COMMONALITIES

Failures in service provision are an increasing environmental, economic, and political threat to Jordan, Lebanon, and Tunisia.

Demand for increased services from growing populations and economies is not the only source of the problem. Climate change and forced displacement, both of which are beyond governments' control, compound the pressures. These governments strain to increase supplies of electricity and water and to dispose of waste, but they are often forced to resort to short-term fixes that are environmentally and economically unsustainable. Since service delivery already consumes a huge percentage of their budgets, further increases in spending

on services are difficult. As a result, services are increasingly patchy—causing diminished economic growth, cumbersome workarounds, and rising public anger that often drives thousands to the streets in protest.

These countries' mid-twentieth century experience was different. Then, the expansion of public utilities often seemed like a miracle, bringing improved health and an invigorated economy even to remote and rural areas. Combined with universal education and expanded transportation options, utilities were an integral part of the nation-building process for Middle Eastern states. In the countries under study, utilities helped millions shift their focus from mere survival, lifted an even larger number out of poverty, and created opportunities for leisure that were previously unimaginable.

And yet, the increasing unreliability of those very same services has become a liability. Mere survival has once again become a preoccupation for a growing number of citizens. Poor services contribute to desperation and disease among vulnerable populations who cannot afford to pay for supplements to public utilities. The poor are more likely to suffer from the effects of pollutants on air, soil, and water, watching as environmental degradation shrinks their children's opportunities.

Establishing more sustainable systems is not only critical for the environment and public health. It can boost local job creation, especially among young technical graduates who are struggling to establish their careers, and make businesses more competitive and efficient.

The transition to sustainable models of service provision will require changes in behavior. Citizens will have to get used to recycling, farmers will need to grow less water-intensive crops, and homes and businesses will need to pursue greater energy efficiency. Some of these changes will face resistance, but the transition need not be painful. Incorporating affected stakeholders in strategic planning and providing them with appropriate incentives allows the transition to create new virtuous cycles for society and the economy.

In all of the sectors in the countries under study—power, water and sanitation, and solid waste—there are differences: in the ways utilities are organized, in the actors involved, and in the strategies governments pursue. Still, there are striking commonalities among them. This investigation of pathways to sustainability has revealed a surprising number of common pathologies that cut across sectors and countries.

■ OBSTACLES TO THE TRANSITION TO SUSTAINABILITY

NATIONAL STRATEGIES

Governments have ambitious and relatively forward-looking national plans for service delivery. Tunisia incorporated climate change into its service delivery

strategies as early as the 1990s, and it has set an impressive target of reaching 30 percent renewables in its energy mix by 2030. Jordan has made unprecedented investments in renewables, making it a leader in the region. These plans indicate that the governments appreciate the importance of acting to usher in greater sustainability in service provision.

However, shortcomings in the formulation of these strategies undermine their potential and will hamper implementation. First, national plans have often prioritized large infrastructure projects, and those mega-projects have become the target of local anger. For example, protestors closed state oil facilities in southern Tunisia, activists and industrialists stalled the Red-Dead project in Jordan, and civil society groups persuaded the World Bank to abandon the controversial Bisri Dam project in Lebanon after they led a sustained campaign. In all three countries, citizens believed that the mega-projects sought to advance narrow (and often private) interests in capital cities at the expense of local stakeholders.

Second, planning often ignores significant populations affected by both the provision of services and their absence. In Lebanon, for example, government planning systematically ignores the country's refugee population, despite their constituting as much as a quarter of the country's inhabitants. Tunisia's national waste management strategy excludes more than 10,000 barbechas, informal waste collectors who collect most of the plastic that is recycled in the country. Repeated civil society attempts to formalize these workers' roles have failed, deepening barbechas' distrust of the government. Government strategies cannot succeed if they fail to consider significant numbers of consumers or large populations whose livelihoods the strategies threaten. In fact, these failings both jeopardize the strategies' success and further marginalize large and vulnerable communities, contributing to domestic strife.

A third common failing is inadequate intragovernmental coordination. The three sectors of power, water and sanitation, and solid waste management are intimately intertwined, and yet in all of the countries under study, the ministries and agencies that manage them exist in silos. A nexus approach in national service delivery, which is currently lacking in all three countries, would make all of them more efficient.

Finally, national plans are characterized by top-down planning, with inadequate stakeholder consultation and participation across the board. For example, the Tunisian government has articulated a commitment to decentralization in the country's water strategy, yet the government conducted only negligible consultations with affected parties. The issue is not merely political inclusion—although such inclusion would go a long way toward building trust with affected parties. There is also the need for more engagement with local communities, which would help ensure that projects built are appropriate to local needs, contributing to their ultimate success.

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TRANSPARENCY AND AWARENESS

Utility provision is an especially opaque process in these countries, and populations in each country complain that they have little insight into what governments do in this field and why. For example, pricing is generally wholly divorced from the cost of providing utilities, and the public has no idea what those costs are (and would not trust a government estimate of them). In addition, broad sectors of the population have, over time, grown to consider cheap utilities as an entitlement.

Governments must do several things simultaneously: connect pricing to costs, protect the most vulnerable, and address stakeholders' concerns. Greater transparency and inclusion of end users in planning processes would provide additional benefits to governments. For example, effectively engaging farmers would help inform government efforts to provide incentives and to vary cost structures with the goal of persuading farmers to farm less water-intensive crops. Doing so contributes to government goals of reducing consumption while also broadening political inclusion.

Poor public awareness of the importance of sustainable development has complicated governments' already difficult jobs. When governments insufficiently explain sustainable initiatives to local communities, those communities resist change. For example, an electricity expert in Tunisia noted that rural communities are generally unaware of the direct and indirect benefits of renewable energy and express no interest in pursuing it. More explicitly aligning governments with the goals of improving food security, water access, and sanitation systems—and explaining the ways that renewable technology advances those goals—would increase its acceptance.

REGULATIONS, ENFORCEMENT, AND ACCOUNTABILITY

A widespread sense of pervasive favoritism marks criticisms of governance in Jordan, Lebanon, and Tunisia. Incomplete

regulations, uneven enforcement, and limited accountability define all three service sectors in all three countries to varying degrees. In Lebanon, for example, laws for service provision are incomplete, outdated, and sometimes contradictory. Even worse, the regulations that do exist are unevenly enforced, and entrenched confessional patronage systems shape every sector of service distribution. Without independent regulatory bodies for service provision, corruption—and perceptions of corruption—festers, eroding public trust.

The post-revolutionary government in Tunisia has taken steps to improve the regulatory environment, but it does not enforce regulations uniformly. In addition, the government has failed to establish an independent regulator for the electricity sector in the face of resistance from the national utility company and electricians' unions, and Lebanon has delayed the establishment of an independent regulator for the electricity sector for decades. The Jordanian government has struck agreements with private companies in the water sector with little public disclosure.

Stakeholders often have limited avenues to hold government officials accountable for poor service provision. Overlapping authorities and responsibilities between different ministries and agencies frustrate citizens' ability to hold underperforming officials to account. Tunisia has made some progress in this regard, and the decentralization process has enhanced local accountability for waste management. However, local officials often lack adequate resources to fulfill their responsibilities.

HUMAN AND TECHNICAL CAPACITY

Interviews in all three countries cited limited human capacity as an important obstacle to more sustainable service provision. The local politicians who won Tunisia's 2018 elections became responsible for waste management, but few had any experience in the sector, and budget constraints have prevented many municipalities from hiring staff with the requisite skills. In Lebanon, periodic government hiring freezes have simultaneously barred highly competent people from serving in the government while insulating unproductive employees from accountability. The Jordanian government lacks necessary technical skills among its workforce, with the limited technical capacity of municipal officials posing a particular challenge.

Jordan, Lebanon, and Tunisia struggle to utilize the human capital that exists. Poor environments for innovation and entrepreneurship often prompt the most promising entrepreneurs to seek opportunities abroad rather than in their home country. Weak links between academia and entrepreneurship also undermine the potential of innovation in sustainable initiatives to deliver services.[162] The business community has some environmental expertise, but outside of that, those with relevant skills find it difficult to engage in any way on policy decisions with environmental implications.

Aging and dilapidated infrastructure is a further problem, undermining service delivery and the potential to transition to more sustainable systems. In Jordan and

Lebanon, the electricity grid does not allow for an effective use of renewables; in Tunisia and Lebanon, almost half of mobilized water is wasted due to leakage and other inefficiencies in the system. Infrastructure must be rehabilitated and upgraded to reduce waste, increase supply, and facilitate a transition to sustainability.

CAPITAL

Governments cannot simply spend more money to remedy these issues. All three countries have poor tax collection regimes. Jordan and Lebanon have among the lowest rates of tax collection in the Middle East, and just 29 percent of Tunisians pay municipal taxes, which fund waste management. Low tax revenue is partly the result of inefficiencies in government collection systems, but it also represents a growing trend of citizens refusing to pay taxes and utility bills on principle. These protests contribute to a vicious cycle in which citizens withhold funds to protest the government's poor performance, leaving the government with even less ability to improve service provision.

Governments also struggle to attract foreign investment to improve service provision. All three countries have had multiple changes in governments in the past decade, undermining investor confidence in consistent policies and raising fears of destabilizing power vacuums. Beyond political instability, poor services also contribute to a vicious cycle for the private sector: unreliable supplies of electricity deter investment that could improve those same services.

VESTED INTERESTS

Government attempts to encourage greater investment and private sector participation in service provision are met with resistance from powerful actors with vested interests. National utility companies often consider moves to open up their sectors to new actors to be a threat. In Lebanon, Electricité du Liban dominates the energy sector and tries to quash independent electricity initiatives. In Tunisia, both the national electricity and gas company, Tunisian Company of Electricity and Gas (STEG), and the electricians' union have resisted the government's attempts to increase the privatization of the energy sector for fear of a loss of jobs and lower salaries. In Jordan, electricity distributors are locked into long-term contracts and lack incentives to deal with the variable nature of renewables on the grid.

Powerful constituencies have also resisted government plans to enforce environmental standards. In Jordan, several prominent landowners and agricultural companies wield significant power, and they lobby the government against enforcing water conservation strategies. In Lebanon, factions in the government and so-called "generator mafias" have worked to resist the introduction of renewable technologies.

These vested interests accentuate a feeling that corruption is pervasive. Powerful constituencies' ability to block government initiatives undermines any confidence that developments in service provision will be done in good faith. Social groups are divided against each other.

While weaker groups believe that cheating is necessary for their survival, they also believe that what is truly corrosive is the massive cheating that the powerful pursue to advance their own interests.

THE TRUST DEFICIT

There is little doubt that a transition toward more sustainable systems of service delivery in the Middle East would require new technologies, infrastructure, fee systems, and regulations. All of these can be bought off the shelf or be custom-designed by consultants with global experience. On paper, the new systems will be geared for success. And yet, even the best systems in the world cannot succeed by themselves. Governments implementing these systems must acknowledge and respond to the nuances of their local contexts, address the foundations of their political economy, and act with transparency and inclusivity. These requirements may appear daunting, but they come down to something quite fundamental: if these efforts are to succeed, governments must build trust.

TRUST AND SERVICE DELIVERY

Trust is easier to feel than to define. Philosophers, psychologists, economists, political scientists, and others have pondered trust for as long as their academic fields have existed. Trust is a pervasive characteristic of human interaction, shaping expectations of behavior between individuals in communities, organizations, and societies.

Academics have broken trust down into several categories. The most fundamental form of trust is relational trust between two people, in which an individual accepts some kind of vulnerability based on a positive expectation about the intentions or behavior of another.[163] The next level of trust is organizational trust, which is a generalized expectation or belief that comes from membership in an organization.[164] A broader sense of trust is institutional trust, which is a sense of security based on guarantees, safety nets, or other structures.[165] Francis Fukuyama articulated an even broader understanding of generalized trust, which is "the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms, on the part of other members of that community."[166] Political trust is linked to the latter two, representing confidence in the state's ability to mediate between the demands of competing groups in society.[167]

The Middle East is broadly considered to be a low-trust environment.[168] This is in part because of the region's widespread economic insecurity. Where people feel economically secure, they are more likely to trust their government and have confidence in public institutions; when citizens fear for their own livelihoods and perceive their country to be suffering economically,

they are less likely to trust their governments.[169] In addition, studies have found that institutional trust has deteriorated in societies rocked by the Arab Spring. This seems to stem, in part, from citizens' feeling that the uprisings were disruptive but provoked little meaningful positive change.[170] Given the economic crises that are currently raging across the Middle East—which the Covid-19 pandemic has exacerbated—trust in government in Jordan, Lebanon, and Tunisia is likely to have further declined.

Service provision plays an intimate role in shaping citizens' attitudes toward the state. Citizens' experiences when governments provide services poorly affect not only their views of state capacity, but of the state itself.[171] Institutional trust has been found to be the greatest factor determining resource stakeholders' perceptions of legitimacy: Low levels of trust in institutions are associated with low levels of legitimacy.[172] Poor government performance abets rule breaking and promotes defiance in the sectors the government is seeking to administer, further handicapping government efforts to improve that performance.

Low-trust environments shape the decisions that individuals make regarding services and natural resources. Many feel a need to pursue individual, short-term gains at the expense of long-term, communal interests because of scant trust that any future benefits will materialize. Such individuals are therefore more likely to exhaust accessible resources, such as groundwater supplies, irrespective of the long-term consequences for themselves

If these efforts are to succeed, governments must build trust.

and those around them. The behavior pattern, which academics term a "tragedy of the commons," jeopardizes the futures of individuals and communities alike.[173]

Low levels of trust also drive individuals toward informal channels to access services. In the Middle East, this takes the form of investing in wasta (personal connections) and bribery to obtain services.[174] A belief that individual citizens lack recourse when rules are not followed also pushes citizens toward clientelist networks that are both economically inefficient and drive further rule-breaking.[175]

Seen broadly, low levels of trust increase costs to governments and consumers alike. Individuals are unwilling to invest in better outcomes, seeking to maximize what they can extract immediately. Governments face reduced compliance by users; users find they must pay to supplement inadequate services, enter into

costly networks to ensure services are delivered, and sometimes both. The patterns create cycles of growing distrust that raise costs for all parties. The antagonism that the distrust creates spreads into other aspects of social and political life. Without enhancing trust, no government strategy to deliver sustainable services will succeed.

BUILDING TRUST IN LOW-TRUST ENVIRONMENTS

Building trust in low-trust environments such as the Middle East is difficult. Some scholars have proposed a phased approach up the chain of trust described above. That is, one should begin with efforts to enhance relational trust among individuals and within small groups, then organizational trust, then institutional trust, and finally generalized trust.[176] Based on this approach, policymakers may wish to focus on building trust within individual communities as a first step. Building community trust could ward against marginalized individuals' tendency to make myopic decisions.[177] When individuals have confidence their community can help cushion any short-term pain of transitions and ensure longer-term benefits, they are more likely to prioritize future gains such as the transition to sustainability. Sustained engagement of the community is one way that policymakers can build this trust.

In another strategy, local organizations operating in low-trust environments can build "secluded worlds" of high trust.[178] They may not be able to rely on generalized trust in society, but they can build organizational or even interorganizational trust. Cooperative enterprises that manage resources or provide utilities have built pockets of trust in other low-trust environments.[179] These experiences indicate that entrepreneurial and local initiatives may be key to building the trust required for a transition to sustainability.

However, the task of building trust in low-trust environments is not reserved for local initiatives alone. Governments can build trust by identifying and amplifying success stories. The World Bank has argued that "states can identify and popularize local successes by using the media, awards, and other campaigns to draw attention to best practices and to the social norms of responsive and clean service delivery and government."[180] Policymakers can also learn from those who have made the system work to identify ways of circumventing vested interests and building on those insights.[181]

BUILDING TRUST IN JORDAN, LEBANON, AND TUNISIA

Regional governments, donors, and international organizations are properly focused on technical efforts to promote more sustainable utility services in Jordan, Lebanon, and Tunisia. Yet, technology is only a part of the equation. Governments' ability to earn the trust of their citizens is the other part. Societies must not only pay the costs of outdated and inefficient infrastructure; so too must they pay the very real costs of defiance and circumvention of consumption constraints, utility theft,

bribery, supplemental services, and political corruption.

Governments must also build citizens' trust in the business environment. They must demonstrate that rules will be applied evenly, and they must engender confidence that future government strategies will not undermine sustainable business models. Insufficient strategic planning has long undermined companies working in renewables in Lebanon and Jordan. By handicapping entrepreneurs, governments undermine their own plans for a sustainable future.

The onus does not rest entirely on governments. Greater sustainability will require changes in behavior from a wide range of stakeholders. Elites—from the heads of utility companies to wealthy farmers—cannot be allowed to wield vetoes over policy. On the other end of the spectrum, marginalized communities must be weaned from consumption patterns that rely on highly subsidized government services. In truth, the status quo has been entrenched by incentives that reward current behaviors. These behaviors will need to be dismantled by a careful deployment of carrots and sticks. Trust is the currency that runs through these relationships, and that trust must be enhanced.

THE GOVERNMENT'S ROLE

The most fundamental way of increasing public and private sector trust in the transition to sustainability is to increase transparency and clamp down on corruption. Doing so is not as hard as it sounds. Records for procurement processes and accounts can be digitized and made publicly available. Independent regulatory authorities to enforce regulations and allow for auditing are also required. High-profile investigations into elite corruption, such as the Italian waste scandal in Tunisia, can help address the trust deficit and show seriousness of government action on corruption. Technology also provides multiple ways for citizens to undermine corrupt monopolies. On the one hand, fintech allows for the efficient, transparent, and low-cost transfer of cash, eliminating predatory middlemen. Technology also allows citizens to share both analysis and documentation freely, whether of conditions at the point of service or corruption at senior levels. While those with malign intent can use technology to obscure and obfuscate, the greater trend is using technology to level the playing field between the powerful and everyone else.

Governments must also support inclusion. They should increase stakeholder consultation and participation to government planning and decisionmaking processes. Being more inclusive will allow policymakers to target social and economic incentives to different communities to encourage them to engage in more environmentally sustainable initiatives. Providing context-specific carrots (and sticks, when necessary) is key to persuading skeptical stakeholders that the government understands their concerns.

National strategies should be built to maximize the benefits for those who need it most. Focusing on local job creation will also build trust. Part of utility unions' aversion to innovation in the services sector is

a fear of job losses. Governments should seek to ensure that the transition to sustainable services will demonstrably grow the economy, stimulate job creation for local communities, and develop the skills of the workforce to work in new industries.

Governments should also adopt new strategies to build awareness of their sustainability programs. Communication strategies should be tailored to ensure that they resonate with specific communities and stakeholders. Providing more space for civil society to operate independently will buttress these efforts and increase an important source of accountability in service provision. And governments should amplify success stories through strategies such as media campaigns and awards.

Governments' must price services more sustainably. Untargeted subsidies are not only costly overall, but subsidies increase as consumption increases, and they provide the greatest benefits to the wealthiest. In reducing subsidies, governments will need to do so in phases while simultaneously enhancing social safety nets. Supplemental cash transfers to vulnerable communities must accompany price increases. Higher prices are necessary to foster entrepreneurship in sustainability, but suddenly removing energy subsidies without any compensatory income—as may happen in Lebanon—will further grow the trust deficit.

Governments must forge new partnerships with the private sector that escape from traditional patron-client relationships and spur the private sector toward socially desirable entrepreneurship. Demonstrating a clear and long-term commitment to en-

The status quo has been entrenched by incentives that reward current behaviors. These behaviors will need to be dismantled by a careful deployment of carrots and sticks.

vironmentally sustainable initiatives will help reassure private sector entities that participating in the sector will have long-term benefits. Governments should also examine and rework investment codes to facilitate local and foreign investment while providing businesses incentives to train workers and hire locally.

INNOVATION, ENTREPRENEURSHIP, AND TRUST

While national governments can create a broad environment that is conducive to entrepreneurship, local initiatives have

an important role to play in bolstering the government-led transition to sustainability. They can do this by creating pockets of trust and effectiveness. Local initiatives can improve state services when their efforts relieve pressure on state suppliers, making those services more reliable and building public confidence in the overall system. Such initiatives can also relieve pressure on state budgets.

Local and decentralized initiatives can also play a critical role in achieving community buy-in for sustainable service delivery. Local initiatives are likely to be more responsive to local needs, prompting context-specific solutions that are effective in the local political economy. If initiatives focus on local job creation, they can combat brain drain and help ensure the retention of skilled employees. Private entities have an important role to play in developing the skills of local communities so that they can perform the required jobs. For example, Biome Solar Industry in Tunisia established a training center for the installation of solar water heaters, which led to the creation of more than 90 micro-enterprises across the country.

Private initiatives contribute new streams of revenue to the government through taxation. A subsequent benefit of increasing taxation enforcement is that it can help build accountability in the government, and so reinforce the social contract between citizens and the government. Non-state initiatives may be more cost effective than public sector initiatives and have lower operating costs. Therefore, they can contribute to lower costs for consumers.

For all of the differences in environmental conditions, political structures, and business environments in the countries under study, very strong commonalities link them. What were once revolutionary and successful enterprises to provide services to expanding portions of the population are now strained institutions. Subsidies on utility services have become entitlements, straining the budgets of institutions that provide them and driving consumption of those services higher. Popular politics provide little check on government action, in part because politicians support the subsidies and in part because the utilities fit into broader patterns of political and commercial patronage.

Environmentally sustainable initiatives do more than merely hold out the promise of reliable and economical provision of services; they also help build trust by providing tangible evidence of government and private-sector activity that improve people's lives. From the seed of seemingly pedestrian public utilities, a more vibrant relationship can emerge between the governing and the governed.