term impacts politicians valued—such as the handover of newly built homes or the immediate installation of physical infrastructure. Noahmaan Hendricks, a civil engineer who served as director of

development services and housing in Cape Town's Human Settlements Department, said, "Because politicians focus on short-term outcomes to retain office, they are not always interested in long-term outcomes that do not occur within their tenure."

Most arguments against the project centered on the long time it took for an incremental upgrade to turn an informal settlement into a formal suburb and on the difficulties of installing services without relocating residents, but there was an undercurrent of resistance that originated from the project's close association with Mayor Patricia de Lille's predecessor. If reformers had been able to emphasize that incremental informal settlement upgrading was more than a mayoral "pet project," they might have been able to reduce initial resistance by the incoming administration.

For the purposes of coordination, Cape Town's high-level informal settlements working group, which eventually disbanded, offered a model for breaking through some of the obstacles that regularly arise in the implementation of incremental tenure programs. Had the working group remained longer, it could have eased some of the bottlenecks surrounding the rezoning process and extension of services. "I'd like to emphasize that from my perspective, it was a strategic mistake for the city to close down the informal settlements working group," said Michael Krause, an urban designer who led the VPUU effort and was director of Sustainable Urban Neighborhood Development, a South African company involved in the field of negotiated development in low-income areas. Krause also said the working group could be a repository for historical memory and a vehicle for the mainstreaming of new programs, like incremental tenure.

A second important lesson from Monwabisi Park was the practice of visible administration. Visible administration has been found to be an important factor in maintaining an organized tenure administration system.[48] Whereas Johannesburg subcontracted tasks like community enumeration to external service providers, the VPUU established a dedicated on-site registration

office staffed full-time and located in Monwabisi Park. When combined with a comprehensive social consultation process, this practice meant that residents felt a real sense of ownership over the project. The way that community leaders prevented the attempted 2014 land invasion was evidence of that sense of ownership.

Topography was a third point to consider. Marco Geretto, a senior urban designer in Cape Town's Spatial Planning and Urban Design Department, pointed out that with regard to the installation of infrastructure, more thought should have gone into selecting the site of the pilot project. "An in situ upgrade would have been easier on a less topographically challenging site because it's arguably easier to deal with in situ on a slope that is either very steep or very flat. The undulating topography of Monwabisi Park was a problem," he said.

Decision makers said it was important to sequence steps carefully. Entertaining subdivision at the end instead of the beginning threatened success. "The end product of the informal settlement upgrading project in its entirety is likely to be very different . . . from what was communicated to the community at the beginning of the project in 2009," Geretto said. If the disagreement between the VPUU and the city's engineers had come to light at the very beginning of the process, they might have been able to

negotiate a balance between the need for reblocking and not relocating residents. Geretto pointed out, "Even though it was a valuable experience, the city and the community are getting frustrated. We may have to go back to the drawing board as far as rezoning goes and reengage with the community . . . We will have to muddle our way through."

The Monwabisi Park experience also posed an ethical and administrative dilemma that would-be imitators would have to consider. The result of incremental tenure, coupled with in situ upgrading, would not produce the kind of improvements that greenfield development would. It would not by itself produce equality or significant improvement in people's lives.

For Johan Gerber, who headed the informal settlements division in the city's housing department and was an advocate of temporary relocation and reblocking, the fact that Monwabisi Park beneficiaries were not provided with fully serviced plots right from the outset meant that "even after 20 years of following the process of incremental upgrading . . . we will still have an informal settlement." He added, "When we're done with the project, we want to be proud of it and scratch it off our list of informal settlements, but that's not the case with Monwabisi Park's in situ upgrading.

References

[1] Carolyn Dempster, "Guns, gangs and culture of violence," *BBC News*, April 10, 2002, accessed September 19, 2016; http://news.bbc.co.uk/2/hi/africa/1919382.stm.

[2] Lynley Donnelly, "State to tackle housing deed mess," *Mail and Guardian*, August 1, 2014, accessed August 22, 2016; http://mg.co.za/article/2014-07-31-state-to-tackle-housing-title-deed-mess/.

[3] Lynley Donnelly, "State to tackle housing deed mess."

[4] The Constitution of the Republic of South Africa, 1996, accessed August 22, 2016; http://www.justice.gov.za/legislation/constitution/SAConstitution-web-eng.pdf.

[5] "City of Cape Town," Statistics South Africa, accessed September 19, 2016; http://www.statssa.gov.za/?page_id=1021&id=city-of-cape-town-municipality.

[6] Western Cape: Informal settlements status, Housing Development Agency, 2013, accessed August 22, 2016, http://www.thehda.co.za/uploads/files/HDA_Western_Cape_Report.pdf.

[7] "City of Cape Town," Statistics South Africa."

[8] Frank Bliss and Louise Zagst, *Urban Upgrading in South Africa*, German Federal Ministry for Economic Cooperation and Development, 2011, accessed September 22, 2016; https://www.kfw-entwicklungsbank.de/migration/Entwicklungsbank-Startseite/Entwicklungsfinanzierung/L%C3%A4nder-und-Programme/Subsahara-Afrika/S%C3%BCdafrika/Storyline-Khayelitsha.pdf.

[9] FIG (International Federation of Surveyors) Proceedings of the XXI International Congress: Developing the Profession in a Developing World, July 19–25, 1998, Brighton, United Kingdom.

[10] Fernanda Magalhães and Francesco di Villarosa (eds.), *Slum Upgrading: Lessons Learned from Brazil*, Inter-American Development Bank, 2012, accessed September 22, 2016; http://www.citiesalliance.org/sites/citiesalliance.org/files/Slum-Upgrading-Lessons-from-Brazil.pdf.

[11] Urban LandMark, *Incrementally securing tenure in slum upgrading: Reflections on promising practices in southern Africa*, accessed November 1, 2016; http://www.urbanlandmark.org.za/downloads/tsfsap_pn_04.pdf.

[12] "Favela-Bairro Project, Brazil," *Special Interest Group in Urban Settlement, School of Architecture and Planning, MIT*, accessed November 1, 2016; http://web.mit.edu/urbanupgrading/upgrading/case-examples/ce-BL-fav.html.

[13] Caroline Wanjiku Kihato, Lauren Royston, Jose Raimundo, and Ines Raimundo, *One step at a time: Using survey data to inform an incremental tenure approach to land security in Maputo's peri-urban areas*, accessed November 1, 2016; http://www.citiesalliance.org/sites/citiesalliance.org/files/paper_one_setp_2012.pdf.

[14] The United Nations Department of Economic and Social Affairs reported that in 2015 there were 3.1 million international migrants in South Africa, including 600,000 asylum seekers and refugees. According to Statistics South Africa, more than 75% of the migrants had come from other African countries in search of a better life. See United Nations Department of Economic and Social Affairs, *International Migration Report 2015*, accessed September 7, 2016; http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2015_Highlights.pdf; and Sarah Meny-Gibert and Sintha Chiumia, "Factsheet: Where do South Africa's international migrants come from?" *Africa Check*, accessed September 7, 2016; https://africacheck.org/factsheets/geography-migration/.

[15] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading: A manual for safety as a public good*, 2014.

[16] Community Action Plan, Monwabisi Park Safe Node Area Committee, November 29, 2009, accessed August 24, 2016; https://www.capetown.gov.za/en/ExternalRelations2/Documents/Intergovernmental%20Agreements/M_Memorandum%20of%20Understanding%20city%20of%20Cape%20Town%20and%20Monwabisi%20Park%20Informal%20Settlement%20March%202010.pdf.

[17] Urban LandMark, "Securing the formal status of a settlement through upgrading practices: The case of Monwabisi Park in the City of Cape Town, South Africa," 2013, accessed August 22, 2016; http://www.nuspresources.com/wp-content/uploads/2016/06/Practice-Note-Monwabisi_UrbanLandmark-and-Tenure-Security-Facility-Southern-Africa-Project.pdf.

[18] City of Cape Town – 2011 Census Suburb Khayelitsha, July 2013, accessed August 22, 2016; https://www.capetown.gov.za/en/stats/2011CensusSuburbs/2011_Census_CT_Suburb_Khayelitsha_Profile.pdf.

[19] *Kate O'Regan and Vusi Pikoli, "Handover Statement of the Commissioners," Commission of Inquiry into Policing in Khayelitsha established in terms of section 206 (5) of the Constitution, August 25, 2014, accessed August 22, 2016;* http://www.khayelitshacommission.org.za/images/towards_khaye_docs/Commissioners_Handover_statement_25_August_2014.docx.

[20] Michael Barry, *Evaluating Cadastral Systems in Periods of Uncertainty: A Study of Cape Town's Xhosa-Speaking Communities*, PhD thesis, University of Natal, 1999.

[21] "Monwabisi Park Land Use Management: Rezoning and Subdivision Application," Informal Settlement Transformation Program, November 2013.

[22] "Police douse fires during a service delivery protest in Khayelitsha outside Cape Town," *Africa Check*, June 2, 2010, accessed August 23, 2016; https://africacheck.org/reports/claim-that-94-of-south-aclaim-that-94-in-sa-have-access-to-safe-drinking-water-doesnt-hold-water/safrica-sanitation-poverty-protest/.

[23] Community Action Plan, Monwabisi Park Safe Node Area Committee.

[24] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading: A Manual for Safety as a Public Good.*

[25] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading.*

[26] Chris Berens, "Endlovini," *Mapland*, accessed August 25, 2016; http://www.mapland.co.za/khayelitsha/endlovini.

[27] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading.*

[28] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading.*

[29] Michael Krause, Chris Giles, Don Shay, Julian Cooke, Erald Smith, Iris Taane, and Udo Lange, *Violence Prevention through Urban Upgrading.*

[30] Speech by the City's Executive Mayor, Patricia de Lille, at the Handover of Certificates of Tenure in Monwabisi Park on 20 February 2014, City of Cape Town, February 20, 2014, accessed August 27, 2016; https://www.capetown.gov.za/en/MediaReleases/Pages/MAYORPATRICIADELILLEATTHEHANDOVEROFCERTIFICATESOFTENUREINMONWABISIPARKON20.aspx.

[31] Speech by the City's Executive Mayor, Patricia de Lille, at the Handover of Certificates of Tenure in Monwabisi Park on 20 February 2014.

[32] *Targeting the Poor? An Analysis of Free Basic Services (FBS) and Municipal Indigent Policies in South Africa*, Socio-Economic Rights Institute of South Africa, November 2013, accessed August 28, 2016; http://www.seri-sa.org/images/Targeting_the_Poor_Nov13.pdf.

[33] "City's Indigent Policy," City of Cape Town, accessed August 28, 2016; https://www.capetown.gov.za/en/Pages/Indigentpolicy.aspx.

[34] *Targeting the Poor?.*

[35] Monwabisi Park Land Use Management: Rezoning and Subdivision Application, Informal Settlement Transformation Program.

[36] Community Action Plan, Monwabisi Park Safe Node Area Committee.

[37] "City's Indigent Policy," City of Cape Town.

[38] Checklist for the determination of the applicability of the NEMA EIA Regulations, 2010: Monwabisi Park Settlement Development Framework, Western Cape Department of Environmental Affairs and Development Planning, June 30, 2013.

[39] Gemey Abrahams, *Routes to legal recognition of informal settlements – City of Cape Town Context.*

[40] *Urban Infrastructure in Sub-Saharan Africa: Harnessing Land Values, Housing and Transport*, African Centre for Cities, June 7, 2015; accessed August 28, 2016; http://www.africancentreforcities.net/wp-content/uploads/2015/09/DfID-Harnessing-Land-Values-Report-2-Planning-and-LUR-literature-review-20150607.pdf.

[41] "Monwabisi Park Land Use Management: Rezoning and Subdivision Application," *Informal Settlement Transformation Program.*

[42] "Monwabisi Park Land Use Management: Rezoning and Subdivision Application," *Informal Settlement Transformation Program.*

[43] "Monwabisi Park Land Use Management: Rezoning and Subdivision Application," *Informal Settlement Transformation Program.*

[44] "Monwabisi Park Land Use Management: Rezoning and Subdivision Application," *Informal Settlement Transformation Program.*

[45] Aphiwe Deklerk, "EFF lawmakers take lead in lawless land invasion," *Times LIVE*, April 7, 2015, accessed September 22, 2016; http://www.timeslive.co.za/thetimes/2015/04/07/eff-lawmakers-take-lead-in-lawless-land-invasion.

[46] Speech by the City's Executive Mayor, Patricia de Lille, at the Handover of Certificates of Tenure in Monwabisi Park on 20 February 2014.

[47] Chris Berens, "Endlovini," *Mapland.*

[48] M. Barry and J. Whittal, Land Title Theory and Land Registration in a Mbekweni RDP Housing Project. *Land Use Policy* 56 (2016), 197-208.