Neighborhood Upgrading in Tunisia: Connecting Informal Housing with Basic Services

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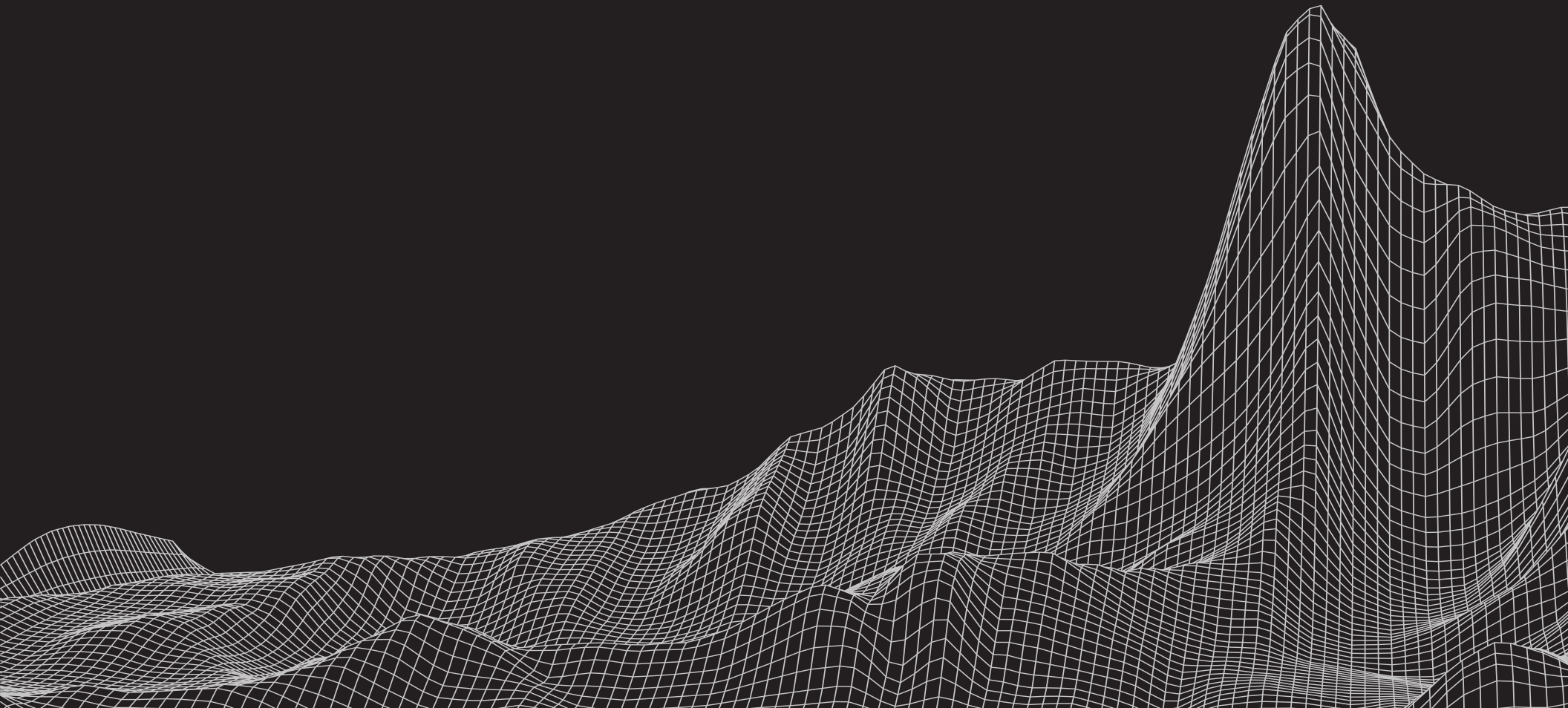
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Note: Black outlines have been added to indicate direct relation to programs; dotted outlines indicate indirect relation to programs.
(Source: United Nations Sustainable Development Goals website.)

FIGURE 1. Sustainable development goals relevant to the neighborhood-upgrading programs in Tunisia

Around the world, cities are growing rapidly. According to UN-Habitat, in 2015 four billion people were living in urban areas. The United Nations Sustainable Development Platform expects that number to grow by another billion by 2030. In many places, cities' populations are growing faster than the networks of infrastructure and basic services that serve them. In this context, some residents struggle to find affordable housing with basic services like water and sanitation and access to other urban infrastructure like roads, drainage systems, and public lighting.

Basic services and urban infrastructure contribute to residents' health and well-being—the United Nations' sustainable development goals (SDGs) recognize this. SDG Target 11.1 calls for access to "adequate, safe, and affordable housing and basic services" for all. Sanitation, drainage systems, and clean water guard against the spread of diseases and reduce the risk that harmful substances can affect a household's health. Infrastructure like roads and public lighting can help integrate neighborhoods and residents into the larger city, connecting them to other services and to the economy.

In this context, Tunisia's neighborhood-upgrading programs stand out as an example of reach. The programs extend the reach of infrastructure and basic services to informal neighborhoods that lack them. The programs also integrate informal neighborhoods into the urban land use plan (*Plan d'amenagement urbain*, or PAU), so they are considered for additional infrastructure and service provision. These changes are designed to improve residents' health and make it easier for them to access services and opportunities throughout the city they live in. Put simply, these programs connect residents of informal neighborhoods to networks that can improve their quality of life.

TUNISIA'S INFORMAL NEIGHBORHOODS

Both historically and today, people in Tunisia have self-constructed homes on plots of land that are not designated for residential building. This is often the result of landowners illegally subdividing land and selling plots for self-construction. Although these homes are not made with precarious materials, the plots typically lack connections to basic services, and other communal infrastructure like roads, rainwater drainage, public lighting, and community spaces because the land is not designated for residential building. When residents construct a number of homes on nonresidential land in close proximity, they create an informal neighborhood.

In the 1970s and 1980s, an economic crisis in the country prompted large numbers of rural residents to migrate to urban areas in search of economic opportunities. As a result, the population in urban centers increased without a corresponding increase in available housing and residential land. Alongside the growing demand for housing and land, the emergence of speculators in the land market caused a significant rise in land prices. With the higher price of land, growing numbers of residents began building homes on low-cost nonresidential land, establishing informal neighborhoods.

WHY UPGRADE NEIGHBORHOODS?

As informal neighborhoods grew throughout the twentieth century, many countries have responded by either ignoring these areas or demolishing them and forcing residents to relocate. Demolishing informal neighborhoods has harmful effects for residents: it destroys their investments in housing and it breaks the social and economic networks that are established in these areas. But ignoring in-

formal neighborhoods also has harmful effects for residents who must live in areas without adequate water and sanitation, among other services.

Between 1956 and 1975, the Tunisian government demolished and rehoused many residents of informal neighborhoods, in line with the approach in many other developing countries. However, by the mid-1970s, policy-makers recognized that this approach was costly and it uprooted people from their existing networks and livelihoods. As informal neighborhoods continued to grow, policy-makers shifted to an approach of upgrading rather than demolishing informal neighborhoods.

Upgrading aims to address the features of informal neighborhoods that negatively affect residents' health, economic opportunities, and well-being without forcing residents to relocate. The components of upgrading programs can vary across countries and time. What they have in common, as UN-Habitat's *World Cities Report 2016* notes, is that neighborhood-upgrading programs tend to focus on access to basic services like water and sanitation. By reaching residents in their existing communities, upgrading programs strive to preserve social and economic networks and housing investments while allowing residents to benefit from improved services and infrastructure.

NEIGHBORHOOD-UPGRADING PROGRAMS

In the *World Cities Report 2016*, UN-Habitat recognizes Tunisia as one of the countries that has been most successful at upgrading neighborhoods.[1] The country's upgrading programs began in the 1980s and continue today (August 2018). During this time, the country has implemented five distinct neighborhood-upgrading programs. While their scope

Growth of people living in cities around the world

1990	2.3 billion people live in urban areas (43%).
2015	Close to 4 billion people live in urban areas (54%).
2030	5 billion are projected to live in cities.

Sources: UN-Habitat, *World Cities Report 2016*, Sustainable Development Goal 11. ⧉

has varied over time, providing basic services and neighborhood infrastructure has been the common theme across all of the programs to date.

Neighborhood-upgrading programs are complex public policy endeavors. These programs require contributions from basic service providers, specialized agencies, ministries, donors, contractors, and increasingly local governments and residents themselves. While multiple organizations contribute to the neighborhood-upgrading programs, the programs are led by one particular organization: the Tunisian Urban Rehabilitation and Renewal Agency (*Agence de Réhabilitation et de Rénovation Urbaine* or ARRU).

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[1] UN-Habitat, *World Cities Report 2016—Urbanization and Development: Emerging Futures.* ⧉

OUR WORK

We sought to understand how ARRU and the various other stakeholders have worked together to design and deliver the country's neighborhood-upgrading programs. Our main findings relate to program evolution, governance issues, coordination, and various challenges.

Evolution: Although the scope of work provided through the neighborhood-upgrading programs has changed over time, all five programs have focused on providing infrastructure to informal neighborhoods.

Governance: Historically, ARRU has been responsible for the execution of the country's neighborhood-upgrading programs. As a result, ARRU has developed expertise on how to upgrade neighborhoods effectively. However, as greater public participation in decision making as well as decentralization shape Tunisia's institutional arrangements, other program stakeholders are expected to assume a larger role in the design and delivery of the programs.

Coordination: Given the variety of stakeholders who contribute to the neighborhood-upgrading programs, coordination is necessary to execute them effectively.

Challenges: The neighborhood-upgrading programs face three challenges. They incentivize the continued growth of informal neighborhoods; the country lacks a national housing strategy with a plan to prevent informal building; and there is a lack of reliable data available to evaluate the programs.

RESEARCH

This report is the result of a year-long research project carried out by Professor Joseph Wong of the Munk School of Global Affairs and Public Policy and the Department of Political Science at the University of Toronto; Kirstyn Koswin, a staff researcher at the Munk School of Global Affairs and Public Policy; three student researchers: Cadhla Gray, Tina Vulevic, and Wendy Wang; and Bruno Câmara Pinto, a research fellow at the Munk School of Global Affairs and Public Policy.
We conducted research from September 2017 through May 2018, including fieldwork in Tunisia in April 2018, with the support of translators.

"When urban services are lacking or are severely strained … the basic productivity of all citizens will be compromised."

—*World Cities Report 2016, 14*

Terminology

There are a variety of different terms used to describe the neighborhoods that ARRU upgrades. In our interviews we heard several, including *popular neighborhoods* (*quartiers populaires*), *informal neighborhoods* (*quartiers informels*), *anarchic neighborhoods* (*quartiers anarchiques*), *under-equipped neighborhoods* (*quartiers sous-équipés*), and *irregular neighborhoods* (*quartiers non-règlementaires*).

Among the experts we interviewed there was no consensus on which term best describes the areas served by ARRU's upgrading programs. However, because experts commonly highlighted the informal and unplanned aspects of the neighborhoods, in this report we use the term *informal neighborhoods* to describe the areas that are targeted by ARRU's neighborhood-upgrading programs.

Evolution of
the Programs

Tunisia's neighborhood-upgrading programs have existed for almost four decades but they have changed over time. After initially covering a wide range of work, the upgrading programs became narrower in their scope and focused on providing infrastructure to facilitate connections to basic services and paved roads. More recently, the programs have returned to a wider scope with the addition of housing improvements.

Throughout, the programs have maintained a consistent focus on infrastructure. By providing infrastructure, the neighborhood-upgrading programs have given residents of informal neighborhoods access to basic services and facilitated connections between their neighborhoods and the city they live in.
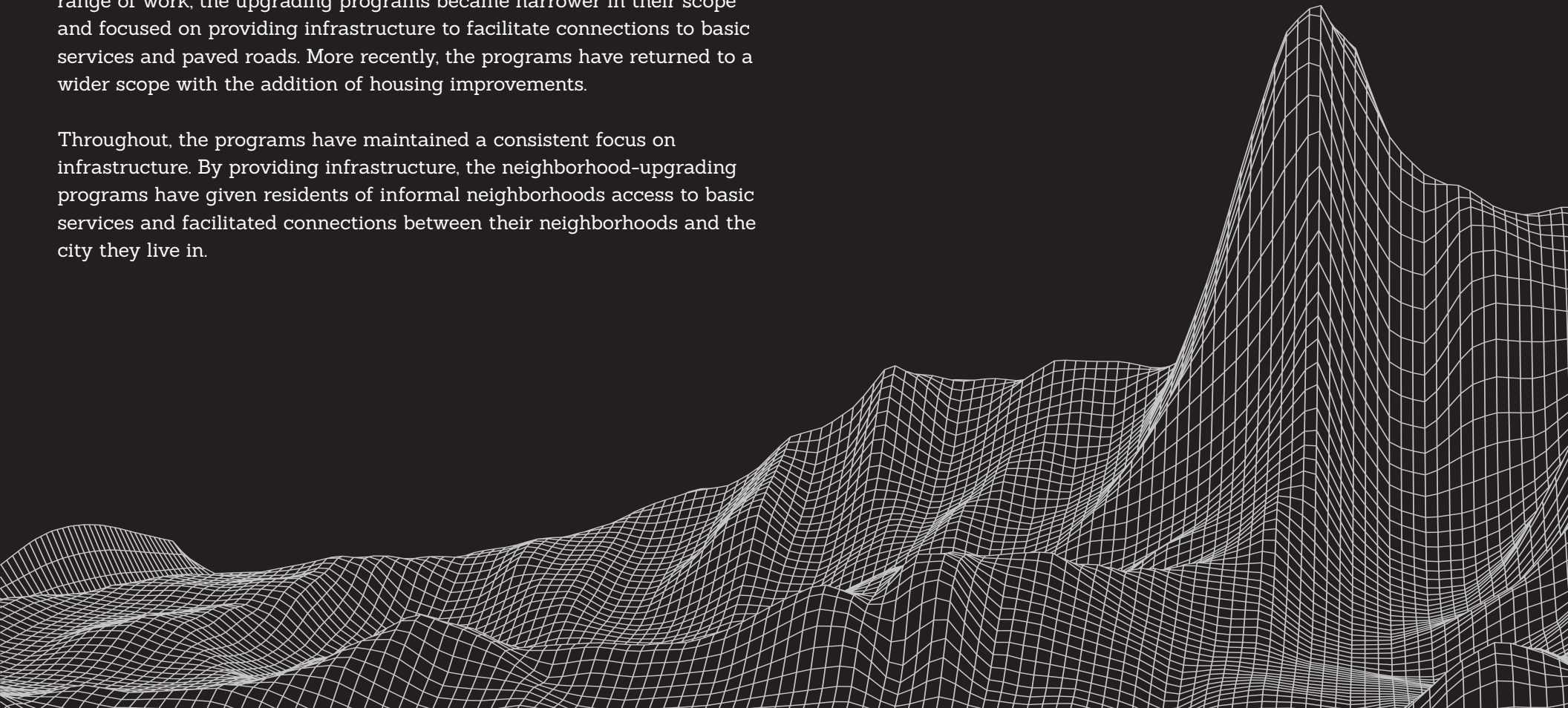
ARRU BEGINS NEIGHBORHOOD-UPGRADING PROGRAMS

In 1981, the government created the Tunisian Urban Rehabilitation and Renewal Agency (Agence de Réhabilitation et de Rénovation Urbaine or ARRU) to respond to the emergence and expansion of informal neighborhoods. Since that time, ARRU's primary focus has been planning, managing, and executing work through the neighborhood-upgrading programs.

In the first program, ARRU offered a wide range of activities. The Urban Development Program (PDU) ran from 1980 to 1992. Its scope included infrastructure such as the development of road networks, and the construction of utility networks to connect residents to basic services. All subsequent neighborhood-upgrading programs continued to provide infrastructure. The PDU also involved other work and programing, including the construction of buildings to house social services such as schools and clinics, employment programing, and the development of land plots for people to construct their own homes.

In the second neighborhood-upgrading program, the Integrated Urban Development Program (PDUI) ran from 1994 to 2007. As part of this, ARRU provided a variety of infrastructure including roads, sanitation networks, rainwater draining, and public lighting. The PDUI also provided equipment and community spaces to promote economic and social activity. The PDUI differed from the earlier PDU by also programing to provide land tenure to residents.

With the launch of the National Rehabilitation Program of Popular Neighborhoods (PNRQP), financed without the help of external donors, the government eliminated many elements of ear-

Buildings under construction in a Tunis neighborhood targeted for ARRU's upgrading program. Red bricks often signify that citizens are self-constructing, either expanding upon buildings in informal areas or making improvements to existing homes. ARRU's programs provide basic service connections and funds for improvements to toilets, bathtubs, and sinks, but not the construction of homes.

lier upgrading programs as the program took a narrower focus on infrastructure. The PNRQP ran parallel to the PDUI from 1992 until 2014. The PNRQP discontinued the land-tenure-regularization program that began in the PDUI. By reducing the scope of work provided through the program, ARRU was able to upgrade more neighborhoods and reach more beneficiaries. The PNRQP covered a total of 2,265,000 beneficiaries across 963 neighborhoods, compared to the PDUI's 218,000 beneficiaries across 29 neighborhoods.

With the 2007 launch of the Support Program for Big Cities, Tunisia's neighborhood-upgrading programs had an increasing scope of work and programing. The government introduced improvements to houses as a component. This was done by allocating and distributing money that had to be used on improvements to bathrooms—including sink, toilet, and bathtub upgrades—to focus the improvements on sanitation. This was alongside infrastructure works like roads, sanitation, rainwater draining, and public lighting. Collective equipment, such as sport courts, schools, healthcare centers, facilities dedicated to handicraft and economic production, and industrial spaces were also included among the works ARRU provided in this program.

In 2011, protests broke out across the country. The subsequent revolution initiated a transition toward democracy and changes in the organization and responsibilities of Tunisia's governing institutions. The Program of Rehabilitation and Integration of Neighborhoods (PRIQH) is the only neighborhood-upgrading program that was designed and delivered after the 2011 revolution. While the revolution has already had some impacts on the program (discussed later), interviewees agreed that the country's political transition is still in progress. Changes to the programs are expected as democratization and decentralization continue to advance.

The PRIQH returned to a wide scope of work and programing delivered through neighborhood upgrading. Running since 2012, it is built upon the changes from the program's previous iteration, the Support Program for Big Cities. In addition to the infrastructure works that have been a component across all previous neighborhood-upgrading programs, the PRIQH's responsibilities also included the construction of community spaces, job-creation programing, and improvements to single-family homes. Housing improvements now take place both inside and outside the home.

INFORMAL NEIGHBORHOODS, EXCLUSION, AND SOCIAL UNREST

The government's long-standing support for the neighborhood-upgrading programs appears to be partially motivated by concerns about social unrest. A number of people we interviewed thought of these programs as a government tool to reduce feelings of exclusion that could lead to protests, riots, and radicalization.

In January 1978, residents of informal neighborhoods protested against the government in a large general strike, with issues including unem-

The Reach researchers being led through a neighborhood site visit by ARRU representatives

ployment, housing, and civil rights. One academic at the Research Institute on the Contemporary Maghreb in Tunis argued that the strike contributed to the government's decision to create ARRU. The researcher claimed that ARRU was created to appease the protesting populations by making improvements to their quality of life.

Following ARRU's creation, concerns about social unrest have had an impact across the five neighborhood-upgrading programs. Interview participants noted that the programs' scope of work has evolved in an effort to reduce unrest. The first two upgrading programs had a large scope that

included the creation of both community buildings and public spaces. The decision to provide such infrastructure was part of an effort to promote the economic and social integration of residents in informal neighborhoods. An academic at the University of Carthage noted that the emergence of radical movements in informal neighborhoods was used to justify the large scope and cost of these programs. An academic from the University of Tours further argued that the presence of Islamists guided the targeting of the upgrading programs' earlier versions.

House under construction in Tunisian neighborhood undergoing ARRU's upgrading program

How ARRU Functions

ARRU (Agence de Réhabilitation et de Rénovation Urbaine—Tunisian Urban Rehabilitation and Renewal Agency) is a public agency affiliated with the country's Ministry of Housing and Development of Territory (MEHAT). As an executive corporation, it implements the neighborhoods' upgrading programs by planning the work and by executing it through contracted builders. ARRU's personnel have a technical profile—many employees are engineers, managers, and architects. ARRU employees often remain inside the agency throughout their career. ARRU obtains the majority of its funding through its programing activities. According to one ARRU official, the work that the agency executes for the PRIQH, the current neighborhood-upgrading program, represents a substantial majority of its budget.

The third program took a different approach to reducing social unrest. Its narrower scope focused exclusively on infrastructure, but works were provided to a larger portion of the population. The latter two upgrading programs saw a return to a wider scope of work and programing. A former director of ARRU noted that this included the addition of small cash transfers for housing improvements as an effort to "buy social peace." Although the approaches to upgrading have varied, taken together, there is strong evidence to suggest that the programs were motivated by a desire to reduce social unrest.

However, it is unclear how effective the programs are at reducing unrest. Long-standing neighborhood-upgrading programs were insufficient to prevent social unrest altogether, as the 2011 revolution made evident. Protestors articulated a variety of concerns, including lack of employment, inflation rates, lack of access to public services, and a lack of liberties, among others. These varied concerns contrast with ARRU's relatively limited mandate to coordinate the delivery of infrastructure work in informal neighborhoods.

Although the upgrading programs did not prevent the 2011 revolution, donors and government

TABLE 1. Neighborhood-upgrading programs over time					
Program	Duration	Neighborhoods per year	Budget per year (million Tunisian dinars)	Beneficiaries per year	Dwellings per year
Urban Development Program	1980–92 (12 years)	2.9	4.333	15,833	2,167
Integrated Urban Development Program	1994–2007 (13 years)	2.2	1.692	16,769	3,000
National Rehabilitation Program of Popular Neighborhoods	1992–2014 (22 years)	43.7	15.682	102,954	19,545
Support Program of Popular Neighborhoods in the Big Cities	2007–13 (6 years)	13.6	34.167	61	12,166
Program of Rehabilitation and Integration of Neighborhoods	2012–18 (6 years)	20	84.667	114,166	22,500

Notes: Between 1980 and 2018, ARRU's upgrading programs have been implemented in 1,229 informal neighborhoods and are estimated to have benefited 3.7 million people (UN-Habitat, *World Cities Report 2016*). This table illustrates the breakdown of each program iteration on an annual basis, including budgets, neighborhoods, beneficiaries, and dwellings per year. Data sourced from "Habitat III: National Report for the United Nations Conference" by Republic of Tunisia, Table 6: Popular neighborhoods rehabilitation programs that have been implemented or those under implementation, 54.

stakeholders still view them as important. Following the revolution, the Tunisian government, the Agence Française de Développement (AFD—French Development Agency), and the European Commission continue to fund and support the neighborhood-upgrading programs. According to an AFD official, donors believed that the PRIQH would help stabilize the country following the revolution. In this context, the program's first phase was referred to as the "urgency PRIQH," and implemented swiftly. This suggests that stakeholders continue to view neighborhood upgrading as a useful tool to address feelings of exclusion that could catalyze social unrest.

SUMMARY

The scope of neighborhood-upgrading programs has evolved over time but the programs have maintained a consistent focus on infrastructure. Through the programs, the government has aimed to promote the integration of informal neighborhoods by connecting residents to basic services and to the larger urban area that they live in.

## Informal Neighborhoods (*Quartiers Informel*) and Slums (*Gourbivilles*)

At different times, Tunisia has had to deal with the development of slums, called *gourbivilles*, and informal neighborhoods. Both of these phenomena have occupied the government's attention and necessitated intervention. What distinguishes gourbivilles from informal neighborhoods is the quality and durability of their housing construction.

Homes in informal neighborhoods are more durable than those in gourbivilles. The gourbivilles were precariously built neighborhoods characterized by poverty and overpopulation. Although residents began constructing gourbivilles as far back as World War II, by the 1970s these communities had been nearly entirely eliminated as a result of successful government-led programs. Informal neighborhoods arose in the 1970s. Homes in informal neighborhoods are usually made of brick, while homes in gourbivilles were often made of aluminum sheets or other precarious materials. Because of the superior quality of building materials used in informal neighborhoods, many residents continue to invest in and expand their informal homes, adding more floors and making interior improvements over time.

Governance and Decision Making

Like any other complex public policy, the Tunisian neighborhood-upgrading programs are influenced by the country's institutional arrangements. To understand how these programs are delivered, we need to understand how the country's institutions and decision-making processes have influenced them.
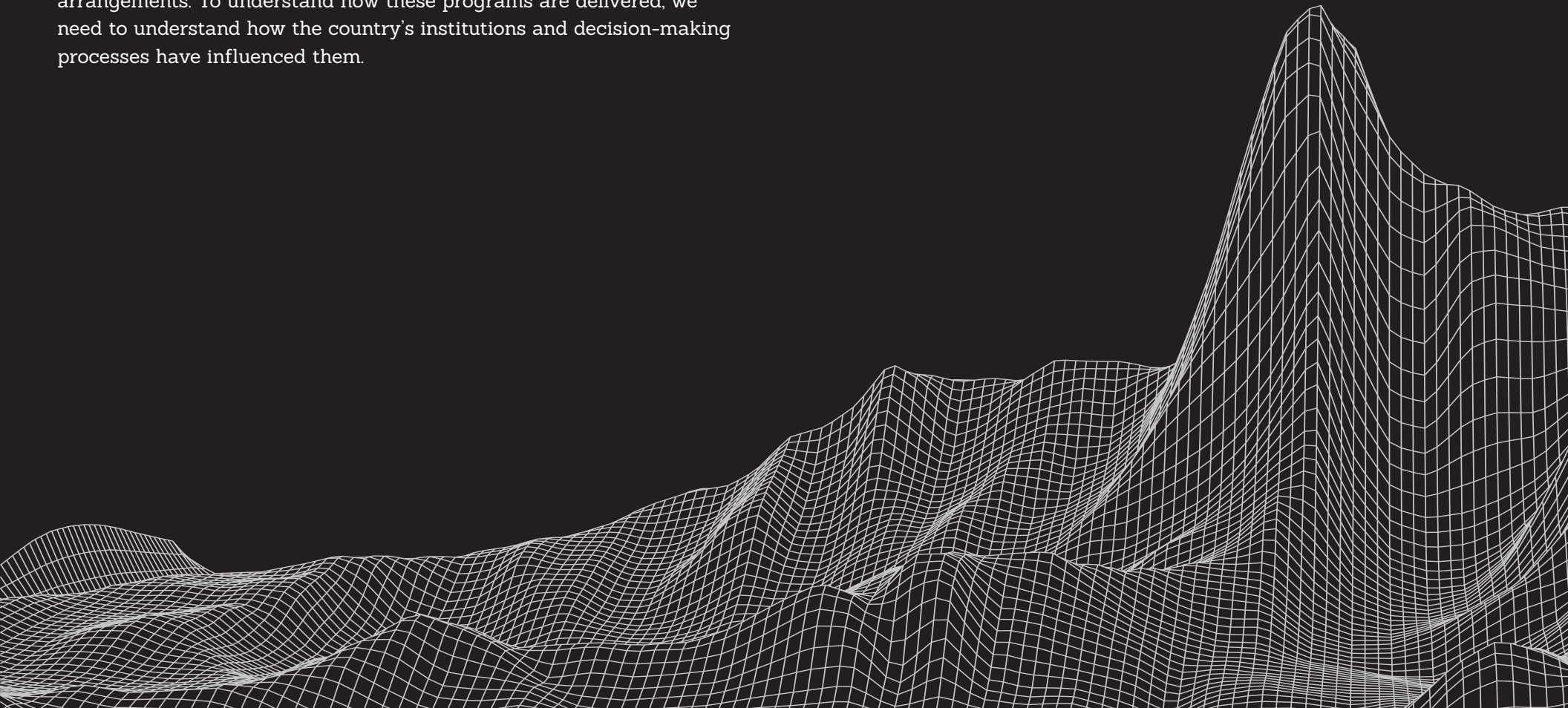
DECONCENTRATION: A CENTRALIZED STATE, MANY SPECIALIZED AGENCIES

Historically, the Tunisian state has been highly centralized. To design and implement housing policies, the central government organized itself into a deconcentrated system. Deconcentration refers to the central government being subdivided into a greater number of ministries and specialized entities to deal with various aspects of a single issue, but the decision-making powers remain in the central government (rather than municipalities, for example).[2] Regarding housing policies, Tunis has created, over time, different organizations under the framework of the Ministry of Housing and Development of the Territory (MEHAT), each focused on the resolution of a particular set of problems concerning housing: the National Property Corporation of Tunisia (SNIT), in 1966, to manage and operate land development and house building; the Housing Land Agency (AFH), in 1974, to buy land for urban housing; in the same year, the National Housing and Saving Fund (CNEL), later converted into the Bank of Housing; and the Tunisian Urban Rehabilitation and Renewal Agency (ARRU), in 1981, to manage and operate the gradual improvement of infrastructure and housing in informal neighborhoods.

Deconcentration creates specialization, but it still keeps the decision-making process at the central level. In this sense, deconcentration contrasts with decentralization, a logic of organization in which the power to make decisions is shared with the subnational levels of government.

Thus, the institutional environment in which the neighborhood-upgrading programs emerged was both centralized and deconcentrated. The govern-ment has been particularly focused on housing for the large number of citizens who migrated from rural to urban areas and for those who struggle to afford housing in the largest cities. As the urban housing sector grew more complex, more institu-tions, with narrower and more specific mandates, were created within the Ministry of Housing and Development of the Territory (MEHAT). ARRU is just one example of the multiple specialized institutions created to address housing concerns in the country.

The Ministries of Interior, of Housing, and De-velopment of the Territory, and even institutions created after the 2011 revolution, like the Ministry of Local Affairs, have been responsible for the management and execution of the neighborhood-upgrading programs. However since the 1980s, these institutions have transferred their responsi-bilities to ARRU. By taking responsibility for these delegated roles, as well as using its management experience, technical expertise, and networks, ARRU has become the institutional cornerstone of Tunisia's neighborhood-upgrading programs.

ARRU designs the programs, gathers data from the municipalities to identify needs, coordinates the contractors who execute the work, coordi-nates service providers to connect to the utility networks, and more. In short, ARRU brings the neighborhood-upgrading programs into existence. Interviewees in academia, international organiz-ations, government sectors, as well as donors affirmed ARRU's central role in designing and

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[2] Our use of the term *deconcentration* is contested. Some might use the word to refer specifically to the proliferation of ministries (for example, the creation of MEHAT) and use the term *administrative decentralization* to refer to the development of autonomous organizations (for example, ARRU). Administrative decentralization is distinct from political decentralization. Throughout this report both of those phenomena are captured by the word *deconcentration*.

Deconcentration in the Housing Sector

These are some of the specialized institutions created within the central government:

- The National Land Property Corporation of Tunisia (SNIT) was created in 1966 to execute all demolition and urban renewal plans.

- In 1974, the Housing Land Agency (AFH) was created to purchase land and develop it for housing purposes, while the Nation-al Housing and Saving Fund (CNEL) was instituted to fund housing projects.

- In 1981 the government created the Urban Rehabilitation and Renewal Agency (ARRU). ARRU's mandate is to plan, man-age, and execute work to upgrade settle-ments and informal neighborhoods.

delivering these programs. While ARRU is the institutional cornerstone, it has to work with a variety of other stakeholders to execute the programs. (We discuss this coordination in greater detail in the section on coordination.)

DECENTRALIZATION: A NEW ORGANIZING LOGIC

Tunisia's 2011 revolution initiated large changes to the country's institutional landscape. Historically, the country's centralized and deconcentrated institutions contrasted with the municipalities' institutional and financial fragility. However, since the 2011 revolution, domestic and international demands for wider popular participation in public decision making have sparked a decentralization process. As part of that process, new laws are being passed. Tunisia's 2014 constitution and 2018 Code of Local Collectivities are the most important examples of new laws aimed at decentralization. The 2014 constitution acknowledges municipalities as political entities. The 2018 Code, which was still under development at the time of our interviews, was expected to give local authorities responsibility for some work in their communities. Taken together, the ongoing decentralization process is expected to transfer certain decisions to municipalities.

The decentralization process will have important implications for the neighborhood-upgrading programs because it will alter the institutional devices that facilitate their design and delivery. Interview participants widely acknowledged that the ongoing process of decentralization is expected to reshape upgrading programs. When we were there in April 2018, different stakeholders' roles and responsibilities had not yet been clarified. Participants expect that some of ARRU's roles and responsibilities will be transferred

Posters in Tunisia promoting the candidates for the upcoming first free municipal election on 6 May 2018. This was an important time during Tunisia's decentralization process. The Code of Local Collectivities (Local Government Code) was passed just before the municipal election. To facilitate fair and equitable campaigning, candidates could place posters only within these squares with their appropriate corresponding number.

to local governments, but it is unclear exactly what tasks will remain with ARRU.

The decentralization process is complicated by municipalities' historically limited responsibilities. With limited responsibilities, municipalities had limited opportunities to develop capacity to design and deliver complex programs. By contrast, ARRU has extensive capacity, developed through decades of experience with neighborhood upgrades. The World Bank's Urban Development and Local Governance Program has already given target municipalities the choice of initiating their own projects, resulting in less systematic

coordination through ARRU and demonstrating that some municipalities are, to some extent, capable of running their own projects. While laws have been passed to advance decentralization, the shift of responsibilities from ARRU to the municipalities continues.

Within the neighborhood-upgrading program's institutional architecture are two specific decision-making processes that shape the programs' reach. These processes determine who will benefit from the programs and what infrastructure and services will be made available.

TARGETING IN THE NEIGHBORHOOD-UPGRAD-ING PROGRAMS

While there have been concerns about clientelism in earlier neighborhood-upgrading programs, the PRIQH has objective criteria for its targets. An academic from the Research Institute on the Contemporary Maghreb noted that earlier iterations of the upgrading programs had a clientelistic approach to targeting. An academic at the Université de Tours shared this perspective, noting that earlier programs were targeted based on political considerations. However a representative of Agence Française de Développement (AFD—French Development Agency) argued that PRIQH targeting is based on objective criteria, and there is minimal political interference in the targeting process. Interviewees mentioned a variety of targeting criteria, including neighborhood density, location, size, and the quality of existing basic infrastructure. By moving toward more objectively and technically informed targeting, the latest version of Tunisia's neighborhood-upgrading programs is reaching informal neighborhoods in need of infrastructure and basic services.

Government stakeholders contribute to the PRIQH's targeting process but ARRU has primary responsibility for determining which neighborhoods will be upgraded. Local governments contribute to targeting by identifying neighborhoods in need of upgrading, and sharing this information with ARRU who considers it alongside the objective targeting criteria to select the neighborhoods that will benefit from the program. Thus, the targeting process facilitates the PRIQH's reach by using objective criteria and recommendations of local governments to determine where upgrading is needed.

SELECTION OF WORK

Since the 2011 revolution, the public has gained opportunities to participate in decisions about government programs and services. Within the neighborhood-upgrading programs, greater public participation is facilitated through public consultations on the selection of work.

The scope of work available through a specific iteration of a neighborhood-upgrading program is initially determined at the policy level. Once this determination is made, ARRU works with the service providers and the public to develop recommendations based on the scope available. Two ARRU officials explained that the organization canvases basic service providers like ONAS (Office National d'Assainissement), STEG (Société Tunisienne de l'Electricité et le Gaz), and SONEDE (Société Nationale d'Exploitation et de Distribution des Eaux) to determine the current state of services in an area, whether the network utilities have any ongoing activities and construction there, and whether the utilities have any plans to conduct activities in the area. Through this coordination process, ARRU and the national service providers recommend the most appropriate work in a particular area. As part of the PRIQH, these recommendations are made public and serve as the basis for public consultations.

The opportunity for public consultations distinguishes the PRIQH from earlier neighborhood-upgrading programs. Through these consultations, residents and nongovernmental organizations (NGOs) have the opportunity to articulate their priorities. Prior to 2011, members of the public were not invited to provide feedback. ARRU officials noted that since the revolution, public consultation

PRIQH Targeting Criteria

For a neighborhood to qualify for upgrades, it must have:

- 200 or more units of housing in the area;

- a surface of urbanized area that is greater or equal to 80 percent of the total area of the district;

- urban density that is greater than twenty houses per hectare in northern and central Tunisia;

- weakness of network coverage of basic infrastructure and deficiency of socio-collective equipment, such as sports and handicraft buildings.[3]

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[3] From ARRU website. ⬀

Tunis cityscape

is becoming normalized. However, they also said that consultations are often disorganized or poorly attended because the experience of being consulted about government programs and services is still relatively new to citizens.

SUMMARY

Tunisia has succeeded in improving housing conditions for many residents of informal neighborhoods. The country's success can be partially attributed to how it has organized its institutional framework to face the challenge of upgrading informal neighborhoods. As a specialized agency, ARRU has developed and leveraged expertise to execute the neighborhood-upgrading programs. However, as decentralization progresses and the public gains more opportunities to contribute to decision making, ARRU's responsibilities are expected to decrease as new stakeholders assume a larger role in the program's design and delivery.

Coordination

There are a variety of stakeholders involved in the country's neighborhood-upgrading programs. The scale of the work provided, as well as the variety of sectors involved, require contributions from a number of organizations. Those that contribute to upgrading programs include: the Tunisian Urban Rehabilitation and Renewal Agency (Agence de Réhabilitation et de Rénovation Urbaine or ARRU); the Ministry of Housing and Territorial Development (MEHAT); the Ministry of Local Affairs; the Council of Ministers; municipalities (referred to as *communes*); the national sanitation utility (ONAS); the Tunisian Electricity and Gas Company (STEG); the national water supply authority (SONEDE); the French Development Agency (AFD); the European Union (EU); independent engineering surveyors; contractors; and others. Coordination contributes to the programs' execution and helps improve their reach.
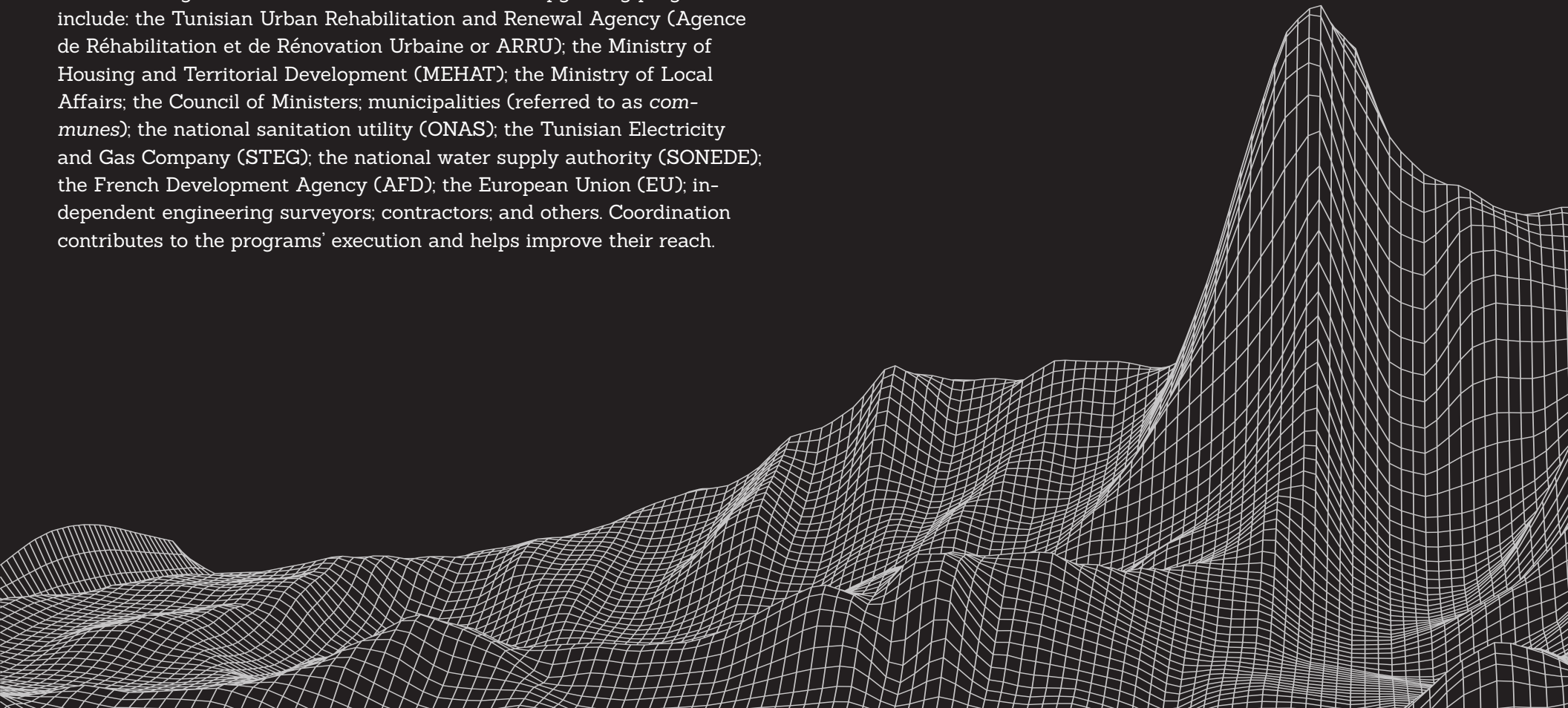
COORDINATING PROGRAM EXECUTION

To implement the neighborhood-upgrading programs, ARRU coordinates the contributions of different organizations and actors. This involves selecting neighborhoods for upgrading, conducting technical studies, gathering input from relevant service providers, contracting and managing the infrastructure work, working with municipalities to update urban land use plans, and more. ARRU coordinates by gathering information, collaborating with stakeholders to develop plans, and managing activities so that the upgrading programs are implemented. ARRU's coordination efforts are evident in the selection of neighborhoods for upgrading, and the selection of work to be performed in a particular neighborhood (both discussed in the section on governance and decision making).

To select neighborhoods, ARRU works with municipalities to gather information on neighborhoods that need upgrades. To determine what work should be provided in a given neighborhood, ARRU consults with basic service providers like ONAS, STEG, and SONEDE, and then works with them to develop recommendations for that area. Through this coordination, ARRU can identify which areas are most in need and minimize the duplication of work.

COORDINATING WITH DONORS

Since Tunisia's 2011 revolution, the number of donors supporting the provision of infrastructure and basic services has grown. Initially, the World Bank provided funding to ARRU's early iterations of its neighborhood-upgrading programs. In 1986, AFD began providing financial and technical support to ARRU. Through this support, AFD has become ARRU's main donor. After the revolution, the European Commission

Streetscape of Tunisian neighborhood undergoing upgrading

began providing additional financial support to ARRU's neighborhood-upgrading programs. The World Bank also began to support upgrading in Tunisia once again, though it has not channeled this support through ARRU. Instead, the World Bank established a program that empowers local governments to provide some of the same work as ARRU, with a goal of supporting the country's decentralization process.

As more donors have become involved in providing infrastructure and basic services, coordination among donors has helped streamline their support and avoid duplication of efforts. Since becoming a supporter of the PRIQH, the European Commission has channeled its funding through the AFD. With AFD serving as a channel, ARRU has to liaise with only one donor, which simplifies the planning process. The AFD also coordinates with the World Bank. Coordination between these two organizations is evident in the geographical complementarity of their programs. The World Bank sponsored an urban development and local governance program and ARRU's current neighborhood-upgrading program, the PRIQH, does not provide work in the same neighborhoods.

In PRIQH 2, ARRU took a new approach: both the agency and the municipalities agreed to share responsibility for maintaining improvements to a neighborhood. Through this new approach, ARRU and the municipalities believe that coordination will improve reach by preserving investments in infrastructure beyond the end of the upgrading programs themselves.

Interview participants from ARRU and an international organization affirmed that the need for infrastructure and basic services is greater than the available funding. In this context, coordination between donors helps prevent overlapping efforts that would waste valuable resources. Donors regularly communicate to exchange information about their programs. One official from an international organization noted that the World Bank and AFD are working to better align their programing and share lessons. Coordination between donors helps improve the reach of neighborhood-upgrading programs.

MAINTENANCE AND RECURRENT UPGRADING

While upgrading programs are reaching residents in informal neighborhoods, it's crucial that the upgrades are maintained to ensure the infrastructure continues to benefit residents. Unfortunately, maintenance has been a challenge both historically and within the PRIQH. An

academic at the University of Carthage explained how infrastructure and other services provided through the neighborhood-upgrading program can degrade quickly. This degradation contributes to the continued need for upgrading programs. Officials at both ARRU and AFD confirmed that the infrastructure that the PRIQH provided in the program's first phase, including sanitation networks and roads, did not last as long as they had hoped. As part of the first phase, ARRU asked citizens to prevent damage to the new upgrades. However, ARRU officials said that the residents struggled to maintain their houses because they lack resources. In PRIQH 2, ARRU took a new approach: both the agency and the municipalities agreed to share responsibility for maintaining improvements to a neighborhood. Through this new approach, ARRU and the municipalities believe that coordination will improve reach by preserving investments in infrastructure beyond the end of the upgrading programs themselves.

COORDINATING AND DECENTRALIZATION

As decentralization changes institutional arrangements, a new coordination challenge is emerging for the neighborhood-upgrading programs implemented by ARRU. The lack of clarity on new roles and responsibilities could make it difficult to establish new mechanisms of coordination or adapt old ones. If municipalities gain more responsibilities through decentralization, program stakeholders will need to adapt existing coordination mechanisms to implement the neighborhood-upgrading programs. The World Bank office in Tunis offers a different, and according to the organization's officials, complementary approach to this challenge.

Through additional financing to the Urban Development and Local Governance Program, the World Bank aims to foster a mechanism in which neighborhoods are selected through a call for the municipalities' expression of interest. This process would allow for municipalities to have

greater project ownership and selection over-sight—they can still choose to have ARRU as the project implementor or not. Across both the World Bank's Urban Development and Local Governance Program and ARRU's neighborhood upgrading programs, municipalities have been provided with greater decision making power. The challenges that will naturally emerge through this decentral-ization process will still need to be addressed.

SUMMARY

In Tunisia, neighborhood upgrading is a multi-stakeholder endeavor that involves a complex mix of government agencies, international donors, service providers, and contractors. Coordination facilitates the programs' implementation. Stake-holders also use coordination to extend the reach of infrastructure and basic services by helping to prevent duplicated efforts and by facilitating the maintenance of infrastructure.

Table 2 outlines some of ARRU's coordination re-lationships as part of the PRIQH. These relation-ships may evolve as the decentralization process-es advances.

TABLE 2. ARRU's coordination relationships

Who is responsible	What they do
ARRU and MEHAT	Delegation of responsibility from MEHAT to ARRU, sharing information about how work is implemented
ARRU and donors	Determining budget for neighborhood-upgrading programs
ARRU headquarters and regional offices	Decision making about where and what work is performed
ARRU and Caisse des Prêts (CPSCL)	Determining municipalities' funding contribution to neighborhood-upgrading programs
ARRU and the neighborhoods	Communicating information about upgrading activities to local residents
ARRU and contractors	Execution of the work
ARRU and service providers	Determining what work to perform and how to connect the work to basic service networks
ARRU and municipalities	Information sharing to target upgrading

Challenges

While Tunisia's neighborhood-upgrading programs are delivered effectively, the programs also face three critical challenges. First, both the design of the programs and their execution create a perverse incentive that encourages citizens to continue to build informally: citizens know they will be recipients of the program's benefits, which results in the cyclicality of both the problem and the program. Second, the country lacks a cohesive national housing policy that is preventive rather than reactive to these problems. Third, there are significant challenges with collecting accurate data. This affects policy-makers' ability to measure and evaluate the programs' impact.
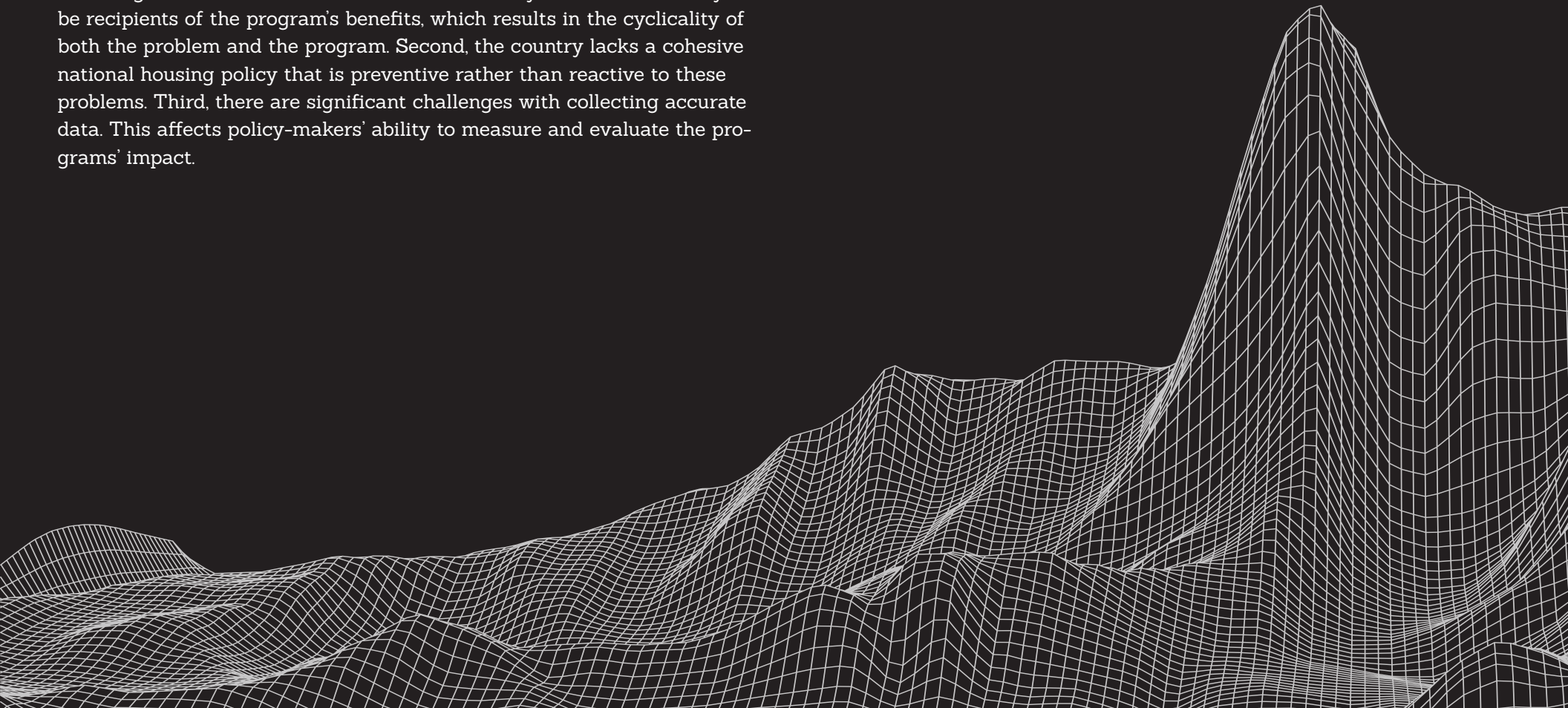
PERVERSE INCENTIVES AND CYCLICAL UPGRADING

For over thirty years, the government and donors like Agence Française de Développement (AFD—French Development Agency) have made extensive investments in neighborhood-upgrading programs. However, informal neighborhoods continue to exist in Tunisia. Their continued existence is not a result of ineffective program execution. The programs have effectively provided basic service connections and other infrastructure. They have also established spaces for social and economic activities in some areas, and more recently funded minor housing improvements. However, there is evidence that the design of such programs perpetuates the growth of informal neighborhoods.

The neighborhood-upgrading programs create incentives for residents to build on irregular land that typically lacks infrastructure, including connections to basic services. Irregular land is cheaper than regularized land. Through its upgrading programs, the Tunisian Urban Rehabilitation and Renewal Agency (Agence de Réhabilitation et de Rénovation Urbaine or ARRU) has been providing infrastructure to neighborhoods built on irregular land for many years. Residents continue to build homes on inexpensive irregular land, with confidence that ARRU will eventually provide them with infrastructure at no cost. This encourages the expansion of informal neighborhoods and the creation of new ones. A former ARRU director agreed that the agency has not succeeded at prevention. The programs instead inadvertently send a message to residents to continue expanding informal neighborhoods.

Expanding informal neighborhoods also expand ARRU's responsibilities. An interviewee from the National Federation of Tunisian Cities felt that the agencies involved in these programs, including ARRU, benefit financially from them. The neighborhood-upgrading programs are a source of continued projects, and therefore continued funding. An ARRU official confirmed that the PRIQH's implementation makes up the majority of ARRU's activities today. This suggests that ARRU also has an interest in the continued design and delivery of upgrading programs.

LACK OF A COHESIVE NATIONAL STRATEGY

While Tunisia's neighborhood-upgrading programs have succeeded in providing basic service connections and infrastructure to informal areas, the country lacks a comprehensive housing strategy that could stop informal building on land without basic service connections or other infrastructure. Several interview participants mentioned the need for a more cohesive national housing strategy. They argued that the upgrading programs are a reactive response to a lack of basic services and other infrastructure. While providing such services is important for residents' quality of life, the country lacks a proactive strategy that could prevent the creation and growth of informal neighborhoods.

Some initiatives aim to mitigate these problems. One is an adaptive pilot program that has been implemented in Sousse by the ARRU, specifically establishing a preventive approach to informal neighborhood growth. As part of this pilot, ARRU works with municipalities to prepare plots of land for residential building before houses are constructed. By including these plots of land in the Plan d'amenagement urbain (PAU or urban land use plan in English) and providing the area with infrastructure and connections to basic services,

ARRU and the municipality aim to reach informal neighborhoods' potential residents before they begin building their homes. Municipalities require the residents to purchase a permit before they can begin building on one of the prepared plots. By requiring paid permits for building on these prepared plots of land, ARRU and the municipalities recover the costs of providing infrastructure and basic service connections.

Although the pilot stands out as a proactive effort to prevent the creation of informal neighborhoods, it is unclear whether the up-front costs will discourage residents from building on the prepared plots. If residents continue to build on land that is not designated for residential building, the phenomenon of informal neighborhoods will endure until a larger policy solution is developed.
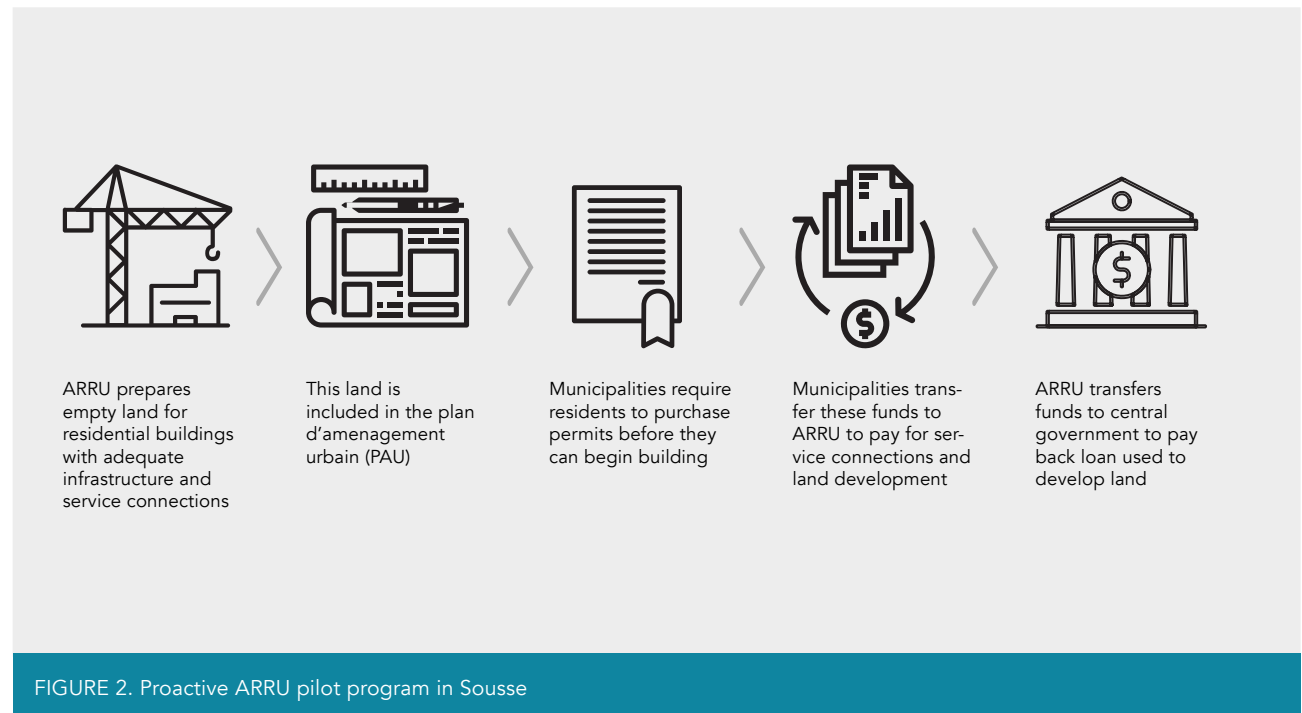
A second example is the UNDP's Strategic Vision for Kairouan, which one interviewee cited as an example of a proactive plan that could be integrated into municipal planning. This strategy differs from municipal planning with its future focus rather than reaction to current problems. Their work involves diagnosing Tunisian data. They review reports, statistics, and data on environmental, social, economic, and cultural factors and then meet with principal actors and civil society members to consult on the accuracy of these figures. The data are then transformed into challenges, highlighting the cause of the issues, including lack of connections to water and sanitation. The list of challenges and causes then allows for preventive planning. These initiatives alone, however, may not go far enough because they need to be integrated into a comprehensive approach to housing and informal neighborhood growth, rather than as piecemeal solutions.

DATA AND IMPACT

Beyond the challenges presented by the programs' design and the national policy context, the unreliability of available data makes it difficult to measure the number of individuals living in informal neighborhoods or evaluate the upgrading programs' outcomes and impacts.

The lack of reliable data on development indicators makes it difficult to understand how the size of populations living in informal neighborhoods has changed over time. It also makes it difficult to measure the number of residents who have gained access to basic services, or changes in related indicators of health or well-being. Many interview participants emphasized that data were skewed by the pre-revolution government. Distortions in the country's data have also been documented by Emma C. Murphy.[4] Many international organizations do not trust or use data from the Tunisian government published before 2011. Some interview participants are still skeptical or uncertain about the quality of data on development indicators that have been released since the revolution. Interview participants disagreed about the reliability of the most recent national census that was conducted in 2014. Together these concerns about the reliability of the data make it difficult to measure the size of informal neighborhoods or evaluate the outcomes and impact of the neighborhood-upgrading programs.

While data on development indicators in Tunisia are not considered reliable, the data that ARRU publishes on the work it executes are considered reliable. However, ARRU measures only outputs rather than outcomes or impact. For example, they measure the kilometers of sanitation pipes installed or roads built rather than improvements to the health and

ARRU prepares empty land for residential buildings with adequate infrastructure and service connections

This land is included in the plan d'amenagement urbain (PAU)

Municipalities require residents to purchase permits before they can begin building

Municipalities transfer these funds to ARRU to pay for service connections and land development

ARRU transfers funds to central government to pay back loan used to develop land

FIGURE 2. Proactive ARRU pilot program in Sousse

well-being of residents. Further, the fact that not all people living in informal neighborhoods are considered to be the poorest or most vulnerable populations highlights the difficulty of collecting data on the exact degree to which the poorest populations are affected by ARRU's work.

Following from the concerns about data quality in Tunisia, some international organizations have begun their own data-collection and verification initiatives. Over the past three years, the World Bank has been developing a survey on vulnerable families in the country. Part of the United Nations Development Programme's work on the Strategic Vision for Kairouan also involves diagnosing the accuracy of environmental, cultural, social, and

economic data by reviewing reports and statistics, utilizing the right to access information, and asking principal actors and civil society members for their insights. These initiatives are poised to make important contributions to policy-making and programing in Tunisia by offering a new source of data and helping to verify existing data. Through these initiatives, policy-makers and program stakeholders will be better positioned to evaluate the neighborhood-upgrading programs, and to adapt them and related policies accordingly.

4 Emma C. Murphy, "Under the Emperor's Neoliberal Clothes! Why International Financial Institutions Got It Wrong in Tunisia," ⧉ Marysa Blog, 6 July 2015.

SUMMARY

While ARRU has executed the neighborhood-upgrading programs effectively, three challenges threaten to limit their impact. First, the programs' design creates a perverse incentive that encourages more informal building. Second, Tunisia lacks a cohesive national housing policy that addresses this perverse incentive by offering a proactive solution to the dearth of affordable land and housing. Third, there are significant challenges with available data, affecting stakeholders' ability to evaluate the upgrading programs and adjust them accordingly.

Lessons Learned
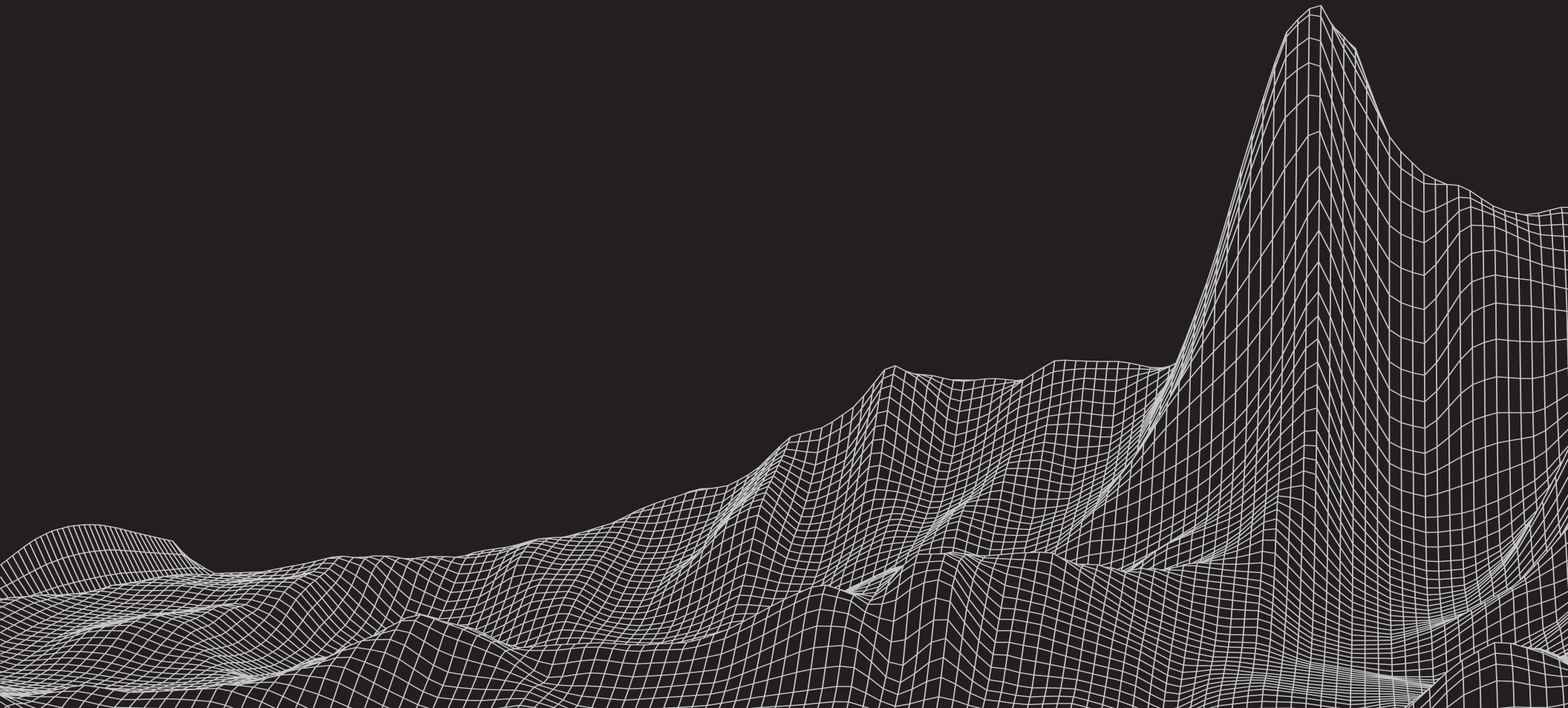
Tunisia's neighborhood-upgrading programs offer four important lessons.

THE LIMITATIONS OF DELIVERY

Although the Tunisian Urban Rehabilitation and Renewal Agency (Agence de Réhabilitation et de Rénovation Urbaine or ARRU) has been very effective at implementing the neighborhood-upgrading programs, new informal neighborhoods still arise and old ones continue to grow. The situation illustrates the limitations of program delivery alone. ARRU and its partners have successfully delivered work to informal neighborhoods for almost four decades, facilitating connections to basic services and access to other infrastructure. But without a larger strategy to prevent the growth and creation of informal neighborhoods, some residents will continue to spend time living without basic connections and infrastructure.

NEED FOR RELIABLE DATA

The lack of reliable data makes it difficult to understand the neighborhood-upgrading programs' outcomes and impact. While ARRU's output data are reliable, it is unclear how many residents now live with access to basic services. It is also unclear whether access to infrastructure, like roads, has improved economic and social well-being, or how residents' health has been affected by the upgrades.

TRANSITION TAKES TIME

The 2011 revolution initiated a series of profound changes to Tunisia's institutional environment, including a process of decentralization and the creation of new opportunities for public participation in decision making. However, the transition toward more participatory and decentralized ways of decision making is neither instant nor swift. The slow pace of transition is evident in multiple aspects of the neighborhood-upgrading programs. Program stakeholders' roles and responsibilities are still being clarified. Local governments will need time to build their capacity as they assume new roles in the upgrading programs. Residents and associations are beginning to express their preferences and priorities during public consultations about upgrading.

COORDINATION IS KEY

Tunisia's neighborhood-upgrading programs are complex endeavors that involve a variety of stakeholders. Through coordination, the contributions of various stakeholders are translated into an effectively executed program. The importance of effective coordination is most visible in situations where it has been absent—where lack of coordination on maintenance has led to the deterioration of infrastructure, limiting the benefits of the programs' reach and requiring more money to be spent on repeated upgrades. Coordination will continue to be necessary, and will likely take on a heightened importance as a diverse array of local governments take on a greater role in the neighborhood-upgrading programs.

RESEARCH TEAM

DR. JOSEPH WONG

Joseph Wong is the vice provost and associate vice president, International Student Experience, at the University of Toronto. He is also the Ralph and Roz Halbert Professor of Innovation at the Munk School of Global Affairs and Public Policy and a professor of political science. He held the Canada Research Chair in Democratization, Health, and Development for two full terms, ending in 2016. Wong was the director of the Asian Institute at the Munk School from 2005 to 2014.

BRUNO CÂMARA PINTO

Bruno Câmara Pinto has been in the Brazilian federal civil service cadre since 2000, developing activities with a focus on intergovernmental cooperation and the governance of social public policies. Since 2005, he has served as an advisor to the national management of the Bolsa Familia Programme at the Ministry of Social Development, where he has been responsible for designing and writing regulations, negotiating partnerships, and advising about bills proposed at National Congress on the program. Bruno currently serves as one of eighteen councillors at the National Council of Social Assistance for the 2018–2019 term. In the 2017–2018 academic year, he joined the Reach Project team as its first-ever research fellow.

WENDY WANG

Wendy Wang is currently pursuing a doctor of medicine degree at the University of Calgary. She graduated with an honors bachelor of science from the University of Toronto, majoring in global health and immunology. She was previously a Queen Elizabeth II Scholar at the University of Glasgow, Scotland, involved in immunology research, and previously partnered with the Ontario Ministry of Childhood and Social Services evaluating basic income policy implementation in Ontario. Wendy is currently the western regional director for the Canadian Federation of Medical Students.

KIRSTYN KOSWIN

Kirstyn's research examines the delivery of services to marginalized populations. She is particularly interested in the delivery of services to populations affected by violent conflict. Through her role with the Reach Project, Kirstyn has led research teams in India, Jordan, Rwanda, Sri Lanka, and Tunisia. Kirstyn holds a BA (honors) from McGill University, and a master of global affairs from the Munk School of Global Affairs and Public Policy at the University of Toronto.

CADHLA GRAY

Cadhla Gray graduated with a master of global affairs from the University of Toronto where she completed a collaborative degree in environmental studies. Cadhla has conducted research on the intersection of climate change and migration, the politics of oil and ecotourism in Ecuador, and police accountability in Ontario. At the International Organization for Migration, she co-wrote its Strategic Work Plan on Disaster Risk Reduction and Resilience, which maps the organization's climate resilience programing and tracks its progress against the Sendai Framework. Cadhla has worked in public engagement for over two years, facilitating consultations on various health policies and urban development projects in Ontario.

TINA VULEVIC

Tina Vulevic studies international relations and European studies. She previously interned at the Belgrade Centre for Human Rights and the Bill Graham Centre for Contemporary International History, and was named a Jackman Humanities Institute Scholar-in-Residence. She aims to do graduate studies in public policy or global governance. Her work with the Reach Project has greatly furthered her interest in public policy in North Africa and the Middle East.

REACH PROJECT

Development is about delivery—the will and ability to deliver interventions to very poor and vulnerable people to help improve their lives. The development "space" is filled with great ideas and innovative solutions, from technological interventions to new policy initiatives. But the effects of these potentially game-changing ideas are severely mitigated if they do not actually get to the people they are intended to benefit. We think of this challenge in terms of "reach." Solutions can solve problems only if they reach those who need them most.

The Reach Project focuses on the delivery of services and interventions to those who are hardest to reach. We are a research initiative supported by a partnership between the Munk School of Global Affairs and Public Policy at the University of Toronto and the Mastercard Center for Inclusive Growth. The Reach Project is led by Professor Joseph Wong. The commitment of student researchers and faculty mentors from across the University of Toronto drives our work. Together, we examine the delivery of services and interventions to those who are hardest to reach in countries around the world.

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