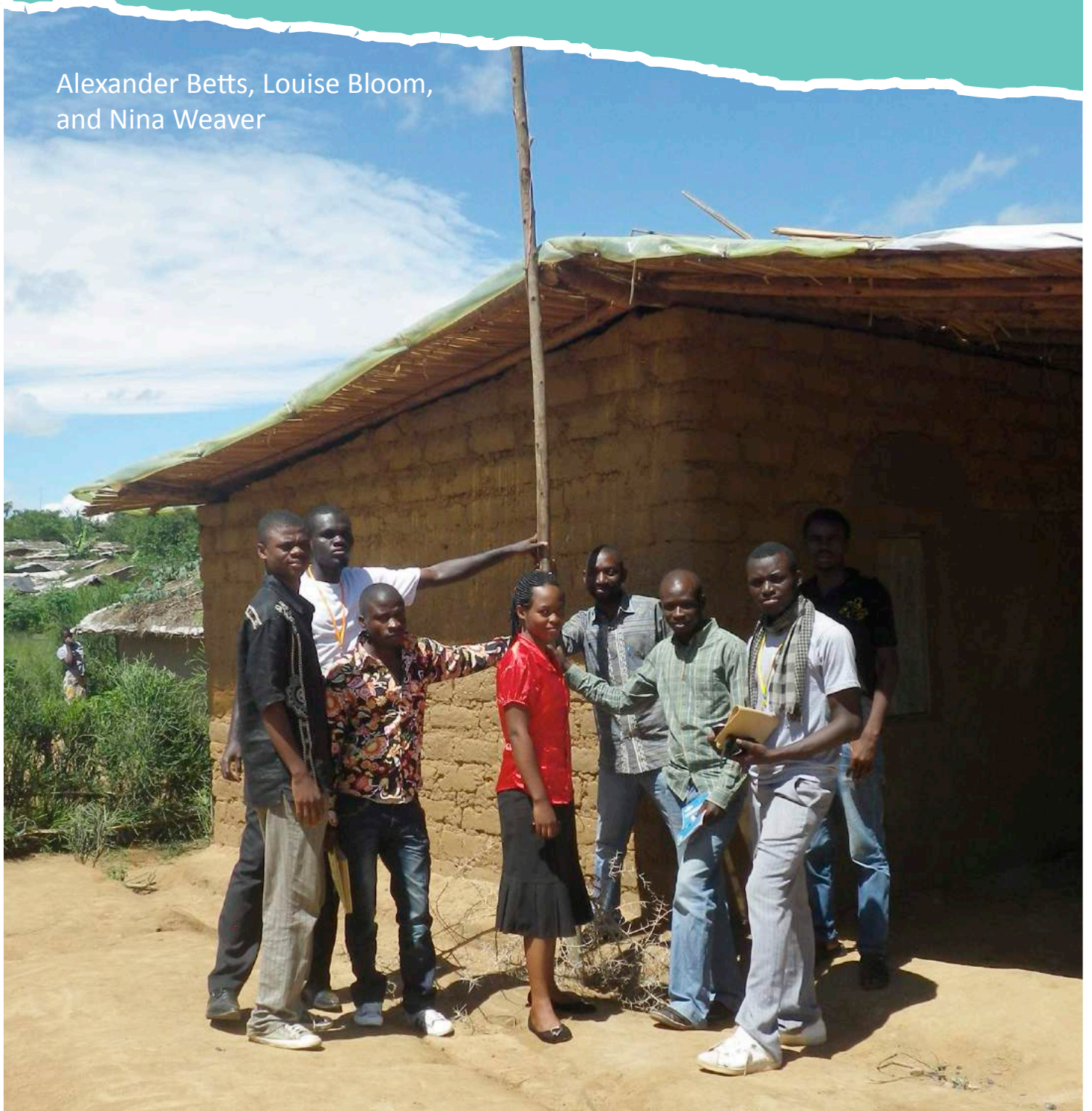




Refugee Innovation

Humanitarian innovation that starts with communities

Alexander Betts, Louise Bloom,
and Nina Weaver



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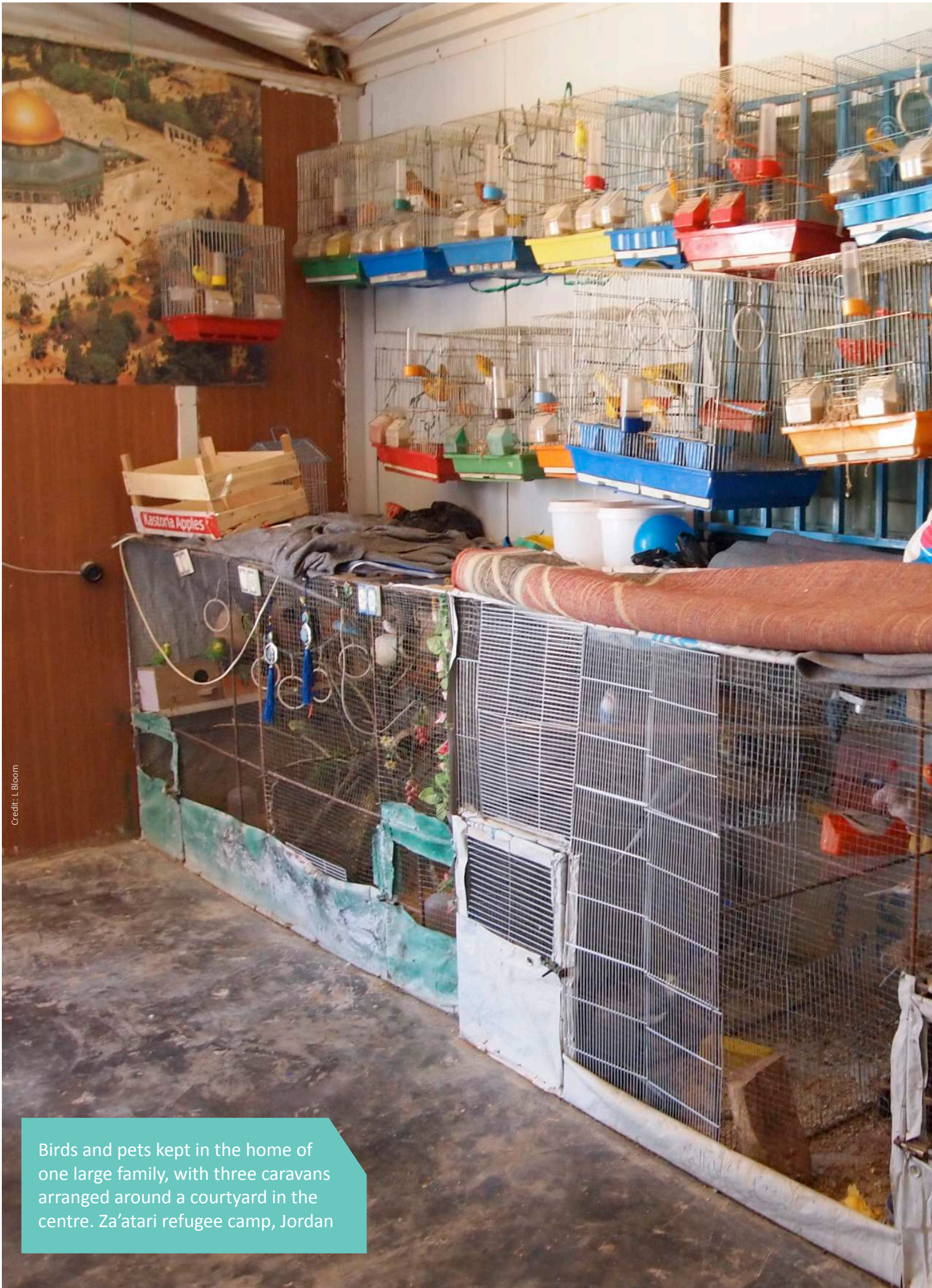
Alexander Betts, Louise Bloom, and Nina Weaver

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Cover photo: Congolese refugee youth group gathers at a hand-made radio mast, outside their radio station inside Nakivale refugee settlement in Uganda.

Photo credit: L. Bloom





Credit: L. Bloom

Birds and pets kept in the home of one large family, with three caravans arranged around a courtyard in the centre. Za'atari refugee camp, Jordan



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Preface

Even under the most challenging constraints, people find ways to engage in creative problem-solving. Refugees, displaced persons, and others caught in crisis often have skills, talents, and aspirations that they draw upon to adapt to difficult circumstances. Although ‘humanitarian innovation’ has been increasingly embraced by the humanitarian world, this kind of ‘bottom-up’ innovation by crisis-affected communities is often neglected in favour of a sector-wide focus on improving the effectiveness of organisational response to crisis. This oversight disregards the capabilities and adaptive resourcefulness that people and communities affected by conflict and disaster often demonstrate.

This report focuses on examples and case studies of ‘bottom-up innovation’ among different refugee populations. Whether in the immediate aftermath of displacement or in long-term protracted situations, in both urban and rural areas, refugees frequently engage in innovation. By definition displaced across international borders, refugees face new markets, a new regulatory environment, and new social and economic networks in their host countries. Being adaptive and creative is often necessary in order to meet basic needs, to develop income-generating activities, or to keep long-term aspirations alive. Even where there are legal constraints on the right to work or freedom of movement, the capacity of refugee populations to engage in iterative problem-solving is nearly always evident.

We seek to showcase just some of those innovative efforts through case studies that demonstrate a variety of ways in which crisis-affected communities can and do innovate. Even against the backdrop of political insecurity, social discrimination, financial loss, and psycho-social trauma, many refugees show great resilience, and often bring a diverse set of skills, experiences and motivations with them into exile. For some, these creative ideas are able to be transformed into unique projects and businesses. These refugees are change makers in their own right. Pushing against the boundaries of their economic environments and social networks, these innovators are not only finding new ways of personal survival but are also often contributing to their own communities.

Understanding the processes of refugee innovation and the constraints and opportunities experienced in ‘bottom-up’ problem-solving offers an opportunity to rethink humanitarian practice. It can identify ways in which external interventions can be reconceived as contributing to an enabling environment for people to find solutions to their own problems. It can allow us to consider the types of facilitation and infrastructure required in order to allow people to help themselves in more sustainable ways. To understand refugee innovation is therefore to reconsider the humanitarian system as one that should recognise capacities of affected populations as well as vulnerabilities.

In order to do this, we take you on a journey – from Jordan to South Africa to Uganda to Kenya to the United States. We look at a range of refugee situations, drawing upon examples from different stages of the ‘refugee cycle’: recent mass influx, protracted situations, and resettled refugee populations. We examine both urban areas and rural camp contexts. And we look at what ‘innovation’ means in developing, middle-income, and advanced industrialised host societies across three continents.

We ask a range of questions. What kinds of refugee innovation exist? What processes do refugees go through in order to address day-to-day challenges? How can we understand the barriers and constraints that exist at each stage of the innovation process? What kinds of infrastructure and ecosystems are needed to support innovation? What might this mean for how the humanitarian system can build better enabling environments for innovation?

Of course, the examples that we look at are not representative of all refugees, just as refugees are not representative of all crisis-affected communities. The constraints that will exist in an acute emergency will be different from those in protracted refugee situations. However, we hope that by showcasing a range of examples – some truly inspiring – we can begin to rethink humanitarian innovation in a more people-centred way.



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Executive Summary

Bottom-up innovation

- Innovation is playing an increasingly transformative role across the humanitarian system. International organisations, NGOs, governments, business, military, and community-based organisations are drawing upon the language and methods of innovation to address the challenges and opportunities of a changing world.
- Bottom-up innovation can be defined as the way in which crisis-affected communities engage in creative problem-solving, adapting products and processes to address challenges and create opportunities.
- Refugee populations offer examples of bottom-up innovation. They represent a wide spectrum of people affected by humanitarian crisis spanning the emergency phase through to protracted displacement crises. They are also an important population of focus in their own right given that the world now has more displaced people than at any time since the Second World War.
- Bottom-up innovation by crisis-affected communities remains under-recognised. Despite some pioneering efforts to engage the capacities of communities, a significant proportion of humanitarian innovation remains focused on improving organisational response.
- This report examines refugee innovation in five countries: Uganda, Jordan, Kenya, South Africa, and the United States. These illustrative cases present a range of contexts: advanced industrialised, middle-income, and developing economies. They also cover a range of phases of the refugee cycle: mass influx, protracted situations, and resettled populations.

Uganda

- Examples from Uganda highlight innovation across both protracted and emergency situations and both urban and rural contexts. They show how, in a country in which refugees have the right to work, there is a strong presence of innovative entrepreneurship, including the use and adaptation of technology. Refugee innovation notably contributes to public goods provision across the refugee and host communities.

Jordan

- In Jordan, we look at Syrian refugees in Za'atari refugee camp. The camp has been the focus of many 'top-down' efforts to introduce innovative products and processes by the international community but we demonstrate that it is also a significant site for 'bottom-up' innovation. We highlight

businesses on the famous 'Shams-Élysées' market street, but also examine a range of innovations relating to architecture and space as well as less visible economic activities by women in the camp.

Kenya

- In Kenya, we showcase examples of innovation by refugees in both Nairobi and Kakuma refugee camp. Despite an increasingly challenging security environment for many refugees, especially Somalis, people are still engaging in creative income-generating activities within the informal sector in ways that benefit them and their communities.

South Africa

- In South Africa, we focus mainly on Zimbabwean refugees in Johannesburg where there is a self-settlement strategy allowing the right to work but limited government assistance. We highlight how community-led facilitation has transformed opportunities for Zimbabweans across a range of areas including education.

United States

- In the USA we focus on Dallas, a city which has been receiving a growing number of resettled refugees. We use this example to demonstrate that refugee innovation is also present in host states in advanced industrialised countries and that, with the right enabling environment it has the potential to flourish.

Facilitating bottom-up innovation

- Refugees face opportunities and constraints at each stage of the innovation process. These emerge at individual, community, and institutional levels.
- The humanitarian system so far lacks a good model of facilitating and nurturing innovation by refugees and other crisis-affected communities.
- Key elements of a positive enabling environment for bottom-up innovation include a) a permissive environment with the right to work and freedom of movement; b) access to connectivity including the internet and telecommunications; c) access to education and skills training; d) good infrastructure and transportation links; e) access to banking and credit facilities; f) transnational networks.
- We need to rethink the humanitarian system in order to provide a better enabling environment for innovation by crisis-affected communities, including refugees.

What is bottom-up innovation?

A longstanding challenge for the humanitarian system has been to find ways in which those traditionally ‘served’ in a humanitarian crisis can be engaged in a more ‘participatory’ and ‘empowering’ way.¹ Yet these intentions often end up as hollow rhetoric against the backdrop of top-down aid interventions. How can people’s own creativity and ideas be supported rather than undermined by expensive ‘top-down’ innovations brought in from the developed world?

Recent debates in the emerging field of humanitarian innovation represent an opportunity to ask what a people-centred approach to humanitarian response can actually mean. Innovation is the way in which individuals or organisations solve problems and create change by introducing new solutions to existing problems. Contrary to popular belief, these solutions do not have to be technological and they do not have to be transformative; they simply involve the adaptation of a product or process to context.

‘Humanitarian’ innovation may be understood, in turn, as “using the resources and opportunities around you in a particular context, to do something different to what has been done before”² to solve humanitarian challenges. Or, put more colloquially, in the words of one senior UN humanitarian: “Innovation is dynamic problem-solving among friends.”³

Around the world, communities affected by crisis are at the forefront of any humanitarian response. Faced with significant constraints, they adapt to find solutions of their own and navigate new and challenging environments. In doing so, they often support one another along the way. These solutions can change over time. As any emergency response evolves over days, months, and in many cases years, the presence and scale of solutions led by the affected community become more prominent.

We call this type of innovation, driven by affected communities themselves, ‘bottom-up innovation’, and we identify it as a critical but overlooked component of a broader phenomenon called ‘humanitarian innovation’. Humanitarian innovation can of course occur at many levels. It can emerge from adaptation and learning within

humanitarian organisations. It can come from new partnerships with business. However, far more neglected has been innovations emerging from within affected communities, who are more typically thought of as vulnerable and passive victims.

In the private sector, the concept of ‘innovation management’ has existed for over a century, as thinkers and practitioners use definitions and models to help implement new ideas.⁴ For some, innovation has been conceived of as a process from problem definition, solution identification, iteration, and scale. This process may happen in many cycles before one solution is found and scaled up. This process does not happen in isolation, however, and the barriers and opportunities people meet along the way are defined by their wider environment, social connections, and regulations within which they live and work.

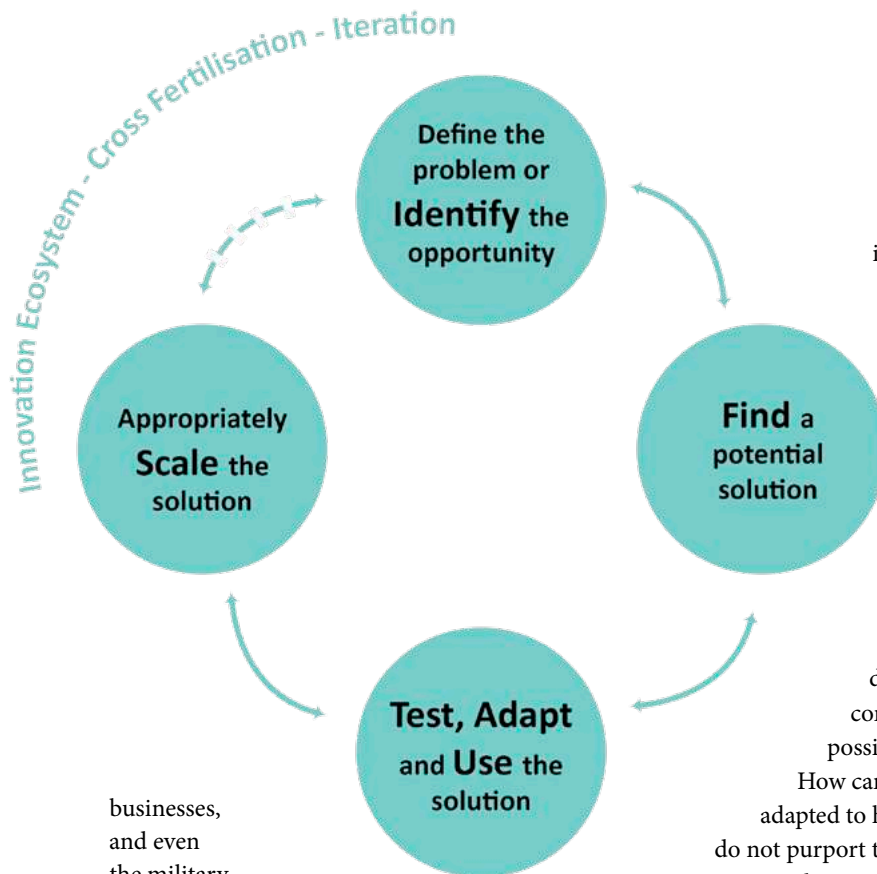
Although there are a variety of ways to conceptualise innovation,⁵ we have found it useful to think of innovation as a four-stage process (as shown in Figure 1). This process involves 1) specifying a problem; 2) identifying a possible solution; 3) piloting and adapting the solution; 4) scaling the solution if and where appropriate. In practice this is not a linear process and necessarily involves iterative feedback across the stages. Some of the factors that enable this process include ecosystems that provide access to infrastructure, services, networks, and financing.

In recent years, discussions about the role of innovation in humanitarian aid and response framed by these concepts have become prevalent in the aid community. Since around 2009 there has been an identifiable ‘innovation turn’ across the humanitarian system. United Nations agencies, NGOs, governments,

In the words of one senior UN humanitarian: “Innovation is dynamic problem-solving among friends.”

1. For discussion of these topics see, for example, Chambers, R (1997) *Whose reality counts? : putting the first last*, London: ITDG; and Cooke, B and Kothari, U (eds.) (2001) *Participation: the new tyranny?*, London: Zed Books. 2. Quote from discussions with an international humanitarian aid worker, 2015. 3. Aleinikoff, A (2014) ‘Innovation – what, why and how for a UN organisation’, *Forced Migration Review Special Issue Refugees & Innovation*, Oxford: Refugee Studies Centre. 4. For example see Fagerberg, J. (ed.) (2013) *The Oxford Handbook of Innovation Management*, Oxford : Oxford University Press. 5. For example see Tidd, J. and Bessant, J.R. (2009) *Managing innovation: integrating technological, market and organisational change*, Chichester : John Wiley

Figure 1: Process stages of innovation



businesses, and even the military have begun to engage with the idea of humanitarian innovation, including by creating special labs, funds, and partnerships to enable untapped ideas and solutions to be drawn upon.⁶

There is growing optimism that innovation can play an important role in transforming the humanitarian system to make it better adapted to current and future challenges, threats, and opportunities. The importance of these on-going discussions about humanitarian innovation has been recognised by the 2016 World Humanitarian Summit.⁷ Yet much of the humanitarian innovation debate so far has focused on improving organisational responses in humanitarian crises. Although this is a critical topic of discussion, the role of innovation by crisis-affected communities themselves remains an under-studied and neglected subject.

However, there is growing recognition of the potential for bottom-up humanitarian innovation. A number of organisations such as UNICEF (The United Nations Children’s Fund) and UNHCR (The United Nations Refugee Agency) are gradually including innovation by affected communities within their innovation work⁸ and innovative funding

initiatives such as the Humanitarian Innovation Fund are considering how better to disburse funding to communities themselves.

Yet there remains a need to conceptualise what a genuinely people-centred approach to humanitarian innovation would look like.

How can the voices of affected communities be adequately involved or represented? What degree of participation by affected communities is desirable and possible, and under what conditions?

How can participatory methods be better adapted to humanitarian innovation? We do not purport to resolve these debates here. However, this report offers a starting point by simply highlighting and showcasing some of the innovative capacities of crisis-affected communities.

We focus on refugees as an example of crisis-affected communities. Refugees represent a wide spectrum of people affected by humanitarian crisis spanning the emergency phase through to protracted displacement crises. They are also an important population to study in their own right given that there are now over 50 million displaced people in the world, more than at any time since the Second World War. Against that backdrop, there is a particular need to consider more sustainable solutions for refugees and displaced populations.

We draw our case studies from a spectrum of contexts. We cover advanced-industrialised, middle-income, and developing country host states. We address different stages of the displacement ‘cycle’: mass influx, protracted displacement, and resettled refugees. We look at urban and rural contexts. And we take our cases from three continents. While our examples from Uganda, Jordan, South Africa, Kenya, and the United States are by no means representative, they offer a cross-section of examples of the diversity of refugee innovation.

6. Betts, A and Bloom, L (2014), *Humanitarian Innovation: The State of the Art*, New York: OCHA. 7. ‘Transformation Through Innovation’ is one of four thematic areas for the World Humanitarian Summit. 8. For example UNICEF runs a By Youth For Youth programme in Kosovo which offers entrepreneurship mentoring and grants, and UNHCR runs a collaborative idea-generation website to bring in ideas from partners and refugees, also see Bloom, L and Faulkner, R (2015) *Innovation Spaces: Transforming humanitarian practice in the United Nations*, Refugee Studies Centre Working Paper No. 107



Credit: R. Nuri

Demou-Kay, Congolese refugee, at his hand-built radio station in Nakivale refugee settlement, Uganda

UGANDA

Innovation in emergency, rural, and camp settings

Sharing borders with five other East African states, Uganda is host to almost 360,000⁹ refugees from a range of nationalities and backgrounds.

The majority of refugees living in Uganda have fled violence in the neighbouring Democratic Republic of the Congo (DRC), but the population also includes South Sudanese, Somalis, Rwandans, Burundians, Ethiopians, and Eritreans. This case study is based on time spent with refugees in four locations in Uganda in 2013 and 2014: Kampala, the capital city, and three refugee settlements. Each refugee settlement is located in the rural areas of Uganda. Nakivale was established in 1959 and is now home to over 60,000 refugees, whereas the Rwamwanja settlement only recently re-opened in the last few years to support a new influx from fighting in the DRC. All of the settlements are over an hour's travel from the nearest large town and many refugees living inside the settlements make a living from farming.

Uganda offers a relatively positive environment for refugee innovation. The Government of Uganda allows refugees the right to work and a relatively high level of freedom of movement, which has enabled refugees to engage in entrepreneurship and more directly engage with the host economy. Several refugees we met have started their own community-based initiatives. The permissive legal environment means that these initiatives could be registered as Community Based Organisations (CBO) enabling refugee leaders to openly scale their social innovations. Given the relatively open regulatory environment,¹⁰ innovative market-based initiatives are more common in Uganda. These enterprises enable individual refugees to earn an income, but they also contribute to building skills, services, and resources in their communities, creating platforms upon which other people can also succeed.

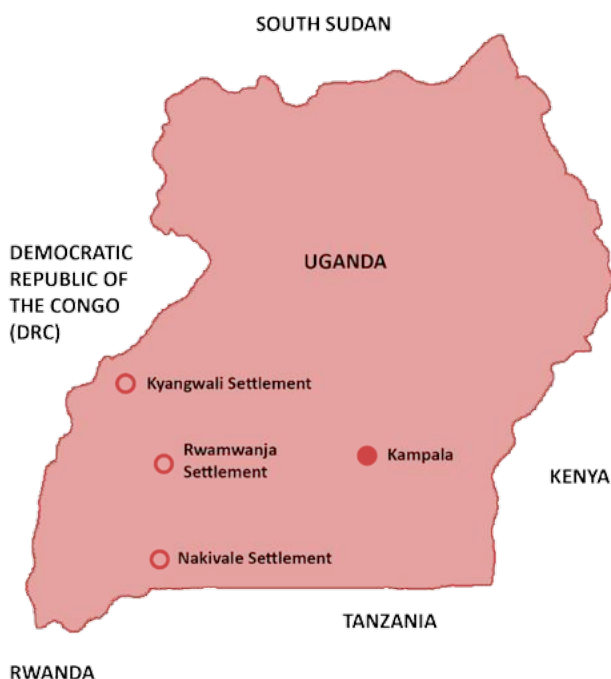


Figure 2: Map of Uganda with research sites

Innovative entrepreneurs

In Uganda we identified a significant minority of refugee entrepreneurs who had established successful businesses, often employing others. Successful entrepreneurs are in most cases 'outliers' among their communities, but their impact can stretch beyond their own households by also contributing to an improved quality of life for those around them, at times providing a stepping stone for others to also embark upon new ventures. The examples that follow give us a glimpse into the lives of these innovators.

In a mud and daub home, much like the others on its street, we met Abdi, the owner of Nakivale settlement's first computer games shop. Even without an obvious shop face, people know about this place from word of mouth and by the reputation Abdi has built from running the business. Abdi established his shop through personal savings, which he used to purchase his second-hand televisions and games consoles from Kampala. Abdi's drive to be self-reliant was evident as he told us about his business.

9. UNHCR data July 2014. 10. See Betts, A et. al (2014) 'Refugee Economies: Rethinking Popular Assumptions', Oxford: Humanitarian Innovation Project.

“Instead of waiting for donors I wanted to make a living...I talked to friends in Kampala who run similar businesses and so I decided to start one here...There’s one other guy here who also charges money for games, who learned from me. But I’m the pioneer. This guy sometimes comes for advice, and I occasionally give him spares.”

Although Abdi’s business stands as a positive example, and in some senses has been able to successfully scale up - continuing to attract an increasing number of customers and seeing its business model replicated by another person in the settlement - it also suffers from a lack of access to capital to improve its assets or reach markets beyond Nakivale.

The market demand for the shop is high, and it is often filled with children and adults of several nationalities. However, other challenges still face the business regularly. Abdi explained that the generator he owns to power the shop often breaks down or becomes overrun. Additionally, security was a concern to Abdi, since he only had a tarpaulin roof to cover his games equipment that could easily be broken during the night. Even if he was able to save for a more secure roof, Abdi was uncertain whether he would be allowed one as a result of restrictions placed on the construction of permanent structures within the settlement.

“Instead of waiting for donors I wanted to make a living.”

- Abdi, Nakivale settlement, Uganda



Photo: Inside the computer game shop in Nakivale

One of the biggest challenges for the business is maintaining the games consoles and equipment in a remote rural setting where spare parts and replacements are not readily available or affordable. Abdi and his brother gained mechanical and electronics-related skills from former jobs in Somalia and do their best to help each other maintain the equipment for as long as possible. Abdi also collects scrap electronics parts from around the settlement in order to make repairs, doing whatever is possible to further extend the life of the electronics.

Individuals with successful and unique businesses in Nakivale could be considered to be ‘outliers’ from the rest of the population. These innovators often spoke of their personal drive to succeed and were willing to invest personal savings in their enterprises. The vast majority of these businesses were established with no support from international aid at all – on the contrary, some businesses have started to supply international agencies, as the following case of a Rwandan refugee demonstrates.

In another part of the bustling trading centre in Nakivale, the largest milling plant in the settlement – made up of five milling machines – was busy turning refugee farmers’ maize into flour. This milling plant,



Computer game shop owner describes how he uses scrap parts in his business

owned by a Rwandan refugee named Claude, was unique among others in the settlement because of the large scale of the business, which employed five other refugees as staff. The size of Claude's operations meant that during 2013, when a new influx of Congolese refugees entered Nakivale, he milled maize for the World Food Programme (WFP) to meet increased demand for food.

Claude is an entrepreneur. He has leveraged his milling business to develop other income-generating strategies, including selling water to passers-by. The inspiration for this side business was developed after Claude had solved a different business problem. Claude used to pay water carriers to continuously bring water up from the lake to his machines, so that they could be cooled. This came at a considerable cost, and it required time to organise the carriers, so Claude had the idea to capture rainwater from his roof and store it in a storage tank so that he could cool the machines with his own supply of rainwater. Using savings from the milling business, Claude contracted a company in the nearby town of Mbarara to build a large ferro-cement water tank behind his milling plant. The tank captures enough water to effectively cool the machines, and during the dry seasons when the boreholes in the settlement are known to run dry, Claude also has enough water stored in his rainwater tank for both personal use and to sell some of it to those living nearby. This unexpected source of additional income is a benefit from the diversification of Claude's business, but is also a way of helping to provide a vital resource to his neighbours and community.



Credit: Demou-Kay

Photo: Claude operating his milling plant in Nakivale settlement

The above examples demonstrate that innovation is not limited to a product or business model alone. Rather, these stories show that innovation is more about a journey or process that is unique to each innovator and their experiences. This journey may be seen through the lens of an iterative innovation process in which new ideas, barriers, and opportunities emerge and feedback into different stages of the process. Thinking about innovation in this way - as an iterative, cyclical process - enables us to better understand the ways in which 'bottom-up innovators' navigate decision-making and develop particular trajectories for their ideas.



Credit: J. Bloom

People gather to inspect Claude's water storage tank behind his milling plant

Bottom-up innovation in an emergency

Rwamwanja Refugee settlement has seen an influx of new Congolese refugees over the last few years and remains in a state of emergency in comparison to Nakivale and Kyangwali. In this environment there are fewer established businesses and resources available. Despite these constraints, creative entrepreneurs and innovators are emerging throughout the camp, initiating diverse businesses and social interventions. Here we meet an artist who works in this environment.

Many people gathered around as James sculpted a large piece of wood into the figure of an elegant woman. An artist who had learned his skills from his father in the DRC, James now dedicates his new life in Rwamwanja to the same passion. Balancing his passion for art with an effective economic strategy is difficult in this environment.

“I don’t craft sculptures which I don’t want to make. I don’t want to be forced to carve what other people want. Before I start carving, I use my imagination and follow it. I want to have freedom to pursue my imagination so this is why I don’t take any orders... Sometimes it takes a bit of time before I encounter a customer. I craft what I want. But I know I have to balance my business and artistic desire.”

As a new arrival in the settlement, James’s

experiences of displacement and the trauma he has endured while in exile affects how he manages to conduct his work both geographically and mentally.

“There are many challenges for my business. Limited market access is one. I can only approach customers in and around camp area. Also, it is not easy to buy necessary tools for carving. I could not bring all necessary items from DRC. I have to travel to Kampala to buy specific tools because they are available only in Kampala.

Also, it is not easy to keep mental composure now. This type of artistic work requires good mental composure. But my mental peace has been destabilised since my departure from DRC. I feel like draining my heart. Whenever I remember what happened to me in DRC, my mental composure is disturbed. I am afraid to be sent back to DRC.”

James’s experience in this emergency context draws on different elements that play on his ability to take his art to scale. Market access and acquisition of material resources are some elements that he has managed to find a solution to, despite the limitations posed by the rural and underdeveloped state of the settlement. More importantly however his fresh memories of conflict make it hard for him to focus.

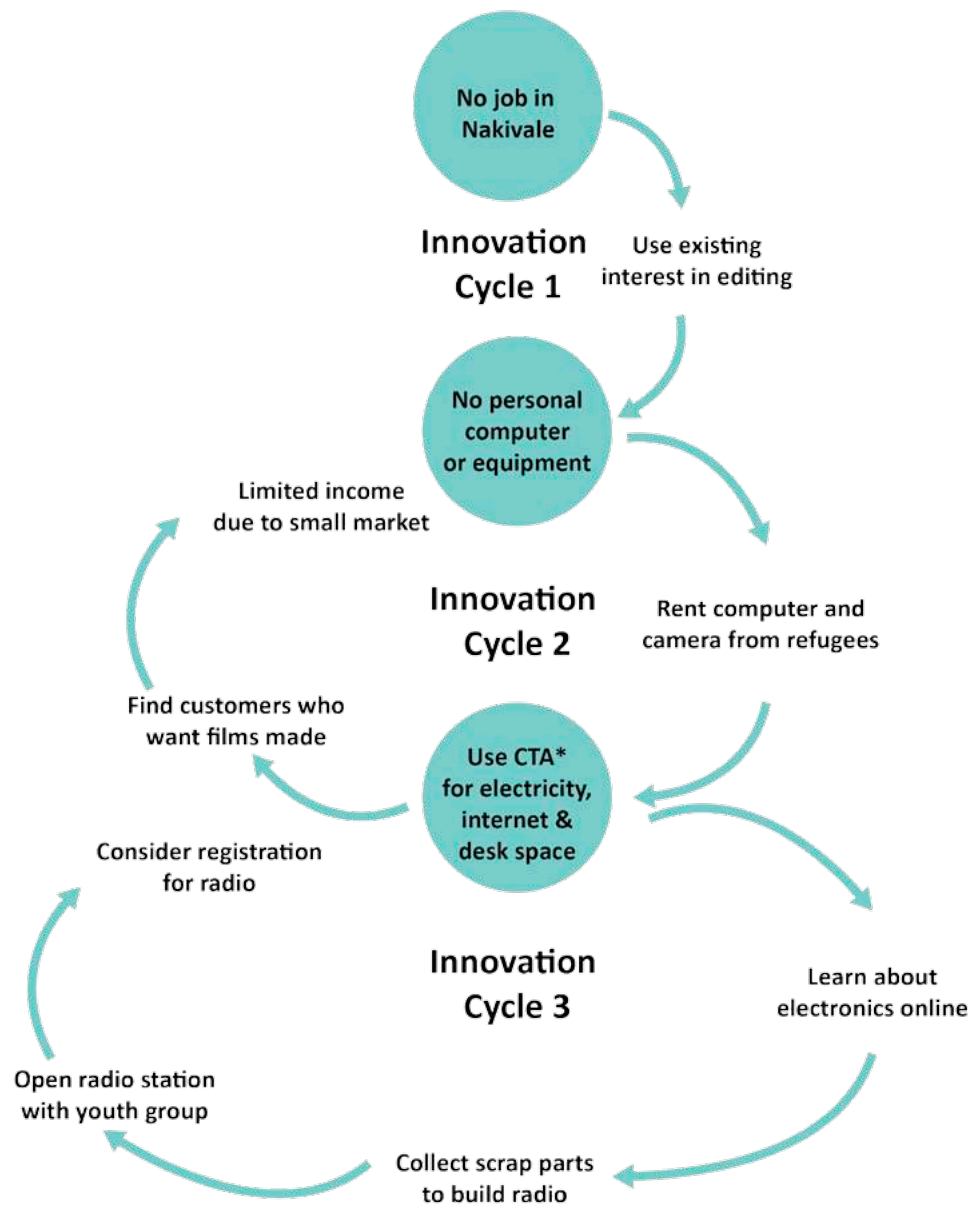


Photo: Congolese sculptor working in Rwamwanja refugee settlement

An example of how this process might work in practice can be seen in the following schematic (see Figure 3), which shows one innovator's journey over a period of just a few months after his arrival in Uganda. Demou-Kay is a Congolese tech-entrepreneur and employs his existing skills for film editing in his film and editing business for weddings and concerts that take place in the settlement. Soon after arriving in Nakivale, Demou-Kay was able to acquire the necessary equipment for his business from other refugees in Nakivale. He also uses the UNHCR-initiated Community Technology Access (CTA) Centre as a base for his work, since it provides access

to electricity and the Internet. Demou-Kay continues to pursue opportunities to develop new skills, and used the internet at the CTA centre to learn how to build a radio transmitter from just a few scraps, launching the only radio station in the settlement. A youth group in Nakivale, of which Demou-Kay is a member, is now managing the radio station and is in the process of scaling up the station's coverage and applying for formal registration.¹¹

Figure 3: Cycles of innovation for tech-innovator in Nakivale settlement



*CTA = Community Technology Access centre founded by UNHCR

11. You can read more about Demou-Kay on p32 of Refugee Economies: Rethinking Popular Assumptions, Betts et. al 2014 published by HIP.

Refugee provision of public goods

Refugees' journeys of innovation in Uganda were often enabled by their ability to understand the local markets. In many refugee settlements and camps, existing infrastructure and services fail to fully meet the demand of those living inside. This was in the case in all three of our Ugandan rural refugee settlement sites - Kyangwali, Nakivale, and Rwamwanja. Because of the limited water supply, poor road networks and transportation services, lack of adequate health care and education, and no formal provision of electricity, there are significant gaps between the market levels of demand and supply that leaves space for innovative individuals to provide alternatives. In many cases, the innovators we met were explicitly attempting to address these gaps in available public goods and services as a way of benefiting their wider communities.

For instance, we met Rose, a former healthcare worker from the DRC who runs a busy pharmacy and health centre for primary health care services in Kyangwali settlement. The formal settlement health clinic provides good quality care, but it is so busy that many refugees preferred to pay out-of-pocket for the more personalised care that they received in her centre. Rose also runs a supplementary business providing electrical power to others in her village from a generator, which she saved up to purchase. Rose described her motivation for initiating the electricity business:

"I am used to using power. I cannot tolerate life without electricity. I used to use candles whilst sleeping, but just seeing the darkness here, and that other sources of light were dangerous - like candles would start fires and harm children - I thought that this business could contribute to our community."

Rose's father used to run a plantation in the DRC, and ran a generator to supply electricity to his employee's homes. She was able to "learn from watching", and copied his model. Rose has 77 customers to whom she supplies electrical power, including local Ugandans living near her village. Her understanding of the market and her customers mean that she is able to differentiate her services appropriately.

"I have a central generator which gives four major wires with each contracted house. I differentiate the

price depending on the number of electronic items in their house. For heavy users, I charge 50,000 UGX [approximately 16 USD] per month but I only charge 10,000 UGX for less users. For instance, someone with a laptop and other electronic gadgets can spend more electricity than those with two bulbs."

The impact of Rose's electricity business goes far beyond the income for her household. Since she has positioned herself as a provider of basic energy infrastructure in her immediate village, where there is no access to government electricity and few other options, she recognises that "this business can also enable others to do business which needs electricity such as bars and restaurants using refrigerators, or an internet café." Other refugees we met indeed supported this claim, and are able to run new businesses and services in the settlement that were previously not possible without access to a reliable source of electricity.

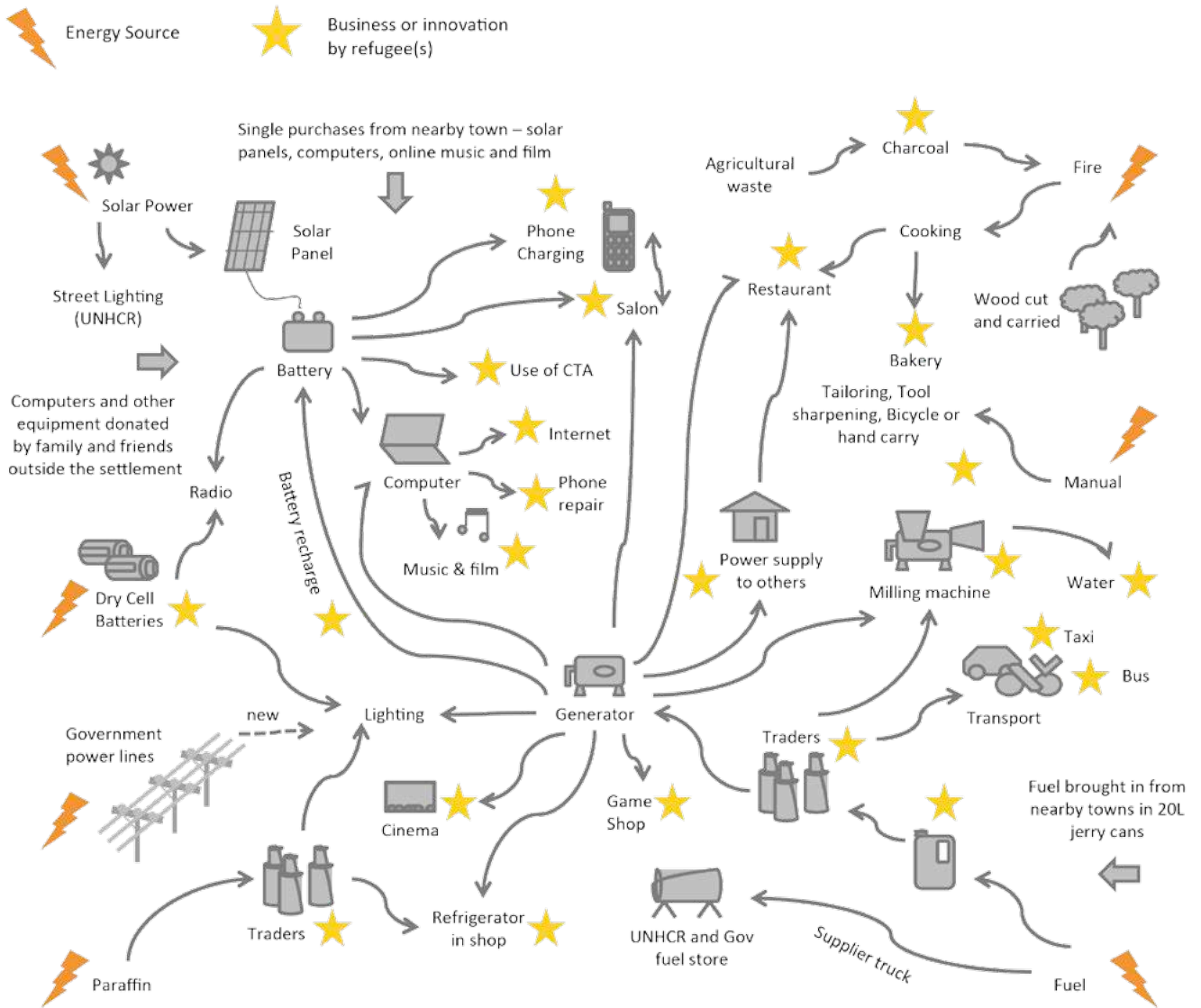
In Nakivale settlement - which is three times larger than Kyangwali - the informal refugee-run energy supplies and uses are striking. With several different sources of energy coming into the settlement, refugee innovators redistribute trade and make productive use of the minimal energy and electricity available. The energy infrastructure map in Figure 4 shows how refugees are economically connected to one another through their supply and demand for sources of power in Nakivale. This mapping provides a systems perspective on how refugees both create and rely on energy for their businesses. Key sources of energy in Nakivale are indicated by the orange symbol, the yellow stars highlight where innovative means of income generation is made by refugees in Nakivale from using this source of power. The arrows show power connections between the devices. The innovators in this case are the ones pioneering these initiatives to ensure the provision of energy in the settlement is available to many. In addition, new government-supplied electrical power cables into Nakivale have very recently been connected and are starting to change the make-up of the existing energy system in the camp. For instance, in the central base camp market several milling shops have been established due to the additional electricity supply from the lines. At a fee, others are also connecting to the grid for use in their businesses and homes.

Innovators are explicitly attempting to address gaps in available public goods and services as a way of benefiting their wider communities.

"Seeing the darkness here, and that other sources of light were dangerous - like candles would start fires and harm children - I thought that this business could contribute to our community."

- Rose, Kyangwali settlement, Uganda

Figure 4: Innovation in Nakivale settlement's energy infrastructure



Credit: Demour Kay

Urban environments - boosting innovation?

Kampala is host to over 40,000 refugees in Uganda. Unlike the settlements, refugees in the city are not supported by international organisations. However similar to most cities, the dense networks of people, trade, and the availability of resources make it a very different environment for innovation. In Kampala, strategies for innovation and problem solving taken by 'self-settled' refugees are often built on personal relationships and social networks, and rely on existing urban infrastructure.



Credit: L. Bloom

Photo: The busy streets of Kampala

We met, John, one young Congolese innovator who has been able to make use of the greater opportunities available in an urban space by enrolling in the national film institute to become a professional filmmaker. Growing up in the DRC, he was inspired to become a film producer after running a small cinema business to show films to people in his village on a small shared television. John was encouraged to study a more academic subject by his parents while in the DRC, but was forced to flee before he could complete his studies. Upon arrival to Kampala he became involved in fabric trading, a common livelihood for many Congolese in Uganda.¹² This was difficult for him because he did not speak English or the local language Luganda, which limited his ability to negotiate prices with Ugandan suppliers and customers. Using some savings from his fabric sales, he approached The Uganda Film and Television Institute in Kampala to ask whether he could get involved in their classes. Fortunately the director spoke French and offered him a place in the institute at a reduced cost. In less than one year at the institute, he was able to learn English and later graduated with a qualification in filmmaking. He now lectures at the institute while also running his own film production business. Although he has experienced challenges with discrimination and theft in the city, his professional skills and passion for film-making have enabled him to continue his business, and he now works with partners he has personally trained.

The importance of being able to draw upon existing services, resources, and social connections is readily apparent for the refugees in Kampala who have been

able to successfully navigate the urban environment. One Rwandan refugee we met had paid a Ugandan to teach her how to make jewellery, and she was then able to go on to sell her own crafts in the city. She later registered her own business and now supports other refugees as employees, and emphasises the importance of passing on her knowledge and skills to fellow refugees.

Alongside the wealth of opportunities in the city, there are also distinct constraints to innovation in this busy landscape. Because they live in such close proximity to the host population, language barriers often pose more of a challenge for urban refugees. Discrimination as well as limited access to financing can create insurmountable barriers for innovators trying to get their creative initiatives off the ground. We heard accounts from innovators of name-calling in the street, and shops being broken into in areas where they were the only refugee shop competing with other Ugandans. For poorer refugees, transportation in the city is a common challenge, limiting how far they can travel for training opportunities or to access markets. A lack of access to financial resources is an additional constraint for many entrepreneurs, and can prevent people from accessing existing opportunities in the city for business training or membership to associations, while challenges in accessing banking services and financial loans to build businesses leave many struggling to scale the innovations they have achieved.

Recognising these challenges, refugee-led CBOs have been inspired to try and find solutions. YARID, a youth organisation run by refugee volunteers, is attempting to help refugees in Kampala overcome some of these barriers by providing English classes, social media training, business skills, internet access, women's craft training and more to those living in the city. These kinds of social innovation initiatives often struggle with their own challenges, including finding funding for rent and services, but continue to strive to address the myriad difficulties and concerns faced by urban refugees.



Credit: D. Nibbs

Photo: Refugees working together at YARID's refugee-youth hub in Kampala

¹². See Betts, A. et. al (2014) 'Refugee Economies: Rethinking Popular Assumptions', Oxford: Humanitarian Innovation Project

Is refugee innovation being supported?

Despite the relatively open regulatory environment for refugees in Uganda and the many existing initiatives by refugee innovators, there are many constraints that still need to be addressed to bolster refugee-led innovation. How can bottom-up innovation be better

supported? The following three examples show how projects implemented by local and international organisations were starting to make a difference to refugee innovation on a small scale in Uganda.

Community Technology Access Centre – a springboard for entrepreneurship

Community Technology Access (CTA) Centres have been initiated in several countries by UNHCR. They provide basic computer training classes and an internet café, which is run by the community. In Nakivale, the CTA was a hub of activity. A handful of innovators have managed to leverage their access to this centre and use the internet to trade products, find out local market prices or, as we saw earlier in the case of Demou-Kay, use the space as an office. The training classes have also inspired a few students to start businesses copying music or providing printing and other computer services in the settlement.

Business grant project – inspiring neighbours

In Kyaka II, another refugee settlement in Uganda, one international agency is providing small business grants to groups of refugees. At the start of the project, the manager had worked hard to convince some refugees that it was worth investing in their futures here in Uganda. However, after the first round it became evident that the demand for these grants was much greater than could be provided. One group had been inspired to apply with their idea after seeing their neighbours succeed in making market sales of handmade hats – made possible through the grant.

Social innovation – refugees supporting each other

Examples of social innovation existed in most of our research sites. In Rwamwanja, a youth music group helps bring people together in a productive way. In Kyangwali an education initiative by the youth has built a curriculum for leadership and supports refugees access to secondary and university education – now available nationwide and with offices started in other countries. In Kampala, several active refugee-led CBOs are operating in the city with aims ranging from human rights, psycho-social support, and skills training, to sports gatherings, and social events. These initiatives provide refugees with information to navigate opportunities and to build confidence to develop their own ideas.



Photo: Rwandan refugee who trains others in arts and crafts and helps them into work

Refugee innovation in Uganda is rich and diverse, and is supported not only by international agencies but also through community-led initiatives. However, refugees still face many barriers to innovation. At a national level, Uganda is aware of its need to further support science and technology innovation, but does not mention refugees in its national policies.¹³ In focus group discussions with refugees living in Kampala – arguably those closest to innovation structures and resources which may be provided by the state – many felt that they either did not know about existing trade associations, training or business networks in the city or were limited by finances to be able to access them.

Governments and the international community could help to minimise these barriers by considering how they can best support refugees to take their own ideas forward – through better access to financing for personal and business development, provision of more opportunities to bid for business grants, and by sharing information on existing services that refugees may be able to access themselves.

¹³ Uganda has a science and technology innovation policy and in 2012 announced new efforts to boost ICT capacity in the country. A review of the policy in a 2011 World Bank report discusses what impact it is having, but also the remaining gaps it has in supporting agriculture, health, energy, ICT and transport. See the report online at: <https://openknowledge.worldbank.org/bitstream/handle/10986/2250/588440PUB05cie101public10BOX353816B.pdf?sequence=1>



Inside Za'atari refugee camp

JORDAN

Syrian refugees in Za'atari camp

As the Syrian crisis approaches its fifth year, close to four million Syrian refugees have fled to neighbouring countries. In Jordan, approximately 10% of the population are now Syrian refugees, with over 600,000¹⁴ living in its cities, rural areas, informal tented settlements, and refugee camps.

Za'atari refugee camp, where nearly 83,000 of the Syrians reside, has been the focus of many discussions about innovation since it opened in 2012. There has also been significant recent media attention paid to the entrepreneurial achievements and innovations of Syrians now living in Jordan.¹⁵ There are over ten UNHCR international partners operating services in the camp including hospitals, schools, and water services among others. The Jordanian government, community police, private Jordanian businesses with formal contracts – such as two large supermarkets and a water treatment plant – and an estimated 3,000 Syrian small businesses are all active here too. International reports have documented many examples of humanitarian innovation in Za'atari, including cash cards to use in the camps supermarket,

electronic tablets used to collect data and for registration, tent recycling, 3D printing of products, art projects, and community gardens.

However, as the sustained crisis in Syria continues unabated and international resources continue to dwindle, it becomes necessary to question the longevity and sustainability of these more 'top-down' innovations. Our Za'atari case study takes a closer look at everyday life in the camp, revealing a wealth of bottom-up innovation by Syrian refugees that both challenges humanitarian norms and fills important gaps in goods and services. So can we consider the innovation of Syrian refugees to be a good example in helping to contribute to meeting humanitarian needs to the hundreds of thousands of refugees now living there in exile? What factors have enabled this to happen? And what are the constraints hampering refugee innovators in Jordan?

From their first arrival in Jordan, Syrian refugees have been challenging the way that the international community provides aid. Protests erupted in Za'atari following its opening during which refugees fervently argued for better treatment and conditions in the camp. Several humanitarian workers told us that in Jordan refugees had high expectations and standards compared to other places they had worked, and that as a result "some services have morphed due to the demand from refugees". Criticisms of the meals and food items provided by World Food Programme (WFP) in the early stage of the humanitarian response is said to be one of the key contributing factors in the shift to cash programming. Refugees in Za'atari now have UN-issued debit cards through which monthly financing is transferred from the international aid community to cover the costs of food. The cards can be used in the two supermarkets in the camp – one



Figure 5: Map of Jordan with research sites

14. Data last updated on 6th May 2015 from the Inter-agency Information Sharing Portal <http://data.unhcr.org/syrianrefugees/country.php?id=10715> 15. For example, Gavlak, D. (2014) 'Zaatari Syrian refugee camp fertile ground for small businesses', BBC, 30th July 2014. Available online at: <http://www.bbc.co.uk/news/world-middle-east-28541909>



Credit: L. Bloom

The 'Shams-Elysées' market street in Za'atari

of which is now the most profitable store branch in Jordan. This push from the community may have helped to morph some of the services provided but it has also presented difficulties. One researcher visiting the camp back in 2013 noted

*"I was struck by the ingenuity and agency which these Syrians were expressing. My sentiment was not entirely shared by the NGO staff."*¹⁶

In Za'atari, the relationships among the Syrian refugees, the international aid community, the Jordanian government and its citizens has remained in flux since the camp was established in 2012. Basic services are provided by international agencies, including water, healthcare, schooling, and electricity, but the capacity of organisations has been increasingly strained as international financing for the crisis decreases over time. This means that refugees are coming up with their solutions to fill the gaps as international aid diminishes. During our visit, the electricity in the camp was a frequent topic of conversation, as several parts of the camp had been without it for a few months. As a result most shops on the main market street had purchased their own small generators, but many complained about both the expense and the noise. In addition to basic infrastructure the international community has expanded services to also include community projects and provide 'cash for work'. Several community centres and youth centres run by the largest organisations in the camp offer spaces for refugees to

convene, skills training, and work on projects such as building maintenance for agency offices and making uniforms for the schools.

It is important to note that the enabling environment within Za'atari is different than for refugees who live outside of the camp. Jordan does not allow refugees the right to work, and across the country's towns, cities, and rural areas there is greater fear of crackdowns by authorities and threat of deportation that restrict Syrian refugees' opportunities to innovate and limits the extent to which they wish to be visible. Although refugees in Za'atari do not have the *de jure* right to work, businesses and entrepreneurship is tolerated within the camp boundaries, and the bustling main market street is well known as the 'Shams-Élysées' market street – a play on words that references the renowned French shopping district and the historic name for Syria, 'Sham'.

From their first arrival in Jordan, Syrian refugees have been challenging the way that the international community provides aid.



Photo: A large caravan converted into a shop in Za'atari camp

Credit: L. Bloom

16. Chatty, D (2013) 'Za'atari camp: A snapshot of a simmering crisis', Debating Development Blog, Oxford Department for International Development. Available online at: <http://blog.qeh.ox.ac.uk/?p=284>

The international community has been challenged by the organic growth and creativity of Syrians in Za'atari. One humanitarian worker told us that in many ways "organisations are trying to keep up with the refugees."

In the Levant region, Syrians are well known for their entrepreneurial endeavours. Many of the refugees arriving to Za'atari are highly skilled and have extensive experience in running businesses and managing capital. Many were traders in Syria and had extensive trade networks and contacts in Jordan that they were able to re-establish in exile in order to restart small businesses. These existing connections, a common language, and some shared cultural norms with the host community have all played a role in enabling Syrians to set up businesses in this transitory environment. One refugee living in Za'atari told us:

"The best job here is trading, many people start with nothing and then build up their trade. To be successful you should have good relationships with traders in Jordan and money – often from family."

Despite the constraints, it is evident that many Syrians have found ways to work and create economies inside Za'atari. The hardworking and creative spirit of the Syrians we spoke to for this study shone through in their motivation to stay busy and contribute to making the best of what they had.

Refugee architecture and space

The mobility of materials and creativity around shelter in Za'atari illustrates the power of community-led innovation. When the camp was established in 2012, refugees, arriving by the thousands, were issued with tents. The tents were pitched on a selected plot by an international agency. One humanitarian coordinator told us that families would watch as the organisation erected the tents. Once it was completed, the families

would immediately recruit a young Syrian to take down the tent and move it to a location in the camp that was near to their family or friends, seeking to reconstruct the housing layouts from their community in Syria. In response, the agencies began to distribute the tents directly instead of pitching them for the new arrivals.

Later on, the shelter programmes started supplying donated 'caravans' to replace the tents. Like the tents, the Syrians wanted the caravans to be situated in proximity of their family needs. A demand was in turn created for services to move the caravans when they were first distributed, and later when refugees sold them. To meet this demand, groups of Syrian welders took fence posts from the camp walls to use as large axles and attached wheels to them – creating a carting device to push the caravans around the camp. These 'removal men' had creatively responded to a demand to recreate, as best as possible, the social lives of the displaced Syrians in the camp.

This organic movement of the plots in the camp has created some challenges, since it is sometimes difficult for ambulances and other vehicles to travel through designated roads due to homes that have been placed there, and waste water systems cannot be fully designed. In trying to manage the camp's services, the international community describes being challenged by the organic growth and creativity of Syrians in Za'atari. One humanitarian worker told us that in many ways "organisations are trying to keep up with the refugees". Another international aid worker commented:



Credit: N. Weaver

Syrian 'removal men' moving a caravan

“People will always find creative ways to use the resources available to them, to beat the system, and to change the system to address their own priorities. It might be against our assumptions, but we have to embrace it, and acknowledge it.”

The caravans and shelter kits were created externally and shipped into the camp, but refugees have made the most of adapting, reshaping, reusing, and upgrading the available material. A winterisation project by international agencies distributed porches to many households in caravans, with kits that contained heaters and additional building materials. Most of these porches were distributed to homes on or near the the now ‘Shams-Élysées’, and thought to have contributed to the development of this market stretch. One humanitarian worker told us that he estimated that about 60% of these porches were converted by refugees into shops. A study conducted in 2014 also confirms the adaptive use of caravans, claiming that nearly 64% of Za’atari’s businesses operate from them.¹⁷ International agencies have also been working alongside Syrians at community centres to repurpose tents for redistribution or up-cycling them into products for schools, hospitals, and distribution to the most vulnerable in the camp.¹⁸

In the camp most of the furniture in homes and shops, shop shelving, signage, and general household items are all made from the same wood panelling. Much of this wood came from the flooring of the caravans – which is inappropriate to use as a floor due to the regional custom of washing floors with water, which causes the wood to swell and degrade. This wood panelling was also readily and cheaply available in the local markets, and made its way into the economy of the camp through traders.

We spoke to an owner of one of the largest carpentry and building businesses operating in the camp that provides services for those needing new furniture or wanting to reconfigure their caravans. He buys old caravans from those returning to Syria and uses the parts for his business. His creative designs are commissioned by other Syrians and he has three people working with him. He had owned several other businesses in Syria before he fled, and he told us that his ideas for his business initiatives and work here in Za’atari come from a “...desire to be creative, and the needs here have forced me to be creative and not to dwell.” Others in the camp have also created furniture themselves for use in their home – using their creative skills to try and create homely and welcoming features in their caravans.

“People will always find creative ways to use the resources available to them, to beat the system, and to change the system to address their own priorities.”

“The needs here have forced me to be creative and not to dwell.”

Figure 6: Some of the ways that materials from the tents and caravans have been used in Za’atari



*Initiatives led by the international humanitarian community

Figure 7: Some of the ways that wood sheeting is being used by Syrians in Za'atari



Mobile bicycle market stall



Baby's crib



Barber shop shelving



Dining table



Restaurant seating



Shop signs

Women in business

Another area of interest in Za'atari camp was the presence of female-owned businesses, although these remain somewhat rare ; it was reported at the end of 2014 that only 1.7% of businesses on the main market streets were owned by women.¹⁷ We were curious to find out what had led these few to be able to innovatively launch their businesses in this environment.

One female-owned shop on the 'Shams-Élysées' strip told us her story. Alia, her husband and daughter had arrived in Za'atari soon after it opened in 2012. They had been fortunate enough to establish their caravan on what later became the main market street. They lived in the caravan behind their shop and had managed to invest in merchandise and an additional caravan for their business by selling a car that they owned back in Syria. Alia's shop was well-organised and filled with cosmetic products. She told us that 90% of her items are brought from Syria. Her husband helps with the business and arranges the trade to bring in the produce. He told us that business here was good and that:

"Most customers are women. Women like this shop

because most items are for women, and because the relationship between women is better. It is easier for them to sell, buy and speak to each other... The female customers are the experts of these kinds of shops. I don't know why these people don't allow more women to own shops since they are the experts."

Alia's good relationships with other women are clearly a unique selling point for their business and she had up to 25 customers each day. In addition to the cosmetic products she also sells some handmade crochet items in the winter. However, Alia spends all of her time running her home and the shop and so she said that she does not know many other women nearby, nor any others who had their own businesses.

Although it might be easy to assume that women are not very economically active in Za'atari camp given the low percentage of women who own businesses in main market areas, it quickly became apparent that many women in Za'atari are participating in economic activities and contributing to their household income in less 'visible' ways.

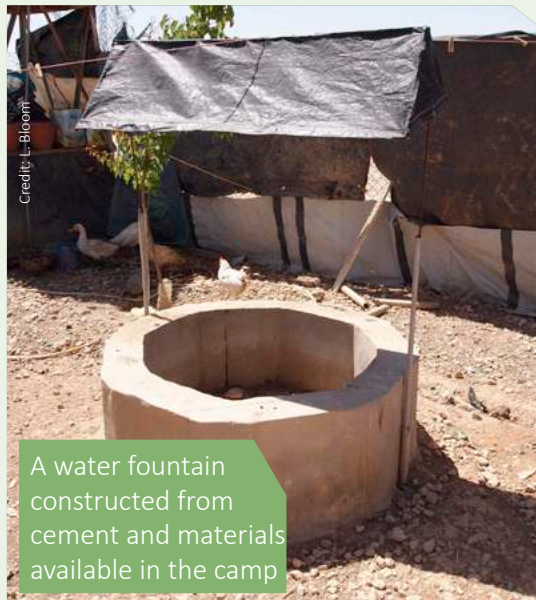
We met one woman, Zaynah, who runs a full tailoring service for other women in her home in a residential area, with her daughters and other family members

"Most customers are women. Women like this shop because most items are for women, and because the relationship between women is better."

17. REACH (2014) Market Assessment in Za'atari Refugee Camp in Jordan, Assessment Report, November 2014. Available online at: <http://www.nrc.no/?did=9183996#VV7yH0YV8mc> 18. The Norwegian Refugee Council (NRC) reported on some of their work in this area in 2014. Available online at: <http://www.nrc.no/?did=9183996#VV7yH0YV8mc> 19. REACH (2014) Market Assessment in Za'atari Refugee Camp in Jordan, Assessment Report, November 2014.



A wall of birds kept as a hobby at one business owner's shop and home



A water fountain constructed from cement and materials available in the camp

Identity in space

In many of the homes we visited there was a clear sense of the way in which material innovations contributed to attempts to reconstruct social and physical norms from Syria. One refugee told us that

“People bring with them traditions and other circumstances and try to keep their traditions here in the camp. We consider the caravans as houses and make many developments to them.”

Some business owners in the camp display small birds outside their shops, which they explained were mainly kept as a hobby. A few entrepreneurs breed the birds as a side business since many households keep them

as pets in their caravans. Keeping birds is a common pastime among Syrian people, and it was explained to us that having birds around in the camp helped them to relax and forget about the hardships they had experienced.

Others described a strong sense of community in the camp and the ways in which people would try to help each other. One skilful refugee had built many things for his family and friends to make their caravans feel more like home. The fountain in the photo, a traditional feature in many Syrian homes, is one example of his handiwork.



An elegantly decorated kitchen inside one caravan. The owner painted it himself and said it was a way for him and his family to escape

“The female customers are the experts of these kinds of shops. I don’t know why these people don’t allow more women to own shops since they are the experts.”

working as seamstresses. Customers can visit the ‘shop,’ tucked among other residential caravans, to place orders for an array of bespoke garments. Zaynah described herself as a designer, not just a tailor, which is one reason that women in the camp particularly appreciate her work. The walls of Zaynah’s ‘shop’ are lined with dresses showcasing her work, most in the traditional Syrian style with intricate custom embroidery work. Zaynah had acquired her sewing and tailoring skills in Syria, and worked for UN Women in Za’atari after she arrived. Later she was able to acquire her own machines and open her home-based tailoring shop, importing her fabrics and other raw materials from Amman.

Zaynah prefers to keep her business based in a residential area, explaining:

“This is a good place to keep a business. You need to live or rent for businesses on the market street and that is expensive... I pushed myself to make this place, others helped with money to start and I have grown it day by day.”

Zaynah estimates that around 10% of women in Za’atari are operating tailoring or other businesses in their caravans. Not unexpectedly, women appear to be more active in these sorts of home-based economic activities, including tailoring, candy-making, and handicrafts. But inevitably these activities are less visible than the storefronts along main market streets; it is difficult to estimate how many are in operation throughout the camp at any given time or to accurately measure their economic impact.

Media and communications

Covering over 500 hectares of land area, Za’atari is a sprawling place with 12 districts. A wealth of activity and life goes on here, and getting information out to the tens of thousands of residents can be a challenge. Nonetheless, Za’atari camp is an active space for media and news. International media has taken an active interest in the camp from the start, alternating coverage between the protests that have troubled the camp since its opening in 2012 and articles that celebrate the vibrant businesses and creative abilities of camp residents. It is the only refugee camp with its own Twitter account, run by the UNHCR Public Information & Mass Communication Office for the camp.

Alongside external media sources, Za’atari camp residents are also active in shaping their own communications and information networks. The camp has its own monthly magazine publication, called ‘The Road’. Run by a Jordanian journalist at the Japanese Emergency NGOs (JEN) and initially sponsored by UNHCR, the magazine is written by a group of Syrian volunteer journalists living in Za’atari. ‘The Road’ is intended to serve as a source of news and entertainment for camp residents, as well as an attempt to contribute to the information systems in the camp.

We met with a group of three student journalists in Za’atari inspired by ‘The Road’ magazine who want to contribute to this mission of sharing information as a way of improving life within Za’atari camp. As one of



The ZTTR youth journalist team with their translator.

Top left: The logo for the youth journalist team in Za’atari

Credit: L. Bloom

the journalists, Ali, explained, the key goals for their work as journalists are two-fold:

“We want to help make good relations in the camp between refugees and the organisations. Many refugees in the camp don’t know what the organisations do or what happens in other places in the camp. We also want to share about problems that are happening in the camp to the outside world, from the point of view of the refugees.”

Ali and his two colleagues are interested in journalism, and have formed an initiative called Za’atari Team Told Reporters (ZTTR). They initially met through English classes run by International Relief and Development (IRD), and they decided to approach the editor-in-chief of ‘The Road’ magazine to ask for a training course in journalism which began in April 2015. They now hope to serve as contributors to ‘The Road’ or to begin their own independent publication in order to write about the biggest issues and hidden problems that they feel are the most relevant and interesting for refugees in Za’atari.

There are also two refugee-run Facebook pages that have been established in the camp by Syrians. One, called ‘Za’atari Camp Coordination’, posts news alerts and information for Za’atari camp residents and has a

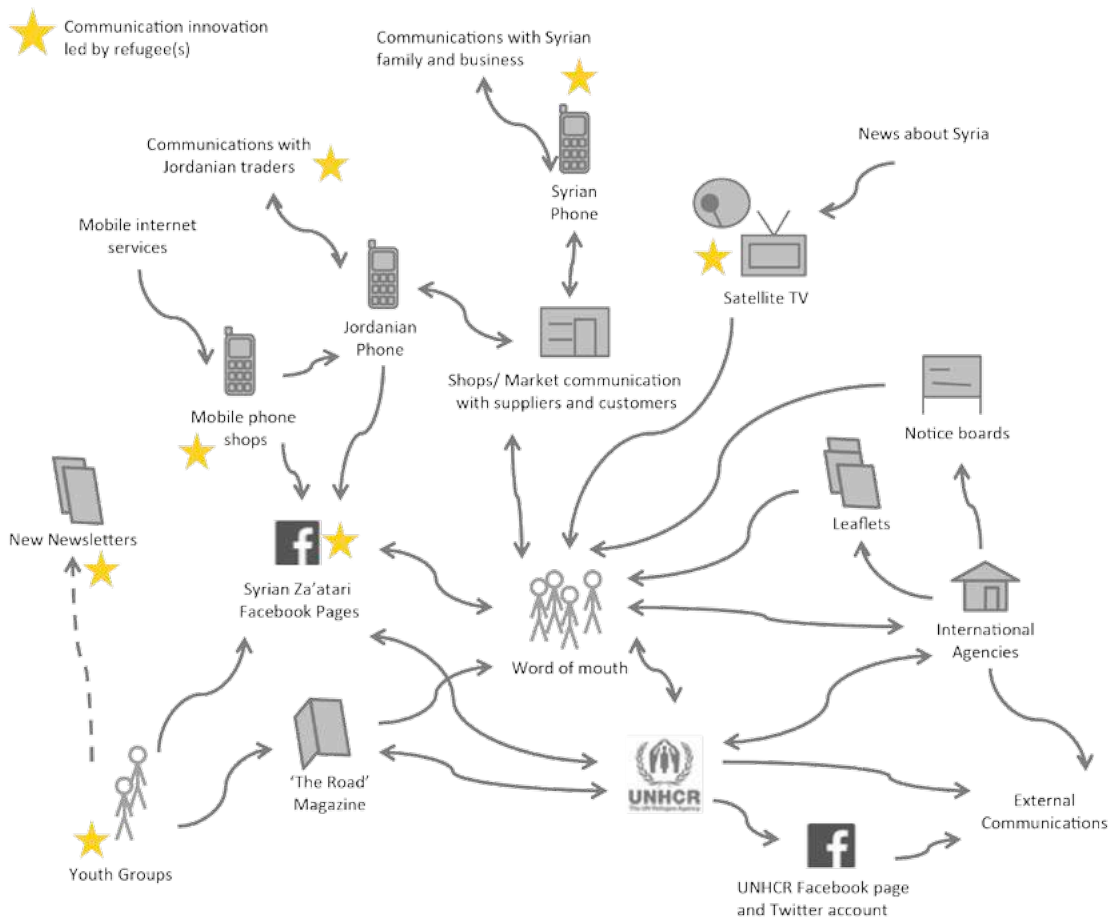
phone number that people can message to send their stories. The page has over 23,000 likes and there are multiple updates and posts to the page each day. The UNHCR public relations office in Za’atari engages with the group through its own Facebook page, and will occasionally comment on posts to verify information that is being shared about services or events in the camp.

“Many refugees in the camp don’t know what the organisations do or what happens in other places in the camp.”

It is important to note that social media, such as Facebook, currently provides the only available platforms for truly independent reporting and news in the camp. Although Syrian refugees in the camp write all of the articles in the ‘The Road’ magazine, the publication must be submitted for review and approved by both the Jordanian government’s Syrian Refugee Affairs Directorate and UNHCR before it can be published. However, internet access within the camp is limited to phone networks, with often patchy reception available throughout most of Za’atari.

The diagram here shows the interconnected initiatives that refugees and aid agencies have taken to help create a flow of information in the camp. The refugee-led innovations are highlighted with stars, but are interconnected with external and international services or projects.

Figure 8: Communications systems in Za’atari camp



Recognition and support for innovation in Jordan?

There is no doubt that the Syrian crisis in Jordan has introduced many difficulties for both people from the host population as well as refugees. In the area of Mafraq, where Za'atari is based, there are already many poor Jordanians living without jobs and limited infrastructure, which has increased the pressure from the government to make international agencies also provide services for the host population. There have also been many examples of innovation by international agencies such as cash programming that have developed as a result of constraining factors and the close involvement of the government. It is recognised by the international community that

building on local and existing infrastructure is something that is now essential for the long-term peaceful co-existence of Syrian refugees living in Jordan. One humanitarian worker claimed that “strengthening local infrastructure is important especially in bridging the humanitarian-development divide”.

Syrian refugees have proved to be incredibly resilient and adaptive in face of the current political and economic pressures from the government and aid agencies. By working around external constraints and finding new survival skills, Syrian innovators have been able to establish businesses and dynamic marketplaces in Za'atari camp.

Credit: L. Bloom



A unique shop selling nuts and seeds in Za'atari camp



Street scene in Eastleigh, home to many Somalis in Nairobi

KENYA

Refugee innovators in Kakuma camp and Nairobi

Kenya is host to over 530,000 refugees, mostly based in the refugee camps of Kakuma and Dadaab, as well as the urban space of Nairobi. This report includes case studies of refugee innovation from Kakuma refugee camp and urban refugees in Nairobi.

Refugees in Kenya do not have the right to work and are required to remain within camps in order to maintain their refugee status or receive humanitarian assistance. Refugee status in Kenya is mostly granted *prima facie*, with status automatically granted depending on country of origin. However this relative openness is offset by Kenya's encampment policy, in which refugees are unable to leave the camps or travel within Kenya without official permission.

In recent months, the situation for refugees in Kenya, particularly those of Somali origin, has become increasingly precarious following an Al-Shabaab attack on a Kenyan university in Garissa County and an announcement by the government declaring

its intention to close down Dadaab refugee camp.²⁰ Somali refugees in Eastleigh and elsewhere in Kenya are fearful of discrimination and harassment by the government and police, and many shared concerns about being forcibly relocated to a refugee camp or deported to Somalia.

Despite these constraints (and often in response to them), innovation is a prominent feature of many refugees' economic strategies and livelihood activities.

Demand for connectivity in Kakuma

Kakuma Refugee Camp was established in 1992 and currently hosts over 150,000 refugees, with South Sudanese and Somali refugees making up the largest nationality groups. UNHCR began relocating Somali refugees from the overflowing Dadaab camps to Kakuma in 2009, and in 2015 UNHCR reported that record numbers of refugees from South Sudan continue to enter the camp, a trend continued from the beginning of civil war in December 2013.

Walking down the main street of the Somali business district of Kakuma I, one of the tallest structures visible is the red framework of a large tower rising above the roofs of the market shops. Perched atop this tower is a small white box that receives signal from one of Kenya's largest 3G mobile internet providers. The signal travels down to a router board in the small cyber cafe at the base of the tower where the wires are split; some connected to Ethernet cords for use by cyber cafe customers, and others traveling back up the tower to be projected to local Wi-Fi users via four high-power internet routers.



Figure 9: Map of Kenya with research sites

20. See for example: <http://www.bbc.com/news/world-africa-32269944>



Wi-Fi networks from the café



Wi-Fi tower for Abdi's Wi-Fi Cyber Café



Abdi, the owner of the Wi-Fi Cyber Café

The owner of this impressive setup is Abdi, an enterprising young Somali man who arrived in Kakuma in 1996. Like many others in the camp, he became frustrated with the high costs relying solely on his mobile phone for internet services. Cellular data bundles are expensive and can be exhausted quickly when one is downloading high volumes of data. Abdi learned of an alternative deal for homeowners and small business facilities, in which one can pay a high monthly fee, but receive a large volume of high-speed internet in return. The service was more than what he would need as an individual, but by providing the service to camp customers for a monthly fee of approximately 5 USD, he could provide more affordable internet services to his fellow residents while making a modest profit himself. Paying users are provided with a password, and the IP addresses of their devices are registered to allow them to access the signal, which prevents others from tapping in. The price is much more favourable with this new service: Mobile 3G subscribers can spend over 10 USD per month for limited packets of data, but Abdi's internet limits downloads by speed, not by data volume.

Abdi was not the first person to bring internet to Kakuma. Since 1997, another refugee (Mohammad) had been providing satellite internet service to camp residents. This was in fact the man who had constructed the steel tower that Abdi now uses to receive and project signal. However, Mohammad's satellite services were expensive, and users often had to queue to use the service. When Mohammad was resettled, he left his company to a handful of friends and relatives, but the infrastructure was

not maintained and the users became frustrated with the disproportionately high costs of sub-par internet connectivity. Abdi then stepped in to find a way to improve the service. And he was not alone - his friends provided their technical skills, such as trimming the cables and arranging the router board.

As Abdi describes, consistent access to internet services was a critical need within the camp:

"This Wi-Fi service has changed life in the camp in many ways. If you need to know something, you just download it. If you need to check your casework with the UNHCR, you can just check it from the comfort of your home. In the past, you had to go to the highway near the Lutheran World Federation office to receive good 3G signal."

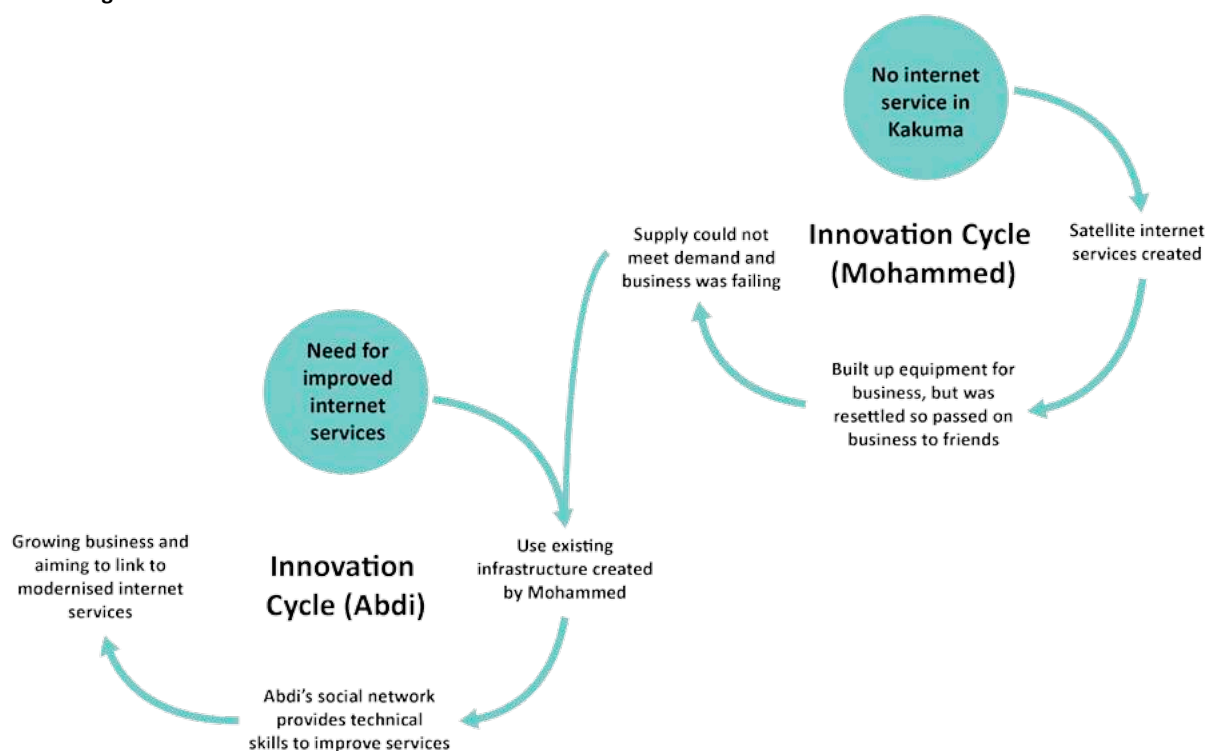
The diagram in Figure 10 shows how Abdi's journey of innovation was dependent on Mohammed's own innovation journey, and also his own social capital - where his friends helped him to develop the physical infrastructure of his now successful business innovation.

Urban innovation

Although it is illegal for refugees to reside outside of refugee camps without official permission, a 2010 report by the Overseas Development Institute (ODI) estimates that the urban refugee population in Nairobi could range anywhere from 45,000 to 100,000. The majority of urban refugees in Nairobi are of Somali origin, many of whom reside in an area of Nairobi known as Eastleigh. Eastleigh (commonly known

"This Wi-Fi service has changed life in the camp in many ways."

Figure 10: Process stages of innovation



as ‘Little Mogadishu’) is traditionally known for its packed, multi-story malls which house mazes of small shops and thriving street markets. Eastleigh is a huge commercial hub with a great deal of economic significance for Kenya, as the numerous businesses and real estate investments are closely connected to broader Somali (and Kenyan) trade and financial networks throughout East and Horn of Africa.²¹

However, in recent years there have been increasing restrictions on Somalis and Somali refugees, particularly in Nairobi. In 2014 the Kenyan High Court approved a directive that enabled the government to forcibly relocate urban refugees to camps, and a series of removals and deportations followed, focused primarily on the Eastleigh area.²² The increasing animosity toward Somalis and people of Somali ethnicity (including Somali-Kenyans) is tied to political and security concerns in Kenya about threats of terrorism from Somalia, particularly following high-profile attacks by the terrorist group Al-Shabaab at Westgate Mall in Nairobi and Garissa University. Some have pointed out that the government’s decision to target Somalis in Kenya could have significant economic consequences for Kenya’s own economy, given high levels of dependence on Somali investment and trade,²³ but the Somali population remains the primary target of discriminatory policies and surveillance.

During our visit, many Eastleigh shop owners reported that business has slowed significantly over the past few years, in part because many Kenyan

customers no longer feel comfortable visiting Eastleigh. The Kenyan government has also been systematically shutting down Somali-linked money transfer companies as part of a broader approach to terror prevention, which risks putting severe financial pressure on a population in which many are dependent on remittances.²⁴ Besides the economic hardships, many Somalis and Somali-Kenyans described feeling vulnerable to police discrimination, extortion, and, in the worst cases, deportation to Somalia.

Within Eastleigh, a local film company is seeking to respond to these complex political, social and economic issues through the medium of digital arts and film. The Eastleighwood film company was created in 2011 in Eastleigh neighbourhood by a group of local Somalis and Somali-Kenyans with an interest in digital media and film production. One key aspiration of the group is to use Eastleighwood’s films, music videos and other digital media as a way to share and celebrate Somali culture. As Burhan, a founder of Eastleighwood, says, “most images that people see in the media about Somalis are negative”, referencing Somalis in connection with concerns about Al-Shabaab, terrorism, and Islamic extremism. Eastleighwood wants to change that: Burhan and his colleagues see popular media as a way to help dispel negative stereotypes about Somalis in Kenya and elsewhere, while also providing Somalis globally with a way to celebrate and share in a sense of unified Somali identity.

Burhan and his colleagues see popular media as a way to help dispel negative stereotypes about Somalis in Kenya and elsewhere, while also providing Somalis globally with a way to celebrate and share in a sense of unified Somali identity.

21. Abdulsamed, F. (2011) ‘Somali Investment in Kenya’, Chatham House Briefing Paper. Available online at: http://www.chathamhouse.org/sites/default/files/public/Research/Africa/bp0311_abdulsamed.pdf. 22. See <https://www.amnesty.org/en/articles/news/2014/07/kenya-refugees-appeal-against-forced-relocation-camps/> 23. See <http://qz.com/394572/kenyas-crackdown-on-somali-immigrants-spells-trouble-for-its-economy/> 24. Rosen, A. ‘Kenya is responding to the latest al-Shabaab attack in a way that could make the country’s terror problem worse’. UK Business Insider. 8 April 2015. Available online at: <http://uk.businessinsider.com/kenya-just-shut-down-somali-owned-money-transfer-companies-2015-4#ixzz3ayp80My5>



Eastleighwood modelling show

Besides being a hub for aspiring Somali film-makers, videographers, and photographers, Eastleighwood also inspires young Somalis in Eastleigh to build their skills through engagement and exploration of digital media and the arts. They offer classes to youth for videography, photography, acting and modelling training, and computer technology.

We met two young Somali refugee women who were participating in a modelling and photography course at Eastleighwood's studio, who described the sense of community and social support that Eastleighwood offered for young Somalis aspiring to film, acting and modelling careers, or those with an interest in learning about media while also engaging in a safe community space. One of the women explained:

“Before I joined Eastleighwood, I did not have a place to go outside of my home to meet other people my age or to develop my skills. I wanted for a long time to learn modelling, but I didn't know how I could. When I first started going to Eastleighwood, at first my family wasn't sure if it was okay, but they became okay [with her modelling pursuits] after they saw some of my photos [...] it is a Somali way of modelling.”

Eastleighwood has received several USAID grants to support their training and courses for Somali youth in Eastleigh. Yet the involvement of external funding has caused new problems, which illuminate some of the challenges of supporting 'bottom-up' initiatives. USAID's support for Eastleighwood's training programmes was intended to provide skill development opportunities for youth engagement as part of broader 'anti-extremism' efforts. However, this rhetoric has drawn animosity from the more

conservative Somali factions within the Eastleigh community, some of which had already been uncomfortable with Eastleighwood's projects and engagement with film, fashion, and modelling, which is perceived by some to be Western in its aims. Although this animosity has not manifested explicitly yet, Burhan is worried about its impact on Eastleighwood's continued survival, as well as his safety and that of his colleagues.

Yet Burhan and his Eastleighwood colleagues remain undeterred from their mission. Eastleighwood has produced a variety of short music videos and trailers since its inception, and the company's first full-length film, *Mistaken*, is due to be released later this year. Following the attack in Garissa in April 2015 and the subsequent anti-Somali rhetoric by Kenyan government and media, Burhan is also involved in arranging a 'Somali Night' in Nairobi. The night will feature Somali dancing, music, and film and which he hopes will draw Kenyan and Somali communities in Nairobi together in celebration.

“I did not have a place to go outside of my home to meet other people my age or to develop my skills. I wanted for a long time to learn modelling, but I didn't know how I could.”



Photo: Eastleighwood founders Burhan Iman, Ahmed Shariff, and Hassan Abdirisq (left to right)

Facilitating bottom-up innovation in Kenya?



Credit: R. Abdirahim

Photo: Eastleighwood studio space

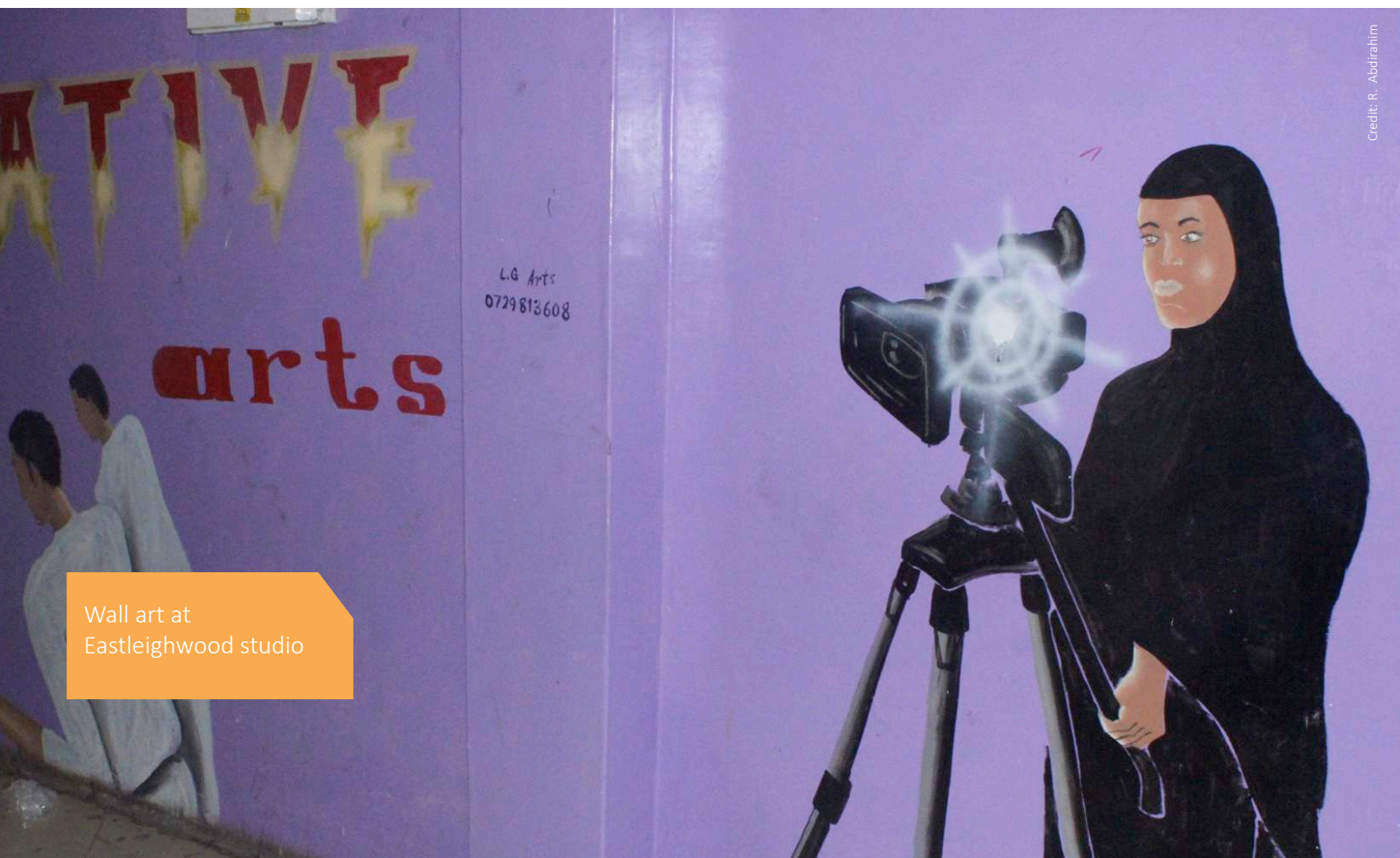
Since refugees do not have the right to work in Kenya, opportunities for refugee innovation and entrepreneurship are confined – officially, at least - to the informal sector, where small personal businesses are the most common basis of employment. Making a living by this means necessitates the entrepreneurial ability to manoeuvre the economic landscape in innovative ways, but also introduces resource and bureaucratic constraints that can curtail creation and the expansion of ideas and businesses.

Despite these constraints, innovation remains a prominent feature of many refugees' economic strategies and livelihood activities in Kenya. However,

the lack of official acknowledgement of such activities means that refugee innovation occurs below the radar of those responsible for designing and implementing policy.

It is important to consider how innovation and ideas by refugees might best be supported in Kenya. Many refugees have valuable skills and exciting ideas that they are already using to aid their communities. In Kakuma, the dream of a Burundian refugee (see next page) to start a workshop for refugees to learn and apply technical skills in a creative and open space could benefit greatly from flexible resources and support that would enable William and others to maintain genuine ownership over the project. However, we can also see the potential harm that external funding support for refugee initiatives can cause through the difficulties that Eastleighwood has experienced following negative community responses after receiving funding for its training programmes.

These case studies demonstrate the importance of further research and developing micro-level understandings of how refugee innovation takes place in different contexts. Without recognising and exploring the ways that refugees drive innovation on the ground, top down policies will perpetuate bureaucratic constraints that limit refugees' access to the resources, mobility, and flexibility that they need to make their economies flourish.



Wall art at Eastleighwood studio

Credit: R. Abdirahim

Individuals as facilitators for innovation

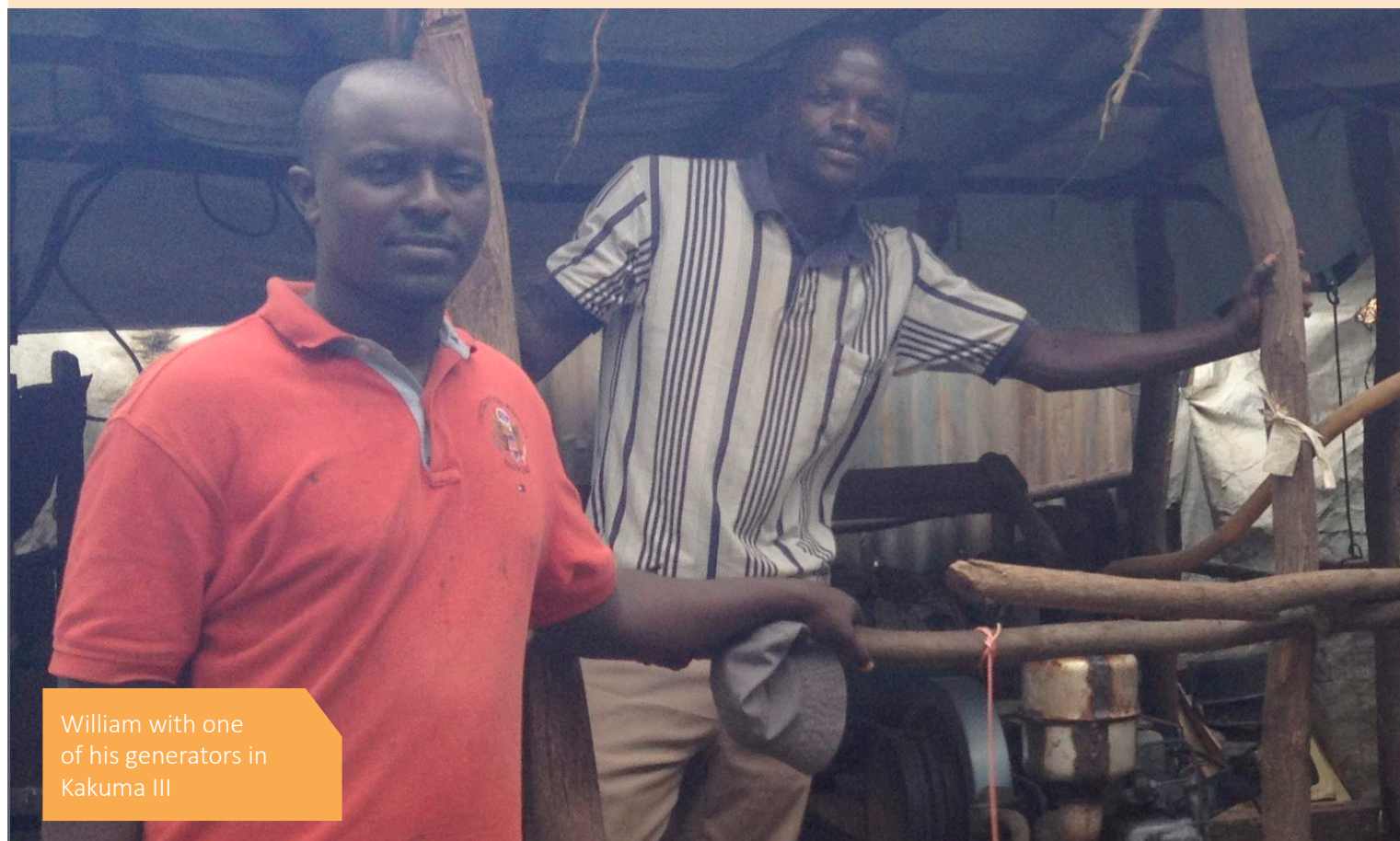
In any economy, the skills and creativity of certain individuals can become a catalyst for other ideas and businesses. In Kakuma camp, it quickly became apparent that fundis - general mechanics - were particularly important as part of a process of creating innovative solutions to common business challenges in the camp. Business owners in Kakuma were able to identify several key individuals who provided the technical skills and mechanical problem-solving expertise for many people and businesses.

In the Ethiopian business district of Kakuma I, a shop owner explained that he and many surrounding shops relied on the services of a Burundian fundi named William, who lives in Kakuma III. He is well-known within Kakuma I for affixing exterior fans to the refrigeration units for shops and restaurants. In Turkana County, where Kakuma is located, temperatures often surpass 40 degrees centigrade. The small interior fans of standard refrigeration units just don't cut it, and William's *feni pembeni* - external fans - are an important augmentation of the existing cooling systems. Trashed air conditioning units, many from the UNHCR compound, are often recovered, broken down, and sold as parts by repurposed goods dealers, and William has found that the fan and condenser in these units can be attached to refrigeration units as a means to cool the interior motors. A small wire cage is often placed around the

fan to prevent children from getting too close.

Upon meeting William, it became apparent that he was able to combine his highly developed technical expertise with a creative ingenuity for solving particular challenges in the camp. William developed his skills as a mechanic in his home country of Burundi, following in the footsteps of his father. In Bujumbura, he had often applied his technical training as a mechanic to experiment with motors, and in one project, he had used an old treadmill to build a dynamo, which could generate electricity for a small milling machine. Following the ethnic violence in Burundi in the early 1990s, William escaped to Tanzania as the sole survivor in his family of nine. William worked in Tanzania for a time as a truck driver before making his way to Kenya. In Kakuma, he has been able to use his skills and experience to solve other residents' fuel and electricity demands in the energy deficient context of the camp.

Kakuma is not connected to the national power grid, so homes and businesses are dependent on generators and solar power as the only energy sources. William is particularly well-known for installing dynamo-powered generators for businesses throughout the camp. Energy is generated through large motors attached to wooden frames and coupled to purchased dynamos, one of which could generate enough energy to power 5 large refrigerators and 40-60 (75



William with one of his generators in Kakuma III

Watt) bulbs for nearby households. William's past experience in designing and building dynamos in Bujumbura has been critical here, allowing him to design the machines to generate the highest levels of electricity possible without burning out the engine. Like the refrigerators in the camp, the motor was not designed for the Turkana heat. The device requires additional cooling in order to function efficiently and safely. To solve this problem, William rigs two fluid lines to nearby water drums, and affixes an old water pump from a residential building's plumbing system. The pump is coupled with the belt and therefore automatically pumps fluids through the system as soon as the engine starts. One additional problem was that the large machine tends to shake quite a lot while running, shaking the volatile fuel and infusing it with bubbles. He has therefore affixed an external fuel supply that can rest undisturbed by the motion of the engine.

William's story provides an important insight into how certain highly skilled individuals are able to serve as a catalyst that allows other businesses and entrepreneurs to flourish. One dynamo-powered generator in Kakuma III provided electricity for four large refrigerators and a cinema space in a restaurant, and William is unable to count all of the generators he has installed across the Kakuma camp.

Yet despite his many contributions and reputation in the camp, William's skills and ingenuity remain

under-utilised, as many of his ideas are stalled by resource constraints. For instance, dynamos for the generators must be purchased and transported from Kenyan cities such as Kitale or Nairobi, and are a considerable expense. However, William is confident that, with adequate resources and enough funding - about 50,000 KSh (over 500 USD) - he could build his own dynamo from scratch.

Because of his skills, William has been employed by multiple agencies in Kakuma, but he has aspirations to start a public workshop for other refugees in the camp. He explained that Don Bosco, an international agency, has a similar workshop, which they use to train people to construct specific products. However, William sees skills-learning differently:

"At Don Bosco, they are still teaching skills in the old-fashioned way; you learn how to make one product or to fix one thing. But you cannot take this knowledge to create new ideas or make new solutions. You have to teach creativity as well as skills."

In his own workshop, William wants to train technically skilled refugees to put their abilities into practice for themselves and their communities so that they can learn how to bring a set of general skills to meet the challenges presented by novel problems.





Sikhanuiso, a Zimbabwean living in Johannesburg who has started her own children's day care centre – attended by refugee and South African children. Sikhanuiso has dedicated her life to establishing a safe space for children to come when their parents need to work. She gets involved in helping the parents with personal or legal issues which also affect the children.

SOUTH AFRICA

Zimbabwean innovators in Johannesburg

Currently home to 315,000 refugees and asylum seekers, South Africa is host to those fleeing from many countries on the continent including the Democratic Republic of Congo, Ethiopia, Somalia, and Zimbabwe.²⁵ According to UNHCR, Zimbabweans make up the largest nationality group, with over 46,000 residing in South Africa although it is estimated that the real figure is much higher. Many are awaiting refugee status determination or apply for special Zimbabwean dispensation permits.²⁶

Although the freedoms legally promised to refugees and asylum seekers are relatively generous, in practice both groups face significant challenges. Slow processing of documentation by the government, and xenophobia at an institutional and community level are two key impediments for Zimbabwean innovation in Johannesburg. Hundreds of thousands of asylum seekers are left in limbo while waiting for refugee status determination.²⁷ Some reported that they knew of asylum seekers who had spent twenty years without any progress on their status determination. Despite

the laws promising asylum seekers basic rights, in practice asylum seekers and refugees in South Africa are unable to access services and are left vulnerable. Corruption of police and government officials is notoriously high, and asylum seekers and migrants are often harassed on the street or at their place of work. Some told us their stories of bribes being asked for processing asylum claims faster, and were informed of rumours about documentation brokers who had illegitimate connections to officials in Home Affairs. In private businesses, many employers refuse to hire foreigners or those with pending documentation. As a result many Zimbabweans living in Johannesburg are forced to work informally for a low salary. At a service level, many reported that South African schools, banks, and hospitals would often refuse to enlist or care for asylum seekers and migrants. One refugee told us that they knew of many who had been told to “go and get treated back at home” from hospitals when they were sick.²⁸

Many refugees in South Africa also suffer an unpredictable future. One business owner told us that he was afraid that the government policies could change at any time and that he would be forced to return home. The challenges involved in living with uncertain status and the prevalence xenophobia means that many refugees suffer from a lack of access to financing, jobs, schools, and healthcare, all of which limit the savings and investment that one can make in building new skills and businesses.

Despite these challenges, Zimbabwean innovators are still operating in Johannesburg, where we met



Figure 11: Map of South Africa with research sites

25. UNHCR statistics 2015 26. Dispensation permits were introduced by the government to fill the gap between those economically and politically displaced from Zimbabwe, and for those who fall between the gaps of the asylum process and strict migrant permit options. This report therefore covers the Zimbabwean community at large which includes refugees, asylum seekers and those politically and economically displaced. 27. See reported struggles on asylum seeker processing in South Africa <http://www.irinnews.org/report/92286/south-africa-new-laws-mean-new-hurdles-for-asylum-seekers> 28. Further reading on refugees' economic life in Johannesburg can be found in an assessment by the Women's Refugee Commission (2011) No Place to Go But Up: Urban Refugees in Johannesburg, South Africa

inspiring individuals and organisations. Although Zimbabweans in South Africa are not well known for entrepreneurship, certain business sectors were commonly led by Zimbabweans, including the plumbing and electrician trades, restaurants, funeral care, and several private schools which had been initiated by Zimbabweans who were teachers back at home. So how do these outliers manage to operate in a politically and economically challenging environment? We seek to tell the individual stories of some of those innovators here.

‘Education is everything’



Credit: L. Bloom

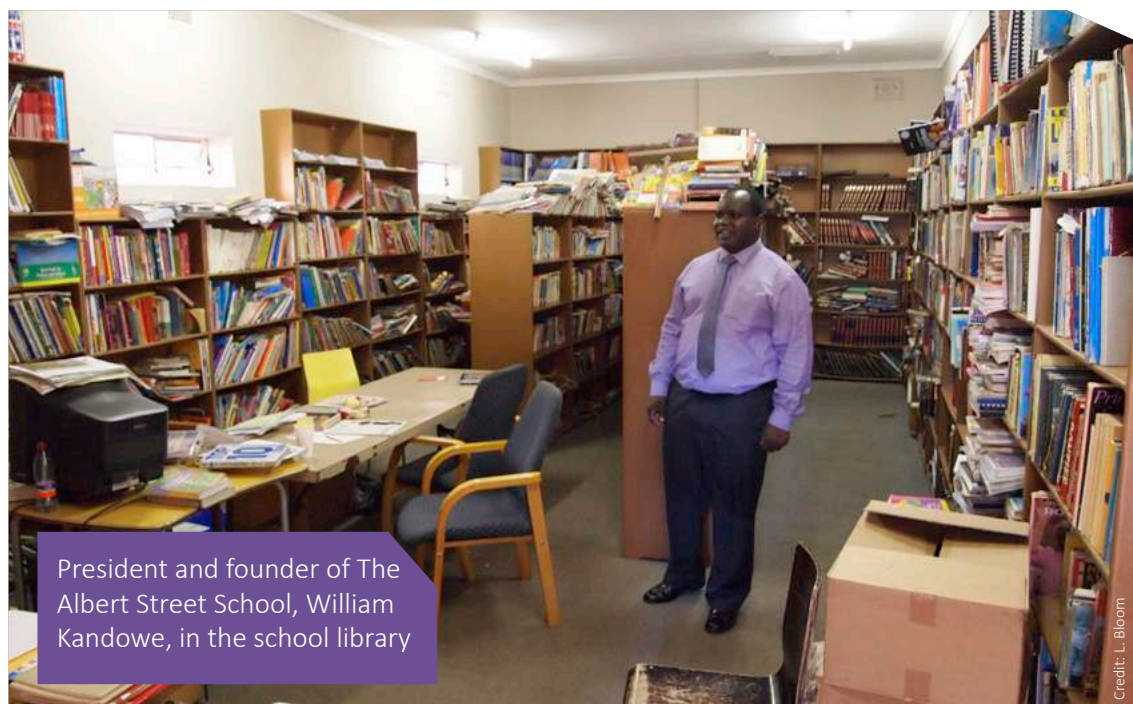
Photo: Display at a city arts fair

Many Zimbabweans that fled the country’s economic and political turmoil benefited from the education system it offered. Several professional teachers had managed to reinstate their qualifications to work in Johannesburg. Passionate about the quality of education and angered by the restrictions for refugees to enter government schools, the Zimbabwean education innovators are also aiming to lift the South African education system through their work.

Due to the lack of acceptance for refugees in mainstream schools, some Zimbabweans have opened their own educational facilities. William Kandowe is a Zimbabwean and one of the founders and president of The Albert Street School – a school initiated for and by refugees in the inner city. Now obtaining 100% pass rates in the Cambridge International Examinations, the school is one of the highest achieving in the area, despite its limited resources and minimal income. Most students cannot afford to pay fees, and many are unaccompanied minors. The school is reliant on donations and the small amount it receives from fees. It has managed to open a small library for its nearly 400 students at the secondary school – one of the only inner city schools with a library. William’s dedication for the school and education was ignited when he himself was being housed as a refugee at the Methodist church in Johannesburg in 2007. He had the job of registering new arrivals who were taken in by the church and was shocked by the number of children arriving. By July 2008, William and several others started to use a church building to bring the children together each day for informal lessons. Gradually the school has grown; it now engages with the Department of Education and enrolls all students to sit the Cambridge International Examinations. In the last two years the school has achieved a 100% pass rate in secondary education. Several of the students have gone on to continue their studies at university, and this year the school has seen its first 6 alumni graduate with degrees in accounting, engineering, and human resources.

In similar vein to The Albert Street School, another refugee, Judith, founded a refugee school in a different part of the city. Judith’s journey of innovation

Zimbabwean education innovators are also aiming to lift the South African education system through their work.



President and founder of The Albert Street School, William Kandowe, in the school library

Credit: L. Bloom

Judith's journey of innovation started with a personal challenge. When Judith first arrived in Johannesburg, she was unable to find a job using her existing teaching experience.

started with a personal challenge. When Judith first arrived in Johannesburg, she was unable to find a job using her existing teaching experience, so she turned to domestic work. Unable to afford to send her own children to school she asked her neighbours' children to teach them what they had learned at their school each day. Spotted by another unemployed Zimbabwean teacher living in her apartment block, Judith was made aware of many other refugee children in her building who were also unable to attend school. In addition to their daily work, Judith and the other teacher decided to provide informal education to the children. Demand from parents for their children to attend the informal school grew rapidly. Although at first the school operated from a small church, eventually a South African donor offered to pay rent at a larger location. Judith has since dedicated her life to building The Ithemba Study Centre. The school is now registered as an independent school and offers education to 182 undocumented students, many refugees, but also including some South Africans. Long term sustainability is a concern for Judith, as all teachers work on a voluntary basis and funding is insecure. Despite the precarious financial situation, Judith has many exciting plans for the school's future where she aims to expand and be able to "fulfil children's needs in a holistic way".



Credit: L Bloom

Photo: The Road To Lindela, book from The Creative Writers and Arts Workshop created as a tool for activism for human rights in the Lindela deportation centre in South Africa

We also met with Dumisani, a community leader who has been involved in starting several CBOs in Johannesburg, and who also provides consulting services to assist others with documentation and business proposal support. However his main passion lies in education. One of his initiatives is a project that helps teachers, parents, and students to interpret education policies, advocating for the right and obligation for all children to attend primary school – even those who are undocumented. The initiative conducts training for science teachers and has also created a mobile science laboratory that Dumisani takes

around to schools that have few educational resources. His passion for science and education has driven him to address the challenges that refugees face in accessing them South Africa. Many schools are under-resourced and do not openly accept refugees. His hope is that he can provide additional support to mainstream and refugee schools, thereby boosting the education services in South Africa. He told us where his motivation for his work comes from:

"I have seen that the Zimbabwean education system has been successful, so this is one of the few things I can give to South Africa. I want to help South Africa. Rather than South Africa support us as refugees".

Emerging arts and literature

In the city, Zimbabweans are using arts to open up new avenues for personal projects, activism, and income generation. Wooden crafts and beadwork unique to Zimbabwe, and passed on through generations, are visible in a few markets and practiced by Zimbabwean street traders. Emerging musicians, a filmmaker, and a creative writing activist project are also present.

Mxolisi is an entrepreneurial Zimbabwean free-lance journalist who has also leveraged his connections to launch his own music production company in the city. Due to the lack of media coverage and writing on Zimbabwean issues in South Africa, and also his former work as a journalist in Zimbabwe, Mxolisi is driven to focus on politics and human rights in his free-lance work. Aside from his writing talent, Mxolisi also enjoys composing music – and has subsequently sponsored a band. For migrant musicians in the city there are very few avenues for them to get their work known. Mxolisi has therefore created a production company to provide up-and-coming Zimbabwean artists' access to performance venues, and a market to sell their work. He has now realised that there are also South African bands finding it hard to penetrate the local market with their music so he is leveraging his business to reach out to them as well. His connections back at home mean that he is able to pass on music to DJs in Zimbabwe where his bands can have airtime on local radio stations.

The Creative Writers and Arts Workshop is an organisation initiated by a group of young Zimbabwean activists who had shared difficult experiences of living in exile in South Africa. Drawn together around their shock at the poor living conditions in Lindela, one of South Africa's deportation centres, they came together to write a book about life as a Zimbabwean in South Africa and conditions at Lindela. Guyani, one of the founders told us:

"As we sat down here [in South Africa], we realised we are scattered all over Johannesburg doing nothing, but that we have potential – we went to school. We thought that we can be creative in telling our story, telling it in different phases. We came up with the idea of writing a book and poems, to tell what we've gone through as Zimbabweans... specifically I was so touched when I visited Lindela repatriation centre. We wanted to put stories on paper and research on what is really happening there... the book tells individuals stories from Zimbabwe to Lindela."

At the deportation centre, there were reports of food poisoning, tuberculosis, overcrowding, and malnutrition. The group felt strongly about speaking out about the lack of human rights there. Impressively this project triggered a march to Lindela and has

subsequently had an impact on improving the conditions at the detention centre. The project received funding for the initial publication, but the dream is to eventually turn the book into a film.

Gift, another of the founding project members at Creative Writers and Arts Workshop, is in fact a filmmaker. Originally trained as a journalist in Zimbabwe, Gift has saved his personal income for retraining and launching his own production company in Johannesburg. His main challenge as an innovator in this context has been gaining the trust of his clients, since most artists in South Africa are nationals. He told us “not many people can do this in South Africa, most think that Zimbabweans are

only here for jobs, but don’t think they can create for themselves.” Gift also shared his insights into the success of his production company and how he started out.

“[Starting my business] was a big risk to take. Lots of people don’t think they can do it, but success is not being afraid of what you can achieve. When you are not sure of the journey you are taking, it can prevent you from starting out. I took the risk because it is what I love, and I wanted to make a success of it. There was more risk here as a Zimbabwean, for example when rent is difficult to pay - the landlord won’t take any excuses. You don’t have people to shield you, but this pushes me to work extra hard. It is all about adapting to survive.”

On the edges of the city

Townships in Johannesburg are the home to the poorest in society, including many Zimbabweans. Land and basic amenities are provided for by the government, but many townships are located at long distances from the city, meaning that many must commute for work. At Orange Farm, a township nearly an hour’s drive from the city, little economic activity was visible on its unpaved streets. We were told by residents that the few street stalls and businesses that were present were mainly run by migrants living there – many of whom rented small tin homes in the back gardens of South Africans.

At Orange Farm we met with Andrew, an inspiring individual, working hard at his own small-scale businesses, but spending most of his time running a CBO named Africa People. The organisation is aimed at dispelling xenophobic attitudes in the township and further afield. For many foreigners living in South Africa, discrimination is a day-to-day challenge. “Due to xenophobia you don’t feel welcome, you need to regard yourself invisible” he told us.

Andrew is passionate about creating social change with regards to xenophobia. He brings people together through regular events and activities, regardless of their nationality. In the township it is harder to engage the relatively small Zimbabwean population on these issues, and he relies on engagement from South Africans. His organisation has had a good reception so far and already had 180 members enlisted before it gained formal registration a few years ago.

Besides the limited number of street traders in Orange Farm, we met one successful shop owner there. The business initially started from only street sales of mobile phone airtime and sweets on the corner of the road, and is now a well-organised shop selling



Photo: A road inside Orange Farm Township, Johannesburg

a diverse range of food and home produce. The owner’s ambitions drove him to save-up to build on his business, also inspired by a similar shop owned by his aunt in another part of the township. His drive to grow his business and stay organised has made his innovation successful at a small scale, and he wishes to one day grow it into a large supermarket.

Although some innovators are found in the township of Orange Farm, the constraints to innovation were much more prominent than in the city. It is harder to hide from discrimination here and violence is common. Being located at such a distance from the city, and with limited economic activity within the township itself, opportunities for innovation have not yet been fully embraced here.

AFRICA PEOPLE WEEKLY TIME TABLE		
MONDAY	DRAMA & POEM	18:00-19:30
TUESDAY	POEM & DRAMA	18:00-19:30
WEDNESDAY	LEARNING PROGRAMME	18:00-19:30
THURSDAY	DRAMA & POEM	18:00-19:30
FRIDAY	LEARNING PROGRAMME	18:00-19:30
SATURDAY	HAND WORK	17:00-19:30

Photo: Andrew’s weekly CBO schedule for engaging youth in the township

The power of community-led facilitation

Refugee innovation in Johannesburg was being facilitated at three different levels these three levels – business provision, assistance from organisations, and support from grassroots initiatives – offered different opportunities for people to engage with, and overcome, some common barriers to innovation. Innovation was facilitated at a wide scale by companies, churches, and universities, at another level by more traditional humanitarian organisations working directly with refugees, and at a third level by powerful grassroots movements.

In the city some businesses, typically owned by Zimbabweans, have taken an interest in helping the Zimbabwean community overcome challenges. One small start-up we met had initiated a project to provide bank cards for those who struggled to access banking services due to their lack of documentation or asylum status. The banking solution offers a debit card option for those who would otherwise be unable to obtain one. This gives people more flexibility in the city, enabling them to receive salaries and build savings. Other initiatives were also offering platforms for individuals to be able to start their journeys of innovation more successfully in the city. A Zimbabwean migrant workers union provides advice and support to small businesses. Others providing services in the city, such as accounting, legal services or even schools as we saw earlier, would also often provide pro-bono services to fellow Zimbabweans in need.

In Johannesburg, like many cities around the world, refugees are living in protracted situations with few traditional humanitarian services provided to them by the international community. One of the exceptions here, however, is a range of programmes offered by the Jesuit Refugee Services (JRS). In particular the organisation provides livelihoods support among its other services. The JRS women's skills training centre running in the city offers baking, tailoring, and crafts classes, and also provides a business start-up package to graduates – containing some equipment and business workshops and mentorship for developing a business plan. JRS is also a member of The Consortium for Refugees and Migrants in South Africa (CoRMSA) and so works closely with other members, who for the most part are national organisations, working on refugee and migrant issues in the country. Many national initiatives – ranging from human rights, to a university knowledge sharing platform – work closely with a strong community of Zimbabweans in the city.

Perhaps the most prominent organisations creating a facilitatory environment for Zimbabwean innovators,

however, are the many grassroots initiatives operating here. Community schools, churches, and informal groups offer financial and welfare support to one another. In a meeting with a Mthwakazi²⁹ Chief who is also an innovator in his community, we learned about the Zimbabweans who gather to meet regularly at his restaurant. His restaurant is designed in a similar way to those back at home with a butchery and cooking grill at the back, and he now employs a staff of 15 Zimbabweans and South Africans.



Credit: L. Bloom

Photo: Mr Kwagumede, Mthwakazi Chief at his restaurant in Johannesburg

“The restaurant is open to all people, but Zimbabweans heard about it and use it as a meeting place. People don't have a place to meet, so they meet here. Anything we did at home, we can do here [at this restaurant]”.

Community clubs have formed here; for example, one solves financial issues together and provides one another with financing when a member needs. A burial society also meets here sharing the financial and administrative burden for repatriating their loved ones who have died.

Godfrey Phiri, who assisted with this study, encompasses the work of grassroots organisations in Johannesburg well. He estimates that there are over 30 community human rights initiatives alone, operating in the city, and he has built close relationships with many of them. Working in part under Amnesty International, Godfrey is passionate about creating positive change for refugees and migrants, and provides encouragement to those he meets. As an individual, Godfrey's personal experiences and passion for change mean that he acts as a catalyst between these grassroots movements. Between engagements with grassroots leaders Godfrey shares ideas and contacts, generously donating his time and attention to hear what people have to say. A lesson can be taken from this type of facilitation – it is built on respect and personal engagement, and humbly connects like-minded people to grow on their ideas no matter how small they seem at the start.

29. Mthwakazi is the former Kingdom which now lies within Zimbabwe, but has historically had battles over land and borders and many of its people now live in exile.



Dallas Skyline

UNITED STATES

A glance at innovation after resettlement

For refugees there are generally considered to be three durable solutions: repatriation, local integration or resettlement. The United States (US) is known as the largest destination of resettled refugees and has hosted over three million refugees in the last forty years. We spent time in Dallas, Texas where many refugees have been placed – from a range of countries including Iraq, Ethiopia, Myanmar, Somalia, Bhutan, and Burundi.

Many refugees in Dallas are first housed in an area to the north of the city, named Vickery Meadow. It is also home to many migrants and poor families. The relationship between the resettled refugees and others living in the area has at times been tense – reports of bullying at schools and fear of leaving their homes due to security issues was reported by refugees there. Transportation, language and low-skilled job opportunities are some of the other challenges that resettled refugees face. Despite the challenges for resettled refugees in finding jobs and facing discrimination in the city, during our short visit we also met successful refugees who had managed to make the most of the opportunities the city had to offer.



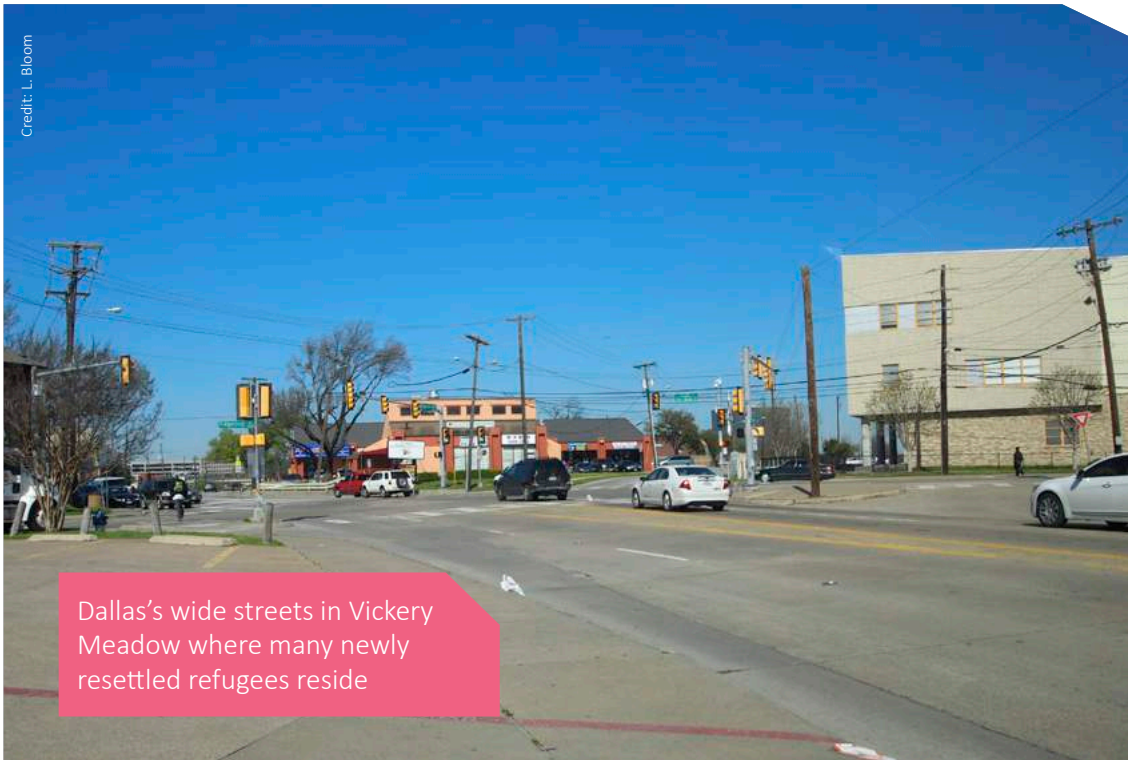
Figure 12: Map of United States with research sites

Continued traditional cuisines

Bukri and Daniel are owners of a small Ethiopian restaurant in Dallas and have embarked on their own journey of innovation to bring traditional Ethiopian food to the busy lives of other refugees and city dwellers in the US. Many Ethiopians live in Dallas, so restaurants making traditional Ethiopian food, and shops selling Ethiopian products, food and music, are common in some areas. However Bukri and Daniel had a new innovation that they are starting to build a business around. They had bottled an Ethiopian cooking sauce, traditionally used for a special dish when guests visit Ethiopian homes and which usually requires a minimum of five hours to cook. Bukri and Daniel formed their new idea when a regular customer to their restaurant came with an urgent request to purchase the sauce from their restaurant in bulk for a large gathering. They have discovered a large demand for the ready-made sauce and now sell it to shops all over Dallas and some other states across the country. However scaling up the business has proved challenging. Daniel has attended classes on business training and financing, but is still struggling to get the right kind of investment to independently create a manufacturing plant for their sauce.

It wasn't only in the Ethiopian community that we saw a demand for local food – a demand for accessing supermarkets and restaurants to provide traditional food for refugees of other nationalities has also been created. Dallas is a sprawling city with a large road network and limited public transport. Many of the refugees we met explained the challenges they faced when they first arrived and did not have a car to get

Credit: L. Bloom



Dallas's wide streets in Vickery Meadow where many newly resettled refugees reside

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around. Transportation is a widespread issue, not only for conducting daily life but also in being able to travel to work or access education and health services – and also in accessing food. A young female Burmese refugee recalled the first few months of her time in Dallas with her family – where they would only be able to reach an Asian supermarket, selling the foods they were accustomed to eating, once a month, since they would wait to be taken by the only person they

knew with a vehicle. The person providing informal rides in his vehicle created an informal service to his friends and fellow refugees – a demand driven by the desire to continue culinary norms.

This large city landscape also has dedicated zones for commercial activity separated from residential areas – again making it more difficult for those with limited transportation to access shops, jobs, and other



Credit: L. Bloom

Daniel and Bukri with their produce

commercial services. As an additional source of food in the residential area of Vickery Meadow, hidden urban agricultural innovations have recently been discovered by a local initiative exploring community gardens.³⁰ We found reports of vertically growing lettuce at refugee homes, which made the most of the small urban home plots for growing on.

Elsewhere in the US, international organisations are also supporting urban garden initiatives. The International Rescue Committee (IRC) is supporting the innovative ideas of Somali women in San Diego to farm in their urban spaces. With the facilitation of the IRC the women have managed to farm a large unused plot of land, and call themselves 'Bahati Mamas' meaning 'lucky mamas' – since they have now re-established connections to growing and the land.³¹

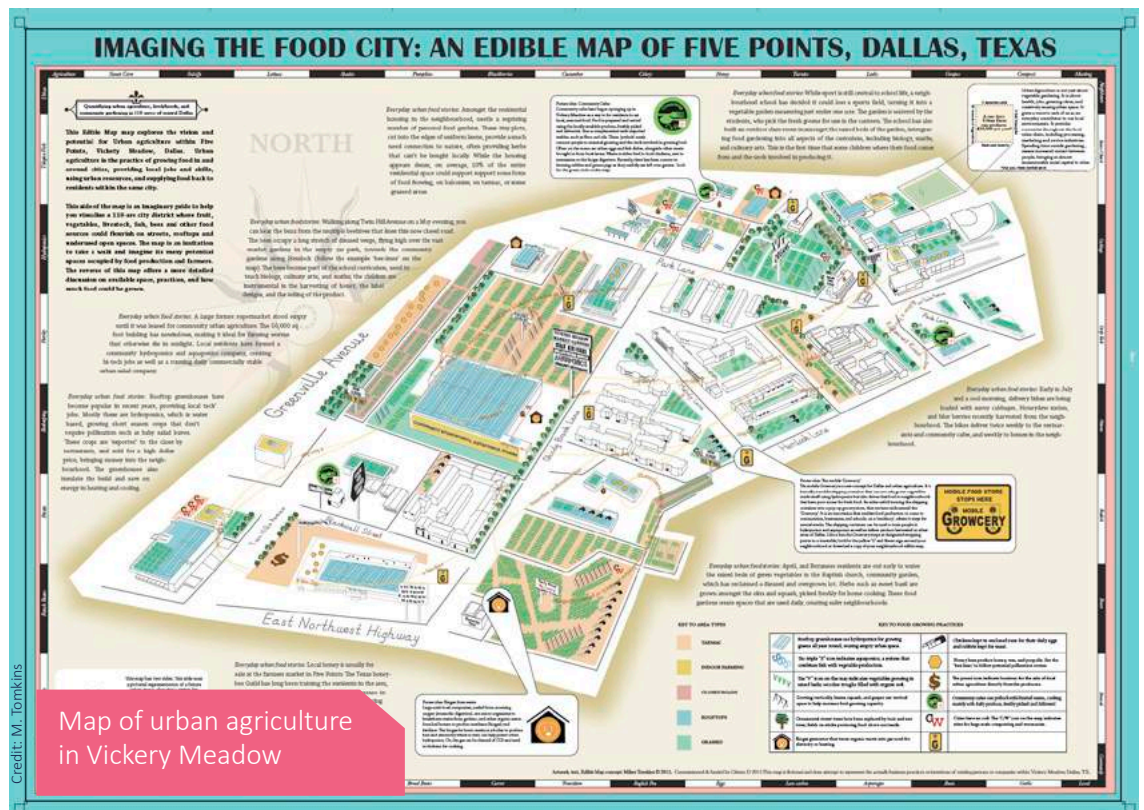
Location of facilitation

Several organisations are providing services and support to the resettled refugees in Vickery Meadow. Part of the government's resettlement programme provides refugees support for services such as health and job seeking, but many services are still lacking. As a result creative facilitation methods have been created by local and national organisations to fill the gap. Due to the vast geographical area that the city spans, access to services and community space is a challenge for many newly resettled refugees. In cities around the world, travel costs and travel time are

barriers for many refugees to be able to fully embrace the opportunities available. In Vickery Meadow however we met several organisations who instead of making refugees travel to receive their services, in fact locate themselves in the heart of the community. An after school club for school children and an adult English learning centre that we visited both provide training and safe community spaces from rented apartments in the blocks where refugees live. This means that the spaces are easy to access and the staff working there are able to get close to the community and build good relationships.

To be resettled is a dream for many refugees living in the global south, and the US is seen as a land of opportunity. Bottom-up innovation here however looks very different to many locations where refugees are first displaced. More formalised systems and infrastructure mean that informal initiatives are less common, the higher living costs and transportation limitations also add new dimensions to the lives of those who are resettled. One similarity however, is that in being resettled, refugees again have to adjust and adapt to a new environment – something which they have already shown strong resilience and ingenuity for. There are some support and services provided by resettlement organisations, but again a focus on lifting and supporting the existing skills and creativity of individuals is something that is lacking – in similar vein to the rest of the humanitarian system.

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Credit: M. Tomkins

Map of urban agriculture in Vickery Meadow

30. A local initiative Citizen D is building the concept of using community spaces to bolster these agricultural practices. A map of green spaces and initiatives in the area can be found online <http://mikeytomkins.co.uk/wp-content/uploads/2015/04/Screen-Shot-2015-05-20-at-4.01.31-pm.png> 31. See IRC website for video and story <http://www.rescue.org/new-roots/bahati-mamas>

Conclusion

From the five case studies shared in this report, we have seen a wide range of bottom-up innovation led by refugees living in vastly different environments around the world. Although each individual's journey of innovation is strongly driven by personal preferences and experiences, there are seven lessons that can be drawn on for the future of humanitarian work.

First, bottom-up innovation is a personal journey to address problems, and is shaped by a person's social, economic and political surroundings. Culture and tradition are strong motivations for creativity and adaptation of these surroundings. Market gaps created by the movement of a population to a new context are identified by innovators who find ways to meet the demands.

Second, innovators make the most of urban opportunities. In an urban environment those who are able to push themselves, take risks and pursue the opportunities available are able to initiate new projects and businesses beyond the norm. In urban environments, although services and infrastructure are often available, information flows, travel costs, travel time and discrimination are still challenges that innovators need to be able to overcome.

Third, refugee social innovators are supporting one another and creating networks to foster innovation. Personal motivation to engage in social innovation seems to have often been borne out of personal hardship or reflection on the struggles of those around. Social innovation seems prominent in urban environments compared to rural or camp contexts. In the camps and rural areas, a greater amount of material reuse, recycling, and product innovation occurs alongside the social initiatives.

Fourth, under the right circumstances, refugee innovation can scale to meet the needs of nationals. This was clear in several of our interviews held with innovators, particularly in Johannesburg, where needs were initially met within the Zimbabwean community and later services extended to South Africans. Examples include the refugee schools which also offered spaces to poor South Africans,

the music production company which came to also recognise a gap for South African artists to be able to access the market. In Kampala many of the social innovations are also serving Ugandan members. It could be considered that in an urban environment this is an unsurprising consequence – and it should be recognised that refugees' own innovation in these contexts will be having a positive knock-on impact on the host population.

Fifth, finance is a significant barrier to innovation. Many fantastic grassroots solutions and ideas struggle to take-off or grow due to lack of financing or access to existing financial banking or loans. There are often informal community-based sources of finance and capital which exist as an important complement to formal banking systems. However these are not a substitute for the need to overcome both regulatory and market-based exclusions from financial markets.

Sixth, different actors can facilitate bottom-up innovation in different ways. We can consider there to be three different levels of facilitation, where support may be provided from one of the following three institutions: 1) international aid agencies, 2) local and national private sector and national charitable and religious activities, and 3) community-led social innovation and grassroots movements.

Seventh, the way in which the international community engages with innovation can be problematic. 1) It is often clear that the innovation process that has taken place to get new products or projects to refugees have made generalised assumptions about what the problems really are, without detailed understanding of the pre-existing capacities within a community or without adapting design to context. 2) Humanitarian agencies often have a limited presence in urban contexts – this frequently leaves affected communities to fill gaps in protection and assistance. 3) More work is needed to better understand how international agencies influence the innovation capacities of affected communities, and how they can complement rather than undermine local initiatives.

There remain too few norms and policy guidelines on how humanitarian innovation supports rather than excludes existing systems as well as the capacities and ideas of refugees themselves.

The innovators that we met during this study demonstrate that they often do fill the humanitarian gaps left by traditional international actors. However, there remain too few norms and policy guidelines on how humanitarian innovation supports rather than excludes existing systems as well as the capacities and ideas of refugees themselves. Many innovators within affected communities would like to see a better enabling environment to support their own ideas

and projects. One Syrian entrepreneur told us that he wished to tell the international community that “we want to be respected and not looked at from high”.

The table below summarises some of the key enablers and constraints we have seen for refugee-led innovation in our five case study countries, and could be used to build a more rigorous framework to understand how bottom-up innovation could be facilitated in humanitarian contexts.

	Enablers	Constraints
Individual	<ul style="list-style-type: none"> • Personal drive and motivation • Existing skills or motivation to seek new skills • Willingness to take risks • Access to financial capital • Local language skills • Social networks 	<ul style="list-style-type: none"> • Loss of assets • Psycho-social trauma • Precarious and temporary legal status
Community	<ul style="list-style-type: none"> • Local market access • Communal support from others • Community-led initiatives • Encouragement and guidance 	<ul style="list-style-type: none"> • Local or national insecurity • Xenophobia and discrimination
Institutional	<ul style="list-style-type: none"> • Aid from international and local agencies • Physical security provided by the state • Right to work • Right to register community based organisations • Access to public and private services 	<ul style="list-style-type: none"> • Lack of access to finance and banking • Lack of full documentation • Discrimination from authorities • Lack of right to work • Deportation





Refugee art in Za'atari camp

Credit: L. Bloom

Recommendations

1) Recognise the capacity of crisis-affected communities to engage in innovation.

Recognising existing innovation, including social innovation, offers opportunities for more efficient and sustainable solutions within an increasingly resource-limited humanitarian system. At the moment, there remains a lack of recognition that crisis affected communities have the skills, capacities, and talents to innovate, and that this happens every day in crisis situations. This recognition is critical in order to increase support for and to inform funding and programming by humanitarian organisations.

2) Understand the specific opportunities and constraints to bottom-up innovation in each context.

Any humanitarian response, whether within the framework of humanitarian innovation or not, should engage in an assessment of existing constraints and opportunities for bottom-up innovation. These will vary from context to context. Understanding the ideas, skills and demands of a crisis-affected population relies upon humanitarian organisations having a research and learning capacity that is adapted to recognising and understanding bottom-up innovation.

3) Support an enabling environment for innovation by crisis-affected communities.

The capacity to innovate is shaped by the enabling environment. Access to a number of resources can contribute to such an environment. These include the internet, mobile phones, electricity, capital, natural resources, money transfer, and a regulatory framework that allows the right to work and engage in economic activity. Governments and the international community can help to minimise barriers to bottom-up innovation by considering how they can best support the institutions that surround refugees and affected communities.

4) Use participatory approaches to facilitate and support refugee innovation.

Recognising bottom-up innovation does not mean complete non-interference. But it should mean that interventions support community-based preferences and are based on participatory methods. Facilitation of bottom-up innovation may be provided for an affected community by those at different levels – by the international community, by national services or governments, or by local actors. However, there is also immense potential for refugees' own institutions to be better recognised as a source of facilitation for within-community innovation. Facilitation by these institutions can take a range of forms such as education, skills transfer, and mentorship, for example, or from community-based innovation spaces.

5) Build a humanitarian funding mechanism to support bottom-up innovation.

There is a lack of humanitarian funding available to support initiatives by affected communities. Funding that is channelled to “local” partners tends to go through NGOs that may have little representative relationship to crisis-affected communities. Funding requirements and accounting and auditing standards need to be adjusted to enable affected communities to access seed funding.

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The World Humanitarian Summit (WHS) will be held in Istanbul in 2016 and is the first-ever global humanitarian summit. The goal of the summit is to set a new agenda for global humanitarian action. The summit is being managed by the UN Office for the Coordination of Humanitarian Affairs (OCHA) and has four key themes of focus. This report seeks to contribute to the WHS, particularly through its thematic work on 'transformation through Innovation'.



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