Briefing

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Policy pointers

Helping water utilities become resilient to continuing pressures requires international agencies to rapidly move from 'substitution' towards support that helps services recover quickly, but which also continuously bolsters utilities' capabilities.

Donors' funding should be flexible enough to simultaneously support preparedness, relief and development.

To remain resilient to conflicts, utilities need: contingency plans; flexible and sustained staffing; viable revenue mechanisms; and systems that let them manage water and energy resources efficiently. They should also keep engaging with their customers so as to enhance accountability and trust.

International agencies should coordinate and align their activities with local governments' strategies. They should also work more closely with the private sector, including independent small-scale water providers.

Supporting water service providers during conflicts

Across the Middle East and North Africa region, water utilities are increasingly struggling to maintain services during protracted conflicts. To become more resilient, they need to tackle long-standing vulnerabilities that let the impacts of conflicts accumulate. However, many have increased their dependency on external help, particularly on humanitarian and development aid. In many cases, international agencies have had to continue playing a substitution role over long periods, while their supporting activities have remained limited. This briefing reports a study of Syria, Iraq, Yemen, Palestine, Jordan and Lebanon that revealed how interventions that move towards structural support as early as possible during emergencies can reinforce water utilities' resilience, and make service provision more sustainable and equitable.

The Middle East and North Africa region (MENA) has about six per cent of the world's population but under two per cent of its renewable freshwater resources, making it one of the world's most water-scarce regions.[1] UNICEF and WHO estimated 52 million people here lacked access to an 'improved water source' before 2010.[2] Since then, conflicts have left many more needing humanitarian assistance.

Wars have destroyed entire societies and displaced over 22 million people.[3,4] The Syrian conflict alone has displaced 6.5 million people within the country (termed 'Internally Displaced Persons'; IDPs), while 4.8 million have fled as international refugees. In neighbouring countries, where many refugees have settled, systems providing basic services were often already fragile.[5] In some cities in Syria, Iraq, Yemen and Palestine, municipal water supply systems no longer function because infrastructure is too damaged. In other areas, acute increases in demand have added pressure on existing structures, making long-standing problems more challenging. Many water utilities affected by the

protracted conflicts are no longer able to regularly supply basic services without external support.

This briefing presents the main findings of research into water service providers' abilities to continue supplying people during conflicts in the MENA region.[6] The study interviewed 69 people from local and international humanitarian and development organisations, utilities, national and local governments, and civil societies. It assessed the capacity of water utilities to respond to conflicts' impacts on supply and demand, and how international agencies and independent small-scale operators support utilities and fill distribution gaps. It focused on Syria, Iraq, Yemen and Palestine, and included in-depth case studies of Jordan and Lebanon. Interviewees' responses were organised into emerging themes on the challenges facing water suppliers, as well as factors that successfully built resilience.

Utilities' challenges

Stresses and shocks to services are harder to address when their impacts have been allowed to accumulate.[7] In the MENA region, many difficulties

in providing water are rooted in systemic issues that pre-date recent conflicts and their impacts.

In Lebanon, the influx of 1.5 million Syrians and the associated acute demand for water has strained local services. Nevertheless, services were already weak due to political challenges that have affected water management for decades.

In Jordan and Palestine, managing water resources has long been difficult because freshwater resources are scarce. In Jordan, water services were rationed before the refugee influx.

The more resilient a service provider is, the less need there is for relief-type interventions

In Syria, water systems were strong before 2011, but armed conflicts in cities like Aleppo and Damascus have posed huge challenges. Staff casualties, declining power supplies and depleted stocks have made it very difficult to respond immediately to damaged infrastructure. At the start of the war, Syria's utilities did not have sufficiently strong emergency plans and lacked access to contingency equipment.

Lack of preparedness, poor strategies for long-term water management and weak local decision-making capacities have all made utilities more vulnerable to conflicts. Long-standing factors have so weakened service providers that external agencies have had to provide support from the onset of crises.
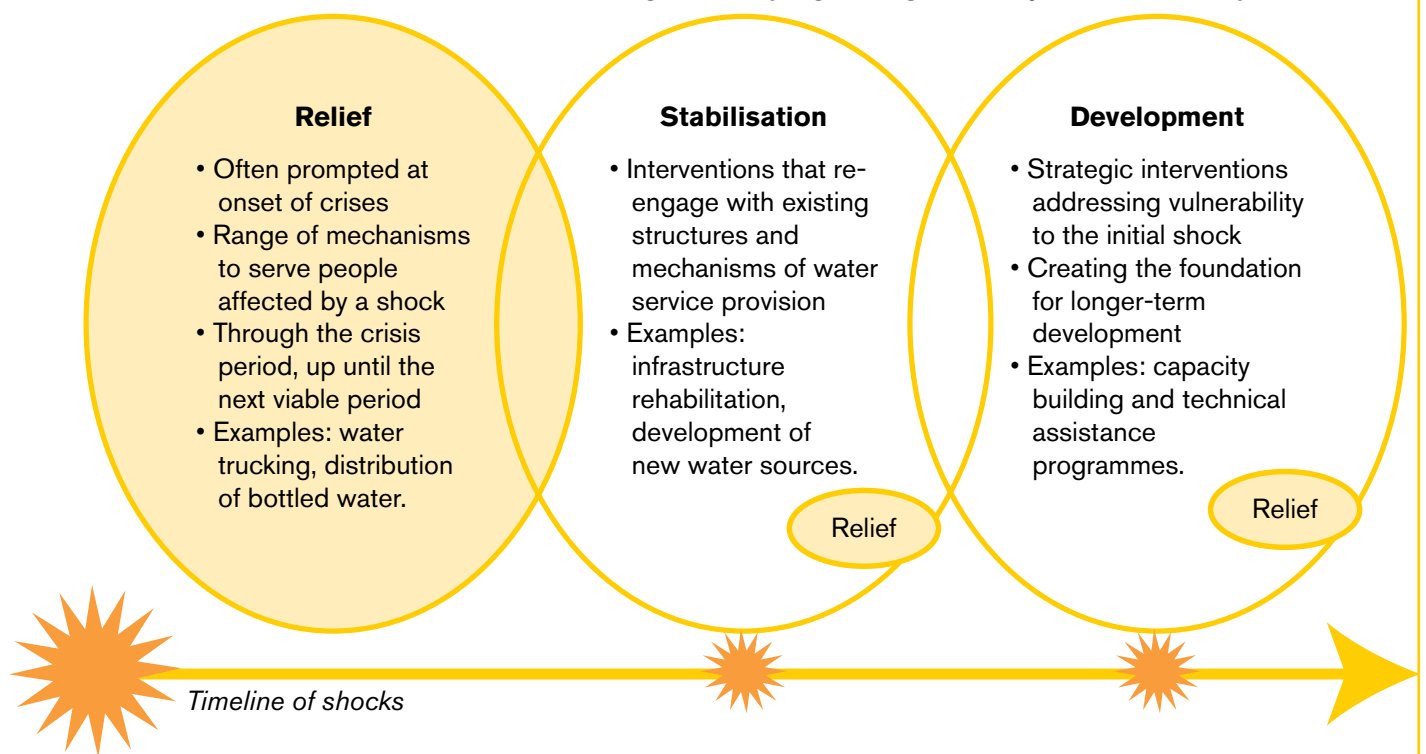
Relief should become less necessary

Certain humanitarian theories see crises typically evolving from 'relief' to 'stabilisation' and 'development' phases. Yet the distinctions are often nuanced and more complex, particularly in the MENA region, because protracted conflicts cause successive shocks (Figure 1).

Humanitarian *relief* is usually reactive and unlikely to tackle underlying issues. By contrast, more structural support during *stabilisation* and *development* phases is the core of resilience-building. The more resilient a service provider is, the less need there is for relief-type interventions. Where emergency-type support such as water trucking becomes imperative, implementation should aim to make relief-style coping mechanisms unnecessary as quickly as possible.[7]

Many aid organisations have short-term funding cycles that do not necessarily match the scale and duration of a challenge. Additionally, many aid organisations are often compelled to follow donors' agendas, and these sometimes focus either on humanitarian aid or on development aid, thereby fragmenting interventions and impeding long-term support.

This two-track approach also fosters another problem. In cities and countries hosting displaced people, humanitarian aid has usually tried to help refugees whereas development aid has focused on host communities. Furthermore, in Jordan and

Figure 1. Successive shocks that re-activate the need for relief are among the reasons preventing aid interventions in the Middle East and North Africa region from progressing smoothly towards development.

Relief
- Often prompted at onset of crises
- Range of mechanisms to serve people affected by a shock
- Through the crisis period, up until the next viable period
- Examples: water trucking, distribution of bottled water.

Stabilisation
- Interventions that re-engage with existing structures and mechanisms of water service provision
- Examples: infrastructure rehabilitation, development of new water sources.

Development
- Strategic interventions addressing vulnerability to the initial shock
- Creating the foundation for longer-term development
- Examples: capacity building and technical assistance programmes.

Relief

Relief

Timeline of shocks

Lebanon, where millions of Syrians have sought refuge, unequal access to basic services — whether perceived or real — has sometimes raised tensions between host and refugee communities in urban areas.

Lessons learnt

Our study gathered a wide range of experience from across the region on how to ensure that populations in crises have acceptable water services. Some approaches have clearly been more effective than others, and the lessons below identify good practice that makes service providers more resilient to shocks and/or long-term impacts.

Emergency plans and contingency stocks let utilities quickly restore/maintain services. Contingency planning helps utilities respond quickly to crises and deal with equipment and supply shortages. In Gaza, constructing decentralised warehouses to hold emergency equipment in each governorate enables quick responses during any crisis. Having well-prepared utilities also buys time for humanitarian agencies to make their interventions more strategic.
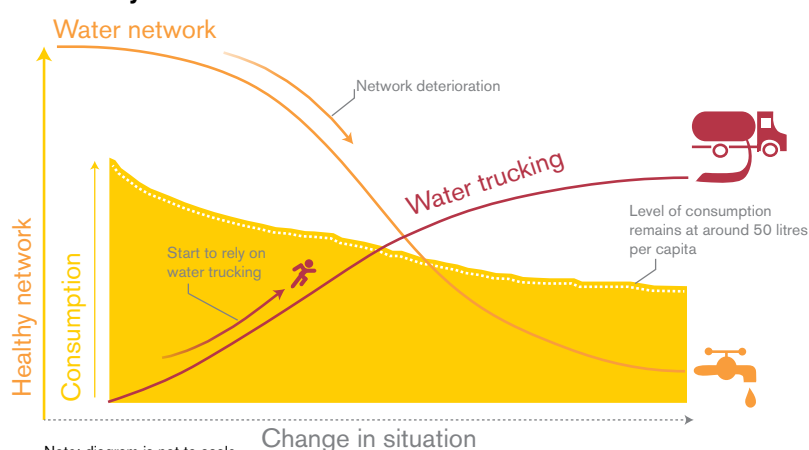
Utilities are more resilient when they can sustain their staffing during crises, deploy people flexibly and continue building their human resources. In Iraq, casualties and emigration have reduced staff availability and expertise for repairing, operating and managing supply systems. This has undermined local capacities to respond and increased reliance on external support. In some countries, including Lebanon, national governments and/or international agencies have had to cover staff salaries in order to retain capacities.

In Iraq, the International Committee of the Red Cross (ICRC) has trained local operators in order to maintain local expertise and ensure efficient responses during emergencies. This intervention has also highlighted the need for flexible staff who can take on multiple roles.

Water and energy resources should be used as efficiently as possible. In many places across

Figure 2. Schematic diagram showing how individuals who were previously served by networks are now also resorting to the private sector in Syria.

Note: diagram is not to scale

Source: WoS WASH Cluster, 2016.[10]

the region, drilling additional wells or increasing pumping rates to meet higher demands means aquifers are being depleted faster than they naturally replenish. Although it is difficult to put efficient resource use measures in place during a crisis, efficiency provides considerable medium- to long-term benefits. Reliance on emergency water and energy supplies can only be temporary.

External agencies have given many governments support to develop resource efficiency. Approaches include: aquifer recharge programmes (for example, in Egypt); reducing leakage in urban distribution systems; and using treated wastewater to minimise freshwater use in agriculture (for example, in Jordan). Some local urban utilities in Yemen are building pilot solar systems to reduce reliance on the weak electrical grid and on standby generators.

Coordination and better understanding of utilities' needs are both required. Coordination between organisations in the water, sanitation and hygiene (WASH) sector, particularly when led by local government, has helped develop such understanding.[8] Coordination also opens opportunities for well-targeted capacity-building

Box 1. Looking at water provision problems from all angles: an integrated approach in Bekaa, Lebanon

In the Bekaa region of Lebanon, the average subscription rate to the utility network is of 36 per cent. It also has some of the country's highest rates of unpaid water bills. The reasons include the utility's poor performance, inefficient revenue collection systems, inappropriate tariff structures and people's lack of trust in public authorities.

The EU-funded NGO GVC (Gruppo di Volontariato Civile) has worked with a consortium of other organisations to take an integrated approach to supporting the water utility in charge. Preliminary research found 90 per cent of interviewees were ready to pay higher water tariffs and to have water meters installed in exchange for more reliable services.

Based on these findings, the utility upgraded the water meter system and the NGO began working as an intermediary between the Bekaa Water Establishment, municipalities and citizens to facilitate dialogue, including discussions on introducing water meters. Two pilot areas achieved an overall subscription rate of 82 per cent.[11]

programmes. In Aden, Yemen, clear WASH cluster[9] coordination has efficiently delivered water to 800,000 people, supporting a utility that might otherwise have been near collapse.

International donors and aid practitioners need to better recognise local service providers' needs, and understand their financial viability and business models so as to effectively engage and support them.

International agencies need to involve the private sector. Independent small-scale operators and water vendors have expanded their roles across the region (Figure 2). Often, this has been due to rising water demand and/or utilities' incapacity to maintain levels of services.

In some water-challenged urban areas, international agencies have developed their own mechanisms for providing water, leading to two common problems. First, duplicate systems are inefficient. Second, providing water for free can make it difficult for utilities to later introduce tariffs for water services.

Conversely, humanitarian and development agencies benefit from working more closely with independent providers. Partnering with such operators can boost local livelihoods, but also make the most of existing relationships between providers and citizens. Benefits include better oversight of unlicensed providers' activities (for example, oversight of water quality standards). Collaborating with informal providers also provides opportunities to regulate water prices and ensure fairness for all.

In hosting cities, integrated interventions can benefit everyone. In some cities experiencing refugee/IDP influxes, governments have opposed developing permanent water distribution systems for newcomers living in informal settlements (tented camps or abandoned buildings). As a result, international agencies have had to continue providing emergency-type support, at high financial cost, and using money that could have been more efficiently invested. International agencies in Lebanon, for example, are still filling gaps in supply by trucking water into urban areas six years after the influx.

In Lebanon, more than 80 per cent of refugees live in cities. Solutions are being found on a case-by-case basis. Programmes that support the most vulnerable, from both host and refugee communities, have helped mitigate the risk of tensions around water provision. They also support more holistic urban development. Applying an area-based approach often helps humanitarian and development interventions benefit refugees/IDPs without undermining host communities' needs.

Utilities need to keep engaging with the communities they serve. Crises weaken relationships between people and the state, so maintaining trust between populations and service providers is crucial. Customers who could pay don't want to pay for unreliable services. This undermines utilities' financial viability, which further erodes service quality, stoking a vicious cycle. Many organisations including UNICEF and their implementing partners are addressing this issue by creating space for utilities and customers to engage and better understand each other's needs and challenges (see Box 1 for an example).

Donors should make funding flexible enough to cover protracted challenges. When crises become protracted, support that helps services recover quickly should be complemented by continuously bolstering and adapting utilities' emergency preparedness and response capabilities. Of course, international agencies must prepare exit strategies, but complex and drawn-out emergencies typically necessitate support for preparedness, recovery and stabilisation/development.

Overall, external agencies and their programmes must look to move quickly from substitution-type activities, towards supporting local service providers, in order to reduce dependence on costly and unsustainable crisis interventions. While NGO-managed water services may be essential during relief efforts, resuming and improving existing systems is equally essential for building resilience. It is this resilience that lets utilities provide adequate services in the short-, medium- and long-term.

Loan Diep

Loan Diep is a project officer and an urban WASH researcher with WSUP (Water & Sanitation for the Urban Poor).

Notes

[1] Al-Otaibi, G (2015) By the numbers: facts about water crisis in the Arab World. http://blogs.worldbank.org/arabvoices/numbers-facts-about-water-crisis-arab-world / [2] UNICEF/WHO (2012) Joint Monitoring Programme for Water Supply and Sanitation. Data sets available via www.wssinfo.org / [3] UNICEF (2017) Middle East and North Africa. www.unicef.org/appeals/mena.html (accessed March 1, 2017). / [4] IOM (2016) Migration to, from and in the Middle East and North Africa: data snapshot. www.iom.int/sites/default/files/country/mena/Migration-in-the-Middle-East-and-North-Africa_Data Sheet_August2016.pdf / [5] OCHA (2017) Humanitarian needs overview: Syrian Arab Republic. http://hno-syria.org/#home / [6] The full working paper describing this study is still in preparation:- Diep, L, Hayward, T, Walnycki, A, Husseiki, M and Karlsson, L (in preparation) Resilience of Water Service Providers to the Impacts of Conflicts in MENA: Responses and Lessons Learnt. IIED, London. / [7] ICRC (2015) Urban services during protracted armed conflict: a call for a better approach to assisting affected people. www.icrc.org/sites/default/files/topic/file_plus_list/4249_urban_services_during_protracted_armed_conflict.pdf / [8] Luff, R (2014) Review of humanitarian WASH preparedness and response in urban and peri urban areas. Unpublished report prepared for UNICEF. / [9] WASH clusters are official groups of humanitarian organisations — both UN and non-UN — designated by the Inter-Agency Standing Committee (IASC) and have clear responsibilities for coordination. / [10] WoS WASH Cluster (2016) Whole of Syria - WASH Assessment 2016. / [11] GVC (2016) Cost recovery and demand management in Lebanese water sector. https://issuu.com/gvc-michelepierpaoli/docs/gvc-cost_recovery_and_demand_manage