


Practical Paper

From emergency to durable water, sanitation and hygiene (WASH) interventions: insights from the protracted Syrian refugee situation in Lebanon

Hani Chatila ^{a,b,*}, Christian Fischer ^{b,c}, Godfred Amankwaa ^{b,c,d} and Troy Sternberg^b

^a World Food Programme, Rome, Italy

^b School of Geography and the Environment, University of Oxford, S Parks Rd, Oxford OX1 3QY, UK

^c Oxenu LLP, 50, Walton Street, Oxford OX2 6AE, UK

^d Global Development Institute, The University of Manchester, Manchester, UK

*Corresponding author. E-mail: hani.chatila@gmail.com

 HC, 0000-0002-4954-5023

ABSTRACT

Emergency water, sanitation and hygiene (WASH) programming often fails to meet defined humanitarian or sectoral standards and the needs of those affected by crises. There have been calls to shift toward more resilient, durable and sustainable WASH interventions. Drawing on a mix of qualitative methods, this paper traces the nature and evolution of the factors affecting different kinds of WASH interventions in Lebanon. Factors contributing to a slow uptake of durable WASH solutions include Lebanon not being a signatory of the 1951 Refugee Convention, a 'no camp' policy adopted by the Government of Lebanon, aid agencies under pressure to cater for lifesaving WASH needs of the Syrian refugees, a lack of sufficient funds, Syrian refugee migration to Europe in 2014, limited Syrian refugee resettlement options, terrorism at the Lebanese border in 2014, as well as fears of nationalization of Syrian refugees – rooted in experiences from the Palestinian refugees in Lebanon. The paper demonstrates that the overall WASH response to Syrian refugees in Lebanon mirrors the interplay between aid agencies, the donor community and the Government of Lebanon. We argue that the Lebanese Government should have acted much earlier and devised a strategy flexible enough to turn a challenge into an opportunity by advocating for funds that allow for durable solutions and sustainable impact on the lives of the Syrian refugees and Lebanese hosting communities. We conclude by highlighting policy and practical lessons for refugee-hosting countries and donor agencies.

Key words: aid policy, durable WASH interventions, humanitarian–development nexus, protracted refugee situations

HIGHLIGHT

- WASH interventions are used in nearly all emergency contexts to help reduce risks.
- The unsustainability of emergency WASH interventions has led to attempts for more durable solutions.
- In Lebanon, durable WASH interventions that benefitted both Syrian refugees and host communities were initiated by the end of 2014.
- Factors for this shift policy shift mirrors the interplay between aid agencies, the donor community and the Government of Lebanon.

INTRODUCTION

Water and sanitation services, along with food and shelter, are the most important human needs in emergency situations, and their provisioning has been embraced by agencies and organizations as response to disasters (Ramesh *et al.* 2015; UNICEF 2020). According to the UN High Commissioner for Refugees (UNHCR), an estimated 79.5 million people have been displaced around the world through conflict, natural disasters and socioeconomic crises (UNHCR 2020a). Within most of these situations, more people, especially refugees, are at risk of infections and illness and are unable to integrate into the country of asylum, voluntarily repatriate or resettle to a new country (WHO 2018; UNHCR n.d.). Protracted refugee situations are not a new phenomenon (UNHCR 2008), and their average duration has increased from 9 years in 1993 to 17 years in 2003 (UNHCR, 2004, p. 2). An example is the Syrian crisis which has made Turkey and Lebanon major destinations for Syrian refugees since 2011 (UNHCR 2020a, 2020b).

This is an Open Access article distributed under the terms of the Creative Commons Attribution Licence (CC BY 4.0), which permits copying, adaptation and redistribution, provided the original work is properly cited (<http://creativecommons.org/licenses/by/4.0/>).

As in other post-disaster environments similar to protracted conflicts, basic relief provisions, such as food and water, sanitation and hygiene (WASH) services, are essential (Sphere 2011). As an expression of various geopolitical deadlocks, the number of people requiring international humanitarian assistance to reach a state of recovery has significantly increased from 77.9 million in 2013 to 167 million in 2020 (OCHA 2020). However, it has been repeatedly reported that transitioning to a state of recovery is a constant problem (Amin & Goldstein 2008). Academics and practitioners have been rethinking relief in ways that pave the way for development assistance allowing refugees to be less aid-dependent and more self-reliant (Crisp 2001). Among others, the UNHCR has emphasized the need to move toward durable refugee solutions as well as more resilient, innovative and sustainable interventions in the WASH Sector (UNHCR 2008; Brown *et al.* 2012; Krishnan 2019, 2020; WASH Cluster 2020).

The complexities of catering for the WASH needs of the approximately 1.5 million Syrian refugees in Lebanon triggered attempts for policy shifts toward more durable solutions for refugees and hosting communities (GoL & UN 2017). It is estimated that 61% of the 272,000 Syrian refugees residing in informal settlements still rely on trucked water that is unregulated and often comes from illegal sources, while the rest of the needs are met from unsafe wells or by illegally tapping into the existing water supply network (Hussein *et al.* 2020).

Adding to discussions on durable programming, especially in terms of governance arrangements, this paper explores the nature and evolution of the factors affecting different kinds of WASH interventions in Lebanon.

METHODS

The methodology used for this paper consists of a mix of qualitative methods: desk review, document analysis and semi-structured qualitative interviews. First, there was a review of literature. A google scholar search was conducted to retrieve relevant academic and gray literature.

Second, semi-structured, qualitative interviews with key experts from the WASH Sector in Lebanon were conducted to obtain a general understanding of the situation. Nine experts from different groups were interviewed, who worked for the Department for International Development (DfID), the European Commission for Humanitarian Aid (ECHO), MoEW, the Overseas Development Institute (ODI), Oxfam, UNHCR, UNICEF and USAID (Table 1).

Experts were purposively contacted for the interview because of their deep knowledge of the situation in Lebanon. During the interviews, respondents were asked to mention important stakeholders not identified at first (*snowball principle*). Beyond interviews, project documents, governmental, humanitarian and development agency reports, and policy documents were consulted for further information and for triangulation. The interviews were transcribed, thematically analyzed and are discussed alongside synthesized literature.

FINDINGS AND DISCUSSION

Nature and evolution of the WASH Sector strategy for Syrian refugees in Lebanon

Interviews revealed that durable WASH interventions are usually implemented 3–6 months after the beginning of a crisis and refer to cost-effective and relatively more sustainable interventions, including connecting households to the water supply and

Table 1 | Breakdown of interviewees by organization type and years of experience

Interviewee	Organization type	Organization name	Years of experience
#1	Public authority	MoEW	>20
#2	Donor	DfID	>10
#3	Aid agency	WASH Sector	>15
#4	Think tank	ODI	>15
#5	Aid agency	Oxfam	>10
#6	Aid agency	UNHCR	>15
#7	Donor	USAID	>15
#8	Aid agency	UNICEF	>15
#9	Donor	ECHO	>15

the sewerage networks. This was distinguished from emergency WASH interventions, which are usually implemented at the beginning of a crisis and include water trucking, desludging and distribution of hygiene kits, for example. Emergency WASH interventions were rolled out as the influx of Syrian refugees increased, initially targeting refugees in informal settlements and later on refugees in single shelter units and collective shelters. Some of these interventions were implemented for Syrian refugees in informal settlements in both the Akkar and Bekaa governorates by 2015 and at a later stage for Syrian refugees living in urban and rural communities in Mount Lebanon governorate. Additionally, some of the emergency WASH interventions were perceived not only to be fairly quick to implement, but were also longer lasting and had health and financial benefits (Interview #5).

According to experts interviewed, the evolution of the WASH Sector strategy between 2011 and 2018 was well aligned with the need and the interventions in the field but weak sectoral coordination and regulatory mechanisms affected donors and aid agencies in rolling out durable WASH interventions in informal settlements. An assertion supported by Kelley's (2017) argument is that coordination remained a challenge due to the different government actors involved and the absence of detailed policy guidance from the central level. A donor official explained: 'In the case of Lebanon, the relationship and level of autonomy between water and wastewater establishments and the MoEW has not always been clear, making it even more difficult to engage in both emergency and/or resilient activities. 2016 brought a level of change, and progress was made through 2017, including the connection of informal settlements to water supply systems and wastewater networks...' (Interview #9).

Durable and long-term WASH interventions that benefitted both Syrian refugees and host communities were initiated by the end of 2014, yet only rolled out in 2015. The Lebanese Government via the MoEW got more involved in WASH-related matters by the end of 2014 and in 2015 in an effort to control and influence the WASH Sector and the implemented WASH programs. Also, in 2015, the MoEW promoted durable WASH interventions for Syrian refugees in informal settlements, a situation which slightly improved toward the end of 2017 (GoL & UN 2018). Examples of the durable and longer-term WASH interventions included, but were not limited to, supply and installation of water pumps, drilling and equipping of boreholes, rehabilitating and constructing water supply networks, and construction of village-level water reservoirs.

Unpacking the factors affecting the shift from emergency to durable WASH interventions

The evolution of the WASH Sector strategies in Lebanon between 2011 and 2018 was a 'push and pull' effort between the main entities involved in catering for Syrian refugees: aid agencies, donor community and the Government of Lebanon.

Each of these three entities had its own factors dictating the need to pursue emergency WASH interventions or slowly shift toward durable WASH interventions. The factors that have shaped the overall WASH Sector strategies in Lebanon include: Lebanon is not a signatory of the 1951 Refugee Convention, 'no camp' policy, agencies under pressure to cater to the lifesaving WASH needs of the Syrian refugees, the lack of sufficient funds, Syrian refugee migration to Europe in 2014, limited Syrian refugee resettlement options, terrorism at the Lebanese border in 2014, as well as fears of nationalization of Syrian refugees

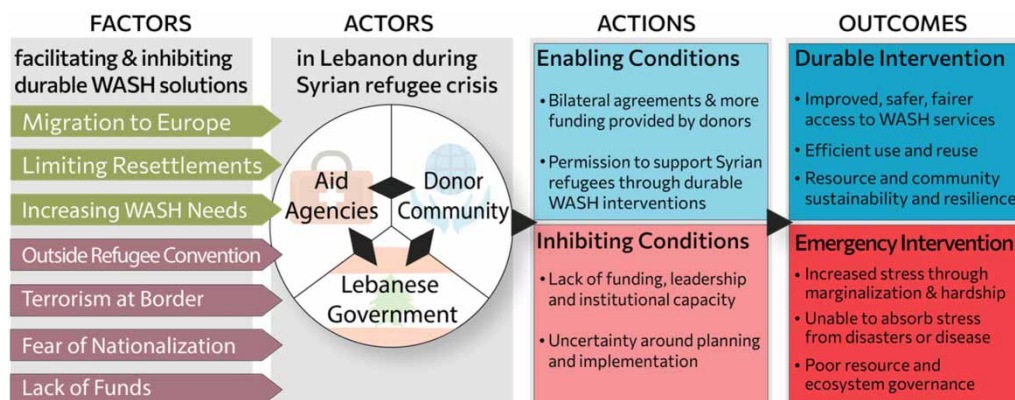


Figure 1 | Factors affecting the shift toward durable WASH interventions.

and experiences from the Palestinian refugees in Lebanon. The intricate dynamics between each of these groups of actors, i.e. aid agencies, donor community and the Government of Lebanon, is what steered the overall Lebanese Syrian refugee response, which can be grouped into either the creation of enabling conditions that lead to durable WASH interventions or inhibiting conditions that only allow response to immediate needs through emergency WASH intervention (Figures 1 and 3).

The Government of Lebanon

Figure 3 shows the factors that made the government of Lebanon reconsider a shift toward durable WASH interventions. Initially, the Government welcomed the Syrian refugees, as Lebanon and Syria had previously signed agreements in the early 1990s that allowed residency and property ownership. The bilateral agreements benefitted Lebanon, as Syrian individuals were utilized as seasonal agricultural and construction workers. Initially, the Government of Lebanon had no objection to setting up Syrian refugee camps directly at the Lebanese borders or within Syrian territory near the Lebanese borders, and these options were unacceptable by UNHCR due to the physical proximity to the borders and protection issues that can arise. The Lebanese Government proceeded with a ‘no camp’ policy, keeping in mind Lebanon’s history with the Palestinian refugees accommodated in Lebanon for 70 years and fears of nationalization and disruption of the secular balance in place.

After the colonial era in 1943, Lebanon was categorized as a weak state, unable to enforce sovereignty on all its territories (Ramadan & Fregonese 2017). Since 1943, the Government of Lebanon was in a constant hybrid state of sharing sovereignty with nonstate actors and armed groups (Ramadan & Fregonese 2017, p. 950). The Arab–Israeli war in 1948 resulted in a protracted Palestinian refugee situation that has been ongoing for more than 70 years with Palestinian camps in Lebanon remaining as security islands. The Lebanese Government does not control the camps, but only controls who enters and exits the camps.

Due to the resignation of Prime Minister Najib Mikati in March 2013, Lebanon was left without a government, a situation of political instability which remained in place until December 2016 (Betts *et al.* 2017). The state of affairs without a formal, nationally constituted government witnessed terrorist threats, which drove political actors in the country to overcome their ‘laissez-faire’ approach, had them establish an administrative crisis cell and agree on limiting durable interventions that encourage Syrian refugees to reside in Lebanon.

The aid agencies

Before the sharp rise in refugee numbers and due to poor funding from aid agencies, specific support to Lebanon was focused on emergency-related WASH interventions for Syrian refugees living in informal settlements in the early stages, namely in the

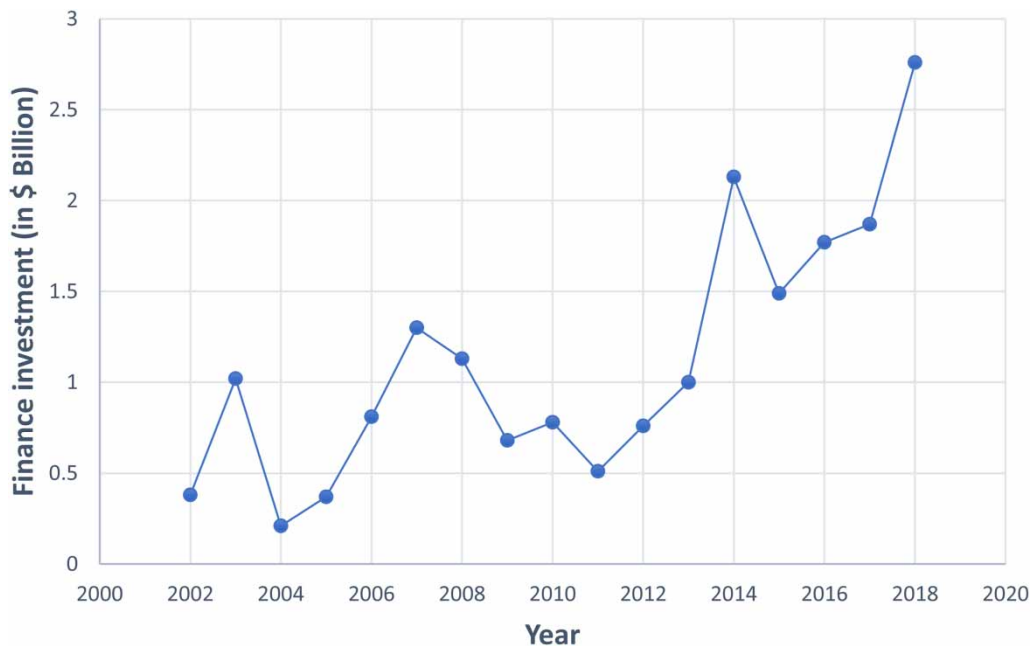


Figure 2 | External funding allocations in Lebanon (computed from SEI Aid Atlas; SEI 2020).

agricultural fields of Akkar and Bekaa governorates and by 2015 to Syrian refugees living in urban and rural settings in Mount Lebanon governorate. The significant funding gap prior to 2014 meant that the aid agencies were strongly dependent on identifying low-cost emergency options for achieving the ambitious targets of serving temporary informal settlers. This can be explained by the funding allocation to Lebanon, which was constrained until 2014 (Figure 2). Also, the timely allocation and release of funds by donors were neither predictable nor consistent, making stable programming impossible (Kelley 2017). Institutions such as UNHCR and partners could not be sure whether they would have the funds needed to meet very basic needs throughout the year. As funding depends on voluntary contributions, it was seemingly impractical to implement durable and long-term interventions. Even though Lebanon is not a signatory of the 1951 Refugee Convention it did not inhibit aid from reaching the Syrian refugees, especially as Lebanon has bilateral agreements with Syria and has signed international human rights treaties (AUB & UN-Habitat 2015). However, the increase in the number of Syrian refugees in informal settlements coupled with additional funding provided by donors and the minimal, yet increasing, permission to carry out improved WASH programs by the Lebanese Government necessitated a cautious shift toward durable WASH interventions at the end of 2014 and rolled out in 2015. At the end of 2017, aid agencies received additional funding to extend durable WASH programs to the unreached.

The donor community

In Lebanon, the donor community initially required aid agencies to cater for the lifesaving needs of the Syrian refugees on the ground. At the beginning, there was the rollout of emergency WASH interventions because durable WASH interventions required additional time for planning and implementing, as well as an increase in capital cost (Figure 3). Also, the situation in Lebanon was not clear regarding the stay of Syrian refugees, which in effect did not support a need for durable solutions. As an interviewee started: ‘the fate of the Syrian refugee situation was not certain, so emergency WASH response was seen as the only viable option then’ (Interview #6). However, the situation changed once Syrian refugees started to migrate to Europe in 2014, which made a strong case for durable WASH interventions as they would help stop/reduce the migration, which had

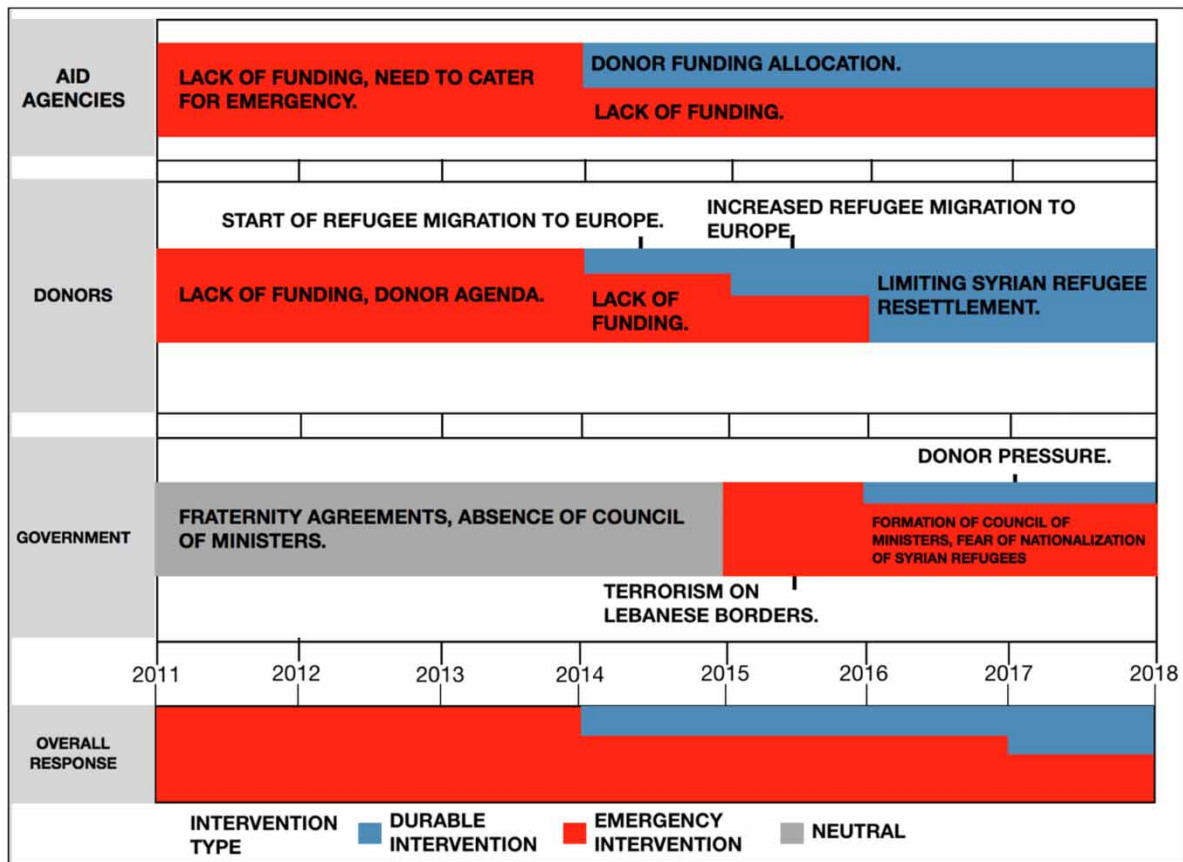


Figure 3 | Factors affecting the overall WASH Sector interventions between 2011 and 2018.

increased further in 2015. In 2016, the donor community set up bilateral agreements to limit the resettlement of Syrian refugees to Europe. An example is the Lebanon Compact, agreed in London in February 2016 with a focus on fostering job and educational opportunities for all of Lebanon's vulnerable groups and not only vulnerable Syrian refugees, which were supported by donor communities such as the European Union. [Betts et al. \(2017\)](#), for instance, explain that in exchange for a commitment of around 400 million euros from the donor community, Lebanon committed to allow the temporary stay of Syrian refugees. This meant that the quest to retain Syrian refugees in Lebanon to prevent them from migrating to Europe in exchange for increased funding by the donor community demanded durable solutions.

A MISSED OPPORTUNITY FOR LEBANON'S WASH SECTOR

The overall Syrian refugee response is affected by the changing dynamics between aid agencies, donors and the Government of Lebanon. Although the interplay between the three entities is what governs the type of WASH interventions that are implemented, the shift toward durable WASH interventions could have been implemented earlier to help the country respond to the Syrian refugees' needs and those of the hosting community. Given that the geopolitical developments in the region pointed toward a protracted Syrian refugee crisis, Lebanon had a chance to implement durable WASH interventions much earlier. Yet, the country failed to seize the opportunity due to slow uptake, lack of funding by the donor community and most importantly the absence of political leadership and vision at the time, coupled with general limited institutional capacity. As a result, emergency interventions in WASH have been supported beyond the normal limits, incurring substantial additional costs.

Though there were earlier warnings and projections of the continuous influx of Syrian refugees in Lebanon, the Lebanese Government failed to create the enabling conditions that could have benefitted both the Syrian refugees and Lebanese hosting communities. The political factions should have reunited to devise a strategy that could have turned a challenge into an opportunity yet the MoEW only initiated a Water Executive Committee (WEC) in 2017, 6 years after the start of the Syrian refugee crisis ([MoEW & UNICEF 2017a](#)). Lebanon already started benefiting from longer-term funding for the WASH Sector and could have benefitted from additional funding if the Syrian refugees in Lebanon had been regarded as an opportunity for building more durable WASH interventions ([MoEW & UNICEF 2017a, 2017b](#)). An example of such funding is the Lebanon Water Project (LWP), funded by USAID, which is worth 65 million USD over 5 years, from 2015 to 2020, aimed at providing reliable and sustainable water to the Lebanese citizens, improving water resources management and catering to the water needs arising from the influx of Syrian refugees ([Fredericks et al. 2018](#)). The Lebanese Government could have adopted a more durable provisioning approach at the onset of the influx of Syrian refugees instead of waiting for the geopolitical and humanitarian conditions to worsen. Policy frameworks for better approaches that should be adopted with regard to executing projects include principles of the Dead Sea Resilience Agenda for funded projects and elements of the European Union Regional Trust Fund in Response to the Syrian Crisis, or the Madad Fund, including 'building bridges across the humanitarian-development nexus to sustain [or] strong partnerships through inclusive governance with host countries, donors, agencies and NGOs' ([EU 2018](#)). Such principles could improve the service delivery of the regional water and wastewater establishments, by enhancing the engagement of the public in water management as well as improving private sector participation in the water and wastewater sectors. For Lebanon not to miss another opportunity in providing more durable interventions for Syrian refugees and hosting communities, existing models and projects should be designed with long-term resiliency and sustainability approaches in mind. This will demand broader stakeholder engagements, so projects align with the diverse needs and interests of Syrian refugees and Lebanese. This should be of interest to all actors, as more durable interventions are likely to reduce aid dependency once they are established ([Betts & Collier 2016](#)).

CONCLUSION

This paper traced the nature, evolution and the factors for the limited shift toward durable WASH interventions. The findings confirm that there have been attempts to shift the goalpost from emergency to durable WASH solutions, considering the many benefits and resilience the latter bring to refugees and humanitarian planning and project implementations. The above analysis of the factors that ultimately shaped the *de facto* WASH strategies in Lebanon provides lessons for policy-makers, aid organizations and donors. First, given the situation and knowledge during the Syrian refugee crisis' onset, the Lebanese Government should have acted much earlier and devised a strategy flexible enough to turn a challenge into an

opportunity by advocating for durable WASH interventions that benefit both the Syrian refugees and Lebanese hosting communities. Countries should proactively and preemptively design roadmaps and approaches with long-term resiliency and sustainability approaches in mind and consider different stakeholder interest and support as early as possible to enable effective programming. Second, organizations and donors should develop strategies that increase investment in durable solutions for countries at the receiving end of refugees or conflict situations, particularly those in the global South. To this end, aid agencies need to effectively and pro-actively consider, advocate and support a shift toward durable WASH interventions.

DATA AVAILABILITY STATEMENT

All relevant data are included in the paper or its Supplementary Information.

REFERENCES

- Amin, S. & Goldstein, M. 2008 *Data Against Disasters: Establishing Effective Systems for Relief, Recovery, and Reconstruction*. The World Bank, Washington, DC.
- AUB & UN-Habitat 2015 *No Place to Stay?* UN-Habitat, Beirut, Lebanon.
- Betts, A. & Collier, P. 2016 Jordan's refugee experiment. A new model for helping the displaced. *Foreign Affairs*. Available from: <https://www.foreignaffairs.com/articles/middle-east/2016-04-28/jordans-refugee-experiment> (accessed 14/07/21).
- Betts, A., Ali, A. & Memişoğlu, F. 2017 *Local Politics and the Syrian Refugee Crisis: Exploring Responses in Turkey, Lebanon, and Jordan*. Refugee Studies Centre, University of Oxford, Oxford, UK.
- Brown, J., Cavill, S., Cumming, O. & Jeandron, A. 2012 *Water, sanitation, and hygiene in emergencies: summary review and recommendations for further research*. *Waterlines* **31** (2), 11–29.
- Crisp, J. 2001 *Mind the gap! UNHCR, humanitarian assistance and the development process*. *International Migration Review* **35** (1), 168–191.
- EU 2018 *Europe's Support to Refugees and Their Host Countries EU Regional Trust Fund in Response to the Syrian Crisis*. EU. Available from: https://ec.europa.eu/trustfund-syria-region/sites/tfsr/files/eutf_syria_factsheet-english_13112018.pdf.
- Fredericks, J. W., Khater, J., Andraos, N., Katerji, W., Rufka, J. & Ters, G. 2018 *Lebanon Water Project (LWP): Midterm Performance Evaluation*. Available from: <https://files.globalwaters.org/water-links-files/lwp-lebanon-midterm-evaluation-2108.pdf>.
- GoL & UN 2017 *Lebanon Crisis Response Plan: 2017–2020*. Available from: <http://172.104.229.45/sites/default/files/resources/lebanon-crisis-response-plan.pdf>.
- Government of Lebanon [GoL] & UN 2018 *Lebanon Crisis Response Plan: 2017–2020*. Available from: 2020 <https://www.unhcr.org/lb/wp-content/uploads/sites/16/2018/04/LCRP-EN-2018.pdf>.
- Hussein, H., Natta, A., Yehya, A. A. K. & Hamadna, B. 2020 Syrian refugees, water scarcity, and dynamic policies: how do the new refugee discourses impact water governance debates in Lebanon and Jordan? *Water* **12** (2), 325.
- Kelley, N. 2017 *Responding to a refugee influx: lessons from Lebanon*. *Journal on Migration and Human Security* **5** (1), 82–104.
- Krishnan, S. 2019 *Water, sanitation and hygiene (WASH) and disaster recovery for community resilience: a mixed methods study from Odisha, India*. *International Journal of Disaster Risk Reduction* **35**, 101061.
- Krishnan, S. 2020 *Humanitarian WASH (water, sanitation and hygiene) technologies: exploring recovery after recurring disasters in Assam, India*. *Disaster Prevention and Management: An International Journal* **29** (4), 629–642.
- MoEW & UNICEF 2017a *Water Executive Committee – 2nd Meeting*. Beirut, s.n.
- MoEW & UNICEF 2017b *Water Executive Committee – Inaugural Meeting*. Beirut, s.n.
- OCHA 2020 *Global Humanitarian Overview 2020*. Available from: https://www.unocha.org/sites/unocha/files/GHO-2020_Abridged_EN.pdf (accessed 3 May 2020).
- Ramadan, A. & Fregonese, S. 2017 Hybrid sovereignty and the state of exception in the Palestinian refugee camps in Lebanon. *Annals of the American Association of Geographers* **107** (4), 949–965.
- Ramesh, A., Blanchet, K., Ensink, J. H. & Roberts, B. 2015 *Evidence on the effectiveness of water, sanitation, and hygiene (WASH) interventions on health outcomes in humanitarian crises: a systematic review*. *PLoS One* **10** (9), e0124688.
- Sphere 2011 *The Sphere Project: Humanitarian Charter and Minimum Standards in Humanitarian Response*. Available from: <https://www.unhcr.org/uk/50b491b09.pdf> (accessed 11 April 2018).
- UNHCR 2004 *Protracted Refugee Situations. Executive Committee of the High Commissioner's Programme*. Available from <https://www.unhcr.org/40c982172.pdf> (accessed 14/07/21).
- Stockholm Environment Institute [SEI] 2020 *Aid Atlas: Atlas of Development Finance*. Available from: <https://aid-atlas.org/>.
- UNHCR 2008 *Protracted Refugee Situations: A Discussion Paper Prepared for the High Commissioner's Dialogue on Protection Challenges*. Geneva. Available from: <https://www.unhcr.org/uk/protection/hcdialogue%20/492ad3782/protracted-refugee-situations-discussion-paper-prepared-high-commissioners.html>.
- UNHCR 2020a *Figures at a Glance*. Available from: <https://www.unhcr.org/uk/figures-at-a-glance.html>.
- UNHCR 2020b *Syria Emergency*. Available from: <https://www.unhcr.org/uk/syria-emergency.html>.

UNICEF 2020 *Humanitarian Action: Global-Annual-Results-Report-2019*. Available from: <https://www.unicef.org/media/71836/file/Global-annual-results-report-2019-humanitarian-action.pdf>.

WASH Cluster 2020 *Delivering Humanitarian WASH at Scale, Anywhere and Any Time. Road Map for 2020–2025*. Available from: <https://washcluster.net/sites/default/files/WASH%20Sector%20Roadmap%202020-2025.pdf> (accessed July 2020).

WHO 2018 *Report on the Health of Refugees and Migrants in the WHO European Region. No Public Health Without Refugee and Migrant Health*. Available from: <https://apps.who.int/iris/bitstream/handle/10665/311347/9789289053846-eng.pdf?sequence=1&isAllowed=y&ua=1>.

First received 20 November 2020; accepted in revised form 22 June 2021. Available online 7 July 2021